



WE TEACH



WE DISCOVER



WE HEAL



WE CARE

ANNUAL INSTITUTIONAL PROFILE – 2012

Office of Institutional Research
University Office of Academic Affairs



INTRODUCTION

The University of Medicine and Dentistry of New Jersey (UMDNJ) is New Jersey's public research university dedicated to excellence in the health sciences. From its founding in 1970, UMDNJ has expanded its programs and geographic reach to meet the health care and health professions education needs of the State of New Jersey.

Today, UMDNJ conducts basic science and clinical research and offers graduate degrees, certificates, and undergraduate degrees in multiple fields of study including: medical, dental, allied health, nursing, public health and biomedical sciences disciplines. With the passage of the New Jersey Medical and Health Sciences Education Restructuring Act in June, 2012, the historic configuration of UMDNJ schools and units will change. Seven of our eight schools will become part of a restructured Rutgers University. Our School of Osteopathic Medicine will join with Rowan University and the University Hospital will become a free-standing instrumentality of the State of New Jersey.

As a university of the health sciences, UMDNJ will have served the people of New Jersey as a unique and wonderful statewide asset for 43 years. In our new configuration, UMDNJ's schools and units will build upon our traditions of excellence in research, education, clinical care and community service to reach even greater heights of achievement.

A handwritten signature in black ink that reads "Denise V. Rodgers MD". The signature is written in a cursive, flowing style.

Denise V. Rodgers, MD
President (Interim)

TABLE OF CONTENTS

| | PAGE |
|---|-------------|
| MISSION STATEMENT | 1 |
| CREDO | 3 |
| GOVERNANCE | 5 |
| BOARD OF TRUSTEES | 7 |
| OFFICERS OF THE UNIVERSITY | 9 |
| DEANS | 11 |
| PROFILE OF UMDNJ | |
| Schools | 13 |
| Degree and Certificate Programs | 16 |
| Dual-Degree Programs | 19 |
| Articulated Programs | 23 |
| Pipeline and Academic Support Programs | 25 |
| Graduate Medical and Dental Education Programs | 28 |
| Accrediting Agencies | 29 |
| Tuition History..... | 32 |
| University Libraries | 33 |
| Center for Continuing and Outreach Education | 36 |
| Centers and Institutes..... | 39 |
| Major Teaching Facilities | 43 |
| University Health Care Facilities | 44 |
| Clinical Affiliates..... | 48 |
| PROFILE OF THE STUDENT BODY | |
| Enrollment..... | 57 |
| Admissions | 61 |
| Financial Aid: State, Federal and Institution Funded Programs | 73 |
| Degrees and Certificates Awarded | 74 |
| Graduation Rates..... | 75 |
| Post-Graduate Placement of Medical and Dental Students..... | 96 |
| Postdoctoral Appointees | 98 |

TABLE OF CONTENTS cont'd.

| | PAGE |
|---|-------------|
| PROFILE OF FACULTY, STAFF, INTERNS & RESIDENTS | |
| Faculty | |
| Paid Faculty AY 2011-12 | 99 |
| Master Educators | 100 |
| Endowed Chairs | 105 |
| Medical & Dental Interns, Residents and Fellows | 109 |
| Non-Faculty Employees | 116 |
| MEETING THE STATE'S NEEDS | |
| Public and Community Service | 117 |
| RESEARCH AND EXTERNAL FUNDING | |
| Research and External Funding | 207 |
| Research Fast Facts | 208 |
| Life Sciences Research | 209 |
| Clinical Research | 210 |
| Human Subject Protection Program | 213 |
| Research Education | 214 |
| Research Collaborations and Affiliations | 215 |
| Economic Impact | 216 |
| External Funding Totals for Fiscal Year 2011 | 217 |
| Academic R&D Expenditures for Fiscal Year 2011 | 218 |
| Patents and Licenses | |
| Patents, Technology Transfer and Business Development | 219 |
| Patents Issued July 1 2011 to June 30, 2012 | 221 |
| License Agreements Executed Between July 1, 2011 And June 30, 2012 | 223 |
| Research Structure | 224 |
| Research Highlights | |
| Basic Sciences | 225 |
| Translational Research | 268 |
| Clinical Sciences | 275 |
| Educational Research | 291 |
| Other Research | 293 |

TABLE OF CONTENTS cont'd.

| | PAGE |
|--|-------------|
| Current Research Projects with Source of Funds | |
| Federal Funding | 298 |
| Other Governmental Funding..... | 311 |
| Non-Governmental Non-Profit Sponsors..... | 313 |
| Private Industry | 319 |
| Foundation of UMDNJ..... | 324 |
| Internal UMDNJ Funding..... | 327 |
| APPENDICES | |
| Capital Projects..... | 331 |
| Board of Trustees Member Profiles | 333 |
| UMDNJ Governing Board Characteristics..... | 341 |



MISSION STATEMENT

The University of Medicine and Dentistry of New Jersey (UMDNJ), the state's university of the health sciences, is dedicated to the pursuit of excellence in:

- ▶ the undergraduate, graduate, postgraduate and continuing education of health professionals and scientists;
- ▶ the conduct of biomedical, psychosocial, clinical and public health research;
- ▶ health promotion, disease prevention and the delivery of health care; and
- ▶ service to our communities and the entire state.

Providing educational, research and service programs at campuses in Camden, New Brunswick/Piscataway, Newark, Scotch Plains and Stratford, in communities throughout the state, and nationally and internationally through advanced communication and information technologies, UMDNJ seeks to meet the needs of our diverse constituencies and improve the health and quality of life of the citizens of New Jersey and society at large.

*Approved by the Board of Trustees
March 18, 2003*



UMDNJ CREDO

We believe in the pursuit of excellence in education, research, patient care, and community service with integrity, ethical behavior and respect for all.

We take pride in the dedication and commitment of our compassionate healthcare providers, talented educators, internationally recognized researchers and hard-working staff who make countless contributions at UMDNJ every day.

We value humanism and compassion for all people.

We are committed to working collaboratively with our University colleagues, partners and communities to fulfill our Mission.

In all aspects of University life we will foster professionalism, fairness, honesty, sincerity, collegiality and an open exchange of ideas. We will ensure high standards that will nurture faculty, students and staff in a vibrant environment.

As a statewide asset, we embrace our responsibility to the people of New Jersey.

WE TEACH. WE DISCOVER. WE HEAL. WE CARE.

WE ARE UMDNJ.



GOVERNANCE

The governance of the University is vested in a 20-member Board of Trustees. Nineteen voting trustees are appointed by the Governor, with the advice and consent of the Senate, for a term of five years. Board of Trustees members serve until their successors are sworn in. The Commissioner of Health and Senior Services serves *ex-officio*, without vote. The Board has the power to appoint committees from its members and to regulate the duties, functions and procedures of the committees, standing or special, and such advisory committees or bodies as it deems necessary to conduct the efficient management and operation of the University, consistent with the laws of the state. Among its various powers, the Board of Trustees has authority to:

- determine educational policies and programs of the University and approve the educational curricula of the various Schools;
- study the educational and financial needs of the University, and annually acquaint the Governor and Legislature with the condition of the University;
- appoint the president of the University and appoint, upon nomination by the president, such deans, vice presidents and faculty as shall be required;
- fix and determine tuition rates and other fees to be paid by students;
- acquire, dispose of, use and operate property, whether real, personal or mixed or any interest therein, that is necessary or desirable for University purposes;
- borrow money for the needs of the University; and
- exercise the right of eminent domain pursuant to the provisions of the Eminent Domain Act of 1971 to acquire any property or interest therein.

A complete list of the powers and duties of the Board is found in P.L. 1985, chapter 514, section 1 (N.J.S.A. 18A:64G-6 and 7).

The governance of UMDNJ-University Hospital is vested in a 9-member separate board of directors.



BOARD OF TRUSTEES

http://www.umdj.edu/about/about04_trustees.htm

Kevin M. Barry, MD, MBA
Chairperson

Mary Ann Christopher, RN, MSN
Vice Chairperson

Bradford W. Hildebrandt
Secretary

Kevin M. Covert, Esq.

David Critchley

Michael Critchley, Jr., Esq.

Christine Grant, JD, MBA

Marilyn M. Joseph

Ira P. Monka, DO

Mary E. O'Dowd, MPH
*Commissioner, New Jersey Department of Health and Senior Services
(ex officio, non-voting)*



OFFICERS OF THE UNIVERSITY

Denise V. Rodgers, MD
President (Interim)

Steven K. Andreassen, JD
University Chief of Staff

Lester Aron, Esq.
Senior Vice President and General Counsel

Bret S. Bissey, MBA
Senior Vice President/Chief Ethics and Compliance Officer

Julane Miller-Armbrister
Senior Vice President Public Affairs

Denise Mulkern
University Chief Financial Officer

Denise Romano
Chief Information Officer

James R. Gonzalez, MPH
Acting President and CEO, UMDNJ University Hospital

Christopher O. Kosseff, MS
President and CEO of University Behavioral HealthCare

Francis X. Colford, CPA
Vice President for Finance and Treasurer

Gerard Garcia
Interim Vice President for Human Resources

Thomas W. Kenyon, Jr.
Vice President for Supply Chain Management

James Rowan, CPA
Vice President of Internal Audit

Neil Schorr
Vice President of Investigations Group

David C. Schulz, AIA
Interim Vice President for Administration

Kathleen W. Scotto, PhD
Vice President for Research

Freda Zackin, Esq.
Vice President for Academic Affairs

DEANS



Peter S. Amenta, MD, PhD
Dean, UMDNJ-Robert Wood Johnson Medical School



Thomas A. Cavalieri, DO
Dean, UMDNJ-School of Osteopathic Medicine



Cecile A. Feldman, DMD, MBA
Dean, UMDNJ-New Jersey Dental School



Robert L. Johnson, MD
Dean, UMDNJ-New Jersey Medical School

DEANS



Julie O'Sullivan Maillet, PhD
Interim Dean, UMDNJ-School of Health Related Professions



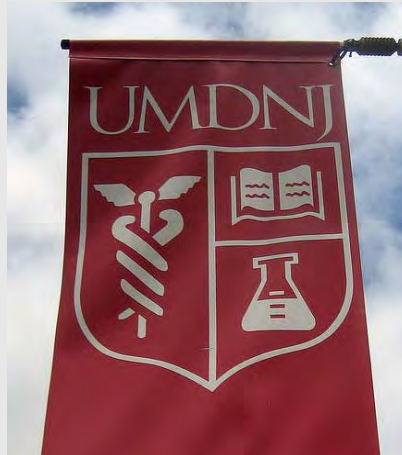
George Rhoads, MD, MPH
Interim Dean, UMDNJ-School of Public Health



Susan W. Salmond, EdD, RN
Dean, UMDNJ-School of Nursing



Kathleen W. Scotto, PhD
Dean, UMDNJ-Graduate School of Biomedical Sciences



PROFILE OF UMDNJ

| | |
|---|----|
| Schools..... | 13 |
| Degree and Certificate Programs | 16 |
| Dual-Degree Programs..... | 21 |
| Articulated Programs | 23 |
| Pipeline and Academic Support Programs | 25 |
| Graduate Medical and Dental Education Programs..... | 28 |
| Accrediting Agencies | 29 |
| Tuition History..... | 32 |
| University Libraries | 33 |
| Continuing Education..... | 36 |
| Centers and Institutes..... | 39 |
| Major Teaching Facilities | 43 |
| University Health Care Facilities | 44 |
| Clinical Affiliates..... | 48 |

SCHOOLS

UMDNJ-Graduate School of Biomedical Sciences (GSBS)

GSBS at New Jersey Dental School

973-972-3728
185 South Orange Avenue, MSB C-696
Post Office Box 1709
Newark, New Jersey 07101-1709

GSBS at New Jersey Medical School

973-972-4511
185 South Orange Avenue, MSB C-696
Newark, New Jersey 07101-1709

GSBS at Robert Wood Johnson Medical School

732-235-5016
675 Hoes Lane, Room R-102
Piscataway, New Jersey 08854-8021

GSBS at School of Osteopathic Medicine

856-566-6282
42 East Laurel Road
University Doctors Pavilion
Suite 2200
Stratford, New Jersey 08084-1350

UMDNJ-New Jersey Dental School (NJDS)

973-972-4633
110 Bergen Street
Post Office Box 1709
Newark, New Jersey 07101-1709

UMDNJ-New Jersey Medical School (NJMS)

973-972-4538
185 South Orange Avenue, MSB C-671
Post Office Box 1709
Newark, New Jersey 07101-1709

UMDNJ-Robert Wood Johnson Medical School (RWJMS)

732-235-6300

Piscataway Campus

675 Hoes Lane
Piscataway, New Jersey 08854-5635

New Brunswick Campus

Clinical Academic Building
125 Paterson Street
New Brunswick, New Jersey 08903-0019

Medical Education Building
1 Robert Wood Johnson Place
New Brunswick, New Jersey 08903

Camden Campus

401 Haddon Avenue
Camden, New Jersey 08103-1506

UMDNJ-School of Health Related Professions (SHRP)

973-972-4276

Newark Campus

65 Bergen Street
Post Office Box 1709
Newark, New Jersey 07101-1709

Scotch Plains Campus

1776 Raritan Road
Scotch Plains, New Jersey 07076-2997

Stratford Campus

University Educational Center
40 East Laurel Road
Stratford, New Jersey 08084-1350

Piscataway Campus

675 Hoes Lane
Piscataway, New Jersey 08854-5635

UMDNJ-School of Nursing (SN)

973-972-4307

Newark Campus

65 Bergen Street, 11th Floor
Post Office Box 1709
Newark, New Jersey 07101-1709

Stratford Campus

University Educational Center
40 East Laurel Road, Suite 2025
Stratford, New Jersey 08084-1350

UMDNJ-School of Osteopathic Medicine (SOM)

856-566-6764

Academic Center
One Medical Center Drive
Stratford, New Jersey 08084-1501

UMDNJ-School of Public Health (SPH)

732-235-9700

New Brunswick Campus

335 George Street
Liberty Plaza, Suites 2100 and 2200
Post Office Box 2688
New Brunswick, New Jersey 08903

Tobacco Dependence Program
125 Paterson Street, Suite 2300
New Brunswick, New Jersey 08903

Piscataway Campus

683 Hoes Lane West
Piscataway, New Jersey 08854-5635

Newark Campus

65 Bergen Street
Post Office Box 1709
SSB, Room 701
Newark, New Jersey 07101-1709

Stratford/Camden Campus

University Educational Center
40 East Laurel Road, Suite 2025 (Rooms 2033-2035)
Stratford, New Jersey 08084-1350

DEGREE AND CERTIFICATE PROGRAMS

The University of Medicine and Dentistry of New Jersey offers the following degrees and certificates in a total of 52 programs: MD, DO, DMD, PhD, DCN, DNP, DPT, DrPH, MS, MBS, MSN, MPH, Master, BS, BSN, AS, AAS, Post-doctoral certificates, Post-master's certificates, Post-baccalaureate certificates and Undergraduate certificates.

| Field | Degree/Certificate | UMDNJ School(s) | Partner Institution (if any) |
|--|--|--------------------------------------|--|
| Medicine | MD MD DO | NJMS RWJMS SOM | |
| Dentistry/Dental Science | DMD MS Master | NJDS NJDS NJDS | |
| Graduate Dental Education* | Certificate | NJDS | |
| Biodefense | Certificate | GSBS | |
| Biomedical Sciences | PhD PhD MS, MBS MS Certificate | GSBS GSBS GSBS GSBS GSBS | Rutgers University Rutgers University |
| Biomedical Programs** | PhD, MS PhD, MS | GSBS GSBS | Rutgers University |
| Biomedical Engineering | PhD, MS PhD | GSBS GSBS | Rutgers University NJIT |
| Clinical and Translational Science | MS Certificate | GSBS GSBS | |
| Environmental Sciences – Exposure Science | PhD | GSBS | Rutgers University |
| Neurosciences | Certificate | GSBS | |

* Includes Endodontics, Oral Medicine, Orthodontics, Pediatric Dentistry, Periodontics and Prosthodontics.

** Includes Anatomy, Biochemistry, Biomedical Engineering, Cell & Developmental Biology, Cell and Molecular Biology, Cellular & Molecular Pharmacology, Microbiology & Molecular Genetics, Molecular Pathology & Immunology, Neurosciences, Oral Biology, Pharmacology, Physiology, Physiology & Integrative Biology, Stem Cell Biology, and Toxicology.

| Field | Degree/Certificate | UMDNJ School(s) | Partner Institution (if any) |
|-------------------------------------|-------------------------------------|--------------------------|---|
| Pharmacological Sciences | Certificate | GSBS | |
| Stem Cell Biology | Certificate | GSBS | |
| Public Health | PhD DrPH MPH Certificates* | SPH SPH SPH SPH | Rutgers University Rutgers University Rutgers University and NJIT |
| Biostatistics | MS | SPH | |
| Health Care Management | MS | RWJMS | Rutgers University |
| Urban Systems - Urban Health | PhD | SN | Rutgers University and NJIT |
| Nursing Practice | DNP | SN | |
| Advanced Practice Nursing | Post-master's Certificates** | SN | |
| Nursing | MSN BSN | SN SN | |
| Nursing Informatics | MSN Post-master's Certificate | SN SN | |
| Allied Health Technologies | BS BS | SHRP SHRP | Bloomfield College Fairleigh Dickinson University Felician College Georgian Court University New Jersey City University Ramapo College of NJ Rutgers University |
| Biomedical Informatics | PhD MS | SHRP SHRP | |
| Cardiac Sonography | Certificate | SHRP | |

* Includes General Public Health, Clinical Epidemiology, Environmental and Occupational Health, Global Public Health, Public Health Preparedness, and Public Policy and Oral Health Services Administration

**Includes Acute Critical Care, Adult Health (Psychiatric and Mental Health Nurse Practitioner), Clinical Trials Research Nurse, Family Nurse Practitioner in Emergency Care, Family Health, Gerontology, Nursing Education, Nursing Informatics, Nurse Anesthesia, Nurse Midwifery, Oncology and Women's Health.

| Field | Degree/Certificate | UMDNJ School(s) | Partner Institution (if any) |
|--|-------------------------------|----------------------|--|
| Clinical Laboratory Sciences | DCLS BS BS | SHRP SHRP SHRP | Bloomfield College Caldwell College College of Saint Elizabeth Fairleigh Dickinson University Felician College Georgian Court University Kean University Monmouth University New Jersey City University Ramapo College of NJ Rutgers University Saint Peter's College |
| Clinical Nutrition | DCN MS | SHRP SHRP | |
| Clinical Trial Sciences | MS | SHRP | |
| Cytotechnology | Certificate | SHRP | |
| Dental Assisting | Certificate Certificate | SHRP SHRP | Brookdale Community College Essex County College Middlesex County College Raritan Valley Community College Thomas Edison State College Union County College |
| Dental Hygiene | Certificate AAS | SHRP SHRP | Brookdale Community College Essex County College Raritan Valley Community College Thomas Edison State College Union County College |
| Diagnostic Imaging Technologies | Certificate | SHRP | |
| Diagnostic Medical Sonography | Certificate | SHRP | |
| Dietary Management | Certificate Certificate | SHRP SHRP | Essex County College Hudson County Community College |
| Dietetic Internship | Certificate MS/Certificate | SHRP SHRP | Rutgers University (MS) |

| Field | Degree/Certificate | UMDNJ School(s) | Partner Institution (if any) |
|---------------------------------------|-------------------------|------------------------------|---|
| Health Care Informatics | Certificate | SHRP | |
| Health Information Management | Certificate BS BS | SHRP SHRP SHRP | Georgian Court University Fairleigh Dickinson University Felician College Kean University Saint Peter's College Thomas Edison State College |
| Health Sciences | PhD MS BS BS | SHRP SHRP SHRP SHRP | New Jersey City University Thomas Edison State College |
| Health Care Management | MS | SHRP | |
| Medical Coding | Certificate | SHRP | |
| Medical Imaging Sciences | BS BS | SHRP SHRP | Bloomfield College Fairleigh Dickinson University Felician College Georgian Court University New Jersey City University Ramapo College of NJ Rutgers University Thomas Edison State College |
| Medical Laboratory Science | Certificate | SHRP | |
| Nuclear Medicine Technology | Certificate | SHRP | |
| Occupational Therapy Assistant | AS | SHRP | Camden County College County College of Morris Cumberland County College Hudson County Community College Mercer County Community College Passaic County Community College Raritan Valley Community College Salem Community College |
| Physical Therapy | DPT DPT | SHRP SHRP | Rutgers University |
| Physician Assistant | MS | SHRP | |

| Field | Degree/Certificate | UMDNJ School(s) | Partner Institution (if any) |
|--|------------------------|------------------|--|
| Professional Counseling | Certificate | SHRP | |
| Psychiatric Rehabilitation | PhD MS | SHRP SHRP | |
| Psychiatric Rehabilitation & Psychology | BS BS | SHRP SHRP | Felician College Georgian Court University Kean University |
| Psychosocial Rehabilitation & Treatment | AS | SHRP | Burlington County College Camden County College Cumberland County College Essex County College Middlesex County College Passaic County Community College Raritan Valley Community College Union County College Warren County Community College |
| Radiologist Assistant | MS | SHRP | |
| Rehabilitation Counseling | MS | SHRP | |
| Respiratory Care | AS | SHRP | Essex County College Hudson County Community College Middlesex County College Raritan Valley Community College Union County College Warren County Community College |
| Respiratory Therapy | AAS Certificate | SHRP SHRP | Atlantic Cape Comm. College Burlington County College Camden County College Cumberland County College Gloucester County College Salem Community College |
| Vascular Sonography | Certificate | SHRP | |

DUAL-DEGREE PROGRAMS

| Degree/Certificate | UMDNJ School(s) | Partner Institution (if any) |
|---|--|---|
| MD/PhD | NJMS/GSBS RWJMS/GSBS NJMS RWJMS | Rutgers University Rutgers University Princeton University |
| MD/MPH | NJMS/SPH RWJMS/SPH | Rutgers University and NJIT Rutgers University and NJIT |
| MD/MBA | RWJMS NJMS | Rutgers University Rutgers University |
| MD/JD | RWJMS RWJMS NJMS | Rutgers University Seton Hall University Rutgers University |
| MD/MS in Biomedical Informatics | RWJMS/SHRP | |
| MD/MS in Clinical & Translational Science | RWJMS/GSBS | |
| MD/MS in Health Care Management | RWJMS | Rutgers University |
| MD/MSJ | RWJMS | Seton Hall University |
| MD/Certificate in Oral & Maxillofacial Surgery | NJMS/NJDS | |
| DO/JD | SOM | Rutgers University |
| DO/MBA | SOM | Rowan University |
| DO/PhD | SOM/GSBS | |
| DO/MA Health Care Ethics | SOM | St. Joseph's University |
| DO/MS | SOM/GSBS | |

| Degree/Certificate | UMDNJ School(s) | Partner Institution (if any) |
|---|------------------------|---|
| DMD/MPH | NJDS/SPH | Rutgers University and NJIT |
| DMD/MS in Biomedical Informatics | NJDS/SHRP | |
| DMD/PhD | NJDS/GSBS | |
| PhD/PharmD | GSBS at RWJMS | Rutgers University |
| MS/MPH | GSBS/SPH | |
| MS in Oral Biology/ GDE Certificate | GSBS/NJDS | |
| Master of Biomedical Science/MPH | GSBS/SPH | Rutgers University and NJIT |
| MS/MBA | GSBS | Rutgers University |
| MSN/MPH | SN/SPH | Rutgers University and NJIT |
| MS in Biomedical Informatics/ Certificate in Graduate Dental Education | SHRP/NJDS | |
| DPT/PhD | SHRP/GSBS | |
| MPH/PsyD | SPH | Rutgers University and NJIT |
| MPH/JD | SPH | Rutgers University School of Law - Camden |
| MPH/MS in Physician Assistant | SPH/SHRP | Rutgers University and NJIT |
| MPH/MBA | SPH | Rutgers University and NJIT |
| MPH/PharmD | SPH | Rutgers University and NJIT |

ARTICULATED EDUCATIONAL PROGRAMS

| Degree | Affiliated Institution | Program Length (years) |
|---|---|------------------------|
| UMDNJ-New Jersey Medical School | | |
| BS/MD | Stevens Institute of Technology | 7 |
| | New Jersey Institute of Technology | 7 |
| | The College of New Jersey | 7 |
| | The Richard Stockton College of New Jersey | 7 |
| | Montclair State University | 7 or 8 |
| | St. Peter's College | 7 |
| BA/MD | Caldwell College | 7 |
| BA or BS/MD | Drew University | 7 |
| | Rutgers, The State University of New Jersey College of Arts and Sciences | 7 or 8 |
| UMDNJ-Robert Wood Johnson Medical School | | |
| BA or BS/MD | Rutgers, The State University of New Jersey (any School on any campus) | 7 or 8 |
| | Rutgers, The State University of New Jersey (New Brunswick campus) (ACCESS-MED) | 8 |
| | Seton Hall University (ACCESS-MED) | 8 |
| UMDNJ-New Jersey Dental School | | |
| BS/DMD | Stevens Institute of Technology | 7 |
| | New Jersey Institute of Technology | 7 |
| | Rowan University | 7 |
| | New Jersey City University | 7 |
| | Ramapo College of New Jersey | 7 |
| | Fairleigh Dickinson University | 7 |
| | Montclair State University | 7 |
| | Caldwell College | 7 or 8 |
| | Baccalaureate/DMD | Saint Peter's College |
| Rutgers, The State University of New Jersey | | 7 |
| North Carolina Central University | | 7 |
| UMDNJ-School of Osteopathic Medicine | | |
| BA or BS/DO | The Richard Stockton College of New Jersey | 7 |
| Baccalaureate/DO | Rutgers, The State University of New Jersey-Camden | 7 |
| | Monmouth University | 8 |
| UMDNJ-Graduate School of Biomedical Sciences | | |
| BA or BS/PhD | New Jersey City University | |
| BS/PhD | Montclair State University | |
| MS/PhD | Montclair State University | |
| | University of Puerto Rico, Mayaguez Campus | |

| Degree | Affiliated Institution | Program Length (years) |
|---|---|------------------------|
| UMDNJ-School of Health Related Professions | | |
| BS/MS in Physician Assistant | Rutgers University | |
| | Montclair State University | |
| | Ramapo College of New Jersey | 6 |
| | Saint Peter's College | 6 |
| | New Jersey Institute of Technology | 6 |
| BS in Biology/MS in Physician Assistant | Felician College | 6 |
| BA in Biology/MS in Physician Assistant | Kean University | 6 |
| BS/Doctor of Physical Therapy* | Kean University | |
| | Ramapo College of New Jersey | |
| BS/Doctor of Physical Therapy | Montclair State University | |
| | Felician College | |
| | William Paterson University | |
| | Saint Peter's College | 6 |
| | Fairleigh Dickinson University | 6 |
| | New Jersey Institute of Technology | 6 |
| BA/Doctor of Physical Therapy | Yeshiva University | 7 |
| BS/MS in Biomedical Informatics | Ramapo College of New Jersey | 6 |
| UMDNJ-School of Public Health | | |
| BS/MPH and BA/MPH | Rutgers, The State University of New Jersey | |
| BS/MPH | William Paterson University | |
| | The Richard Stockton College of New Jersey | |

* formerly BS/MS PT program

PIPELINE AND ACADEMIC SUPPORT PROGRAMS AT UMDNJ

UMDNJ offers numerous pipeline programs to non-UMDNJ students and other participants. These programs prepare students for future enrollment in a health professions school or program.

Academic support programs for UMDNJ students are also offered that supplement the academic curriculum with special projects or activities.

Following is a list of UMDNJ pipeline and academic support programs. Many of these programs are described in more detail in the Public and Community Service Section of this Profile beginning on page 117.

| UMDNJ PIPELINE AND ACADEMIC SUPPORT PROGRAMS | | | |
|---|---|--|---------------------------------|
| Name of Program | Program Sponsor | Collaborating or Cooperating Facility | Program Site |
| Access Med Program | RWJMS Office of Multicultural Affairs/Special Academic Programs | Seton Hall University; Rutgers University-New Brunswick | New Brunswick/Piscataway (NB/P) |
| Biomedical Careers Program | RWJMS Office of Multicultural Affairs/Special Academic Programs | Seton Hall University; Rutgers University - New Brunswick; Robert Wood Johnson University Hospital | (NB/P) |
| Decision for Dentistry | NJDS | | Newark |
| Educational Opportunity Fund Academic Program | SHRP | | |
| Freshman Introduction to Skills and Training (FIRST) Program | NJMS | NJMS Hispanic Center of Excellence (HCOE) Health Careers Opportunity Programs (HCOP) | Newark |
| Gateway to Dentistry | NJDS | | Newark |
| Health Science Careers | SHRP | High Schools in New Jersey | Scotch Plains |
| Med Prep Scholars Summer Research | NJMS | | |
| Medical Science Academy | SOM | | Stratford |
| Mini Medical School for High School Students Achieving Excellence in the Sciences | RWJMS | | NB/P |
| National Youth Leadership Forum on Medicine | SOM | National Youth Leadership Forum on Medicine | Stratford |
| Northeast Regional Alliance (NERA) MedPrep Research Component | NJMS | Health Careers Opportunity Program (HCOP) grant | |
| Pre-Matriculation Summer Program | RWJMS Office of Multicultural Affairs/Special Academic Programs | | NB/P. |
| Pre-Matriculation Program | SOM Center for Teaching and Learning | | Stratford |
| Pre-Medical Honors Program | NJMS | | Newark |
| Robert Wood Johnson Foundation | NJMS | | |

| UMDNJ PIPELINE AND ACADEMIC SUPPORT PROGRAMS (Continued) | | | |
|---|---|--|-----------------------------------|
| Name of Program | Program Sponsor | Collaborating or Cooperating Facility | Program Site |
| Rutgers-Camden Visiting Students | Biology Department, GSBS at SOM | | Stratford |
| Science Enrichment Program | RWJMS | | |
| Science Scholars Academy | RWJMS Office of Multicultural Affairs/Special Academic Programs | | NB/P |
| SMART (Science, Math and Related Topics) Program | NJMS Department of Family Medicine | | Newark |
| Summer Clinical Internship Program | RWJMS | | |
| Summer Pre-Medical Research and Education Program (PREP) | SOM | NJ Commission on Higher Education - Educational Opportunity Fund (EOF) | Stratford |
| Summer Research | NJMS | NJMS Hispanic Center of Excellence (HCOE) | Newark |
| Summer Student Research Programs | NJMS, RWJMS, NJDS SOM and SHRP | | |
| Summer Youth Scholars Program | NJMS | NJMS Hispanic Center of Excellence (HCOE) | Newark |
| SURP - Summer Undergraduate Research Program in Neuroscience | RWJMS Department of Neuroscience and Cell Biology | Rutgers University | NB/P |
| UMDNJ-School of Osteopathic Medicine DO ShaDOW Program | SOM | Cherry Hill East High School, Cherry Hill West High School, Charles Brimm Medical Arts High School | Stratford |
| Undergraduate Summer Research Program | GSBS | | Newark Piscataway Stratford |
| Urban Scholars Program | SHRP | | |

Source: UMDNJ-Office of the University Registrar, November 2011.

**GRADUATE MEDICAL AND DENTAL
EDUCATION PROGRAM TOTALS, 2011-12***

| School | Number of Active GME or GDE Programs |
|------------------------------------|---|
| New Jersey Medical School | 47 |
| Robert Wood Johnson Medical School | 45 |
| School of Osteopathic Medicine | 22 |
| New Jersey Dental School | 3 |
| Total Active Programs | 117 |

* Active programs only. See "Housestaff Totals by Program" beginning on page 110 for a list of programs by School.

Source: Survey of UMDNJ GME and GDE Programs and Housestaff, UMDNJ-Office of Institutional Research. Data as of September 1, 2011

ACCREDITING AGENCIES

The University is accredited by the **Middle States Commission on Higher Education**. In addition, the University's Schools, educational programs and post-graduate training programs are also accredited where pertinent accrediting agencies exist (see list below).

| Program | Accrediting Agency |
|--|---|
| <i>UMDNJ-New Jersey Medical School UMDNJ-Robert Wood Johnson Medical School</i> | |
| MD | Liaison Committee on Medical Education (LCME) |
| Allopathic residency programs | Accreditation Council for Graduate Medical Education (ACGME) |
| Podiatric Medicine and Surgery (NJMS) | Council on Podiatric Medicine Education of the American Podiatric Association (CPME) |
| OB/GYN Maternal Fetal Medicine | American Board of Obstetrics and Gynecology |
| Reproductive Endocrinology & Infertility | American Board of Obstetrics and Gynecology |
| Psychology Internship - Adult and Child and Adolescent Behavioral Medicine | American Psychological Association |
| <i>UMDNJ-School of Osteopathic Medicine</i> | |
| DO | American Osteopathic Association (AOA) - Commission on Osteopathic College Accreditation (COCA) |
| Osteopathic internship & residency programs | American Osteopathic Association (AOA) |
| <i>UMDNJ-New Jersey Dental School</i> | |
| DMD | Commission on Dental Accreditation (CODA) of the American Dental Association |
| Dental residency programs & postgraduate certificates | Commission on Dental Accreditation (CODA) of the American Dental Association or American Board of Oral Medicine |
| <i>UMDNJ-School of Public Health</i> | |
| PhD, DrPH, MS, MPH | Council on Education for Public Health (CEPH) |
| <i>UMDNJ-School of Nursing</i> | |
| BSN, MSN & post-master's certificates | National League for Nursing Accrediting Commission (NLNAC) |
| MSN - Nurse Anesthetist Track | Council on Accreditation (COA) of Nurse Anesthesia Educational Programs |
| MSN - Nurse Midwifery Track | Accreditation Commission for Midwifery Education (ACME) |

| Program | Accrediting Agency |
|--|---|
| <i>UMDNJ-School of Health Related Professions</i> | |
| Cardiac Sonography | Commission on Accreditation of Allied Health Education Programs (CAAHEP) - Joint Review Committee for Diagnostic Medical Sonography |
| Coordinated Dietetic Program | Commission on Accreditation for Dietetics Education (CADE) |
| Cytotechnology | Commission on Accreditation of Allied Health Education Programs (CAAHEP) |
| Dental Assisting | Commission on Dental Accreditation (CODA) of the American Dental Association |
| Dental Hygiene | Commission on Dental Accreditation (CODA) of the American Dental Association |
| Diagnostic Medical Sonography | Commission on Accreditation of Allied Health Education Programs (CAAHEP) - Joint Review Committee for Diagnostic Medical Sonography |
| Dietary Management | Dietary Managers Association (DMA) |
| Dietetic Internship | Commission on Accreditation for Dietetics Education (CADE) |
| Health Information Management | Commission on Accreditation for Health Informatics and Information Management Education |
| Medical Laboratory Science | National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) - Commission on Allied Health Education and Accreditation |
| Nuclear Medicine Technology | Commission on Accreditation of Allied Health Education Programs (CAAHEP) - Joint Review Committee on Educational Programs in Nuclear Medicine Technology (JRCEPNMT) |
| Occupational Therapy | Accreditation Council for Occupational Therapy Education (ACOTE) |
| Physical Therapy | Commission on Accreditation in Physical Therapy Education (CAPTE/APTA) |
| Physician Assistant | Accreditation Review Commission on Education for the Physician Assistant (ARC-PA) |
| Radiologist Assistant | American Registry of Radiologic Technologists (ARRT) |

| Program | Accrediting Agency |
|--|---|
| <i>UMDNJ-School of Health Related Professions (continued)</i> | |
| Rehabilitation Counseling | Council on Rehabilitation Education (CORE) Council for Accreditation of Counseling & Related Educational Programs (CACREP) |
| Respiratory Therapy/Respiratory Care | Commission on Accreditation for Respiratory Care(COARC) and CAAHEP |
| Vascular Sonography | Commission on Accreditation of Allied Health Education Programs (CAAHEP) - Joint Review Committee on Education in Cardiovascular Technology |

UMDNJ MEDICAL / DENTAL FIRST-YEAR TUITION HISTORY

| <i>Academic Year</i> | <i>Resident Tuition</i> | <i>Percent Increase in Resident Tuition</i> | <i>Non-Resident Tuition</i> | <i>Percent Increase in Non-Resident Tuition</i> |
|----------------------|-------------------------|---|-----------------------------|---|
| 1971 - 1972 | \$750 | -- | \$1,000 | -- |
| 1972 - 1973 | \$1,100 | 46.7% | \$1,750 | 75.0% |
| 1973 - 1974 | \$1,100 | 0.0% | \$1,750 | 0.0% |
| 1974 - 1975 | \$1,100 | 0.0% | \$1,750 | 0.0% |
| 1975 - 1976 | \$1,750 | 59.1% | \$3,000 | 71.4% |
| 1976 - 1977 | \$3,000 | 71.4% | \$4,000 | 33.3% |
| 1977 - 1978 | \$4,000 | 33.3% | \$5,000 | 25.0% |
| 1978 - 1979 | \$4,000 | 0.0% | \$5,000 | 0.0% |
| 1979 - 1980 | \$4,500 | 12.5% | \$5,625 | 12.5% |
| 1980 - 1981 | \$5,000 | 11.1% | \$6,240 | 10.9% |
| 1981 - 1982 | \$5,500 | 10.0% | \$6,875 | 10.2% |
| 1982 - 1983 | \$6,325 | 15.0% | \$7,905 | 15.0% |
| 1983 - 1984 | \$6,825 | 7.9% | \$8,530 | 7.9% |
| 1984 - 1985 | \$7,175 | 5.1% | \$8,965 | 5.1% |
| 1985 - 1986 | \$7,535 | 5.0% | \$9,860 | 10.0% |
| 1986 - 1987 | \$8,000 | 6.2% | \$10,500 | 6.5% |
| 1987 - 1988 | \$8,250 | 3.1% | \$10,825 | 3.1% |
| 1988 - 1989 | \$8,660 | 5.0% | \$11,365 | 5.0% |
| 1989 - 1990 | \$9,093 | 5.0% | \$11,933 | 5.0% |
| 1990 - 1991 | \$10,457 | 15.0% | \$13,723 | 15.0% |
| 1991 - 1992 | \$11,053 | 5.7% | \$14,505 | 5.7% |
| 1992 - 1993 | \$11,550 | 4.5% | \$15,158 | 4.5% |
| 1993 - 1994 | \$12,128 | 5.0% | \$15,916 | 5.0% |
| 1994 - 1995 | \$12,795 | 5.5% | \$16,791 | 5.5% |
| 1995 - 1996 | \$13,295 | 3.9% | \$17,445 | 3.9% |
| 1996 - 1997 | \$14,492 | 9.0% | \$22,679 | 30.0% |
| 1997 - 1998 | \$14,927 | 3.0% | \$23,359 | 3.0% |
| 1998 - 1999 | \$15,509 | 3.9% | \$24,270 | 3.9% |
| 1999 - 2000 | \$16,052 | 3.5% | \$25,119 | 3.5% |
| 2000 - 2001 | \$16,694 | 4.0% | \$26,124 | 4.0% |
| 2001 - 2002 | \$17,362 | 4.0% | \$27,169 | 4.0% |
| 2002 - 2003 | \$18,143 | 4.5% | \$28,392 | 4.5% |
| 2003 - 2004 | \$19,776 | 9.0% | \$30,947 | 9.0% |
| 2004 - 2005 | \$20,567 | 4.0% | \$32,185 | 4.0% |
| 2005 - 2006 | \$21,390 | 4.0% | \$33,472 | 4.0% |
| 2006 - 2007 | \$22,246 | 4.0% | \$34,811 | 4.0% |
| 2007 - 2008 | \$23,136 | 4.0% | \$36,203 | 4.0% |
| 2008 - 2009 | \$25,218 | 9.0% | \$39,461 | 9.0% |
| 2009 - 2010 | \$26,227 | 4.0% | \$41,039 | 4.0% |
| 2010 - 2011 | \$30,948 | 18.0% | \$49,657 | 21.0% |
| 2011 - 2012 | \$32,805 | 6.0% | \$52,636 | 6.0% |
| 2012 - 2013 | \$34,445 | 5.0% | \$55,268 | 5.0% |

Source: UMDNJ Tuition Rates Schedule, Academic Year 2012-2013

UNIVERSITY LIBRARIES

The University of Medicine and Dentistry of New Jersey's University Libraries exist in a rapidly changing environment. Like all academic libraries of the 21st century, we are hybrid facilities, preserving past knowledge while offering the latest electronic resources, information services and enabling technologies. To do this well necessitates acquiring and licensing extensive scholarly resources, enabling ready and straightforward access to them, and using both traditional and cutting-edge methods of acquisition, access and delivery of service to users. New scholarly material is produced at a pace that requires dynamic research libraries to be more nimble and flexible than ever before to insure ubiquitous access. New emphases in research and teaching, and the heightened expectations of the UMDNJ user community, require that our libraries be proactive in anticipating needs, customizing information services that respond to user requirements and designing facilities that enable new kinds of interaction.

The UMDNJ Libraries embrace the 21st century concepts of knowledge management. These include the systems and processes used to acquire, organize, store, access, retrieve, teach and disseminate knowledge and information in a variety of digital formats, while preserving access to print books and journals as well as other unique archival resources. The University Libraries provide a critical portal, where scholarship is discovered and used, where collaborative education takes place, and where students, faculty and staff can find the expert assistance of highly trained librarians. The scholarly resources made available by the UMDNJ Libraries, combined with effective knowledge management, are crucial competitive assets in an era of massive change in health care and information technology.

Reliable access to scholarly resources and provision of timely information services to the students, housestaff, faculty, and staff remains our primary goal. The Libraries provide information access, in particular, to electronic scholarly resources both onsite and remotely. Currently, UMDNJ faculty, students and staff have access to 84 electronic databases, 799 major electronic books in the health sciences and 4,784 of the most highly rated scholarly electronic journals in the health sciences. Utilization of licensed electronic resources, online books and journals exceeded 1.5 million uses in FY2012.

The University Libraries aggressively support electronic journal subscriptions, having cancelled all but a few print journals at each of our campus libraries. As a result of this change, retaining access to high quality electronic content and archival collections is a major priority. Despite any cost savings associated with the migration from print to digital, decreasing or flat funding has reduced buying power resulting in cancellation of select electronic content.

Currently, all UMDNJ libraries are fully wireless environments. The libraries strive to provide flexible learning and study spaces for all users. The Smith Library in Newark recently added 48 new study seats and 12 new wired tables for the recharging of portable technologies. Monitors were added to each of the eight study rooms for ease of projection from student laptops.

Technologies are currently being implemented that will enhance digital library services to the University community. The Libraries now offer mobile optimized Web sites for ease of access to needed resources from handheld devices. A Quick Search feature was

introduced on all of the campus libraries' Websites. Ease of use of electronic resources from mobile handheld devices utilizing QR code was implemented with grant funding this year.

The UMDNJ Libraries contribute to the University's community service goal with the availability of **HealthyNJ**, an extensive consumer health Website (<http://www.healthynj.org>). **HealthyNJ** assists consumers to rapidly identify authoritative, patient/consumer information tailored to a wide range of cultural, education, and language needs. HealthyNJ celebrated its 10th anniversary last year, with newly added features and content. Currently, there are over 400 total topics in the Diseases and Conditions and Health and Wellness portals. Of these, over 200 topics are fully available in Spanish. The site has recently been enhanced with "Read Me First" entries for simple, plain language text.

The University Libraries continue to work collaboratively to enhance knowledge management in the clinical practice, education, research, and community service to meet the increasing challenges facing UMDNJ as a major academic health center. The Libraries play a critical support role in supporting learning and the creation and dissemination of new scholarly resources. The libraries strive to be an active catalyst for scholarly communication and knowledge management.

[UNIVERSITY LIBRARIES](http://libraries.umdj.edu/)

<http://libraries.umdj.edu/>

NEWARK CAMPUS

UMDNJ – George F. Smith Library of the Health Sciences

30 Twelfth Avenue, P.O. Box 1709, Newark, NJ 07101-1709
(973) 972-4580

<http://libraries.umdj.edu/newarklib/>

NEW BRUNSWICK/PISCATAWAY CAMPUS

UMDNJ-Robert Wood Johnson Library of the Health Sciences

One Robert Wood Johnson Place, New Brunswick, NJ 08903-0019
(732) 235-7610

<http://libraries.umdj.edu/rwjlbweb/>

STRATFORD CAMPUS

UMDNJ-Health Sciences Library at Stratford

One Medical Center Drive, Stratford, NJ 08084-1501
(856) 566-6800

<http://www.umdj.edu/stlibweb/>

CAMDEN CAMPUS

The Reuben L. Sharp Health Science Library

The Cooper Health System, One Cooper Plaza, Camden, NJ 08103-1489
(856) 342-2525

<http://libraries.umdj.edu/camlbweb/>

UMDNJ and Coriell Library (Study Annex)

401 Haddon Avenue, Camden, NJ 08103-1505

(856) 757-7740

<http://www.umdnj.edu/camlibweb/index.html>

Library resources and services are provided to the University community at the Scotch Plains campus by means of electronic linkages.

UNIVERSITY LIBRARIES-STATISTICAL HIGHLIGHTS-FISCAL YEAR 2012**Access to Libraries' Resources**

| | |
|-------------|---------|
| Gate Count | 446,386 |
| Circulation | 16,448 |

Information Services

| | |
|--|-----------|
| Database Accesses/End User | 1,566,380 |
| Database Accesses/Librarian Mediated | 1,575 |
| Reference Questions Answered | 9,633 |
| Education Session (Formal Teaching) Participants | 3,788 |

Interlibrary Cooperation

| | |
|--------------------------|-------|
| Lending to Libraries | 7,519 |
| Borrowing from Libraries | 9,121 |

Collection

| | |
|----------------------------------|---------|
| Book Volumes | 86,796 |
| Electronic Books | 799 |
| Journal Volumes | 163,045 |
| Print Journal Subscriptions | 26 |
| Electronic Journal Subscriptions | 4,784 |
| Database Subscriptions | 87 |

Personnel

| | |
|--------------------------|------|
| Professional Staff (FTE) | 36.0 |
| Support Staff (FTE) | 24.0 |

CENTER FOR CONTINUING & OUTREACH EDUCATION (CCOE)

Purpose

Consistent with its responsibility as an academic medical center, the University of Medicine and Dentistry of New Jersey (UMDNJ), through the Center for Continuing and Outreach Education (CCOE), provides a comprehensive program of continuing education with the goal of improving the quality of patient care by providing lifelong educational opportunities for physicians and other healthcare providers. Using the vast resources of UMDNJ's eight (8) medical, science, and health-related schools, UMDNJ - CCOE serves as the University's focal point for providing continuing education to physicians and other healthcare providers. In doing so, UMDNJ-CCOE supports UMDNJ's commitment to facilitate the translation of discoveries at the basic science level to the actual treatment, management, and prevention of disease.

Content

The content of the UMDNJ-CCOE continuing education program addresses gaps between best practices and current practices, with the intention of improving practitioner competence or performance, and/or patient outcomes and encompasses a broad range of primary and specialty topics. In the context of nationally-established competencies for health care professionals, the content of UMDNJ educational interventions is derived from the needs of learners, experts, national specialty guidelines and consensus statements, and observed quality management indicators. The content of continuing education is matched to those assessed gaps and addresses strategies to close those gaps.

Target Audience

CCOE serves several principal audiences. Our local audience includes the staff of internal or affiliated institutions that participate in our regularly scheduled series programs (including grand rounds, M&M conferences, tumor boards, and other series).

Regional learners participate in off-site activities throughout the State of New Jersey planned and sponsored by CCOE. These activities provide education on new developments in medicine, and those competencies necessary for re-licensure and recertification.

CCOE also reaches national and international audiences who look to UMDNJ as a source of expertise based on the reputation of the University and the distinctions earned by distinguished faculty. Such programs often involve partnerships with specialty societies and joint sponsors.

Types of Activities

UMDNJ-CCOE chooses its educational design as a means to assure that the education offered matches the learning styles of its learners, is appropriate to the learning objectives, and provides the mechanisms and processes to sustain change in clinician behavior. When possible, educational interventions include interactive learning methods such as case studies and question-and-answer sessions to address adult learning styles and reinforce desired outcomes. Non-educational interventions, including tools to enhance the potential for successful outcomes, are employed.

UMDNJ's options for activity delivery include:

- Live conferences and workshops
- Regularly scheduled series
- Enduring materials
- Performance improvement
- Internet-based education

Expected Results

Educational outcomes measurements (EOM) are determined based on the intended result of the activity. Our activities are developed with the expectation of improving competence and/or performance in health care professionals, or for improving patient outcomes.

The analysis of EOM data is conducted to determine the degree to which our mission has been met, which forms the basis of improvements to UMDNJ's overall continuing education program. A process of continuous quality improvement is fundamental to UMDNJ-CCOE and the determination of improvements and active management of the implementation of planned improvements is a part of all staff meetings, management meetings, and meetings of the CME committees at both the New Jersey Medical School and Robert Wood Johnson Medical School.

Accreditations

UMDNJ-CCOE holds the following accreditations:

- UMDNJ-CCOE is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians. UMDNJ-CCOE holds an Accreditation with Commendation (six-year term), adhering to all 22 of the ACCME updated criteria for providers.
- UMDNJ-CCOE is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education.
- UMDNJ-CCOE is an approved provider of continuing nursing education by the New Jersey State Nurses Association, an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation.

Our History

CCOE was originally established as The Office of Continuing Medical Education in 1970. In 1991, UMDNJ realized the critical nature of the continuing education function and reorganized the office as the Center for Continuing Education in the Health Professions (CCE), with several focused educational divisions.

In early 2001, CCE was further strengthened by the addition of the Division of Outreach and a change in name to the current Center for Continuing and Outreach Education (CCOE). Today, CCOE has expanded its role by providing leadership in developing educational activities to serve learners external to the UMDNJ community, in addition to the learners within the University and local region.

CCOE is a vital part of the university community and employs an experienced staff of professionals. The Center works closely with voluntary physician leadership in two active CME committees at Robert Wood Johnson and New Jersey Medical Schools to oversee all continuing education sponsored by both medical schools, including a comprehensive regularly scheduled series program that covers most clinical disciplines of medicine. Through our Outreach programs, CCOE has extended education opportunities to learners throughout the United States and the world.

CCOE Staff

UMDNJ-Center for Continuing and Outreach Education is currently staffed by a group of 11 professionals. The organization consists primarily of program management and central administrative and support staff. Program management staff work with UMDNJ schools and faculty from UMDNJ's campuses and units, and other educational partners to develop and implement educational activities. Central administrative and support staff for the various business resources provide services that support the continuing education programming, including registration, finance/accounting, marketing, and information technology (IT) services. These internal resources allow greater efficiencies in workflow, control of data and financial management of continuing education activities and the overall continuing education program.

CENTERS AND INSTITUTES

UNIVERSITY

Center for Continuing and Outreach Education
Institute for the Elimination of Health Disparities
International Center for Public Health, Inc.
New Jersey AIDS Education and Training Center
New Jersey Center for Biomaterials
Samuel L. Bailey Huntington Disease Center at UMDNJ

NEW JERSEY MEDICAL SCHOOL AND UNIVERSITY HOSPITAL

AIDS Education and Training Center (AETC) National Resource Center
Cardiovascular Research Institute
Carroll M. Leevy Center for Liver Diseases
Center for Advanced Proteomics Research
Center for Biophysical Pathology
Center for Bloodless Surgery and Medicine
Center for Healthcare Ethics
Center for Human Development and Aging
Center for Macular Degeneration Treatment and Research
Center for Neuromuscular Disorders
Center for Rehabilitation Services
Center for Reproductive Medicine
Center for Skull Base Surgery
Center for Vascular Disease
Center for Ventilatory Support Alternatives & Pulmonary Rehabilitation
Cochlear Implant Center
Community Training Center
Cornea and Laser Vision Institute
Cystic Fibrosis Center
Eye Institute of New Jersey
Global Tuberculosis Institute at UMDNJ
Institute for Ophthalmology and Visual Science
Institute of Genomic Medicine
Low Back Pain Rehabilitation Center
Multiple Sclerosis Diagnosis and Treatment Center
Neurofibromatosis Center of New Jersey
Neurological Institute of New Jersey
New Jersey Breast Imaging Center
New Jersey Medical School Center for BioDefense
New Jersey Medical School Center for Immunity and Inflammation
New Jersey Medical School Hispanic Center of Excellence
New Jersey Medical School Spine Center
New Jersey Medical School Sports Medicine Center
New Jersey State Trauma Center
North Jersey Orthopaedic Institute
Northern New Jersey Spinal Cord Injury Center
Ophthalmic Center for Minimally Invasive Treatment
Ophthalmic Clinical Trials Center

Pediatric Comprehensive Epilepsy Center
 Peripheral Nerve Center
 Psychiatric Screening Center
 Ruy V. Lourenço Center for the Study of Emerging and Re-emerging Pathogens
 Ruy V. Lourenço Student Health Advocates for Research and Education
 (SHARE) Center
 Sickle Cell Disease Center
 The Autism Center
 University Center for Plastic and Reconstructive Surgery
 University Craniofacial Center of New Jersey
 University Hospital Comprehensive Pain Management Center
 University Hospital Comprehensive Stroke Center
 University Transplantation Center
 University Women's Health Center
 Women's Wellness Center
 Young Fathers Program

ROBERT WOOD JOHNSON MEDICAL SCHOOL

Advanced Center for Parkinson's Disease Research (Richard E. Heikkila Center
 of Excellence)
 Antenatal Diagnostic Center (Camden)
 Biliary-Pancreas Disease Center
 Cancer Institute of New Jersey
 Cardiac Arrhythmia Center
 Cardiovascular Institute of New Jersey
 Center for Advanced Biotechnology and Medicine
 Center for Biomedical Imaging and Informatics
 Center for Biostatistics
 Center for Child and Reproductive Environmental Health
 Center for Clinical and Translational Science
 Center for Coronary Artery Disease Reversal
 Center for Healthy Families and Cultural Diversity
 Center for Hematopoietic Stem Cell Transplantation
 Center for HIV Infection
 Center for Molecular Therapeutics
 Center for Neurodegenerative and Neuroimmunologic Diseases
 Center for Neuroscience
 Center for Psychopharmacology Research
 Center for Stress Management and Behavioral Medicine
 Child Health Institute of New Jersey
 Clinical Center of EOHSI
 Colorectal Care Center (Camden)
 Comprehensive Epilepsy Center
 Comprehensive Services on Aging (COPSA) Institute for Alzheimer's Disease
 and Related Disorders (with UBHC)
 Comprehensive Sleep Disorders Center
 Cooper Center for In Vitro Fertilization (Camden)
 Corporate Wellness Center
 Crohn's and Colitis Center of New Jersey
 Cystic Fibrosis Center
 Dean and Betty Gallo Prostate Cancer Institute at CINJ

Digestive Disease Center
Elizabeth M. Boggs Center on Developmental Disabilities-The University
 Affiliated Program of New Jersey
Environmental & Occupational Health Sciences Institute
Eric B. Chandler Health Center
Gastrointestinal and Liver Tumor Center
Genitourinary Tumor Study Group Center
Geriatric Assessment Service
Gerontological Institute
Heart Center of New Jersey
Heart Failure Center
Hypertension Outpatient Center
Infant APNEA Center (Camden)
Institute for Reproductive and Perinatal Genetics
Institute for the Study of Child Development
Ira B. Black Center for Stem Cell Research
Leukemia/Lymphoma Study Center
Lipid Disorder Center
Lyme Disease Center
Melanoma and Sarcoma Center
National Institute of Environmental Health Sciences Center of Excellence
Neuromuscular and ALS Center
New Jersey Comprehensive Breast Care Center
New Jersey Pain Institute
New Jersey Regional Hemophilia Program
Osteoporosis Center
Ozone Research Center
Perinatal Institute
Regional Cleft/Craniofacial Programs of Southern New Jersey (Camden)
Psoriasis Clinic Research Disease Center
Robert Wood Johnson Dialysis Center
Scleroderma Program
SIDS Center of New Jersey
Sports Medicine Center
Stem Cell Institute of New Jersey
The Robert Wood Johnson Autism Center
Thoracic Tumor Study Group Center
Thrombosis Center
Trauma Center
University Center for Disaster Preparedness and Emergency Response
University Center for Reproductive Endocrinology and Fertility
Vascular Center of New Jersey
Women's Health Institute

NEW JERSEY DENTAL SCHOOL

Advanced Technology Education Center
Center for Oral Infectious Diseases
Center for Pharmacogenomics & Complex Disease Research
Center for Temporomandibular Disorders and Orofacial Pain
Ina and Howard Drew Maxillofacial Imaging Center

Special Care Treatment Center
Northeastern Minority Oral Health Research Center
University Craniofacial Center of New Jersey

SCHOOL OF OSTEOPATHIC MEDICINE

Cell and Gene Therapy Center
Center for Information Mastery (CIM)
Center for Weight Loss and Metabolic Control
Center for Mental Health Treatment for Persons with Intellectual Disabilities
Center for Mood Disorders and Neuromodulation Therapies
Center for Teaching and Learning
Center for Wellness
Child Abuse Research Education and Service (CARES) Institute
Geriatric Education Center
NeuroMusculoskeletal Institute (NMI)
New Jersey Institute for Successful Aging (NJISA)
Pain and Headache Center

SCHOOL OF HEALTH RELATED PROFESSIONS

Center for Advanced and Continuing Education
Center for Health Informatics
Center for the Study and Promotion of Recovery from Severe Mental Illness
Institute for Complementary and Alternative Medicine
Institute for Nutrition Intervention
Integrated Employment Institute
Multimedia Health Care Teaching Center

SCHOOL OF NURSING

Center for Life Long Learning
François Xavier Bagnoud Center
New Jersey Center for Evidence-Based Practice at UMDNJ-School of Nursing
Stanley S. Bergen, Jr., MD Center for Multicultural Education, Research and Practice

SCHOOL OF PUBLIC HEALTH

Centers for Education and Training
Center for Global Public Health
Center for Health Economics and Health Policy
Center for School and Community-Based Research and Education
Center for Tobacco Surveillance & Evaluation Research
New Jersey Center for Public Health Preparedness at UMDNJ

UNIVERSITY BEHAVIORAL HEALTHCARE

Behavioral Research and Training Institute
Institute for Alzheimer's Disease and Related Disorders
Violence Institute of New Jersey at UMD

MAJOR TEACHING FACILITIES

NEW JERSEY MEDICAL SCHOOL

- UMDNJ-University Hospital
- Hackensack University Medical Center
- Department of Veterans Affairs, New Jersey Health Care System – East Orange
- Saint Barnabas Health Care System/Saint Barnabas Medical Center
- Saint Barnabas Health Care System/Newark Beth Israel Medical Center
- Saint Joseph's Regional Medical Center

ROBERT WOOD JOHNSON MEDICAL SCHOOL

- The Cooper Health System
- Robert Wood Johnson University Hospital
- Meridian Hospitals Corporation/Jersey Shore University Medical Center
- University Medical Center at Princeton
- Raritan Bay Health Services Corporation/Raritan Bay Medical Center
- Somerset Medical Center

SCHOOL OF OSTEOPATHIC MEDICINE

- Kennedy Memorial Hospitals-University Medical Center
- Lourdes Health System

UNIVERSITY HEALTH CARE FACILITIES

Cancer Institute of New Jersey

195 Little Albany Street
New Brunswick, New Jersey 08901

New Jersey Medical School-University Hospital Cancer Center

205 South Orange Avenue
Newark, New Jersey 07101

Child Health Institute of New Jersey

89 French Street
New Brunswick, NJ 08901

Eric B. Chandler Health Center

277 George Street
New Brunswick, New Jersey 08901

Eric B. Chandler Health Center Church Street Annex

123 Church Street
New Brunswick, NJ 08901

New Jersey Medical School Doctors Office Center

90 Bergen Street
Post Office Box 1709
Newark, New Jersey 07101-1709

New Jersey Medical School - The North Jersey Orthopaedics Institute

33 Overlook Road
MAC Suite L02
Summit, New Jersey 07901

UMDNJ – North Jersey Orthopaedics Institute

142 Palisades Avenue, Suite 205
Jersey City, New Jersey 07306

New Jersey Medical School - The Institute of Ophthalmology and Visual Science

556 Eagle Rock Avenue, Suite 206
Roseland, New Jersey 07068

New Jersey Medical School - National Tuberculosis Center

225 Warren Street, 1st Floor
Newark, New Jersey 07101
(Pulmonology)

Robert Wood Johnson Medical School Clinical Academic Building

125 Paterson Street
New Brunswick, New Jersey 08901-1977

UMDNJ-University Hospital

150 Bergen Street
Post Office Box 1709
Newark, New Jersey 07101-1709

UMDNJ-Ambulatory Care Center

140 Bergen Street
Newark, New Jersey 07103

University Behavioral HealthCare at Newark

183 South Orange Avenue
Post Office Box 1709
Newark, New Jersey 07101-1709

University Behavioral HealthCare at Piscataway

671 Hoes Lane
Piscataway, New Jersey 08854-1392

Robert Wood Johnson Medical Group

Department of OB/GYN – MFM
292 Bloomfield Avenue – 2nd Floor
Montclair, New Jersey 07042

**Robert Wood Johnson Medical Group Family Practice at
Monument Square**

317 George Street
New Brunswick, New Jersey 08901

Robert Wood Johnson Medical Group at Monroe

18 Centre Drive, Suite 104
Monroe Twp., New Jersey 08831

Robert Wood Johnson Medical Group at Princeton

800 Bunn Drive, Suite 303
Princeton, New Jersey 08540

Robert Wood Johnson Medical Group at Somerset

One Worlds Fair Drive
Somerset, New Jersey 08873

School of Osteopathic Medicine – The University Doctors at Cherry Hill

Rutgers Casualty Building
2250 Chapel Avenue, Suite 110 – Family Medicine
Cherry Hill, New Jersey 08002

2250 Chapel Avenue, Suite 100 – Psychiatry
Cherry Hill, New Jersey 08002

School of Osteopathic Medicine – The University Doctors at Hainesport

310 Creek Crossing Blvd. – Family Medicine
Hainesport, New Jersey 08036

School of Osteopathic Medicine – The University Doctors at Hammonton

373 White Horse Pike – Family Medicine
Hammonton, New Jersey 08037

School of Osteopathic Medicine – The University Doctors at Stratford

University Doctors' Pavilion – New Jersey Institute for Successful Aging,
NeuroMusculoskeletal Institute, Headache Center, CARES Institute,
Family Medicine, Surgery, Obstetrics & Gynecology, Medicine, Physical
Therapy, Orthopedics, Osteopathic Manipulative Medicine, and Sports
Medicine

42 East Laurel Road
Stratford, New Jersey 08084-1350

Academic Center – Wellness Center/Nutrition & Weight Loss

One Medical Center Drive
Stratford, New Jersey 08084-1350

109 East Laurel Road – Center for Excellence for the Mental Health Treatment of
Persons with Intellectual Disabilities

Stratford, New Jersey 08084

School of Osteopathic Medicine – The University Doctors at Voorhees

Pavilions at Voorhees – Internal Medicine

2301 Evesham Road, Suite 202

Voorhees, New Jersey 08043

**School of Osteopathic Medicine – The University Doctors at Washington
Township**

570 Egg Harbor Road – Family Medicine, Medicine, Obstetrics & Gynecology,
Orthopedics, Surgery, and NeuroMusculoskeletal Institute

Suite C2

Sewell, New Jersey 08080

400 Medical Center Drive – Internal Medicine

Suite – E

Sewell, New Jersey 08080

405 Hurffville-Cross Keys Road – Pediatrics/Adolescent Medicine

Suite 203

Sewell, New Jersey 08080

School of Osteopathic Medicine – Hospital-Based Units

Lourdes Medical Center of Burlington County

218 Sunset Road

Willingboro, New Jersey 08046

Our Lady of Lourdes Medical Center

1600 Haddon Avenue

Camden, New Jersey 08101

Kennedy Memorial Hospital – Stratford Division
18 East Laurel Road
Stratford, New Jersey 08084

Kennedy Memorial Hospital – Washington Township Division
435 Hurffville-Cross Keys Road
Turnersville, New Jersey 08012

Kennedy Memorial Hospital – Cherry Hill Division
2201 Chapel Avenue West
Cherry Hill, New Jersey 08002

New Jersey Dental School (334 operatories)
110 Bergen Street
Newark, New Jersey 07101-1709

New Jersey Dental School Center for Dental and Oral Health
90 Bergen Street, Suite 7700
Post Office Box 1709
Newark, New Jersey 07101-1709

New Jersey Dental School Statewide Network for Community Oral Health
University Dental Center at Galloway
4 East Jimmy Leeds Road
Building 2, Suite 6
Galloway, New Jersey 08205

University Dental Center at Matheny Medical and Educational Center
Post Office Box 339 Main Street
Peapack, New Jersey 07977

University Dental Center at Somerdale Square
13 Somerdale Square
Somerdale, New Jersey 08083

University John H. Cronin Dental/Medical Center
235 Dolphin Avenue
Northfield, New Jersey 08225

School of Health Related Professions Allied Dental Clinic
1776 Raritan Road
Scotch Plains, New Jersey 07076

School of Nursing Mobile Health Project
65 Bergen Street, 8th Floor
Newark, New Jersey 07101-1709

The Jordan and Harris Community Health Center
11 Hawkins Court
Newark, NJ 07105

CLINICAL AFFILIATES

UMDNJ-NEW JERSEY MEDICAL SCHOOL

| | |
|--|--|
| Atlantic Health Systems Hospital Corp./Morristown Memorial Hospital (Affiliated Residency Program) | Jersey City Medical Center (Affiliated Residency Program) |
| Atlantic Health Systems Hospital Corp./Overlook Hospital (Affiliated Residency Program) | Kessler Institute for Rehabilitation (Affiliated Residency Program) |
| Bergen Regional Medical Center | Merit Health Systems, LLC/Mountainside Hospital (Affiliated Residency Program) |
| Care Alternatives (Hospice) | Methany Medical and Educational Center (Affiliated Residency Program) |
| Children's Eye Care Center with Clara Maass Medical Center | New Community Extended Care Facility (Nursing Home) |
| Children's Specialized Hospital (Affiliated Ophthalmology Residency Program) | North Hudson Community Action Corporation |
| Chrill Visiting Nurse Association (Home Care Agency) | Robert Wood Johnson University Hospital (Affiliated Residency Program) |
| Clara Maass Medical Center (Affiliated Residency Program) | St. Joseph's Visiting Health Services of NJ (Home Care Agency) |
| Compassionate Care Hospice (Home Care Agency) (UME) | St. Michael's Medical Center |
| Englewood Hospital and Medical Center (Affiliated Residency Program) | Trinitas Hospital (UME and Affiliated Residency Program) |
| Essex Valley Visiting Nurse Association (Home Care Agency) | UMDNJ-University Behavioral HealthCare |
| Greystone Park Psychiatric Associates | University Reproductive Associates (Affiliated Residency Program) |
| | Vitas (Home Care Agency) |

UMDNJ-ROBERT WOOD JOHNSON MEDICAL SCHOOL

| | |
|---|--|
| Atlantic Health System/Morristown Memorial Hospital | Memorial Hospital for Cancer and Allied Diseases, Inc. |
| Atlantic Health System/Mountainside Hospital (Affiliated Family Practice Residency Program) | New Jersey Department of Health and Senior Services |
| Atlantic Health System/Overlook Hospital | Robert Wood Johnson University Hospital at Rahway |
| Bayshore Community Hospital | Robert Wood Johnson University Hospital at Hamilton |
| Capital Health Systems | Southern Ocean County Hospital |
| Care One | St. Francis Medical Center |
| Carrier Foundation | St. Joseph's Medical Center (Affiliated Family Practice Residency Program) |
| CentraState Medical Center | St. Peter's University Hospital |
| Children's Specialized Hospital | The New York and Presbyterian Hospital |
| Deborah Heart and Lung Center | Rutgers University Health Services |
| Department of Veterans Affairs, NJ Health Care System-Lyons | Staten Island University Hospital |
| Francis E. Parker Memorial Home | UMDNJ-University Behavioral Health Care |
| Hunterdon Medical Center (Affiliated Family Practice Residency Program) | Warren Hospital (Affiliated Family Practice Residency Program) |
| John F. Kennedy Medical Center | West Jersey Hospital (Affiliated Family Practice Residency Program) |
| Lyons VA Medical Center | |
| Matheny School and Hospital | |

UMDNJ-SCHOOL OF OSTEOPATHIC MEDICINE

| | |
|--|--|
| Albert Einstein Medical Center | Lutheran Care at Moorestown |
| Ancora Psychiatric Hospital | Ocean Medical Center/Meridian/Jersey Shore Medical Center |
| Atlantic Health System | Mid Atlantic Stone Center |
| AtlantiCare Regional Medical Center | New York Hospital – Queens |
| Bright View Mt. Laurel & Green Tree | Philadelphia College of Osteopathic Medicine (PCOM) |
| Cadbury at Cherry Hill | Reading Hospital and Medical Center |
| Camden County Health Services Center | St. Christopher's Hospital |
| Christ Hospital | St. Joseph's Regional Medical Center |
| Christiana Care Health Services | St. Mary's Catholic Home |
| Cooper University Hospital | South Jersey Healthcare |
| Deborah Hospital Heart and Lung Center | Summit Surgical Center |
| Dupont Hospital for Children | Surgical Center of South Jersey, LLC |
| Fox Chase Cancer Center | Thomas Jefferson University Hospital |
| Good Samaritan Hospice | University of Pennsylvania Health System |
| HCR Manor Care | V.A. Hospital, Wilmington, Delaware |
| Health South Surgical Mt. Laurel | Virtua – West Jersey Health System, Inc. |
| Innova Health and Rehabilitation | Vitas Healthcare Corporation |
| Lions Gate | |

UMDNJ-NEW JERSEY DENTAL SCHOOL

| | |
|--|--|
| Access One, Inc. (Atlantic County) | Metropolitan Area Neighborhood Nutrition Agreement (MANNA) Alliance |
| Atlantic County Contract | South Jersey AIDS Alliance |
| Cooper Health System, Early Intervention Program | Southern New Jersey Regional Family HIV Treatment Center |
| Gloucester County Special Services School District | |
| Kennedy Health Systems, Early Intervention Program | |
| Matheny Medical and Educational Center (Peapack) | |

UMDNJ-SCHOOL OF NURSING

| | |
|--|--|
| Acelero Learning Center Early Head Start | Chilton Memorial Hospital |
| Alder Aphasia Center | Christ Hospital |
| Atlantic Health System | Christian Healthcare Center |
| Amboy Memorial Hospital Ancora Psychiatric Hospital | City of Newark Department of Health and Human Services |
| Ancora County Division of Public Health | Clinton Hill Community & Early Childhood Center, Inc. |
| Babyland Family Services, Inc. | Community YMCA Services |
| Bergen Regional Medical Center | Compassionate Care Hospice |
| Bobbie's Babies | Cooper Health System |
| Broadway House for Continuing Care | County of Middlesex |
| Burlington County Department of Health | Covenant House |
| Camden County CDI Head Start | DCF-DYFS |
| Camden County Department of Health & Human Services | Delaware Valley Urology |
| Camden County OEO Head Start | Dominican College |
| Cancer Institute of New Jersey | Drexel University |
| Capital Health | Drexel University College of Nursing and Health Professions |
| Casa Israel | East Orange General Hospital |
| Center for Family Guidance | East Orange Health & Human Services |
| Center for Woman's Health | Eastern Children's Christian Retreat |
| Central New Jersey Child and Mental Health Consortium | Elijah's Soup Kitchen |
| Children's Health Fund | Englewood Hospital and Medical Center |
| Children's Specialized Hospital | |

Englewood Hospital and Medical
 Center/Englewood Home Care
 Eric B. Chandler Health Center
 Essex County Hospital Center
 Essex Valley Visiting Nurses Association
 Fairview Urban Renewal Associates, LP
 Fairleigh Dickinson University Henry P. Becton
 School of Nursing
 Felician College Division of Health Sciences
 Professional Nursing Program
 FOCUS
 Garfield Board of Education
 Gateway Northwest Maternal Child Consortium
 Gittens, Colin
 Greystone Park Psychiatric Hospital
 Hackensack University Medical Hospital
 Henry J. Austin Health Center
 Hillsdale Health Department
 Hispanic Development Corporation
 Holy Name Hospital-School of Nursing
 Holy Redeemer Home Care
 Home Health Agency of Hackensack Medical Center
 Horizons Health Center
 Housing Authority of Plainfield
 Housing Authority of the Township of Irvington
 Hudson Healthcare, Inc.
 Hunterdon Medical Center
 Integrity House
 Internet Medical Group
 Ironbound Community Corporation
 Jefferson Park Ministries, Inc.
 Jefferson University Physicians and Thomas Jefferson
 University Hospital, Inc.
 Jersey City Medical Center
 Jersey Shore Medical Center
 Jewish Home at Rockleigh
 JFK Medical Center
 Joslin Center
 Kennedy Memorial Hospitals-University Medical
 Center, Inc.
 Kessler Memorial Hospital
 Kindred Hospital of New Jersey-Rahway
 Laurel Springs Elementary School
 Lawnside School District
 Leaguers, Inc.
 Livingston Health Department
 Long Island Jewish Medical Center
 Masonic Home of New Jersey
 MCOSS
 Medical Center of Ocean County
 Memorial Hospital of Burlington County
 Memorial Hospital for Cancer and Allied
 Diseases/Memorial Sloan
 Mental Health Resource Center
 Middlesex County Public Health Department
 Minute Clinic Diagnostic
 Mogodin, Mpho Saie MBChB, MPH
 Montefiore Medical Center
 Morristown Memorial Hospital
 Newcomb Medical Center
 New Jersey Veterans Home - Paramus
 New Jersey Veterans Memorial Home
 New York Methodist Hospital
 New York Presbyterian Hospital
 New York University Hospitals Center
 Newark Beth Israel Medical Center
 Newark Community Health Center
 Newark Now/Family Success Center
 Newark Preschool Council, Inc.
 North Shore University Hospital
 Offender Aid and Restoration of Essex County
 Our Lady of Lourdes Medical Center
 Overlook Family Practice
 Palisades Medical Center
 Pascack Valley Hospital
 Phelps Memorial Hospital Center
 Physicians and Nurse Practitioners Group, PC
 Piscataway Senior Center
 Planned Parenthood of Metropolitan New Jersey
 Planned Parenthood/Great Camden Area
 Precious Littles Early Childhood Development Center,
 Inc.
 Rahway Hospital
 Rancocas Hospital
 Raritan Bay Medical Center
 Ready Healthcare
 Reliance Medical Group, LLC
 Robert Wood Johnson University Hospital
 Robert Wood Johnson University Hospital-Hamilton
 Rowan University
 Royal Adelaide Hospital
 Ryan White Treatment Modernization Act-Part A
 Salerno Medical Associates, LIP
 Samaritan Hospital
 Second Home Adult Medical Center
 Shore Memorial Hospital
 Silver Care Center
 Silver Court Nursing Center, Inc.
 Somerset Medical Center
 Southern Ocean County Hospital
 SSM Ambulatory Care
 St. Barnabas Medical Center

St. Barnabas HealthCare System
 St. Claire's Hospital
 St. Francis Medical Center
 St. James Hospital
 St. John of God Health Center
 St. Joseph's Hospital and Medical Center
 St. Lukes-Roosevelt Hospital Center
 St. Mary's Hospital
 St. Mary's Hospital Community Mental Health Center
 St. Mary's Hospital in Passaic
 St. Michael's Medical Center
 St. Peter's University Hospital
 Sterling High School
 Summit Oaks Hospital
 Sunset Road Medical Associates, PA
 Thomas Edison State College
 Township of Edison and Edison Department of Health
 and Human Services
 Trenton Psychiatric Hospital
 Trinitas Hospital
 Underwood Hospital-Family Practice Center
 Underwood Memorial Hospital

Union Hospital
 Union Township Public Schools
 United Health Care System
 United Hospitals Medical Center-Children's Hospital of
 New Jersey
 University Correctional HealthCare
 University Health Services-Princeton University
 VA New Jersey Health Care Systems
 Valley Diagnostics
 Valley Hospital
 Veterans Affairs Medical Center Office of Research
 and Development
 Veterans Memorial Home
 Virtua Health
 Visiting Nurse Affiliates
 Visiting Nurse Association of Central Jersey
 Voorhees Pediatric Facility
 Weisman Children's Rehabilitation Hospital
 West Jersey Occupational Health Services
 Wiley Christian Retirement Community
 Women's Health & Counseling Center
 YCS

UMDNJ-SCHOOL OF HEALTH RELATED PROFESSIONS

1st Cerebral Palsy of NJ
 A. Harry Moore
 A.R. Rehabilitation and Physical Therapy Associates
 Abilities Center of Southern NJ, Inc.
 Access Physical Therapy
 Access Rehab Centers
 Active Care Physical Therapy
 Adams Center at Long Island University
 Adena Health System
 Advanced Medical Imaging
 Advanced Physical Therapy Associates
 AHS Hospital (Corp)
 Alamos-Belmont Rehab Hospital
 Albert Einstein Healthcare
 Albert Einstein Medical Center
 Alfred I. DuPont Institute
 All Care Physical Therapy Center
 All Saints Health Care System, Inc.
 Alliance Hand & PT, Inc.
 Alternatives, Inc.
 Angela Skinner
 Applied Nutrition Corp.
 Arbor Glen Center & Genesis Eldercare Network
 ARC Kohler School
 Archway School
 Ashland Facility Operations, LLC
 Aspen Physical Therapy
 Associated Rehabilitation Services

AtHome Medical
 Atlantic Cardiology Group
 Atlantic Care Behavioral Health
 Atlantic City Medical Center
 Atlantic Health Systems, Inc. (AHS)
 Atlantic Hospital Corp. (AHS Hospital)
 Atlantic Orthopedic & Sports Physical Therapy
 Atlantic Rehabilitation Services
 AtlanticCare
 Atrium at Matawan LLC dba Victoria Healthcare
 Center
 Atrium at Park Ridge dba Plaza Regency at Park
 Ridge
 Atrium at Princeton LLC dba Pavilions at Forrestall
 Atrium at Wayne
 Atrium Medical Center
 Aurora Healthcare
 Avanthi Rao PT
 Balanced Nutrition, Inc.
 Bancroft NeuroHealth
 Baptist Medical Center
 Baptist Regional Medical Center
 Barnegat Sports Rehabilitation & Physical Therapy
 Barone and Catania Cardiovascular Group
 Barstow Community Hospital
 Bay Sport Physical Therapy
 Bayonne Medical Center
 Bayshore Community Hospital

Bergen County Special Services School District
 Bergen Regional Medical Center
 Beth Israel Medical Center
 Betty Bacharach Rehab Hospital
 Bio-Medical Applications of Fredericksburg Dialysis Inc.
 BioMedical Applications of Maine (BMA) a.k.a. S'Maine Dialysis
 Black River Technical College
 BREAKTHRU Physical Therapy
 Bridgeway Rehabilitation Services
 Briody Healthcare
 Broadway Physical Therapy
 Bryn Mawr
 Burke Rehabilitation Hospital PT
 Burlington County Special Services School District
 Burlington County College (BCC)
 Butler County WIC
 Caldwell Therapy Center
 Camcare
 Camden Clark Memorial Hospital
 Cape Cod Hospital
 Cape May County Special Services
 Cape Regional Medical Center
 Capital Care
 Cardinal Health System, Inc.
 Cardinal Health Radiopharmacy
 Cardiovascular Care Group
 Care One @ Evesham
 CareOne at Teaneck
 CareOne, LLC
 Carolinas Medical Center-Lincoln
 Catholic Charities Diocese of Metuchen
 Catholic Charities Diocese of Trenton
 Center for Advanced Wound Care
 Center for Family Services
 Center for Physical Therapy & Sports Rehabilitation
 Central Penn Sports Medicine
 CentraState Healthcare System
 CentraState Medical Center
 Cerebral Palsy Center in Edison, NJ
 Cerebral Palsy Center of Camden County
 Cerebral Palsy Center of North Jersey
 Cerebral Palsy Center of Union County
 Cherry Hill PT Associates
 Children's Hospital of Philadelphia
 Children's Specialized Hospital
 Children's Therapy Services
 Chilton Memorial Hospital
 Christ Hospital
 Churchill Orthopedic Rehabilitation
 Cincinnati Children's Hospital Medical Center
 Clara Maass Medical Center
 Clinical Lab Management Assoc. (CLMA)
 Collaborative Support Programs
 Columbia River Mental Health Services (CRMHS)
 Columbia University
 Community Action
 Community Care, Inc.
 Community Food Bank of New Jersey
 Community Health Center of Branch County
 Community Hospital Group
 Community Medical Center
 Community Medical Center Scranton PA
 Community Physical Therapists
 Community Therapy Center
 Comprehensive Sports Care Specialists
 Concentra Medical Centers
 Concord Hospital
 Continuum Health Alliance, LLC
 Cooper Health System
 CPC Behavioral Healthcare
 Cranford Health and Extended Care
 Crozer Chester Medical Center
 Cumberland County Guidance Center –Psych Rehab
 Cybergistics, Inc.
 DaVita, Inc. (DVA Healthcare Renal Care)
 Deborah Heart & Lung Center
 Delaware Division of Vocational Rehabilitation
 Delaware Valley Physical Therapy Associates
 Department of Veterans Affairs (VA)
 Diabetes and Endocrinology Associates
 Dialysis Clinic, Inc.
 Dianne Chiappetti
 Duke University Health System d/b/a Durham Regional Hospital
 Durham County General Hospital
 East Orange General Hospital
 East Penn Sports Medicine
 Easter Seal Rehabilitation Center
 Easter Seals New Jersey
 Eastern Long Island Hospital
 Eastern Maine Medical Center
 El Paso County Hospital District
 Elmer Platz, PT
 Employment Horizons
 Englewood Cliffs Physical Therapy
 Englewood Hospital & Medical Center
 Erie County Medical Center
 Essex County Probation Department
 Essex County Vocational/Technical Schools
 Everfit Physical Therapy and Fitness
 Fairfield Physical Therapy Center
 Family Connections
 Family Service of Burlington County
 Faulkner Physical Therapy group
 FEDCAP Rehabilitation Service, Inc.
 First Children Schools
 Five Rivers Medical Center
 Flipany

Forest Hill Healthcare Center
 Fox Rehabilitation Services
 Franklin Care Center
 Fresenius Medical Services, Inc.
 Garden Manor Extended Care Facility
 Garden/Sullivan Hospital
 Gateway Day Treatment Program
 Geisinger Medical Center
 Generations, Inc.
 Genesis Healthcare System
 Gerber Products Company
 Gloucester County Department of Health
 Gloucester County Special Services School District
 Goleta Valley Community Hospital
 Good Samaritan Hospital
 Goodwill Industries of Greater NY & Northern NJ, Inc.
 Grandview Hospital
 Greenbrook Manor
 Greystone Park Psychiatric Hospital
 Guilford Orthopaedic and Sports Medicine Center
 Hackensack University Medical Center
 Hackettstown Regional Medical Center
 HAHV Kingston Hospital
 Hanover General Hospital
 Harrisburg Hospital
 Harvard Community Health Plan
 Haym Salomon Home for Nursing Rehab
 Hazard Health and Rehabilitation Center
 HCA – HealthOne, LLC
 Health Barn USA
 Health Center of Galloway
 Health Quest
 Healthcare Services Group, Inc.
 Healthcare Virginia, Inc
 HealthSouth Corporation
 Heartland of Miamisburg
 Heartland Rehab Services
 Helen Hayes Hospital
 Helping Hand Behavioral Health- Galloway
 Henrietta Goodall Hospital
 Her Health PT
 Heritage Community of Kalamazoo
 Holly Dell, Inc.
 Holy Cross Hospital
 Holy Name Hospital
 Hoover Hospital
 Huggins Hospital
 Hunterdon Developmental Center
 Hunterdon Medical Center
 Hunterdon Physical & Sports Therapy
 IHC Health Serv dba Pocatello Reg'l Med Ctr
 Image Guided Surgery and Aesthetics
 In Motion Physical Therapy
 Independence Rehabilitation
 Inglemoor Rehabilitation and Care Center
 Inglis House
 Inland Hospital Rehabworks
 Integra Life Sciences, Inc.
 Intergrated Health Serv @ Somerset Valley
 IOM Health System, LP
 IslandSports Physical Therapy
 Ivy Rehab
 Jersey Central Physical Therapy & Fitness
 Jersey City Medical Center
 Jersey City Public School
 Jersey Coast Vascular Institute
 Jersey Shore University Medical Center
 Jewish Family & Vocational Service of Middlesex
 County
 Jewish Hospital & Rehab Center
 JFK Medical Center
 Johns Hopkins Hospital
 John Knox Village
 John Mather Memorial Hospital
 Joyner Sports Medicine Institute
 Kean University
 Kennedy Health Systems
 Kennedy Hospitals @ Cherry Hill
 Kennedy Hospitals @ Stratford
 Kennedy Memorial Hospitals - University Medical
 Center, Inc
 Kentucky River District Health Department
 Kessler Institute for Rehabilitation
 Keystone Human Services MidAtlantic
 Kinetic Physical Therapy
 Kopack Physical Therapy and Sports Medicine
 Ladacin
 Lakeview Subacute Care Center
 Laurel House
 Lawnwood Regional Medical Center
 Lenape Valley Foundation
 Lenox Hill Hospital
 Lewes Physical Therapy
 Liberty Health Systems
 Life Care Medical Center
 Lock Haven Hospital
 Logan Health Care Center
 Long Island Sports and Rehab Center
 Louisiana State University Health Sciences Center
 Lutheran Medical Center
 Lutheran Musculoskeletal Center, LLC
 Madison Spine and Physical Therapy
 Magee Rehab at Voorhees
 Main Line Health System
 Manna
 Manor Care Corporation
 Maple Leaf Physical Therapy
 Margate Physical Therapy
 Maria Joseph Living Care Center
 Mariner Health Pendelton

Marlboro Physical Therapy
 Marshfield Clinical Cytotechnology Program
 Matheny Medical & Educational Center
 Maven Physical Therapy
 Meadowlands Hospital Medical Center
 Medbridge
 Medford Care Center
 Medical Center of Princeton
 Medical Imaging of Teaneck
 Medicorp Health System
 Mediplex Rehabilitation Hospital of Marlton
 Memorial Medical Center at South Amboy
 Memphis-Shelby County Health Dept.
 Mental Health Association of Essex County
 Mental Health Association of Southeastern
 Pennsylvania
 Mercer Bucks Sports Medical Ctr.
 Mercer Medical Center
 Mercy Health System
 Meridian Hospital Corporation
 Merit Care Hospital d/b/a Merit Care Medical Center
 Merit Mountainside, LLC d/b/a Mountainside Hospital
 Mesa County Board of Health
 Methodist Healthcare System of San Antonio, Ltd.
 Metrowest Braintree Rehab Associates
 Miami's Children's Hospital
 Mile Square Physical Therapy
 Millennium Respiratory Services
 Mon Valley Community Health Services Inc
 Monmouth Medical Center
 Montclair and Nutley High School
 Morristown Memorial Hospital
 Morristown Sports Medicine Ctr
 Morse Geriatric Center
 Mount Carmel Guild Behavioral Healthcare System
 Mountainside Hospital
 MRI of Woodbridge
 Muhlenberg Regional Medical Center
 Mullaney & Associates Physical Therapy
 Multiple Handicapped Program
 NAVAJO Area Indian Health Service
 Nazareth Hospital
 Neighborhood Health Services Corporation
 Neilson Place
 Neurac Institute for Physical Therapy
 New England Hospital of Portland
 New Jersey Cancer Institute
 New Jersey Center of Physical Therapy
 New Jersey City University
 New Jersey Dept. of Human Services
 New Jersey Hospital Association
 New Jersey Office of the Medical Examiner
 Newark Beth Israel Medical Center
 Newark Therapy Services
 Newcomb Medical Center
 Newton Memorial Hospital
 North County Regional Hospital
 North Inc.
 North Jersey Developmental Ctr.
 Northeast Arkansas Baptist Memorial Health Care
 Northern Hills Physical Therapy Associates
 Northern Westchester Hospital
 Northwest Essex Comm Healthcare Network
 Northwestern Human Services of Delaware County
 Northwoods Rehab & Extended Care at Hilltop
 NovaCare Outpatient Rehab
 NYU Hospitals Center
 OBICI Hospital
 Ocean County Vocational Technical School - Health
 Careers
 Olean General Hospital
 Olmsted Medical Center
 Opportunity Alliance
 Optimum Orthopedics
 Orchard Manor Residential Healthcare Facility
 Our Lady of Lourdes Health Care Services, Inc
 Our Lady of Lourdes Medical Center
 Overlook Hospital
 Palisades General Hospital
 Palisades Medical Center
 Palomar Pomerado Hospital
 Paragon at Morris View Nursing Home
 Paragon, Inc.
 Passaic Pediatrics
 Pathmark Stores, Inc.
 Pathways to Independence, Inc.
 Paul Schweitzer's Therapy and Rehab
 Pediatric Rehabilitation of North Jersey
 Pediatric Workshop
 Peninsula Regional Medical Center
 Penn State (The Milton S. Hershey Center)
 Pennsylvania Hospital
 Pennsylvania Rehab
 Pfizer, Inc.
 PG Chambers School
 Philadelphia Post-Acute Partners
 Phillipsburg Physical Therapy
 Physical Therapy Sports Medicine Center At Quest
 Physiocare Rehabilitation
 Physiofitness
 Physiotherapy Corporation
 Pinnacle Health Hospitals
 Portneuf Medical Center
 Presbyterian Hospital in the City of New York
 Primary Children's Medical Center
 Procure Rehabilitation
 Professional Sports Care
 Project Live, Inc
 Promise
 Prospect Heights Care Center

Providence Hospital
 Provider Services
 Quest Diagnostics
 Racine/Kenusha Community Action
 Rahway Hospital
 RAI Dialysis
 Ramapo College of New Jersey
 Raritan Bay Medical Center
 Regent Care Center
 Regional Women's Health Management, LLC
 Rehab 2000, Inc.
 Rehabworks
 Renal Treatment Centers-Illinois, Inc.
 Richard Stockton College
 Richmond University Medical Center
 Rickard Rehab Services Inc.
 Ridgewood Physical Therapy & Rehabilitation Center,
 Inc
 Riptide Physical Therapy, Inc.
 Robert Wood Johnson Hamilton Diabetes &
 Endocrinology Group PA
 Robert Wood Johnson University Hospital - Hamilton
 Robert Wood Johnson University Hospital - Rahway
 Robert Wood Johnson-University Hospital
 Roche Biomedical Laboratories, Inc.
 Rolling Hills Hospital
 Ross County Health Department
 Runnells Specialized Hospital
 Rutgers Cooperative Extension of Hunterdon County
 Rutgers State University
 Rutgers University-Newark
 Rutherford County WIC Program
 Rutherford Regional Health System
 Sai's Biosciences Research Institute PVT, LTD
 Saint Barnabas Medical Center
 Saint Peter's University Hospital, INC
 Salem County Career and Technical High School
 Samaritan Bethany, Inc
 Sea View Hospital Rehabilitation Center and Home
 Seed of Health WIC
 Select Specialty Hospital Johnstown, Inc.
 SERV Center of NJ
 Shore Memorial Hospital
 Silver Care Center
 Sodexo-Christ Hospital
 Somerset County Office of Aging
 Somerset Hills Physical Therapy
 Somerset Medical Center
 South Amboy Memorial Hospital
 South Jersey Healthcare System
 Southampton Hospital
 Southcoast Hospitals
 Southern Maine Medical Center
 Spine and Orthopedic Physical Therapy Ctr.
 Sports Physical Therapy Inc.
 Sports Rehab and Physical Therapy
 Sports Rehab of Manhasset
 Sports Training Physical Therapy of NJ
 St Francis Medical Center
 St Vincent's Hospital and Healthcare, Inc
 St. Agnes Medical Center
 St. Andre
 St. Barnabas Medical Center
 St. Barnabas Outpatient Radiology Center
 St. Bernards Healthcare
 St. Clare's Hospital Inc
 St. Elizabeth's Hospital
 St. John of God Community Services
 St. Joseph's Regional Medical Center
 St. Joseph's Wayne Hospital
 St. Lucie County Health Department
 St. Mary's Child Development Center
 St. Mary's Regional Medical Center-Lewiston Maine
 St. Mary's Medical Center
 St. Michael's Medical Center
 St. Peter's University Hospital
 St. Tammany Parish Hospital Service District
 State of Florida, Dept of Health, Palm Beach County
 Health Dept
 State University of New York
 Staten Island University Hospital
 Summa Wadsworth Rittman Hospital
 Tel Hai College, Israel
 Tel Hai Retirement Community
 Tenet HealthSystem Graduate
 The Arc of Camden County
 The ARC of Somerset County
 The Children's Medical Center
 The Cooper Health System
 The County of Camden
 The County of Gloucester
 The Health Center of Plant City
 The Lennard Clinic, Inc.
 The Medical Center at Princeton
 The Mt. Sinai School of Medicine
 The New York and Presbyterian Facility
 The Valley Hospital
 Township SportsTherapy & Work Hardening –
 Novacare
 Traditions at Bristol Village
 Trinitas Hospital
 Triumph Healthcare
 Turning Point Inc.
 UMDNJ - University Correctional HealthCare
 Union County Dept. of Human Services
 United Cerebral Palsy of Philadelphia
 United Memorial Medical Center
 University of Hartford
 University of Pennsylvania Medical Center
 University of Pittsburgh Medical Center

US Foodservice
US Renal Care
VA Connecticut Healthcare System
VA Hospital
VA Medical Center
VA Medical Center Lebanon
VA Midsouth Healthcare Network VISN 9
VA Network - South Texas
VA New Jersey Health Care System
VA New York Harbor Healthcare System (VISN 3)
VA Pittsburgh Healthcare System
VA Stars and Strips Healthcare Network
Valley Health System
Valley Hospital
Vascular Access Centers
Verrazano Radiology
Vineland Developmental Center
Vinton County WIC
Virtua Health, Inc
Virtua Voorhees
Visiting Nurse Association of Central Jersey, Inc
Visiting Nurses Assoc of NJ
VNACJ, Inc
Volunteers of America
Voorhees Pediatric Facility
Warren County Technical School
Warren Hospital
Warren Manor
Wasatch Valley Rehabilitation
Waterville Osteopathic Hospital
Wayne Memorial Hospital
Wayne View Care Center
Welkind Rehab Hospital
WellStar Health System, Inc.
West Bergen Mental Healthcare
West Caldwell Care Center
West Hudson Hospital
West Jersey Health System
West Palm Beach VA Medical Center
Western Maine Community Action
WIC
WVHCS Hospital
Yarapai County Community Health Services
York County Community Action
York Hospital (PA)
Young Adult Institute, Inc.

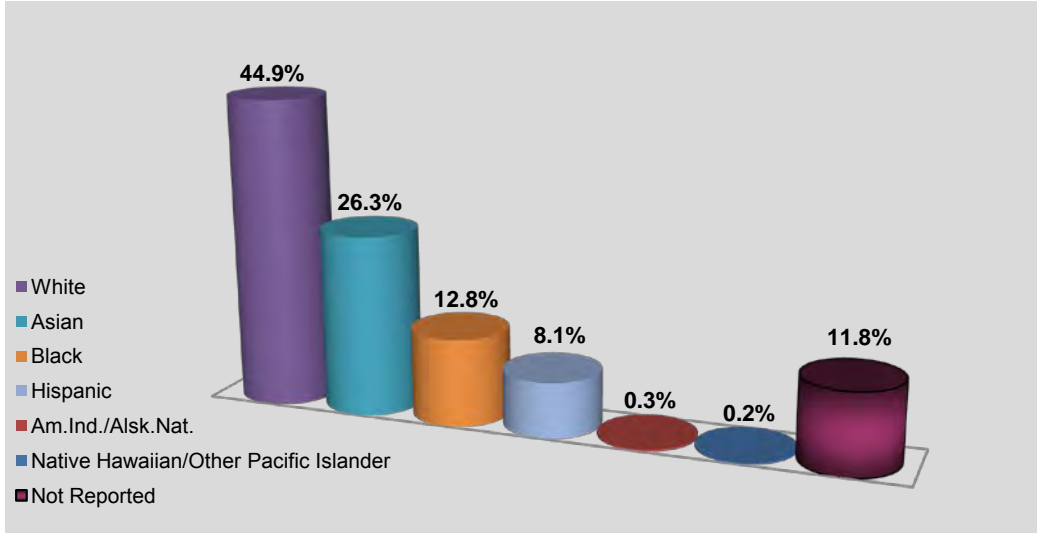


PROFILE OF THE STUDENT BODY

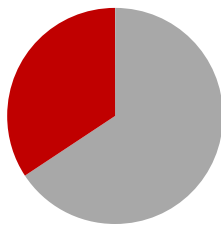
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|---|----|
| Enrollment, Fall 2011 | |
| Profile of UMDNJ Enrollment (Race/Ethnicity, Gender, Residency and Time Status | 57 |
| Enrollment in Schools | 58 |
| Admissions | 61 |
| Financial Aid: State, Federal and Institution Funded Programs..... | 73 |
| Degrees and Certificates Awarded | 74 |
| Graduation Rates..... | 75 |
| Post-Graduate Placement of Medical and Dental Students..... | 96 |
| Postdoctoral Appointees..... | 98 |

PROFILE OF UMDNJ'S STUDENT ENROLLMENT FALL 2011 (N=7,212)*

Race / Ethnicity**



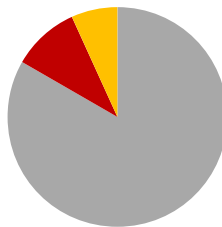
Gender



■ Female - 4,735 (65.7%)
■ Male - 2,477 (34.3%)

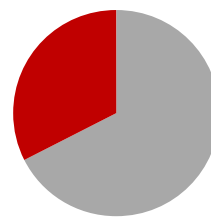
Residency

Excludes Distance Education (N=576)



■ New Jersey - 5,533 (83.4%)
■ Other States - 654 (9.9%)
■ Foreign Countries - 449 (6.8%)

Time Status



■ Full-Time - 4,870 (67.5%)
■ Part-Time - 2,342 (32.5%)

* Unduplicated headcount

** Beginning in 2009 and following U.S. federal guidelines, students may self-identify in more than one racial category. Students who selected more than one category (N= 254) are included in each category reported. Thus, percents reported do not add to 100 and are not directly comparable to percents reported prior to 2009.

Source: Office of the University Registrar: Data as of October 1, 2011

ENROLLMENT IN SCHOOLS BY GENDER AND RACE / ETHNICITY¹ FALL 2011

| | <i>Total Number Enrolled</i> | <i>% Black</i> | <i>% Hispanic</i> | <i>% Asian</i> | <i>% Women</i> | <i>% NJ Resident²</i> |
|---|--------------------------------------|--------------------|-----------------------|--------------------|--------------------|--|
| NEW JERSEY MEDICAL SCHOOL | 751 | 9.2 | 9.5 | 41.7 | 41.0 | 98.3 |
| ROBERT WOOD JOHNSON MEDICAL SCHOOL | 638 | 9.1 | 4.5 | 33.7 | 54.5 | 98.0 |
| <i>New Brunswick/Piscataway Campus</i> | <i>523</i> | <i>7.6</i> | <i>4.8</i> | <i>35.9</i> | <i>52.6</i> | <i>97.7</i> |
| <i>Camden Campus</i> | <i>115</i> | <i>15.7</i> | <i>3.5</i> | <i>23.5</i> | <i>63.5</i> | <i>99.1</i> |
| SCHOOL OF OSTEOPATHIC MEDICINE | 549 | 12.0 | 7.5 | 29.5 | 50.1 | 94.9 |
| NEW JERSEY DENTAL SCHOOL | 498 | 5.0 | 9.4 | 34.1 | 52.8 | 71.9 |
| <i>Four Yr. DMD Program</i> | <i>358</i> | <i>6.7</i> | <i>9.5</i> | <i>29.6</i> | <i>54.2</i> | <i>90.5</i> |
| <i>Two Yr. DMD Program, MS, MASTER, CRT</i> | <i>140</i> | <i>0.7</i> | <i>9.3</i> | <i>45.7</i> | <i>49.3</i> | <i>24.3</i> |
| GRADUATE SCHOOL OF BIOMEDICAL SCIENCES³ | 1,319 | 9.3 | 7.9 | 41.7 | 57.0 | 58.2 |
| <i>Newark Division</i> | <i>607</i> | <i>9.9</i> | <i>8.1</i> | <i>44.0</i> | <i>58.8</i> | <i>60.8</i> |
| <i>Piscataway Division</i> | <i>524</i> | <i>5.7</i> | <i>8.8</i> | <i>43.3</i> | <i>53.4</i> | <i>50.6</i> |
| <i>Stratford Division</i> | <i>188</i> | <i>17.6</i> | <i>4.8</i> | <i>29.8</i> | <i>61.2</i> | <i>71.3</i> |
| SCHOOL OF HEALTH RELATED PROFESSIONS | 1,544 | 11.3 | 9.8 | 14.1 | 75.8 | 87.8 |
| SCHOOL OF NURSING | 1,625 | 21.0 | 6.7 | 10.9 | 86.5 | 89.2 |
| SCHOOL OF PUBLIC HEALTH | 376 | 22.6 | 8.5 | 31.9 | 68.6 | 80.1 |
| <i>Newark Campus</i> | <i>109</i> | <i>33.9</i> | <i>10.1</i> | <i>26.6</i> | <i>66.1</i> | <i>80.7</i> |
| <i>New Brunswick/Piscataway Campus</i> | <i>242</i> | <i>17.8</i> | <i>8.3</i> | <i>34.7</i> | <i>71.1</i> | <i>78.5</i> |
| <i>Stratford Campus</i> | <i>25</i> | <i>20.0</i> | <i>4.0</i> | <i>28.0</i> | <i>56.0</i> | <i>92.0</i> |
| GRAND TOTAL⁴ | 7,300 | | | | | |
| Unduplicated Headcount | 7,212 | 12.8 | 8.1 | 26.3 | 65.7 | 83.4 |

¹ Beginning in 2009 and following U.S. federal guidelines, students may self-identify in more than one racial category. Students who selected more than one category (N=383) are included in each category reported. Thus, percents reported do not add to 100 and are not directly comparable to percents reported prior to 2009.

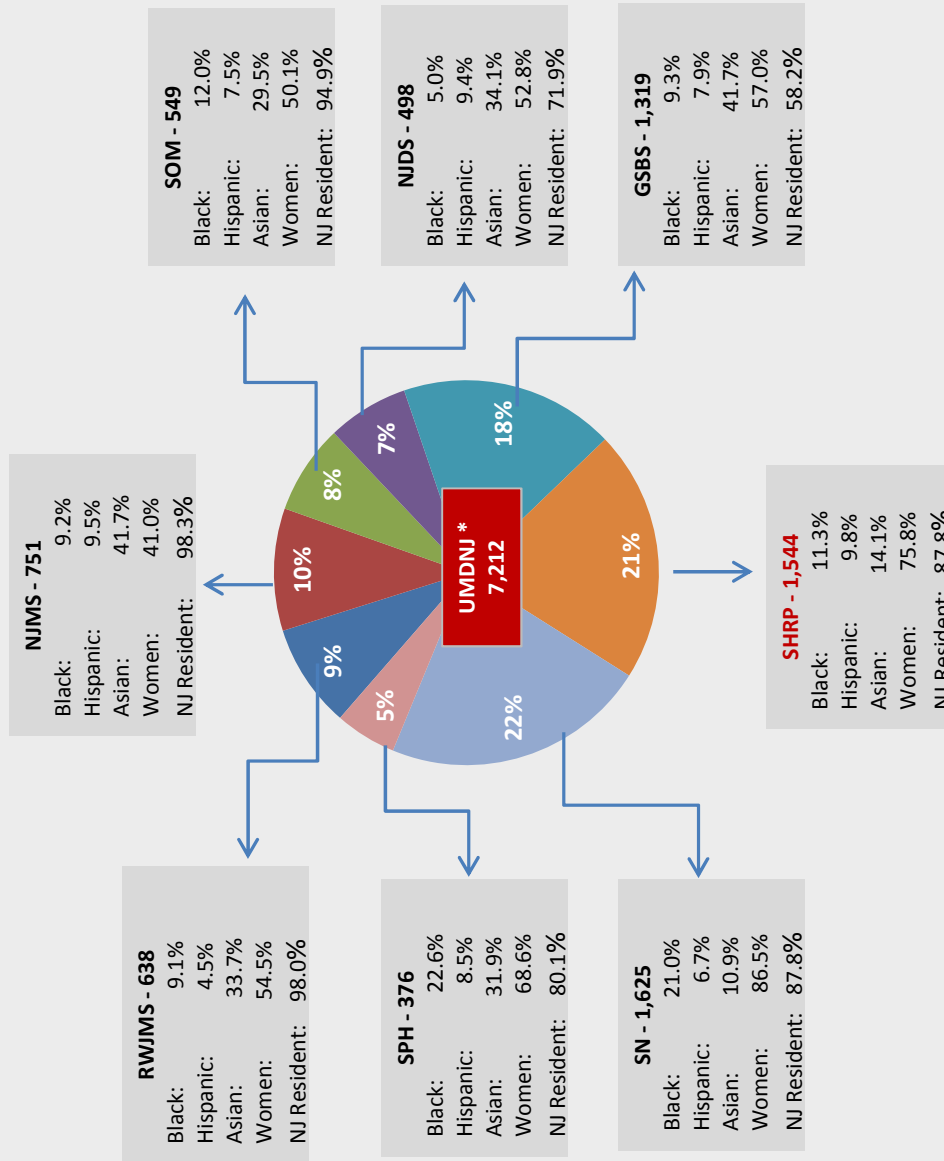
² Excludes Distance Education students (N=576)

³ Fifty-two students in the Newark Division are in the GSBS joint program with NJIT. All matriculated students in the Piscataway Division are in the GSBS joint program with Rutgers, except students in the master's level programs in Clinical and Translational Science and Biomedical Science.

⁴ Students with dual enrollment are counted in each School/program in which they are enrolled.

Source: Office of the University Registrar: Data as of October 1, 2011, revised February 2012.

UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY
ENROLLMENT - FALL 2011



***UMDNJ Unduplicated Headcount 7,212**
Black: 12.8, Hispanic: 9.3%, Asian: 26.3%, Women: 65.7%, NJ Resident: 83.4%

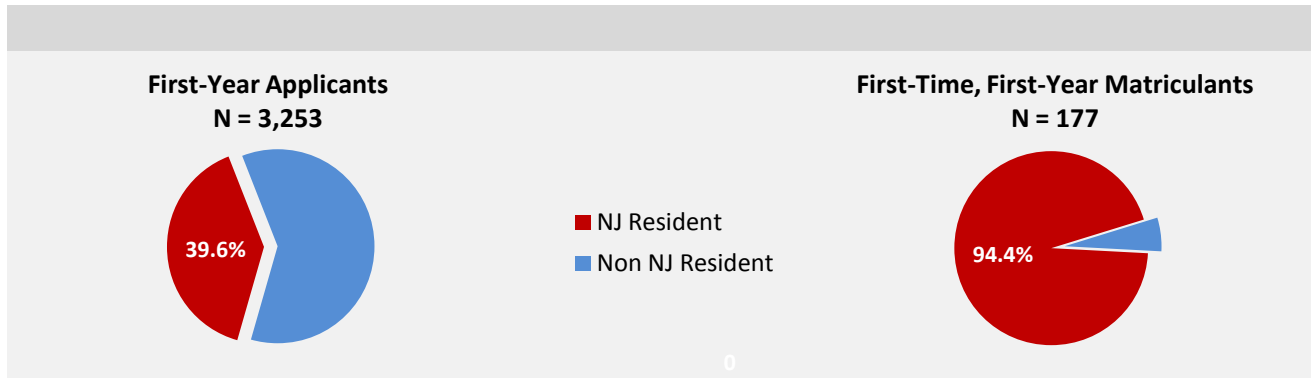
Resident excludes distance education students - 576

ADMISSIONS DATA

The following figures provide data by School on the characteristics of entering classes in 2011-2012.

The Schools of UMDNJ do not use SAT scores in the admissions process. GPAs and graduate or professional school entrance exams are considered. Therefore, the following pages report average GPA for the entering graduate-level class within each School and the average entrance examination scores where such examinations are required.

NEW JERSEY MEDICAL SCHOOL ADMISSIONS FALL 2011



MATRICULANTS RACE/ETHNICITY AND GENDER

| Ethnicity* | Matriculants | National Matriculants |
|--|--------------|-----------------------|
| | 177 | 19,002** |
| Hispanic | 8.5% | 8.6% |
| Black | 9.0% | 7.2% |
| Asian | 42.9% | 22.7% |
| White | 40.1% | 66.7% |
| Unknown | 7.3% | 5.5% |
| American Indian/ Alaska Native | 0.6% | 0.7% |
| Native Hawaiian/ Other Pacific Islander | 0.0% | 0.1% |
| Gender | | |
| Female | 37.9% | 46.9% |
| Male | 62.1% | 53.1% |

MATRICULANTS MEDICAL COLLEGE ADMISSION TEST (MCAT) SCORES AND GRADE POINT AVERAGES (GPA)

| | NJMS Class Average | National Average |
|---------------------|-----------------------|---------------------|
| Verbal Reasoning | 9.8 | 9.8 |
| Physical Sciences | 10.7 | 10.4 |
| Biological Sciences | 11.1 | 10.8 |
| Total MCAT*** | 31.6 | 31.1 |
| Science GPA | 3.53 | 3.61 |
| Total GPA | 3.59 | 3.67 |

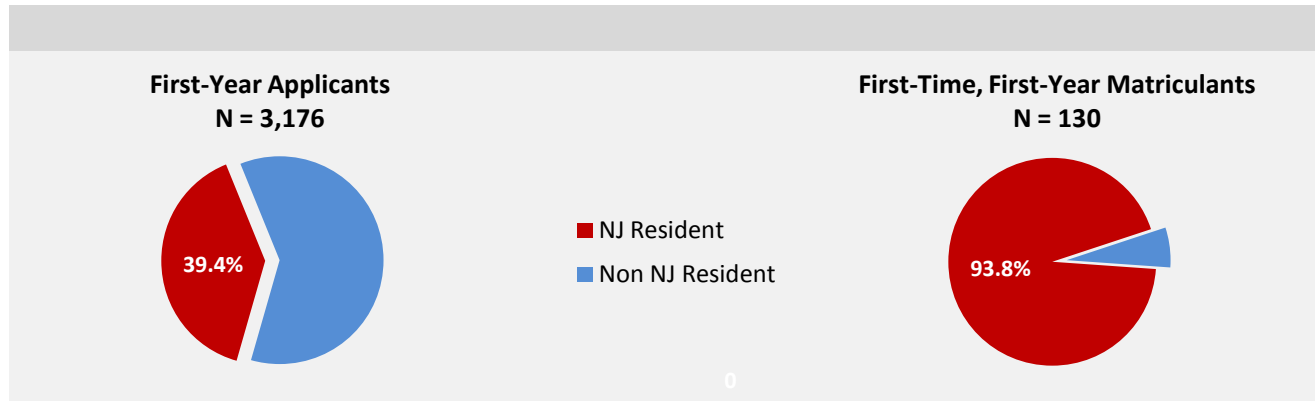
* Beginning in 2009, students who selected more than one racial category are included in each category reported. Thus, percents reported do not add to 100 and are not directly comparable to percents reported in previous academic years.

** Does not include 228 Non-U.S. Citizens/Permanent Residents.

*** Average of Verbal Reasoning, Physical Sciences and Biological Sciences scores.

Source: UMDNJ Report on Admissions, 2011-2012, UMDNJ-Office of Institutional Research

ROBERT WOOD JOHNSON MEDICAL SCHOOL ADMISSIONS FALL 2011



MATRICULANTS RACE/ETHNICITY AND GENDER

| Ethnicity* | Matriculants 130 | National Matriculants 19,002** |
|--|---------------------|--------------------------------------|
| Hispanic | 5.4% | 8.6% |
| Black | 8.5% | 7.2% |
| Asian | 30.8% | 22.7% |
| White | 52.3% | 66.7% |
| Unknown | 6.2% | 5.5% |
| American Indian/ Alaska Native | 0.8% | 0.7% |
| Native Hawaiian/ Other Pacific Islander | 0.0% | 0.1% |
| Gender | | |
| Female | 56.9% | 46.9% |
| Male | 43.1% | 53.0% |

MATRICULANTS MEDICAL COLLEGE ADMISSION TEST (MCAT) SCORES AND GRADE POINT AVERAGES (GPA)

| | RWJMS Class Average | National Average |
|---------------------|------------------------|---------------------|
| Verbal Reasoning | 9.8 | 9.8 |
| Physical Sciences | 10.4 | 10.4 |
| Biological Sciences | 10.9 | 10.8 |
| Total MCAT*** | 31.1 | 31.1 |
| Science GPA | 3.57 | 3.61 |
| Total GPA | 3.64 | 3.67 |

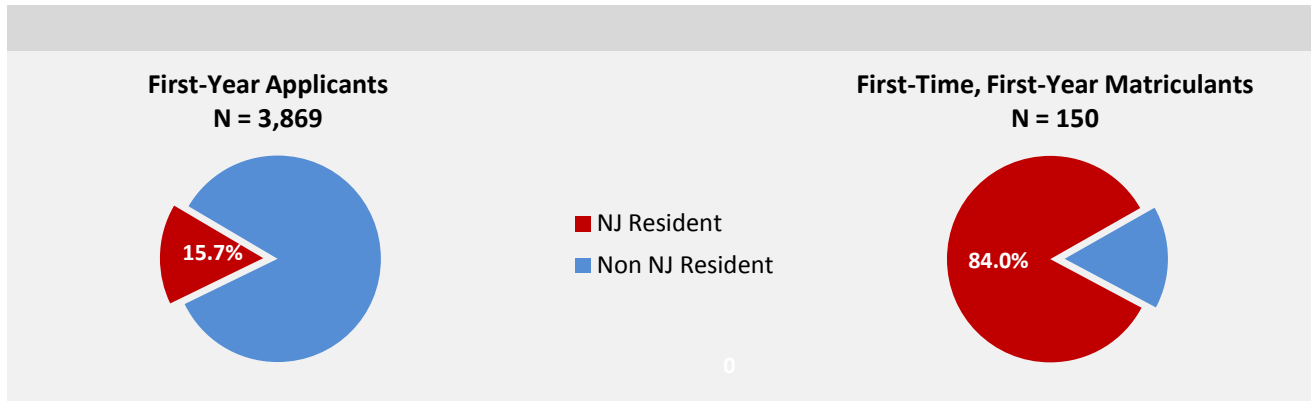
* Beginning in 2009, students who selected more than one racial category are included in each category reported. Thus, percents reported do not add to 100 and are not directly comparable to percents reported in previous academic years.

** Does not include 228 Non-U.S. Citizens/Permanent Residents.

*** Average of Verbal Reasoning, Physical Sciences and Biological Sciences scores.

Source: UMDNJ Report on Admissions, 2011-2012, UMDNJ-Office of Institutional Research

**SCHOOL OF OSTEOPATHIC MEDICINE
ADMISSIONS
FALL 2011**



**MATRICULANTS
RACE/ETHNICITY AND GENDER**

| Ethnicity* | Matriculants | National Matriculants |
|--|--------------|-----------------------|
| | 150 | 5,363** |
| Hispanic | 10.0% | 4.4% |
| Black | 10.7% | 2.6% |
| Asian | 34.7% | 18.7% |
| White | 53.3% | 69.7% |
| Unknown | 0.0% | 4.9% |
| American Indian/ Alaska Native | 0.7% | 0.2% |
| Native Hawaiian/ Other Pacific Islander | 0.0% | 0.1% |

| Gender | | |
|--------|-------|-------|
| Female | 42.7% | 44.0% |
| Male | 57.3% | 56.0% |

**MATRICULANTS
MEDICAL COLLEGE ADMISSION TEST (MCAT) SCORES
AND GRADE POINT AVERAGES (GPA)**

| | SOM Class Average | National Average |
|---------------------|-------------------|------------------|
| Verbal Reasoning | 8.9 | 8.7 |
| Physical Sciences | 9.4 | 8.5 |
| Biological Sciences | 9.7 | 9.3 |
| Total MCAT*** | 28.1 | 26.5 |
| Science GPA | 3.51 | 3.4 |
| Total GPA | 3.59 | 3.5 |

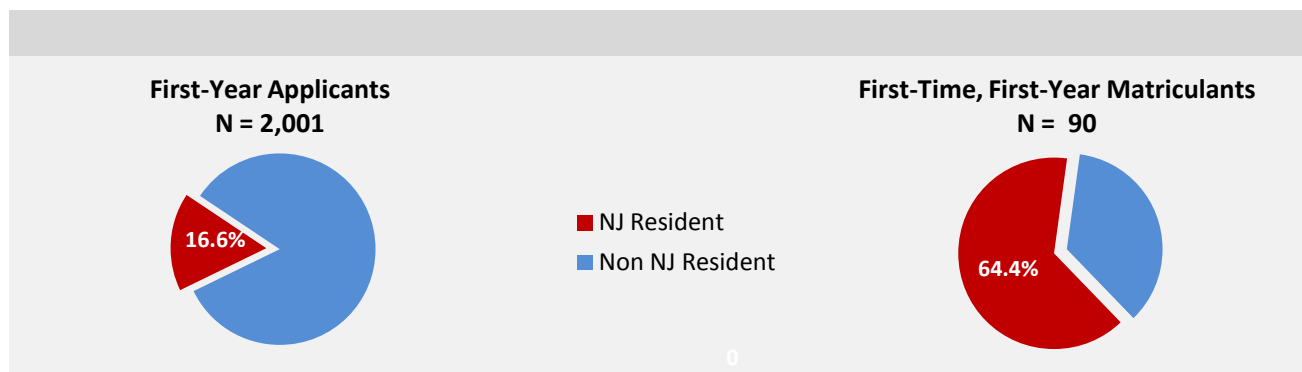
* Beginning in 2009, students who selected more than one racial category are included in each category reported. Thus, percents reported do not add to 100 and are not directly comparable to percents reported in previous academic years.

** Does not include 32 non-U.S. citizens and temporary residents.

*** Average of Verbal Reasoning, Physical Sciences and Biological Sciences scores.

Source: UMDNJ Report on Admissions, 2011-2012, UMDNJ-Office of Institutional Research

NEW JERSEY DENTAL SCHOOL ADMISSIONS FALL 2011



MATRICULANTS RACE/ETHNICITY AND GENDER

| Ethnicity* | | Matriculants |
|--|--|---------------------|
| | | 90 |
| Hispanic | | 10.0% |
| Black | | 6.7% |
| Asian | | 31.1% |
| White | | 58.9% |
| Unknown | | 3.3% |
| American Indian/ Alaska Native | | 0.0% |
| Native Hawaiian/ Other Pacific Islander | | 0.0% |

| Gender | |
|---------------|-------|
| Female | 54.4% |
| Male | 45.6% |

MATRICULANTS DENTAL ADMISSION TEST (DAT) SCORES AND GRADE POINT AVERAGES (GPA)

| | NJDS Class Average |
|-------------------------|--------------------|
| Quantitative Reasoning | 17.6 |
| Reading Comprehension | 19.8 |
| Biology | 19.8 |
| Inorganic Chemistry | 20.8 |
| Organic Chemistry | 20.5 |
| Total Science** | 20.1 |
| Academic Average*** | 19.7 |
| Perceptual Ability Test | 19.7 |
| Science GPA | 3.38 |
| Total GPA | 3.48 |

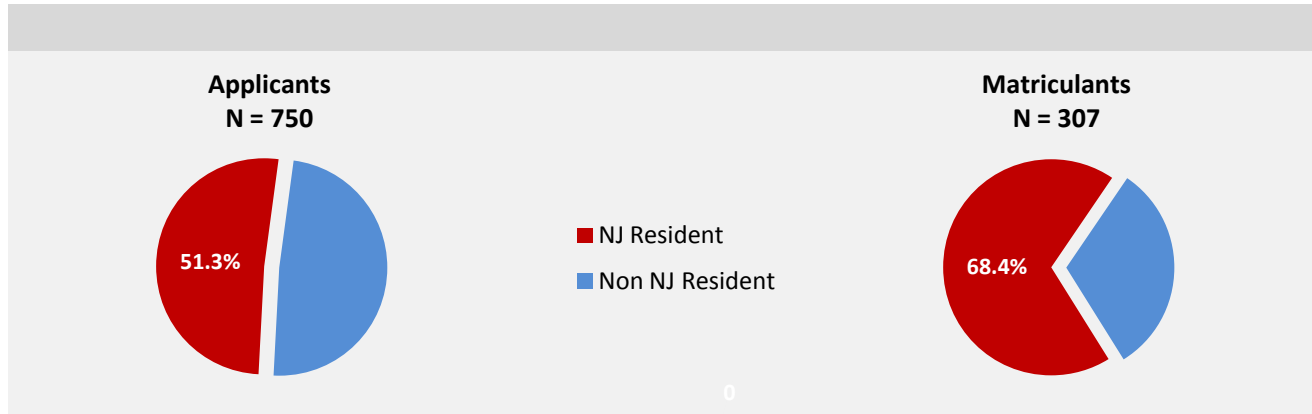
* Beginning in 2009, students who selected more than one racial category are included in each category reported. Thus, percents reported do not add to 100 and are not directly comparable to percents reported in previous academic years.

** Total Science is the average score of its three subsections: Biology, General Chemistry and Organic Chemistry.

*** Academic Average is the average score of the Quantitative Reasoning, Reading Comprehension, Biology, General Chemistry and Organic Chemistry test scores.

Source: UMDNJ Report on Admissions, 2011-2012, UMDNJ-Office of Institutional Research

**GRADUATE SCHOOL OF BIOMEDICAL SCIENCES
NEWARK AND STRATFORD DIVISIONS
ADMISSIONS
FALL 2011**



**MATRICULANTS
RACE/ETHNICITY AND GENDER**

| Matriculants | |
|--|-------|
| Ethnicity* | 307 |
| Hispanic | 9.8% |
| Black | 13.4% |
| Asian | 42.0% |
| White | 29.0% |
| Unknown | 12.4% |
| American Indian/ Alaska Native | 0.3% |
| Native Hawaiian/ Other Pacific Islander | 1.0% |

| Gender | |
|--------|-------|
| Female | 59.3% |
| Male | 40.7% |

**MATRICULANTS
GRADUATE RECORD EXAMINATION (GRE) SCORES
AND GRADE POINT AVERAGES (GPA)**

| | PhD | | Masters and Certificate | |
|----------------------|--------------------|---------------|-------------------------|---------------|
| | Students Reporting | Class Average | Students Reporting | Class Average |
| Verbal | 33 | 518 | 71 | 468 |
| Quantitative | 33 | 699 | 71 | 617 |
| Analytical Writing** | 33 | 3.73 | 70 | 4.01 |
| GPA*** | 24 | 3.18 | 254 | 3.15 |

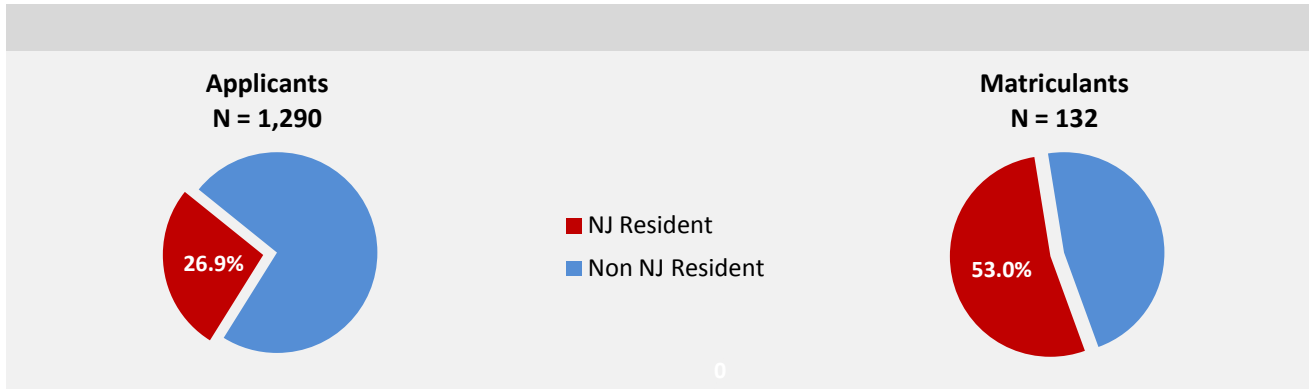
* Beginning in 2009, students who selected more than one racial category are included in each category reported. Thus, percents reported do not add to 100 and are not directly comparable to percents reported in previous academic years.

** Scored on a scale of 0 to 6.

** Includes baccalaureate degree GPAs only.

Source: UMDNJ Report on Admissions, 2011-2012, UMDNJ-Office of Institutional Research

**GRADUATE SCHOOL OF BIOMEDICAL SCIENCES
PISCATAWAY DIVISION
ADMISSIONS
FALL 2011**



**MATRICULANTS
RACE/ETHNICITY AND GENDER**

| Matriculants | |
|--|-------|
| Ethnicity* | 132 |
| Hispanic | 9.8% |
| Black | 4.5% |
| Asian | 40.2% |
| White | 47.0% |
| Unknown | 3.8% |
| American Indian/ Alaska Native | 0.0% |
| Native Hawaiian/ Other Pacific Islander | 0.0% |
| Gender | |
| Female | 57.6% |
| Male | 42.4% |

**MATRICULANTS
GRADUATE RECORD EXAMINATION (GRE) SCORES
AND GRADE POINT AVERAGES (GPA)**

| | PhD | | Masters and Certificate | |
|----------------------|--------------------|---------------|-------------------------|---------------|
| | Students Reporting | Class Average | Students Reporting | Class Average |
| Verbal | 57 | 530 | 24 | 548 |
| Quantitative | 57 | 708 | 24 | 699 |
| Analytical Writing** | 38 | 3.89 | 8 | 4.38 |
| GPA*** | 43 | 3.43 | 55 | 3.41 |

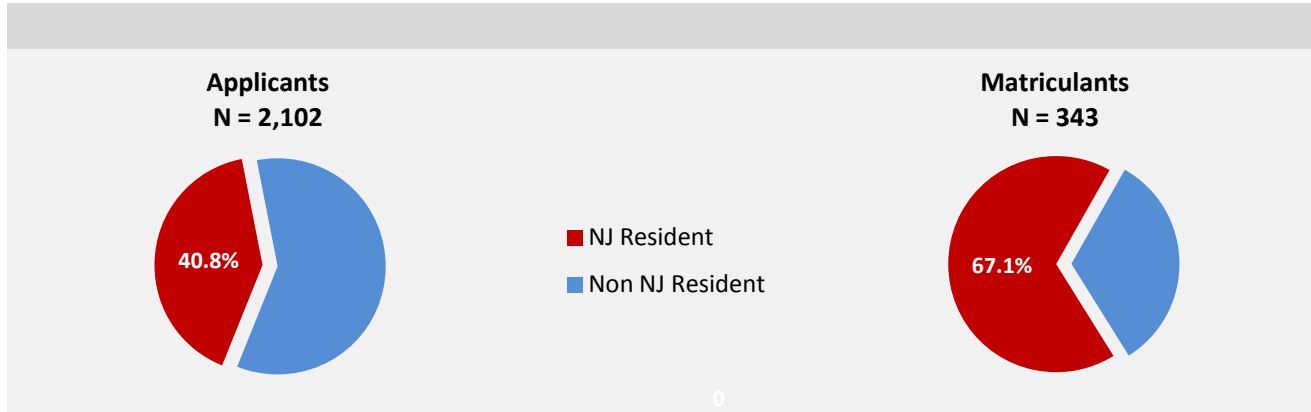
* Beginning in 2009, students who selected more than one racial category are included in each category reported. Thus, percents reported do not add to 100 and are not directly comparable to percents reported in previous academic years.

** Scored on a scale of 0 to 6.

*** Includes baccalaureate degree GPAs only.

Source: UMDNJ Report on Admissions, 2011-2012, UMDNJ-Office of Institutional Research

**SCHOOL OF HEALTH RELATED PROFESSIONS
GRADUATE PROGRAMS
ADMISSIONS
SPRING, SUMMER AND FALL 2011**



**MATRICULANTS
RACE/ETHNICITY AND GENDER**

| Matriculants | |
|--|-------|
| Ethnicity* | 343 |
| Hispanic | 7.9% |
| Black | 10.2% |
| Asian | 18.1% |
| White | 55.4% |
| Unknown | 12.8% |
| American Indian/ Alaska Native | 0.9% |
| Native Hawaiian/ Other Pacific Islander | 0.3% |
| Gender | |
| Female | 71.7% |
| Male | 28.3% |

**MATRICULANTS
GRADE POINT AVERAGES (GPA)**

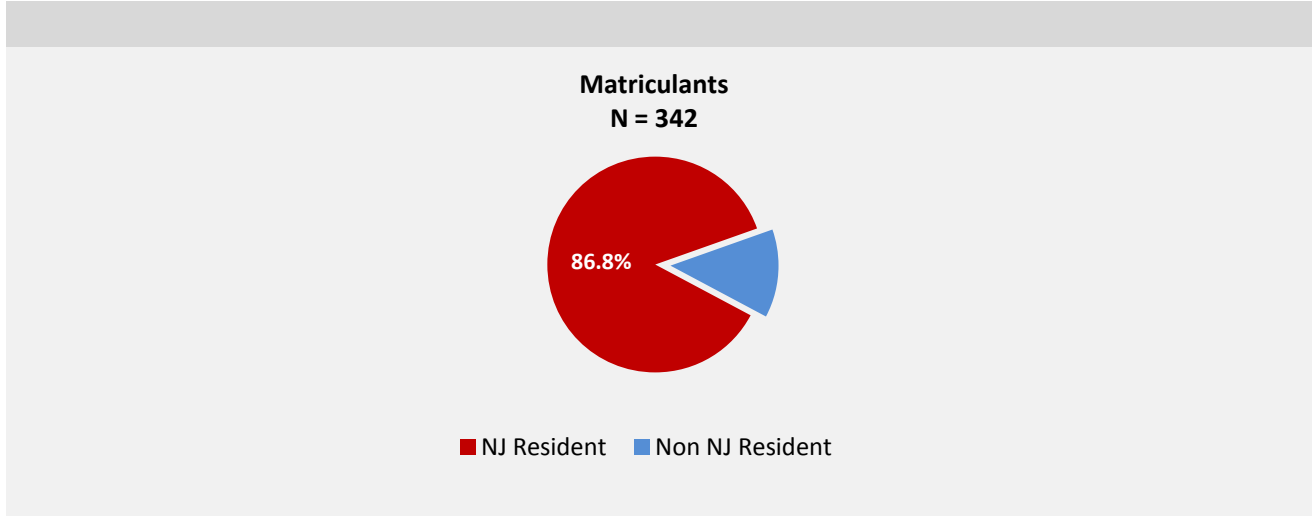
| | Students Reporting | Class Average |
|-------|--------------------|---------------|
| GPA** | 241 | 3.86 |

* Beginning in 2009, students who selected more than one racial category are included in each category reported. Thus, percents reported do not add to 100 and are not directly comparable to percents reported in previous academic years.

**Includes baccalaureate degree GPAs only.

Source: UMDNJ Report on Admissions, 2011-2012, UMDNJ-Office of Institutional Research

**SCHOOL OF HEALTH RELATED PROFESSIONS
UNDERGRADUATE PROGRAMS
ADMISSIONS
SPRING, SUMMER AND FALL 2011**



**MATRICULANTS
RACE/ETHNICITY AND GENDER**

| Ethnicity* | Matriculants 342 |
|--|---------------------|
| Hispanic | 16.7% |
| Black | 19.3% |
| Asian | 11.1% |
| White | 47.7% |
| Unknown | 8.5% |
| American Indian/ Alaska Native | 0.6% |
| Native Hawaiian/ Other Pacific Islander | 0.6% |

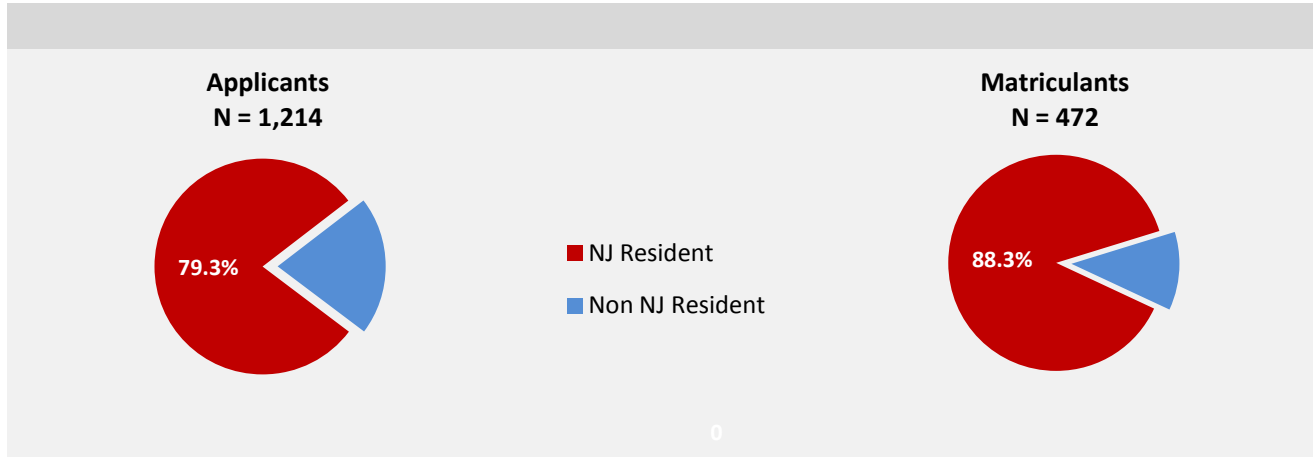
| Gender | |
|--------|-------|
| Female | 79.8% |
| Male | 20.2% |

Many undergraduate programs at the School of Health Related Professions are joint-degree programs with other institutions. In some joint-degree programs, students apply initially through the partner institution, and UMDNJ receives information only for applicants who are accepted. Since information on all applicants is unavailable, undergraduate application information is not reported.

* Beginning in 2009, students who selected more than one racial category are included in each category reported. Thus, percents reported do not add to 100 and are not directly comparable to percents reported in previous academic years.

Source: UMDNJ Report on Admissions, 2011-2012, UMDNJ-Office of Institutional Research

**SCHOOL OF NURSING
GRADUATE PROGRAMS
ADMISSIONS
SPRING, SUMMER AND FALL 2011**



**MATRICULANTS
RACE/ETHNICITY AND GENDER**

| Ethnicity* | | Matriculants 472 |
|--|--|---------------------|
| Hispanic | | 8.1% |
| Black | | 25.0% |
| Asian | | 12.9% |
| White | | 41.7% |
| Unknown | | 14.8% |
| American Indian/ Alaska Native | | 0.4% |
| Native Hawaiian/ Other Pacific Islander | | 0.4% |

| Gender | |
|--------|-------|
| Female | 87.7% |
| Male | 12.3% |

**MATRICULANTS
GRADE POINT AVERAGES (GPA)**

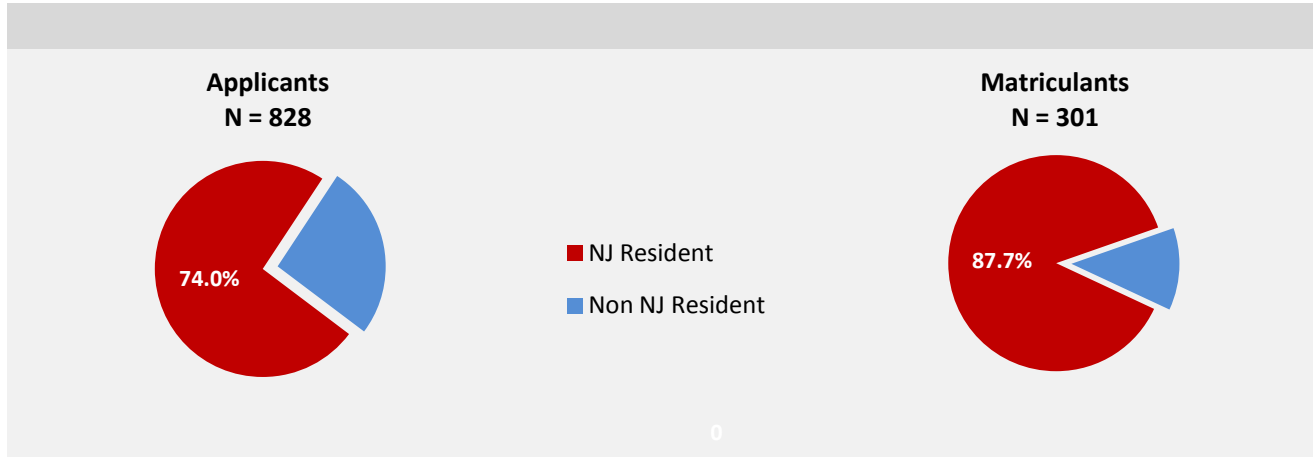
| | Students Reporting | Class Average |
|-------|--------------------|---------------|
| GPA** | 362 | 3.40 |

* Beginning in 2009, students who selected more than one racial category are included in each category reported. Thus, percents reported do not add to 100 and are not directly comparable to percents reported in previous academic years.

**Includes baccalaureate degree GPAs only.

Source: UMDNJ Report on Admissions, 2011-2012, UMDNJ-Office of Institutional Research

**SCHOOL OF NURSING
SECOND BACHELOR'S DEGREE PROGRAM
ADMISSIONS
SPRING, SUMMER AND FALL 2011**



**MATRICULANTS
RACE/ETHNICITY AND GENDER**

| Ethnicity* | | Matriculants 301 |
|--|--|---------------------|
| Hispanic | | 7.0% |
| Black | | 18.3% |
| Asian | | 12.6% |
| White | | 39.9% |
| Unknown | | 25.9% |
| American Indian/ Alaska Native | | 0.0% |
| Native Hawaiian/ Other Pacific Islander | | -- |

| Gender | |
|--------|-------|
| Female | 80.1% |
| Male | 19.9% |

**MATRICULANTS
GRADE POINT AVERAGES (GPA)**

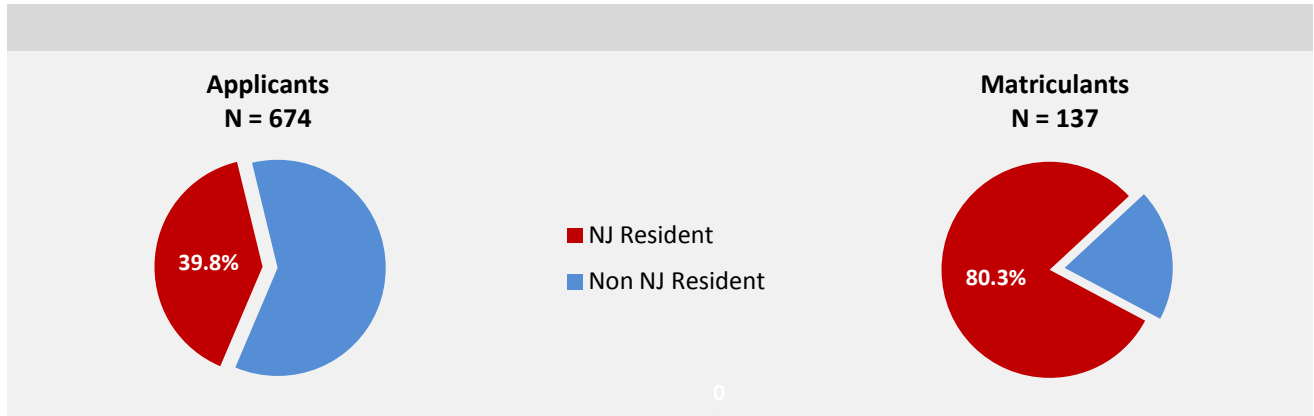
| | Students Reporting | Class Average |
|-------|--------------------|---------------|
| GPA** | 241 | 3.33 |

* Beginning in 2009, students who selected more than one racial category are included in each category reported. Thus, percents reported do not add to 100 and are not directly comparable to percents reported in previous academic years.

**Includes baccalaureate degree GPAs only.

Source: UMDNJ Report on Admissions, 2011-2012, UMDNJ-Office of Institutional Research

**SCHOOL OF PUBLIC HEALTH
ADMISSIONS
FALL 2011 AND SPRING 2012**



**MATRICULANTS
RACE/ETHNICITY AND GENDER**

| Matriculants | |
|--|-------|
| Ethnicity* | 137 |
| Hispanic | 9.5% |
| Black | 22.6% |
| Asian | 28.5% |
| White | 27.0% |
| Unknown | 14.6% |
| American Indian/ Alaska Native | 0.0% |
| Native Hawaiian/ Other Pacific Islander | 0.7% |
| Gender | |
| Female | 77.4% |
| Male | 22.6% |

**MATRICULANTS
GRADUATE RECORD EXAMINATION (GRE) SCORES
AND GRADE POINT AVERAGES (GPA)**

| | Students Reporting | Class Average |
|--------------------|--------------------|---------------|
| Verbal | 75 | 484 |
| Quantitative | 76 | 590 |
| Analytical Writing | 72 | 3.89 |
| GPA** | 96 | 3.15 |

* Beginning in 2009, students who selected more than one racial category are included in each category reported. Thus, percents reported do not add to 100 and are not directly comparable to percents reported in previous academic years.

**Includes baccalaureate degree GPAs only.

Source: UMDNJ Report on Admissions, 2011-2012, UMDNJ-Office of Institutional Research

FINANCIAL AID INFORMATION**STATE, FEDERAL, AND INSTITUTION FUNDED PROGRAMS**
Academic Year 2011/2012

| Programs | Number of Recipients | Total Disbursed Amount |
|--|-----------------------------|-------------------------------|
| STATE-FUNDED LOANS | | |
| NJCLASS | 106 | \$1,693,206 |
| STATE-FUNDED SCHOLARSHIPS/GRANTS | | |
| Educational Opportunity Fund | 111 | \$276,050 |
| Tuition Aid Grant | 93 | \$339,903 |
| Martin Luther King Scholarship | 19 | \$302,000 |
| Disadvantaged Student Fund | 511 | \$670,168 |
| FEDERAL FUNDED LOANS¹ | | |
| Direct Loan-Unsubsidized | 3,773 | \$68,622,524 |
| Direct Loan-Subsidized | 3,237 | \$24,845,302 |
| Direct Loan Graduate PLUS | 915 | \$15,533,615 |
| Direct Loan-Subsidized Undergraduate | 652 | \$2,693,113 |
| Direct Loan Parent PLUS Undergraduate | 12 | \$235,655 |
| Federal Perkins Loans | 1132 | \$2,966,465 |
| Loans for Disadvantaged Students | 121 | \$395,000 |
| Primary Care Loan | 4 | \$127,948 |
| Health Professions Student Loans | 113 | \$539,574 |
| FEDERAL FUNDED SCHOLARSHIP/GRANTS¹ | | |
| Federal Work Study | 401 | \$787,373 |
| Federal Pell Grant | 198 | \$631,013 |
| Federal Supplemental Educational Opportunity Grant | 149 | \$28,745 |
| Scholarship for Disadvantaged Students | 157 | \$415,012 |
| Scholarship for Disadvantaged Students-ARRA | 175 | \$390,087 |
| Advance Education Nursing Award | 0 | \$0 |
| AmeriCorp Program | 8 | \$27,449 |
| Armed Services Grants | 17 | \$395,270 |
| Nurse Anesthetist Traineeship | 16 | \$23,739 |
| Robert C. Byrd Honor Scholarship | 0 | \$0 |
| INSTITUTION FUNDED SCHOLARSHIP/GRANTS² | | |
| Scholarships | 144 | \$1,825,976 |
| Grants | 31 | \$98,000 |
| Loans | 207 | \$3,048,023 |

1. The source of these funds is from both the Department of Education (Title IV Programs) and Department of Health and Human Services (Title VII programs)
2. These remaining funds are from sources other than Federal and State

Source: UMDNJ-Office of Financial Aid

**DEGREES AND CERTIFICATES AWARDED
ACADEMIC YEAR 2010-2011**

| Degree | Total | Black | Hispanic | Asian | White | AI/AN* | NH/OPI** | Unknown |
|--|--------------|-------|----------|-------|-------|--------|----------|---------|
| Doctor of Medicine | 337 | 29 | 33 | 125 | 156 | 0 | 1 | 19 |
| Doctor of Osteopathic Medicine | 103 | 14 | 9 | 21 | 62 | 1 | 0 | 1 |
| Doctor of Dental Medicine | 100 | 4 | 11 | 35 | 59 | 2 | 0 | 0 |
| Doctor of Clinical Nutrition | 8 | 0 | 0 | 1 | 7 | 0 | 0 | 0 |
| Doctor of Nursing Practice | 41 | 14 | 3 | 4 | 23 | 1 | 0 | 1 |
| Doctor of Physical Therapy | 76 | 4 | 6 | 12 | 57 | 0 | 0 | 2 |
| Doctor of Philosophy | 123 | 6 | 9 | 52 | 51 | 1 | 0 | 5 |
| Master's Degrees ¹ /Post-Baccalaureate Certificates | 575 | 104 | 40 | 167 | 238 | 6 | 2 | 41 |
| Post-Master's / Post-Doctoral Certificates | 6 | 0 | 1 | 0 | 3 | 0 | 0 | 2 |
| Undergraduate Degrees ² / Certificates | 469 | 68 | 43 | 71 | 216 | 1 | 0 | 87 |
| TOTAL³ | 1,838 | 243 | 155 | 488 | 872 | 12 | 3 | 158 |

**Degrees and Certificates Awarded
By Gender⁴**

| Men | Women | Total ⁴ |
|-----|-------|--------------------|
| 589 | 1,232 | 1,821 |

Note: Beginning in 2009 and following U.S. federal guidelines, students may self-identify in more than one racial category. Students who selected more than one category (N= 84) are included in each category reported. Thus, the numbers reported in each category are not directly comparable to the numbers reported prior to 2009.

- * American Indian/Alaska Native
- ** Native Hawaiian/Other Pacific Islander

¹ Includes MS, Master, MSN, and MPH

² Includes AAS, AS, BS and BSN

³ Duplicated Headcount. Seventeen students received more than one degree or certificate.

⁴ Unduplicated Headcount

Source: University Graduation Statistics Report, AY 2010-2011 UMDNJ-Office of Institutional Research.

GRADUATION RATES

The following tables provide historical data on student graduation rates by School/Program. Please note that these tables track groups of students (cohorts) entering together in the same academic or calendar year.

**GRADUATION RATE BY ENTERING COHORT
AS OF JUNE 2011**

**NEW JERSEY MEDICAL SCHOOL - MD PROGRAM
STUDENTS BEGINNING IN AY 2002-03 THROUGH AY 2006-07**

| | Number in Beginning Cohort ² | Number/Percent Graduated ¹ | | | | | | | | | |
|----------------|---|---------------------------------------|------|--------------|------|----------------|------|----------------|------|---------------|--|
| | | In Five Years | | In Six Years | | In Seven Years | | In Eight Years | | In Nine Years | |
| 2002-03 | 170 | 162 | 95.3 | 165 | 97.1 | 166 | 97.6 | | | | |
| 2003-04 | 170 | 154 | 90.6 | 155 | 91.2 | 159 | 93.5 | 162 | 95.3 | | |
| 2004-05 | 170 | 150 | 88.2 | 154 | 90.6 | 158 | 92.9 | | | | |
| 2005-06 | 170 ¹ | 155 | 91.7 | 156 | 92.3 | | | | | | |
| 2006-07 | 170 | 157 | 92.4 | | | | | | | | |

¹Percent graduated is an adjusted percent based on the number in the beginning cohort minus transfers to another medical program outside UMDNJ (one in 2005-06).

²The beginning cohort includes the following numbers of students in dual degree programs. These programs (MD/PhD, MD/MPH and MD/MBA) take longer to complete than the MD program:

| <u>Year</u> | <u>Dual Degree Students</u> | <u>Percent of Cohort</u> |
|-------------|-----------------------------|--------------------------|
| 2002-03 | 7 | 4.1 |
| 2003-04 | 8 | 4.7 |
| 2004-05 | 16 | 9.4 |
| 2005-06 | 13 | 7.6 |
| 2006-07 | 9 | 5.3 |

**GRADUATION RATE BY ENTERING COHORT
AS OF JUNE 2011**

**ROBERT WOOD JOHNSON MEDICAL SCHOOL - MD PROGRAM
STUDENTS BEGINNING IN AY 2002-03 THROUGH AY 2006-07**

| | Number in Beginning Cohort ^{2,3} | Number/Percent Graduated ¹ | | | | | | | | | |
|---------|---|---------------------------------------|------|--------------|------|----------------|------|----------------|------|---------------|------|
| | | In Five Years | | In Six Years | | In Seven Years | | In Eight Years | | In Nine Years | |
| 2002-03 | 153 ¹ | 129 | 88.4 | 137 | 93.8 | 140 | 95.9 | 142 | 94.0 | 143 | 94.7 |
| 2003-04 | 151 | 138 | 91.4 | 143 | 94.7 | 146 | 96.7 | 148 | 98.0 | | |
| 2004-05 | 156 ¹ | 143 | 92.3 | 144 | 92.9 | 147 | 94.8 | | | | |
| 2005-06 | 156 ¹ | 139 | 89.8 | 144 | 92.9 | | | | | | |
| 2006-07 | 168 | 153 | 91.1 | | | | | | | | |

¹Percent graduated is an adjusted percent based on the number in the beginning cohort minus transfers to another medical program outside UMDNJ (two in 2002-03, one in 2004-05 and one in 2005-06.)

²Numbers in beginning cohorts were revised in 2010 to include MD/MPH students previously reported separately (five in 2002-03, three in 2003-04, and three in 2004-05).

³The beginning cohorts include the following numbers of students in dual degree programs. These programs (MD/MPH, MD/MS, MD/PhD and MD/MBA) take longer to complete than the MD program:

| <u>Year</u> | <u>Dual Degree Students</u> | <u>Percent of Cohort</u> |
|-------------|-----------------------------|--------------------------|
| 2002-03 | 9 | 5.9 |
| 2003-04 | 10 | 6.6 |
| 2004-05 | 10 | 6.4 |
| 2005-06 | 15 | 9.6 |
| 2006-07 | 12 | 7.8 |

**GRADUATION RATE BY ENTERING COHORT
AS OF JUNE 2011**

**SCHOOL OF OSTEOPATHIC MEDICINE - DO PROGRAM
STUDENTS BEGINNING IN AY 2002-03 THROUGH AY 2006-07**

| | Number in Beginning Cohort ² | Number/Percent Graduated ¹ | | | | | | | | | |
|---------|---|---------------------------------------|------|--------------|------|----------------|------|----------------|------|---------------|------|
| | | In Five Years | | In Six Years | | In Seven Years | | In Eight Years | | In Nine Years | |
| 2002-03 | 87 | 81 | 93.1 | 83 | 95.4 | 83 | 95.4 | 83 | 95.4 | 83 | 95.4 |
| 2003-04 | 95 | 91 | 95.8 | 92 | 96.8 | 93 | 97.9 | | | | |
| 2004-05 | 96 | 88 | 91.7 | 92 | 95.8 | 93 | 96.9 | | | | |
| 2005-06 | 99 ¹ | 87 ³ | 89.7 | 92 | 94.8 | | | | | | |
| 2006-07 | 103 ¹ | 99 | 97.1 | | | | | | | | |

¹Percent graduated is an adjusted percent based on the number beginning minus transfers to another medical program outside UMDNJ (two in 2005-06 and one in 2006-07).

²The beginning cohort includes the following numbers of students in dual degree programs. These programs (DO/MPS, DO/MS, DO/PhD, DO/MBS and DO/JD) take longer to complete than the DO program:

| <u>Year</u> | <u>Dual Degree Students</u> | <u>Percent of Cohort</u> |
|-------------|-----------------------------|--------------------------|
| 2003-04 | 2 | 2.1 |
| 2004-05 | 6 | 6.3 |
| 2005-06 | 4 | 4.0 |
| 2006-07 | 1 | 1.0 |

³Number corrected in 2012.

**GRADUATION RATE BY ENTERING COHORT
AS OF JUNE 2011**

**NEW JERSEY DENTAL SCHOOL - DMD PROGRAM
STUDENTS BEGINNING IN AY 2002-03 THROUGH AY 2006-07**

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | | |
|---------|----------------------------|--------------------------|------|--------------|------|----------------|--|----------------|--|---------------|--|
| | | In Five Years | | In Six Years | | In Seven Years | | In Eight Years | | In Nine Years | |
| 2002-03 | 83 | 79 | 95.2 | | | | | | | | |
| 2003-04 | 79 | 74 | 93.7 | | | | | | | | |
| 2004-05 | 82 | 73 | 89.0 | 74 | 90.2 | | | | | | |
| 2005-06 | 89 | 78 | 87.6 | | | | | | | | |
| 2006-07 | 96 | 88 | 91.7 | 90 | 93.8 | | | | | | |

Note: The DMD program is normally four years in length but may be extended to five or six years depending on various circumstances (e.g., Five Year Program, repetition, etc.). Leaves of absence are not considered in the calculation of length of time.

**GRADUATION RATE BY ENTERING COHORT
AS OF JUNE 2011**

**GRADUATE SCHOOL OF BIOMEDICAL SCIENCES - PHD PROGRAM
DURATION: 7 YEARS
STUDENTS BEGINNING IN AY 2000-01 THROUGH AY 2004-05**

| | Number in Beginning Cohort ^{1,2} | Number/Percent Graduated ³ | | | | | | | | | |
|---------|---|---------------------------------------|------|----------------|------|---------------|------|--------------|------|-----------------|--|
| | | In Seven Years | | In Eight Years | | In Nine Years | | In Ten Years | | In Eleven Years | |
| 2000-01 | 56 | 37 | 66.1 | 43 | 76.8 | | | | | | |
| 2001-02 | 71 | 43 | 60.6 | 49 | 69.0 | 51 | 71.8 | 53 | 74.6 | | |
| 2002-03 | 77 | 57 | 74.0 | 61 | 79.2 | 64 | 83.1 | | | | |
| 2003-04 | 89 | 60 | 67.4 | 76 | 85.4 | | | | | | |
| 2004-05 | 84 | 62 | 73.8 | | | | | | | | |

¹Beginning cohorts were revised in 2012 to exclude students in the joint PhD program with Rutgers University whose advisor was a Rutgers faculty member.

²Number in beginning cohort includes students in dual-degree programs such as MD/PhD.

³Total number graduated includes four students with terminal master's degrees in 2000-01, six in 2001-02, four 2002-03, three in 2003-04 and seven in 2004-05.

**GRADUATION RATE BY ENTERING COHORT
AS OF JUNE 2011**

**GRADUATE SCHOOL OF BIOMEDICAL SCIENCES – MS and MASTER PROGRAMS
MAXIMUM DURATION: 4 YEARS
STUDENTS BEGINNING IN AY 2002-03 THROUGH AY 2006-07**

| | Number in Beginning Cohort ¹ | Number/Percent Graduated | | | | | | | | | |
|----------------|---|--------------------------|------|---------------|------|--------------|------|----------------|------|----------------|--|
| | | In Four Years | | In Five Years | | In Six Years | | In Seven Years | | In Eight Years | |
| 2002-03 | 60 | 37 | 61.7 | 38 | 63.3 | 39 | 65.0 | | | | |
| 2003-04 | 76 | 52 | 68.4 | 56 | 73.7 | 56 | 73.7 | 57 | 75.0 | | |
| 2004-05 | 112 | 90 | 80.4 | 91 | 81.3 | 91 | 81.3 | | | | |
| 2005-06 | 107 | 82 | 76.6 | 84 | 78.5 | | | | | | |
| 2006-07 | 147 | 124 | 84.4 | | | | | | | | |

¹Beginning cohorts do not include students in the joint MS program with Rutgers University whose advisor was a Rutgers faculty member or students who transferred to an advanced degree program within UMDNJ (MD, DMD or PhD).

**GRADUATION RATE BY ENTERING COHORT
AS OF JUNE 2011**

**SCHOOL OF PUBLIC HEALTH – MPH PROGRAM
DURATION: 6 YEARS¹
STUDENTS BEGINNING IN AY 2001-02 THROUGH AY 2005-06**

| | Number in Beginning Cohort ² | Number/Percent Graduated | | | | | | | | | |
|----------------|---|--------------------------|------|----------------|------|----------------|------|---------------|------|--------------|------|
| | | In Six Years | | In Seven Years | | In Eight Years | | In Nine Years | | In Ten Years | |
| 2001-02 | 106 | 85 | 80.2 | 88 | 83.0 | 89 | 84.0 | 89 | 84.0 | 89 | 84.0 |
| 2002-03 | 95 ^{3,4} | 70 | 73.7 | 73 | 76.8 | 73 | 76.8 | 73 | 76.8 | | |
| 2003-04 | 67 | 54 | 80.6 | 55 | 82.1 | 55 | 82.1 | | | | |
| 2004-05 | 79 | 63 | 79.7 | 64 | 81.0 | | | | | | |
| 2005-06 | 93 | 76 | 81.7 | | | | | | | | |

¹The program duration was changed from five years to six years in 2007.

²Number in beginning cohort does not include students who completed less than 15 credit hours during the program’s six-year usual duration.

³Does not include one deceased student.

⁴Includes one student who graduated with an MS degree.

**GRADUATION RATE BY ENTERING COHORT
AS OF JUNE 2011**

**SCHOOL OF PUBLIC HEALTH – PHD AND DrPH PROGRAMS
DURATION: 9 YEARS¹
STUDENTS BEGINNING IN AY 1998-99 THROUGH 2002-03**

| | Number in Beginning Cohort ² | Number/Percent Graduated | | | | | | | | | |
|----------------------|---|--------------------------|------|--------------|------|-----------------|------|-----------------|-------|-------------------|------|
| | | In Nine Years | | In Ten Years | | In Eleven Years | | In Twelve Years | | In Thirteen Years | |
| 1998-99 ³ | 10 ⁴ | 4 | 40.0 | 4 | 40.0 | 5 | 50.0 | 5 | 50.0 | 6 | 60.0 |
| 1999-00 ³ | 5 | 4 | 80.0 | 4 | 80.0 | 4 | 80.0 | 5 | 100.0 | | |
| 2000-01 | 2 | 1 | 50.0 | 1 | 50.0 | 1 | 50.0 | | | | |
| 2001-02 | 5 ⁴ | 4 | 80.0 | | | | | | | | |
| 2002-03 | 9 | 5 | 55.6 | | | | | | | | |

¹The program duration was changed from eight years to nine years in 2008.

²Number in beginning cohort does not include students who completed less than 15 credit hours during the program's nine-year usual duration.

³Includes two students who completed the MPH degree while enrolled in the PhD or DrPH program.

⁴Number in beginning cohort was changed in 2012 to remove one student who completed less than 15 credit hours during the program's nine-year usual duration.

**GRADUATION RATE BY ENTERING COHORT
AS OF JUNE 2011**

**SCHOOL OF NURSING – MSN PROGRAM
DURATION: 6 YEARS¹
STUDENTS BEGINNING IN CALENDAR YEARS 2001 THROUGH 2005**

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | | |
|------|----------------------------|--------------------------|------|----------------|------|----------------|------|---------------|------|--------------|--|
| | | In Six Years | | In Seven Years | | In Eight Years | | In Nine Years | | In Ten Years | |
| 2001 | 83 | 37 | 44.6 | 39 | 47.0 | 41 | 49.4 | | | | |
| 2002 | 62 | 38 | 61.3 | 38 | 61.3 | 38 | 61.3 | 38 | 61.2 | | |
| 2003 | 79 | 53 | 67.1 | 55 | 69.6 | | | | | | |
| 2004 | 122 | 77 | 63.1 | 77 | 63.1 | | | | | | |
| 2005 | 177 | 125 | 70.6 | | | | | | | | |

**SCHOOL OF NURSING
SECOND BACHELOR’S DEGREE PROGRAM
DURATION: 3 YEARS
STUDENTS BEGINNING IN CALENDAR YEARS 2005 THROUGH 2008**

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | | |
|------|----------------------------|--------------------------|------|---------------|------|---------------|------|--------------|--|----------------|--|
| | | In Three Years | | In Four Years | | In Five Years | | In Six Years | | In Seven Years | |
| 2005 | 135 | 116 | 85.9 | 116 | 85.9 | 117 | 86.7 | | | | |
| 2006 | 154 | 130 | 84.4 | 130 | 84.4 | 130 | 84.4 | | | | |
| 2007 | 162 | 137 | 84.6 | 137 | 84.6 | | | | | | |
| 2008 | 152 | 130 | 85.5 | | | | | | | | |

¹The program duration was changed from five years to six years in 2007.

**GRADUATION RATE BY ENTERING COHORT
AS OF JUNE 2011**

**SCHOOL OF HEALTH RELATED PROFESSIONS
BIOMEDICAL INFORMATICS – MS PROGRAM
DURATION FOR F/T STUDY 5 YEARS**

STUDENTS BEGINNING IN CALENDAR YEARS 2002 THROUGH 2006

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | | |
|------|----------------------------|--------------------------|------|--------------|------|----------------|------|----------------|------|---------------|--|
| | | In Five Years | | In Six Years | | In Seven Years | | In Eight Years | | In Nine Years | |
| 2002 | 34 ¹ | 18 | 52.9 | 18 | 52.9 | 18 | 52.9 | 19 | 55.9 | | |
| 2003 | 33 | 14 | 42.4 | 14 | 42.4 | 15 | 45.5 | 15 | 45.5 | | |
| 2004 | 13 | 7 | 53.8 | | | | | | | | |
| 2005 | 4 | 3 | 75.0 | | | | | | | | |
| 2006 | 13 | 11 | 84.6 | | | | | | | | |

**SCHOOL OF HEALTH RELATED PROFESSIONS
CLINICAL NUTRITION – MS PROGRAM
DURATION FOR F/T STUDY 5 YEARS**

STUDENTS BEGINNING IN CALENDAR YEARS 2002 THROUGH 2006

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | | |
|------|----------------------------|--------------------------|-------|--------------|------|----------------|------|----------------|--|---------------|--|
| | | In Five Years | | In Six Years | | In Seven Years | | In Eight Years | | In Nine Years | |
| 2002 | 5 | 5 | 100.0 | | | | | | | | |
| 2003 | 17 | 10 | 58.8 | | | | | | | | |
| 2004 | 24 | 14 | 58.3 | 19 | 79.2 | 19 | 79.2 | | | | |
| 2005 | 20 | 7 | 35.0 | 11 | 55.0 | | | | | | |
| 2006 | 21 | 17 | 81.0 | | | | | | | | |

¹Number in beginning cohort changed in 2009 to omit one student who transferred to and graduated from the SHRP-Health Care Informatics certificate program.

**GRADUATION RATE BY ENTERING COHORT
AS OF JUNE 2011**

**SCHOOL OF HEALTH RELATED PROFESSIONS
CYTOTECHNOLOGY – BS AND CERTIFICATE PROGRAMS
DURATION FOR F/T STUDY 3 YEARS**

STUDENTS BEGINNING IN CALENDAR YEARS 2005¹ THROUGH 2008

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | | |
|------|----------------------------|--------------------------|-------|---------------|--|---------------|--|--------------|--|----------------|--|
| | | In Three Years | | In Four Years | | In Five Years | | In Six Years | | In Seven Years | |
| 2005 | 10 | 10 | 100.0 | | | | | | | | |
| 2006 | 10 | 10 | 100.0 | | | | | | | | |
| 2007 | 10 | 8 | 80.0 | | | | | | | | |
| 2008 | 7 | 7 | 100.0 | | | | | | | | |

**SCHOOL OF HEALTH RELATED PROFESSIONS
DENTAL ASSISTANT - CERTIFICATE PROGRAM
DURATION FOR F/T STUDY 2 YEARS**

STUDENTS BEGINNING IN CALENDAR YEARS 2005 THROUGH 2009

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | | |
|------|----------------------------|--------------------------|------|----------------|--|---------------|--|---------------|--|--------------|--|
| | | In Two Years | | In Three Years | | In Four Years | | In Five Years | | In Six Years | |
| 2005 | 10 | 8 | 80.0 | | | | | | | | |
| 2006 | 19 | 13 | 68.4 | | | | | | | | |
| 2007 | 12 | 6 | 50.0 | | | | | | | | |
| 2008 | 14 | 12 | 85.7 | | | | | | | | |
| 2009 | 11 | 8 | 72.7 | | | | | | | | |

¹The 2004 cohort is not reported because the reporting format has changed.

**GRADUATION RATE BY ENTERING COHORT
AS OF JUNE 2011**

**SCHOOL OF HEALTH RELATED PROFESSIONS
DENTAL HYGIENE – AAS PROGRAM
DURATION FOR F/T STUDY 4 YEARS¹**

STUDENTS BEGINNING IN CALENDAR YEARS 2003 THROUGH 2007

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | | |
|------|----------------------------|--------------------------|------|---------------|--|--------------|--|----------------|--|----------------|--|
| | | In Four Years | | In Five Years | | In Six Years | | In Seven Years | | In Eight Years | |
| 2003 | 36 | 30 | 83.3 | | | | | | | | |
| 2004 | 30 | 23 | 76.7 | | | | | | | | |
| 2005 | 38 | 31 | 81.6 | | | | | | | | |
| 2006 | 43 | 32 | 74.4 | | | | | | | | |
| 2007 | 47 | 38 | 80.9 | | | | | | | | |

**SCHOOL OF HEALTH RELATED PROFESSIONS
DIAGNOSTIC IMAGING TECHNOLOGIES – CERTIFICATE PROGRAM
DURATION FOR F/T STUDY 3 YEARS**

STUDENTS BEGINNING IN CALENDAR YEARS 2004 THROUGH 2008

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | | |
|-------------------|----------------------------|--------------------------|------|---------------|-----|---------------|--|--------------|--|----------------|--|
| | | In Three Years | | In Four Years | | In Five Years | | In Six Years | | In Seven Years | |
| 2004 ² | 4 | | | 0 | 0.0 | | | | | | |
| 2005 | 3 | 0 | 0.0 | | | | | | | | |
| 2006 | 7 | 0 | 0.0 | 0 | 0.0 | | | | | | |
| 2007 | 11 | 0 | 0.0 | 0 | 0.0 | | | | | | |
| 2008 | 12 | 2 | 16.7 | | | | | | | | |

¹The maximum program duration was changed from five years to four years in 2006.

²The 2004 cohort was first reported in 2008.

**GRADUATION RATE BY ENTERING COHORT
AS OF JUNE 2011**

**SCHOOL OF HEALTH RELATED PROFESSIONS
DIAGNOSTIC MEDICAL SONOGRAPHY – BS AND CERTIFICATE PROGRAM
DURATION FOR F/T STUDY 3 YEARS**

STUDENTS BEGINNING IN CALENDAR YEARS 2005¹ THROUGH 2008

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | | |
|------|----------------------------|--------------------------|------|---------------|--|---------------|--|--------------|--|----------------|--|
| | | In Three Years | | In Four Years | | In Five Years | | In Six Years | | In Seven Years | |
| 2005 | 15 | 14 | 98.3 | | | | | | | | |
| 2006 | 14 | 9 | 64.3 | | | | | | | | |
| 2007 | 16 | 14 | 87.5 | | | | | | | | |
| 2008 | 15 | 13 | 86.7 | | | | | | | | |

**SCHOOL OF HEALTH RELATED PROFESSIONS
DIETETIC INTERNSHIP - CERTIFICATE PROGRAM
DURATION FOR F/T STUDY 2 YEARS**

STUDENTS BEGINNING IN CALENDAR YEARS 2005 THROUGH 2009

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | | |
|------|----------------------------|--------------------------|-------|----------------|-------|---------------|--|---------------|--|--------------|--|
| | | In Two Years | | In Three Years | | In Four Years | | In Five Years | | In Six Years | |
| 2005 | 16 | 16 | 100.0 | | | | | | | | |
| 2006 | 14 | 14 | 100.0 | | | | | | | | |
| 2007 | 15 | 15 | 100.0 | | | | | | | | |
| 2008 | 16 | 15 | 93.8 | 16 | 100.0 | | | | | | |
| 2009 | 17 | 17 | 100.0 | | | | | | | | |

¹The 2004 cohort is not reported because the reporting format has changed.

**GRADUATION RATE BY ENTERING COHORT
AS OF JUNE 2011**

**SCHOOL OF HEALTH RELATED PROFESSIONS
HEALTH SCIENCES - BS PROGRAM
DURATION FOR F/T STUDY 8 YEARS**

STUDENTS BEGINNING IN CALENDAR YEARS 1999 THROUGH 2003

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | | |
|------|----------------------------|--------------------------|------|---------------|------|--------------|------|-----------------|------|-----------------|------|
| | | In Eight Years | | In Nine Years | | In Ten Years | | In Eleven Years | | In Twelve Years | |
| 1999 | 15 | 8 | 53.3 | 10 | 66.7 | 10 | 66.7 | 10 | 66.7 | 10 | 66.7 |
| 2000 | 24 | 15 | 62.5 | 15 | 62.5 | 15 | 62.5 | 15 | 62.5 | | |
| 2001 | 24 | 13 | 54.2 | 13 | 54.2 | 13 | 54.2 | | | | |
| 2002 | 35 | 21 | 60.0 | 23 | 65.7 | | | | | | |
| 2003 | 30 | 19 | 63.3 | | | | | | | | |

**SCHOOL OF HEALTH RELATED PROFESSIONS
HEALTH SYSTEMS – MS PROGRAM
DURATION FOR F/T STUDY 5 YEARS**

STUDENTS BEGINNING IN CALENDAR YEARS 2002 THROUGH 2006

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | | |
|------|----------------------------|--------------------------|------|--------------|--|----------------|--|----------------|--|---------------|--|
| | | In Five Years | | In Six Years | | In Seven Years | | In Eight Years | | In Nine Years | |
| 2002 | 10 | 4 | 40.0 | | | | | | | | |
| 2003 | 10 | 5 | 50.0 | | | | | | | | |
| 2004 | 20 | 14 | 70.0 | | | | | | | | |
| 2005 | 9 | 5 | 55.6 | | | | | | | | |
| 2006 | 9 | 7 | 77.8 | | | | | | | | |

**GRADUATION RATE BY ENTERING COHORT
AS OF JUNE 2011**

**SCHOOL OF HEALTH RELATED PROFESSIONS
MEDICAL LABORATORY SCIENCE – BS AND CERTIFICATE PROGRAMS
DURATION FOR F/T STUDY 3 YEARS**

STUDENTS BEGINNING IN CALENDAR YEARS 2005¹ THROUGH 2008

| | Number in Beginning Cohort ¹ | Number/Percent Graduated | | | | | | | | | |
|------|---|--------------------------|-------|---------------|--|---------------|--|--------------|--|----------------|--|
| | | In Three Years | | In Four Years | | In Five Years | | In Six Years | | In Seven Years | |
| 2005 | 13 | 11 | 84.6 | | | | | | | | |
| 2006 | 22 | 17 | 77.3 | | | | | | | | |
| 2007 | 27 | 27 | 100.0 | | | | | | | | |
| 2008 | 30 | 26 | 86.7 | | | | | | | | |

**SCHOOL OF HEALTH RELATED PROFESSIONS
NUCLEAR MEDICINE TECHNOLOGY – BS AND CERTIFICATE PROGRAM
DURATION FOR F/T STUDY 2 YEARS**

STUDENTS BEGINNING IN CALENDAR YEARS 2006² THROUGH 2009

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | | |
|------|----------------------------|--------------------------|------|----------------|------|---------------|--|---------------|--|--------------|--|
| | | In Two Years | | In Three Years | | In Four Years | | In Five Years | | In Six Years | |
| 2006 | 14 | 10 | 71.4 | 11 | 78.6 | | | | | | |
| 2007 | 14 | 13 | 92.9 | | | | | | | | |
| 2008 | 10 | 9 | 90.0 | | | | | | | | |
| 2009 | 8 | 5 | 62.5 | | | | | | | | |

¹The 2004 cohort is not reported because the reporting format has changed.

²The 2005 cohort is not reported because the reporting format has changed.

**GRADUATION RATE BY ENTERING COHORT
AS OF JUNE 2011**

**SCHOOL OF HEALTH RELATED PROFESSIONS
PHYSICAL THERAPY SOUTH
MASTER OF PHYSICAL THERAPY (MPT) PROGRAM¹
DOCTOR OF PHYSICAL THERAPY (DPT) PROGRAM²
DURATION FOR F/T STUDY 5 YEARS**

STUDENTS BEGINNING IN CALENDAR YEARS 2002 THROUGH 2006

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | |
|-------------------|----------------------------|--------------------------|------|--------------|--|----------------|--|----------------|--|---------------|
| | | In Five Years | | In Six Years | | In Seven Years | | In Eight Years | | In Nine Years |
| 2002 ¹ | 20 | 16 | 80.0 | | | | | | | |
| 2003 ¹ | 13 | 11 | 84.6 | | | | | | | |
| 2004 ¹ | 11 | 8 | 72.7 | | | | | | | |
| 2005 ¹ | 9 | 8 | 88.9 | | | | | | | |
| 2006 ² | 19 | 15 | 79.0 | | | | | | | |

**SCHOOL OF HEALTH RELATED PROFESSIONS
PHYSICAL THERAPY NORTH
DOCTOR OF PHYSICAL THERAPY (DPT) ENTRY-LEVEL PROGRAM
DURATION FOR F/T STUDY 5 YEARS**

STUDENTS BEGINNING IN CALENDAR YEARS 2002 THROUGH 2006

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | |
|------|----------------------------|--------------------------|------|--------------|--|----------------|--|----------------|--|---------------|
| | | In Five Years | | In Six Years | | In Seven Years | | In Eight Years | | In Nine Years |
| 2002 | 30 | 29 | 96.7 | | | | | | | |
| 2003 | 37 | 35 | 94.6 | | | | | | | |
| 2004 | 38 | 29 | 76.3 | | | | | | | |
| 2005 | 46 | 40 | 87.0 | | | | | | | |
| 2006 | 47 | 44 | 93.6 | | | | | | | |

^{1,2}The last MPT cohort entered in the summer 2005 term.

² The program became a DPT program in June 2006.

**GRADUATION RATE BY ENTERING COHORT
AS OF JUNE 2011**

**SCHOOL OF HEALTH RELATED PROFESSIONS
PHYSICAL THERAPY NORTH
DOCTOR OF PHYSICAL THERAPY (DPT) POST-PROFESSIONAL PROGRAM
DURATION FOR F/T STUDY 8 YEARS**

STUDENTS BEGINNING IN CALENDAR YEARS 2000 THROUGH 2003

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | | |
|------|----------------------------|--------------------------|------|---------------|------|--------------|------|-----------------|--|-----------------|--|
| | | In Eight Years | | In Nine Years | | In Ten Years | | In Eleven Years | | In Twelve Years | |
| 2000 | 29 | 28 | 96.6 | | | | | | | | |
| 2001 | 44 | 40 | 90.9 | 40 | 90.9 | 40 | 90.9 | | | | |
| 2002 | 48 | 46 | 95.8 | 46 | 95.8 | | | | | | |
| 2003 | 73 | 70 | 95.9 | | | | | | | | |

**SCHOOL OF HEALTH RELATED PROFESSIONS
PHYSICIAN ASSISTANT – MS PROGRAM¹
DURATION FOR F/T STUDY 4 YEARS**

STUDENTS BEGINNING IN CALENDAR YEARS 2003 THROUGH 2007

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | | |
|------|----------------------------|--------------------------|------|---------------|------|--------------|------|----------------|--|----------------|--|
| | | In Four Years | | In Five Years | | In Six Years | | In Seven Years | | In Eight Years | |
| 2003 | 53 | 47 | 88.7 | 49 | 92.5 | | | | | | |
| 2004 | 54 | 44 | 81.5 | 44 | 81.5 | 45 | 83.3 | | | | |
| 2005 | 44 | 39 | 88.6 | | | | | | | | |
| 2006 | 35 | 28 | 80.0 | | | | | | | | |
| 2007 | 42 | 37 | 88.1 | | | | | | | | |

¹The program duration was changed from three years to four years in 2006.

**GRADUATION RATE BY ENTERING COHORT
AS OF JUNE 2011**

**SCHOOL OF HEALTH RELATED PROFESSIONS
PSYCHIATRIC REHABILITATION - BS PROGRAM
DURATION FOR F/T STUDY 8 YEARS**

STUDENTS BEGINNING IN CALENDAR YEARS 1999 THROUGH 2003

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | | |
|------|----------------------------|--------------------------|------|---------------|------|--------------|------|-----------------|------|-----------------|--|
| | | In Eight Years | | In Nine Years | | In Ten Years | | In Eleven Years | | In Twelve Years | |
| 1999 | 14 | 4 | 28.6 | | | | | | | | |
| 2000 | 9 | 5 | 55.6 | 5 | 55.6 | 5 | 55.6 | 5 | 55.6 | | |
| 2001 | 13 | 11 | 84.6 | 11 | 84.6 | 11 | 84.6 | | | | |
| 2002 | 22 | 14 | 63.6 | 14 | 63.6 | | | | | | |
| 2003 | 17 | 13 | 76.5 | | | | | | | | |

**SCHOOL OF HEALTH RELATED PROFESSIONS
PSYCHOSOCIAL REHABILITATION – AS PROGRAM
DURATION FOR F/T STUDY 4 YEARS¹**

STUDENTS BEGINNING IN CALENDAR YEARS 2003 THROUGH 2007

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | | |
|------|----------------------------|--------------------------|------|---------------|------|--------------|--|----------------|--|----------------|--|
| | | In Four Years | | In Five Years | | In Six Years | | In Seven Years | | In Eight Years | |
| 2003 | 33 ² | 10 | 30.3 | 11 | 33.3 | | | | | | |
| 2004 | 7 | 5 | 71.4 | | | | | | | | |
| 2005 | 7 | 4 | 57.1 | | | | | | | | |
| 2006 | 13 ² | 5 | 38.5 | | | | | | | | |
| 2007 | 15 | 7 | 46.7 | | | | | | | | |

¹ The program duration was changed from five years to four years in 2006.

²One additional student transferred to the SHRP Psychiatric Rehabilitation and Psychology BS program.

**GRADUATION RATE BY ENTERING COHORT
AS OF JUNE 2011**

**SCHOOL OF HEALTH RELATED PROFESSIONS
RESPIRATORY THERAPIST – AAS PROGRAM – SOUTH
DURATION FOR F/T STUDY 4 YEARS¹**

STUDENTS BEGINNING IN CALENDAR YEARS 2003 THROUGH 2007

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | | |
|------|----------------------------|--------------------------|------|---------------|--|--------------|--|----------------|--|----------------|--|
| | | In Four Years | | In Five Years | | In Six Years | | In Seven Years | | In Eight Years | |
| 2003 | 16 | 10 | 62.5 | | | | | | | | |
| 2004 | 20 ² | 13 | 65.0 | | | | | | | | |
| 2005 | 23 | 19 | 82.6 | | | | | | | | |
| 2006 | 25 | 17 | 68.0 | | | | | | | | |
| 2007 | 27 | 21 | 77.8 | | | | | | | | |

**SCHOOL OF HEALTH RELATED PROFESSIONS
RESPIRATORY THERAPIST – AS PROGRAM – NORTH
DURATION FOR F/T STUDY 4 YEARS¹**

STUDENTS BEGINNING IN CALENDAR YEARS 2003 THROUGH 2007

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | | |
|------|----------------------------|--------------------------|------|---------------|--|--------------|--|----------------|--|----------------|--|
| | | In Four Years | | In Five Years | | In Six Years | | In Seven Years | | In Eight Years | |
| 2003 | 16 | 9 | 56.3 | | | | | | | | |
| 2004 | 25 | 16 | 64.0 | | | | | | | | |
| 2005 | 35 | 21 | 60.0 | | | | | | | | |
| 2006 | 41 | 20 | 48.8 | | | | | | | | |
| 2007 | 27 | 18 | 66.7 | | | | | | | | |

¹ The program duration was changed from three years to four years in 2006.

² Does not include one student who transferred to the SHRP Allied Health Technologies BS Program.

**GRADUATION RATE BY ENTERING COHORT
AS OF JUNE 2011**

**SCHOOL OF HEALTH RELATED PROFESSIONS
VASCULAR TECHNOLOGY – BS AND CERTIFICATE PROGRAMS
DURATION FOR F/T STUDY 2 YEARS**

STUDENTS BEGINNING IN CALENDAR YEARS 2006¹ THROUGH 2009

| | Number in Beginning Cohort | Number/Percent Graduated | | | | | | | | | |
|------|----------------------------|--------------------------|-------|----------------|-------|---------------|--|---------------|--|--------------|--|
| | | In Two Years | | In Three Years | | In Four Years | | In Five Years | | In Six Years | |
| 2006 | 9 | 8 | 88.0 | 9 | 100.0 | | | | | | |
| 2007 | 13 | 13 | 100.0 | | | | | | | | |
| 2008 | 7 | 6 | 85.7 | | | | | | | | |
| 2009 | 20 | 9 | 90.0 | 10 | 100.0 | | | | | | |

¹The 2005 cohort is not reported because the reporting format changed,

POST-GRADUATE PLACEMENT OF MEDICAL AND DENTAL STUDENTS

**2012 UMDNJ MEDICAL GRADUATES PLACED IN FIRST-YEAR HOUSESTAFF PROGRAMS
As of March 16, 2012**

| UMDNJ School | Number Seeking Placement | Percent Placed in the Match | Percent Placed Outside the Match | Number (Percent) Placed | Number Not Placed |
|-------------------|--------------------------|-----------------------------|----------------------------------|-------------------------|-------------------|
| NJMS | 170 ¹ | 98.2 | 1.2 | 169 (99.4) | 1 |
| RWJMS-NB/P | 116 | 100.0 | n/a | 116 (100.0) | 0 |
| RWJMS-C | 45 | 100.0 | n/a | 45 (100.0) | 0 |
| SOM | 102 | 81.4 | 18.6 | 102 (100.0) | 0 |
| TOTAL | 433 | 94.9 | 4.8 | 432 (99.8) | 1 |

| UMDNJ School | Number (Percent) Placed in NJ Programs | Number (Percent) Placed in UMDNJ Programs | Percent Placed in Primary Care Programs † | Percent Placed in Specialty Programs | Percent Placed in Trans/Trad. Rotating Prog. †† |
|-------------------|--|---|---|--------------------------------------|---|
| NJMS | 50 (29.6) | 32 (18.9) | 33.7 | 63.3 | 3 |
| RWJMS-NB/P | 32 (27.6) | 18 (15.5) | 44.8 | 49.1 | 6 |
| RWJMS-C | 10 (22.2) | 4 (8.9) | 51.1 | 48.9 | 0 |
| SOM | 44 (43.1) | 19 (18.6) | 50.0 | 28.4 | 21.6 |
| TOTAL | 136 (31.5) | 73 (16.9) | | | |

Note: Numbers may not add due to rounding.

† Primary care includes internal medicine, family medicine, pediatrics and OB/GYN programs.

†† Osteopathic traditional (rotating) internships are considered primary care within the osteopathic profession. Some of the transitional placements hold a commitment for a second-year placement in a specialty.

1. Two additional graduates did not participate in the match. One will enter a one-year general surgery residency as part of the NJMS oral and maxillofacial surgery program and one is deferring residency this year.

Source: 2012 Report on Medical/Dental Intern and Resident Placements of UMDNJ Graduates and Recruitment into UMDNJ-Sponsored Housestaff Programs, UMDNJ-Office of Institutional Research

**2012 UMDNJ DENTAL GRADUATES PLACED IN
GRADUATE DENTAL EDUCATION PROGRAMS
As of March 16, 2012**

| UMDNJ School | Number Seeking Placement in a Graduate Dental Education Program | Number (Percent) Placed | Number Not Placed |
|--------------|---|-------------------------|-------------------|
| NJDS | 76 [†] | 76 (100.0) | 0 |

| UMDNJ School | Number (Percent) Placed in NJ Programs | Number (Percent) Placed in UMDNJ-Sponsored Programs | % Placed in General Practice Programs | Percent Placed in Specialty Programs |
|--------------|--|---|---------------------------------------|--------------------------------------|
| NJDS | 37 (48.7) | 7 (9.2) | 88.2 | 11.8 |

† Thirty-one additional graduates did not seek placement in a graduate dental education program. Twenty-six plan to enter practice, three are entering the U.S. Army, one is entering the Marines, and one is entering the Navy.

Source: 2012 Report on Medical/Dental Intern and Resident Placements of UMDNJ Graduates and Recruitment into UMDNJ-Sponsored Housestaff Programs, UMDNJ-Office of Institutional Research.

POSTDOCTORAL APPOINTEES, 2011-2012*

| School | Number |
|--------------------------------------|------------|
| New Jersey Medical School | 95 |
| Robert Wood Johnson Medical School | 85 |
| School of Osteopathic Medicine | 1 |
| New Jersey Dental School | 2 |
| School of Health Related Professions | 4 |
| Total | 187 |

* As of October 1, 2011

Source: Enrollment Statistics Report, Fall 2011 UMDNJ-Office of the University Registrar.



PROFILE OF FACULTY, STAFF, INTERNS & RESIDENTS

| | |
|--|-----|
| Faculty | |
| Paid Faculty, AY 2011-12 | 99 |
| Master Educators..... | 100 |
| Endowed Chairs..... | 105 |
| Medical & Dental Interns, Residents and Fellows..... | 109 |
| Non-Faculty Employees..... | 116 |

UMDNJ FACULTY Academic Year 2011 - 2012

| SCHOOL | Paid Faculty* | | | | Volunteer Faculty** | | |
|--------------------------------------|---------------|--------------|--------------|--------------|---------------------|--------------|--------------|
| | Tenured | Tenure Track | Non-Tenured | Total | Male | Female | Total |
| New Jersey Medical School | 137 | 51 | 572 | 760 | 469 | 291 | 760 |
| Robert Wood Johnson Medical School | 133 | 67 | 580 | 780 | 445 | 335 | 780 |
| School of Osteopathic Medicine | 20 | 11 | 192 | 223 | 119 | 104 | 223 |
| New Jersey Dental School | 24 | 8 | 165 | 197 | 146 | 51 | 197 |
| School of Health Related Professions | 11 | 12 | 393 | 416 | 124 | 292 | 416 |
| School of Nursing | 5 | 9 | 158 | 172 | 16 | 156 | 172 |
| School of Public Health | 11 | 14 | 49 | 74 | 35 | 39 | 74 |
| UMDNJ Total | 341 | 172 | 2,109 | 2,622 | 1,354 | 1,268 | 2,622 |

Note: Faculty of the Graduate School of Biomedical Sciences hold appointments in the medical or dental schools.

*Includes 100% coterminous faculty

**Duplicated Headcount (unduplicated headcount = 4,686)

Source: UMDNJ Annual Faculty Data Report, Academic Year 2011-2012
Data as of October 1, 2011

MASTER EDUCATORS' PROGRAM AT UMDNJ

BACKGROUND

Purpose: Educating future health care providers and researchers is a key mission of the University. However, faculty members more often garner greater recognition on a school-wide, national and international basis from their research and clinical accomplishments than from their excellence as educators. Although the importance of innovative, effective educators is being recognized by a broader audience today than in the recent past, the master educator's accomplishments are typically subordinated to research and clinical achievements in promotion and tenure decisions at this university as well as at others.

To emphasize the value placed upon faculty excellence in education, consistent with the University's strategic goals, Stuart D. Cook, MD formally proposed the UMDNJ Master Educators' Program at his inauguration as the second President of UMDNJ on April 9, 1999. Shortly thereafter, a University-wide committee chaired by the Dean of the UMDNJ-School of Health Related Professions (SHRP) was convened to outline the scope of the program and the general criteria to be employed in selecting Master Educators throughout the Schools of the University. The committee recommended the creation of a UMDNJ Master Educators' Guild (MEG), with the vision to enhance the University's goal of excellence in education throughout its Schools and to provide leadership in the continuous improvement of the teaching/learning continuum of the University's educational mission. In June 2004, the Guild was officially named the Stuart D. Cook, M.D. Master Educators' Guild, in honor of its founder. Six years later, in 2010, a Master Educators Guild permanent office was dedicated in the President's suite of the Bergen Building in Newark. Also inaugurated at that time were "Focus Groups" with then-UMDNJ President William F. Owen, Jr., M.D. Periodically the President, the President's executive staff and the leadership of the Guild meet to discuss global issues of education and how the Guild can effectively contribute to the educational mission of all eight schools.

The Stuart D. Cook, M.D. Master Educators' Guild elects those faculty as members who have demonstrated a long history of commitment to excellence in education and who have a proven track record of recognition as skilled educators. Guild membership moves beyond the concept of excellence in teaching to the more global concept of education, which includes the considerations of learning and teaching styles, and of the broad range of settings (basic science lab, ambulatory clinic, in-patient unit, classroom, etc.) in which education occurs at UMDNJ. Toward this purpose, the members of the Guild collaborate with each other to continuously examine and improve the educational venues at UMDNJ, not only for the learners at each of the eight Schools, but also for junior faculty. Through a formal structure and bylaws that were first approved in September 2001 and revised in 2005, the Guild provides a stable foundation for the Master Educators to address educational needs throughout the Schools of UMDNJ and to share their expertise with educators in health sciences venues here as well as nationally and internationally. For example, in 2010 Muralidhar Mupparapu, DMD, who had recently completed a two-year term as Guild treasurer, brought his educational skills to Thailand as a Fulbright scholar and assisted in the educational effort of dentists who educate and practice there.

Criteria: Faculty proposed for membership in the Stuart D. Cook, M.D. Master Educators' Guild must demonstrate:

- Exceptional teaching skills in either a traditional modality of education (lecture, laboratory or clinical teaching) or an alternative form of teaching such as web-based education or another form of distance learning.
- Creativity in curricular design or innovation in the delivery of education to students.
- Currency in knowledge.
- The requisite level of scholarship.
- Efficiency and effectiveness in teaching.
- The ability to engender enthusiasm among students, such that they are motivated to master the relevant subject matter or clinical competency.
- High regard as an excellent educator by his/her peers.

At the beginning of academic year 2010-2011, the Guild membership process was finalized so it is now congruent across the Schools. Each School selects one candidate and the application portfolio is reviewed by the Guild's Executive Board and forwarded to the Administration for final approval.

In September 2000, the first class of twelve Master Educators were selected and inducted into the Stuart D. Cook, M.D. Master Educators' Guild. Additional classes have been inducted annually, with a current total of 70 members from the eight Schools of the University. The Guild members are a diverse group of educators in regard to their professional background and focus. As well, not only clinical and research faculty are inducted. In 2006 the first librarian was inducted into the Guild because of the unique teaching skills she contributed to the educational mission of the University. The Guild's leadership consists of five officers and eight members at large, with one member representing each school. The Guild leadership for 2011-2012 was:

President: Dr. Joseph Barone (RWJMS)
 VP for Finance: Dr. Debra Josko (SHRP)
 Secretary: Dr. Mary Kamienski (SN)
 Past President: Dr. Elaine Diegmann (SN)
 President Elect: Dr. Stephen J. Moorman (RWJMS)

At-Large Members:

NJDS: Dr. Asha Samant
 RWJMS: Dr. Kathleen K. Casey
 SHRP: Dr. Nancy Kirsch
 SN: Dr. Ginette Lange
 SPH: Dr. Bernadette M. West
 SOM: Dr. Pamela M. Bashore

ACCOMPLISHMENTS - UPDATE:

The Guild was actively engaged in several ongoing projects as well as new accomplishments during this past academic year. These projects are described below.

Educational research grants

No educational research grants were awarded this year. The Guild has developed criteria for an international visiting scholar's program. The aim of this program is to select through a competitive application process qualified educators from developing countries who will benefit from a 3-4 week fellowship at one or more of the UMDNJ campuses – Newark, New Brunswick and Stratford. The Guild believes that this program will promote effective teaching methodologies via a direct one-on-one mentorship program at UMDNJ campuses, which should ultimately increase the pool of effective teachers in the participants' respective country. Effective teaching in the classroom, by remote access, basic science lab and a group setting, are emphasized. Use of technology for effective teaching also will be introduced. The overall goal of this program continues to be to prepare the participant to become an education leader in their chosen field. The Guild expects that these leader-educators will return to their countries and continue the mission and goals of the Stuart D. Cook, M.D., Master Educators Guild.

Online Resource Center for Professionalism and Academic Integrity

The Guild continues to be involved in an Online Resource Center for Professionalism and Academic Integrity. The overall goal of the Resource Center is to promote academic integrity and professionalism both within and outside the UMDNJ community via the online provision of appropriate information resources and training. This is a work in progress and will be reviewed during the next academic year.

University life

The Guild is also involved in other aspects of University life in which professionalism and academic integrity issues are voiced. The Guild has met with the Student Senate to discuss their needs and suggestions for topics for future education sessions/symposiums. The Guild's membership is involved in reviewing each School's compliance in regard to teaching integrity, and several members have been working on reviving this initiative in each of the Schools.

Master Educators' Website (<http://meg.umdj.edu>)

The website provides Guild members online access to documents and minutes pertaining to the operation and structure of the Guild. It also serves as a forum for its members to share ideas related to promoting excellence in teaching. This site undergoes regular revisions.

Online Center for Excellence in Health Sciences Education and Teaching (<http://cte.umdj.edu>)

This center was one of the formats the Guild used to promote educational excellence through the innovative use of information technologies. The Center was established and funded through the University's Educational Technology Mini-Grant Program. The Center is in the process of revision and transfer to an updated user-friendly program. When the work on the site has been completed, it is hoped that the Center will continue to fulfill its three primary goals: to support, promote and enhance School and University-wide faculty development, furthering collaboration across the University by overcoming the barriers of time and place; to serve as a

comprehensive resource center for the health sciences teaching community at large, projecting the University's educational expertise outward to the worldwide Internet community; and to provide a "virtual home" for the Master Educators' Guild. The Center was officially launched on University Day (2004). Once the Center's website has been totally revamped, its function and purpose will be clarified, and activities will be planned and made available.

Faculty Mentoring Initiative

Academic mentoring is an ongoing initiative of the Guild, since a fundamental principle of the Guild is that an organized system of mentoring promotes educational improvement of all faculty members, especially junior faculty. The Guild will provide information about and access to faculty mentorship through its Online Center once it has been updated and made accessible to all university faculty. Early in its history, the Guild developed basic guidelines that provided an overview of mentoring models, including the roles and responsibilities of both mentors and mentees.

Last year, focus groups were convened on each of the three campuses facilitated by then UMDNJ Provost and Executive Vice President, Denise Rodgers, MD. These meetings focused on identifying the educational needs and frustrations of junior faculty. Each campus had different issues, but a common theme was a discussion of technology and how the University can update its technological options to be more competitive. The Guild will work on developing and addressing ways to strengthen the mentoring process for young faculty at this institution.

The First Visiting Professorship

Last year (2010-2011) the Guild sponsored its first Annual Visiting Professorship. Dr. Margaret Rees, Reader in Reproductive medicine, Nuffield Department of Obstetrics and Gynecology, University of Oxford, Oxford England, was with us from February 7 to 10, 2011. She presented at each of the three campuses. Her presentation was entitled: "Research Publication Ethics: What to do and What not to do". Dr. Rees also did a special presentation on February 9th to the postdoctoral students on the Piscataway campus titled: "Mentoring, Publication and Career Development: a Practical Guide". The week was a success. This special event took the place of the annual 2011 spring symposium. Since 2002, the Guild has sponsored a series of annual symposia open to all faculty of the University on timely topics in the sphere of education. Each of the symposia featured distinguished speakers as well as workshops, demonstrations, discussion groups or poster sessions led by Master Educators and other faculty members.

Annual University Day Induction of New Guild Members

University Day is not only a day when the University celebrates its accomplishments in research, clinical care and education, but also a time when new members of the Guild are officially inducted. In 2011 new Guild members were again introduced by a student or a colleague who made a few comments about the faculty's dedication to education and the profession, and the reason why the faculty member was chosen for induction into the Guild. In 2011, four faculty members were inducted into the Guild. The new Guild members are:

Sylvia Christakos, PhD
Professor
Department of Biochemistry
New Jersey Medical School Graduate School of Biomedical Sciences

Christine Delnevo, PhD, MPH
Associate Professor
Department of Health Education
School of Public Health

Deborah A. Podolin, PhD
Assistant Professor
Department of Cell Biology
School of Osteopathic Medicine

Constancia S. Uy, MD
Associate Professor
Department of Pediatrics
New Jersey Medical School

Spring Technology Symposium

The joint Stuart D. Cook, M.D. Master Educators Guild and U MDNJ-Technology Symposium "Simulation in Interprofessional Education for Patient-Centered Care" took place at Robert Wood Johnson University Hospital in New Brunswick on April 18, 2012. Rocky Rockstraw, RN, PhD from Drexel University was the featured guest speaker. Dr. Rockstraw gave 2 keynote presentations. The morning keynote was titled "What is Healthcare Simulation?" and the afternoon keynote was titled "The Standardized Patient and Human Patient Simulation." For the first time, all of the presentations were video-captured and made available on the web as podcasts.

ENDOWED CHAIRS

UMDNJ-NEW JERSEY MEDICAL SCHOOL

Wesley J. Howe Chair in Trauma Surgery (1987)
Department of Surgery
David Livingston, MD

Harris L. Willits Chair in Urology (1987)
Department of Surgery
Mark L. Jordan, MD

Francois-Xavier Bagnoud Chair in Pediatric Allergy (1990)
Department of Pediatrics
James M. Oleske, MD

Ledyard H. Pfund Chair in Medicine (1993)
Dorothy Vatner, MD

UMDNJ Endowed Professor of Geriatric Medicine (1994)
(Vacant)

UMDNJ Endowed Professor of Emerging and Re-Emerging Infectious Diseases
(1998)
(Vacant)

Ruth Dunietz Kushner and Michael Jay Serwitz Chair in Multiple Sclerosis (1999)
Stuart D. Cook, MD

Frederick F. Buechel, M.D. Chair for Joint Replacement (2003)
(Vacant)

Rena Warshaw Chair in Multiple Sclerosis (2003)
Teresa L. Wood, PhD

The Sharon L. and Joseph Muscarelle Endowed Dean (2005)
Robert L. Johnson, MD

The Thomas P. Infusino Endowed Chair (2005)
Andrew P. Thomas, PhD

The Alphonse A. Cinotti, MD/Lions Eye Research Chair
Marco A. Zarbin, MD, PhD

UMDNJ-NEW JERSEY DENTAL SCHOOL

Robert and Susan Carmel Chair in Algesiology (1995)
Eli Eliav, DMD, MSc, PhD

UMDNJ Endowed Professor of Community Health (1993)
(Vacant)

UMDNJ Endowed Professor of Dental Public Health (2000) *(jointly with SPH)*
(Vacant)

UMDNJ-ROBERT WOOD JOHNSON MEDICAL SCHOOL

John G. Detwiler Professor of Cardiology (1985)
Department of Medicine
John B. Kostis, MD

William H. Conzen Chair in Clinical Pharmacology (1987)
CABM (Center for Advanced Biotechnology and Medicine)
(Vacant)

UMDNJ Endowed Professor of Public Health (1988)
George Rhoads, MD, MPH

William Dow Lovett Chair in Neurology (1990)
Department of Neurology
Mary Maral Mouradian, MD

Richard C. Reynolds Chair in General Internal Medicine (1996)
Department of Medicine
Jeffrey L. Carson, MD

Philip D. Gilbert Chair in Radiology (1997)
Department of Radiology-Camden
(Vacant)

The Laura Gallagher Chair in Developmental Biology at the Child Health Institute of New Jersey (2000)
Arnold B. Rabson, MD

The Unilever Chair for the Study of Diet and Nutrition in the Prevention of Chronic Diseases at the Cancer Institute of New Jersey (2000)
(Vacant)

The Harold L. Paz, M.D. Chair in Developmental Biology at the Child Health Institute of New Jersey (2000)
(Vacant)

Melvyn and Ab Motolinsky Chair in Medicine for Hematology (2000)
Department of Medicine
(Vacant)

Takara Endowed Chair in Bioinformatics (2001)
Department of Biochemistry
Masayori Inouye, PhD

The James W. Mackenzie, M.D. Chair in Surgery (2001)
Peter Scholz, MD

Norman and Ruth H. Rosenberg Chair in Vascular Surgery (2002)
Department of Surgery
Alan M. Graham, MD.

Richard Harvey Professorship in Innovative Teaching (2002)
(Vacant)

Norman Edelman Professorship in Bioinformatics (2002)
Department of Pharmacology
William J. Welsh, PhD

Thomas Strax, MD/JFK Johnson Rehabilitation Institute Professorship (2004)
(Vacant)

Merck Research Laboratories Professorship in Clinical Pharmacology (2004)
(Vacant)

UMDNJ Endowed Professor of Community Health and Health Policy (2006)
Eric G. Jahn, MD

Janis and Gary Grover Endowed Professor in Physiology and Biophysics
(Vacant)

UMDNJ-SCHOOL OF OSTEOPATHIC MEDICINE

UMDNJ Endowed Professor of Gerontology (1991)
Rachel A. Pruchno, PhD

Osteopathic Heritage Endowed Chair for Primary Care Research (2005)
Thomas Cavalieri, DO

UMDNJ-SCHOOL OF NURSING

Francois-Xavier Bagnoud Chair in Community Pediatric Nursing
(Vacant)

UMDNJ Endowed Professor of Oncology (2004)
(Vacant)

UMDNJ-SCHOOL OF PUBLIC HEALTH

UMDNJ Endowed Professor of Dental Public Health (2000) *(jointly with NJDS)*
(Vacant)

UMDNJ-SCHOOL OF HEALTH RELATED PROFESSIONS

UMDNJ Endowed Professor of Complementary and Alternative Medicine (2002)
(Vacant)

MEDICAL AND DENTAL INTERNS, RESIDENTS AND FELLOWS

HOUSESTAFF TOTALS BY SCHOOL, 2011-2012

| School | Number of Housestaff |
|------------------------------------|----------------------|
| New Jersey Medical School | 589 |
| Robert Wood Johnson Medical School | 438 |
| School of Osteopathic Medicine | 241 |
| New Jersey Dental School | 23 |
| Total | 1,291 |

Source: Survey of UMDNJ GME and GDE Programs and Housestaff, UMDNJ-Office of Institutional Research. Data as of September 1, 2011

HOUSESTAFF TOTALS BY PROGRAM, 2011-2012

UMDNJ-NEW JERSEY MEDICAL SCHOOL

| Program | Total Housestaff |
|---|-------------------------|
| Allergy/Immunology | 3 |
| Anesthesiology | 28 |
| Cardiology | 10 |
| Child Psychiatry | 4 |
| Dermatology | 6 |
| Diagnostic Radiology | 18 |
| Emergency Medicine | 26 |
| Endocrinology | 2 |
| Gastroenterology | 9 |
| Geriatrics | 2 |
| Hepatology | 3 |
| Infectious Diseases | 6 |
| Interventional Cardiology | 2 |
| Internal Medicine-Pediatrics | 15 |
| Medicine | 109 |
| Nephrology | 6 |
| Neurology | 15 |
| Neurology-Pediatric | 3 |
| Neuromuscular Medicine | 1 |
| Neurosurgery | 13 |
| Neurosurgery-Endovascular Neuroradiology | 3 |
| OB/GYN | 24 |
| OB/GYN-Maternal Fetal Medicine | 1 |
| OB/GYN-Reproductive Endocrinology & Infertility | 3 |
| Ophthalmology | 15 |
| Orthopedics | 29 |
| Orthopedics-Hand Surgery | 1 |
| Orthopedics-Musculoskeletal | 1 |
| Orthopedics-Trauma & Reconstructive Surgery | 1 |
| Otolaryngology | 10 |

UMDNJ-NEW JERSEY MEDICAL SCHOOL (Continued)

| Program | Total Housestaff |
|---|-------------------------|
| Pathology | 13 |
| Pediatrics | 49 |
| Pediatrics-Infectious Diseases | 1 |
| Pediatrics-Medical Genetics | 1 |
| Plastic Surgery | 4 |
| Physical Medicine & Rehabilitation (PM&R) | 28 |
| PM&R-Musculoskeletal Medicine | 3 |
| PM&R-Pediatric | 1 |
| PM&R-Traumatic Brain Injury | 1 |
| Podiatry | 6 |
| Preventive Medicine | 2 |
| Psychiatry | 29 |
| Pulmonary Critical Care | 9 |
| Surgery | 62 |
| Trauma | 2 |
| Urology | 8 |
| Vascular Urology | 1 |
| Total | 589 |

Percent American Medical Graduates = 69.3%

Source: Survey of UMDNJ GME and GDE Programs and Housestaff, UMDNJ-Office of Institutional Research. Data as of September 1, 2011

HOUSESTAFF TOTALS BY PROGRAM, 2011-2012**UMDNJ-ROBERT WOOD JOHNSON MEDICAL SCHOOL**

| Program | Total Housestaff |
|--|-------------------------|
| Anesthesia | 31 |
| Anesthesia-Cardiac Anesthesia | 2 |
| Anesthesia-Pain Management | 2 |
| Dermatology | 3 |
| Emergency Medicine | 12 |
| Family Medicine–Geriatrics (2 programs) | 2 |
| Family Medicine (3 programs) | 43 |
| Family Medicine-Sports Medicine | 1 |
| Internal Medicine-Cardiology | 10 |
| Internal Medicine-Cardiology Interventional | 1 |
| Internal Medicine-Endocrinology | 4 |
| Internal Medicine-Gastroenterology | 6 |
| Internal Medicine-Hematology/Oncology | 11 |
| Internal Medicine-Infectious Diseases | 4 |
| Internal Medicine-Nephrology | 4 |
| Internal Medicine-Pulmonary/Critical Care | 7 |
| Internal Medicine-Rheumatology | 2 |
| Internal Medicine | 68 |
| Neurology | 8 |
| OB/GYN Reproductive Endocrinology & Infertility | 2 |
| OB-GYN Maternal Fetal Medicine | 2 |
| Obstetrics/Gynecology | 19 |
| Occupational Medicine | 3 |
| Orthopedic Surgery | 18 |
| Pathology | 9 |
| Pathology-Hematology | 1 |
| Pediatrics | 36 |
| Pediatrics-Developmental & Behavioral Pediatrics | 1 |
| Pediatrics-Neonatology | 8 |
| Pediatrics-Hematology/Oncology | 1 |
| Psychiatry-Child And Adolescent | 7 |
| Psychiatry | 23 |
| Psychiatry-Forensic Psychiatry | 2 |

JOHNSON MEDICAL SCHOOL (Continued)

| Program | Total Housestaff |
|--------------------------------|-------------------------|
| Radiation-Oncology | 8 |
| Radiology-Diagnostic | 20 |
| Surgery-Breast | 1 |
| Surgery-Colon/Rectal | 3 |
| Surgery-General | 42 |
| Surgery-Surgical Critical Care | 1 |
| Surgery-Thoracic Surgery | 1 |
| Surgery-Vascular Surgery | 2 |
| Urology | 7 |
| Total | 438 |

Percent American Medical Graduates = 78.8%

Source: Survey of UMDNJ GME and GDE Programs and Housestaff, UMDNJ-Office of Institutional Research. Data as of September 1, 2011

HOUSESTAFF TOTALS BY PROGRAM, 2011-2012

UMDNJ-SCHOOL OF OSTEOPATHIC MEDICINE

| Program | Total Housestaff |
|---|-------------------------|
| Bariatric | 1 |
| Cardiology | 10 |
| Child/Adolescent Psychiatry | 1 |
| Emergency Medicine | 29 |
| Endocrinology | 1 |
| Family Medicine | 26 |
| Gastroenterology | 4 |
| Geriatrics (IM) | 1 |
| Geriatrics (Psych) | 1 |
| Infectious Diseases | 2 |
| Internal Medicine/Emergency Medicine | 11 |
| Internal Medicine | 43 |
| Internship (Traditional Rotating) | 14 |
| Nephrology | 4 |
| Obstetrics/Gynecology | 10 |
| OMM/NMM (Osteopathic Manipulative Medicine/ Neuromusculoskeletal Medicine) | 2 |
| Orthopedics | 20 |
| Otolaryngology | 8 |
| Psychiatry | 13 |
| Pulmonary/Critical Care | 7 |
| Surgery | 26 |
| Urology | 7 |
| Total | 241 |

Percent American Medical Graduates = 100.0%

Source: Survey of UMDNJ GME and GDE Programs and Housestaff, UMDNJ-Office of Institutional Research. Data as of September 1, 2011

RESIDENT TOTALS BY PROGRAM, 2011-2012

UMDNJ-NEW JERSEY DENTAL SCHOOL

| Program | Total Housestaff |
|--------------------------------------|-------------------------|
| Dentistry-General Practice | 6 |
| Dentistry-Oral/Maxillofacial Surgery | 11 |
| Dentistry-Pediatric | 6 |
| Total | 23 |

Percent American Medical Graduates = 100.0%

Source: Survey of UMDNJ GME and GDE Programs and Housestaff, UMDNJ-Office of Institutional Research. Data as of September 1, 2011

NON-FACULTY FULL- AND PART-TIME EMPLOYEES
(As of July 1, 2012)

| Job Category | Total | % Amer. Ind./ Alas. Nat. | % Asian | % Black | % Hisp. | % Other* | % White | % Women | % Men |
|--------------------------------------|---------------|---------------------------------|----------------|----------------|----------------|-----------------|----------------|----------------|--------------|
| Executive/Administrative/ Managerial | 854 | 0.4 | 7.6 | 22.1 | 5.0 | 1.4 | 63.6 | 61.6 | 38.4 |
| Professional Non-Faculty | 6,325 | 0.1 | 26.3 | 21.1 | 6.8 | 1.0 | 44.7 | 69.3 | 30.7 |
| Secretarial/Clerical | 1,929 | 0.2 | 5.6 | 46.6 | 16.4 | 1.3 | 29.9 | 87.4 | 12.6 |
| Technical/ Para-Professional | 1,891 | 0.2 | 12.3 | 45.1 | 16.4 | 1.9 | 34.5 | 68.2 | 31.8 |
| Skilled Crafts | 204 | 0.0 | 7.8 | 34.8 | 16.2 | 0.0 | 40.7 | 2.9 | 97.1 |
| Service/Maintenance | 835 | 0.2 | 4.8 | 60.8 | 15.0 | 1.6 | 17.6 | 52.6 | 47.4 |
| Total All Categories | 12,038 | 0.2 | 17.6 | 31.2 | 9.7 | 1.3 | 40.1 | 69.2 | 30.8 |

Note: Does not include student assistants and graduate students (N=748).

*Other (N=151) includes Not Reported, Two or More Races & Native Hawaiian/Pacific Islander.

Source: UMDNJ-Office of Workplace Diversity



MEETING THE STATE'S NEEDS

Public and Community Service.....117

PUBLIC AND COMMUNITY SERVICE AT UMDNJ

Community service is a distinct component of the University's four-part mission, and also plays an integral role in the educational, research and health care endeavors of UMDNJ. The University offers a myriad of programs and activities that serve our State and advance the health and quality of life of its residents.

By providing more than 200 community service programs throughout the State, UMDNJ extends prevention, health care and related services to all of New Jersey's communities. Many of these programs target medically needy populations or those at high risk of particular health problems. A Community Resource Directory outlining all major community programs, activities and initiatives offered to the public, including health promotion, disease prevention, educational enrichment, neighborhood development and economic empowerment, is on UMDNJ's Office of Community Affairs' website: <http://www.umdnj.edu/comreweb/crd.htm>.

All of the Schools of UMDNJ provide students with opportunities for clinical education in community-based programs and settings, and foster cultural sensitivity and competence.

Many sponsored research programs at UMDNJ focus on New Jersey's most urgent health problems. University faculty and scientists are helping to advance prevention and treatment in such areas as cancer; the effects of environmental agents on human health; biodefense; HIV/AIDS; tuberculosis; heart disease; neurological diseases; women's health; child and adolescent health; mental health; oral health; health disparities; and aging.

UMDNJ faculty and staff also participate in numerous boards and organizations, volunteering many hours to address health, education and other issues affecting New Jersey.

UMDNJ's commitment to public service is further exemplified by our substantial employment of urban and minority residents, the purchase of goods and services from minority-owned and special vendors, and partnerships with community-based organizations. These activities contribute to the redevelopment and economic growth of the cities and regions that host the University's campuses.

Provided here are highlights of a few of the many University programs and services that continue to make a positive impact in New Jersey. For more offerings and updated information, visit UMDNJ's Office of Community Affairs' website: <http://www.umdnj.edu/comreweb/crd.htm>.

2012 VACCINE PREVENTABLE DISEASES: POLICY, PRACTICE, PREPAREDNESS (SPH)

The NY-NJ Preparedness and Emergency Response Learning Center (PERLC), in collaboration with its sponsors and supporters, is planning to host the seventh Vaccine Preventable Disease Conference (VPDC) on July 23, 2012. The NY-NJ PERLC has been a regional partnership of the New Jersey Center for Public Health Preparedness (NJCPHP) at UMDNJ-School of Public Health (SPH) and University at Albany School of Public Health, Center for Public Health Preparedness since 2010. This year's conference is one in a series that emerged out of a collaborative partnership that was initiated by the NJCPHP at UMDNJ in late 2004.

Though not exclusively a public health and school nurse partnership, the original partnership included representatives from related professional organizations; institutions of higher education; local health departments; schools, the NJ Department of Health and Senior Services; and the NJ Department of Education, among others. The initial training activities largely were intended to address the preparedness training needs of school nurse and public health nurse first responders. Based on conference evaluations and information coming in from the field, the content of the conferences has evolved to meet the needs of co-sponsors, supporters and a broader public health workforce audience.

This year, the recently adopted Public Health Preparedness and Response Core Competencies and the 2011 Preparedness and Emergency Response Capability, "Community Resilience" (Community preparedness and community recovery) will be featured in the 2012 conference, "**Vaccine Preventable Diseases: Policy, Practice, Preparedness.**" A major focus will be on maintaining routine vigilance promoting vaccine coverage in communities to prevent widespread outbreaks that have been occurring in the US and worldwide due to vaccine exemptions and declining vaccination rates (e.g., polio, measles, and pertussis). Given our NY-NJ PERLC regional partnership, the conference will be held at four locations, two sites in New Jersey (The Enterprise Center at Burlington County College in Mt. Laurel, NJ, and Kean University STEM Building in Union, NJ), and two in New York (University at Albany SPH in Rensselaer, NY, and Columbia University School of Public Health in NY City). Over the years, continuing education credits have been made available to public health and school nurses, health educators, health officers and registered environmental health specialists, physicians, and epidemiologists among other public health professionals and are planned for this year as well. It is anticipated that 375-400 individuals will participate this year.

ALLIED DENTAL EDUCATION (SHRP)

The Department of Allied Dental Education (ADE) provides preventive clinical dental services to veterans in New Jersey through affiliation with the Veteran's Administration Hospital in Orange, N.J. Through a variety of community services including their National Children's Health Month Program called "Give Kids a Smile" (GKAS), ADE provides dental services for children up to 12 years of age. In Scotch Plains, the "Jump Start" program gives health education video demonstrations, informative and coloring activities for over 100 children a year. The "Smile for Seniors" program provides complementary services to senior citizens aged 55 years plus. Since the beginning of the 2011-2012 school year, ADE has participated in the following community events: Union County College Career Fair Cranford Campus, SHRP Health Fair Scotch Plains

Campus, Hillside Health Fair, SERV Behavioral Health Fair Cranford, Rahway Health Fair, Runnells Specialized Hospital Group Oral Hygiene Information Sessions, Community Gardens Health Fair at Hillside, Health Sciences Career Fair at the Liberty Science Center, Oral Health Presentation at Union County Vocational Technical Schools (UCVTS) Campus Fair, Scotch Plains-Fanwood Jumpstart Preschoolers closed clinic session for GKAS, GKAS National Event, Grover Cleveland School Rahway, Scotch Plains-Fanwood Jumpstart Preschoolers closed clinic session for GKAS, Delta Dental Day at Liberty Science Center, Raritan Valley Community College Information Sessions, Vibrant Kids Preschool Event, and the Farleigh Dickinson University Campus Health Fair.

ASIAN RISK ASSESSMENT COURSE AND ENOH TRAINING (SPH)

Since 2001 the UMDNJ-School of Public Health (SPH), in collaboration with Rutgers University, has offered a month-long environmental risk assessment course. The course was originally funded by the Asian Development Bank and is now self sustaining. The course is taught in alternate years in Bangkok, Thailand at Chulalongkorn University. The School also continues to assist the faculty at Prince of Songkla University in Hat Yai, Thailand in furthering development of the Center for Toxicology and Risk Management, which was established in 2001.

Through collaborative funding from the Environmental Health Sciences Center at UMDNJ and working with the Prince of Songkla University faculty, two studies have been initiated in Southern Thailand looking at lead and arsenic contamination in children in two villages. This collaboration continues and additional support is being sought via NIH and the Thai government.

In 2007, UMDNJ-SPH with Rutgers and Chulalongkorn University was awarded an NIH Fogarty ITREOH grant (International Training and Research Program in Environmental and Occupational Health). This provided funding for the Thai Fogarty Center. The center, located at Chulalongkorn University, provides training and research opportunities relating to environmental and occupational health and exposure to pesticides. The ITREOH site is at <http://thaitreoh.rutgers.edu/>.

For more information on these projects contact Mark Robson at robson@aesop.rutgers.edu.

BAM! THE BRAIN AND MEMORY PROGRAM OF THE NEW JERSEY INSTITUTE FOR SUCCESSFUL AGING (SOM)

The New Jersey Institute for Successful Aging (NJISA) currently conducts the BAM! Program educational sessions at the request of community partners. In 2011-2012, the BAM! Program was presented to 118 older adults. The program is designed to empower seniors and includes content on strategies to improve brain function, nutrition to support body function and lifestyle behaviors to promote brain health. An interactive computer memory game is included as part of the program to engage participants and provide an example of brain stimulating activities that anyone can use to challenge the mind.

BARBERSHOP EVALUATION (SPH)

“Barbershop,” introduced as a statewide initiative in 2007 by NJ Department of Health and Senior Services, Department of Family Health Services, Office of Cancer Control and Prevention, has had as its main aim to improve access to care largely for males of Black/African-American origin through education in barbershops. The main thrust of the initiative has been to increase these men’s knowledge and access to screening largely for prostate cancer but also for other health issues. Throughout history, barbershops have been respected locations and sources of information where large numbers of men go. Now in its fifth year, SPH faculty have been engaged by shore Memorial Medical Center and its Atlantic Healthy Living Coalition, the lead agency for “Barbershop” statewide, to complete the final evaluation of the initiative. Several thrusts of the grant have included the following:

Given a listing of 119 barbers and shops that the Barbershop Outreach Coordinator identified as participating, letters introducing the evaluation were sent to each. Phone calls to each of the shops were made to either complete Interviews with the barbers or establish the best time to do so. Types of information being gathered include the following:

- How long they have been involved in the initiative;
- What types of materials, related materials and events they have been willing to support;
- Whether they have seen this as a value-added contribution to their businesses;
- Whether they will still be willing to participate in prostate/other health-related educational activities in their shops after the formal initiative ends in June;
- Whether they think that other barbershops would be interested in getting involved in the long run;
- Whether their patrons have mentioned getting screened or being proactive about their health as a result of participating in the initiative; and
- Whether they themselves have been more motivated to get screenings as a result of the training.

The information from the barbers will provide some insights on the sustainability of the initiative in NJ. The evaluation will be completed by the June 30, 2012. For more information, contact Dr. Marcia Sass at sassmm@umdnj.edu.

BRAIN BEE COMPETITION (SOM)

As part of an outreach program that shares our science expertise with K-12 educational institutions, this year, several faculty members of SOM and the Graduate School of Biomedical Sciences at SOM served as judges for the National Finalist Competition of the North South Foundation Brain Bee. This is a neuroscience competition for students in grades 9 through 12. The regional winner proceeds to the US National Brain Bee coordinated by the University of Maryland and, potentially, to the International Brain Bee Championship.

BRIDGING THE GAPS (SPH)

In the summer of 2011, UMDNJ-School of Public Health again participated in Bridging the Gaps. This consortium of universities from around Pennsylvania and Delaware was

established in 1988 to encourage service learning. SPH had seven community sites with interdisciplinary teams of students from public health (SPH), medicine (SOM) and SHRP in three cities. A total of 16 students participated and received summer stipends.

In Camden, students were placed at Camden Coalition of Healthcare Providers, Hope Community Outreach Center, Project HOPE, UrbanPromise, and the Camden Area Health Education Center (AHEC). In New Brunswick, students were placed at Open Door and in Newark students were placed at the Greater Newark Conservancy. The students worked for seven weeks on service projects of benefit to the community. In addition to working four days a week at their site, students participated in workshops once a week in Philadelphia and/or New Jersey on various community issues ranging from violence to oral health to approaches to working with youth. At their sites, students worked with youth, adult and senior populations, providing health education. They assisted with a summer camp program, the local farmer's market, and the syringe exchange project. They also helped provide outreach for homeless populations in the city. For more information on Bridging the Gaps, contact Dr. Bernadette West at westbm@umdnj.edu.

CAMDEN COMMUNITY HEALTH CENTER (SN)

The city of Camden, NJ truly represents an underserved population. Almost 33% of *families* in Camden live below the poverty level (compared to 9.2% nationwide) and 35.5% of *individuals* live below the poverty line compared to 12.4% nationwide. With one percent of the city's population accounting for 30 percent of its health costs, programs such as the CCHC have the ability to make a major impact on the health of an underserved community. When health care is neglected, it is reported that children in America miss more than 51 million hours in school each year; many eventually require treatment in emergency departments. Childhood obesity is considered an epidemic in the United States; as children age, their future risk of heart disease and stroke increases. Obesity, which impacts more than 15% of American children, is a leading cause of fatty liver disease that can progress to liver failure. According to the New Jersey Childhood Obesity Study funded under New Jersey Partnership for Healthy Kids Study, children in Camden are more likely to be overweight or obese compared to their counterparts around the country. The rates are highest among Hispanic children and among the youngest (3–5 years) and the oldest (12–18 years) age groups. The majority of children in Camden do not meet recommendations for vegetable consumption and frequently consume energy-dense foods (fast food, sugar-sweetened beverages, and sweet and salty snacks)—non-Hispanic Black children tend to consume these energy-dense foods most frequently.

The Camden Community Health Center is an active partner with organizations such as Head Start and the County Department of Health. In addition, child safety presentations, immunizations, and nutritional programs were provided by prelicensure nursing students and UMDNJ-SN faculty. Funding from the Hearst endowment was used to support these efforts.

CAMDEN COUNTY HEALTH SERVICES CENTER AT LAKELAND (SOM)

The UMDNJ-School of Osteopathic Medicine, under a professional services contract, provides mental health and primary care services for the Camden County Health Services (CCHS) Center at Lakeland. The Department of Psychiatry provides staffing

for all units in behavioral services. This includes psychiatrists, advanced practice nurses and psychologists. Department faculty are responsible for evaluation, medication monitoring and treatment team leadership for all psychiatric patients. The UMDNJ-SOM New Jersey Institute for Successful Aging continues to provide primary care medical services to more than 208 older residents at Camden County's long-term care facility at Lakeland, with over 2,172 visits logged in the past year. This facility is 99 per cent Medicaid supported.

CAMDEN SATURDAY HEALTH CLINIC (SOM)

One of the programs available to students to gain early clinical experience and give back to their community is the Camden Saturday Health Clinic (CSHC). The CSHC provides urgent, primary and preventative health care to the underserved population of Camden, NJ. The CSHC will also strive to educate the community on pertinent medical issues. Patients whose needs extend beyond the scope of the clinic will be referred to physicians, many of whom graciously donate their services.

The CSHC is managed by the students of the University of Medicine and Dentistry of New Jersey-School of Osteopathic medicine. Students work in collaboration with practitioners from various healthcare fields, including the medical school's Departments of Family Medicine and Internal Medicine, in order to foster an interdisciplinary environment. CSHC affords students the opportunity for community service and promotes cultural awareness through the development of community relations. With the help of fellow students and the UMDNJ-SOM Departments of Family Medicine and Internal Medicine, space was secured in downtown Camden for a clinic. Funded entirely by student efforts and donations, and staffed by medical student volunteers, the clinic has settled in as part of the Camden community since 2003.

Each student volunteer is paired with another student (1st or 2nd year students are paired with 3rd or 4th year students). Together the pair will interview the patient and perform a physical and report to the attending and share what information they have gathered. Together with the attending they will re-examine the patient and finalize the plans for the patient. The experience provides valuable time to practice history and physical exam skills.

Some of the services offered by the Camden Saturday Health Clinic include adult and child examinations, work and school physicals, chronic disease management as well as a free prescription program. The clinic, which is located at the OEO Building, 538 Broadway, Camden, NJ 08103, is open from 10 am – 1 pm every Saturday.

In 2011, the student leadership of the CSHC embarked on an ambitious strategic planning process to improve awareness of the clinic in the community and broaden their services.

In 2012, the CSHC, which was headed at the time by the director and member of the class of 2012, Andrew Kelly and supervised by our own Dr. Timothy Dombrowski, was honored by the American Osteopathic Foundation with a "Spirit of Humanity" award this past year. The Spirit of Humanity award is a national award that honors the extraordinary efforts of those who provide urgently needed health services to the indigent, underserved or those with barriers to health care.

The CANCER INSTITUTE OF NEW JERSEY (RWJMS)

The Cancer Institute of New Jersey (CINJ) is committed to expanding its capacity to provide exceptional and innovative outreach to New Jersey's medically underserved populations. The CINJ Office of Community Outreach works in conjunction with the Gallo Prostate Cancer Center, the Middlesex Country Cancer Coalition, the Healthier New Brunswick 2010 Community Health Advisory Group, the New Jersey Comprehensive Cancer Control Plan members and the New Jersey Cancer Education and Early Detection program to meet the cancer education and outreach needs of its community constituents.

The Dean and Betty Gallo Prostate Cancer Center

The Center has developed many strong community ties that have been instrumental in increasing prostate cancer screening and education programs throughout the State, including screenings held at churches, clinics, and village gatherings and advertised through local papers, radio stations, bulletins, food stores, and community centers.

Continuing Umbrella for Research Education

The Continuing Umbrella for Research Education (CURE), originally established in 2003 with a grant from the National Cancer Institute, is now funded by Johnson & Johnson. The program enrolls eight students each year – four from Rutgers and four from the New Brunswick Health Science Technology High School – to conduct research at CINJ. Running for two summers and the academic year in between, the program provides students with an excellent opportunity to experience the research environment and develop and pursue opportunities for careers in science.

Community Activities

The Office of Outreach also designs curricula for cancer prevention and screening educational programs as well as informative treatment-related lectures to community organizations.

The **Office of Community Outreach** (OCO) maintains an Outreach Calendar to help plan, coordinate and track CINJ outreach and screening activities. In 2011, staff and faculty of CINJ have:

- participated in 6 outreach activities (including cancer-related community education presentations, health fairs and community festivals) attended by almost 1,225 individuals;
- educated 579 community members about CINJ, cancer, its early detection, prevention (including prevention trials) and clinical trials; and
- participated in a radio interview regarding the benefits of early cancer screening, reaching almost half a million listeners.

Other CINJ Activities

- A patient-relief fund was established with patient donations to assist with transportation, parking, etc., for indigent individuals.

- CINJ is active in New Jersey Cancer Education and Early Detection (NJCEED), a program sponsored by the Centers for Disease Control that provides cancer screenings for uninsured individuals in all 21 New Jersey counties. Our physician faculty members serve actively on NJCEED's Medical Advisory Board, most recently chaired by CINJ's Deputy Director for Extramural Affairs. The CINJ Outreach Director co-chairs the NJCEED educational committee.
- CINJ received a multi-year grant from Johnson & Johnson Pharmaceuticals, Inc. to develop a program to increase nutrition education and physical activity within houses of worship in the Greater New Brunswick area. Approximately 20 houses of worship have been selected to participate in this multi-phase program.

Health Education Materials Archive: The Office of Community Outreach maintains a health education materials archive for clinically accurate and culturally appropriate materials from sources across the United States. As a joint initiative between OCO and CINJ's Bioinformatics team, this interactive portal will allow for searching via keyword, population, and cancer site, as well as submission of materials for inclusion and ordering of materials. Information is provided in multiple languages, and the portal is the first search engine known to offer comprehensive cancer educational materials in multiple languages.

OCO is committed to supporting the objectives contained within the New Jersey Comprehensive Cancer Plan. Moreover, the work of New Jersey's Cancer Education and Early Detection Program (NJCEED) is aligned with OCO's charge to ensure education and screening is provided to all New Jerseyans. Members of CINJ's OCO and OEA serve on several statewide committees sponsored by the NJ Department of Health and Human Services, such as the New Jersey Cancer Education and Early Detection (NJCEED) – Public and Professional Education Subcommittee, Statewide Melanoma Workgroup, Statewide Evaluation Workgroup, and various County Cancer Awareness Coalitions. Samples of statewide projects include:

- Choose Your Cover: Sponsored by the Statewide Melanoma Workgroup, a multi-site melanoma screening held over two days at the Jersey Shore. Since 2010, this program was expanded as a statewide initiative for all outdoor areas (park, pools, and beaches) throughout all 21 counties in New Jersey.
- Breast Cancer Update (October 2011): Held at the Chart House in Weehawken, CINJ faculty provided a keynote address to health professionals regarding issues and current treatment options for patients with triple negative and HER2 positive breast cancer.
- Prostate Cancer Education (2011): CINJ Faculty published an article regarding current prostate cancer screening guidelines in *Perspectives*, the peer-reviewed CME publication for the New Jersey Academy of Family Physicians.

CARES INSTITUTE (SOM)

The Child Abuse Research Education and Service (CARES) Institute at SOM provides state-of-the-art medical and mental health services to children and families who have experienced child abuse and neglect. The CARES Institute has a long history of providing expert training to many professionals and disciplines on medical and mental health issues involved in child abuse or neglect. The Institute's pediatricians regularly provide training to the caseworkers at the Division of Child Protection and Permanency (DCPP) and law enforcement officials about the medical indicators of abuse and neglect. The mental health clinicians at the Institute also provide training to DCPP, law enforcement, schools, parents and foster parents about the traumatic impact of child abuse. The CARES Institute is the only child abuse diagnostic and treatment center for the southern third of New Jersey and integral to the success of the Division of Youth & Family Services in meeting its statutory mandate to investigate allegations. The Institute has a national and international reputation for its state of the art research, contributions to the literature and service delivery.

The Institute is also dedicated to disseminating evidence-based treatment models and best practices in handling child abuse cases on a local, regional, national and international level. The clinicians provide introductory and advanced clinical training on both the Trauma Focused-Cognitive Behavioral Therapy (TF-CBT) model and the Combined Parent-Child CBT model.

The Institute helps to improve the quality of services provided to children who have suffered abuse and neglect by educating professionals about best practices in diagnosis and treatment. CARES holds the Annual Statewide Best Practice Symposium, the Experts in Child Abuse and Neglect Lecture Series each year that bring internationally recognized experts in the field of child abuse and neglect to New Jersey. It also provides a wide variety of training and educational services to the community, directed towards children, parents, teachers, social workers, law enforcement, mental health clinicians, and/or medical professionals.

In fiscal year 2011, CARES offered approximately 45 training sessions and professional presentations to a broad array of audiences. These included

- Training to physicians on suspected child abuse and neglect and the prevention of child abuse and neglect, through the New Jersey Pediatric Council on Research and Education (NJ PCORE);
- "The making of medical diagnosis of Child Sexual Abuse: understanding the importance of a medical evaluation and interpreting consultative reports," at the University of Pennsylvania "One Child, Many Hands Conference";
- "Identification and Evaluation of the Sexually Abused Child," at the 61st Annual NJ Obstetrical and Gynecological Society in Atlantic City, NJ;
- "Understanding sexual victimization of children: the role of the medical evaluation," and the "Medical Evaluation of Child Sexual Abuse:

Pearls and Pitfalls,” at the International Conference - “Kaleidoscope of Child Maltreatment” in Haifa, Israel;

- “Evidenced-based Solutions: Helping Families Develop Healthy Outlooks and peaceful Home Environments - An Introductory Learning Session on Combined Parent Child Cognitive Behavioral Therapy,” at the Children’s Center in Salt Lake City, Utah and in Biloxi, Mississippi;
- Introduction to Trauma Focused-Cognitive Behavioral Therapy (TF-CBT) Training to the Project Best in Charleston, South Carolina and to Community Behavioral Health in Philadelphia, PA.;
- Advanced TF-CBT to project Innocent Heart in NYC;
- Camden County and Gloucester County Police Academy training on physical abuse, sexual abuse, failure to thrive, and abusive head trauma;
- Training for the Division of Youth and Family Services on the topics of physical abuse, sexual abuse, failure to thrive, and abusive head trauma; and
- Sexual Assault Nurse Examiner training

CENTER FOR BIODEFENSE (NJMS)

UMDNJ established the Center for BioDefense in 1999 in anticipation of bioterrorism attacks taking place in the United States. Since its founding, the Center has grown into a leading entity in the area of biodefense research, policy, and emergency management. In light of the terrorist attacks in 2001 and of the President’s commitment to protect America against future attacks, we are proud that New Jersey is able to join national efforts through the Center for BioDefense at UMDNJ. The Center has gained a state and national reputation. Since October 2001, members of the Center have embarked on an ambitious schedule of seminars, conferences, and other training sessions to educate scientists, clinicians, first responders, public health professionals, and the general public on bioterrorism and biodefense. Its members testify in Congress, deliver briefings, and serve on committees of the National Academies of Science and the American Association for the Advancement of Science. Finally, the Center has been the recipient of funding by the National Institutes of Health and the Defense Threat Reduction Agency in bacterial drug discovery to identify novel broad spectrum antibiotics for the treatment of acute infectious disease.

CENTER FOR SCHOOL AND COMMUNITY-BASED RESEARCH AND EDUCATION (SPH)

The Center for School and Community-Based Research and Education (CSCBRE), headquartered in New Brunswick, follows a mission to empower diverse populations to make informed decisions about their health and the environment through applied field research, creative partnerships and innovative outreach like trainings, risk

communication and educational interventions. Collaborations through CSCBRE include innovative programs that translate leading scientific research into educational materials for schools, industry, professionals, and the general public.

Professional Development

Training workshops support the use of CSCBRE materials and the integration of health-based topics into school curricula. Through hands-on workshops, participants experience the curricular materials as both students and teachers, promoting teachers as learners. Participants familiarize themselves with the activities, discovering how the lessons and activities are interrelated and build upon one another, ultimately preparing them for the classroom. CSCBRE workshops are designed to meet the specific needs of each target audience. To achieve this goal, CSCBRE employs several teacher training models, including national train-the-trainer programs; regional teacher workshops held primarily during the summer; and both short- and long-term district collaborations to train all teachers at a specific grade level(s). To date, CSCBRE's programs and services have impacted more than 7,250 teachers and 140,500 students in 29 states, the District of Columbia, Guam, Puerto Rico and overseas.

Train-the-Trainer Programs: Using a train-the-trainer approach to increase the number of people who have the capacity to train teachers on select curricula is the most efficient method for ensuring nationwide curriculum dissemination through professional development. This mechanism greatly increases the number of teachers/students impacted when compared to one organization acting alone. These programs may involve the collaboration of several school districts, educational/environmental organizations and universities' education and outreach programs. Trainers are trained to facilitate workshops for teachers in their area focusing on health-related curricula.

Teacher Workshops: The Center offers regional and district-specific workshops facilitated by CSCBRE staff and health educators, scientists and classroom teachers. Workshop topics included toxicology, risk assessment, epidemiology, infectious diseases, real-life science and safe work practices for teenagers. Since inception, 2,182 teachers have been trained to use health sciences as a theme for learning.

Curriculum Development

Lesson plans containing current and impartial information increase public health literacy, with an emphasis on environmental health, while enhancing educational resources in elementary, secondary and vocational school classrooms (grades K-12). Teaching techniques include problem-based learning, games, graphing, hands-on experiments and case studies. Age-appropriate investigative science, math, health and language arts activities present students with real-life scenarios through which they learn problem-solving, decision-making and critical-thinking skills. These tools for learning are readily transferable to other areas of students' lives. Select modules are also available in Spanish-bilingual and all-Spanish versions. Materials, where applicable, are indexed to state and national education standards.

BioCONNECT (Biology of Cancer, Online Education Connecting Teens): Working with the LIFE Center (LPGA Pros in the Fight to Eradicate Breast Cancer) at The Cancer Institute of New Jersey (CINJ), CSCBRE developed BioCONNECT, a high school science curriculum supplement that uses breast cancer as the context. The module enables both female and male high school students, through the process of scientific inquiry, to

identify risk factors for breast cancer; learn how cancer develops; and make life-style changes to reduce the risk of cancer. The module targets science classrooms. The lessons follow fictional 14-year old twins, Steve and Nikki, as they discover their mother has been diagnosed with breast cancer. Via the twins' website, the students help the twins work through the associated scientific and psychological issues over time, as the twins' family moves through diagnosis and treatment. At critical decision points, students use their knowledge to share information using the twins' online forum.

The BOLD (BioCONNECT Oncology Leadership Development) Initiative: CSCBRE and the LIFE Center at CINJ developed the BOLD Initiative, based on the BioCONNECT curriculum. The BOLD Initiative is a unique learning opportunity for high school students who have an interest in learning more about cellular biology and genetics of cancers, as well as careers connected to the field. During this weeklong interactive experience, students increase their understanding of cancer related causes, diagnostic tools, treatment options and current research through the context of breast cancer. They identify risk reduction strategies and learn first-hand about careers related to the field as they live the experience among the professionals at CINJ.

NJ Safe Schools Program

The NJ Safe Schools Program (NJ SS) is a multi-faceted program supported predominantly by the New Jersey Department of Education, Office of Career and Technical Education. NJ SS assists schools in reducing risk due to occupational safety and health hazards in secondary schools and work microenvironments in which adolescents spend time. NJ SS involves a number of outreach components designed to support teachers, administrators, safety and health designees, structured learning experience/career orientation coordinators, county apprenticeship coordinators, cooperative education coordinators and those involved in school-to-careers. In addition, NJ SS includes multiple communications during the school year to keep stakeholders informed of relevant science, engineering, policy, regulatory, and injury epidemiology developments at local, state and national levels. Finally, NJ SS is in charge of the State of NJ law-based incident (injury, illness) surveillance system for youth workers involved in school-sponsored structured learning experiences on and off-campus. As of spring 2012, there are print and on-line versions of the incident reporting form used statewide. We have produced annual summary reports for state agencies, and between 1/2008-6/2012 multiple state and national conference presentations and four peer-reviewed publications (with others in preparation).

As another one of its components, project staff developed recommendations regarding prohibited and restricted hazardous work activities for minors (youth under the age of 18) involved in school-sponsored structured learning experiences in multiple topic areas, including construction; food service (e.g., preparation and storage); health care and allied health fields; automotive and diesel engine repair; retail/business and marketing (e.g., food vendors); and agricultural education. The 2004-09 report recommendations, developed through NJ SS Task Forces for the New Jersey Department of Education and the New Jersey Department of Labor and Workforce Development, will be guiding revisions to New Jersey child labor laws. A focus on cosmetology began in 2010 and continues in 2011-12 (hair styling, nail salons, skin care, barbering). Three activities/projects are being conducted with stakeholders throughout NJ—namely teachers and students in participating career and vocational-technical school districts--and the resulting posters and pamphlets will be piloted then disseminated throughout NJ in the 2011-13 school years.

Overall, several thousand teachers and administrators in NJ have been trained during multiple courses focusing on occupational safety and health and wage and hour/child labor issues through NJ SS. Much of the training focused on preparing participants to meet the new teacher licensing requirements related to ensuring students associated with school-sponsored structured learning experiences are placed at safe work sites. In addition, teachers have attended free/in-service trainings on using the “Youth@Work: Talking Safety” curricula, violence in the workplace, and safety and health for special needs students (new training created with partners).

Community Outreach

CSCBRE conducts community outreach to raise public awareness of how public health research is leading towards the prevention, detection and/or treatment of diseases/illnesses. Programs are designed to translate research information into tools and resources for community stakeholders.

Community Outreach and Engagement Core (COEC): COEC translates research information of the Center for Environmental Exposure and Disease (CEED), a National Institute of Environmental Health Sciences Center of Excellence administratively housed at the Environmental Occupational Health Sciences Institute, into tools and resources for community stakeholders. The overall goals of COEC are to (1) develop partnerships with community stakeholders to translate and disseminate Center research information; (2) enhance the dialogue between community stakeholders and Center researchers regarding environmental health issues; (3) increase awareness and understanding of environmental health research; and (4) promote environmental health research as a science career option.

For more information on CSCBRE programs and services, contact Ms. Laura Liang at: laura.liang@umdnj.edu or Dr. Derek Shendell atshendedg@umdnj.edu.

CENTER FOR TOBACCO SURVEILLANCE AND EVALUATION RESEARCH (SPH)

The Center for Tobacco Surveillance and Evaluation Research (CTSER), formerly known as the Tobacco Surveillance and Evaluation Research Program (TSERP), was first established in 2000 to evaluate New Jersey's Comprehensive Tobacco Control Program (CTCP) and is responsible for monitoring tobacco use trends in response to the State's tobacco control activities. The Center now includes multiple research projects supported by state, federal, and private foundation funding. Its overall mission is to enhance the evaluation and surveillance of tobacco control as well as industry initiatives and strategies.

A key priority of CTSER is the dissemination of its findings. Since 2000, CTSER has produced over 30 reports and briefs for NJ CTCP, delivered over 100 conference presentations, and published over 50 journal articles. In addition, CTSER faculty have previously provided testimony before state lawmakers on potential legislative action related to tobacco products and advertising. For more information on this project, contact Dr. Cristine Delnevo at delnevo@umdnj.edu.

DR. CHARLES E. BRIMM MEDICAL ARTS HIGH SCHOOL (SOM)

UMDNJ-SOM Family Medicine third-year students, through the link with the New Jersey Area Health Education Centers (AHECs), participate in a program at the Dr. Charles E. Brimm Medical Arts High School as part of their Community Service Learning experience, in which they discuss health-related issues with high school students, including potential careers in clinical medicine. The well-received program, part of the federal Kids in Health Care program, is one of the “pipeline” activities offered through the AHECs, designed to attract disadvantaged and minority students into health careers.

CHOOSE YOUR COVER—GOING OUTDOORS IN NJ TO FIGHT MELANOMA/SKIN CANCER (SPH)

Though most cancers have started to decline, skin cancer and, more specifically, melanoma, has continued to rise in both males and females as have associated death rates. Death rates for males have been higher because of later detection. This has been true in New Jersey as well as the United States as a whole. **Choose Your Cover** is a statewide collaborative initiative to promote risk education, early detection and skin cancer screenings at outdoor venues and increase awareness about the need for protection from UV rays which is the easiest way to eliminate the most common risk factor for melanoma.

Screenings were first initiated at three beaches in 2008. Faculty developed a pilot evaluation of the initiative in 2009 which screened 1,917 beach-goers. Of these, 555 (29%) were referred for a variety of skin lesions including basal cell carcinomas (4%), squamous cell carcinomas (2%), and melanomas (3%). The initiative was expanded statewide in 2010 and is again planned at sites in May, June, and July, 2012. Faculty members have been working with the State on a large-scale evaluation to analyze pre- and post-measures provided by screened participants to assess whether there are changes in knowledge, attitudes, and perceived willingness to adopt sun safety behaviors as a result of participating in the events. During Chose Your Cover events between 2008 and 2011, 5,233 individuals were screened. In 2010 and beyond with expanded venues around NJ, individuals who were engaging in outdoor activities at beaches, lakes, pools, parks and other venues around NJ were offered free skin cancer screenings and education on a first-come, first-served basis at outdoor recreational sites. This year screening and education sessions are again planned. For more information, contact Dr. Marcia Sass at sassmm@umdnj.edu.

CIRCLE OF LIFE CHILDREN'S CENTER (NJMS)

The mission of the Circle of Life Children's Center (COLCC) is to provide a comprehensive program of palliative (comfort) care and end-of-life services for children with chronic, life-limiting illnesses and their families. James Oleske, Director of the Division of Pulmonary, Allergy, Immunology, and Infectious Diseases in the Department of Pediatrics, was instrumental in establishing the Center and is currently its director.

The COLCC Pediatric Palliative Care program provides state-of-the-art expertise in problematic pain and symptom management and family-centered end-of-life care, along with the necessary skills to assess physical condition and family needs in order to develop a plan of care.

The COLCC serves children from infancy through age 21 who are dealing with life-threatening illnesses such as AIDS, cancer and a wide variety of progressive medical conditions, many of which are congenital. This groundbreaking program concentrates on serving seriously and terminally ill children residing in the greater Newark, NJ (Essex County) area and in neighboring counties. While the focus has been in this urban area, the program has cared for children in 13 of New Jersey's 21 counties.

The goal of COLCC is to provide a wide range of services and programs to serve the ill child and his/her family on a local/regional level to include: COLCC Pediatric Palliative Care Consultation Service; In-patient Pediatric Palliative Care; Home Care; Pediatric End-of-Life Care; Respite Care; Child and Family Support Services; Quality-of-Life Programs; Bereavement Counseling; Community and Family Educational Programs; Professional Education; and Volunteer Program.

CLINICAL LABORATORY SCIENCES (SHRP)

This year the Cytotechnology program participated in the SHRP Health Science Career Fair where over 600 students were served. Volunteer services provided at the Cranford Nursing Home benefited approximately 50 elderly persons. The department services over 250 people annually through its Mano-a-Mano International Relief Organization which serves an indigenous population of the Philippines and Haiti by providing medical and humanitarian services. The Cytotechnology program participates annually in the Breast Cancer Walk in New York City sponsored by the American Cancer Society. Money raised during this event is donated to the American Cancer Society.

COLLINGSWOOD HIGH SCHOOL (SOM)

Medical students with the UMDNJ-SOM Department of Family Medicine assist in providing pre-participation sports physical examinations for all athletes at Collingswood High School. These examinations provide a valuable service while enhancing the medical students' skills at diagnosis and treatment. In addition, under the supervision of Joshua Coren, D.O., MBA, UMDNJ-SOM residents provide medical coverage for all varsity football games.

COMMITMENT TO DIVERSITY (RWJMS)

The UMDNJ-Robert Wood Johnson Medical School (RWJMS) has collaborated with Rutgers University and Seton Hall University in developing a number of programs aimed at increasing the enrollment of underrepresented minority students in medical school and the sciences. ACCESS-MED is a consortium program for undergraduates offered by Rutgers, Seton Hall, and RWJMS to provide academic enrichment, support and counseling for educationally and financially disadvantaged students pursuing health science careers.

The Office of Special Academic Programs administers two summer programs that it is hoped will increase the diversity of biomedical researchers, physicians and other health care professionals:

- The Biomedical Careers Program is a six-week program for educationally and financially disadvantaged undergraduate students interested in careers in medicine or other health professions

- The Pre-matriculation Summer Program allows educationally or financially disadvantaged incoming medical students to preview selected topics in anatomy, biochemistry, and physiology

All of these programs have contributed to the School's successful diversity efforts. RWJMS has maintained a commitment to increasing diversity within the medical school class by recruiting students from groups underrepresented in medicine. The School is also collecting data about faculty diversity and is actively seeking to increase the recruitment, retention and promotion of underrepresented minority and women faculty.

COMMUNITY ADVISORY BOARD (SOM)

Established by Dean Thomas A. Cavalieri in 2008, the UMDNJ-SOM Community Advisory Board brings together civic, business, academic, health care and religious leaders to advise the school on fulfilling its commitment to excellence, and, in particular, its community service mission. The Community Advisory Board focuses on communication and advocacy activities to support and help expand the school's programs, sustain its leadership in diversity, and develop new alliances. Through regular meetings, the 21-member Community Advisory Board serves as liaison for the academic, research and health care leaders at UMDNJ-SOM with individuals and groups that share an interest in and commitment to the health care and higher education needs of the region.

COMMUNITY BASED MENTAL HEALTH (SOM)

The majority of UMDNJ-SOM Department of Psychiatry services are provided through contractual arrangements with community based mental health organizations. UMDNJ-SOM faculty, contracted by these agencies, treat indigent, Medicaid, Medicare and managed care patients throughout South Jersey. Patients come to these agencies from the surrounding counties in the South Jersey area. In fiscal year 2011, the Department contracted with nine community agencies and schools, along with four hospital-based systems.

COMMUNITY HEALTH WORKER INSTITUTE (CHWI) (SOM)

The CHWI, part of the NJ AHEC Program and operated out of the Camden Area Health Education Center (AHEC), was established in 2004. Partially supported by the U.S. Department of Health and Human Services-Health Resources and Services Administration (DHHS-HRSA) under a grant to UMDNJ-SOM for the AHEC Program the CHWI has developed and pilot-tested a copyrighted Basic Training Curriculum for Community Health Workers (CHWs) and has initiated CHW training using the evidence-based Stanford Chronic Disease Self-Management Program.

The CHWI is completing a series of webinar-based educational and information sessions for Workforce Investment Boards, the NJ Department of Labor and Workforce Development, employers of CHWs, community-based agencies, and community colleges to increase knowledge about the value of CHWs as members of the health care team and the role they play in increasing access to health services for minority and disadvantaged populations. The NJCHWI has received requests from various health provider organizations in the region to conduct CHW training as part of these service providers' efforts to pilot new models of coordinated patient care. The NJCHWI is

continuing its networking and advocacy work for increasing the roles for CHWs while exploring issues of certification, reimbursement, and recognition of the CHW as an apprenticeable trade.

COMMUNITY-ORIENTED DENTAL EDUCATION PROGRAM (NJDS)

The Community-Oriented Dental Education Program (CODE) is in its seventeenth year of having fourth-year pre-doctoral dental students deliver care under faculty supervision in NJDS' extramural dental centers in southern New Jersey. Students, who move into the area near one of the community-based facilities, participate in organized community projects throughout the year and come to Newark for didactic instruction one day each week.

COMMUNITY-ORIENTED DENTAL EDUCATION-II (NJDS)

The CODE II Program, established three years ago by grants, allows all pre-doctoral senior students an opportunity to rotate through New Jersey Dental School's extramural dental centers in Atlantic and Camden counties for a two-week experience. These students, like the CODE students selected for the original program, participate in organized community projects.

COMMUNITY SERVICE REQUIREMENTS FOR UNDERGRADUATE STUDENTS (NJDS)

All undergraduate students are required to perform four prior approved community service activities per year for each of their four years at New Jersey Dental School. Many NJDS students elect more than the sixteen required activities prior to graduation. Each student performs clinical oral health education and acquires cultural competency as well as the ability to work with variable age groups in our population. Students write a reflection paper about their experience, which is reviewed with them by a member of the faculty.

COMPREHENSIVE SICKLE CELL CENTER (RWJMS)

The Comprehensive Sickle Cell Center at Robert Wood Johnson Medical School, a program of the Division of Pediatric Hematology/Oncology (Department of Pediatrics) provides clinical services to patients with Sickle Cell Disease in three centrally located centers (The Cancer Institute of New Jersey in New Brunswick, Jersey Shore University Hospital in Neptune and a once-a-month clinic on the Mercer Campus of Capital Health System in Trenton.) The program works through a team approach model and is made up of a physician, a pediatric advanced nurse practitioner and a counselor. The team not only treats patients and conducts research, but it also provides educational seminars to help patients and their families cope with the complexities and complications of living with Sickle Cell Disease.

This past academic year, the team hosted an Education Night which focused on learning more about Sickle Cell Disease and how to prevent complications of the disease. The attendees were able to learn about how blood flows through blood vessels, saw red blood cells under the microscope, had the opportunity to ask questions from experts and listened to a talk about research and treatment options for those living with Sickle Cell Disease.

The program is partially funded by the State of NJ's Department of Health and Senior Services, Newborn Screening and Genetic Services, Special Child Health and Early Intervention Services. This funding allows outreach to indigent populations in underserved communities such as Trenton.

“COVER THE UNINSURED” FAMILY HEALTH FAIR (SOM)

On April 28th, the 4th Annual Community Health Fair was sponsored by Student National Medical Association and the Minority Association of Pre-Medical Students at the Camden Academy Charter High School in Camden, NJ. Vendors, UMDNJ-SOM and GSBS students, as well as student volunteers from the school provided health information, health screenings and activities for the local residents. Activities included OMM (osteopathic manipulative medicine) demonstrations, door prizes and a Zumba class.

CRISIS SERVICES FOR CHILDREN (SOM)

Over recent years, public schools have focused close attention on students who exhibit at-risk behaviors. Most districts enacted policies requiring that any child who exhibits behaviors which cause suspicion of potential harm to others or self be suspended, pending an evaluation supporting their safe to return to school. As there is a dearth of child psychiatry in South Jersey, these students often are directed to a regional crisis center. The 14-bed Child and Adolescent Psychiatric Unit (CAPU) at the Cherry Hill Division of Kennedy University Hospital is in its eighteenth year as a state-designated Children's Crisis Intervention Services facility. Since the unit's inception, the UMDNJ-SOM Department of Psychiatry has supplied medical services for this unit. It is designated as the regional unit for child and adolescent psychiatric admissions for Camden, Burlington, Gloucester, and Salem counties. The CAPU is also the secondary unit for Atlantic, Cape May, and Cumberland counties. The average length of stay is approximately one week. Over 40 percent of admissions to the CAPU are compensated by Medicaid, and approximately ten percent are services provided to children and adolescents who are either indigent or have no health insurance.

DEPARTMENT OF COMMUNITY HEALTH (NJDS)

The NJDS Department of Community Health provided oral health education programs, screening and/or treatment at many sites throughout New Jersey and the nation. Here are examples of events and places visited:

- Oral Health Awareness Day, Jersey City
- Newark YMCA Healthy Kids Day
- Hispanic Coalition
- Statehouse - Oral Cancer Screening and Presentation for employees and legislators
- New Community Center, Newark, NJ – Oral Cancer Presentation
- HIV Buddies Hackensack, NJ
- Care One at Teaneck NJ
- Lady Liberty Academy, Newark NJ
- National Council of Jewish Women: Back 2 School Program –West Orange, NJ
- Oral Cancer Walk, NY

- Yeshiva Central Queens Elementary School
- World Aids Day, Atlantic City
- Moriah School, Engelwood
- Heywood Avenue School Healthfair, Orange
- Special Olympics-Special Smiles
- Jewish Family Services, Meals on Wheels
- Student Doctor for a Day, Jersey City
- Susan Komen Breast Cancer Walk (table display)
- The Congressman Donald Payne Community Health Fair
- Liberty Science Center, Oral Health Promotions and Education
- Indian Health Service, western reservations.

DEPARTMENT OF ENVIRONMENTAL AND OCCUPATIONAL MEDICINE (RWJMS)

Community service is at the core of many of the research and clinical activities of the Department of Environmental and Occupational Medicine and the Environmental and Occupational Health Sciences Institute (EOHSI). The **World Trade Center Medical Monitoring Program** provides outreach, diagnosis, support, and state-of-the-art-treatment to the virtual community of New Jersey responders who are still suffering after their work at this disaster site. On a smaller scale, much of the clinical work performed at the Clinical Center of EOHSI interfaces with neighborhoods, schools, and workplaces affected by exposures to toxic or hazardous pollutants, including some communities that receive ongoing medical surveillance for their prior exposures. In addition, research occurs in venues such as the New Jersey Turnpike and union halls across the region, as the Department and the EOHSI strive to understand the health hazards that affect our communities and workplaces.

Researchers in the Department advise and perform research for the New Jersey Department of Environmental Protection (DEP). A prime example is the longstanding Ozone Research Center.

DEPARTMENT OF EPIDEMIOLOGY NEWARK (CENTRAL WARD) COMMUNITY-BASED HOUSEHOLD SURVEY (SPH)

In 2011, the Department of Epidemiology was funded by the Department of Community Outreach, Robert Wood Johnson Hospital to design a research and evaluation approach for a diabetes intervention targeting hard-to-reach Latinos. The goal of this project is to improve diabetes-related outcomes (A1C levels, weight status, diet, physical activity and overall knowledge of diabetes complications) among low-income and low literacy Latino populations receiving care at the Chandler Clinic in New Brunswick. The project uses community-based outreach to recruit participants for the intervention and provides monitoring of participants over a one-year period to encourage the adoption and maintenance of health-enhancing behaviors. Preliminary results from this project have been accepted for presentation at the 2012 American Public Health Association meeting. A manuscript based on prior work conducted in the city of Newark from 2009-2010 (Newark Household Survey, Central Ward) is under review in the Journal of Physical Activity and Health and a community forum based on the results is scheduled for the Fall 2012. For more information contact Dr. Sandra Echeverria at echevese@umdnj.edu.

DEPARTMENT OF FAMILY MEDICINE AND COMMUNITY HEALTH (RWJMS)

In conjunction with medical student training, faculty volunteers at The Promise Clinic in New Brunswick perform medical examinations for urban minorities. Faculty have developed a **Healthy Homes Demonstration Project** with Isles, Inc. of Trenton. Building on the previously successful efforts of *Dust Does Not Discriminate*, *Healthy Homes Mold Project* and *Arrest the Pests in Your Nest*, faculty developed a VHS and an English and Spanish language DVD training module on mold and other environmental contaminants in the home. Entitled "the Healthy Homes Video," the target audience is urban minority residents. Another ongoing Department project is the work being done in the Camden community through many churches and community groups, including Heart of Camden, to address methods of reducing community exposure and risk to toxins in the South Camden area.

The Department is also developing a pilot community assessment course for Trenton community members to learn how to recognize, assess, evaluate and remediate community hazards. In addition, a course in Community Based Sampling is being developed for students in the graduate programs in Public Health, Toxicology, and Environmental Science to learn how to assess, sample and analyze an urban site and to deliver the information to the community.

Faculty are again actively screening homes and residents for Chromium contamination in Jersey City and other Hudson County locations, a residue of past waste dumping practices.

The Department of Family Medicine and Community Health's Institutional Profile involves students in community-based activities from the first year of medical school through the residency program in family medicine. The goals of the Department of Family Medicine and Community Health's community-based initiatives are:

1. To encourage an ethic of community service and social responsibility in medical students and residents. This involves training them in the context of community service.
2. To equip the next generation of health professionals with the community oriented and culturally sensitive competencies needed to make a difference in the lives of their patients and clients and the communities they serve.
3. To foster partnerships between community organizations and UMDNJ-RWJMS to promote the health of underserved/vulnerable populations.

The Department of Family Medicine and Community Health developed a number of community-based initiatives to help meet these goals.

In addition, students may elect to participate in a six-week interdisciplinary **Community-Oriented Primary Care (COPC) Assistantship** between the first and second year of medical school. Students in COPC, who must complete independent projects, are assigned to a community-based health care or social service organization and learn through special didactic field trips to Newark, Trenton and New Brunswick. During the program, students in this interdisciplinary cohort participate in interactive seminars

covering topics aimed at increasing student awareness about the principles and practice of COPC, health disparities, population assessments, and culturally competent clinical care. Students also participate in a tour of local botanicas and bodegas.

At the undergraduate level, during the third-year Family Medicine clerkship, all medical students participate in community-based service learning that has been incorporated into the curriculum. Examples of service learning opportunities clerkship students can participate in include group health discussions with the Adult Substance Abuse Program in the Middlesex County Jail; observation and participation in group work at Damon House Drug Rehabilitation; health discussions in local high schools; nutrition teaching sessions in conjunction with the SNAP-Ed and Head Start; co-facilitation of partial hospitalization Wellness Group at UBHC; a wellness presence at Elijah's Promise Soup Kitchen and many others. These activities are complemented by didactic sessions on community-oriented primary care and principles of population-based health care.

The **New Brunswick RWJUH Family Medicine Residents** provide quality primary care services to many of greater New Brunswick's uninsured and underinsured citizens, many of whom are not documented. Patients are seen in the Family Medicine Service within RWJUH and at clinics and other outpatient sites: Family Medicine at Monument Square; St. John's Clinic; soup kitchens; homeless shelters; senior citizen apartments; long-term care facilities and in patients' own homes.

Additionally, the New Brunswick RWJUH Family Medicine Residents provide primary care services to the greater New Brunswick community. As part of their training, all second-year residents participate in a cross-cultural community medicine rotation at St. John's Health Center in New Brunswick. The goal of the rotation is to encourage residents to practice in medically underserved urban areas by offering a rewarding learning experience that enhances their skills in providing culturally sensitive, community-oriented primary care to a diverse and indigent population. Residents learn about different multicultural populations and become familiar with managing clinical issues prevalent in the community (e.g. lead poisoning, immunizations, TB exposure, HIV, substance use, health problems exacerbated by poverty and homelessness). They participate in community-based health care activities including seeing patients at a child health conference, a pap/mammogram screening, and volunteering at a local soup kitchen. Community site visits included the Middlesex County Board of Social Services, a homeless shelter, a botanica and bodega, and home visits accompanied by St. John's prenatal and immunization outreach workers. In addition, residents conduct community presentations at the Edison Job Corps Academy, Ozanam Men's Homeless Shelter, and Naomi's Way, a transitional housing facility for women and their children. Presentation topics include personal hygiene, nutrition, and respiratory illnesses. As part of their longitudinal community medicine experience, residents also participate in community-based activities such as school physicals, health fairs, pap and mammogram screenings, prostate cancer screenings, and community presentations.

All residents, first year through the third year, and many faculty members provide other educational and clinical care services to local communities. The following services were provided by residents and residency faculty:

Community Affiliation**Services**

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| St. John's Health Center, New Brunswick | Clinical care for indigent populations |
| American Academy of Family Physicians | Tar Wars - Anti-smoking presentations for local 4th and 5th graders |
| Women's Health Center, Somerville | Women's clinical health services |
| Geriatric home visits | Medical care for home-bound patients in the local New Brunswick area |
| Naomi's Way, Catholic Charities, New Brunswick | Presentations on preventive health care |
| Old Bridge Township Elementary, Middle, and High Schools | School physicals and pre-participation examinations |
| Ozanam Family Shelter, Edison | Presentations on preventive health care |
| Ozanam Men's Homeless Shelter, Catholic Charities, New Brunswick | Presentations on preventive health care |
| New Jersey State Division of Developmental Disabilities | Medical care for over 250 patients and their caregivers |
| New Brunswick High School Parent/Infant Care Center (PIC-C) | Medical care for teenage moms and their children |
| Parker Nursing Home, Piscataway and New Brunswick | Continuing education on medically related topics for nurses and staff |
| Center for Healthy Aging – Parker Stonegate | Patient care for the elderly and employees at Parker Stonegate |
| Puerto Rican Action Board (PRAB) and Robert Wood Johnson University Hospital | Presentations for parents of children in PRAB's Day Care Centers about childhood health |
| Read Across America | Read books to local elementary and middle school students |
| Robert Wood Johnson University Hospital, Community Health Fairs | Health screenings, particularly for cancer |
| Special Olympics | Team doctors |
| Woodbridge Township Health Department | Screenings for breast, uterine and prostate cancer |

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| Edison Job Corps Academy | Screening students by providing physicals and medical clearance |
| Martin and Edith Stein Hospice | Clinical care for the elderly |
| Matheny Center of Medicine and Dentistry | Patient care |
| Womanspace Inc. | Individualized support and care for women and their children who have been victims of domestic abuse. |

The **Center for Healthy Families and Cultural Diversity**, within the Department of Family Medicine, was created in 1988 to improve the delivery of culturally responsive, family centered health care to diverse populations. Programmatic activities of the Center include technical assistance and consultation, education and training, and research and evaluation. Each year, faculty give invited lectures, seminars, and workshops on culturally and linguistically competent care to a wide variety of health care professionals and organizations, including academic medical centers, hospitals, ambulatory care facilities, community organizations, managed care plans, and governmental agencies in the United States and abroad.

DEPARTMENT OF HEALTH SYSTEMS & POLICY **DOMINICAN REPUBLIC HEALTH OUTREACH PROJECT (SPH)**

The Dominican Republic Health Project began in 2003 when nine students and two faculty members undertook public health projects in the Haitian bateyes of the Dominican Republic (DR) to meet the field requirement of the three-credit course, "Public Health Applications in Developing Countries." Bateyes are former sugar cane cutter camps that lack sanitary facilities, schools, and access to health and social services. The majority of Haitian women and children, although born in the Dominican Republic, are refused birth certificates so that they live like a stateless people.

Since the Project's inception, over 150 students and faculty members have worked in the bateyes providing health education and promotion programs as well as primary care. In 2012, 21 students, faculty, alumni and staff participated in the Project in November and April trips.

In preparation for the trip, students and faculty plan specific public health interventions and obtain the resources necessary to implement them prior to their visit to the Dominican Republic. The project works closely with Blanco, a local community leader, and provides health prevention and promotion projects in communities of former Haitian sugar cane cutters. The heart of the project is "Blanco's Kids;" 35 orphaned or single parent children who previously had little food and no access to education or health care. As a result of contributions from students and others, housing, feeding and education programs have been put in place. Two small homes and a school have been constructed and funds are being raised to purchase a farm so the children can live and attend school in safety.

For more information on this project contact Dr. Lois Grau at graulo@umdnj.edu and Dr. Bernadette West at westbbm@umdnj.edu.

DEPARTMENT OF OBSTETRICS, GYNECOLOGY AND REPRODUCTIVE SCIENCES (RWJMS)

The Department of Obstetrics, Gynecology and Reproductive Sciences and the Women's Health Institute collaborates with several community groups to provide education and mentoring. One annual program the group sponsors is participation in the summer program held at the New Brunswick Free Public Library. Each year a topic is presented that teaches young library attendees some aspect of health and wellness. This year the theme was healthy eating.

We also are active participants in many of the outreach programs sponsored by our academic health center. For example, we participate in several health fairs each year, with themes such as breast cancer awareness and nutrition awareness. Many of the faculty, nurses and staff both take part and have leadership roles in March of Dimes walks, Multiple Sclerosis walks and Breast Cancer walks. We have also provided video programs to the community, with themes dealing with environmental influences on health and pregnancy issues. We also interact with many community groups, including the Girl Scouts. We have several people in the department who also are involved in healthy mother/healthy baby initiatives. Our OB/GYN residents are also very involved in giving back. In addition to mentoring outreach programs, one of their most recent projects was a fundraiser that supported the No Kid Hungry initiative.

In addition, the Department also collaborates on educational events that the New Jersey magazine entitled "Garden State Woman" sponsors that provides scholarships to students who may not otherwise be able to pay for the costs to attend college. In addition, our department faculty, residents and staff serve on several international programs that provide medical care and education to those living in areas of the world that are in need of these services. In fact, one of our attending, Dr. Charletta Ayers, was honored by the Rutgers University student organization Wanawake for the philanthropic work she has participated in for the African community.

Our department faculty and staff also take leadership roles in New Jersey Government Health initiatives, sitting on committees that address genetic screening in newborns, ambulatory surgery centers and family planning.

DEPARTMENT OF PEDIATRICS (RWJMS)

The **Division of Allergy, Immunology, and Infectious Disease** within the Department of Pediatrics at RWJMS provides inpatient and outpatient clinical care, trains residents and medical students, and participates in numerous public and community events. Physicians give Grand Rounds at community hospitals and provide formal lectures to medical students, serve as faculty advisors, and supervise resident rotations. Throughout the year faculty members co-host a bi-weekly radio show, "Your Child and You", and participate in various community health fairs.

Within the Division, the **Robert Wood Johnson AIDS Program (RWJAP)**, a site of the New Jersey Family Centered HIV Care Network, provides HIV/AIDS education and training to professionals in health care, education, social services, and other disciplines. RWJAP enjoys a host of linkages with HIV and non-HIV agencies such as community-based organizations, local and regional planning boards including the NJ HIV Community Prevention Planning Group (CPG), and social service agencies. RWJAP

currently provides on-site HIV counseling and testing and provides outreach prevention services to the local schools and community-based organizations. Ongoing community activities include Case Study Days, Family Day, Vision Day, weekly testing at the Middlesex County STD Clinic, DYFS Nurses Trainings, National Women HIV/AIDS Awareness Day, National Latino AIDS Awareness Day, and World AIDS Day.

Pediatric Genetics, a division of the Department of Pediatrics at RWJMS, is part of a comprehensive program providing a full range of clinical genetic services. The Division provides internships for genetic counseling students and electives for third- and fourth-year medical students and pediatric residents. The Division participates in the Department of Health and Human Services Metabolic Genetic Task Force and Metabolic Advisory Committee and the Human Genetics Association of New Jersey. The Division also participates in the New York Mid-Atlantic Consortium for Genetics and Newborn Screening Services and provides community education on genetic topics through CME programs and lectures.

The **Division of Child Neurology & Neurodevelopmental Disabilities** within the Department of Pediatrics at RWJMS provides a full range of clinical services for children with all types of neurological disorders. The large patient population serves as a basis for an active teaching service for medical students, pediatric residents, neurology residents, psychiatry fellows, and child neurology fellows as well as a population base for clinical research. The Division is a site for the training of neurology residents in conjunction with the New Jersey Neuroscience Institute at JFK Medical Center, Edison, and Child Neurology fellows in conjunction with the Child Neurology Division of the New Jersey Medical School, Newark. Ongoing research projects in the section of Child Neurology include folate transport into the brain, cognitive effects of anticonvulsants, genetics of idiopathic generalized epilepsy, and new medications for migraines in children. The section of Neurodevelopmental Disabilities is actively involved in autism research, including studies of the role of environmental toxins, and the genetic similarities between language disorders and autistic disorders. Faculty from the division of neurology are serving on the following committees: Jan B. Wollack, MD, PhD, Associate Professor of Pediatrics, was elected to the Medical Staff of Matheny Medical and Educational Center. Emanuel DiCicco-Bloom, MD, Professor of Pediatrics was appointed as a member of the Society for Neuroscience, Government and Public Affairs Committee, 2011-14.

The Elizabeth M. Boggs Center on Developmental Disabilities

The Elizabeth M. Boggs Center on Developmental Disabilities, within the Department of Pediatrics at RWJMS, is part of a national network of University Centers for Excellence in Developmental Disabilities Education, Research, and Service. The Boggs Center is sponsored by the Administration on Developmental Disabilities, Administration for Children and Families, U.S. Department of Health and Human Services. The Center is contracted by the NJ Department of Human Services, Division of Developmental Disabilities; the NJ Department of Education, Office of Special Education Programs; and other state and local funders. The Center provides community and student training and technical assistance, conducts research, disseminates educational materials, and responds to requests for information. The Boggs Center promotes a community-based, life span approach to the delivery of community supports for people with developmental disabilities. While it does not provide clinical services directly, it helps to increase the capacity of service providers and systems of care in New Jersey. Boggs Center personnel serve on State and national boards and committees including:

- Governor’s Council on the Prevention of Mental Retardation and Developmental Disabilities (Gubernatorial Appointment)
- NJ Advisory Council on Traumatic Brain Injury (Gubernatorial Appointment)
- NJ Council on Developmental Disabilities (Gubernatorial Appointment)
- NJ Division of Medical Assistance, Medical Assistance Advisory Council (Chair)
- Rutgers University School of Social Work, Continuing Education & Professional Development Program, Certificate Program in Developmental Disabilities (Chair)
- Human Services Management Advisory Council (Member)
- Rutgers University School of Social Work Field Education Committee; Council on Quality & Leadership (Board Member)
- TASH (Board Member)

Boggs Center faculty serve as editors of the *Journal of Religion, Disability, and Health* and the *National Association for the Dually Diagnosed Bulletin* and serve on the editorial boards for the *Journal of Positive Behavior Interventions and Research and Practice for Persons with Severe Disabilities*. Ongoing projects include the Developmental Disabilities Lecture Series, Clinical Pastoral Education, Faith-Based Supports, Self-Directed Supports, Direct Support Workforce Development, Inclusive Education, Interdisciplinary Traineeship Program, Positive Behavior Supports, Transition from School to Adult Life, and Supported Employment. Participants in Boggs Center training programs include individuals with disabilities and their families, students, and professionals in health care, education, social services, and other disciplines.

Deborah M. Spitalnik, PhD, Professor of Pediatrics and Executive Director of The Boggs Center accepted the Arc Angel Award for the Elizabeth M. Boggs Center at the Arc Angel Gala in Bedminster, New Jersey, on November 18, 2011. The Elizabeth M. Boggs Center was honored by The Arc of Somerset for its partnership and inspiration in enhancing the lives of individuals with intellectual and developmental disabilities and their families.

Bill Gaventa, MDiv, Associate Professor of Pediatrics, was honored with the Special Recognition Award by the [Association of University Centers on Disabilities \(AUCD\)](#) at the AUCD 40th Annual Conference in Arlington, VA, on November 8, 2011. The honor is awarded in recognition of outstanding contributions toward creating more inclusive communities for people with developmental disabilities and their families.

The Boggs Center, in collaboration with the NJ Division of Developmental Disabilities, the Council on Developmental Disabilities, Disability Rights New Jersey, the Statewide Parent Advocacy Network, and NJ Arab American organizations, coordinated the “Arab American Communities and Disabilities Conference: Getting to Know You, Getting to Know Us” on December 10, 2011, in Somerset, NJ.

Additional RWJMS Pediatrics Department Activities

Pediatric Mobile Medical Project

This project provides healthcare screenings and education services for children and their families in the New Brunswick and Middlesex County areas to help with disease prevention in the short-term and long-term in three major areas:

- **Obesity Screening and Prevention** promotes healthy eating and physical activity through culturally sensitive nutrition education classes and developmentally appropriate activities according to the age of the child. Classes are coordinated with the school/community organization at times convenient for parents.
- **Asthma Prevention and Education** - Asthma Screenings and education are provided to help prevent and manage asthma attacks. Education provided will increase the awareness of asthma triggers and the importance of having an asthma plan.
- **Developmental Screenings** - UMDNJ-RWJMS along with the Early Intervention Program and the New Brunswick School system will do screenings for development delays that may have been missed.

The Mobile Van does not provide direct healthcare for ill patients. UMDNJ-Robert Wood Johnson Medical School, Department of Pediatrics, is able to provide this mobile healthcare service through the generous support of Johnson & Johnson. The mobile unit is provided by UMDNJ-School of Nursing in Newark through a grant award from the Children's Health Fund.

Educational activities for patients and families

Faculty from Infectious Diseases, Pulmonary and Endocrinology conduct educational activities for their patients and their families to enhance disease education and to promote wellness.

Preceptors - Pediatric faculty serve as preceptors and/or mentors for high school students at the Health Sciences Technology High School in New Brunswick. Our faculty provide shadowing experience in the clinic environment for these students.

Edison Family Day - Several department faculty and staff participate in the Annual Health Fair at the Edison Family Day held in Raritan Center, Raritan, NJ. Participating divisions include Emergency Medicine, Gastroenterology, General Pediatrics, Genetics, Neonatology Pulmonary and the Pediatric Mobile Van. The purpose of the fair is to bring the township together in a united effort against substance abuse and violence, to provide health and safety information and disease and immunization information.

SATHI - The South Asian Total Health Initiative (SATHI) is a comprehensive multifaceted initiative to:

- Improve the delivery of culturally competent care and address disparities in health and health care of South Asians.
- Develop an accurate and updated research-based data resource regarding South Asian health.
- Educate, engage and empower the South Asian community to promote wellness and improve health outcomes.

Sunanda Gaur, MD, Professor of Pediatrics, highlighted the recent accomplishments of South Asian Total Health Initiative (SATHI) at the official release of the “Addressing Health Disparities in the South Asian Community Conference Summary Report and Recommendations.” The event was hosted by Assemblyman Upendra Chivikula at the Arlene and Henry Schwartzman Courtyard in Robert Wood Johnson University Hospital, November 9, 2011. Invited guests included Dean Peter S. Amenta and RWJUH President Stephen K. Jones.

DEPARTMENT OF PEDIATRICS (NJMS)

Division of Adolescent and Young Adult Medicine

The Division of Adolescent and Young Adult Medicine (DAYAM) is a center of excellence in all aspects of the health, development and behavior of adolescents and young adults. Since its inception in 1976, DAYAM has achieved its teaching, health care and research missions through a broad array of institutional, community-involved and community-based clinical services and psychosocial interventions. The scope of programs and services extends beyond direct clinical care to include prevention, education, advocacy and specific intervention and research in HIV and STDs, rape, sexual abuse, substance use and abuse, truancy, school failure, violence and delinquency, adolescent mental health evaluation and counseling, adolescent gynecology and family planning. Currently, the Division maintains a national reputation for its expertise in adolescent and young adult health care, and is the only inner city based comprehensive Adolescent Medicine Program in the State of New Jersey. DAYAM promotes the availability of efficacious responses to issues that adversely affect the quality of life of adolescents and young adults. DAYAM's Clinical, Community and Male Resource Programs are listed below.

Clinical Services

- **START (Screening, Treatment and Risk Reduction for Teens)** evaluates adolescents and young adults through an integrated intake process that includes medical, nutritional, substance use/abuse, mental health, and social services assessments. Each of these evaluations results in a coordinated series of services that are designed and delivered using methods that eliminate the barriers that defeat effective care.
- **MYLESTONE** provides individual level prevention services using the Center for Disease Control's Interventions CLEAR and ARTAS. Sessions focus on empowering the clients to improve their health around HIV and STI prevention. Clients served are from the Greater Newark area.

Community Interventions

- **STOP (Spend Time On Prevention)** is a mobile testing unit where clients receive HIV information, counseling and serologic testing. After HIV testing, youth who require clinical services because of a positive serologic test (or other issues) are directly linked to the START Clinic. As needed, clients who require additional services are referred to the appropriate provider.

Male Resource Development Programs

- **AYD (Adolescent Youth Development)** program is an intervention designed to prevent or decrease violence, risky behaviors and promote improved social and/or academic performance among young male adolescents through individual and group mentoring. Topics include: anger management, conflict resolution, college preparation, personal finance, effective communication, and career planning.

Waiting Room Parents is a subsidiary service of the AYD program and is an effort designed to prevent or decrease violence and risky behaviors among young male adolescents through a two pronged approach: Strengthening families by improving the childrearing skills and capacities of parents (or parent surrogates) through a 6-week parenting training program and interventions designed to promote the social development of at-risk adolescent males.

- **YFP (Young Fathers Program)** provides counseling, parenting skills and referral services for young fathers and their partners.
- **MSSP (Male Student Support Program)** offers support and counseling to enhance academic skills and success of adolescent males attending Orange Elementary and Middle Schools.

The Division of Developmental Pediatrics

The New Jersey Medical School Autism Center

The Autism Center uses best practice guidelines for screening, diagnosis and comprehensive developmental assessment for children suspected of having an Autism Spectrum Disorder (ASD). We also provide diagnostic clarification for children previously diagnosed whose families are seeking guidance regarding their child's diagnosis and developmental progress.

The Child Evaluation Center (CEC)

The CEC is one of eleven centers in the State of New Jersey that provide a comprehensive interdisciplinary team evaluation of children with congenital or acquired neuro-developmental and behavioral disorders. The CEC provides evidence-based recommendations for medical, behavioral and educational interventions.

Fetal Alcohol Syndrome Diagnostic Center

The Northern Regional FAS Diagnostic Center uses the diagnostic system developed at the University of Washington Fetal Alcohol Syndrome Prevention and Diagnostic Network (FASPDN) to identify, diagnose and provide case management and family support to individuals who were exposed to alcohol during the mother's pregnancy.

Social Work Services are offered to address the needs of children and their families. An initial bio-psychosocial assessment reviews six areas of family functioning: living conditions, financial conditions, support to caregivers, caregiver/child interactions, and developmental stimulation and caregiver interactions. This assessment assists in generating individualized goals that are designed to enhance areas of family strength and underline areas that need support.

Support services offered include:

- Family support groups (focused on understanding, accepting, and living with the diagnosis).
- Educational workshops (topics include “Overview of Autism Spectrum Disorders and ABA” and “Managing Challenging Behavior for children with neurodevelopmental disabilities”).
- Education and support for siblings of children with neurodevelopmental disabilities.

Social workers also assist families in coordinating the myriad of services that may be required in providing the necessary supports for each family and child. Systems advocacy and coaching in techniques of self-advocacy are also a part of the service delivery system.

ABA Parent Training Program

This program provides hands-on training to teach parents to implement Applied Behavior Analysis (ABA) with their children. ABA has been shown to be successful for treatment of autism spectrum disorders and other neurodevelopmental disabilities -- and is effective for teaching new skills (including social interactions, language, and play skills) and reducing challenging behaviors. ABA works by breaking down into small steps things that children need to learn--and teaching one step at a time, using lots of practice and positive reinforcement.

Participation in the NJMS Autism Center program includes:

- An assessment attended by parent(s) and child to identify relevant goals to address during the course of the program.
- A didactic training workshop.
- Daily hands-on parent training sessions (Mon-Fri, for 1 hour each day) for a period of up to 6 months. Sessions are attended by at least one parent and the child. During each session, the trainer works hands-on with the parent to teach the child the skills identified during the initial assessment.
- Follow-up visits (one month and three months after sessions have been completed).

This program is currently open only to children with an ASD who have been evaluated at UMDNJ. For parents who are concerned about missing work to participate in the program with their child, information can be provided that may help them to work with employers to obtain temporary leave hours.

Outreach & Educational Services

The outreach and educational services developed by the Division provide systems of support for individuals with neurodevelopmental disabilities, their families, community healthcare and education professionals in the Newark, greater Newark Region and surrounding counties. The structure of the outreach and education programs provided by the division is comprised of: 1) Family and Patient Centered Approaches, 2) School Centered Approaches and 3) Community Centered Approaches. We are currently:

- Working collaboratively with Family Support Organization of Essex County, Autism New Jersey, Statewide Parent Advocacy Network, Urban Voices for Children with Autism Special Needs and other local advocacy groups to provide information to families and professionals about the services and programs available within our division.
- Offering professional presentations and workshops to families, professionals, schools and community groups.
- Providing a forum to Newark and Greater Newark Regions School Districts for interdisciplinary discussion of current theory and evidence-based research literature concerning the evaluation of educational needs, methods used to identify effective interventions and educational programs for children with a NDD.
- Collaborating with Newark Early Intervention Programs, Preschool and School-age Child Study Teams to provide assessment, consultation and the development of evidenced-based educational intervention strategies for Children with NDDs.
- Training highly skilled allied health professionals to become culturally competent, collaborative partners with parents, other professionals, agencies, faith-based organizations, and community-based service providers in support of individuals with NDDs. The Center's unique combination of Medical, Allied Health and Behavioral training programs uses state-of-the-art training technology to both train and disseminate evidenced-based information and intervention guidance to community professionals, and to the families of children with NDDs. Participants will experience a program consisting of combined didactic, case-based teaching modules and clinical observation/training, and involvement in community-based leadership projects and transdisciplinary collaborations in NDD. These experiences will further the mission to "improve the health of infants, children, and adolescents who have, or are at risk for developing, neuro-developmental and other related disabilities by preparing individuals from a wide variety of professional disciplines to assume leadership roles and to ensure high levels of transdisciplinary clinical competence and a culturally diverse workforce."

Family Resource Center (FRC)

The aim of the FRC, which is under development, is to support the efforts of the health care team, family and schools by providing a comfortable place where families can find healthcare, learn about autism and other neurodevelopmental disabilities, access information about services, obtain parenting and recreational information in a variety of formats including educational videos, printed materials and computer-assisted learning tools. This will also be a place where families can gather and meet other families to support one another.

The Center will be located in The Division of Developmental-Behavioral Pediatrics on the F-level of the University Behavioral Healthcare Building 183 South Orange Avenue, Newark, NJ 07305. The Center will be designed by families and professionals to provide a venue for support groups, workshops etc. for children, parents, caretakers, siblings and other relatives of patients with NDDs. Inside, families will find a family and children's library, a learning center with computers with internet and email access and a fax and a comfortable hospitality area. The Center will have a patient representative on staff during midday and evening hours.

DEPARTMENT OF PREVENTIVE MEDICINE AND COMMUNITY HEALTH (NJMS)

Asthma

Dr. Weiss is co-chair of the Evaluation Task Force and serves on the Coordinating Committee of the Pediatric/Adult Asthma Coalition of New Jersey (PACNJ). The PACNJ acts as a statewide clearinghouse for asthma programs and services, working with schools, child care providers, health care providers, health insurers, community groups, and environmental agencies. The PACNJ reaches out to individuals and caregivers in New Jersey to help promote the most effective methods for managing asthma. Dr. Weiss helps design and analyze surveys for the PACNJ, evaluating the implementation of PACNJ's Asthma Action Plan in New Jersey Schools and the development and revision of educational documents and resources. He helps determine if outreach and education efforts by the PACNJ have improved compliance with state guidelines for treating asthma in schools.

On April 27, 2011 Dr. Weiss testified at an Environmental Protection Agency (EPA) hearing in Oxford New Jersey, to address dangerous pollution from the GenOn coal plant in Portland, PA. Toxic emissions from this plant are making residents of both Pennsylvania and New Jersey sick, and preventing New Jersey from meeting federal air quality standards.

Comprehensive Cancer Control

Dr. Stanley H. Weiss is the principal investigator and director of the Essex County Cancer Coalition (ECCC), and has been since its inception in 2004 (see further details below). Funded in part by the NJ Department of Health and Senior Services (NJDHSS), the ECCC provides community cancer education and outreach services and serves as the official omnibus organization to help coordinate and promote activities throughout the county.

The ECCC's Leadership Council includes Dr. Michael Festa, Essex County Health Officer. This partnership has been instrumental in promoting cancer prevention and control throughout the county, especially to public employees. The ECCC's mission statement and other details can be found at <http://www.umdj.edu/esscaweb/>. On this web site, the ECCC provides an innovative web-based calendar of cancer-related educational events and screening opportunities. The ECCC, with input from the American Cancer Society and representatives from other hospitals and medical centers, developed an "Essex County Cancer Resource Flyer" in both English and Spanish, which is being widely disseminated throughout the county. Among ECCC partners in this project are all of the local health officers in conjunction with the Essex County Health Officers Association, who are distributing the flyer to restaurants that they inspect and license. This flyer is also being given to barbershops in conjunction with ECCC's

Prostate Cancer Initiative (see below), as well as to other institutions and businesses that tend to have uninsured workers.

The ECCC released a major revision of its “Cancer Burden in Essex County” brochure in February 2011. This features updated incidence and mortality statistics from the NJ Cancer Registry — including key comparisons between Essex County and New Jersey overall — as well as estimates of Essex County cancer prevalence by cancer site newly updated by the ECCC leadership team based on the latest available data. The prevalence estimates were derived using a novel and simple method developed by Dr. Weiss. We also revised the ECCC introductory brochure to incorporate the revised mission and goal statement and to improve its visual clarity. Both brochures are available on the ECCC website. To better meet the needs of Essex County’s diverse population, these brochures have also been translated into Spanish, Portuguese and Haitian Creole (the major other languages in our community) through the Cancer Institute of New Jersey’s translation program.

The ECCC links many entities together in an effort to fight cancer in Essex County. Among its constituent members are individuals from the community, as well as representatives from:

- AARP West Essex Chapter
- American Cancer Society
- Bloomfield Health Department
- Cancer Care Inc.
- Cancer Institute of New Jersey
- East Orange Health Department
- Essex County Communities Against Tobacco (CAT) Coalition
- Essex County Division on Aging
- Essex County Health Department
- Essex County Hospital Center - Institute for Mental Health Policy, Research & Treatment
- Hoboken Family Planning in Hudson County
- Hudson County Cancer Coalition
- Igreja Luterana & St. Stephen's Church – UCC
- Irvington Health Department
- Livingston Health Department
- Merck Vaccines & Infectious Diseases
- Lung Cancer Circle of Hope
- METS Community Center
- Montclair Health Department
- Morris County Cancer Coalition
- Mountainside Hospital
- New Community Corporation, Newark, NJ
- New Hope Baptist Church, Newark, NJ
- New Jersey Cancer Education and Early Detection (NJCEED) Programs:
 - University Hospital’s S.A.V.E. Women and Men
 - St. Michael's Medical Center’s “In the Pink”
- Newark Beth Israel Medical Center
- Newark Cancer Initiative

- Newark Community Health Centers
- Newark Department for Child and Family Well Being
- Newark NOW
- Newark Police Clergy Affairs Unit
- Passaic County Cancer Coalition
- Planned Parenthood of Metropolitan NJ - Ironbound Center
- The Prostate Net
- Prudential Financial, Inc.
- St. Barnabas Hospital and Medical Center, Livingston, NJ
- Saint Michael's Medical Center's Regional Cancer Center
- Sisters Network
- South Orange Health Dept
- Susan G. Komen For the Cure North Jersey
- Union County Cancer Coalition
- UMDNJ - New Jersey Medical School, University Hospital, UH/NJMS Cancer Center, New Jersey Dental School, & New Jersey School of Public Health
- VA Hospital - East Orange

Oral Cancer Screening at UMDNJ and Essex County Cancer Health Fair

For the fifth year in a row, in May 2011 the ECCC held its annual Health Fair, organized through the NJMS Department of Preventive Medicine & Community Health in combination with free oral cancer examinations provided by New Jersey Dental School (NJDS). Volunteer NJDS faculty and community dentists performed oral cancer examinations on all interested attendees, with appropriate follow-up (an event now in its eleventh year). The ECCC distributed educational materials about prevention and early detection of various cancers, as well as instructions on lifestyle and habit changes geared towards reducing the likelihood of developing oral and other cancers. Additionally, there were information booths from over a dozen major cancer prevention and advocacy organizations as well as other health projects. Additional free screenings were available at the Health Fair through the UH/S.A.V.E. program — breast and cervical cancer screenings for the third year in a row, and prostate cancer screenings for the fourth year.

New Jersey Prostate Cancer Initiative

Dr. Weiss is Principal Investigator for the New Jersey Prostate Cancer Initiative (PCI) in the northern part of the state, a CDC-funded grant to the NJDHSS supplemental to the funding of comprehensive cancer control in NJ. The PCI is now completing its fourth year. This program, designed for the whole state, extends The Prostate Net's national Barbershop Initiative™ to enlisting barbers in NJ. The PCI has so far partnered with over 300 barbershops and unisex salons in northern and central New Jersey to educate their customers about prostate cancer in collaboration with NJ Cancer Education and Early Detection (CEED) lead agencies, to which they can refer their customers for further education and screening. The PCI provides resources on prostate cancer prevention to cosmetologists and their patrons in barbershops and unisex salons. The PCI works with NJCEED lead agencies in 11 counties to identify sites in the community, such as barbershops and faith- and community-based organizations that can host and facilitate prostate cancer screenings. The PCI also works with the National Beauty Culturists' League, Inc and its New Jersey affiliate, the Modern Beauticians Association, and promoted the use of a cosmetologists' forum for discussing industry issues and health

matters. Guest speakers at the forum have included members of the Board of Cosmetology, a former city councilman, and other barbers.

Transportation

The ECCC is actively promoting its updated *Transportation Resource Guide* developed by the Leadership Council's Transportation Committee. Versions of this brochure are available on the ECCC web site in black and white and in color, including versions that can be customized by hospitals and other organizations by adding their own logos. The ECCC worked with the Cancer Institute of New Jersey (CINJ) to have the brochure translated into Spanish, Portuguese and French Creole. It has been distributed to all ECCC members in all four languages, and each can be downloaded from our website. These transportation brochures are also distributed at events we attend.

Radon

The ECCC and New Jersey Medical School continue to implement the Radon Awareness Program (RAP) that began in 2009 with grant support from the NJ Department of Environmental Protection (NJDEP). The NJDEP reimburses for purchase of radon kits and provides brochures about radon. The kits can go to any homeowner in Essex County. Kits have been distributed to six health officers in Essex County covering 17 municipalities. We continue to follow up on their progress and to replenish supplies if needed. To promote Radon Awareness Month in January 2011, the ECCC worked with the NJDEP to provide municipalities with news releases and radon awareness proclamations specific to their communities. In addition, as long as funding for radon kits remains available, we are continuing to distribute them at local health fairs.

Dr. Weiss constructed a survey instrument, with the assistance of UMDNJ staff, to measure the knowledge level of the community about radon. The survey was designed to be self-administered and to be given to persons interested in radon, but before they received education about radon or were given free radon detection kits.

The survey results suggest that more radon education is indeed needed in Essex County and that public health programs should focus on increasing general radon knowledge, including stressing the association between lung cancer and radon exposure. They strongly support the decision of the ECCC to implement radon education and radon testing programs in our region.

Tobacco

Under the direction of Dr. Stanley H. Weiss, the Essex County Cancer Coalition (ECCC) formed a Tobacco Sub-Committee in August 2009 to identify needs and implement activities to address tobacco-related issues in Essex County. This sub-committee has met several times since and, as one of its initial projects, has created a tobacco resource directory focused on those resources that are available in Essex County. This guide contains a directory of services available to Essex County residents including *both* those focused on smoking cessation *and* those focused on smoking prevention. The directory is available at the ECCC's website: www.umdj.edu/esscaweb.

Dr. Weiss and Dr. Daniel M. Rosenblum served on the American Cancer Society's New Jersey Tobacco-Free Hospital Campus Collaborative (NJTFHCC), which encourages and provides resources for hospitals to implement complete tobacco-free campus policies.

Heart Attack and Stroke Risk

The ECCC and the University Hospital S.A.V.E. Program, supported by the New Jersey Department of Health and Senior Services, are launching a pilot program in New Jersey in FY 2011 designed to reduce participants' risk of heart attack and stroke. Outpatients at University Hospital who are at elevated risk of heart attack or stroke are eligible to participate in a series of six free 2.5-hour workshops, called Take Control of Your Health, which implements the Chronic Disease Self-Management Program developed at Stanford University. The workshops are being led by trained facilitators associated with the SAVE and ECCC Programs.

Service on State Health Department Advisory Groups

Drs. Weiss and Rosenblum both serve on the statewide Prostate Cancer Workgroup that reports to the gubernatorially appointed Task Force on Cancer Prevention, Early Detection and Treatment in New Jersey. In addition, Dr. Rosenblum serves on the Oral & Oropharyngeal Cancer Workgroup. For five years, Dr. Weiss chaired the Evaluation Committee for the Task Force. Dr. Weiss helped write much of the first and second New Jersey Comprehensive Cancer Control Plans and the first two biennial status reports on the first plan. He also conceived and oversaw the development of cancer capacity and needs assessments for each of New Jersey's 21 counties, and developed the first comprehensive cancer resource database for New Jersey. Additional information can be found at www.umdnj.edu/EvalCweb.

National and Statewide Organization Leadership

Dr. Weiss works with many national and state-level organizations in leadership roles. Dr. Weiss is the founding and current chair of the Epidemiology section of the NJ Public Health Association and is the longest continually serving member of its Executive Board. Dr. Weiss served on the American Public Health Association's Science Board as its vice-chair and is a past chair of the Epidemiology Section of the American Public Health Association. In 2010 he became chair of the Joint Policy Committee of the Societies of Epidemiology. He is a member of the Steering Committee, the Symposia Committee and the Awards Committee for the planning of the 2011 Congress of Epidemiology that will be held in June 2011 in Montreal, Canada, as well as the organizer of a symposium on the part of the Joint Policy Committee of the Societies of Epidemiology. Dr. Weiss served on planning committees for the 2001 and 2006 Congresses of Epidemiology, including chairmanship of the Infectious Diseases track and the Awards Committee for the 2006 Congress, and one of the four members of the Executive Committee overseeing the 2006 Congress of Epidemiology.

DEVELOPMENTAL DISABILITIES COMMUNITY LIVING EDUCATION PROJECT Educating Families and Staff about the Possibilities in Community Living (SPH)

The Developmental Disabilities Community Living Education Project (CLEP) provides information to individuals with developmental disabilities and their families on the transition from institutional to community living. CLEP educates individuals and their families on the resources that are available in the state of New Jersey, and supports family participation in transition planning. The Project assists families as they identify and develop essential supports for their family members. CLEP also provides consultation and training to state developmental center staff on the person-centered

community transition process. Support for this Project is provided by the New Jersey Department of Human Services, Division of Developmental Disabilities.

Project activities include:

- Pictures of Community Living Events to provide individuals, families, and staff with current community living options available for those with developmental disabilities
- Training for Division of Developmental Disabilities staff on person-centered community living transition
- *New Beginnings in Community Living*, a quarterly newsletter
- *My Life Now*, a magazine featuring stories of people who have transitioned to the community
- *New Beginning Family Guide Series*, addresses the transition process from developmental center to community living
- A family HELPLINE: 1-800-500-0448
- Project website: <http://www.umdj.edu/linkweb>

For more information on the Developmental Disabilities Community Living Education Project, contact David Wright, Project Director at wrightd1@umdj.edu.

EARLY INTERVENTION PROGRAM (EIP) (SOM)

In cooperation with Kennedy Health System and as part of a Ryan White Part B Grant, the UMDNJ-SOM Department of Obstetrics and Gynecology provides gynecologic preventive health screenings monthly to persons with HIV who might otherwise not have access to or ability to pay for these services. Under the same EIP, pain assessment and treatment is provided weekly to persons with HIV by the UMDNJ-SOM NeuroMusculoskeletal Institute (NMI).

ERIC B. CHANDLER HEALTH CENTER (RWJMS)

The Eric B. Chandler Health Center (EBCHC) is the cornerstone of UMDNJ-RWJMS community-based programs. Founded in 1987 in memory of Eric B. Chandler, Ed.D, it is a comprehensive, family oriented community health center that opened in 1988. The Health Center is operated jointly by UMDNJ-RWJMS and the EBCHC Community Board, which together form the Health Center (co-applicant relationship). EBCHC was designated as a Federally Qualified Health Center (FQHC) in January 1991 and received CHC Section 330 funding in October 1993. The Center is dedicated to providing high quality ambulatory health care services to low-income, uninsured and under-insured residents of the Greater New Brunswick community. The Center is also a training facility for residents and medical students at RWJMS.

The primary care services provided at EBCHC include:

- pediatrics & adolescent services-inclusive of EPSDT (early and periodic screening, diagnostic and treatment) services-and immunizations;
- obstetrics & gynecology-inclusive of family planning & colposcopy;
- internal medicine-inclusive of preventative health services;
- diagnostic laboratory;
- urgent medical care;
- follow up of hospitalized patients;
- geriatrics; and
- preventative, restorative, and emergency dentistry.

Other services include

- podiatry,
- HIV counseling and testing,
- early intervention and treatment,
- addiction services,
- clinical social services,
- translation services,
- community outreach,
- case coordination,
- health education and
- emergency transportation.

Services provided by contract include diagnostic radiology and pharmacy services needed for quality continuity of clinical care. Referral services provided include emergency care, mental health counseling and treatment, physical and occupational therapy, substance abuse and other medical specialties not provided on-site. Services provided on-site are offered 50 hours per week. Twenty-four hour coverage seven days per week is provided through a physician call schedule. The mission of the center is:

- To provide high quality ambulatory health care services that are culturally effective, accessible and affordable
- To promote a healthy lifestyle and educate patients to take responsibility for and participate in their health care decisions
- To serve as a community resource for health and social services
- To provide high quality educational opportunities for health professionals who train at the Center.

With the support of a federal grant, in March 2006 the Chandler Health Center opened a satellite location in New Brunswick to expand its services. The new facility, five blocks from the main building, responds to the need for more medical and dental services and health education for the under-insured and uninsured population of central New Jersey. With two medical and two dental examination rooms, a patient education room, and offices for support staff, the services at the satellite location have eased the backlogs for appointments at the main Chandler Center.

As part of an academic health center, Chandler actively participates in training medical students, residents, nursing students, and social work students. Emphasis is placed on

the use of a bio-psychosocial approach to patient care, with special attention given to helping learners understand the influences of poverty, poor education, cultural diversity and family structure on the delivery of effective patient care services. One of the primary goals of the Center is to teach learners about the unique issues that confront patients in an underserved urban setting. Each year over seventy residents and medical students rotate at Chandler. Internal medicine residents and pediatric residents are assigned to Chandler for their three years of continuity care experience. OB/GYN residents provide obstetrical care as well as continuity in gynecologic care.

As part of its commitment to eliminating health disparities and improving clinical outcomes, the Center participates in the National Health Disparities Collaborative. Activities are designed to improve the overall care that each patient receives and to establish a process of improvement based on the Care Model. The Care Model fosters productive interactions between patients and a prepared practice team within a health care setting. The model is designed to maximize resources, use them effectively, and look towards the community for resources to help deliver evidence-based care.

The Center is also committed to the PDSA (Plan, Do, Study, Act) method for accelerating the change process and improving work flow, patient care, and other activities at Chandler.

As a community-based health center, Chandler also collaborates with local agencies to address both health and social needs. For example, Chandler regularly participates in community health fairs and projects sponsored by the Alliance for a Healthier New Brunswick. In addition to its core clinical services, Chandler has developed the following community-based programs:

Family Education Program: This outreach project features a series of health education seminars on topics such as domestic violence, family, immigration, managed care, and home safety and health maintenance.

Prenatal Classes: A series of classes for pregnant women is offered in English and Spanish three times a year to provide information about normal pregnancy, what to expect during labor, and normal child development. A separate series of prenatal classes is offered for expectant adolescent mothers with additional topics such as continuing education after the baby's birth and preventing unplanned pregnancies.

Reach Out and Read Program: To encourage reading to children from an early age, the Chandler Center participates with the National Reach Out and Read Program cooperatively with Rutgers University. At every well child visit, children are given books that are appropriate for their developmental level.

FAMILY MEDICINE CENTER FOR INFORMATION MASTERY (SOM)

The Department of Family Medicine launched the Center for Information Mastery (CIM) in 2009 as a training center for faculty, residents and students, as well as to provide information to community-based physicians and patients. The Center was made possible by a grant from the U.S. Bureau of Health Professions, Health Resources and Services Administration, Division of Primary Care Medicine and Dentistry. The CIM concept includes mastering the information needed for the care of patients and for professional development. Under the direction of Dr. Adarsh Gupta, Associate Professor of Family

Medicine, the Center provides training, resources and tools to keep up-to-date with the high volume of medical information and research available, to answer clinical questions at the point of care, and to provide community-based providers and patients with reliable medical information on the web.

FRANÇOIS-XAVIER BAGNOUD (FXB) CENTER (SN)

The François-Xavier Bagnoud (FXB) Center, School of Nursing, receives public and private funding of approximately \$40 million annually. Public funding sources are diverse and include the New Jersey Department of Health and Senior Services (NJDHSS), the New Jersey Department of Human Services, Health Resources and Services Administration (HRSA) HIV/AIDS Bureau, the National Institutes of Health (NIH), the US Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO). Beginning early in the HIV/AIDS epidemic, FXB Center's interdisciplinary clinical leadership developed a model approach to family-centered HIV care. The Center offers training and technical assistance to share this expertise with other programs in New Jersey, the US and throughout the world (www.fxbcenter.org).

FXB Ambulatory Care Center

Housed at University Hospital in Newark, the Center meets the healthcare and social service needs of families living with HIV infection through the provision of multidisciplinary, culturally competent and comprehensive HIV services. The Ambulatory Care Center provides HIV primary medical care, intensive targeted interventions to support adherence to care and treatment and improve client outcomes to the more than 400 families currently served by the program. The Center offers clinical and social services to infants and children who are HIV-exposed and adults with HIV infection. Two clinical and social services programs of the Center, The Family Place and Health Care Connections, reach out to the community to identify, engage and facilitate comprehensive care of HIV-infected and affected persons. Care is coordinated and continuous among the hospital, ambulatory care, home and community settings.

FXB Child Health Program

In collaboration with the New Jersey State Division of Youth and Family Services (DYFS) the CHP ensures that the healthcare needs of vulnerable, at-risk children are met by providing a range of community based pediatric nursing services to DYFS district and regional offices. The Program also works closely with DYFS to develop a coordinated response to specific regional and statewide health needs. Child Health Program nurses, highly experienced in pediatric care, evaluate the health needs of medically fragile children under DYFS. These nurses, with special expertise in child health and safety issues and case management, are linked to medical and community health agencies. They assess children suspected of being abused and neglected, advocate for the quality of health care for children in the child welfare system and assist DYFS staff in meeting children's health needs.

FXB HIV/AIDS National Resource Center (NRC)

The NRC provides technical assistance, training and materials development to healthcare providers across the U.S. Funded by HRSA since 2002 as the AIDS Education and Training Centers (AETC) National Resource Center, NRC works closely with the eleven regional AETCs and more than 130 local performance sites. The NRC supports national working groups on timely topics and maintains a library of AETC resources through their website at www.aidsetc.org FXB NRC is also funded by HRSA

as a National Resource Center for the Ryan White CARE Act Part D (Title IV) projects. It supports implementation of surveys, focus groups, and evaluations to improve clinical practice and provides staff support for the working groups that maintain national guidelines for treatment of pediatric HIV infection and care of pregnant women with HIV and prevention of perinatal HIV transmission. Since 1999, the NRC at FXB Center has been funded by the CDC as a national organization working to eliminate perinatal HIV transmission. NRC has developed train-the-trainer curricula used nationally to reduce perinatal HIV transmission and innovative approaches to support the implementation of rapid HIV testing in labor and delivery for women with undocumented HIV status and routine HIV testing in medical settings.

FXB New York/New Jersey AIDS Education and Training Center for the Northern New Jersey Region (AETC)

As part of a national network of 11 regional and 4 national centers (and more than 130 associated sites) the NY/NJ AETC conducts targeted, multi-disciplinary education and training programs for healthcare providers treating persons living with HIV/AIDS. The NY/NJ AETC's mission is to assist health care professionals, through education and training, to provide optimum quality services and sensitive care to HIV positive persons, and to provide access to current research and treatment of HIV/AIDS. It serves the New York and New Jersey healthcare community by providing AIDS and HIV education and training to treat, manage, diagnose and counsel individuals with HIV infection or to help prevent high risk behaviors that lead to HIV transmission. Funding is provided by Health Resources Services Administration HIV/AIDS Bureau.

FXB Global Programs

The FXB Center's Global HIV Program offers a multidisciplinary team of experts focused on building healthcare worker capacity and strengthening healthcare infrastructure to support the development and scale-up of sustainable HIV prevention, care and treatment services. The Center provides technical and operational support to strengthen existing local capacity and to foster new skills development that extend the ability of governmental and non-governmental organizations to carry initiatives forward with enhanced local ownership. The Global HIV Program has led projects supported in more than a dozen countries in Africa, Asia and the Caribbean.

The Center plays a lead role in global initiatives to support scale-up of PMTCT (preventing mother-to-child transmission) and pediatric HIV care and treatment, including partnering in the development update of the World Health Organization/CDC PMTCT Generic Training Package. Under the guidance of the CDC, the FXB Center also led the development of the Testing and Counseling for PMTCT Support Tools, and developed a set of generic evaluation tools for use by countries that have implemented the Support Tools and want to evaluate their impact. As CDC-Guyana's primary implementing partner for HIV care and treatment, the FXB Center has been working in Guyana to strengthen systems and capacity for HIV care, treatment and support for people living with HIV. In Tanzania and Botswana, ongoing technical assistance is provided to the governments to support scale-up of PMTCT services and improved quality and efficacy of PMTCT and pediatric HIV service delivery. The Botswana projects have also included capacity building for healthcare faculty for development and delivery of pre-service HIV curricula and the development of Wellness for Healthcare Workers.

Since 2003, the FXB Center has provided training for new international research sites in resource-limited settings to support a safe, quality foundation of research skills and

expert clinical care for the conduct of clinical trials with funding from the International Maternal Pediatric Adolescent AIDS Clinical Trials Group (IMPAACT) Global Training.

FREE ORAL CANCER SCREENING AT UMDNJ (NJDS)

For the fourteenth year, volunteer faculty and postgraduate students performed free oral cancer examinations on New Jersey citizens with appropriate follow-up. Trained volunteer staff provided educational materials and instructions on lifestyle and habit changes to reduce the likelihood of developing oral cancer. The screenings were held on May 10th in two locations: the University Dental Center at Somerdale and the Oral Health Pavilion at the Dental School in Newark. The Newark screenings were performed in conjunction with an Essex County Cancer Fair, where all major cancer prevention advocacy organizations had information booths. The Essex County Cancer Coalition provided a mammography van and a physician to perform prostate screening as well.

“GIVE KIDS A SMILE” DAY AT THE NEW JERSEY DENTAL SCHOOL (NJDS)

The New Jersey Dental School, in conjunction with the New Jersey Dental Association and the American Dental Association, hosts “Give Kids a Smile Day.” This special one-day annual event began in 2003 and is part of a national month-long Children’s Dental Health Month. This year was the tenth anniversary, and the New Jersey Dental School was honored as the Flagship Event. Offered at no cost to New Jersey youngsters ages 12 and under, the event allows the dental community to treat thousands of underserved children. NJDS volunteers - including students, dentists, hygienists, dental assistants and non-clinical support staff - as well as community dentists performed a wide range of dental services. Throughout the day, a circus clown entertained the children while they awaited treatment. Tables were filled with educational activities, and face painting, balloon art, and other games were enjoyed.

The total number of children treated throughout the State has more than doubled since 2003. On February 3rd more than 400 children were seen by UMDNJ- New Jersey Dental School alone.

GLOBAL TUBERCULOSIS INSTITUTE (NJMS)

The UMDNJ-New Jersey Medical School Global Tuberculosis Institute is a force in the effort to conquer and cure tuberculosis worldwide. The Institute plays a leading role in the international arena, providing expertise in program development, education and training, and research to ministers of health, national TB programs and healthcare providers around the globe.

A History of Excellence

TB infections in the U.S. soared to unprecedented levels in the early 1990s. The UMDNJ-New Jersey Medical School National Tuberculosis Center was established in 1993 in response to this resurgence. Under the direction of Lee B. Reichman, MD, MPH, it achieved federal designation as a national Model Tuberculosis Prevention and Control Center in 1994, indicating its success in delivering state-of-the-art treatment, conducting cutting-edge research, and providing education and training to all levels of health care providers as well as those afflicted with this deadly, yet curable, disease. To reflect this

ever-expanding commitment to stamping out the disease even in the most remote locales, the Center changed its name to the Global Tuberculosis Institute in early 2006.

Mission and Goals

The mission of the Global Tuberculosis Institute is to advance state-of-the-art tuberculosis care through excellence in research, practice and teaching. The goals of the Institute are to decrease tuberculosis morbidity through state-of-the-art diagnostic, treatment and prevention programs; to create a cadre of interacting clinical and research scientists with a prime interest in the intersection of basic science, clinical and epidemiological aspects of tuberculosis; to develop and apply innovative diagnostic, therapeutic, behavioral, preventive and educational modalities for tuberculosis; and to provide an internationally recognized training center for courses and affiliations at all levels to increase the skills related to tuberculosis for physicians, nurses, epidemiologists and all other health-related professions. The Global Tuberculosis Institute's success has been achieved through the realization of these goals. The Institute has developed proven effective practices, which are shared with others involved in the fight against tuberculosis.

State-of-the-Art Care

The Institute provides outpatient services at its state-of-the-art clinical facility designed from the ground up specifically for safe and effective treatment of tuberculosis. Renowned pulmonary and infectious disease specialists treat patients in the Waymon C. Lattimore Practice. Patient-centered care is provided through a multi-disciplinary team approach to address the complex clinical, social and cultural issues that impact the prevention control and elimination of tuberculosis. Specialized care is given to children with tuberculosis, patients with multi-drug resistant tuberculosis, and those co-infected with HIV/AIDS.

Demonstrated Effectiveness

Since the Institute's creation, there has been a dramatic decrease in the number of tuberculosis cases within the population it serves. The Institute has an unprecedented record in patients' adherence in taking medication. Nearly all the patients--98 percent--adhere to their medication regimen. Many people in the population that the Institute serves are coping with a variety of life's challenges, and taking medicine is not a priority. To ensure that patients take their medications on time each day, the Institute implemented a widely used strategy called directly observed therapy, or DOT. As its name indicates, as part of the support system, this therapy involves public health workers visiting tuberculosis patients to watch them take their medication. It is these dedicated professionals who have been instrumental in the Institute's unprecedented success.

Providing Worldwide Education and Training

The Institute's Education and Training staff uses its wealth of knowledge and experience to develop educational resources, training programs, and distance learning opportunities. Training courses and individualized programs on specific tuberculosis-related topics are presented to physicians, nurses, healthcare workers, and government leaders across the country and around the world. New, web-based educational programs are available for those who may not be able to travel, yet desire the latest tuberculosis information.

The Institute's website houses an extensive collection of downloadable and adaptable resources at <http://www.umdj.edu/globaltb/productlist.htm>, and the staff provides technical assistance to a variety of providers to develop and integrate training into their own unique circumstances.

Regional Training and Medical Consultation Services

As a federally designated Regional Training and Medical Consultation Center, the Institute is required to provide training, technical assistance and medical consultation to healthcare professionals throughout the Northeastern U.S. The Institute's region includes Connecticut, District of Columbia, Delaware, Indiana, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island and West Virginia and the cities of Baltimore, Detroit, District of Columbia, New York City and Philadelphia. The Institute is funded by the Centers for Disease Control and Prevention, Division of Tuberculosis Elimination, with additional funds from U.S. Agency for International Development, NJ Department of Health and Senior Services and a number of non-governmental and private organizations and foundations.

Medical Consultation

Individualized information is provided by senior medical staff to healthcare professionals and the public via a toll-free number, 1-800-4 TB DOCS (1-800-482-3627). This approach is well needed in the U.S. where rates of tuberculosis are declining along with the expertise and experience to deal with the disease and in high burden countries where resources may be less than adequate. When needed, the Institute provides supplementary advice to existing consultants for difficult cases of multi-drug resistant and pediatric tuberculosis, as well as for tuberculosis and HIV/AIDS co-infection and others with complex medical management issues.

Opening the Door to New Treatments and Practices

The Institute is at the forefront of finding more effective ways to prevent and treat tuberculosis through groundbreaking research. As early as 1970, its staff was conducting clinical trials and doing studies in tuberculosis surveillance, patient behavior, and epidemiology. The Institute also collaborates closely with several of UMDNJ's centers and departments, including the Center for Emerging Pathogens and the Public Health Research Institute. Currently, the Institute is participating in the study of new drug regimens that could shorten tuberculosis treatment. The Institute is a member of Centers for Disease Control and Prevention Tuberculosis Trials Consortium and Tuberculosis Epidemiologic Studies Consortium.

An International Connection

The Institute participates in program reviews and provides policy guidance and technical assistance on a variety of topics including tuberculosis at the primary healthcare level, co-infections of tuberculosis and HIV/AIDS, multi-drug resistant tuberculosis, and patient care in the private sector. Physicians and educators from the Institute have participated in training, presentations and symposia around the world, including the regions of Eastern Europe, Central and Eastern Asia, Sub-Saharan Africa and Central and South America. The staff is also involved in international research.

The Institute also offers individualized training programs in specific aspects of tuberculosis control for physicians, nurses, educators, government officials and others working in the field of tuberculosis. Specialized trainings can be tailored to meet the interests and needs of international participants. Training is geared towards participants

from countries with a high burden of tuberculosis and aims to build the knowledge and skills of participants in these settings. The Institute has hosted trainees from more than 25 countries all over the world. Priority is given to healthcare providers from countries with a high burden of tuberculosis that are mobilized to respond to the problem.

HEALTH SCIENCES CAREERS PIPELINE (SHRP)

The Health Sciences Careers Program, formerly Tech Prep, began in the 1993-94 academic year with three high schools and 12 students. In academic year 2011-2012, the program had 2,600 students. The program allows students early access to a career in the health sciences and exposes them to health care settings where they learn patient care techniques. The Health Sciences Careers Program also has a website, http://shrp.umdj.edu/dept/health_careers/, to educate students about various health careers. Approximately one half of the students receive college credit ranging from two to a maximum of 31 credits. These credits are accepted by most colleges in New Jersey and by a number of out-of-state colleges and universities.

HEALTH EASE EDUCATIONAL CURRICULUM (SOM)

HealthEASE is a community education project offered through the New Jersey Department of Health and Senior Services (NJDHSS). The project was initiated in 2004 through funding from the Robert Wood Johnson Foundation. The goal of the project is to promote, support, and sustain older adults (60+) in living healthier, more independent lives through education and behavior change. The NJISA has updated the existing six modules and developed a new curriculum module on falls entitled, "Standing Tall Against Falls." The new module has been included as part of the NJDHSS Falls Prevention Campaign launched in September 2011. To date 186 health professionals have been trained to provide the HealthEASE educational programs to seniors across all New Jersey counties.

HEALTHIER NEW BRUNSWICK INITIATIVE (RWJMS)

Healthier New Brunswick is a collaborative coalition-building effort between the UMDNJ-Robert Wood Johnson Medical School and New Brunswick Tomorrow that is designed to emphasize systemic change that promotes health and wellness for the residents of New Brunswick. This is done in conjunction with the Alliance for a Healthier New Brunswick (Alliance) which is a community-based coalition comprised of representatives from the UMDNJ-Robert Wood Johnson Medical School, New Brunswick Tomorrow, Johnson and Johnson, and partners representing community and faith-based organizations, social service agencies, academic institutions, local government agencies, and businesses. Healthier New Brunswick aims to:

- (1) Strengthen community health partnerships in the City of New Brunswick by engaging leadership from the community and from health organizations while ensuring community ownership;
- (2) Provide a forum for discussion of the health needs of New Brunswick residents and assess the availability of resources such as funding, education, training and services to address these needs; and

- (3) Mobilize community health partners to address the identified health needs of New Brunswick residents.

HIGH SCHOOL STUDENT ShaD.O.w PROGRAM (SOM)

The D.O. ShaD.O.w program was established to encourage local high school students with an interest in the medical profession to move toward more concrete goals. This is accomplished by immersing the students in the graduate level academic environment, encouraging them to interact with students and faculty, and exposing them to the overall experience for a day. The goals of the program are to give high school students with an interest in the medical professions the opportunity to experience a day with a medical student at UMDNJ-SOM; to increase local high school students' awareness of osteopathic medicine; and to increase high school students' awareness of UMDNJ-SOM. The D.O. ShaD.O.w program began in October 2006 with two high school students from Cherry Hill East participating in the program. Currently students from both Cherry Hill East and Cherry Hill West high schools participate. A total of 62 students shadowed medical student mentors during the 2011–2012 academic year.

HUNTERDON ENDOWED CHAIR IN COMMUNITY HEALTH AND HEALTH POLICY (RWJMS)

In 2008, Eric Jahn, MD was named Endowed Chair in Community Health and Health Policy. The Medical School plans to establish an Institute for Community Health and Health Policy for the improvement of the health status of vulnerable and underserved populations in the United States through innovations in patient care, medical education, and health policy. The Institute will bring together health policy and community health investigators, community-based faculty educators and providers to develop research and educational projects that use a community-based participatory model to translate health policy and primary care research into practice. The new Institute will also provide opportunities for research collaboration with other schools within UMDNJ, and with Rutgers and Princeton Universities.

THE INSTITUTE FOR THE ELIMINATION OF HEALTH DISPARITIES (SPH)

The Institute for the Elimination of Health Disparities (IEHD) is a university-wide initiative that fosters the conduct of multidisciplinary collaborative population-based research to understand the causes or mechanisms of health disparities among different ethnic groups in New Jersey and the United States. IEHD also seeks to identify interventions and strategies to minimize these disparities.

The IEHD is directed by Kitaw Demissie, MD, PhD, and its members represent various disciplines (molecular, nutritional and social epidemiology, surgical and medical oncology, and sociology and health services research). In 2011-2012, IEHD has started several initiatives that are in line with goals and strategies of the National Partnership for Action (NPA) to End Health Disparities. IEHD's main contribution to the NPA action plan was in the area of data, research and evaluation. IEHD initiatives during the past year are as follows:

- IEHD just completed the "Breast Cancer Treatment Disparity Study". This study included a cohort of more than 600 early breast cancer patients

about half of whom are African Americans. Patients diagnosed with breast cancer (2006-2012) at all major hospitals in eastern New Jersey were actively identified. The New Jersey Cancer Registry utilized a rapid case ascertainment methodology in Bergen, Essex, Hudson, Mercer, Middlesex and Union counties to identify patients. Participants were interviewed at home, followed by phone interviews, and their medical records were reviewed. A sub-set of participants underwent an in-depth interview about their experience with the health care system. The specific aims of the study were to (a) determine if there is racial disparity in optimal breast cancer treatment; (b) examine racial differences of delays in diagnosis and treatment initiation for breast cancer; (c) examine factors influencing choice between mastectomy and breast conserving surgery; and (d) determine reoperation rates between African-American and White breast cancer patients. Patient-related factors rather than health services-related or provider-related factors were identified as the most promising lead in reducing racial disparities in this cohort of women.

- The March of Dimes and Johnson and Johnson Pediatric Institute initiated a multi-faceted intervention program to reduce disparities in preterm birth in the city of Newark. The catchment intervention areas are those served by Beth Israel Medical Center and UMDNJ University Hospital along with all federally qualified health care centers in the area. IEHD is participating both in the design and evaluation of this unique and promising program. The multi-faceted multi-level intervention program includes increasing awareness about preterm birth (community-level), centering pregnancy, intimate partner violence prevention, policies to reduce late preterm birth and management of medical conditions during pregnancy (Hospital/clinic level intervention) and training of obstetricians on late preterm birth and cultural competency (provider-level intervention).

Over the past few years IEHD investigators have obtained grant support from the National Cancer Institute and the American Cancer Society to discern the biologic and social aspects of racial disparity in breast cancer mortality. Funding support was also obtained from the Robert Wood Johnson Foundation to examine the roles of parental immigrant status and the built environment on physical activity among Latino children. Other areas of interest for IEHD investigators include disparities in preventive and medical care among obese and mentally ill patients, neighborhood, built environment and immigrant factors shaping physical activity behaviors in children and a pilot intervention to improve diabetes control among Latinos. During 2011-2012 IEHD investigators have published their work in several peer-reviewed journals including *Cancer Causes and Control*, *Urology*, *Journal of Urology*, *Evidence-Based Medicine*, *Journal of Maternal Fetal and Neonatal Medicine*, and *Maternal and Child Health*.

IEHD is working with St. Barnabas Medical Center to design interventions to improve live kidney donation among African Americans. Similarly, the institute is working closely with the South Asian Total Health Initiative (SATHI) on perinatal, cancer and diabetes related projects affecting the South Asian population. IEHD is engaged in education and community activities by working with the Sisters Network of Central New Jersey and continued to provide summer internships for undergraduate students from New Jersey City and Rutgers Universities, pairing them with UMDNJ faculty mentors.

For more information on IEHD, contact Dr. Kitaw Demissie at demisski@umdnj.edu.

INSTITUTE FOR THE STUDY OF CHILD DEVELOPMENT (RWJMS)

The Institute for the Study of Child Development is a research center comprised of psychologists, educators, and other professionals interested in understanding and facilitating the development of children and their families. Current work includes behavioral teratology through studies of the long term effects of prenatal drug and other toxic exposures and conditions; identifying factors that affect behavioral and physiological reactions to stress and the capacity to cope with stress; the impact of deviant caregiving and traumatic events in the child's life on the development of self-worth and other self-evaluative emotions; the study of normal cognitive, social, and emotional development, and the study of brain-behavior relations in the developing child.

One of the Institute's functions related to public/community service includes giving colloquium and grand rounds presentations at various universities and medical schools across the country. In addition, faculty serve on state, county and international committees, including the Board of the Eastern Psychological Association of the American Psychological Association as well as the International Society of Early Intervention and the school board of Montgomery Township, New Jersey. Our faculty also serve as editors on various journals which include *Current Psychiatry Reviews*, *Current Pediatric Reviews*, *Infants and Young Children*, *Open Pediatric Medicine and the Roeper Review*. They have served as reviewers for the following journals in the past year: *Archives of Pediatric and Adolescent Medicine*, *Child Development*, *Child Maltreatment*, *Cognition and Emotion*, *Cognitive Development*, *Developmental and Behavioral Psychology*, *Developmental Psychology*, *Developmental Psychopathology*, *Emotion*, *Infant Behavior and Pediatrics*, *Journal of Reproductive and Infant Psychology*, *NeuroImage*, *Psychoneuro-endocrinology*, and *Social Development*. The Institute also provides clinical services through the Gifted Child Clinic and Neuropsychological Clinic.

INTERDISCIPLINARY STUDIES (SHRP)

The B.S. in Health Sciences, M.S. in Health Sciences, and the Ph.D. in Health Sciences programs provide community education services through the Health Sciences Careers presentations, the Newark Leadership Alumni Program, Church Services in Elizabeth, and the Francois-Xavier Bagnoud Center HIV Aids Health Service. Programs such as these served more than 1000 members of the community overall this school year. The Masters of Science in Health Care Management program with the Respiratory Care program offers an Asthma Management Program for over 250 Newark Inner City Children. This service educates parents and children on the best practices and methods to manage their asthma.

THE JORDAN AND HARRIS COMMUNITY HEALTH CENTER (SN)

The Jordan and Harris Community Health Center is a nurse managed clinical site that serves three public housing communities in the city of Newark. Dr. Cindy Sickora has been working with the community since 2007 providing health screening, health education and health promotion services. With \$857,000 in HRSA (Health Resources and Services Administration) funding the center officially opened its doors on September 27, 2011. The center is a community participatory approach to healthcare services. Directed by a community advisory board, community residents have direct input

regarding programming and service delivery. Staffed by a registered nurse, the center has made case managed healthcare services available to nearly 3,000 Newark residents. The project has demonstrated success in managing previously uncontrolled hypertension, diabetes, and asthma.

The J&H Community Health Center staff provides community based education to the residents by promoting community participation in all programs developed for the population. Most recently, the tenant association of one housing development identified the need to reach out to teens regarding safe sex. With full participation from members of the community including a group of teenagers, a program has been developed to meet the need. Residents work along with program staff to make the program culturally relevant to the audience.

In February 2012, ten Community Health Workers joined the J&H team through a collaborative project with the New Jersey Medical School. With funding from the Healthcare Foundation of New Jersey, Drs. H. Shahidi and C. Sickora worked directly with the community to identify candidates for training. The trainees attended 12 full-day education sessions and receive on-going education regarding health promotion and disease prevention. Currently, the workers have reached out to 100% of the households in the three public housing developments served by the J&H Community Health Center. The CHWs have become the eyes and ears of the professional staff and have allowed for outreach that may have otherwise been difficult, if not impossible. They have implemented exercise programs, performed blood pressure screenings, assisted with HIV screening, and have identified "difficult to reach" residents.

Primary healthcare services are provided to the community served by the J&H Community Health Center through the School of Nursing's Mobile Health Project. Joining forces with the Mobile Health Project has allowed for closely managed healthcare services for the residents of three public housing communities.

LA CLÍNICA MIGRATORIO MIGRANT FARMWORKER MOBILE CLINIC AND OUTREACH TEAMS (SOM)

La Clínica Migratorio is a student organized mobile clinic founded in 2005 as a Community Outreach in Primary Care (COPC) course project by UMDNJ School of Osteopathic Medicine first year medical students to improve the health of migrant agricultural workers living near the city of Hammonton, NJ. Students volunteer the time in support of the clinic in an effort to circumvent the barriers to healthcare experienced by the migrant worker population. Specific aims include:

- Expanding health screening service
- Providing a way for UMDNJ-SOM student volunteers to care for an at-risk and underserved population.
- Addressing the barriers that can impede the migrant farm workers access to healthcare.
- Expanding the repertoire of screening services available to migrant workers.
- Improving farm worker access to medical professionals.
- Providing triage services for patients seeking Osteopathic Manipulative Medicine.

LATINO MEDICAL STUDENT ASSOCIATION (LMSA) (SOM)

The UMDNJ-SOM chapter of the Latino Medical Student Association (LSMA) sponsored community advocacy, outreach and health education activities throughout the academic year. The SOM Chapter of the Latino Medical Student Association (LMSA) provides Spanish interpretation services on Saturday's at the Camden Health Clinic. Translation service helps patients avoid a miscommunication with health staff, further ensuring they receive the appropriate care.

LINKING THE CLASSROOM TO THE COMMUNITY (SPH)

As an integral part of the MPH degree program goals and objectives, all MPH students at SPH connect with the real world environment in which public health practice and/or public health research is conducted. Fieldwork sites are selected by students with their faculty advisors among local, state and national agencies and organizations, governmental and voluntary health agencies, professional associations, hospitals and medical care services as well as international locations. The fieldwork experience is based on the student's concentration in partnership with the agency. The following examples illustrate fieldwork projects completed, and their locations, during Academic Year 2011-2012:

Piscataway/New Brunswick Campus

- Exploring the Relationship between Dietary Intake and Race/Ethnicity in New Brunswick, Rutgers, the State University of New Jersey, Department of Nutritional Sciences, New Brunswick, NJ
- Diabetes Adherence among Jamaican Immigrant Adults, Newark Community Healthcare Centers (NCHC), East Orange, NJ
- Intra-urban Variations in Breast and Cervical Cancer Staging in the City of Newark, NJ, Cancer Institute of New Jersey (CINJ), New Brunswick, NJ
- Evaluation and Characterization of Sport Specific Environmental Risks, and Asthma Management Knowledge and Awareness through Surveys of Coaches, Athlete Parents/Guardians and Athletes, Brookdale Community College Sports Camps, Lincroft, NJ
- Pesticides Exposure in Children and Childcare Centers through Baits and Gel Baits, US Environmental Protection Agency (EPA) Region 2, Edison, NJ
- Evaluation of the Vaccination Policies at the William Toth Memorial Health Center in Edison, NJ, Edison Department of Health and Human Services, Edison, NJ
- Temporal Trends in Birth Weight, Gestational Age and Fetal Growth in Asian Indians in New Jersey from 1997-2006, Robert Wood Johnson Medical School, South Asian Total Health Initiative (SATHI), Piscataway, NJ
- Analysis of Unused Synthetic Turf Rubber Granules for Metal Content and their Bioaccessibility in Digestive Fluids, The City College of New York, New York, NY
- Promoting Mental Health Services Utilization Among Law Enforcement Enrollees of the World Trade Center Medical Monitoring and Treatment

- Program, Environmental and Occupational Health Science Institute (EOHSI) Clinical Center, Piscataway, NJ
- Comparing and Modeling Serious Adverse Events using Drug Event Combinations from the FDA REMS Program, DrugLogic, Inc., Reston, VA
 - An Investigation into Measurements of Adherence : aMPR vs the MPR, MedCo Health Solutions Inc., Franklin Lakes, NJ
 - Optimal Diabetes Management by BMI Among Adults, Kaiser Permanente, Department of Research & Evaluation, Pasadena, CA
 - Electronic Medical Records and Reporting of Complications of Diabetes in Primary Care, UMDNJ-Robert Wood Johnson Medical School, Department of Family Medicine and Community Health, Somerset, NJ
 - Web Based Survey to Assess the Financial Impact on Families of Raising Children with Food Allergies, Kids With Food Allergies Foundation, Doylestown, PA
 - Carcinogen Metabolism Measurement in Smokers Diagnosed with Schizophrenia, Robert Wood Johnson Medical School, Division of Addiction Psychiatry, New Brunswick, NJ
 - Patient Knowledge of Sexually Transmitted Disease (STD) Testing in An Urban Clinic: A Comparison of Patient Perceived Testing and Actual Tests Performed, STD Clinic, Paterson Division of Health, Paterson, NJ
 - Adolescent Problem Behaviors in Edison Township, New Jersey, The Edison Department of Health and Human Services, Edison, NJ
 - Healthy Eating Among Low-Income Pregnant Women: Using a Positive Deviance Approach to Customize Nutrition Education Materials, Jersey Shore University Medical Center, Booker Family Health Center, Neptune, NJ
 - Examination of a New Measure of Self Efficacy (CAUS-Q) for Quitting Smoking, UMDNJ-Robert Wood Johnson Medical School, Department of Psychiatry, New Brunswick, NJ
 - Implementation and Perception of a Chronic Disease Self-Management Program in Greater Newark, UMDNJ-New Jersey Medical School, Department of Preventive Medicine and Community Health, Newark, NJ
 - Development and Evaluation of Community Health Profiles of Medicare Beneficiaries Residing in Communities of Mercer, Atlantic, Cape May and Cumberland Counties, Healthcare Quality Strategies Inc., (HQS), East Brunswick, NJ
 - RWJ Pilot Studies: R-18 Study, Child Temperament & Dysfunctional Voiding, Environmental Tobacco Smoke & Pediatric Bladder Effect, Rutgers University, Edward J. Bloustein-School of Planning & Public Policy, New Brunswick, NJ
 - Consumer Purchasing Behaviors and Perceptions Regarding Organic Produce, New Jersey Department of Environmental Protection (NJDEP), Pesticide Control Program, Trenton, NJ
 - Exploring the Relationship between Shift Work and Paramedic Venipuncture Success, UMDNJ-Robert Wood Johnson Medical School, Department of Emergency Medicine, New Brunswick, NJ
 - An Analysis of the Tobacco Industry's Use of Couponing Tactics Among African Americans, Center for Tobacco Surveillance & Evaluation Research, New Brunswick, NJ

- Impact of Warfarin Discharge Counseling on Re-hospitalization, Somerset Medical Center, Somerville, NJ
- Cost Analysis and Policy Implications Associated with HIV Prevention Interventions in Newark, NJ, UMDNJ-New Jersey Medical School, Department of Preventive Medicine and Community Health, Newark, NJ
- Examining Racial Differences in the Outcomes of Type 2 Diabetes Patients at the Eric B. Chandler Health Center Utilizing PECS, Eric B. Chandler Health Center, New Brunswick, NJ
- Human Papillomavirus Vaccination Uptake Among 9-17 Year Old Females in the United States, National Health Interview Survey 2010, The Cancer Institute of New Jersey, New Brunswick, NJ
- Impact of Tenofovir on Renal Function in HIV-Infected Patients, Jersey Shore University Medical Center, A-Team Clinic, Neptune, NJ
- Perceptions about Cancer Clinical Trial Participation among African Americans and Hispanics in New Jersey, Center for Tobacco Surveillance & Evaluation Research, New Brunswick, NJ
- Survey to Identify Misperceptions of Tobacco Product Classification by Self-identified Smokers, Center for Tobacco Surveillance & Evaluation Research, New Brunswick, NJ
- A Needs Assessment of the Corner Stores Participating in the “Healthy Corner Stores Project” in Trenton, NJ, Living Hope Empowerment Center, Trenton, NJ
- Facilitators and Barriers to the Implementation of Rapid HIV Testing in Substance Abuse Treatment Centers in New Jersey, UMDNJ-Robert Wood Johnson Medical School, Department of Psychiatry, New Brunswick, NJ
- Maternal, Socioeconomic and Provider Factors Associated with Late Initiation of Childhood Immunizations among a Nationally Representative Sample of Children in the United States, VaxInnate Corporation, Cranbury, NJ
- Patient Race and Ethnicity: Improving Hospital Data Collection and Reporting, New Jersey Hospital Association (NJHA), Health Research & Educational Trust of New Jersey (HRET), Princeton, NJ
- Validity of Ultrasound Lymph Node Mapping in Papillary Thyroid Cancer, UMDNJ-Robert Wood Johnson University Hospital, Department of General Surgery, New Brunswick, NJ

Stratford/Camden Campus

- How Do Stakeholders in New Jersey’s Counties View Private Well Water Regulations?, New Jersey Department of Environmental Protection (NJDEP), Drinking Water Quality Institute, Trenton, NJ
- Evaluation of School Wellness Program’s Located in Burlington County, New Jersey, Rutgers Cooperative Extension, Westampton, NJ
- Health Communication in Rural Areas: A Toolkit for Health Communication for Salem/Cumberland Health Department, Salem County Health Department, Salem, NJ
- The Camden Healthy Corner Store Project, NJ Partnership for Healthy Kids-Camden, Camden, NJ
- Burlington County Community Themes and Strengths Assessment, Burlington County (NJ) Health Department, Westampton, NJ

- Children's Oral Health: An Analysis of Survey Data of New Jersey, Central Jersey Family Health Consortium, North Brunswick, NJ
- A Survey of Geriatric Patients' Legal Concerns with Potential Health Impacts, New Jersey Institute for Successful Aging (NJISA), Stratford, NJ
- Incorporating Preliminary Mental Health Assessment in the Initial Healthcare for Refugees in New Jersey, New Jersey Department of Health & Senior Services, Division of Communicable Disease, Refugee Health Program, Trenton, NJ
- Camden Healthy Corner Store Project: Community Resource Mapping, New Jersey Partnership for Healthy Kids, Camden, NJ
- Assessment of Initial Healthcare for Refugee Children in New Jersey, New Jersey Department of Health & Senior Services, Division of Communicable Disease, Refugee Health Program, Trenton, NJ
- NJ Medical Reserve Corps and Its Response to Hurricane Irene, New Jersey Department of Health & Senior Services, Division of Public Health Infrastructure Laboratories & Emergency Preparedness, Trenton, NJ

Newark Campus

- Predictors of Linkage to Medical Care in Newly Diagnosed HIV Positive Patients, UMDNJ-University Hospital, Newark, NJ
- Changing Patterns of Heart Disease Mortality in New Jersey 1996-2006, and its Relationship with Urbanization, UMDNJ-NJMS, Department of Preventive Medicine, Newark, NJ
- A Quality Improvement Study of Central Line Associated Blood Stream Infections Prevention Efforts, UMDNJ-University Hospital Newark, NJ
- Perinatal Mortality Rates in Nigeria: Trends and Inequalities, School of Public Affairs & Administration, Rutgers –Newark, Newark, NJ
- Study to Compare Small and Big Food Markets in Two Thickly Populated South Asians Communities of NJ, Rutgers University, Newark, NJ
- Determining the Effect of Demographic Variables as Predictors of Obesity Status in Adolescents, UMDNJ-NJMS, Department of Preventive Medicine, Newark, NJ
- Predictors of Inpatient Psychiatric Readmission, UMDNJ-NJMS, Newark, NJ
- Vehicular Factors Related to Teen Motor Vehicle Collisions (MVCs), UMDNJ-NJMS, Department of Preventive Medicine, Newark, NJ
- An Association between Socioeconomic Status and Autism, UMDNJ-NJMS, Newark, NJ
- The Perceptions of Health Professional Students for Caring for Individuals with Alcohol and Drug Abuse, UMDNJ-NJMS, Newark, NCT-guided Navigation of Thoracic Pedicle Screws for AIS Results in More Accurate Placement and Less Screw Removal, Children's Hospital of Philadelphia, Philadelphia, PA
- A Holistic Approach to HIV Prevention with Lesbian, Gay, Bisexual, Transgender and Questioning Youth in New York City, Hetrick-Martin Institute, New York, NY
- Prevalence of Dental Caries among School-aged Children in Fluoridated Washington, DC Compared to Newark, NJ, a Non-fluoridated Area, Howard University Pediatric Dentistry, Washington, DC; Jewish Renaissance Medical Center, Newark, NJ
- Venous Thromboembolism in Children: A Survey of Pediatric Orthopedic Society of North America (POSNA) Members, UMDNJ-NJMS, Newark, NJ

- Prevention of Take-Home Lead Exposure. Do Practices Meet Policies?, UMDNJ-NJMS, Newark, NJ
- Sexual Risk Behaviors and Dating/Sexual Violence among Black, Hispanic, and White Adolescent Females, UMDNJ-SON, Newark, NJ
- Pandemic and Seasonal Influenza Vaccination of Pregnant Women in New Jersey Analysis of the 2009-2010 NJ-PRAMS Survey, UMDNJ-NJMS, Newark, NJ
- Prevalence of Smoking in Youths with Asthma in Grades 9 -12: United States, 2009, Rutgers University, Newark, NJ
- The Epidemiology of Infant Mortality in the Greater Newark Area, UMDNJ-NJMS, Newark, NJ
- A Systematic Review and Meta-analysis: Association between Intestinal Infections and Development of Irritable Bowel Syndrome (IBS), UMDNJ-NJMS, Newark, NJ
- Risk Assessment of Adverse Cardiac Outcomes in Hypertensive Patients Undergoing Minor Surgical Procedures at UMDNJ Hospital – A Retrospective Study from April 1st 2011 to April 1st 2000, UMDNJ-NJMS and UH, Newark, NJ

For more information on fieldwork projects contact Ms. Terri Lassiter (Newark) at lassiter@umdnj.edu or Ms. Michelle Kennedy (Piscataway/New Brunswick and Stratford/Camden) at kennedmv@umdnj.edu

M.D. WITH DISTINCTION IN SERVICE TO THE COMMUNITY (DISC) (RWJMS)

UMDNJ-RWJMS has established the DISC program, providing students with the opportunity to earn the M.D. with Distinction in Service to the Community. Directed by the Office of Community Health and the Department of Family Medicine and Community Health, a select group of students plan, carry out and write up collaborative population health-based scholarly projects under the guidance of faculty and community mentors. The program involves students over the full four years of medical school. It includes service and didactic components, journaling, the preparation of a thesis, and a presentation of the completed project to the sponsoring community organization and the RWJMS community.

The DISC program adds a rigorous, scholarly component to existing community service projects, generates experience in population health scholarship, responds to health needs as defined by the community, generates partnerships with community groups, and recognizes students who distinguish themselves by independent, strong, long-term commitments to community health programs. The DISC program also gives students a longitudinal opportunity to work with underserved community members using the Community-Oriented Primary Care Model of healthcare education. Students who participate in the DISC program gain important leadership skills as they learn from and contribute to identify needs in a population that interests them. A DISC Steering Committee comprised of faculty from RWJMS meets biannually to review student proposals and progress.

Roseann Marone and Sunanda Gaur, MD, are faculty advisors to medical students in the DISC program.

MEDICAL IMAGING SCIENCES (SHRP)

The Diagnostic Medical Sonography program serves over 400 community members on High School Tech Prep Careers Day each year, when participants are given the opportunity to have hands-on experience with ultrasound equipment in an effort to educate the community about the profession. The Diagnostic Imaging Technologies & Master of Science Radiologist Assistant program serves over 200 students at local universities each year by demonstrating the services provided by imaging professionals. Lastly the Nuclear Medicine Technology program provides a Radiation Protection Survey for Dental Clinics once a year in Scotch Plains.

MEDICAL SCIENCE ACADEMY (SOM)

The Medical Science Academy (formerly the High School Scholars Program) is a 28-week medical orientation program for twelfth grade honor students from Camden, Burlington and Gloucester Counties in South Jersey. Students meet every Tuesday and Thursday afternoons from 2:00 PM to 3:30 PM on the Stratford Campus. Concluding its 28th year, the Medical Science Academy offers integrated and thematically organized presentations by UMDNJ-SOM faculty who volunteer their time to represent the medical and healthcare professions. Faculty address issues such as responsibilities to themselves, their patients, their institutions and their communities, as well as provide current information relevant to their work. Approximately 600 students have participated in the Medical Science Academy and many have either completed training in a health related profession or are attending undergraduate programs or medical schools. Students are able to participate in an optional research project sponsored by UMDNJ-SOM in collaboration with the UMDNJ-School of Health Related Professions. A total of 41 high school students participated in the Medical Science Academy during the 2011 – 2012 academic year.

MEDICAL STUDENT VOLUNTEER PROGRAMS (RWJMS)

The **Homeless and Indigent Population Health Outreach Project (HIPHOP)** was established by a group of RWJMS students in 1992 to help meet the health needs of the greater New Brunswick community. HIPHOP links medical students with the community in an attempt to reduce barriers that prevent community members from accessing primary and preventive health care and education. Program objectives of HIPHOP are:

- To provide a variety of health outreach services to an underserved population
- To provide medical, physician assistant, and public health students with meaningful service-learning experiences
- To create a heightened awareness of the role that RWJMS should play within its community
- To foster an atmosphere of responsible citizenship and encourage a lifelong commitment to community service and humanism in medicine
- To expand the program locally in such a way that it might be duplicated on a national level

The project has expanded from a small *ad hoc* group of dedicated medical students to a well-structured organization involving over 300+ medical and physician assistant

students, public health students, faculty/staff members, and community representatives. In 2008, HIPHOP evolved into an umbrella program containing three major initiatives: the Community Health Initiative (C.H.I.), the Promise Clinic and the MOVEN Project. These initiatives are designed to link specific learning objectives for health professional students with the health-related needs of the community.

HIPHOP-Community Health Initiative (CHI) consists of projects and electives that promote healthy living practices, teach preventive health education, and support and advocate for the medically underserved of the greater New Brunswick Community.

CHI-Clinic Project offers community members increased support and advocacy in primary care with the assignment of medical students to shadow at EBCHC and the Robert Wood Johnson AIDS Program. HIPHOP student participants are exposed to indigent health care issues, their varied medical dynamics and health care systems.

CHI-Health Workshop Project is an educational program that develops a community mentoring relationship while providing health promotion educational workshops. This is accomplished through a series of interactive workshops presented to various community based organizations and public schools in the greater New Brunswick area. In these workshops students address issues such as HIV prevention, sexual health and responsibility, heart-healthy behaviors, environmental influences on health and behavior, nutrition, substance abuse and much more.

CHI-Electives program comprises Students Teaching AIDS to Students (STATS), Patients At/In Risk (PAIR), Issues in Cultural Competency and the Underserved Community Elective (ICCUCE), Supporting Wise Actions in Teens (SWAT), and Literacy Initiative for Students Teaching Older Spanish Speakers (LISTOS). These programs are in place to provide students additional opportunities to support, advocate and understand the issues of at risk communities. The students who participate in these electives may volunteer to serve meals, attend lectures pertaining to issues of underserved populations, and accompany at-risk young pregnant mothers to health literacy education sessions or clinic visits, or sit through a chemotherapy session with a patient. These are some examples of elective participation among the many different forms of elective participatory options.

Family Medicine 3rd Year Clerkship-Health Workshops - As part of their community service requirement during their family medicine rotation, third year medical students provide community presentations on nutrition at a community-based organization for young adults who attend a vocational live-in school.

CHI-Project Outreach offers a multitude of one-time volunteer experiences for any student who would like to get involved. Such experiences include serving at Elijah's Promise Soup Kitchen, making knot blankets for the homeless, counting the homeless, reading to children, health fair screening/participation, organizing the program's annual drives/events such as its 5k Run, Youth Science Health Day and incoming first year medical student Volunteer Day.

HIPHOP-Promise Clinic was started in January 2005 by a group of HIPHOP students to provide increased access to health care for the homeless who receive their meals and social services at Elijah's Promise, Inc., a multiservice Soup Kitchen in New Brunswick. In the Promise Clinic, a student doctor team of first- through fourth-year students develops and implements a plan of care for their patients. This plan is overseen by

volunteer faculty members from RWJMS who are the preceptors for this experience. The students collaborate with other groups to provide a broad range of social services to their patients and promote a culture of service among future health care professionals. The clinic is housed at an existing community health center—St. John’s Family Health and Services Center. Patient medication is free of charge to the clinic’s patients. Students assist clients with applying for patient prescription assistance programs and hospital Charity Care to offset the cost of laboratory testing, imaging studies, and emergency care. Related health workshops are conducted to address topics such as nutrition and exercise to complement the care of the patient and to train participating student doctors. Students are responsible for managing the operation of this experience (scheduling patients and faculty, purchasing and tracking medication).

The **Urban Health Initiative (UHI)** at the RWJMS regional campus in Camden provides a broad range of services to the Camden community and is critically important to RWJMS-Camden students. UHI is an organized opportunity for third- and fourth-year medical students to become involved in the Camden community in order to improve the overall quality of life of its citizens through service, charity, and education. Programs include an Adult Health Outreach Project (HOP) Clinic, a Pediatric HOP Clinic, a Women’s HOP Clinic, and many school and community outreach programs.

In August 2000, the AAMC-Pfizer Caring for Communities Project awarded funding to third- and fourth-year medical students from RWJMS-Camden to support the development of the first Adult HOP Clinic. This clinic provides free medical care to 110 uninsured adult residents of Camden in medical student-run sessions at the Cooper University Hospital Ambulatory Medicine Clinic on Wednesday evenings. Thirty-five clinical faculty volunteer as preceptors in the HOP clinics. Students staff all aspects of the clinic, from the front desk to the pharmacy. All third-year RWJMS-Camden students participate in this elective experience, and each student follows from one to three patients for the year. A Pediatric HOP Clinic, begun in 2003, now serves about 80 patients whose families are uninsured residents of Camden. A Women’s Health HOP clinic, begun in 2005, serves up to 60 patients.

In addition to the free clinics, the UHI arranges for medical student volunteers to teach CPR and First Aid in schools, day care centers and churches throughout the city, as well as an Education Program in which medical students provide small group and one-on-one teaching on a variety of health topics to five sixth-grade students at the Promise Charter School.

A joint program between UHI and Cooper Hospital, the **Health Science Academy** was begun in 2006 as an opportunity for Camden high school students interested in health-related careers to gain first-hand exposure to the hospital environment and to receive advanced teaching in the health sciences. After an application process, high school students are selected to participate in this year-long program, which occurs every other Wednesday afternoon. These students head straight to the hospital after school for additional lessons on a range of health topics, such as diabetes, cardiology, bone/joint fractures, and substance abuse. RWJMS-Camden students are actively involved in presenting these lessons and mentoring the participants. On alternating sessions, the students are taken onto the hospital floors for tours of various clinical departments and talks about a variety of careers within the hospital setting.

Rarely today are patients given an extended amount of time to spend with their primary care provider to ask whatever health related concerns they have. Adopted as a UHI project in 2006, the **Ask-the-Provider** program gives local Camden residents just that opportunity. Once each month, the program provides an open forum for them to ask health providers any questions they have in an informal, intimate, and relaxed setting. In cooperation with Respond, Inc., a local day care organization, several medical students have connected Camden residents with the medical expertise of volunteer physicians. This year, the program has taken on new shape, integrating a teaching segment for medical students to present a health-related topic to the evening's audience. Teaching topics this past academic year have included nutrition, infant feeding, asthma, children's health, and gynecological care.

MINI-MEDICAL SCHOOL (NJMS)

This program is designed to acquaint the community with the theory and practice of modern medicine, as well as to give them an understanding of the educational process involved in becoming a physician. NJMS public medical education programs are guided by a simple philosophical position: an educated patient is your doctor's best ally. By empowering the individual, the physician and other health care providers are better able to serve the person. The Mini-Medical School program provides an education that is meaningful and enjoyable for each of its participants. The functions of the Mini-Med school were increased in 2007 to include outreach programs for homeless and abused women, adolescent males in trouble with the law, as well as for female and male prisoners.

MINI-MEDICAL SCHOOL (RWJMS)

The Mini-Medical School program has become an integral part of RWJMS' commitment to community service and education. For the past six years the Mini-Medical School for High School Students--*Achieving Excellence in the Sciences*--has served a class of over 180 students from high schools around the state. In addition to these students who share a profound interest in medicine and science, we teach their science teachers and their parents. The program provides opportunities for students to explore scientific interests and to speak at length with professionals who address patient care, research, and community service issues in their daily work.

Over the sessions students attend lectures and discussion groups with faculty members who are national and international leaders in their fields – in areas as diverse as cardiac and renal transplantation, cancer biology and advanced therapeutics, stem cell research, advances in neuroscience and “the adolescent brain,” pediatric AIDS and drug development, and culturally competent patient-centered care. Students have the opportunity to practice “bedside manner” in sessions with medical students acting as patients. As a final assignment students demonstrate self-directed learning by researching a topic and presenting it to classmates at their home schools. A diploma is awarded to mark this early achievement in health sciences education.

NATIONAL YOUTH LEADERSHIP FORUM ON MEDICINE (SOM)

The National Youth Leadership Forum on Medicine (NYLF) is designed to provide high school students from across the U.S. with exposure to the medical and health-related professions. Students visit the campus of UMDNJ-SOM each summer during the

months of June and July. During their visit, students are exposed to osteopathic medicine and osteopathic manipulative medicine. Students participate in a Mini-Medical School enabling them to interact with medical educators, as well as to learn the admissions process and understand the rigorous academic expectations for aspiring physicians. UMDNJ-SOM has sponsored the NYLF since 1998.

NEW BRUNSWICK COMMUNITY INTERPRETER PROJECT (RWJMS)

The New Brunswick Community Interpreter Project (NBCIP) currently provides Spanish medical interpretation and translation services at the Eric B. Chandler Health Center (EBCHC). The Interpreter Project represents a unique point in which three distinct communities come together: Rutgers students, Spanish speaking residents of New Brunswick, and doctors, nurses and medical students studying and working in the city. Through federal work study jobs and volunteer opportunities, students have the exciting opportunity to explore the emerging field of medical interpreting while they develop solid job-related skills, such as professionalism, and enhance their Spanish language skills and knowledge of medicine. Moreover, healthcare providers who partner with NBCIP interns have the opportunity to learn about issues such as cross-cultural communication, the Hispanic culture and how to work with a trained interpreter.

Founded in 1999, the program's interns have interpreted more than 115,000 patient-provider encounters, and translated over 100 vital medical documents. The EBCHC website has been translated into Spanish under the program coordinator's supervision. The NBCIP has conducted basic interpreter training for bilingual staff at the Cancer Institute of New Jersey and formerly participated in the bilingual workshop given by the Department of Family Medicine for third-year medical students before they begin their clerkships. Starting in 2009, the NBCIP has begun to offer 40-hour professional medical interpreter training to local hospitals and community organizations. In 2010, the NBCIP conducted two 40-hour trainings, one for Robert Wood Johnson University Hospital, and another for the Robert Wood Johnson University Medical Group. In 2011, a short training followed by an interpreting skills evaluation was conducted for advance medical Spanish students at RWJMS. The NBCIP staff has also provided three training sessions through the UMDNJ Global TB Institute on how to work with an interpreter. The program is staffed by two program coordinators and 35 student interpreters.

NEW JERSEY AREA HEALTH EDUCATION CENTERS (AHECs) (SOM)

In collaboration with the New Jersey Area Health Education Centers (AHECs) and with the assistance of the Community Health Worker Institute (CHWI), UMDNJ-SOM expanded its clinical experiences in underserved communities for students during their first and second years.

The Community Involved Primary Care (CIPC I & II) experience provides an opportunity for students to develop and implement health promotion intervention projects in underserved communities. First-year medical students are introduced to CIPC through a 33-hour course on conducting community-based asset/needs assessments, accessing national and local resources, identifying and implementing a community-specific health promotion/disease prevention project.

In 2011, SOM was selected as one of three national sites to participate in a project sponsored through the Agency for Healthcare Research and Quality (AHRQ) and

American Association of Colleges of Osteopathic Medicine (AACOM), to integrate the U.S. Preventive Services Task Force (USPSTF) Guidelines into the undergraduate medical curriculum. As part of their CIPC health promotion intervention projects, students implemented evidence-based health promotion projects that incorporated the USPSTF Guidelines and introduced preceptors and community-based agencies to the electronic Preventive services selector (ePss) application.

During CIPC, students participate in a community immersion experience through one of the three AHECs, where they meet with a community health worker, representatives from community-based organizations, and members of the lay community to plan their projects. Projects are developed in Year 1 (CIPC I) and are delivered by the students in the fall semester of Year 2, during CIPC II. During this academic year, 145 students delivered 15 health promotion projects in underserved communities and schools, reaching hundreds of students, individuals, and families. Three group projects exemplifying implementation of the USPSTF guidelines were selected for presentation at the annual meeting of the Association of Colleges of Osteopathic Medicine in March 2012.

The goal of CIPC is to build on student experiences in underserved communities and forge a bond between the students and those communities, thus enriching the value of the experience and creating an ongoing relationship with the AHEC centers and the communities in which they have become involved. All third-year students also participate in expanded community service learning (CSL) rotations at NJ AHEC sites in Camden, Gloucester, Salem, Cumberland, and Atlantic counties. Host sites for these rotations include hospices, Head Start centers, federal prisons, migrant service organizations, adult daycare, local health departments, teen pregnancy prevention centers, inpatient and outpatient substance abuse rehabilitation agencies, and Federally Qualified Health Centers. NJ AHECs continue to develop new community-based sites to accommodate increased class size and provide students with valuable experiences in our underserved communities. The NJ AHEC has also linked with the federally funded Student/Resident Experiences and Rotations in Community Health (SEARCH) program offered by the NJ Primary Care Association, to promote interprofessional student experiences in conducting a health promotion project over the summer.

NJ AHEC also continues to facilitate Kids into Health Careers programs, such as the Medical Explorer and CSI programs in Cumberland and Salem Counties; hospital job shadowing experiences in Gloucester County; careers in healthcare school fairs; and health careers curriculum to underserved middle school students in Camden and Cumberland County schools. Students and faculty from UMDNJ-SOM have participated in these activities with a goal of increasing the number of area minority and disadvantaged youth who pursue a career in the health professions. NJ AHEC leaders serve on board of the Health Occupations Student Association (HOSA) to disseminate information about career opportunities in health care.

NEW JERSEY CENTER FOR PUBLIC HEALTH PREPAREDNESS (SPH)

The New Jersey Center for Public Health Preparedness at UMDNJ (NJCPHP), located at the UMDNJ-School of Public Health, is one of 14 Preparedness and Emergency Response Learning Centers funded by the federal Centers for Disease Control & Prevention at schools of public health across the country. The New Jersey Center, in partnership with the School of Public Health at the University at Albany, develops and

provides education and training designed to ensure that public health, health care, emergency response, and other workers are prepared to more effectively respond to any biological, chemical, or nuclear threats or emergencies, as well as infectious disease outbreaks and natural disasters. At the state level, NJCPHP works closely with the NJ Departments of Health and Senior Services and Environmental Protection, the Office of Homeland Security, and member organizations representing most public health workers in NJ.

Service accomplishments for NJCPHP include the continued distribution of an online newsletter, PHLASH, to inform and to help coordinate preparedness education and training activities for the public health and healthcare workforce of New Jersey. Several education and training activities were conducted specifically targeting mid-level public health workers in all fields, including school nurses, practicing physicians, medical students, hospital emergency room staff, and senior managers, professionals and their staffs in local, county and State public health, environmental protection, emergency management, fire, and police departments, among others. These included a major State-wide conference linking three locations by live video on emerging and re-emerging infectious diseases, and many smaller training sessions as well.

NJCPHP's formal educational work in the form of two public health preparedness courses was an important component in the successful application by Rutgers for a US Department of Homeland Security Center of Excellence in Transportation Safety and Security. For more information contact Dr. George DiFerdinando at diferdge@umdnj.edu.

NEW JERSEY INSTITUTE FOR SUCCESSFUL AGING AND NJ GERIATRIC EDUCATION CENTER (SOM)

Administered through the New Jersey Institute for Successful Aging (NJISA), the New Jersey Geriatric Education Center (NJGEC) provides training in geriatrics and gerontology to healthcare professionals of multiple disciplines statewide, with a focus on minority and underserved communities. Federally funded by DHHS/HRSA's Bureau of Health Professions, the NJGEC has trained over 27,000 healthcare professionals from multiple disciplines since its inception in 1990.

The NJGEC was awarded a five-year noncompeting continuation grant (7/1/2010-6/30/2015), which focuses on "Improving Quality of Care in Geriatrics through Practice and Systems Change." The UMDNJ-SOM, NJISA and its NJGEC continue to work collaboratively with other institutions and organizations to provide team-based care and interprofessional training on a variety of aging-related topics. In October 2011, the NJISA and NJGEC joined the New Jersey Long Term Care Leaders Coalition in planning and co-sponsoring the annual statewide conference entitled "Person-Centered Care Across the Continuum," attended by 118 healthcare professionals from multiple disciplines. The NJGEC and a consortium partner, University Behavioral HealthCare (UBHC) Technical Assistance Center, continue to work with nursing home and assisted living pilot sites selected as part of the Transformational Change in Mental Health Initiative. As part of the NJGEC initiative, UBHC staff provide on-site education, consultation, technical assistance and supportive intervention strategies for behavioral management focusing on systems change in facilities, within a context that addresses tolerance and capacity, cultural sensitivity, team process, and the use of assessment tools to enhance care.

During 2011-2012, three regional trainings were provided throughout the state on “Strategies for Enhancing Collaborative Care for Older Adults” to 104 attendees of multiple disciplines, and one statewide training was provided on “Delicate Issues Impacting Long Term Care” to 106 attendees of multiple disciplines. The NJGEC and South Jersey Healthcare (SJH), a consortium partner located in a HPSA/MUC, are committed to promoting safety, quality and interprofessional, patient-centered care in the acute care setting. As part of the NJGEC initiative, SJH provided Nurses Improving Care for Healthsystem Elders (NICHE) training in Year 2 for nurses pursuing Geriatric Resource Nurse (GRN) status at the Regional Medical Center (RMC) in Vineland, as well as separate NICHE training for interdisciplinary team members and CNAs. The NJGEC/SJH developed hospital protocols and curriculum for the Evidence Based Practice Project on Delirium, which will be used to train SJH’s NICHE-certified nurses to recognize delirium signs and symptoms, identify patients’ predisposing and precipitating risk factors, and implement proper intervention for patients at risk for delirium; training and practice change will be implemented at SJH-RMC in summer 2012.

NEW JERSEY POISON INFORMATION AND EDUCATION SYSTEM (NJPIES) (NJMS)

New Jersey’s first poison center was established in the late 1950s. By 1975 there were 32 “Poison Control Centers” located in acute care hospitals throughout the state. In 1978, in response to a federal initiative to develop regional emergency medical services, New Jersey developed a task force to look into how to provide poison center services. In response to this initiative, the state legislature passed enabling legislation calling upon the New Jersey Department of Health to develop a drug and poison information program for the State. In February 1983, as the result of this legislation and in a cooperative effort between the New Jersey Hospital Association and the New Jersey Department of Health the regional poison control system, New Jersey Poison Information and Education System (NJPIES) was born.

NJPIES is a member of the American Association of Poison Control Centers (AAPCC) and is designated as a regional Poison Control Center under AAPCC guidelines. Additionally, NJPIES manages the Department of Health and Senior Services AIDS/STD hotline. The Center also serves as an information source for the NJDHSS in cases of product tampering or product recall and in food-borne illness incidents, performing a valuable public service in time of crisis. NJPIES provides 24-hour, 7-days-a-week emergency service statewide for poison exposures and for general poison and drug information. Specialists in poison information, who are physicians, registered nurses or pharmacists, handle all calls.

Many of the specialists are fluent in Spanish and several are fluent in additional languages. NJPIES also has a contract with a telephone interpretation service which allows immediate access to hundreds of languages and dialects. We offer TDD/TTY service for the hearing impaired. Specialists answer questions about adverse effects of medications, possible risks for drug interaction or the potential effects of medicines on pregnancy or breast feeding. Specialists also answer questions prior to exposure to or use of a potentially poisonous or hazardous product, such as household chemicals, plants, cosmetics or environmental contaminants like lead. They help the callers to assess the possibility for harm or damage and give recommendations for minimizing or

eliminating risk. The Poison Control Center is funded through a contract with the State of New Jersey, Federal and other grants, and from private donations.

Lead Poisoned Children

Lead poisoning from deteriorating paint that contains lead is a major hazard for urban children. Severe lead poisoning can lead to seizures and death, while lower levels can impair performance in school and increase encounters with law enforcement authorities.

The New Jersey Poison Information and Education System (NJPIES) has established the New Jersey Lead Consortium, a monthly meeting where individuals from varied organizations such as DYFS, Medicaid and HMO's--as well as MDs, RNs, social workers and industrial hygienists--come together to discuss prevention/treatment of lead-poisoned children. At the monthly meeting, problem childhood lead-poisoning cases are reviewed, appropriate speakers are invited, and/or current journal articles are presented and discussed.

NUTRITIONAL SCIENCES (SHRP)

Department of Nutritional Sciences programs and the Institute for Nutrition Interventions provided numerous community contributions this year. A Graduate Program in Clinical Nutrition faculty member has worked with the Newark "Let's Move" Program which promotes healthy exercising habits to the citizens of Newark. To help demonstrate healthy eating habits the dietetic internship has organized events with both the Brownies Troops and the Girls Scouts of Southern/Central Jersey. In addition to those events the department is a major contributor to the Special Olympics where over 300 are served on a yearly basis. Department faculty and dietetic interns have worked with the student run inter-professional clinic in NJMS. Additionally, the LIVEWELL program provides wellness visits with employees of UMDNJ and the NJIT.

The Dietetic Internship Program participates in a variety of community nutrition initiatives targeted to children and adolescents. To celebrate National Nutrition Month, culinary presentations and nutrition exhibits were presented to high school students from the Union County Academy of Health Sciences. Nutrition education was provided at multiple YMCA sites located in Bergen, Monmouth and Union counties to celebrate "Healthy Kids Day".

The Coordinated Dietetics Program provides nutrition education classes to local communities, schools, religious groups and organizations such as the NJ Metro Chapter of the Multiple Sclerosis Society. The students conduct community-based health promotion/disease prevention programs as well as provide nutritional education to WIC participants, Senior Congregate Meal Program attendees, school lunch participants or those who attend food banks or soup kitchens.

Food Stamp Education: In conjunction with Rutgers University Cooperative Extension, UMDNJ-School of Health Related Professions has been providing nutrition education sessions for food stamp recipients in Essex County since 1998. The sessions are held in schools, after-school programs and community agencies.

OB/GYN PHYSICIAN SERVICES TO KENNEDY FAMILY HEALTH CENTER (SOM)

Many women in the Camden County area do not have the financial resources for their healthcare, including gynecologic and obstetrical care. The UMDNJ-SOM Department of Obstetrics and Gynecology provides the physician services to those women who are patients of the Kennedy Health System Family Health Center. UMDNJ-SOM faculty physicians provide the primary care in the Somerdale-based Family Health Center and provide hospital services at Kennedy University Hospital-Washington Township.

OFFICE FOR DIVERSITY AND COMMUNITY ENGAGEMENT (NJMS)

The Healthcare Foundation Center for Humanism and Medicine

The center focuses the ideals of humanism not just in our educational programs but in our research endeavors, clinical practice and community outreach activities as well. We see our commitment to humanism as not only a way to enhance the medical education of our students, but ultimately, to change the way medicine is practiced. They offer a number of community activities including All E.A.R.S. (Encouraging Active Reception and Self-reflection). The program was established to bring together a dedicated group of students who would work together with the palliative care team at University Hospital to interact with patients who lacked their own support system and faced very serious illness or end of life alone.

Summer Medical and Dental Education Program (SMDEP)

SMDEP is one of twelve national programs funded by the Robert Wood Johnson Foundation and administered through the Association of American Medical Colleges and the American Dental Education Association. It is a free (full tuition, housing, and meals) six-week summer medical and dental school academic enrichment program that offers highly motivated college freshman and sophomores intensive and personalized medical and dental school preparation.

The SMDEP at NJMS/NJDS serves to advance the Schools' core mission of meeting society's current and future healthcare needs by preparing individuals underrepresented in medicine and dentistry and doing so while championing cultural competency and humanism in all aspects of education. SMDEP reaffirms its continued commitment and involvement in pipeline initiatives that will permit the attainment of even greater diversity. The SMDEP builds on 30 years of experience in providing academic enrichment programs geared toward attracting students into the health sciences. The curriculum has been carefully designed to enhance students' skills academically and personally, a requisite for success in medical/dental school. The program strengthens students' skills by providing the science course work, critical thinking, problem solving, and communication skills necessary to ensure that they are competitive for medical/dental school.

The content includes an introduction of academically challenging courses with an emphasis on the acquisition of skills based on principles of adult learning. By the completion of the program, students are able to identify and apply strategies and skills that work best for them. Specifically, the ultimate goal is to make the learner responsible for their education, a requirement of the life-long learning skills expected of the medical and dental profession.

Overall objectives of the SMDEP:

- Involving the student in a problem-based learning model of science education used to promote critical thinking skills and the acquisition of study skills and strategies
- Improving students' writing and communication skills as they relate to success in the practice of medicine and dentistry
- Assisting each student to develop and implement a personal academic and career plan
- Increasing students' awareness of diverse and/or underserved populations and how this affects the practice of medicine and dentistry
- Providing students with a limited but informative set of clinical experiences under the direction of outstanding faculty preceptors and role models

Northeast Regional Alliance (NERA) MEDPREP Scholars Program

The Northeast Regional Alliance (NERA) MedPrep Scholars Program is a partnership between New Jersey Medical School, Mount Sinai School of Medicine Center for Multicultural and Community Affairs, Columbia University College of Physicians and Surgeons and the Manhattan Staten Island Area Health Education Center.

The Program uniquely builds on the collective expertise of four outstanding institutions to expand health careers preparation for underrepresented and disadvantaged students from junior high school through medical school with the goal of increasing competitiveness for medical school. Ultimately, we expect that our scholars will have the humanism, professionalism and interpersonal skills required of a future physician caring for a diverse population. The three-year program includes: a six-week reading and science enrichment program; a six-week MCAT preparation with shadowing experiences; and a six-week research component.

Dr. Richard Pozen and Ann Silver Pozen Community Service Scholars Program

Initiated in 2009, the program supports and encourages medical student participation in community service projects. Students gain a community service understanding under the tutelage of faculty and/or sponsors. The aim of this program is to stimulate a student's on-going interest and develop their community skills in service to others, with the ultimate goal of motivating them to practice in medicine in which service to the community is an integral part. Projects have been conducted on the local, regional and international levels. Local projects have included: Contraception Awareness: A Vital Part of Family Planning, Kick For Kid; Educating Disadvantaged Children in Martial Arts to Promote Healthy Lifestyles; Student Run Free Clinics as a Referral Center For the Follow-up of Uninsured Health Fair Patients; and A Healthy Lifestyles Community Fair: Fun Tips on Living a Better Life.

The SMART (Science, Medicine, and Related Topics) Program

The main focus of SMART is to enable minority students in grades 6–12 who are capable of high level academic achievement (but may lack the interest, skills or resources) to reach their potential and become competitive in the pool of applicants pursuing science and medicine careers. The program focuses on youth development and academic excellence and provides opportunities to students to gain the knowledge and experiences necessary to maximize their potential for success. The program's functionality and strength arises from the fact that SMART's pre-college students are guided by a dedicated team of NJMS faculty, staff and certified science instructors within

a medical school environment where medical resources are readily available. The students are afforded access to doctors, scientists, researchers, and a myriad of health care resources within UMDNJ.

SMART students are able to participate in scientific and medical experiences that are pivotal in their growth process. SMART enables students to enhance their skills and provides the tools necessary to succeed in health-related careers. Programs include:

- Hands-on Laboratory Experiments
- Problem Solving and Critical Thinking Activities
- Math Skill Enhancement
- Research Using Computers
- Interpersonal Communication Skill Enhancement
- Educational Field Trips/College Tours
- Science Related Guest Speakers
- Oral & Written Presentations
- S.A.T. Preparation
- Career Exploration
- College Recruiter Counseling
- Teamwork Activities
- Leadership Training

The Winter SMART Program

The program offers an intense hands-on curriculum involving laboratory experiments and computer research. Laboratory sessions include experiments in biology, chemistry and physics. In addition to the lab work, sessions are also conducted in the following: Math in Physics and Chemistry, Essay Writing for the S.A.T.'s (11th and 12th grades), Professionalism, and Oral and Written presentations. All students will attend lectures by health related professionals. Previous lecturers have included scientists, medical doctors from a variety of specialties, dentists, and other notable figures who allow for gaining an invaluable insight into professions in medicine and science.

The Summer SMART Programs

Young Explorers-6th Grade

6th graders explore the world of biological sciences.

ChemPros-7th Grade

7th graders explore the world of chemistry.

Biotrek-8th Grade

8th graders spend 5 weeks exploring the world of human biology.

Fantastic Voyage-9th Grade

9th graders explore the physiology behind the body systems.

Enviroquest-10th Grade

10th graders spend 5 weeks exploring the connections between Health, Science and Environment.

Mission Health-11th Grade

11th graders explore the concept of providing health care as a service to the community. Students also participate in SAT Prep, college tours, college counseling and lectures.

Biomedical Health-12th Grade

Research for 12th graders, AP Science courses, SAT Prep, college tours, college counseling and lectures.

Email: smartprogram@umdnj.edu Website: <http://njms.umdnj.edu/SMART>

OFFICE OF MULTICULTURAL AFFAIRS (RWJMS)

The RWJMS Office of Multicultural Affairs/Office of Special Academic Programs sponsors programs to address health disparities or focus on culturally competent health care as a way of eliminating health disparities. Its goal is to educate the medical school community regarding cultural issues affecting quality health care as well as to foster diversity through recruitment and retention of students from groups underrepresented in medicine. The Office develops, organizes and sponsors educational, cultural and summer program activities that focus on increasing awareness and sensitivity so that students, staff, and faculty gain a better appreciation and respect for the differences that exist in our society.

OFFICE OF PUBLIC HEALTH PRACTICE (SPH)**Centers for Education and Training**

The Centers for Education and Training (CET) provides training to over 3,000 men and women at its training facility annually, offering 250 continuing education short courses. The courses focus on environmental and occupational safety and health topics. Training is provided to professionals who are responsible for occupational safety and health or environmental management. Trainees include industrial hygienists, safety professionals, occupational health nurses and occupational physicians. Courses include:

- Asbestos Training
- Confined Space
- Ergonomics
- Hazardous Materials & Waste Site Operations
- Hearing Conservation
- Indoor Air Quality
- Industrial Hygiene
- Lead Training for New Jersey and New York State
- Noise Protection
- Occupational Medicine
- Occupational Health & Safety
- OSHA Compliance
- Process Safety Management
- Respiratory Protection
- Spirometry
- Toxicology & Risk Assessment

CET courses are held at the SPH Building in Piscataway. This central New Jersey facility affords excellent accessibility by public transportation, parking facilities adjacent to the building and easy access to downtown New Brunswick. CET's courses are held in modern classrooms and a hands-on workshop room. Additionally, CET provides off-site training to industry and governmental agencies. Led by experts in the field, classes are structured to be small enough to allow active discussion and personal attention, yet large enough to provide for a diversified group of participants. The Office of Public Health Practice (OPHP) manages cooperative agreements with the National Institute of Environmental Health Sciences, the National Institute for Occupational Safety and Health, and the Occupational Safety and Health Administration.

The UMDNJ-School of Public Health received funding from the NIEHS through a supplemental award with ARRA funding. The purpose of this funding is to provide hazardous materials and green jobs training to unemployed workers. One aspect of the training included a partnership with Hope Community Outreach Center in Camden, NJ. Asbestos, lead, construction safety, and hazardous waste training were provided with the intent for these Camden residents to rehabilitate houses in Camden.

New Jersey Public Health Training Center

The NJPHTC is based at the SPH Office of Public Health Practice, and key partnerships include the [UMDNJ-NJMS Department of Preventive Medicine and Community Health](#), the [New Jersey Health Officers Association](#), and the [New Jersey Department of Health and Senior Services](#). The Center's overarching aims are 1) to address through training and education the professional needs of the statewide New Jersey public health workforce, the impending shortage of public health workers and the leadership training needs of public health professionals, and 2) to further strengthen high need/low resource communities through enhancing the essential public health competencies of public health professionals.

Through existing relationships, the NJPHTC will broaden the scope of training available to the existing public health workforce. The NJPHTC will also expand collaborative projects that involve students, faculty and community based organizations. These collaborations will focus on public health issues in medically underserved communities. The Center is supported by the Health Resources and Services Administration.

The major projects of the Center are:

- Leadership training for local health officers;
- Accreditation readiness training for local health departments;
- Course offerings in select topics for the workforce generally, reaching the entire state of NJ;
- Training of the prospective workforce through placement of SPH students in local health departments, and through dissemination of a course on public health for use in New Jersey Community Colleges;
- Web-based case-centered training for public health students and professionals;
- Public health and preventive medicine grand rounds for public health students and professionals.

For more information on the Office of Public Health Practice, please contact Mr. Mitchel Rosen at mrosen@umdnj.edu.

ORIENTATION WEEK COMMUNITY SERVICE (SOM)

As part of the student orientation for the incoming class of 2015 (organized by the SOM Student Council and Office of Alumni Affairs), about 50 UMDNJ-SOM students and alumni volunteered in a community service project to improve the grounds and landscape areas at the Judith B. Flicker Center in Voorhees, NJ. This is a center providing care for adults with developmental disabilities.

PATIENT-CENTERED MEDICINE COURSE (RWJMS)

RWJMS launched a new course in 2006, *Patient-Centered Medicine*, to provide students with more opportunities early in their education to learn in clinical settings, to integrate basic science and clinical information, to address ethical issues, to teach communication skills, to enhance cultural competency, and to strengthen community service links. All students participate in service learning activities providing health education workshops in the community. All students also visit agencies that provide care in the community for disabled and other vulnerable populations. *Patient-Centered Medicine* fosters the value of community involvement and enhances opportunities for students to engage in community health programs. The course spans the first three years of the curriculum and provides longitudinal community experiences in New Brunswick and Camden.

PEDIATRIC CLINICAL RESEARCH CENTER (RWJMS)

The Pediatric Clinical Research Center is housed within the Child Health Institute of New Jersey (directly adjacent to the Bristol-Myers Squibb Children's Hospital) and is a fully staffed and equipped clinical research facility capable of conducting both inpatient and outpatient pediatric clinical trials. Its mission is to:

- Facilitate investigator-initiated and pharmaceutical industry-sponsored Phase I-IV clinical research efforts throughout the Pediatric Campus at UMDNJ-Robert Wood Johnson Medical School. Faculty and staff are trained and experienced in conducting clinical trials in children.
- Expand access to innovative clinical trials and novel treatments for New Jersey's children.
- Establish and support a state-of-the-art training environment for medical, nursing, and pharmacy students, residents and fellows.
- Assist investigators in acquiring and launching new studies, and provide recruitment and data collection assistance if needed.
- Assist investigators in completion of regulatory documentation, IRB submission and oversight.
- Assist investigators in developing agreements with pharmaceutical corporations, Clinical Research Organizations, and Site Management Organizations.

PEDIATRIC MIGRANT HEALTH PROGRAM – PHYSICALS FOR CHILDREN OF MIGRANT WORKERS (SOM)

For many migrant families, obtaining basic preventive, primary health and dental care is beyond their reach. Each summer, the UMDNJ-SOM Department of Pediatrics contracts with the Gloucester County Special School Services Department to provide physical evaluations and screenings for the children of migrant workers. The evaluations are conducted at multiple locations throughout Southern New Jersey. The program, which typically sees 500 children each summer, is conducted in partnership with UMDNJ-New Jersey Dental School, which conducts oral health screenings on the same youngsters.

PRIMARY CARE (SHRP)

The Institute for Complementary and Alternative Medicine (ICAM): ICAM makes many contributions to the community, including a weekly yoga class for UMDNJ employees and an annual “Take your Child to Work Day” session, which taught over 20 children the benefits of yoga. Herbal medicine and yoga lectures educated over 80 attendees at the Mini-Med School-ICAM Day event. The practices of pain management and stress reduction for the Stroke Survivors group helped to educate the 20 who participated in this one-day event. This year the first annual National Integrative Medicine Day was celebrated with a panel discussion on yoga and health that served over 20 community members in person, but that was also distributed on the web for the wider community. In collaboration with the NJMS-UH Cancer Center, the Institute is in the process of setting up a massage therapist volunteer network with an aim towards providing massage therapy to reduce stress and pain for those in the community being treated for cancer as well as their caregivers. Last, through the FACE (Food: Accessible, in the Community, for Everyone) project in collaboration with the University Hospital Women, Infants and Children (WIC) program, ICAM will begin to provide mindful eating, mind-body practices for stress reduction, and yoga instruction for mothers and children in Newark.

The Respiratory Care Program-North makes many contributions to the community through its efforts that serve over 500 community members on a quarterly basis. The Asthma Education Program (offered with the Master of Science in Health Care Management program) for New Jersey Children in conjunction with the Newark Archdiocese Schools presented several educational sessions.

The Respiratory Care Program-South has been active in the Touch New Jersey, Inc. food pantry in the form of donations and volunteering. On a weekly basis, food is given to approximately 200 poor and disadvantaged in the Camden area.

The Physician Assistant Program faculty have contributed to a wide array of public services. Together, the faculty and students provide a weekly evening clinic to the underserved in New Brunswick, NJ. A faculty member serves as the PA faculty liaison to the RWJMS Homeless and Indigent Population Health Outreach Project, while another graduate student is working full time in a remote village in Mozambique, Africa through the Harvest International Center.

PROJECT REACH (SOM)

Project REACH (Revitalizing Education and Advancing Camden's Health) was established in 2009 by a student group at UMDNJ-SOM, under the guidance of the school's Department of Family Medicine, with support from a three-year Caring for Community grant from the Association of American Medical Colleges (AAMC). The project conducts youth-initiated community health service projects in Camden and uses a problem-based learning approach to teach preventive health to select groups of Camden middle school students. Project REACH teaches the Camden students to become project leaders with the UMDNJ students serving as "team members."

It collaborates with a number of other institutions, including the Camden Board of Education, Rutgers University and the Camden AHEC. UMDNJ-SOM students on the REACH executive board and more than a dozen other medical school students volunteer as mentors for students from a Camden middle school. Project REACH was expanded by two UMDNJ-SOM students in AY 2010-2011 and an additional two students in AY 2011-2012 who have been chosen as Greater Philadelphia Schweitzer Fellows.

In April 2011, UMDNJ-SOM students Farhad Modarai '12 and Hyun Ouk Hong '12, founders of Project REACH, received first place for the "Best Community Service Program Serving Fewer than 1,000 People" from the American Association of Colleges of Osteopathic Medicine (AACOM). Dr. Joshua Coren, Vice Chair, of the Department of Family Medicine, serves as the project's administrative officer and medical reviewer for the problem-based learning modules.

PSYCHIATRIC REHABILITATION & COUNSELING PROFESSIONS (SHRP)

This program's faculty and students participated in a number of advisory boards to contribute to community services goals, including: Project Live non-Profit Mental Health Agency, the Collaborative Support Programs non-Profit Mental Health Agency board of directors, and the Carelink NJ All Stars Program advisory board. The PhD in Psychiatric Rehabilitation program contributed to several wellness initiatives that help well in excess of 1,000 persons in need of services for severe mental illness. These services include psychometric consultations through the Certified Psychiatric Rehabilitation Practitioner Commission and Executive Board Memberships on committees such as Collaborative Support Program of New Jersey and Project Live Incorporated. Finally, the Integrated Employment Institute has provided on-site training and technical assistance to build staff capacity and improve service outcomes. This service has been provided at a number of community psychiatric rehabilitation sites.

Ancora And Greystone Park Clinical Affiliation: The overall purpose of the Ancora and Greystone Park affiliations are to enhance the quality of patient care services at these State psychiatric hospitals by improving the competencies of direct care staff. To that end, five faculty members from the Department of Psychiatric Rehabilitation provide a variety of programming and technical assistance initiatives that impact over 250 patients annually. These initiatives include on-site undergraduate psychiatric rehabilitation course work, in-service training to improve staff group work skills, and specialized programs like the Program Readiness Mall for patients unable to use traditional hospital programs.

Anti-Stigma Initiative “Meeting and Learning From People With Mental Illness”: In collaboration with persons with serious mental illnesses and Collaborative Support Programs of New Jersey, SHRP faculty provide 30 presentations annually to over 800 children and adults in middle schools, high schools, colleges, and community groups. Those attending meet people with mental illness and learn from them about their recovery and the importance of seeking help.

Illness Management and Recovery: Six SHRP faculty are engaged in the implementation of the evidence-based practice of Illness Management and Recovery (IMR) at all New Jersey Division of Mental Health Services facilities and select contract agencies throughout the State. These faculty train professionals and assist them in implementing this new practice.

Integrated Employment Institute: The Integrated Employment Institute is a program within the Department of Psychiatric Rehabilitation at SHRP and is funded by the New Jersey Division of Mental Health Services. The mission of the Institute is to increase employment among people with psychiatric disabilities. To this end, the Institute seeks to influence individuals, organizations, and systems. The Institute works to increase the expectation of employment outcomes and to:

- Build the capacity of individuals to achieve or support employment goals
- Develop organizational cultures, policies, and practices that promote employment outcomes
- Remove systemic barriers and advocate for effective policies, practices and resources

The Institute operates in eleven New Jersey counties. These include Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Middlesex, Monmouth, Ocean, and Salem.

As a demonstration of best practices in the field, the Institute provides direct supported employment services to ten persons annually. These services include individualized career planning, competitive job development, placement, and follow-along support. The Institute provides service seminars to more than 100 persons with serious mental illness a year. These seminars are designed to build the capacity of the individual to direct his or her own career planning and acquisition. The Institute also helps mental health agencies promote employment services and employment outcomes for persons with serious mental illness through didactic and in-vivo training and on-going consultation. This includes training and technical assistance to outpatient departments, partial care programs, supported employment programs, supportive housing programs, assertive community treatment programs and others throughout the region. Nearly 2,000 professionals a year receive training on more than 40 topics. Low-cost conferences and workshops are offered throughout the State where the participants can earn continuing education credit. The Institute convenes meetings of stakeholders and providers in various counties. Six of the Department’s faculty members work full-time on this initiative.

REHABILITATION AND MOVEMENT SCIENCES (SHRP)

The Doctor of Physical Therapy Program is active on a yearly basis at the Special Olympics New Jersey Summer Games in Ewing, NJ, an event that has over 1,000

participants on a yearly basis. Students and faculty have been involved in educational programs at the Newark Housing Projects. This occurs quarterly and has served over 75 participants on each of these occasions. The students and faculty provide posture screenings and evaluations for PT week and for Allied Health Week. Community contributions provided by the Doctor of Physical Therapy Program - Stratford campus include the NJ Fit for Life project. This provides professional services to individuals who are HIV positive. Almost 50 participants are served through this program on a monthly basis. Through the Balance and Falls Screening for older adults program many expanded outreach efforts to promote wellness goals were met and exceeded.

Physical and Occupational Therapy - Newark Therapy Services offers full physical therapy and occupational therapy evaluation and treatment services to public school children in Newark, Paterson, Morristown School Systems and Essex County Vocational School. These services are part of the faculty practice plan of the Department but also include opportunities for physical therapy and occupational therapy students to participate as part of the Department's community service expectations. The service is provided to students with Individual Education Plans or 504 Plans at all levels of primary and secondary education in the school system. This service is the largest of its kind in the country offered wholly by a physical therapy program.

S.A.V.E. PROGRAM **(Screening Access of Value to Essex Residents) (NJMS)**

SAVE, a program of the UMDNJ-New Jersey Medical School (Department of Medicine) and the Department of Radiology at UMDNJ's University Hospital, administers the mobile mammography van. The mobile van is staffed by a physician or physician assistant and a mammography technician from UMDNJ. Radiologists and administrators interpret the mammograms for follow up by the UMDNJ-New Jersey Medical School-University Hospital Cancer Center oncologists and surgeons.

SAVE'S mobile unit brings testing to virtually any place in the county where people will come to be screened: churches, health centers, schools. An outreach staffer goes to these locations, provides cancer education and makes appointments for those who are interested. Free breast and cervical cancer screenings are available to women ages 50-64 whose annual income is three times the Federal poverty level or lower.

The SAVE Program also offers colorectal cancer screening by providing at-home stool testing kits to people 50 and over and information about symptoms of this disease and early detection guidelines. In addition, SAVE offers PSA (Prostate Specific Antigen) blood tests and digital rectal exams to check for changes in the prostate. They also offer a Pap test during the pelvic exam. It can show cancer or pre-cancer of the cervix. Women who participate in SAVE are offered this test annually. Cervical cancer is easily cured if found early.

SAINT JUDE'S HEART HEALTH COMMUNITY EDUCATION PROGRAM (SOM)

This community education program emphasizes the importance of preventing heart disease, including the role of nutrition, exercise, weight loss, smoking cessation and cholesterol screening. Developed and administered through the New Jersey Institute for

Successful Aging (NJISA), this program is provided on request. To date, over 119 community-dwelling seniors attended the Heart Health Community presentations.

SAMUEL L. BAILY HUNTINGTON DISEASE UNIVERSITY CENTER (SOM)

The Samuel L. Baily Huntington Disease University Center at UMDNJ, founded at UMDNJ in 1977, is a university-wide center focused on clinical care, counseling, research and education on Huntington Disease (HD). Huntington Disease is an inherited, neuropsychiatric disease characterized by a movement disorder, dementia and psychiatric disturbances. It is inherited as an autosomal dominant condition so that every child of an affected parent has a 50% risk of inheriting the condition. The age of onset of symptoms can occur as early as two years of age but typically occur in the third to fourth decade of life. The disease progresses to death over a 20+ year progressive loss of physical and mental health. The gene for HD was discovered in 1993 and the mutation is known as a trinucleotide repeat mutation.

The Samuel L. Baily Center provides genetic testing and counseling, neurological and psychiatric diagnostic and treatment services, social services and case management, psychological counseling, and prenatal and preimplantation genetic diagnoses. Home visitation, nursing home in-service programming and professional and community education are also provided at the Center. Consultation services are provided to Long Term Care facilities in New Jersey.

The Samuel L. Baily Center has locations at UMDNJ-New Jersey Medical School in Newark, UMDNJ-Robert Wood Johnson Medical School in Piscataway and UMDNJ-School of Osteopathic Medicine in Stratford. Services are provided on a sliding scale and the center is supported by a grant from the NJ Department of Health.

Research activities are coordinated as part of the Huntington Disease Study Group and the CHDI and include the current project ENROLL-HD, an international research project involving Europe, South American, Asia and North America (USA and Canada). NIH supported projects on Quality of Life are underway in collaboration with the University of Michigan School of Medicine.

SCHOOL OF NURSING COLLABORATIVE INITIATIVES (SN)

State Hospital Clinical Affiliation

The UMDNJ-School of Nursing has been involved in a hospital clinical affiliation with **Essex County Hospital** that is now in its fifth year. A nurse clinician works collaboratively with the Director of Patient Care Services and medical administration on quality improvement projects, such as monthly nursing grand rounds, reintegration programs for long term care clients and the establishment of a restraint reduction program for all hospital staff.

The UMDNJ-School of Nursing's consultative collaboration with the New Jersey Division of Mental Health Services for 2012 has been very active in the following areas:

- 1) Reviewed state-of-the-art mental health trends and assisted in initiating best practice programs for hospital units in concert with clinical leaders;
- 2) Developed and assisted in maintaining nursing services certification and continuing education programs, i.e. CPI, Nurses Continuing Education Series, etc. in concert with Nursing Administration;

- 3) Provided a.m. observation rounds on patient care units to implement concepts presented in the classroom environment and provided feedback to nursing personnel and administration;
- 4) Assisted with initiating and maintaining student nurse affiliations;
- 5) Initiated a Nursing Services Reference Library;
- 6) Participated in implementation of hospital quality assurance/ performance improvement committee initiatives to support continued quality care services;
- 7) Participated in ongoing efforts to enhance patient care services based upon priorities set by hospital administration; i.e., research, programs, training and/or evaluation projects/programs; and
- 8) Secured a mobile classroom for the Ancora site to encourage and facilitate site nurse participation in SN courses and programs. The mobile classroom is funded by an American Recovery and Reinvestment Act grant (ARRA) administered by the DHHS/HRSA.

The Bergen Volunteer Medical Initiative, Hackensack, NJ

Dr. Mary DiGiulio currently volunteers as an Adult Nurse Practitioner in this program. She is also on the Oradell Board of Health.

Casa Israel Newark

Throughout the academic year faculty and students provide health education, nutrition teaching, exercise planning, physical examinations and screenings for hypertension and diabetes at this adult daycare facility.

La Casa de Don Pedro

La Casa de Don Pedro offers free, quality, and culturally appropriate early childhood education with an English/Spanish bilingual program. Curriculum, instruction, personnel and support standards as well as facilities are consistent with and under the auspices of Newark Public Schools. The Pre-K experience is designed to provide a welcoming learning and socializing environment. Pre-K education has been demonstrated to improve the learning performance of the children who attend. Currently the program serves 255 children ages 3 and 4 at its three centers.

Covenant House

Covenant House is the largest provider in the state to homeless, runaway and at-risk youth between the ages of 16-21. They serve youth regardless of race, color, or creed, including pregnant youth and their babies. Covenant House New Jersey provides a wide range of services, from fulfilling a youth's immediate needs of food, shelter and clothing, to providing them with medical care, educational and vocational services, counseling, legal services, life skills, education, recreation, aftercare, pastoral care, drug abuse treatment and prevention support. Covenant House New Jersey receives private and public funds to sustain its operations. They are supported by government agencies at the federal, state, county and city levels, as well as private foundations, for-profit companies and individual donors.

Healing the Children Northeast Chapter

Dr. Clare Golden traveled to Columbia South America on her 36th medical mission as a member of the surgical team administering anesthesia for children undergoing reconstructive surgeries for birth defects and burn scars. In addition, over the past 20 years she has traveled on medical missions to Guatemala, Ecuador, Nicaragua and Bangladesh.

Ironbound Community Center

The Ironbound Community Center provides preschool care for children of Newark residents holding down multiple jobs.

Ironbound Community Corporation

The School of Nursing has supported the mission of the Ironbound Community Corporation by providing nursing outreach to the homebound elderly, the Ironbound Child Care Center, the Hawkins Street Elementary School and the Hyatt Court and Terrell housing projects. Community health nursing students and Professor Cindy Sickora have conducted monthly blood pressure screenings at various sites in the Ironbound Community. The School of Nursing participates in Annual Community Fairs where health education and promotion are provided.

Irvington Family Development Center

School of Nursing associate professors Ruth Monchek and Susan Wiedaseck provide classes on contraceptive counseling to pregnant and postpartum teenagers at the Center.

ISLA (Instrucción en Salud Latina)

Dr. Frances Munet-Viláro is currently implementing a health literacy program with monolingual Latinos in collaboration with the Ironbound Community Corporation (ICC). The program is funded by the RWJ New Jersey Health Initiative. Graduate and undergraduate nursing students participate in the program as part of their community health and public health nursing field experience.

Jersey Pride, Inc. and Monmouth County Health Department

Assistant Dean Wendy Ritch, along with over a dozen SN faculty, staff and students worked with Jersey Pride and the Monmouth County Health Department to offer a free vaccination clinic at New Jersey's annual LGBTQ (lesbian, gay, bisexual, transgender and queer) Pride event in Asbury Park in June. Pre-vaccination health screenings and sixty-two vaccines (Hepatitis A, Hepatitis B, Gardasil and Tdap) were provided to members of the LGBTQ community, which is an underserved population. If the event had not been rained out then the 200 available vaccines would almost certainly have been utilized.

The Jordan and Harris Community Health Center

Visiting each public housing development on a biweekly basis, the Mobile Health Project has brought primary "medical home" services to a population where nearly 50% of the residents between the ages of 18 and 64 are uninsured. The APNs work closely with the J&H staff to ensure case managed health services to this underserved population.

The Leaguers-Clinton Avenue, Newark, NJ and Elizabeth, NJ

Drs. Dula Pacquiao, Frances Munet-Vilaro, and Rula Wilson, as well as an MSN student Ms. Tammy Cooper provide monthly health education classes for parents in health nutrition, child abuse prevention and oral care. In addition, at the Elizabeth branch, Dr. Pacquiao provides weekly health promotion activities for 192 preschoolers, including individual oral examinations and demonstrations on tooth brushing and demonstrations and supervised return demonstrations of hand washing; determining individual BMI analysis and suggesting appropriate caloric allowances to parents; and following up with additional information for the Center director, teachers and kitchen staff on appropriate

caloric allowances and food services. Collaborations with the Health Care Coordinator took place in order to refer children to the Wellness Mobile Healthcare Service of UMDNJ.

Newark Beth Israel Medical Center

Dr. Elaine Diegmann participates in the Nurse Midwifery Service, which serves an ethnically diverse, economically deprived population.

Newark Pre-School

To ensure that quality health care services are available and accessible to our children, the Alberta Bey Head Start Center operates a Women, Infants and Children (WIC) supplemental nutrition program at that site in cooperation with the Newark Department of Health. Newark Preschool Council also enjoys collaborating with the Newark Community Health Center to provide medical and dental screenings to the children enrolled in this program. It is desired that the NJCHP become the preferred provider of these services.

The New Jersey Board American Psychiatric Nurses Association

Professor Carrie Carretta sits on the New Jersey Board of the APNA and is also a member of the Steering committee for the Forensic Council of the National APNA.

The New Jersey Perinatal Collaborative

Dr Elaine Diegmann serves as a member of this collaborative, which is sponsored by the New Jersey Hospital Association (NJHA), to provide evidence-based care to reduce the caesarean section rate in New Jersey. She is also a member of NJHA's VBAC (Vaginal Birth after Cesarean) Taskforce- Epidemiology Subcommittee to study and recommend VBAC as a safe option for the women of New Jersey.

Nursing Service Leadership in the Dominican Republic

UMDNJ School of Nursing faculty and 4th level nursing students, in collaboration with the College of Saint Elizabeth and the Foundation for Peace, attended lectures and educational sessions, collected medical and health supplies, and traveled to the Dominican Republic in March 2011 to provide care and outreach education to approximately 2,000 individuals in two rural clinics over the course of four days.

Planned Parenthood of Metropolitan New Jersey

Drs. Ginette Lange, Joyce Hyatt, Patricia Hindin, Ruth Monchek, Susan Wiedaseck, and Asunta Beardsley provide prenatal care services for Planned Parenthood of Metropolitan New Jersey. All clients are assisted with Medicare eligibility and are seen by a nutritionist and social worker at their initial assessment. Clients are referred to St. Joseph's Medical Center when the need arises for high risk care.

Programs for Parents, Inc.

Community health nursing students and faculty are supporting the efforts of the child care health consultants from Programs for Parents by assisting with dental education in Essex county preschools.

RESPIRA Program

The School of Nursing is supporting the UMDNJ RESPIRA program by providing asthma workshops (according to RESPIRA protocols) in the Newark public schools to English-speaking families. The nursing faculty and BSN students, all of whom have been IRB

approved, are providing follow-up home visits to the identified families. Workshops are offered two to three times per month at schools across the city.

Saint John's Church

Community health nursing students and faculty participate in weekly clinic activities offered by the staff at St. John's Church. Students work in the soup kitchen and provide blood pressure screening. Nursing faculty support the project by providing respite for the church nursing staff.

UH American Sign Language Medical Interpreter

Dr. Joyceann Fileccia serves as an American Sign Language interpreter at the University Hospital and at various other healthcare facilities. She also teaches the course entitled "Deaf Culture and American Sign Language for the Health Care Provider" at UMDNJ.

SENIOR HEALTH AND FITNESS DAY AND OTHER OUTREACH TO SENIOR CITIZENS (SOM)

The Ninth Annual Senior Health and Fitness Day sponsored by the New Jersey Institute for Successful Aging (NJISA) and UMDNJ-SOM Marketing Department will be held on June 13, 2012. This year's program is entitled "100 Candles: Wellness Beyond Retirement," presented by NJISA Associate Professor Terrie Ginsberg, DO, FACOI. The balance of the day includes free health screenings, exercise demonstrations, lunch, entertainment, prizes and over 40 state and local agencies providing community seniors with resources and information regarding services available throughout the state of New Jersey. At least 300 senior citizens are expected to participate in the day's events.

SHARE CENTER (STUDENT HEALTH ADVOCATES FOR RESOURCES & EDUCATION) (NJMS)

SHARE was created in 1996 to channel several student efforts in community service as a united voice with the common goals of helping others and each other. Since its inception, SHARE has been facilitating student initiatives in service-learning through community health and educational outreach programs to the inner-city population of Newark and beyond. Through the seven sub-organizations of SHARE, NJMS students can engage in direct patient care, community education, youth mentoring, and more. SHARE also serves as a database for the many community programs in Newark with which students can get involved.

SHARE has three objectives:

- To establish and maintain community partnerships in order to improve the quality of outreach programs through ongoing community needs assessment.
- To encourage health promotion and disease prevention in the underserved Newark community and provide opportunities for patient and student education.
- To maintain the sustainable infrastructure that assumes responsibility for coordinating student projects and centralizes operations of existing community service programs at NJMS.

SHARE supports the following groups:

Early Start Mentoring Program

This is a community outreach project that places trained mentors into Newark elementary schools to promote positive social behavior and non-aggressive conflict resolution. The focus of the program is to develop self-esteem and social problem-solving skills, while offering a caring and supportive outlet for Newark's youth. ESMP is designed to help provide these children with a foundation for accomplishing their future educational and social goals.

New Moms Program

In 2002, SHARE Center launched its latest initiative to impact the care of young mothers within the city of Newark. This program is designed to increase awareness about women's health among medical students as well as future mothers, and to encourage a healthy lifestyle during and after pregnancy. As a community-based health care organization, medical students enter the Newark community and effectively communicate with pregnant women about pressing maternal and prenatal health issues, identify at-risk mothers, and provide interventional support to increase the health and well-being of mothers and children in the city.

Program in Advocating Community Leader Empowerment (PINACLE)

PINACLE aims to educate and empower members of the Newark community by providing useful information about pressing medical issues and by training community leaders in disease prevention and treatment so that they may teach their members.

Relationships in Education for the Advancement of Community Health (REACH)

REACH is an outreach organization that aims to facilitate positive interactions and mentoring relationships between the medical students and the community that will ultimately improve healthcare outcomes for the people of Newark. It exists to reach out to the local population by promoting lifestyle change and prevention, while also providing a means for healthcare to the underserved. Activities involve health intervention programs, health screenings, and educational workshops. Professionals that REACH works with include community leaders (church leaders, community center leaders), physicians, local businesses, and more. Community groups that REACH works with include churches, hospitals, homeless shelters, and other community service groups.

Student Family Health Care Center (SFHCC)

SFHCC has been providing care to Newark's uninsured and underinsured residents since 1967. NJMS students join the clinic in their first year with third year students assuming the role of team leader. It provides a unique opportunity to care for those who often have no other place to go. Students enhance their understanding of the complexities of the delivery of care when access, language, education, and other socioeconomic factors are involved. This clinic is offered two evenings a week. Approximately (30-40 %) of clinic patients are Spanish-speaking. Implemented this year, the SFHCC has partnered with Casa Israel: older adult medical day care center, therapeutic and recreational services, primary and preventive health care (120 clients/day), La Casa de Don Pedro Community Centers: youth, family and counseling assistance, adult development including a Hispanic women's resource center, senior programs and domestic violence (5 sites), St. James Social Services Corp: after school youth programs, workforce development training, feeding programs, computers for seniors, food pantry (10,000 clients/year), Vision of Hope Community Development

Corp: juvenile delinquency, substance abuse, domestic violence, lack of affordable housing, legal help, child care, feeding program, ex-offenders re-entry, Fairmount Homeless Shelter: nighttime shelter, evening meals for about 40 homeless men and women who need on-site basic primary clinical care for acute and chronic diseases, Newark Now: 15 Family Success Centers providing residents with tools to improve their neighborhoods. There is a need for increased health literacy and health education for all clients. Two agencies have predominantly Spanish-speaking clients.

Student Sight Savers

This is an organization dedicated to eliminating preventable eye disease through vision screenings and education as well as educate peers and to serve the Newark community. The NJMS chapter of Student Sight Savers is involved in the following activities:

- Preliminary vision screenings for children and adults in soup kitchens, homeless shelters, schools and at REACH health fairs.
- Telemedicine Outreach Program Services (TOPS) at UMDNJ.
- Vision education program presentations teaching students and adults about eye anatomy and eye disease by examining the history of ophthalmology through unique perspectives, such as the comparison of ancient and modern ophthalmologic procedures, art history seminars addressing eye disease in eminent artists and discussing of the social history of eyeglasses.

Students Teaching AIDS to Students (STATS)

STATS is an outreach program in which first- and second-year medical students lead HIV education and prevention workshops in Newark's middle and high school programs, health fairs, and within the UMDNJ community. STATS also reaches out to local adolescents living with HIV by matching them with medical students in a peer support program run in conjunction with the University Hospital.

SOM COMMITMENT TO ITS HOST COMMUNITY, THE BOROUGH OF STRATFORD (SOM)

UMDNJ-SOM has a strong commitment to its host community, the Borough of Stratford. The host community to the Stratford campus is a 1.6 square mile suburban community of approximately 7,000 residents located in Camden County. The campus is an asset that stabilizes the Borough of Stratford, strengthens its economy and enhances the quality of life for its citizens.

Under the leadership of Dean Thomas A. Cavalieri, there is a strong school-wide commitment to being a good neighbor with Stratford. A close relationship with Stratford Mayor Dr. John Gentless and Superintendent of Schools Dr. Albert Brown has been forged. Contributions to the Borough of Stratford span involvement with K-12 education, including working with science teachers and hosting an annual Unity Tree Lighting for primary school children; the business and civic community, including hosting meetings on our campus of the Stratford Business and Civic Association and participating in the borough's annual Fall Festival with free health screenings and information; public safety, including providing the facilities for the annual police training; health and wellness, including a series of community health lectures at the Stratford Senior Center and reduced rate membership in the SOM Wellness Center for borough residents; and participating in the Green Team, focusing on environmental concerns (energy efficiency, recycling, etc.). SOM participates quarterly in the Stratford Newspaper with articles and

ads; produces/updates the SBCA directory; participates in the PTO Health Fair; and performs community service during Martin Luther King Day.

SPECIAL OLYMPICS SUMMER GAMES (SHRP and NJDS)

For the 16th year, UMDNJ continues to provide services to the Special Olympics Summer Games.

The Special Olympics-Health Promotions program: The mission of this program is to obtain health screening data and provide health promotion education for as many Special Olympics Athletes as possible in one and a half days. Health screening data includes: weight, body mass index, bone mineral density, nutrition habits, tobacco exposure history, sun exposure history and blood pressure screening. In addition to obtaining this critical data for Special Olympics International, the SHRP team provides education on the following topics: tobacco avoidance, nutrition and healthy eating, safe sun exposure, blood pressure and cardiovascular health. Students, staff and faculty from all SHRP departments participate in this inter-professional event.

In addition, SHRP faculty take a leadership role in the education and screenings provided by the American Physical Therapy Association.

The Special Olympics-Special Smiles program: The mission of this program is to increase access to dental care for Special Olympics athletes, as well as all people with intellectual disabilities. Dental screenings, oral hygiene instruction, and the fabrication of sports mouth guards are part of a collaborative effort by SHRP and NJDS to focus attention on the dental health issues facing New Jersey's Special Olympics athletes,

The two UMDNJ Schools also sponsor a health and wellness center for the **Healthy Athletes Initiative** of New Jersey Special Olympics, providing education and community service to New Jersey residents who join in Special Olympics activities.

For the 16th year, data collected on June 9th and 10th 2012 at NJ Special Olympics Summer Games will help to generate a snapshot of the health of a representative sample of the hundreds of thousands of Special Olympics athletes around the world. This data is used to encourage increased education and funding. Oral and nutrition research projects identifying oral and nutrition health status of these athletes have been presented and published on the international level, and have been used to support the need for extended services to this population.

STATEWIDE NETWORK FOR COMMUNITY ORAL HEALTH EXTRAMURAL DENTAL CENTERS (NJDS)

The New Jersey Dental School has shown its commitment to Newark and to the State of New Jersey with the creation of the Statewide Network for Community Oral Health. Needs assessment was performed which revealed that access to dental care was a problem for historically underserved populations; i.e., the low income, the indigent elderly, migrant workers and their families, those physically and mentally challenged, and patients living with HIV/AIDS. The purpose of the Statewide Network for Community Oral Health is to carry out the educational and service missions of the University and the Dental School. The Statewide Network provides dental services to communities

throughout the State of New Jersey, with dental centers in Atlantic, Camden, and Somerset Counties.

The Statewide Network and the New Jersey Dental School in Newark had over 160,000 patient visits this past year. The dental centers in the Statewide Network serve as a venue for increasing the number of oral health care providers in underserved communities in New Jersey; increasing access to quality oral health care; and expanding the educational component of training proficient oral health care providers who are culturally competent and sensitive to the needs of the underserved. The UMDNJ-New Jersey Dental School with its Statewide Network of Oral Health Centers is the largest single provider of oral health care to the State's Medicaid population. In addition, it also is the largest provider of oral health care to the special needs and underserved populations in New Jersey. New Jersey Dental School is the only undergraduate academic dental Institution in New Jersey. This year 108 seniors will graduate from NJDS and go on to postgraduate training and private practice.

S.T.E.P.S. TO FIGHTING CHILDHOOD OBESITY (SOM)

The Garden Area Health Education Center (AHEC), one of the three AHECs affiliated with UMDNJ-SOM for over 30 years, is managing a child obesity intervention program entitled STEPS for Kids (Success through Exercise, Physical Fitness and Sharing Information). STEPS was initially funded by a three-year grant from the Robert Wood Johnson Foundation New Jersey Health Initiatives program, through an award to South Jersey Healthcare, as a Vineland-based 12-week collaborative program between the YMCA in Vineland and Garden AHEC.

The STEPS program, now in its fifth year, operates in both Vineland and Bridgeton, offering three sessions in each community per school year. The program offers interactive educational sessions on nutrition and exercise, where families learn how to implement and sustain necessary lifestyle changes to benefit their children's health. The program is now ten weeks and is targeted to children aged 8 -12, who are over the 85th percentile of their recommended body mass index (BMI) or overweight. Students are referred by their physicians or school nurse. However, parents and guardians can also apply directly to the program, but must have medical clearance from a physician. Studies indicate that parent participation is crucial to any health intervention program. In STEPS, parent participation is mandatory. A registered dietitian teaches basic nutrition and healthy food selection to parents and children using the USDA's MyPlate nutrition guide, which replaced the Food Pyramid. An exercise specialist teaches the children and their parents how to incorporate play and physical fitness activities into their daily lives. A licensed social worker leads both parent and child groups that focus on behavior management skills.

On average, 55% of children who graduate the STEPS program reduce their BMI to or below the 85th percentile. Fifty percent of children enrolled in STEPS complete the program at a cost of \$1,800 per child. South Jersey Healthcare, which hosts the Garden AHEC, now fully funds the program.

ST. LUKE'S CATHOLIC MEDICAL SERVICES (SOM)

Lesley A. D'Ambola, D.O., of the UMDNJ-SOM Department of Medicine provides the medical directorship and clinical care at St. Luke's Catholic Medical Services in Camden,

NJ, in collaboration with Christopher Myers, M.S.N., A.P., a nurse practitioner. St. Luke's is a primary care medical practice for the poor, uninsured and underinsured community of the City of Camden; it was founded in 1983 as a joint venture of the Diocese of Camden and the Jesuit Urban Service Team (J.U.S.T.).

Since St. Luke's is one of the few medical practices with a fluent bilingual staff, it attracts a predominately Latino clientele. Forty-three percent of its patients have no health insurance. Its professional staff includes a physician, a nurse, a nurse practitioner, three nursing assistants, and administrative staff. The nurse practitioner enables St. Luke's to offer a home visit component to its service delivery model. In addition to primary care, St. Luke's staff provides individualized health education programs and preventive healthcare with a focus on cancer screening and immunizations. Annually, St. Luke's provides nearly 5,700 patient visits to over 1,000 patients with Type II diabetes mellitus, hypertension, hyperlipidemia, asthma, and anemia, the most common diagnoses.

St. Luke's is also a training site for the medical school. It provides UMDNJ-SOM's medical students, internal medicine residents, and geriatric fellows with a unique opportunity to learn about the practice of community-based, urban medicine. St. Luke's offers a training experience designed to cultivate an appreciation of cultural diversity and to impart the knowledge and skills needed to provide culturally competent medical care. In addition, St. Luke's serves as the keystone training site for the UMDNJ-SOM Medicine Residency Program to train general internists to provide primary care to medically underserved populations. Additionally, St. Luke's serves as a training site for UMDNJ-SOM third- and fourth-year medical students.

STUDENT GOVERNMENT AND CENTER FOR ACADEMIC SUCCESS (SN)

The Apostles' House Food Pantry, Newark

The School of Nursing Student Government Association and Community Ambassadors jointly sponsored a food drive for The Apostles' House Food Pantry during the 2011 holiday season. Both faculty and students participated in this very successful campaign to raise awareness and to bring holiday cheer to many families in need.

The Apostles' House Adopt a Family Program, Newark

The School of Nursing Community Ambassadors and Student Government Association jointly sponsored The Apostles' House Adopt a Family Program, providing age-appropriate holiday gifts for families in need in their family shelter residence.

Book Drive for The University Hospital

The Student Government Association led a book drive last fall. Students collected over 100 novels to provide free of charge to patients and their families during and after hospitalization.

Winter Coat and Shoe Drive for The University Hospital

The Student Government Association led a winter coat and shoe drive last fall to provide assistance to individuals who arrive at the hospital with inappropriate or inadequate winter coats and footwear.

Men's Clothing Drive for Mental Health Unit at The University Hospital

The Student Government Association led a men's clothing drive to collect gently used clothing for the Mental Health Unit at *The University Hospital*. The nurse manager was

extremely grateful for their efforts and stated they have enough clothing for the next several years.

Missionaries of Charity Soup Kitchen, Newark

The School of Nursing Community Ambassadors and Student Government Association volunteer with other undergraduate students at the Missionaries of Charity Soup Kitchen at least two times per month. Students work with other church volunteers to provide a hot meal to individuals in need within the community.

Trinity Church, Newark

The School of Nursing Community Ambassadors and Student Government Association volunteer with other undergraduate students at the afterschool program at Trinity Church. The program is designed to assist school-age children with their homework. They also serve as mentors and provide social and behavioral role modeling.

Nursing Service Leadership Trip to the Dominican Republic

Lynne McEnroe and Sharon Anderson helped organize and participated in the Nursing Service Leadership trip (for the 4th consecutive year) as part of the Community Health and Pediatric Nursing courses in the undergraduate program. This collaborative community, transcultural, and interdisciplinary health effort between the RN to BSN, Masters in Psychology, and undergraduate Global Studies students from the College of Saint Elizabeth and the accelerated BSN students from the UMDNJ School of Nursing provided health services, health education to several communities surrounding Santo Domingo. The students led a fundraising effort to provide ceramic water filters to each family (~110) residing within the community so each has a source of clean water in their home.

STUDENT NATIONAL MEDICAL ASSOCIATION (SOM)

The Student National Medical Association (SNMA) is the nation's oldest and largest medical student organization dedicated to ensuring culturally sensitive medical education and services, as well as increasing the number of African-American, Latino and other students of color entering and completing medical school. This year, the UMDNJ-SOM chapter of the SNMA produced four new lectures for its Community Grand Rounds Series. The Community Grand Rounds, established at UMDNJ-SOM in 2006 and jointly sponsored with the Dean's Office, focuses on addressing healthcare disparities in minority communities and ways to eliminate them.

During the past year, the following programs were held:

- 11/22/11 – Dr. Alex Gandsas “Diabetes and Metabolic Surgery”
- 03/12/12 – Dr. Ndidi Nwamu “Health Care Disparities Related to Chronic Kidney Disease”
- 03/21/12 – Dr. J. Steven Blake “Introduction to the Business of Medicine”
- 04/27/12 – Dr. Woodie Kessel “Mark Your Ballot”

SUMMER CLINICAL INTERNSHIPS FOR UNDERGRADUATES INTERESTED IN MEDICINE (RWJMS)

The Summer Clinical Internship Program was initiated in 2002. Each year approximately 30 students have the opportunity to shadow clinical faculty members at the medical

facilities in New Brunswick. Students are paired with faculty in specialties representing students' interests and are encouraged to keep the hours of the clinicians in order to get a real sense of the specialty, the issues in patient care and the practice of medicine. A lunchtime seminar series on issues as diverse as caring for patients with limited English proficiency to ethical issues related to patient care to barriers to organ donation, complement the clinical experiences. Students will also take part in a pedagogic exercise at the end of the program with brief presentations to their peers on topics selected and researched with the guidance of the faculty preceptors.

SUPER NEIGHBORHOOD COMMUNITY COVENANT PARTNERSHIP FOR HEALTH CARE (SNCCPH) (NJMS)

Super Neighborhood Community Covenant Partnership for Health Care (SNCCPH) is a partnership between the NJMS Department of Family Medicine and the Office of Community Outreach and Engagement of the City of Newark. Under this partnership the principles of community-based participatory engagement are followed. Community-based participatory research is a collaborative approach to research and outreach that equitably involves all partners in the research process and recognizes the unique strengths that each brings. CBPR begins with a research topic of importance to the community and has the aim of combining knowledge with action and achieving social change to improve health outcomes and eliminate health disparities.

TOBACCO DEPENDENCE PROGRAM (SPH)

The UMDNJ-Tobacco Dependence Program (TDP) is a joint effort between the UMDNJ-School of Public Health, Robert Wood Johnson Medical School, and the Cancer Institute of New Jersey. The program comprises a multidisciplinary team with specific expertise in treating tobacco dependence and in training other health professionals to do so effectively. More details on the work of the program can be found at www.tobaccoprogram.org.

The Tobacco Dependence Program Clinical Activities The Tobacco Dependence Program opened its doors in January 2001 to provide specialist assessment and treatment for people who want help to stop tobacco use. Since then, the TDP has seen over 6,000 patients, approximately 30% of whom remain abstinent six months following their quit date. The TDP serves as a tertiary referral and consultancy center for health professionals throughout the country who may need assistance.

Tobacco Training and Consultancy for Health Professionals The Tobacco Dependence Program offers specific consultation and training services for treatment and service providers. TDP is a nationally-recognized leader in tobacco education, having trained over 1,500 healthcare professionals from 31 states and nine countries around the world to become eligible for Certification as a Tobacco Treatment Specialist. TDP is one of a handful of tobacco training programs Accredited by the Council for Tobacco Treatment Training Programs.

Tobacco Control in the Community The Tobacco Dependence Program also has grant support aimed at community level interventions on tobacco control from the Rutgers Community Health Foundation and aims to facilitate smoking cessation in New Brunswick's Latino and African American communities.

Research The TDP is active in tobacco research and has published over 100 papers in peer-reviewed journals over the past ten years, including clinical trials on pharmacotherapy, evaluation of tobacco treatment interventions in various smoking populations, predictors of abstinence (night smoking, menthol), and attitudes and practices of healthcare providers. Many of our publications have been authored by UMDNJ students on work conducted with community agencies for fieldwork placements.

Tobacco Control Policy One of the most important policy changes TDP is excited to be involved with is the decision to make UMDNJ a tobacco-free organization throughout all of its campuses. It is only fitting that as a leader in the fight against cancer, CINJ is representing the first step in this bold initiative, having gone tobacco-free as of June 1, 2011. This policy change at CINJ and UMDNJ and its slogan, “**Clean Air Because We Care,**” illustrates a commitment to the health and well-being not only of our patients and their families, but also to our own UMDNJ community. TDP is assisting the UMDNJ Stratford campus with implementation of their tobacco-free campus policy as of July 1, 2012.

For more information about the Tobacco Dependence Program, please contact Michael Steinberg, MD, MPH, FACP; Director of the UMDNJ-Tobacco Dependence Program at michael.steinberg@umdnj.edu

TRINKETS AND TRASH: ARTIFACTS OF THE TOBACCO EPIDEMIC (SPH)

This program monitors and collects current and historic examples of tobacco products, promotional items, tobacco marketing materials and advertising. It is intended to serve as a source for scholarly research; provide a historic record of tobacco industry products, marketing and promotion; and serve as a tool for advocacy and educating the general public. The website <http://www.trinketsandtrash.org/> features a search engine and archive of downloadable images of the newest products and promotions, along with images of older, more familiar items and some rare antiques. Detailed information about the content of many items in the collection is also maintained in offline databases as part of ongoing surveillance and research activities. In addition, Trinkets and Trash develops and disseminates monthly Surveillance Updates, page-long summaries describing and linking readers to images of the latest tobacco advertising activities, and uses Twitter to highlight tobacco marketing news and new additions to the collection in real time. Examples of the collection are on display at SPH in Piscataway. For more information on this project please contact Dr. Jane Lewis at lewismj@umdnj.edu

TUTORING CAMDEN CHILDREN (SOM)

Members of UMDNJ-SOM Chapter of the Student Osteopathic Surgery Association (SOSA) invited parents and their children to sign up for dedicated tutoring time at the Lindenwold Elementary School in Lindenwold, NJ. The goals of this project: encourage communication among parents and children on academic issues; foster strong work ethics; emphasize the importance of education; and provide a resource for parents who themselves feel they cannot help their children with their homework. Tutoring sessions are held two to three times per week; and two to three tutors attend each session.

THE UMDNJ-SN MOBILE HEALTHCARE PROJECT/ New Jersey Children's Health Project (SN)

The UMDNJ School of Nursing, in a collaborative joint partnership initiative with the Children's Health Fund and the Healthcare Foundation of New Jersey, has implemented a Mobile Healthcare Project designed to improve access to care for the underserved residents of Newark, Irvington and Elizabeth, New Jersey. The Project staff provides primary care and screening services via a mobile healthcare facility designed to reduce the traditional barriers to health care access. This grant-funded initiative employs a collaborative approach and outcomes oriented focus for a nurse-faculty managed, university-based mobile healthcare project, in collaboration with the UMDNJ University Hospital. The Project effectively uses faculty-supervised nursing and medical students and an interdisciplinary mobile healthcare team staff, in association with the clinical affiliates of UMDNJ, community-based organizations (CBOs) and faith-based healthcare initiatives.

To foster community support, the Project uniquely creates public-private partnerships to improve access to care for urban at-risk populations. The broad objectives of this nurse-faculty managed mobile healthcare project are: 1) to screen, identify and provide health promotion disease management services for at-risk populations; 2) to foster community involvement in the health assessment and referral process; and 3) to provide culturally and linguistically sensitive health promotion/disease management health education. To implement this initiative, the Project Director secured over \$2.5 million in federal and foundation grant awards from the Health Resources and Services Administration, The Robert Wood Johnson Foundation, The Healthcare Foundation of New Jersey and the Children's Health Fund. Attesting to its widespread recognition, the Project has been showcased in the lay press and is the subject of numerous articles appearing in nursing publications. To date, the Project has logged over 3,400 scheduled patient encounters, in partnership with 24 community-based organizations.

THE UNIVERSITY DOCTORS COMMUNITY PROGRAMS (SOM)

In a continued effort to improve the health and well being of the community, The University Doctors of UMDNJ-SOM presented numerous free community health opportunities between July 2011 and June 2012, including 60 health lectures, ten health screening events, and ten health fairs to Southern New Jersey residents. This year, a number of thematically-organized lecture series were offered, a woman-to-woman health lecture series; and extensive offerings related to weight control, bariatric surgery, diabetes, nutrition, Alzheimer's, falls, dementia, arthritis, care giving and health careers.

VOLUNTEER OPPORTUNITIES IN COMMUNITY- ENGAGED SERVICE (SPH)

Volunteer Opportunities in Community-Engaged Service (V.O.I.C.E.S.) is a student and faculty community service organization established in 2004 at the UMDNJ-School of Public Health. V.O.I.C.E.S. is dedicated to working together with community groups in cities across New Jersey to identify public health needs and design useful service projects for students, faculty and staff that address these needs. Its mission is to provide a forum for public health students, faculty and staff on all three SPH campuses (Newark; Piscataway/New Brunswick; Stratford/Camden) to reach out to their communities by organizing and participating in volunteer community service projects with a public health focus.

The organization allows students to gain practical public health experience, interact with other students with similar interests, and incorporate social responsibility into their academic experience. At the same time, it provides mentoring opportunities for faculty and enables students and faculty to positively impact the communities in which they live, both locally and globally.

In 2011-2012, students and faculty worked together on a number of service projects including:

- Habitat for Humanity (March) involving over 15 students and faculty who worked on the construction of a house in Asbury Park
- Workshop on Nutrition given in July to youth at the Jamesburg Library in Freehold on healthy eating and healthy snacks around the world.
- A fieldtrip for a day at the Liberty Science Center with youth from the Somerset Home for Displaced Children and VOICES student volunteers.
- Workshops on “This is Public Health” at Monroe Township High School in October and again in April.
- Soup sale as a fundraiser for the Dominican Republic Health Outreach Project
- Anti-bullying workshop at Brimm Medical Arts High School in Camden in October.
- Samosa fund raiser for Tornado Relief efforts in the Midwest in March
- A hot chocolate and bake sale for the DR Health outreach Project in November
- Global health awareness documentary presentation: “Cry the Devil Back to Hell” and discussion on the women’s peace movement in Liberia in December
- Holiday gift drive for a family in New Brunswick with seven children
- Food drive for Catholic Charities in Trenton in December
- Coat drive for Community Outreach Center in Camden in December
- Martin Luther King Day of Service (January 18, 2012) for students to volunteer to help sort clothes at Elijah Promise
- Valentine’s Day Sale for a fundraiser for the Dominican Republic Health Outreach Project in February, 2012.
- Showing of the documentary “Gasland” with discussion of fracking led by a representative from the Sierra Club.
- Blood drive with the American Red Cross in April.
- Community Health Fair in Lawnside, NJ—with presentation on emergency preparedness for the community

For more information on V.O.I.C.E.S., go to <http://sphprojects.umdj.edu/voices/> or contact Dr. Bernadette West at westbm@umdj.edu

YAFFA ROSE INTEGRATED CARE CENTER (NJMS)

The Yaffa Rose Integrated Care Center is a collaboration between UMDNJ-University Behavioral Health Care Center (UBHC) and New Jersey Medical School, Department of Family Medicine to provide comprehensive healthcare to UBHC consumers. Integrated care is a health care approach in which primary care and mental health providers partner to manage the treatment of persons with mental health problems in the primary care setting. Two decades of research have demonstrated that the integrated care model improves primary care patients' mental health outcomes with a minimal investment of resources.



RESEARCH & EXTERNAL FUNDING

| | |
|---|-----|
| Research and External Funding | 207 |
| Research Fast Facts | 208 |
| Life Sciences Research | 209 |
| Clinical Research | 210 |
| Human Subject Protection Program | 213 |
| Research Education | 214 |
| Research Collaborations and Affiliations | 215 |
| Economic Impact | 216 |
| External Funding Totals for Fiscal Year 2011 | 217 |
| Academic R&D Expenditures for Fiscal Year 2011 | 218 |
| Patents and Licenses | |
| Patents, Technology Transfer and Business Development | 219 |
| Patents Issued July 1, 2011 to June 30, 2012 | 221 |
| License Agreements July 1, 2011 to June 30, 2012 | 223 |
| Research Structure | 224 |
| Research Highlights | |
| Basic Sciences | 225 |
| Translational Research | 268 |
| Clinical Sciences | 275 |
| Educational Research | 291 |
| Other Research | 293 |
| Current Research Projects with Source of Funds | |
| Federal Funding | 298 |
| Other Governmental Funding | 311 |
| Non-Governmental Non-Profit Sponsors | 313 |
| Private Industry | 319 |
| Foundation of UMDNJ | 324 |
| Internal UMDNJ Funding | 327 |

RESEARCH AND EXTERNAL FUNDING

The University of Medicine and Dentistry of New Jersey (UMDNJ) continues to be the leading New Jersey higher education institution in life sciences research, biomedical training and biotech commercialization. All across the state, UMDNJ researchers have a rich history and much future promise in performing novel scientific studies which yield new discoveries, new treatments and new technologies that benefit the young and the old, the rich and the poor and everyone in between in New Jersey and around the world. The positive medical impact of the research we do knows no boundaries.

UMDNJ has pioneered multiple medical breakthroughs. We have been at the forefront in the understanding, diagnosis and treatment of infectious diseases, cancer, and diseases of childhood and the aging community. We have internationally recognized leaders in diverse areas ranging from the impact of environmental toxins on human health to the role of the oral cavity in prevention and diagnosis of disease. We team with the best talent locally and globally to advance the science, technology and clinical practice of medicine.

Through affiliations with several large teaching hospitals, UMDNJ research also delivers much more than its impressive scientific advances. Research enriches the intellectual environment of the University and surrounding communities, attracting the best faculty and students and assuring the highest level of excellence in teaching and patient care programs. Research also creates new jobs and benefits the state economy. Unlike most other sources of public university revenue, federal research funding represents “new” money to New Jersey.

Translating the discovery of new medical interventions and treatments into commercialized products requires a strong partnership with industry. In recognition of the need to streamline this partnership, UMDNJ continues to invest in two critical areas. Our office of Technology Transfer and Business Development works closely with biotechnology and pharmaceutical companies to license our technologies, and with venture capitalists to fund faculty start-up companies across the state. In the past six years, intellectual property (IP) revenue has increased from \$0.16 M to \$6.2 M, and there are presently 24 UMDNJ start-up companies – all focusing on new diagnostics and therapies – and all in New Jersey. Our Clinical Research Organization (CRO) was developed to oversee and support UMDNJ’s clinical research infrastructure – the largest of its kind in New Jersey – in the conduct of industry and federally-sponsored clinical trials. There are currently over 3,000 clinical studies and more than 350 clinical trials at UMDNJ.

UMDNJ is a relatively young and successful specialized health sciences university with the potential to evolve into a major national asset in this arena. Our experience with and the paradigm of conducting only biomedical research, from strategic oversight to lab research to clinical trials to community outreach, provides a competitive advantage to us and a key benefit to New Jersey.

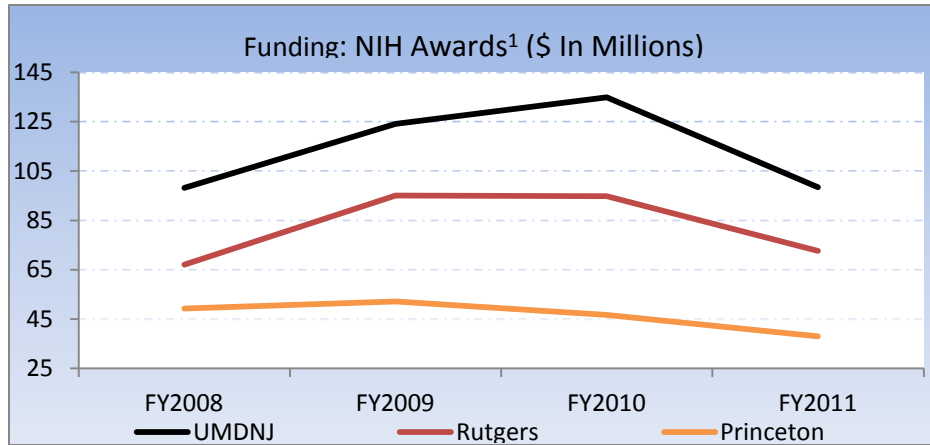
UMDNJ RESEARCH FAST FACTS

- UMDNJ leads all New Jersey universities in total and federal life sciences research expenditures. The most up-to-date comparison data (published by NSF; FY2010) show \$230 million and \$ 123 million in those categories. Among all public and private U.S. universities, these expenditures rank #52 and #56, respectively.
- UMDNJ also leads N.J. universities in NIH awards. In FY2011 NIH awarded \$98.4 million to the University. This actually represents a decline from FY 2009 and 2010 due to the ending of the American Recovery and Reinvestment Act funding program which also caused an award decline to the other major public and private universities in the state.
- UMDNJ faculty publish their research findings in top national and international journals, including Science, Cell, Nature, The New England Journal of Medicine, Proceedings of the National Academy of Sciences, etc.
- UMDNJ faculty have received many prestigious national and international awards for their research achievements.
- UMDNJ faculty sit on major national and international advisory panels.
- UMDNJ currently has nearly 3,000 clinical studies (clinical trials, other biomedical and social behavioral) and more than 350 active clinical trials.
- UMDNJ researchers work with more than 400 companies, including most major pharmaceutical and biotech firms.
- UMDNJ increased its intellectual property (IP) revenue from \$160K to over \$6M in the last 6 years, and has the highest biomedical IP revenue of all NJ state schools.
- UMDNJ doubled the number of inventions and patents over the past 3 yrs.
- UMDNJ commercialized multiple medical technologies, including the ARISK autism test, T-Spot TB assay, and AMH fertility diagnostic test, etc.
- UMDNJ teamed with the Foundation of UMDNJ to create the first and only university venture fund in the state.
- UMDNJ created 24 new spin-out companies with 258 new NJ jobs.
- UMDNJ trains the biomedical researchers of the future, offering the most biomedical graduate degrees in the state.

LIFE SCIENCES RESEARCH

Due to the broad expertise and strong research history of its many faculty, UMDNJ continues to be very successful obtaining external funding. Over the last 10 years (FY2002 – FY2011), UMDNJ has been awarded more than \$2 billion dollars; \$1.2 billion dollars of that is from government sponsors to conduct important research, train future scientists and expand research facilities.

As a health sciences university, the majority of federal support comes from the National Institutes of Health (NIH). The graph below shows research performance relative to the next leading universities in the state in terms of NIH sponsorship. The NIH support decline UMDNJ experienced in 2011 was also felt at Rutgers and Princeton and is presumed to be due to the end of the American Recovery and Reinvestment Act (ARRA, Stimulus Act) program in 2009 and 2010.



¹ “Awards” refers to the combined \$\$ promised to an institution assuming completion of all funded projects in a specified period.

CLINICAL RESEARCH

UMDNJ Clinical Research

UMDNJ has always been an active leader in clinical research to advance the treatment of disease, identify the most effective methods of treatment and understand the effects of nutrition and the environment on human health. Annually, our researchers conduct over 3,000 clinical studies, with over 350 involving human subjects. All three of UMDNJ's medical schools, as well as the Schools of Nursing, Public Health, Dentistry, Health Related Professions and Biomedical Sciences lead studies on a wide range of diseases. In addition, UMDNJ has a broad range of facilities that are utilized and specialized for the purpose of conducting research, including the RWJMS-Cancer Institute of New Jersey (one of approximately 40 National Cancer Institute designated Comprehensive Cancer Centers), the Pediatric and Adult Clinical Research Centers (CRC) at RWJMS, the dental CRC at NJDS (one of only 9 Dental Clinical Research Centers in the US), the NJ Cancer Center, The Tuberculosis Institute, and the Public Health Research Institute at NJMS. Funding sources include federal and state governments, major foundations, and industry. In this past year, UMDNJ has helped more than 100 companies conduct clinical research on new therapies in almost every therapeutic category.

UMDNJ has brought these statewide resources together with a single point of contact in order to maximize operational efficiency and compliance, leverage scarce resources and serve as an engine for growth. The UMDNJ Clinical Research Organization (CRO) has created a unique model based on "local control and global coordination" which is well suited to the diverse capabilities and resources available throughout the university. This statewide resource provides leadership in clinical research, education and training to affiliates and partners across the state of New Jersey and access to the latest clinical advances for the people of New Jersey.

The CRO provides a portal into the University to select services at specific sites, or concurrent services at multiple sites across the state; it matches internal capabilities with external partners. As a result, UMDNJ is becoming a preferred strategic partner to industry (pharmaceutical, biotech, and medical device), other CROs, and the federal and state governments for the execution of clinical research and the performance of clinical research-related functions including outcomes research.

This nation is on the cusp of a healthcare revolution, integrating healthcare information technologies (HIT) such as electronic medical records, data exchanges, and huge data warehouses into the everyday practice of medicine. Clinical research is not only one of the first areas of medicine to benefit from these technologies; it also provides the mechanism for evaluating the effectiveness of different ways of using all of this information. UMDNJ, with its statewide reach and expertise in clinical research, provides leadership for the state in the use of HIT to improve outcomes and reduce treatment costs for a healthier population.

Finally, the FDA and payors are relying on the pharma/biotech industries to utilize biomarkers to predict the need for expensive new drugs. UMDNJ is a leader in the development of these specialized diagnostic tests to both identify and clinically validate these new biomarkers. Several research core centers across UMDNJ as well as a CLIA

certified testing laboratory at NJMS support this effort and provide valuable services within the university and to the external clinical community.

This initiative provides significant benefit to the State of New Jersey by enhancing the reputation of the state in healthcare, increasing New Jersey's ability to retain and recruit pharmaceutical, medical device, diagnostic and biotechnology companies, and by providing a mechanism for training of the clinical research workforce.

Clinical Trials and Public Access

Clinical trials test and validate the safety and efficacy of new drugs, diagnostics, medical devices and treatment modalities in human subjects. Academic medical centers are key contributors to this development process by providing access to highly skilled and knowledgeable clinical research faculty, experienced research staff, and depth of expertise in important therapeutic areas.

UMDNJ is active in all aspects of the clinical research process, from initial studies in humans to the management of large multi-center trials. UMDNJ faculty are active in developing new study protocols, conducting studies and data to support publication and submission of the results for regulatory approval.

Clinical research at UMDNJ is conducted with the support of the federal government, various foundations, and in partnership with industry. The university is currently conducting over 350 trials involving human subjects in a wide range of therapeutic areas.

UMDNJ was the coordinating center for two large, high-profile national trials which were recently successfully completed. The Carotid Revascularization Endarterectomy versus Stenting Trial (CREST) showed similar outcomes for carotid artery stenting and carotid endarterectomy for the treatment of carotid stenosis. The CREST trial comparing these two interventions enrolled 2502 patients from 117 US and Canadian centers.

The University was also a lead site for the Women's Health Initiative (WHI) trial. It addressed the most common causes of death, disability and impaired quality of life in postmenopausal women. The WHI was a 15 year multi-million dollar endeavor, and one of the largest U.S. prevention studies of its kind. Over 161,000 subjects were enrolled nationally.

One of the challenges of clinical research is to ensure that new therapies are tested in multiple populations to determine efficacy for everyone. UMDNJ-New Jersey Medical School was recently awarded a grant to specifically focus on improving access to cancer trials for patients of diverse ethnicities. UMDNJ has also been creating, testing, and deploying novel methodologies for individuals at risk for diseases such as hepatitis C, providing them with information to assess their risk and seek testing and treatment. In the case of the hepatitis C effort, the anticipated outcome is a significant reduction in the number of patients requiring liver transplants in the future.

The driving force for clinical research that occurs at UMDNJ is the potential benefit to patients who in many cases have exhausted other avenues of treatment or who have diseases for which inadequate treatments are available. Clinical research at UMDNJ provides local access to the newest treatments for the people of NJ.

Please visit our clinical trials website <http://www.clinicaltrials.umdj.edu> and also the clinical research organization website <http://cro.umdj.edu> for more information about our clinical trials program.

HUMAN SUBJECT PROTECTION PROGRAM

The mission of UMDNJ's Human Subject Protection Program (HSPP) is to support the University's research enterprise by ensuring the protection of individuals who participate in research; ensuring compliance with all pertinent [federal](#) and [state laws](#) and regulations; fostering the ethical conduct of human subjects research; and providing [education](#) and other services to the University's researchers regarding [regulatory requirements](#) and best practices.

HSPP assures that UMDNJ fulfills its institutional responsibilities for the conduct of research involving human participants through its three University IRB Campus Systems, in [Newark](#), [New Brunswick/Piscataway](#) and [Stratford/Camden](#); a contractual relationship with [Western IRB \(WIRB\)](#) for review of industry-sponsored protocols conducted by UMDNJ faculty at UMDNJ performance sites; a program of education for faculty and other researchers; and an audit/review program for oversight of studies in progress.

UMDNJ IRB committees are comprised of physicians, nurses, pharmacists, physical and social scientists, non-scientists, and unaffiliated community members. Currently there are approximately 2500 open studies being conducted throughout the UMDNJ system. The four Newark campus IRB committees oversee approximately 800 studies. There are 66 active IRB members (both regular and alternates); four of whom are community members. The four New Brunswick/Piscataway IRB committees oversee approximately 1500 studies. In New Brunswick/Piscataway there are 61 active members; four of whom are community members. The one Stratford IRB committee oversees approximately 75 studies. There are eighteen Stratford IRB members, two of whom are community members. Western IRB (WIRB) currently oversees about 170 sponsored studies.

The HSPP has an audit team that conducts routine, for-cause and quality assurance assessments on the IRB's approved studies to ensure that proper regulatory requirements are followed, through proper documentation, record keeping, data analysis and compliance components that constitute good academic research practice. The team continually evaluates, provides education, and improves research process. The HSPP audit team consists of a Director, two (2) Senior Analyst/auditors and one (1) Junior analyst/auditor.

HSPP reports to the University's [Associate Vice President for Research Regulatory Affairs](#), who is UMDNJ's Institutional Official and Research Integrity Officer.

RESEARCH EDUCATION

There are a number of events and activities designed to promote research at the University and in the respective schools. These include the annual University-wide Research Symposium sponsored by the OVPR. In June 2012, the topic was Advances in Child Health; more than 200 people attended, coming from all the UMDNJ schools, other universities and colleges, hospitals, companies and the community.

The schools also all host an annual "Research Day" with invited keynote speakers, faculty and trainee poster presentations with awards given for best graduate and undergraduate poster presentations for research and scholarship (Excellence in Research Awards). The day generally includes a "Research Day Workshop" to orient faculty and trainees to research procedures, resources, and requirements. These events are meant to recognize excellence in research and features oral presentations by the recipients of the annual Dean's Research Awards for outstanding research publications by basic and clinical faculty, post-doctoral fellows, graduate students, medical students, residents and clinical fellows. A poster session features the work of the other nominees for these awards.

The Graduate School in Biomedical Sciences at NJMS, RWJMS and SOM, the MD/PhD program, the Post-doctoral Fellow Association, and the summer undergraduate programs each hold annual research symposia. In addition, the departments and institutes at the individual schools have in place a number of seminar series, and annual research retreats and symposia to further advance their research programs. For example, there were over 670 seminars offered at RWJMS in FY2010. Notable examples include the yearly Retreat on Cancer Research in New Jersey organized by the Cancer Institute of New Jersey (CINJ) at RWJMS in collaboration with the New Jersey Commission on Cancer Research, and the annual Governor's Conference on Cancer Research in collaboration with the Institute for Advanced Studies. Both events aim to promote interactions between cancer researchers in the State of NJ.

RESEARCH COLLABORATIONS AND AFFILIATIONS

With several campuses and many hundreds of research faculty and medical specialists across New Jersey, many other research organizations team up with UMDNJ to conduct research, treat patients and train future generations of scientists and doctors.

Some of the most well known research partners are:

| | |
|---|--|
| Albert Einstein College of Medicine | Novartis Pharmaceuticals |
| Allergan, Inc. | Novo Nordisk Pharmaceuticals, Inc. |
| Bayer | Pfizer, Inc. |
| Boehringer Ingelheim Pharmaceuticals, Inc. | RAND Corporation |
| Bristol-Myers Squibb Company | Rutgers, The State University of NJ |
| Case Western Reserve University | Sanofi-Aventis |
| Celgene Corporation | Schering-Plough Research Institute |
| Cepheid Corp | Serono Laboratories, Inc. |
| Colgate-Palmolive | SIEMENS Corporation |
| Columbia University | Social and Scientific Systems, Inc. |
| Cornell University | St. Luke's Roosevelt Institute for Health Science |
| DePuy, Inc. | Synthes, Inc. |
| Drexel University | TEVA Neuroscience, Inc. |
| Duke University | Thomas Jefferson University |
| Ethicon, Inc. | Tibotec Therapeutics |
| Fudan University, China | Tulane University |
| Genentech, Inc. | University of Cambridge |
| George Washington University | University of Cincinnati |
| Gilead Sciences, Inc. | University of Iowa |
| GlaxoSmithKline | University of Miami |
| Harvard College | University of Minnesota |
| Hoffman La Roche, Inc. | University of Pittsburgh |
| Johns Hopkins University | University of Rochester |
| Merck and Company, Inc. | University of Texas |
| Merck Research Laboratories | University of Washington |
| Mount Sinai School of Medicine | University of Wisconsin |
| New York University School of | Wake Forest University |
| Northwestern University | Yale University |

ECONOMIC IMPACT

The economic impact of research conducted at UMDNJ reaches across the state and the country. This impact is evident not only in the direct effect of research dollars on employment and local and state tax revenue, but also is evident in the total economic product that results from the outcomes of the research. These indirect benefits include, among others, intellectual capital, company formation and revenues associated with product creation and sales.

Based on a methodology established by the Bureau of Economic Analysis with the U.S. Department of Commerce, the Association of American Universities (www.aau.edu) developed a metric to estimate local employment impact of academic research and development. The AAU calculated a multiplier of 36 jobs per \$1 million of spending. Using NSF FY 2010 expenditure data (\$230.2 million), we support and/or create more than 8200 full and part-time jobs directly through our research activities and through the local ripple effect.

Related to the creation of high-paying jobs, research funding also benefits the economy by driving increased spending. A 2004 study done at the University of North Carolina and North Carolina State University showed that for every dollar of funding attracted by those schools, \$1.70 is spent by local consumers. An extrapolation of this result estimates a minimum of approximately \$380 million dollars in local spending stemming from UMDNJ research activities.

The National Institutes of Health estimates that every \$1 of its funding generates \$2.21 in local economic growth, on average. Using this formula, we can estimate that our FY 2011 NIH award total (\$98.4 million) generated more than \$215 million in economic growth in New Jersey. No matter which figures are used in impact estimates, it's clear that UMDNJ's research is a highly critical component of economic stability and growth in the state.

Economic benefits are also realized through the licensing of UMDNJ technology to industry. Innovative biomedical research has led to the formation of over twenty spin-off companies. Together, these companies have created over 240 jobs and raised millions in aggregate funding. It is also worth noting that the jobs created through academic research are relatively high-skill and high-pay positions: medical doctors, PhDs, experienced lab techs, business leaders, lawyers, accountants, etc. at UMDNJ and at the local companies with close ties to the university. In summary, UMDNJ is the New Jersey's leader in biomedical research. Our eight schools have developed an interconnected web of biomedical research activities that cover the spectrum from basic to clinical to community outreach, and back. With this unique collaborative structure, UMDNJ is poised to be a national leader in the discovery, development and delivery of better healthcare.

EXTERNAL FUNDING
Totals for Fiscal Year 2011

| Unit | Total Awards ¹ | Research Awards |
|--|---------------------------|----------------------|
| New Jersey Medical School ² | \$111,438,415 | \$77,568,782 |
| Robert Wood Johnson Medical School-P ³ | \$96,596,559 | \$76,642,666 |
| Robert Wood Johnson Medical School-C | \$212,668 | \$201,225 |
| School of Osteopathic Medicine | \$10,451,228 | \$5,502,347 |
| New Jersey Dental School | \$7,944,478 | \$3,290,681 |
| Graduate School of Biomedical Sciences ⁴ | \$321,250 | \$0 |
| School of Health Related Professions | \$8,957,583 | \$1,243,808 |
| School of Nursing | \$38,774,799 | \$1,053,849 |
| School of Public Health | \$8,717,010 | \$3,294,474 |
| University Hospital | \$13,564,175 | \$924,874 |
| University Behavioral Healthcare-P | \$15,935,965 | \$2,061,898 |
| University Behavioral Healthcare-N | \$1,103,887 | \$0 |
| Central Administration and Physical Plant | \$1,999,907 | \$0 |
| University Academic Affairs (Including Continuing Education) | \$6,760,515 | \$0 |
| GRAND TOTAL | \$322,778,439 | \$171,784,604 |

1 Research, educational and service awards, including indirect costs from all external sources.

2 Includes PHRI.

3 Includes Child Health Institute, CABM, EOHSI and Cancer Institute.

4 The Graduate School of Biomedical Sciences draws its faculty from that of the medical schools; grants to these faculty members are reported under the medical schools.

Source: UMDNJ-Office of Cost Analysis

ACADEMIC R&D EXPENDITURES*
Totals for Fiscal Year 2011

| Expenditures* | Amount |
|---------------------------------|---------------|
| Total Academic R&D Expenditures | \$234,354,000 |
| Federally Financed | \$124,585,000 |
| Institutionally Financed | \$60,752,000 |

*As reported in the 2011 National Science Foundation (NSF) Survey of Research Expenditures.

Source: UMDNJ-Office of Cost Studies

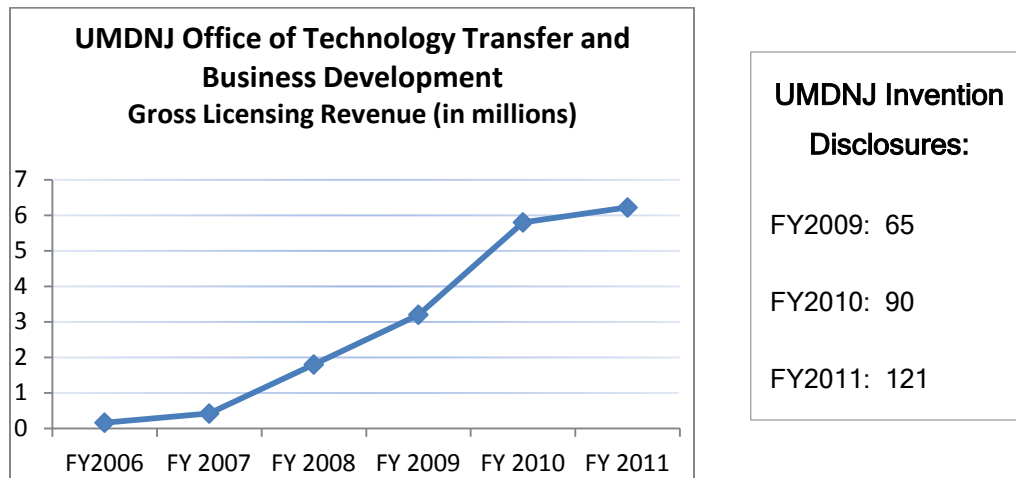
PATENTS AND LICENSES

Patents, Technology Transfer and Business Development

The mission of the UMDNJ Office of Technology Transfer and Business Development (formerly the Office of Patents and Licensing) is to work closely with research faculty at the University to develop intellectual property around the growing number of medical innovations that are discovered in UMDNJ laboratories and to create technology transfer alliances with the diagnostic, biotechnology, medical device and pharmaceutical industries to bring these technologies to market, helping to solve critical unmet medical needs.

UMDNJ has dramatically increased patenting and licensing activity over the last several years. The graph below demonstrates the explosive growth in patent revenue garnered through the licensing of UMDNJ innovations.

Some recent internal invention disclosure and licensing revenue metrics:



INNOVATION

UMDNJ has a long history of discovery that has led to new company formation and beneficial health care.

Recently, Dr. Jeffrey Kaplan of our New Jersey Dental School discovered Dispersin B, which breaks up bacterial biofilms that form during surgery and can be dangerous for patients who receive medical devices or wound healing agents. This invention was honored a few years ago as one of the top five inventions in the country by the National Institutes of Health. Dr. Kaplan's technology has been licensed to a company that is coating Dispersin B on catheters and a variety of other medical devices and the incidence of bacterial infection appears to be dramatically reduced.

Dr. James Millonig of RWJMS won the Thomas Alva Edison Patent Award for discovering the linkage between the ENGRAILED 2 gene and the onset of autism, a disorder with a high incidence rate here in New Jersey. This invention was patented and licensed to Integragen, a diagnostic company that has successfully launched this

UMDNJ technology through ARISK as the first genetic autism screening test commercially available in the US and Europe. Autism is generally very difficult to identify in young children, and this diagnostic holds the promise of helping with early diagnosis, which could lead to early medical intervention.

At our NJMS Public Health Research Institute a breakthrough TB test has been developed by Dr. Marila Gennaro that identifies TB faster and more efficiently than anything presently on the market. The technology has been approved by the US FDA, as well as regulatory bodies in Europe and China, and can make a difference for the millions around the world who are infected with the disease.

UMDNJ contributes to economic development here in New Jersey by serving as a launching platform for new company formation. PTC Therapeutics, headquartered in South Plainfield, NJ was formed around the innovations from the RWJMS lab of Stuart Peltz. PTC has attracted venture capital from the West coast and European venture firms and now has treatments in late stage clinical trials for Cystic Fibrosis and Duchenne's Muscular Dystrophy. In addition, PTC has established active collaborations with leading biopharmaceutical companies such as Celgene, Genzyme, Merck, Pfizer, AstraZeneca and Roche based on the application of its proprietary technologies.

A technology created in the field of collagen biomaterials was licensed to a small firm, Col-Bar, as its platform technology. After additional development, Johnson & Johnson was so impressed with the dermatological applications of the invention, it purchased the Col-Bar Company, mainly on the strength of collagen technology that was discovered at UMDNJ. We have also licensed the renowned Molecular Beacons probe technology to Becton-Dickinson Corporation, headquartered in Franklin Lakes, New Jersey. These are the types of high value alliances that demonstrate the synergies when universities work closely with local life sciences companies.

Patents Issued Between July 1, 2011 and June 30, 2012

| U.S. Patents | | |
|---------------------|----------------------|---|
| Inventor | Patent Number | Title |
| Das, Kiron | RE43472 | Tropomyosin Isoforms, and Diagnostic and Therapeutic Uses Therefor |
| Das, Kiron | 8183047 | Methods of Detecting Mastitis by Levels of Proteasomes |
| Fine, Daniel H. | 8,129,329 | Natural Polypeptides for Oral Health Care |
| Gennaro, Maria L. | 8,021,832 | Proteins Expressed by Mycobacterium Tuberculosis and not by BCG and their use as Diagnostic Reagents and Vaccines |
| Gennaro, Maria L. | 7,993,657 | Antibody Profiles Characteristic Of Tuberculosis State |
| Ginsberg, Steven H. | 8,011,625 | Support for Medical Equipment |
| Goldberg, Gary S. | 8,114,593 | Cancer Biomarker Genes and Gene Products and Methods for Using the Same |
| Inouye, Masayori | 7,985,575 | Single Protein Production in Living Cells Facilitated by a Messenger RNA Interferase |
| Inouye, Masayori | 8183011 | RNA Interferases and Methods of Use Thereof |
| Johnson, William G. | 8,046,198 | Methods for Determining Susceptibility to Developmental Disorders Due to a Combination of Genetic and Environmental Factors |
| Johnson, William G. | 8187806 | Association of GSTM1 with Autism and Assays and Methods Based Thereon |
| Kachlany, Scott | 8,053,406 | Compositions for the Treatment of Cancer, and Methods for Testing and Using the Same |
| Laskin, Jeffrey D. | 8,071,642 | Dimethyl Amino Ethyl Ether Psoralens and Methods for Their Production and Use |

| U.S. Patents (Continued) | | |
|---------------------------------|-----------------------------------|---|
| Inventor | Patent Number | Title |
| Lobel, Peter | 8,029,781 | Methods of Treating a Deficiency of Functional Tripeptidyl Peptidase I (CLN2) Protein |
| Ma, Jianjie | 8,071,533 | Compositions and Methods for Modulating Store-Operated Calcium Entry |
| Ma, Jianjie | 7,981,866 | MG53 Compositions and Methods of Use |
| Madura, Kiran | 8,008,022 | Methods and Kit for Detecting Breast Cancer |
| Ryazanov, Alexey G. | 8,030,286 | Methods and means for increasing resistance to cell damage |
| Welsh, William J. | 8,143,299 | Anti-Mitotic Anti-Proliferative Compounds |
| Welsh, William J. | 7,989,487 | Estrogen Receptor Modulators and Uses Thereof |
| Welsh, William J. | 8188128 | Opioid Receptor Subtype - Selective Agents |
| Foreign Patents | | |
| Inventor | Country/ Patent Number | Title |
| Gennaro, Maria L. | Japan 4820489 | Proteins Expressed by Mycobacterium Tuberculosis and not by BCG and their Use as Diagnostic Reagents and Vaccines |
| Inouye, Masayori | Japan 4895291 | RNA interferases and methods of use thereof |
| Tyagi, Sanjay | Europe 1921169 | Hybridization Probes For Nucleic Acid Detection, Universal Stems Methods And Kits |
| Tyagi, Sanjay | Canada 2,176,266 | Detectably Labeled Dual Conformationoligonucleotide Probes, Assays and Kits |
| Tyagi, Sanjay | Canada 2,425,193 | Oligonucleotide-Facilitated Coalescence |
| Gennaro, Maria L. | Australia 2006272567 | Antibody Profiles Characteristic of Tuberculosis State |

***License Agreements Executed Between
July 1, 2011 and June 30, 2012***

| | |
|--|--------------------------------------|
| Spartan Bioscience Inc. | The Incubation Factory |
| Helmholtz Zentrum Munchen | Gen-Probe |
| ASRI (Allegheny Singer Research Institute) | OLINK |
| Ionian Technologies, inc. | Covance Inc. |
| Aprenda Systems, LLC | Oxford Immunotec |
| Actinobac Biomed, Incorporated | Gen-Probe |
| GeneAssess, Inc. | The Incubation Factory |
| Healthy Cow Corp. | Smiths Detection |
| Biodelivery Sciences Int'l, Inc. | Haymarket Medical Education LP (HME) |
| Ibris, Inc. | TriMedicine, Inc. |
| Biosearch Technologies, Inc. | Prolong Pharmaceuticals |
| Abcam | GenePharm, Inc. |
| MitoBio Pharmaceuticals, Inc. | HMGene |

Source: UMDNJ Office of Technology Transfer and Business Development

RESEARCH STRUCTURE

Direct research oversight at UMDNJ is provided by the Office of the Vice President for Research (OVPR), the Council of Research Deans (CoRD) and the Research Administrators Council (RAC). The leadership of the OVPR includes the Vice President of Research and the Associate Vice President of Research Regulatory Affairs. Given the mandate to expand and develop biomedical and healthcare research to its fullest potential, the OVPR also has oversight of the Office of Technology Transfer and Business Development and the UMDNJ Clinical Research Organization, Office of Human Subjects Protection.

The CoRD and RAC teams include the research deans and research administrators from each of UMDNJ's schools. They report directly to the Dean of each school while working closely with the OVPR, thereby providing a conduit between the individual academic units and UMDNJ central administration.

The OVPR and the CoRD meet monthly to address evolving research administration issues and develop strategies for ensuring continued excellence and growth. This cohesive research oversight matrix of centralized and de-centralized management fosters research excellence, ensures research compliance, promotes discoveries leading to better health and well-being, and drives economic benefit for New Jersey.

The Office of Human Subjects Protection is comprised of nine Institutional Review Boards serving all campuses and schools as well as a centralized staff led by an Executive Director. The Western Institutional Review Board company is under contract to ensure timely review of protocols as well.

RESEARCH HIGHLIGHTS: 2011-2012

Every year, UMDNJ's faculty, trainees and staff make critical discoveries that have the potential to improve health and well-being worldwide. They publish these findings in premier scientific journals, present their research at national and international meetings, and receive coveted awards recognizing their scientific achievements. Below are highlights of FY 2011-12 research discoveries that are poised to advance the diagnosis and treatment of disease, and improve the quality of life.

BASIC SCIENCES

- Discovered that microRNA-26b inhibits the transcription factor GATA4 and accordingly inhibits cardiac hypertrophy
- Deciphered the transcriptional patterns in cardiac hypertrophy by using state-of-the-art RNA polymerase II chromatin immunoprecipitation combined with deep sequencing
- Identified a major role for microRNA-199a in angiogenesis through the regulation of hypoxia-inducible factor
- Identified the activation of proteasome in atria of the mutant sarcolipin transgenic mouse model of atrial fibrillation
- Discovered that inhibition of proteasome by epoxomicin prevents atrial remodeling in the transgenic mouse model of atrial fibrillation
- Identified the upregulation of HECW2, a novel E3 ligase in the transgenic mice atria
- Discovered that loss of sarcolipin results in structural and electrophysiological remodeling in atria
- Demonstrated that sarcolipin expression is significantly increased in the left ventricles of the volume overloaded rat model
- Discovered that sarcolipin expression is significantly increased in the skeletal and cardiac muscles of mouse models of Duchenne muscular dystrophy
- Discovered that muscle fiber type switch occurs in dystrophic skeletal muscles
- Discovered that increased levels of sarcolipin correlate with severity of muscular dystrophy
- Clarified a novel mechanism of Epac1 (exchange protein activated by cAMP) involvement in melanoma tumor progression and metastasis via increased NDST-1 expression and N-sulfation of the major extracellular matrix Heparan sulfate
- Discovered that a novel intracellular calcium-related mechanism of Epac1-induced increase in melanoma cell migration is inhibited by G β γ activator mSIRK, which may offer a therapeutic approach in metastatic melanoma

- Developed and patented a targeting strategy for Epac1 for use in cancer therapy for melanoma and other cancers
- Discovered that caloric restriction reduces growth of mammary tumors and metastases
- Discovered distinct subcellular localization and signal transduction pathways originating from different Ras isoforms in cardiomyocytes
- Discovered opposing effects of different Ras isoforms on viability of the myocardium following ischemic injury
- Identified a novel mechanism by which Mst1 induces cardiomyocyte apoptosis
- Discovered that genetic disruption of RASSF1A in cardiomyocytes confers protection against myocardial ischemia/reperfusion injury
- Discovered that post-natal cardiomyocyte-specific ablation of Yap1 causes dilated cardiomyopathy and premature death in mice
- Discovered that treatment of a mouse model of limb girdle muscular dystrophy with embryonic stem cells does not lead to corrections, unless full stem cell reconstitution takes place
- Discovered that treatment of embryonic stem cells with insulin-like growth factor II does not change stemness of the stem cells
- Discovered that production of nitric oxide in cardiac myocytes of Duchenne muscular dystrophy mice is not accomplished by the isoform neuronal nitric oxide synthase, but by other isoforms such as endothelial nitric oxide
- Converted the provisional patent 'role of insulin-like growth factor binding protein-3 in pathological conditions' into a US patent application
- Demonstrated that mitochondrial DNA sequences accumulate in the nucleus during the reprogramming of somatic to induced pluripotent stem cells
- Discovered that in fibroblasts higher levels of oxidative stress increase the translocation rate of mitochondrial DNA fragments to the nucleus
- Established a key role for adenosine A2A receptors expressed by macrophages in the regulation of wound healing
- Discovered a role for adenosine A2B receptors in the regulation of wound healing
- Showed that "alternative" activation of macrophages induced by IL-4/IL-13 differs markedly from that induced by endotoxin and adenosine A2A receptor activation
- Demonstrated a unique promoter that regulates adenosine A2A receptor expression in macrophages and prepared luciferase reporter vectors for further study of this promoter region
- Demonstrated an important role for micro-RNAs in the regulation of macrophage activation by endotoxin and adenosine receptor agonists

- Showed that blocking Endothelial-Monocyte-Activating-Polypeptide-II protects cardiac function after chronic myocardial infarction by increased recruitment of progenitor cells and increased myogenesis
- Demonstrated that caspase inhibition protects cardiac function with chronic pressure overload by an increase of angiogenesis and myogenesis with reducing fibrosis
- Demonstrated that cardiac overexpression of adenylyl cyclase type 5 induces left ventricular hypertrophy potentially by activating calcineurin-NFAT signaling
- Demonstrated that downregulation of the Imd pathway enhances stress resistance and longevity in *Drosophila melanogaster*
- Discovered that the Loco, a fly RGS protein, regulates stress resistance and longevity through the Rpd3 protein, histone deacetylase 1
- Discovered that Rheb activation by high fat diet suppresses autophagy and exacerbates myocardial injury by ischemia
- Discovered that activation of an adaptive mechanism for nutrient starvation paradoxically induces heart failure in the heart subjected to high blood pressure
- Discovered that activation of glycogen synthase kinase-3beta protects the heart by stimulating autophagy during myocardial ischemia whereas inhibition of it also protects the heart by inhibiting autophagy during myocardial reperfusion
- Discovered that activation of ubiquitin E3 ligase, atrogin1, plays an important role in mediating hypertrophy and failure in response to pressure overload by degrading I κ B
- Discovered novel transcription patterns during postnatal cardiac growth and pressure-induced cardiac hypertrophy using chromatin immunoprecipitation by anti-RNA polymerase II followed by Illumina deep sequencing
- Correlated RNA polymerase II binding and dynamics during cardiac growth with histone modification (acetylated H3-K9) and observed that RNA polymerase II binding required this modification
- Identified microRNA-1 as a master regulator of RNA polymerase II-dependent transcription through its targets General Transcription Factor IIB and Cyclin dependent Kinase 9
- Clarified signaling mechanisms involving store-operated calcium channels in melanoma
- Demonstrated a new class of pharmacological agents, myosin activators and inhibitors, as a new therapeutic modality for patients with heart failure and hypertension
- Demonstrated that docosahexaenoic acid suppresses H₂O₂-induced early after depolarizations by modulating membrane ion channel functions, while its direct effect on reactive oxidative stress plays a less prominent role
- Discovered that the cardiomyocyte sarcoplasmic reticulum in winter woodchucks has less spontaneous leakage of calcium, releases more of it during excitation, and takes it back up faster than summer woodchucks

- Demonstrated that store operated calcium entry, partially mediated by TRPC channels, exists in adult mouse ventricular myocytes and is involved in spontaneous Ca waves and triggered activities, which may manifest cardiac arrhythmias under ischemic conditions
- Established a new volume-overload mouse model of cardiovascular pathology
- Discovered that glycogen synthase kinase-3 α enhances cardiac aging
- Demonstrated that glycogen synthase kinase-3 may phosphorylate Ulk1
- Found that glycogen synthase kinase-3 modulates ischemic and ischemia/reperfusion injury through regulation of autophagy
- Established that cytosolic location of endothelial nitric oxide synthase is necessary for the onset of hyperpermeability in response to pro-inflammatory mediators
- Determined the ocular lens uniquely shares expression of the major brain receptor (glutamate AMPAR), and critically the AMPA GluA2 subunit, consistent with REST/NRSF and REST4 in lens and brain. Lens GluA2 also undergoes RNA editing which is key in ALS, epilepsy and depression in the brain. These findings identify specific links between epilepsy and cataract, and may underlie cataract links with commonly prescribed antidepressant and antiepileptic medications.
- Developed an animal model of brain and retina Alzheimer-type pathology in diabetes. The model demonstrates fundamental links between Alzheimer's and diabetes and provides perhaps the first physiological model of Alzheimer's disease, not linked with genetic early-onset Alzheimer's dementia
- Identified as "hot topic" platform presentation: Soc for Neuroscience Wash DC Nov 2011 and ARVO Fort Lauderdale, FL May 2012. (Accepted with minor revision to *J Alz Dis.* 4/2012).
- Demonstrated the utility of Bayesian models for whole-cell growth inhibition of *M. tuberculosis* in driving the discovery of novel antitubercular small molecule chemical tools with significant potential as novel drug leads
- Discovered a novel small molecule modulator of *M. tuberculosis* fatty acid biosynthesis through perhaps three significant points of metabolic intervention
- Discovered a functional interaction between the proteins, Lis1, DISC1, and APP, which suggests a common pathway leading to lissencephaly, schizophrenia, and Alzheimer's disease (Muresan, V., Muresan, Z. 2012. Abstract submitted for presentation at the Annual Meeting of the Society for Neuroscience)
- Discovered that a fragment of APP, a protein relevant to Alzheimer's disease, uses a novel form of transport to move within neurons, by associating with short, moving microtubules and neurofilaments (Villegas, C., Muresan, V., Muresan, Z. 2012. Abstract submitted for presentation at the Annual Meeting of the Society for Neuroscience)
- Discovered a novel mechanism that leads to accumulation of amyloid- β in the aging brain, which is probable cause of sporadic Alzheimer's disease (Muresan, V., Muresan, Z. 2012. A Persistent Stress Response to Impeded Axonal Transport Leads to Accumulation of Amyloid- β in the Endoplasmic Reticulum, and Is Probable Cause of Sporadic Alzheimer's Disease. *Neurodegenerative Diseases.* 10: 60-63. Published Online: December 7, 2011)

- Obtained evidence showing suppression of sensory reactivity in female rats, due to elevations in peripheral pro-inflammatory cytokine signaling, is not occurring through a downstream peripheral Th1 response mechanism
- Identified that the decrease in tonic inhibition of dentate semilunar granule cells (SGCs) underlies increases in SGC excitability after concussive brain injury
- Determined that cell-type specific changes in synaptic GABA currents and GABA receptor expression underlie post-traumatic decrease in SGC tonic GABA currents
- Identified that, like granule cells, dentate SGCs express Prox1 indicating a common neuro-developmental lineage
- Demonstrated an increase in the frequency of synaptic excitatory currents in SGCs after concussive brain injury
- Identified an increase in synaptic inhibitory currents in dentate molecular layer interneurons following concussive brain injury
- Demonstrated an early and transient increase in expression of the innate immune receptors TLR2 and TLR4 after concussive brain injury
- Identified that, for the same peak pressure, fast-rate concussive brain injury leads to lower neuronal injury and early cell loss than slower-rate injuries
- Demonstrated that despite decreased cell loss, the physiological increase in dentate excitability after fast-rate concussive brain injury is not lower than that of slower-rate injuries
- Identified that non-fast-spiking dentate interneurons expressing CCK do not express the currents and receptors underlying tonic GABA currents in the latent period following pilocarpine induced status epilepticus
- Identified a decrease in gap junctional coupling between fast-spiking dentate basket cells following pilocarpine induced status epilepticus
- Demonstrated that the inflammatory cytokine interleukin-6, which is produced in response to brain injury, promotes the expansion of neural stem cells while suppressing the production of neurons
- Established that hypoxic pre-conditioning enhances the neuroprotective properties of astrocytes to reduce brain damage from neonatal stroke
- Established that the sibling growth factors IGF-1 and IGF-II have unique effects on neural stem cells and progenitors. IGF-II promotes stemness of neural restricted precursors whereas IGF-1 enhances precursor proliferation
- Demonstrated the transcription factor Egr-1 is necessary for the stress-induced increase in the epidermal growth factor receptor on neural stem cells
- Identified the targets of an essential African trypanosome parasite gene using state of the art RNA-protein crosslinking, immunocapture and high throughput sequences and showed that specific RNA interacting proteins play a role in regulating energy metabolism in the parasites

- Described conditional mutagenesis in the ANKA strain of *Plasmodium berghei* parasites
- Developed novel tools for conditional mutagenesis in *Plasmodium yoelii* parasites
- Provided first evidence that telomere dysfunction-induced senescence is a critical tumor suppressing mechanism in humans
- Discovered that oncogenic signals affect telomere replication, structure and function
- Discovered that telomerase suppresses telomere dysfunction in response to oncogenic signals and DNA replication stress
- Discovered that KSHV lytic switch protein Rta forms tetramers and makes high affinity interactions with repetitive "CANT" DNA elements in the Mta promoter to stimulate DNA binding of the cellular protein RBP-Jk/CSL
- Discovered that the activated Notch protein cannot transactivate the KSHV Mta promoter
- Discovered the optimal promoter architecture for KSHV Rta to stimulate DNA binding of the protein RBP-Jk/CSL to the Mta promoter
- Discovered that KSHV Rta makes an extended footprint to 4 regions of the Mta promoter
- Reported that there is little agreement between different studies that assessed the DNA binding specificity of KSHV Rta
- Published a model for how KSHV reactivation can be regulated post-Rta expression
- Studied the "Design of efficient tRNA:EF-Tu system for single molecule FRET studies of ribosomal translation," which has potential practical applications from this work, including diagnostics, screening for new kinds of antibiotics, and nucleic acid sequencing
- Resolved a major issue in published literature about the highly pathogenic *Borrelia burgdorferi* strain N40 by finding that two distinct infectious strains are present in the original tick and are now distinguishable by a set of techniques we describe
- Comparison of widely studied, highly pathogenic *B. burgdorferi* strains, B31 and N40, exhibited differences in specific virulence factors that affect attachment to host cells in vitro, and demonstrated that N40D10/E9 clone is more pathogenic in susceptible C3H mouse model than B31 when lower dose of inoculum is used
- Generated stable bioluminescent N40 and B31 clones by integrating codon-optimized firefly luciferase gene in endogenous stable linear plasmid of *B. burgdorferi*. The selected clones retained high infectivity and pathogenicity like the wild-type strains in the C3H mouse model of infection, displayed significant bioluminescence visualized by in vivo imaging system in live mice, and showed colonization of specific tissues later in infection
- Discovered that the subtelomere-binding Tbf1 protein plays an important role in telomere protection once telomeres become very short
- Discovered that the severe anemia in the Rb;E2f8 double knockout mice was due to profound ineffective erythropoiesis and mild hemolysis

- Demonstrated that ineffective erythropoiesis in the Rb;E2f8 double knockout mice resulted from dys-regulated cell cycle regulatory genes
- Identified E2F2 as a critical, specific E2F activator in mediating the synergy of Rb and E2F8 in promoting erythropoiesis and in preventing anemia
- Discovered a novel role for the Translationally Controlled Tumor Protein in DNA damage sensing and repair (Zhang et al., *Proc. Natl. Acad. Sci. (Plus) USA* 109: E926-33, 2012)
- Showed that the frequency of spontaneous neoplastic transformation is increased in the progeny of bystander cells from cultures exposed to deep space radiation (Buonanno et al., *PLoS ONE* 6 (6) e21540, 2011)
- Showed that gap junction intercellular communication amplifies the stressful effects in high-charge, high-Energy (HZE) particle-irradiated human cells (Autsavapromporn et al., *Journal of Radiation Research (Tokyo)* 52(4):408-14, 2011)
- Showed that the long-term consequences of radiation-induced bystander effects depend on radiation quality and dose and correlate with persistent oxidative stress (Buonanno et al., *Radiation Research* 175(4): 405-15, 2011)
- Generated *in vivo* evidence for space radiation-induced non-targeted biological responses (Jain et al., *Current Molecular Pharmacology* 4(2): 106-114, 2011)
- Characterized the effect of linear energy transfer of radiation in adaptive and non-targeted biological responses of human cell exposed to low dose/low fluence ionizing radiation (de Toledo et al., *Health Physics* 100(3):290-292)
- Demonstrated differential microRNA responses to chronic or acute exposures to low doses of ionizing radiation (Chaudhry et al., *Molecular Biology Reports* 39(7): 7549-58)
- Demonstrated that a toll-like receptor 9 antagonist, administered intrathecally, ameliorates bladder dysfunction and pain hypersensitivity in a murine model of spinal cord contusion injury.
- Determined that intrathecal delivery of a toll-like receptor 9 agonist and antagonist have opposing effects on the cellular and molecular inflammatory response following spinal cord contusion injury in the mouse.
- Established that toll-like receptor 9 knockout mice exhibit behavioral alterations suggesting a role for the receptor in the development of the central nervous system.
- Developed a treatment that not only improves cell survival in eyes with age-related macular degeneration (AMD) but also may help render cell transplantation as a sight-preserving/restoring therapy for patients with AMD
- Discovered a conditioned medium that significantly enhances cell survival on aged and AMD Bruch's membrane, identified the protein components in the mixture, and optimized conditions for its collection
- Determined that conditioned medium can be used to support cells in culture to a greater degree than standard culture medium; determined that conditioned medium can be used to store cells in sealed containers both at 4°C and room temperature

- Identified the bioactive molecule-containing molecular weight fractions in the conditioned media developed for enhancing cell survival in age-related macular degeneration
- Identified neurotrophic factors contributing to retina preservation in conditioned medium harvested from retinal pigment epithelial cells.
- Identified the architectural transcription factor, HMGA2, to activate the TGF beta pathway in tumor metastasis.
- Discovered a link between protein components of the transcription initiation and termination complexes, supporting the concept that transcription occurs on DNA loops that connect the ends of genes.
- Used confocal microscopy to demonstrate nucleocytoplasmic movement of a nuclear substrate to the proteasome
- Determined that phosphorylation of Rad23 affects its interaction with multiubiquitinated proteins
- Generated evidence that the proteasome system affects mitochondrial function
- Completed identification of suppressors, which may help the cells to recover from the inhibitory LACE effect
- Completed analysis of transcript profiles of cells with deletion or overexpression of CsdA, RNase R or PNPase
- Identified the Murine Leukemia Virus Gag p12 protein as a factor involved in tethering viral particles to mitotic chromatin.
- Characterized expression from non-integrating MuLV particles
- Defined the HuPAR-2 as a receptor for the CP-Env, a novel FeLV Env variant identified by library screening
- Demonstrated that increased levels of ENGRAILED2 are correlated with autism risk
- Demonstrated that the orphan GPCR, Gpr161, regulates retinoic acid signaling during neural fold development
- Demonstrated that the Foxn4 transcription factor suppresses photoreceptor cell fates of early retinal progenitors by activating Dll4-Notch signaling
- Uncovered a role of Foxn4 in alveologenesis during lung development
- Demonstrated that the deficiency of the Ebf1 transcription factor causes increase of Müller glial cells in the retina and abnormal topographic projection at the optic chiasm
- Uncovered a new role for coactivator and splicing factor CAPER alpha in breast cancer cell invasion and metastasis

- Demonstrated in vivo efficacy of combination treatment to accelerate turnover of antiapoptotic Bfl-1 in human lymphoma xenografts
- Demonstrated benefit of intravenous enzyme replacement therapy in a mouse model of late infantile neuronal ceroid lipofuscinosis
- Implemented a large-scale novel proteomics/subcellular fractionation approach to identify components of the lysosomal proteome
- Identified a novel mRNA interferase with seven-base cutting specificity from an archeon from the Dead Sea
- Engineered acquisition of a new function in a protein by replacing all Arginine residues with the toxic analogue, Canavanine
- Determined the NMR structure of YmgD, a putative periplasmic chaperone at alkaline pH
- Achieved segmental isotope labeling of the GTase domain of a capping protein
- Discovered a novel membrane-bound toxin inhibiting cytoskeleton assembly
- Identified a new mRNA interferase from *Bacillus subtilis* cleaving at UACAU sequences
- Discovered a new toxin targeting ribosome assembly leading to the inhibition of translation initiation
- Characterized phospholipid biosynthesis inhibition in the SPP system
- Developed a robust computational method for using NMR protein structure ensembles to determine 'phases' and solve homologous protein structures by X-ray crystallography
- Developed a novel approach combining NMR data obtained on perdeuterated proteins with energy functions to extend the size limit and allow structure determination of proteins of up to 40 kDa
- Determined the 3D structure of the human 'deleted in oral cancer' (DOC) protein, an important tumor suppressor that plays a key role in cell cycle regulation
- Developed a novel circular permutation design strategy for directing orthogonal self-assembly of unique collagen peptide materials within complex mixtures
- Determined the extent to which an inorganic iron-sulfur cluster cofactor dictates the topology of bacterial ferredoxins
- Designed a novel class of collagen peptides that self assemble into fibers, lamella and vesicles
- Determined the crystal structure of the catalytic domain of *Staphylococcus aureus* VraS histidine kinase involved in vancomycin resistance
- Characterized the mechanism of phosphorylation-mediated transcriptional activation by *E. coli* OmpR

- Established, by structural analysis, a common mode of dimerization for a subfamily of NarL/FixJ transcription factors involved in virulence factor expression in pathogenic bacteria
- Discovered that autoregulation provides fitness rather than an all-or-none response in the *E. coli* PhoB/PhoR two-component signaling pathway required for adaptation to phosphate-limiting conditions
- Demonstrated that the PLZF transcription factor controls the development and function of NKT cells, NK cells and gd T cells in the human immune system.
- Discovered the role of tryptophan metabolites in regulating immune responses.
- Demonstrated the role of TRAIL in activation-induced cell death of type II CD8+ T cells.
- Developed a transgenic mouse model to study the mechanisms by which mouse and human mesenchymal stem cells alter immune and inflammatory reactivity and exert their anti-inflammatory effects.
- Demonstrated that inflammatory cytokines are able to convert mesenchymal stromal cells into tumor-associated stromal cell-like and to promote tumor growth via recruiting macrophages/monocytes.
- Determined that expression of 2B4 (a major marker for gut immune cells in mice and humans) is very low among gut hematopoietic cells early in life, reaches its maximum at adulthood, and significantly decreases with age.
- Demonstrated that gut bacterial flora drives 2B4 expression on gut immune cells, and that change of the gut flora composition with antibiotic therapy and obesity affect 2B4 expression.
- Showed that antibacterial prophylaxis (bowel preparatory antibiotic treatment) used to reduce the incidence of postoperative sepsis is not effective in eliminating Bacteroidetes, a major constituent of the gut bacterial flora that induces pro-inflammatory cytokines causing sepsis.
- Discovered that pathogen associated molecular patterns (pamps) induce proteinuria through type 1 IFN signaling mediated podocyte B7-1 induction.
- Demonstrated that a novel set of miRNAs regulate podocyte TLR signaling mediated proteinuria
- Discovered that native and nitrated fatty acids regulate oxidant generation in neonatal neutrophils and counteract increased inflammatory activity induced by phthalate plasticizers in neonatal neutrophils.
- Quantified the relationship between maternal exposure to bisphenol A and phthalates, prematurity, and genital abnormalities
- Described the effects of bilirubin on immune function in neonatal neutrophils.

- Established cell based model of Down syndrome using neuronal cells derived from patient-specific induced pluripotent stem cells by ectopic expression of cell-lineage specific transcription factors.
- Developed protocols for single neuronal cell gene expression profiling using Fluidigm BioMark system.
- Discovered that the efficiency of reprogramming skin fibroblasts into induced pluripotent stem (iPS) cells is associated with DNA damage repair activity.
- Demonstrated that CDX2, a homeobox transcription factor, is sufficient but not necessary for human trophoblast development.
- Discovered trophoblast differentiation from trisomy 21 iPS cells is defective in BMP4 signaling response.
- Established human induced pluripotent stem cell lines from fibroblasts of trisomies 13, 18 and 21 for studying developmental defects associated with these genotypes.
- Discovered that inherited genetic variants in autism-related CNTNAP2 gene cause severe cellular trafficking abnormalities and elevated endoplasmic reticulum stress
- Discovered that FLRT proteins are endogenous latrophilin ligands and regulate excitatory synapse development
- Discovered that the p15Paf oncogene is essential for mouse hematopoietic stem cell function and development
- Identified the dysregulation of a long, non-coding RNA in hematopoietic stem cells lacking p15Paf suggesting a role for this RNA in hematopoiesis
- Discovered that both transcriptional and post-transcriptional mechanisms lead to the activation of expression of the Human T-cell Leukemia Virus type 1 (HTLV-1), thus contributing to causing the various HTLV-1 diseases
- Discovered that treatment of colon cancer cells with the histone deacetylase class of anti-cancer drugs leads to a change in the large-scale program of cancer gene expression, attenuating the malignant phenotype of the cancer cells, and opening up a new approach for therapy
- Demonstrated that PDCD2, a novel, highly-conserved gene associated with human leukemia, is essential for early embryonic development and for cell survival and proliferation
- Completed and published a study on the role of Parkin, a new p53 target, in negative regulation of glycolysis and the Warburg effect in tumors
- Completed and published a study on the role of p63, a p53 family member, in regulation of DNA repair
- Completed and published a study on the role of chronic stress in tumor development through negative regulation of p53 function

- Investigated the role of BCL-2 and radiation in breast cancer
- Demonstrated differentiating and cytotoxic effects of a pharmacologic BMI-1 inhibitor on glioblastoma cells
- Demonstrated significant cytotoxic effects in vitro and in vivo of a glutamate release inhibitor, Riluzole, on glioma cells treated with and without RT
- Identified novel cell and molecular functions of the BCCIP gene in cancer progression
- Characterized the conditional BCCIP knockdown mouse model to investigate its role in brain tumor and breast cancer
- Identified the genetic defect in a radiation sensitive human fibroblast cell line, manuscript is prepared
- Established a functional role of Filamin A in cancer metastasis
- Published the identification of a novel small molecule with activity against tumors harboring a specific allelic mutation in p53
- Completed and published a study on the role of PALB2 in the regulation of NRF2-mediated antioxidant gene expression via competitive binding to KEAP1
- Investigated and characterized a mouse model of PALB2-associated hereditary breast cancer with an emphasis on the role of p53 and Beclin 1 (autophagy)
- Generated a Palb2 knockin mouse model with abrogated endogenous PALB2-BRCA1 interaction and characterized the male infertility phenotype
- Investigated the mechanisms of PALB2, BRCA1 and BRCA2 in DNA damage-induced intra-S phase and G2/M cell cycle checkpoint control
- Generated a panel of approximately 20 BRCA1 missense variants and evaluated their role on its subcellular localization and homologous recombination/DNA repair function
- Completed a study on the role of hnRNPC in regulating BRCA1/2 expression and recombination, and submitted a manuscript
- Demonstrated the potential of ionizing radiation in the context of cancer radiation therapy to aid cancer cells in developing drug resistance using innovative microfabricated synthetic tumors
- Discovered three different small molecules that sensitize quiescent fibroblasts to proteasome inhibitors
- Discovered that melanoma cells induce autophagy in associated fibroblasts
- Discovered that autophagy in stromal fibroblasts is an important contributor to tumor growth

- Defined novel roles for CED-3 apoptosis caspase and its regulator CED-4/Apaf in neuronal reconstruction rather than in cell death
- Showed that calcium fluxes may activated CED-4/Apaf to locally activate CED-3 for repair via DLK-1
- Identified microRNA miR-80 as a negative regulator of dietary restriction metabolism
- Identified human mir-80 family members as candidate cancer prophylactic targets
- Uncovered a new role for coactivator and splicing factor CAPER alpha in breast cancer cell invasion and metastasis
- Demonstrated in vivo efficacy of combination treatment to accelerate turnover of antiapoptotic Bfl-1 in human lymphoma xenografts
- Demonstrated that TAp63g enhances nucleotide excision repair through transcriptional regulation of DNA repair genes
- Discovered that Chronic restraint stress attenuates p53 function and promotes tumorigenesis
- Discovered that Parkin, a p53 target gene, mediates the role of p53 in glucose metabolism and the Warburg effect
- Discovered and characterized the role of Zyxin in Fat-Hippo signaling
- Identified and characterized a requirement for the Hippo pathway and its transcriptional co-activator Yorkie in controlling Drosophila glial cell proliferation
- Discovered that Hippo signaling is regulated by Jun kinase signaling, and characterized its role in damage-induced cell proliferation
- Demonstrated benefit of intravenous enzyme replacement therapy in a mouse model of late infantile neuronal ceroid lipofuscinosis
- Implemented a large-scale novel proteomics/ subcellular fractionation approach to identify components of the lysosomal proteome
- Showed that the protein kinase Pak4 is sufficient to lead to malignant transformation of mammary epithelial cells
- Demonstrated that the Pak4 protein has a key role in heart development, and that it controls the cytoskeletal organization of cardiomyocytes
- Demonstrated an important developmental role for the Pak4 protein in the developing nervous system
- Identified p130/E2F4-containing complexes as required repressors of tissue-specific genes prior to differentiation

- Identified a cooperating role for pRB and E2F1 in activation of differentiation in mesenchymal-derived lineages
- Discovered that osteoblast differentiation requires the PBAF chromatin-remodeling complex
- Discovered that the choice of core ATPase in the SWI/SNF chromatin-remodeling complex is a lineage determinant for osteogenesis versus adipogenesis
- Demonstrated that the choice of ARID family subunit in SWI/SNF influences whether precursor cells continue to proliferate or undergo terminal differentiation
- Identified the role of Programmed Cell Death 2 (PDCD2) tumor suppressor gene in hematopoietic stem cell and leukemia development using the zebrafish model
- Demonstrated a novel function of programmed cell death 2 (PDCD2) tumor suppressor gene in human erythroid progenitor cells
- Developed novel inhibitors of Bmi-1 that target prostate cancer tumor initiating cells
- Discovered a new role for the SAGA acetyltransferase in modifying a transcriptional repressor that controls the switch between proliferation and differentiation in budding yeast
- Identified a new role for the nuclear protein cyclin C in directly stimulating stress-induced mitochondrial fission and programmed cell death in both yeast and mammalian cells
- Generated the first cyclin C knockout mouse to investigate the role of this factor as a tumor suppressor using in vivo cancer models
- Discovered that ataxin-1 and its related factor, Brother of ataxin-1, are integral component of the Notch signaling pathway
- Discovered novel activity for VapC family of bacterial toxins from Mycobacterium tuberculosis
- Defined the general target specificity for the MazF toxin from the emerging pathogen Clostridium
- Discovered that expression of selected bacterial toxins in mammalian cells leads to death by necroptosis
- Demonstrated a critical role of inflammatory cytokines in inducing the tumor promoting effects in mesenchymal stem cells
- Found the role of stromal mesenchymal stem cells in recruiting macrophages/monocyte to tumors
- Established model cellular system to study the effect of indoleamine 2,3-dioxygenase on tumor growth in mice
- Demonstrated efficacy of mTOR kinase inhibitors toward colorectal cancer

- Discovered a major mechanism of intrinsic drug resistance to mTOR kinase inhibitors in human cancer
- Discovered that activated Ras-expressing cells are dependent on autophagy to survive starvation
- Discovered that Autophagy supports activated Ras-mediated tumorigenesis
- Found that p62 is required for efficient tumorigenesis by Ras
- Found high basal autophagy in human cancer cell lines with Ras mutations
- Discovered autophagy facilitates growth and survival of human cancer cell lines with active Ras
- Found that autophagy supports cancer cell survival through the maintenance of mitochondrial metabolic function and energy levels
- Found that p53 protein can be an effective prognostic factor for young breast cancer patients
- Measured high dimensional gene expression in individual CTCs without the common practice of pooling such cells
- Demonstrated that profiling CTCs on a cell-by-cell basis is possible and may facilitate the application of 'liquid biopsies' to better model drug discovery
- Identified novel microRNA/mRNA relationships that can be verified experimentally - both generic microRNA/mRNA regulation mechanisms in the ovary as well as specific microRNA/mRNA controls which are turned on or off in ovarian tumors
- Identified YES1 Kinase as a therapeutic target in basal-like breast cancers
- Isolated conditional allele of the yeast SUMO-dependent Ub ligase, SLX8
- Identified Cdc48 and other proteins associated with the SUMO-dependent protease Wss1 by mass spectrometry
- Discovered potential genetic modifiers that may explain earlier onset of cancer in members of a family with Li-Fraumeni syndrome who inherit them
- Discovered DLK1 as a gene that may play an important role in tumorigenesis of neuroendocrine cells
- Discovered CADM1 as a gene that may play an important role in metastasis of small bowel neuroendocrine tumors
- Demonstrated that the ubiquitin-proteasome degradation pathway is responsible for the low levels of clinically-significant Msh2 variants implicated in Lynch Cancer Syndrome

- Proved that the clinically-approved proteasome inhibitor Bortezomib restored function of low-level variants of Msh2 and reversed the resistance to cisplatin, suggesting an effective adjuvant chemotherapeutic regime involving Bortezomib and cisplatin
- Confirmed that screening clinically-significant human variants in a model system can lead to personalized medicine strategies
- Demonstrated that amplification of specific genomic regions is associated with early relapse in ER+ breast cancer
- Demonstrated that low expression of 53BP1 is associated with increased local relapse of breast cancer after radiation therapy
- Found that loss of 53BP1 induces resistance to PARP-inhibitors in BRCA1-mutant cancers
- Found that the yeast Sir2 histone deacetylase is responsible for cohesin accumulation in transcriptionally silenced domains known as yeast heterochromatin
- Identified the specific amino acids in Sir2 that are responsible and shown that this domain of Sir2 is required for facile establishment of silencing
- Showed that the tRNA gene at the heterochromatin boundary of HMR associates with nuclear pore complexes and showed that this association occurs primarily in mitosis and that it depends on cohesin
- Published that anchoring of yeast telomeres to the nuclear periphery is regulated by palmitoylation of Rif1
- Found that a DNA bound transcription factor is responsible for capturing cohesin at the gene locus prior to transcriptional induction in a study of cohesin binding, function and fate at a model inducible gene in budding yeast
- Provided first evidence that telomere dysfunction-induced senescence is a critical tumor suppressing mechanism in humans
- Discovered that oncogenic signals affect telomere replication, structure, and function
- Discovered that telomerase suppresses telomere dysfunction in response to oncogenic signals and DNA replication stress
- Demonstrated that a genetic variant in the PERP gene is prognostic for worse breast cancer outcomes, especially for women undergoing radiation, are older in age, and have higher stage cancers
- Showed that a genetic variant in the glutamate receptor GRM1 that predicts for age of diagnosis of breast cancer, risk of developing hormonally-responsive breast cancer, and risk of recurrence of breast cancer. This genetic variant also predicts for response to receptor-targeting drug that is being explored for use in clinical trial
- Discovered a genetic variant in the DNA repair gene TDP-1 that correlates with expression of the gene and may also explain racial disparities in drug response to specific chemotherapeutic agents

- Developed a mouse model of breast cancer long-term dormancy and metastatic relapse in bone and identified VCAM1 as an activator of indolent bone micrometastasis by recruiting circulating pre-osteoclasts
- Elucidated the dual role of miR-200 in inhibiting invasion and epithelial-mesenchymal transition in early metastasis and in promoting metastatic colonization by influencing Sec23a-dependent secretome
- Identified Jagged1 as a TGF β pathway downstream gene in osteolytic bone metastasis of breast cancer. Bone-derived TGF β activates Jagged1 expression in tumor cells. Jagged1 engages Notch signaling in osteoblasts to promote IL-6 production, which feeds back to tumor cells to stimulate their growth. Jagged1 also directly activate osteoclast differentiation and bone destruction, resulting in more release of TGF β . This is a novel vicious cycle of bone metastasis that can be targeted by pharmacological agents against the TGF β , Jagged1/Notch and IL-6 pathways
- Demonstrated that the receptor protein DCC (Deleted in colorectal carcinoma) regulates cell outgrowth during vessel formation
- Showed that the receptor protein Roundabout2 plays a role in vessel formation by negatively regulating the activity of the related protein Roundabout1
- Discovered that myosin phosphatase, a well-known regulator of the contractility in smooth muscle and nonmuscle cells, also controls chromatid segregation in a Polo-like-kinase1 dependent way
- Demonstrated that fascin, an actin-bundling protein, is essential for antigen-presenting dendritic cells to transmigrate from the periphery to draining lymph nodes
- Showed that LRIG/SMA-10, a tumor suppressor gene, differentially affects the trafficking of the TGF β type I and type II receptors
- Discovered that the type I TGF β receptors are recycled through the retromer
- Showed that heightened IL-6 and IL-8 serum levels are biomarkers in lung cancer, and increased serum IL-8 levels pre-date development of lung cancer by several years, whereas IL-6 serum levels increase immediately before lung cancer diagnosis. These findings have important implications for early detection of lung cancer
- Discovered that the subtelomere-binding Tbf1 protein plays an important role in telomere protection when telomeres become very short
- Defined the role of peroxiredoxin1 in loss of heterozygosity mediated by deficiency in DNA repair and increased Oxidative stress
- Defined genetic variants upstream of the CHRNA4 gene that are associated with the onset of daily smoking and habitual smoking
- Discovered that embryonic stem cells are especially sensitive to loss of heterozygosity induced by ionizing radiation, suggesting a mechanism for fetal sensitivity to such radiation

- Discovered the *S. cerevisiae* Pif1 DNA helicase aids genome stability by promoting replication fork progression past G-quadruplex DNA
- Identified protein-protein contacts required to bring telomerase to DNA ends in both *S. cerevisiae* and *S. pombe*
- Found Pif1 DNA helicases have a conserved role in promoting fork progression past stable protein complexes
- Found Mutations in the human Pif1 family helicase are associated with elevated risk of breast cancer
- Characterized mechanism by which Pap1 confers resistance to the chemotherapeutic agent camptothecin
- Identified genetic interactions between the Swr1 chromatin remodeling complex and components of the DASH complex, which mediates attachment of spindle microtubules to mitotic chromosomes
- Discovered the DNA binding sequence for the CD44-ICD
- Showed direct evidence that CD44-ICD functions as a transcription factor in the MMP-9 promoter
- Confirmed that CD44 undergoes proteolytic cleavage forming CD44-ICD as an end product
- Demonstrated importance of a lactate pyruvate shuttle in stromal support for tumor growth
- Characterization of extracellular matrix isolated from cocultures of tumor cells and stromal fibroblasts for in vitro drug development assays
- Characterization of the role of myofibroblasts in wound healing; similarities between support for tumor growth and wound healing
- Determined that a peptide was isolated using phage display that binds tightly to a consensus E2F-1 promoter and when coupled with penetratin to enhance uptake the penetratin peptide was found to potently inhibit growth of small cell lung cancer and a castrate resistant prostate cell xenografts
- Found that characterization of tumor initiating cells from a prostate tumor cell line and from fresh human cancers were sensitive to a BMI-1 inhibitor
- Discovered that T- cell lymphomas lacked the enzyme methylthioadenosine phosphorylase, responsible for salvage of adenine. The substrate for this enzyme, methylthioadenosine, protected normal tissues but not a T-cell lymphoma tumor from the cytotoxic effects of 6- thioguanine
- Demonstrated that an antibody to activated matipase, found primarily on epithelial cancer cells coupled to doxorubicin regressed breast cancer xenografts

- Identified and targeted sub population of prostate cancer stem cells using novel BMI-1 inhibitors developed by PTC Therapeutics
- Determined that Darinaparsin is a potent prostate cancer stem cell inhibitor, and additive or synergistic cytotoxic effects can be obtained with taxotere
- Discovered that the PCNA associated factor (Paf) oncogene is essential for hematopoietic stem cell function and development
- Found that that macrophages may play an important role in early post-traumatic reformation of the blood brain barrier (BBB)
- Found that hypoxia enhances lactate production and secretion in breast cancer cells
- Showed that lactate stimulates hMSC migration
- Found increased MCT1 protein levels after lactate exposure in hMSCs, mirroring increases observed at the mRNA level
- Found that in addition to being a chemoattractant for hMSC migration, lactate is an activator of signaling pathways in hMSCs
- Found that co-cultivation of mantle cell lymphoma cells and human stromal cells results in the survival and proliferation of primary mantle cell lymphoma cells for at least 7 months compared to mantle cell lymphoma cells cultured alone
- Discovered that direct mantle cell lymphoma-human stromal cell interactions support long-term expansion and increase the drug-resistance of primary mantle cell lymphoma cells
- Showed that macrophage-secreted soluble factors alter the gene expression and cytokine secretion profiles of MSCs and that macrophages also induce MSC migration and influence the polarization of MSCs to a motile phenotype with increased secretion of IL-6 and IP-10
- Showed that antibacterial prophylaxis (bowel preparatory antibiotic treatment) used to reduce the incidence of postoperative sepsis is ineffective in eliminating Bacteroidetes, a major constituent of the gut bacterial flora that induces pro-inflammatory cytokines causing sepsis
- Determined that expression of 2B4 (a major biomarker for gut immune cells in mice and humans) is very low among gut hematopoietic cells early in life, reaches its maximum at adulthood, and significantly decreases with age
- Demonstrated that gut bacterial flora drives 2B4 expression on gut immune cells, and that change of the gut flora composition with antibiotic therapy and obesity affect 2B4 expression
- Identified the Murine Leukemia Virus Gag p12 protein as a factor involved in tethering viral particles to mitotic chromatin
- Characterized expression from non-integrating MuLV particles

- Defined the HuPAR-2 as a receptor for the CP-Env, a novel FeLV Env variant identified by library screening
- Identified a key role for Mg²⁺ in TRPM7's control of ROS levels during cell stress
- Identified a role for TRPM7 in the regulation of polarized cell movements
- Demonstrated that the transcription factor PLZF controls the development and function of NKT cells, NK cells and gd T cells in humans
- Showed that the frequency of PLZF expressing T cells in the peripheral blood was dramatically altered in patients with advanced melanoma
- Demonstrated that methylxanthines downregulate ABCG2, a major drug transporter implicated in tumor drug resistance
- Identified splice variants of the splicing factor SC35 and developed model to describe their autoregulation by methylxanthines
- Showed that pH-triggered liposomes release encapsulated doxorubicin intracellularly and intratumorally, and may improve tumor control at the same or even lower administered doses relative to FDA approved liposomal chemotherapy
- Determined the structure of the catalytic domain of *Staphylococcus aureus* VraS histidine kinase involved in vancomycin resistance
- Characterized the mechanism of phosphorylation-mediated transcriptional activation by *E. coli* OmpR
- Established, by structural analysis, a common mode of dimerization for a subfamily of transcription factors involved in virulence factor expression in pathogenic bacteria
- Discovered that autoregulation provides fitness rather than an all-or-none response in the *E. coli* PhoB/PhoR two-component signaling pathway required for adaptation to phosphate-limiting conditions
- Showed that the topological loop model accounts not only for long-distance regulation by enhancers (silencers) but also for the ability of insulators to restrict the action of regulatory elements to the domain in which they reside
- Showed that internucleosomal interactions involving the histone tails can account for long-distance regulatory communication along chromatin
- Developed a mesoscale model of chromatin to decipher the effects of nucleosomal fine structure and linker DNA deformability on long-range polymeric interaction
- Showed that: (i) efficient enhancer-promoter communication in chromatin occurs over distances from 0.7 to at least 4.5 kb and only weakly depends on the assumed rotational positioning of the communicating DNA elements within the assembled fiber; (ii) the assembled fiber is a dynamic structure that supports efficient communication over a variety of enhancer-promoter distances; and (iii) histone N-terminal tails are essential for long-range communication in chromatin

- Discovered that the pan-caspase inhibitor Q-VD-OPh has anti-leukemia effects and can interact with vitamin D analogs to increase hematopoietic progenitor kinase 1 (HPK1) signaling in Acute Myeloid Leukemia cells
- Found a dual role for the hematopoietic progenitor kinase 1 in Acute Myeloid Leukemia cells. It is a positive regulator of $1\alpha,25$ -dihydroxyvitamin D-induced differentiation and cell cycle arrest of AML cells and paradoxically also a mediator of vitamin D resistance
- Demonstrated that microRNA-32 is upregulated by $1,25$ -dihydroxyvitamin D₃ in human myeloid leukemia cells and leads to inhibition of AraC-induced apoptosis by targeting the pro-apoptotic gene Bim
- Found that BPA and several of its analogues are potent agonists for human PXR (hPXR) but do not affect mouse PXR activity
- Identified key residues within hPXR's ligand-binding pocket that constitute points of interaction with BPA
- Deduced the structural requirements of BPA analogues that activate hPXR
- Found that BPA and its analogues can also induce PXR target gene expression in human LS180 cells
- Demonstrated that the Mrp2 efflux transporter protects against cisplatin-induced nephrotoxicity using transgenic mice that express the human MRP2 protein
- Showed the Mrp2 limits the renal accumulation of cisplatin using mice lacking the murine form of Mrp2
- Developed in silico screening of pathogens in cancer sequencing data
- Designed machine methods for paleogenomic sequence datamining and recovery of ancestral genetic exchange events
- Reconstructed evolutionary history of MDM2 and MDM4 proto-oncogenes
- Demonstrated that ERK and AKT pathways promote overexpression of the MED1 subunit of the Mediator coactivator complex in clinically prostate cancer specimens in association with elevated cell proliferation and tumorigenicity
- Demonstrated that regulation of androgen receptor -dependent transcription by the coactivator MED1 is mediated through a newly discovered non-canonical binding motif
- Demonstrated that GRM1 signal transduction results in activation of pro-angiogenic pathways in human melanoma and that treatment with the glutamate-release inhibitor Riluzole results in decreased angiogenesis and tumor necrosis in vivo
- Demonstrated that Riluzole treatment results in DNA damage related to increased intracellular ROS in melanoma cells that express GRM1

- Demonstrated that GRM1 signal transduction results in an increase in microvesicle formation in human melanoma cells and that these microvesicles contain pro-angiogenic factors
- Discovered that the combination of the glutamate-release inhibitor Riluzole and the AKT inhibitor Mk-2206 are synergistic in inhibiting human melanoma cell proliferation in vitro and in an in vivo xenograft model of human melanoma
- Discovered that the combination of the glutamate-release inhibitor Riluzole and the mTORC1 inhibitor temsirolimus are synergistic in inhibiting human melanoma cell proliferation in vitro and in an in vivo xenograft model of human melanoma
- Developed and published on a computerized multi-variate histologic image based predictor of outcome for ER+ breast cancers
- Discovered that the highly conserved protein Programmed Cell Death 2 (PDCD2) is highly expressed in human leukemia samples
- Demonstrated that PDCD2 levels in acute leukemia patients correlate with disease status, suggesting PDCD2 may have utility as a clinical biomarker to follow in acute leukemia patients
- Demonstrated that PDCD2 is involved in cancer growth - PDCD2 knockdown in cancer cells inhibits their growth implicating PDCD2 as a potential new target for cancer therapies
- Showed that a novel cis-element of the CD44 directs gene expression in breast cancer cells in a cell type specific manner
- Showed oncogenic activities of metabotropic glutamate receptor 1 (GRM1) in immortalized mouse mammary epithelial cells in vitro and in vivo
- Showed inhibition of orthotopically implanted breast cancer cells by Riluzole, furthermore, the treated samples also exhibited DNA damage as we have shown for melanoma cells
- Demonstrated a reduction in intracellular GSH, an enhancement in intracellular ROS and an accumulation of DNA damage in Riluzole treated human melanoma cells
- Showed synergistic inhibition of in vivo xenograft tumor progression in the presence of Riluzole and Sorafenib and this suppressive activity has higher efficacy than Riluzole with Vemurafenib
- Discovered the existence of a novel factor required for selenium utilization in mammals
- Characterized the unique domain within the specialized elongation factor required for selenium utilization in mammals
- Developed a cell-based system to screen for novel male contraceptives that block selenium delivery to Sertoli cells
- Established an in-vitro model of transformation of benign Barrett's epithelium by repeated chronic exposure to acid and bile

- Found that prolonged exposure to acid and bile induces chromosome abnormalities that precede malignant transformation
- Demonstrated that inflammatory macrophages play a key role in lung injury and fibrogenesis induced by pulmonary toxicants and carcinogens
- Demonstrated that the activity of macrophages is dependent on their phenotype which is dictated by the timing of their appearance in the liver and the inflammatory mediators they encounter in their microenvironment
- Demonstrated that inhibiting inducible nitric oxide synthase blocks acute lung injury and fibrogenesis induced by exposure to the bifunctional alkylating agent, nitrogen mustard
- Discovered that brain endorphin has a potent anticancer role
- Showed that endorphin cell therapy prevented breast cancer growth and lung metastasis by increasing body innate immune system and reducing inflammation
- Discovered that natural killer cells are controlled by circadian genes and Jet-lag alters this circadian control of NK cells to promote lung cancers
- Showed that opiate antagonist and agonist combination treatment maintains enhanced immune functions for a prolonged period of time and suppresses breast tumor growth by preventing a newly discovered feedback interaction between two structurally different but functionally similar opioid receptors in immune cells
- Showed chemopreventive effects of novel Gemini vitamin D in breast cancer stem cells
- Completed a preclinical study on the combination treatment of atorvastatin and NSAIDs drugs in the inhibition of colon cancer
- Discovered the novel action of triterpenoids in cartilage regeneration
- Found that Curcumin inhibited the activation of MDSCs, induced the differentiation of MDSCs and suppressed tumor growth
- Found that Curcumin treatment reduced the percentage of MDSCs in the spleen and blood in IL-1beta transgenic mice of gastric cancer
- Found that Curcumin, celecoxib and their combination alleviate gastric inflammation and pathological alteration
- Found that Curcumin, celecoxib and their combination decreased cytokine productions in the stomach of the hIL-1 β mice
- Found that BMD-MFs could reprogram non-Cancer stem cells (CSCs) into CSC-like cells (LCs)
- Found that CSC-LCs exhibited EMT and highly expressed metastatic genes
- Found that cancer cell-derived TGF- β activates BMD-MFs to secrete IL-6

- Found that BMD-MF-secreted IL-6 activated p-Stat3 and upregulated TGF-beta in cancer cells
- Found that BMD-MFs accelerated tumorigenesis in non-cancer stem cells in vivo
- Found that the combination of TGF- β receptor inhibitor and JAK2 inhibitor (JSI-124) inhibited BMD-MF-promoted tumor growth
- Found that BMD-MFs accelerated liver metastasis of non-metastatic cancer cells
- Found that BMD-MF-reprogrammed CSC-LCs developed liver metastasis
- Defined a hierarchy of action between transcription factors CDX2 and HNF4A and chromatin structure acting to control intestinal gene expression
- Demonstrated the cancer preventive activities of γ - and δ - Tocopherols and the lack of it by α -Tocopherols - which may help to explain the disappointing results of some large scale human cancer prevention trials with high doses of α -Tocopherol
- Established colon and prostate carcinogenesis models with a dietary carcinogen 2-amino-1-methyl-6-phenylimidazo[4,5-b]pyridine (PhIP) in Cytochrome P450 1A-humanized mice
- Determined the role of IL-6 in mediating the inhibitory effect of atorvastatin in combination with celecoxib on progression of androgen-dependent LNCaP tumors to androgen independence
- Determined the effects and mechanisms of tocopherols on growth inhibition and apoptosis stimulation in human prostate cancer cells
- Demonstrated that the tyrosine kinase receptor EPHA2, which functions in cancer angiogenesis, also causes human cataracts when mutated
- Showed that the human EPHA2 mutations lead to instability of the receptor and consequent cataracts
- Published a study that provides a systematic approach to examining the potential exposure of the general population to nanoparticles used in household spray disinfectants and cosmetic products
- Determined that the chemical components of currently used artificial turf infill and the synthetic grass fibers do not impact the exposure of persons using athletic fields made of artificial turf.
- Successfully developed an Exposure Index (EI) for the children enrolling in the National Children's Study to estimate individual and population exposures in 40 NCS counties
- Commenced development of a "smart phone" app that connects to the incident command function of the State of NJ Hippocrates online system (a project of the Command, Control, and Interoperability Center for Advanced Data Analysis - CCICADA)

- Developed an “Exposure Ranking Index to characterize exposures of workers related to post 9/11 World Trade Center activities
- Developed a portable and passive exposure monitor for use in detecting all sizes atmospheric particles and contaminants adjacent to hazardous waste sites and residences near roadways.
- Developed methodology for analysis of flame retardants in airplane materials
- Determined a physiological pharmacokinetic model for permethrin to predict risk from the practice of aircraft disinfection, treating of planes with pesticides
- Determine that polyaromatic hydrocarbons and polychlorinated biphenyls are stable in dust over a decade so archived dust samples can be analyzed for these types of compounds to estimate exposures
- Determined that chemicals in artificial turf infill and the synthetic grass fibers are not bioavailable above any soil based standard except for lead, thus the use of these materials as field surfaces should not present a risk to children except for materials that use lead as a coloring agent
- Evaluated prototype, continuous monitoring sensors for measuring particles, carbon monoxide and ozone for use in epidemiological studies
- Demonstrated that macrophage activation in response to acetaminophen is mediated by stem cell kinase
- Showed that nitric oxide synthase is a key mediator of nitrogen mustard-induced lung injury
- Found that toll-like receptor4 is a mediator of ozone-induced lung injury
- Showed in a case controlled clinical study that hexchlorocyclohexane was associated with a risk of developing Parkinson’s disease
- Demonstrated that calpain and ER stress play important roles in pyrethroid-induced apoptosis
- Demonstrated that the sulfur mustard-induced skin toxicity was associated with elevations in the endoplasmic stress response pathway
- Showed that DNA aptamers could be generated as molecular probes of HPC-associated cervical cancer cells
- Published that diesel exhaust inhalation affects expression of cellular pathways related to oxidative stress, coagulation, and proteasome function.
- Published that diesel exhaust particles in vitro impair the immune response against Mycobacterium TB.
- Characterized near-roadway traffic-related air pollutant concentrations in the Ironbound community of Newark NJ

- Published a review of respiratory effects of traffic-related air pollution and domestic biomass burning in the *Journal of Allergy and Clinical Immunology*.
- With collaborators from Rutgers University, determined that increased capillary tube permeability induced by diesel exhaust particles is dependent on oxidative stress mechanisms.
- MG53 Attenuates Ischemia Reperfusion (I/R) Caused Acute Kidney Injury: P Duann UMDNJ RWJ MS; DCI (Non-Govt, Non-Profit) Demonstrated that mitsuguimin53 (MG53), a muscle specific TRIM family protein, treatment of rats with ischemic acute kidney injury (AKI) induced by unilateral renal artery clamping functionally and morphologically protects rats from ischemic AKI
- Regulation of Glomerular DAF by Heme: Role of HO-1: E Lianos UMDNJ RWJMS; Demonstrated that HO-1 regulates glomerular Decay-accelerating factor (DAF) expression. Metalloporhyrins upregulate DAF independently of HO-1 expression/activity
- Over-expression of Heme Oxygenase-1 in Rattus Podocytes Antagonizes Puromycin Aminonucleoside Nephrosis: E Lianos UMDNJ RWJMS: Generated transgenic rat, SB-HO1, with GEC targeted HO-1 overexpression. GEC targeted HO-1 overexpression antagonized puromycin aminonucleoside nephrosis and reduced proteinuria
- Radiocontrast Prophylaxis (RP) in Patients Receiving Chronic Dialysis: J Walker UMDNJ RWJMS; DCI (Non-Govt, Non-Profit) In retrospective cohort study demonstrated that only 20% of study cohort received any type of renal prophylaxis, IV fluid being the most frequent modality. Demonstrated the peritoneal dialysis patients were more likely to receive renal prophylaxis than patients receiving hemodialysis.
- Discovered that the RNA-binding protein IMP3 confers resistance of chronic myeloid leukemia cells to gamma-irradiation-induced apoptosis
- Showed that IMP3 promotes synthesis of insulin-like growth factor-II protein upon exposure of cells to gamma-irradiation
- Discovered that phosphorylation of chaperone Hsp27 promotes degradation of the RNA-binding protein AUF1 by proteasomes thereby promoting stabilization of selected mRNAs
- Demonstrated that lipopolysaccharide-induced expression of anti-inflammatory cytokine interleukin-10 in monocytes requires RNA binding protein AUF1
- Showed that AUF1 promotes translation of TAK1 mRNA to activate NF- κ B signaling in monocytes in response to lipopolysaccharide exposure
- Discovered that tumor suppressor protein von Hippel-Lindau, pVHL, binds AUF1 to control expression of vascular endothelial growth factor, VEGF, mRNA
- Discovered the existence of a novel factor required for selenium utilization in mammals
- Characterized the unique domain within the specialized elongation factor required for selenium utilization in mammals
- Developed a cell-based system to screen for novel male contraceptives that block selenium delivery to Sertoli cells

- Discovered novel activity for VapC family of bacterial toxins from *Mycobacterium tuberculosis*
- Defined the general target specificity for the MazF toxin from the emerging pathogen *Clostridium difficile*
- Discovered that expression of selected bacterial toxins in mammalian cells leads to death by necroptosis
- Demonstrated expression of the *Pseudomonas aeruginosa* Exotoxin A in a eukaryotic model system.
- Determined altered actin bundling by translation elongation factor 1A results altered expression of a subset of messenger RNAs
- Demonstrated the critical role of the ribosome association of fungal specific elongation factor 3 via a nucleic acid binding domain like region
- Initiated experiments to determine the effects of a Type I interferon antagonist in an animal model of HIV.
- Discovered difference in meiotic recombination rate among different human individuals by typing a large number of single sperm
- Discovered a very complex region with large structural variation affecting multiple gene segments in the human immunoglobulin heavy chain gene complex.
- Discovered two new chemical groups that can potentially be used for clearing HIV-1 infections
- Developed the novel concept of single small molecules that can act as dual antagonists of HIV-1 replication and latency
- Found small molecules that can act cooperatively to control expression in a regulated expression for gene therapy applications
- Demonstrated that p75 ^{-/-} mice have better cognitive and motor outcomes following lateral fluid percussion injury than wildtype mice
- Explored whether p75 ^{-/-} mice have less neuronal degeneration and cell death after brain injury than wildtype mice
- Established that VGF promotes the proportion of early rather than later phase neural progenitors in vivo
- Showed that VGF activates CaMKII via NMDA receptors and PKD via mGluR5 receptors
- Discovered that TrkB is required for VGF-induced proliferation of neural progenitor cells in vitro
- Discovered that inherited genetic variants in autism-related CNTNAP2 gene cause severe cellular trafficking abnormalities and elevated endoplasmic reticulum stress

- Discovered that FLRT proteins are endogenous latrophilin ligands and regulate excitatory synapse development
- Demonstrated structural and epigenetic changes in the mouse cortex following traumatic brain injury
- Demonstrated that during early brain development, the neurotherapeutic drug, valproic acid, stimulates proliferation and enhances numbers of brain glial cells, specifically astrocytes
- Demonstrated that metabotropic agonists increase levels of mature oligodendrocyte traits through the mediation of BDNF in a model of Multiple Sclerosis
- Identified astrocytes as a target of the metabotropic agonists in the Multiple Sclerosis model
- Determined that BDNF reverses deficits in oligodendrocyte traits and cholinergic neurons as well as beta-amyloid in a model of Alzheimer's disease
- Continued studies indicating that glial-derived BDNF may impact development of cholinergic neurons and oligodendrocytes in the basal forebrain
- Discovered that the autism associated gene, *Engrailed 2*, is required for normal development of brain monoamine neurotransmitters including norepinephrine, serotonin and dopamine
- Demonstrated that loss of the autism associated gene, *Engrailed 2*, causes reductions in growth of the forebrain associated with marked abnormalities of hippocampal neurogenesis, cell death and spatial learning
- Discovered that in the developing hippocampus, a region critical for learning and memory, the ubiquitous neurotoxin methylmercury induces cell death of neural stem cells, producing cognitive deficits in later life
- Discovered that toxicity to the developing hippocampus induced by the neurotoxin methylmercury can be prevented by a drug, N-acetylcysteine, that is routinely used to combat Tylenol poisoning
- Demonstrated the role of periodic conserved residues in the regulatory protein, tropomyosin, for a universal eucaryotic function, cooperative regulation of contraction by myosin
- Showed that mutation of certain evolutionarily conserved residues in fission yeast tropomyosin alters cytoskeletal organization and function in living cells and reduces actin affinity in vitro
- Characterized the mechanisms that Tcf proteins employ to regulate Sonic Hedgehog (Shh) target gene expression during CNS development
- Discovered that Shh signaling from an intrinsic tissue source in the spinal cord, the floor plate, is specifically required to induce astrocyte subtype fate in the developing mouse spinal cord

- Discovered that adult spinal cord ependymal zone cells, which have stem cell properties, are derived from distinct embryonic lineages
- Demonstrated that increased levels of ENGRAILED2 are correlated with autism risk
- Demonstrated that the orphan GPCR, Gpr161, regulates retinoic acid signaling during neural fold development
- Established a cell based model of Down's syndrome using neuronal cells derived from patient-specific induced pluripotent stem cells by ectopic expression of cell-lineage specific transcription factors
- Developed protocols for single neuronal cell gene expression profiling using Fluidigm BioMark system
- Discovered that mice lacking the proSAAS precursor protein exhibit altered circadian rhythm
- Discovered that mice lacking the proSAAS precursor protein can rescue the lethal diabetic phenotype of CPE KO mice
- Discovered roles of RNA binding proteins in neocortico-genesis
- Discovered roles of timed extracellular morphogen and trophic factors on RNA binding proteins
- Discovered postnatal consequences of transient intrauterine ischemia
- Discovered that Par-1/MARK, a polarity protein implicated in autism, regulates dendritic spine morphogenesis in neurons through phosphorylating PSD-95 on serine 561
- Discovered that Par-1/MARK is activated downstream of NMDA receptors
- Discovered that the polarity protein PAR-3 regulates APP trafficking
- Demonstrated that the WAVE/SCAR proteins are required for nuclear migrations during embryonic and larval growth in *C. elegans*
- Demonstrated that the WAVE/SCAR actin nucleation complex is required to set up anterior/posterior polarity in the *C. elegans* zygote
- Developed assays to measure the role of WAVE/SCAR in endocytosis and protein trafficking
- Demonstrated that the receptor protein DCC (Deleted in colorectal carcinoma) regulates cell outgrowth during vessel formation
- Showed that the receptor protein Roundabout2 plays a role in vessel formation by negatively regulating the activity of the related protein Roundabout1

- Demonstrated that neutrophil gelatinase-associated lipocalin (NGAL) is a biomarker of kidney injury induced by 2,8-dihydroxyadenine (DHA) stones in mice with adenine phosphoribosyltransferase (APRT) deficiency
- Developed, in association with a colleague in the Department of Chemistry, Rutgers, an improved scheme for the chemical synthesis of DHA
- Discovered that cystine dimethyl ester (CDME) is a more effective inhibitor of cystine stone formation than cystine methyl ester (CME) in mice with cystinuria
- Discovered that CDME treatment of mice with cystinuria results in cystine stones that are much smaller than stones from untreated mice
- Demonstrated, in collaboration with a colleague in the Department of Chemistry, New York University, that cystine stones formed in the presence of CDME have a different polymorphic shape (tetragonal) compared with stones from untreated mice (hexagonal)
- Determined, in association with a colleague in the Environmental and Occupational Health Sciences Institute (EOHSI), Rutgers-UMDNJ, the mass spectrum of CDME as a first step in developing a HPLC-MS assay for the analysis of CDME and its metabolites in biological fluids
- Determined, in association with colleagues in the Division of Biomolecular Sciences, Imperial College London (United Kingdom), a procedure for the extraction of CDME and related metabolites in cystine stones from mice with cystinuria
- Implemented, in collaboration with departmental colleagues, molecular assays for the detection of B and T cell receptor gene rearrangements in patients with hematologic malignancies
- Solved the crystal structure of the human beta-cardiac myosin motor domain and mapped cardiomyopathy associated mutations in the structure
- Completed a comprehensive kinetic analysis of the elementary rate constants for recombinant human beta-cardiac myosin
- Children exposed to cocaine show greater retaliatory behavior in peer interactions
- Prenatal cocaine exposure and male gender were associated with greater risk of use of drugs and cigarettes among at-risk, urban adolescents
- Chaotic home environment results in twenty one times more injury behavior in children, especially if exposed to teratogens as fetuses
- Self representation in infants and young children is associated with left temporal parietal defects
- Children with ASD had deficits in self representation abilities compared to a community sample of typically developing children
- Found that infants who subsequently received ASD diagnoses prior to the age of 3 failed to learn a simple contingency at 5 months and 2 sessions, when approximately 80% of normally developing infants do so

- Found that infants' response to frustration is related to difficult temperament. Infants emotional responses to a goal blockage at 5 months can be reduced to three clusters of behavior which are reliable: those who show high levels of reactivity and low anger and little or no sadness, those who show high levels of anger and moderate levels of sadness, those who show moderate levels of anger activity, and little or no sadness
- There is a developmental shift between 3 to 4 years, such that four year olds are better at taking perspective of another. Gifted children show this ability earlier
- The self-conscious emotions of shame, pride, and embarrassment increase in early childhood during success or failure in achievement tasks. However, older children start to hide their emotions
- Children neglected in early childhood show greater shame and depressive symptoms in the early school years
- Adolescent juvenile offenders do not show shame but rather are likely to blame others for their mistakes. Thus blaming others contributes to violent delinquent behavior
- Found that welfare reform in the U.S. led to decreases in illicit drug use among mothers at risk for relying on welfare.
- Found that financial insecurity reduces social connections among mothers with young children.
- Children's response to disgusting stimuli, such as bugs, mutilation and body products is related to increases in phobias
- In poverty families environmental risk declines as the child gets older. Chaotic family life is a major feature of emotional risk
- Maternal depression is significantly associated with chaos and SES factors, as well as with child emotional problems
- Prior to any provocation, children prenatally exposed to cocaine already start out with higher levels of aggression than unexposed children
- Aggression persists longer in boys prenatally exposed to cocaine after a low provocation event
- Teacher-child attachment relationships as defined by closeness significantly contribute to the oral bilingual skills of at-risk preschool children over and above parent-child attachment relationships
- Characterized mechanism by which Pap1 confers resistance to the chemotherapeutic agent camptothecin
- Identified genetic interactions between the Swr1 chromatin remodeling complex and components of the DASH complex, which mediates attachment of spindle microtubules to mitotic chromosomes
- Demonstrated efficacy of mTOR kinase inhibitors toward colorectal cancer

- Discovered a major mechanism of intrinsic drug resistance to mTOR kinase inhibitors in human cancer
- Identified a key biomarker predicting mTOR-targeted cancer therapy.
- Identified a key role for Mg²⁺ in TRPM7's control of ROS levels during cell stress.
- Identified a role for TRPM7 in the regulation of polarized cell movements.
- Established a novel mechanism of enhancer and insulator action over a distance in chromatin (JBC 2012)
- Solved a novel mechanism of FACT action during transcription through chromatin (submitted)
- Identified topoisomerase IIbeta (Top2β) as an important player in determining camptothecin sensitivity in non-S phase or slow-replicating cells
- Described in a recently published article how the recently banned industrial chemical bisphenol A (BPA) interferes with a key protein in humans and mammals
- Discovered that the inositol phosphate pathway regulates autophagy.
- Discovered a novel approach for treating type II diabetes by a new method of activating the AMP-activating kinase (AMPK)
- Found that mTOR is localized in the nucleus of cortical and hippocampal neurons
- Found that the abundance of mTOR in the nucleus is correlated with the extent of neurite regeneration, suggesting that the nuclear mTOR plays a role in neuritogenesis.
- Demonstrated that mTOR binds to the promoters of growth-regulated genes in these neuronal cells.
- Developed a novel antibacterial compound that targets the bacterial cell division protein FtsZ. The compound was found to exhibit potent antistaphylococcal activity in vitro and in vivo via both intravenous and oral routes of administration
- Identified specific domain of Sir2 that is and showed that it is required for facile establishment of silencing
- Showed that that tRNA gene at heterochromatin boundary associates with nuclear pores at mitosis in a cohesin-dependent manner.
- Discovered that a DNA bound transcription factor is responsible for capturing cohesin at model yeast gene locus prior to transcriptional induction
- Advanced Practice Nurses Reduce LOS when Deployed to Augment Weekend Coverage of Level One Trauma Service
- Effects of Traumatic Injury on Colonic Microbiome

- Response to Endotoxin in Healthy Volunteers
- Approved by FDA and IRB, The Efficacy and Safety of High Dose Vitamin C in the Critically Ill Patient
- Complications of Pre-hospital Intubation Due to Body Mass Index (BMI) vs. Weight
- Determining Practice Patterns of Transfusion of Blood Product in Patients with Lethal Brain Injury to Optimize Organ Procurement
- HIDA Confirmation of Cholecystitis: Does It Effect Our Decision for Surgery
- 21st Century Trauma Care and the Social Media Revolution Basic Sciences
- STOP-IT Study on the Duration of Antibiotics in Intra-Abdominal Sepsis: M.Tinti, RWJMS; Department Funded
- Prevention of Tracheostomy Wound Breakdown With Use of Lyofoam
- Hemodilution in Surgery
- Hemodilution in HHH Therapy
- Satisfaction with APN as SICU Bed
- Discovered that novel antagonists of the type I Bone Morphogenetic Protein (BMP) receptors decreases growth and induces cell death of lung cancer cell lines
- Discovered that activating Ras mutations in lung cancer may induce partial resistance to BMP receptor antagonists, which can be overcome by Src antagonists
- Continued to investigate the mechanism by which in vivo endotoxin triggers transient changes in ATP levels and autophagy in human leukocytes, mice leukocytes and liver
- Determined that TLR3 co-regulates AMPK function and HIF-1 α expression in mice leukocytes and liver
- Investigated the roles of TLR3 and TLR4 in regulating the cellular bioenergetics in vitro in human leukocytes and murine Raw cells
- Investigated the metabolic regulatory functions of TLR3 and TLR4 using the cecal ligation and puncture mouse model of sepsis
- Discovered a unique metabolic protein expression signature in human leukocytes challenged with in vivo endotoxin
- Initiated proof-of-concept studies sponsored by the Technology Transfer Office of UMDNJ-RWJMS to determine whether select leukocyte clock- and metabolic-gene expression changes can be used to monitor inflammation
- Developed overlap extension PCR for assembly of RNA interference DNA cassettes

- Discovered a chromatin relaxation mechanism controlling reprogramming of human fibroblasts into functional glial cells
- Developed a bank of recombinant DNA clones for neural cell reprogramming
- Optimized transfection of human cells for cell reprogramming
- Developed a cell transplant / cell recovery model for analysis of cell reprogramming in vivo research projects
- R.D. McKinnon (PI), New Jersey Commission on Spinal Cord Research, Reprogramming Fibroblasts to OPCs for SCI Repair; June 2011-2014
- Initiated project for developing new and personalized approaches for healing challenging wounds, funded by Feldstein Medical Foundation
- Continued studies into the role of MG53 in cytoprotection after ischemia-reperfusion injury, in collaboration with Department of Biophysics and Physiology, UMDNJ-Robert Wood Johnson Medical School; funded by High-Impact Collaborative Award from the Foundation of UMDNJ
- Continued studies into the role of glial scar matrix in axonal regeneration, in collaboration with W.M. Keck Center for Collaborative Neuroscience, Rutgers University
- Continued studies examining the mutually dependent relationship between fibronectin matrix assembly and internalization of alpha-5 integrin, in collaboration with Division of Surgical Science, Department of Surgery, UMDNJ-Robert Wood Johnson Medical School
- Discovered that fibronectin plays a key role in heterogeneous cell-cell interactions and cohesion, in collaboration with Division of Surgical Science, Department of Surgery, UMDNJ-Robert Wood Johnson Medical School
- Continued studies examining how the microenvironment can reversibly modulate the fibrogenic potential of human mesenchymal stem cells, in collaboration with Department of Molecular Biology, Princeton University
- Initiated collaboration with scientific research team at LifeCell to develop surgical research fellowship in the area of wound healing for Robert Wood Johnson general surgery residents, in collaboration with Division of General Surgery, Department of Surgery, UMDNJ-Robert Wood Johnson Medical School
- Developed human breast cancer xenograft model for assessing mechanistic parameters
- Developed a polymer-based vaccine formulation for administration to the tumor microenvironment
- Refined first-in-man pancreatic cancer vaccine strategy and tested in Phase I trials
- Demonstrated that autophagy facilitates mitochondrial metabolism and tumor cell survival revealing for the first time how autophagy supports tumor growth under oncogene activation

- With Siobhan Corbett, MD and Susette Coyle, RN, MSN, prepared a new FDA IND application for intravenous endotoxin administration in otherwise normal human volunteers
- IND #14869, entitled "Clinical Center Reference Endotoxin (E. Coli)", was approved by the FDA on 04 November 2011 with Siobhan A. Corbett, MD as the principal investigator and sponsor
- Began testing Clinical Center Reference Endotoxin Injection, lot 3, by studying the differential regulation of monocyte and neutrophil cell-surface receptors, pro- and anti-inflammatory cytokine production and counter-regulatory hormone production in human volunteers administered intravenous endotoxin
- Continued studies of gene expression by microarray analyses in blood leukocytes and purified subsets of blood leukocytes (monocytes, T-lymphocytes, neutrophils) in human volunteers after intravenous endotoxin administration
- With collaborators in the Department of Biomedical Engineering at Rutgers University, continued further to develop differential equation-based mathematical models of the human inflammatory response (with Ioannis Androulakis, PhD)
- Determined that constitutive recycling of FN integrin is dependent on FN matrix assembly. In the absence of FN or in the presence of a FN fragment containing the cell-binding domain, internalized integrin is targeted for degradation
- Using mutational analysis, identified key lysine residues in the alpha 5 integrin cytoplasmic tail that, when mutated to alanine, confer protection from integrin degradation
- Assumed responsibility for management of laboratory and completed the formal requirements necessary for conducting human endotoxin studies and for obtaining new endotoxin from the NIH
- Conducted two volunteer trials of Clinical Center Reference Endotoxin Injection, lot 3, by studying the differential regulation of monocyte and neutrophil cell-surface receptors, pro- and anti-inflammatory cytokine production and counter-regulatory hormone production in human volunteers administered intravenous endotoxin
- Initiated collaboration with Lee Kerkhof, PhD who is an expert in microbial population dynamics to begin studies on how critical illness may alter colonic microbiome and in turn, microbial metabolites important for immune health
- Initiated project with Metabolon to track changes in plasma metabolome over time following endotoxin administration
- Submitted R01 grant in collaboration with Department of Biomedical Engineering at Rutgers University, to develop differential equation-based mathematical models of the human inflammatory response (with Ioannis Androulakis, PhD)
- Generated all the cohesion data for the human cell lines C4-2B4 and ARCaP
- Used a new MEK inhibitor (AZD6244) to explore effects on FNMA

- Generated many/most of the cell lines required to address the role of FNMA in modulating cohesion and tumor-stromal cell interaction. Bulleted progress is appended to this application
- Performed immunoblot, flow cytometry, and immunofluorescent techniques to characterize the cell surface adhesion protein integrin- $\alpha 5\beta 1$ of cell lines; RWPE-1, PC-3, PC-3M-LN4, LNCaP and DU-145. Normal prostate epithelium (RWPE-1) expresses much higher levels of integrin- $\alpha 5\beta 1$ when compared to PCa lines
- Analyzed fibronectin matrix assembly by fluorescent staining in the PCa cell lines PC-3, PC-3M-LN4, DU145, and LNCaP. All cell lines were unable to form a significant matrix in 2D
- Performed biochemical matrix assembly experiments on PC-3, DU-145, and LNCaP cells and showed that these cell lines lack capacity for FNMA
- Tested PC-3, DU145, and LNCap cell lines for their response to pharmacological inducers of fibronectin matrix assembly (Meki, Dexamethasone, Geldenamycin). These lines did not respond to pharmacological treatment
- PCa cell lines PC-3, DU-145, and LNCaP were stably transfected with a construct encoding human integrin- $\alpha 5$ and a neomycin resistance marker
- Generated stable transfectants of PC-3, DU-145, and LNCap by selection in neomycin. PC-3 and DU-145 cells were sorted via FACS several times to yield a highly expressing population of cells
- Transfected cell lines were characterized for their expression of integrin- $\alpha 5\beta 1$ via immunoblot and flow cytometry. All transfected lines expressed high levels of integrin- $\alpha 5\beta 1$, relative to untransfected parental lines
- Transfected PC-3 cells were stably transfected with a construct encoding a human integrin- $\alpha 5$ -GFP fusion protein and a neomycin resistance marker
- PC3/ $\alpha 5$ -GFP cells were selected in neomycin and repeatedly sorted by FACS
- Characterized PC-3/ $\alpha 5$ -GFP cells for expression of the $\alpha 5$ -GFP fusion protein via immunoblot and flow cytometry. PC-3/ $\alpha 5$ -GFP expressed higher levels of $\alpha 5$ when compared to the untransfected parental PC-3 cell line
- Performed compaction assays on transfected lines and their parental counterparts
- Immunohistochemical staining was performed on histopathologically graded prostate biopsies. Tissues were analyzed for the presence of fibronectin matrix, as well as integrin $\alpha 5$
- Immunoblots were performed in order to detect levels of CD105 in PCa cell lines
- Analysis of prostate tumor microarrays revealed that FNMA was disorganized and punctate in the most invasive cores. Meanwhile, the matrix was more organized and extended in normal and less invasive cores

- LnCaP, DU-145, and PC-3 (CaP cells) failed to assemble a fibronectin matrix when treated with LPA at concentrations ranging from 20-100uM; either for 1 hour or overnight
- Determined that human CaP cells were unable to reactivated FNMA when treated with PMA (100nM-1uM) for either one hour or overnight
- Demonstrated that human CaP cells did not reactivate FNMA when treated with SRCi AZD0530 or MEKi AZD6244
- Showed that human CaP cells failed to assemble a fibronectin matrix when treated with cationic manganese (0.1-0.2mM). However, cells exposed to soluble rat plasma fibronectin for 24 hours prior to treatment with manganese were better able to bind fibronectin to their cell surface when compared to treated cells alone
- Showed that TRAMPC1 and TRAMPC2 express high levels of alpha5beta1, E-cadherin and are able to assemble an extensive fibronectin matrix. These cells were also able to compact better than human CaP cells unable to assemble a matrix
- Total ERK protein was similar between CaP cells and normal prostate epithelial cell line RWPE-1. However, phosphorylated ERK was most pronounced in TRAMPC1, TRAMPC2, and RWPE-1 cell lines
- Demonstrated that HPrSC were able to assemble a fibronectin matrix, and expressed high levels of beta-1 and activated beta-1
- Showed that both CaP cells and RWPE-1 express vinculin
- Demonstrated that actin cytoskeletal organization was similar between CaP cells and their transfected counterparts expressing wild type human alpha-5. However, transfected cells had extensive branching and lamellipodial extension
- Showed that both CaP cells and RWPE-1 express syndecan-2
- Demonstrated that CaP cells expressed reduced levels of syndecan-4; PC-3 expresses the least
- PC-3 cells were lipofected with a construct encoding mouse syndecan-4. These cells were subsequently selected and subjected to FACS in order to isolate syndecan-4 expressing cells
- Published a paper in PLoS One on the glioma cell lines
- Initiated studies on FNMA in archived human brain tumor samples
- Initiated studies on TST and dispersal velocity of archived human brain tumor samples
- Initiated studies on actin organization in response to Dexamethasone treatment of archived human brain tumor samples
- Explored the effects of dex on FNMA, dispersal velocity, and tissue surface tension

- Established a collaboration with a group at the NIH to explore the role of islet cell ratios on islet architecture
- Showed that human islet cells can self-assemble into an islet-like structure unless the ratio of alpha to beta cells is less than 20:80
- Showed that antibacterial prophylaxis (bowel preparatory antibiotic treatment) used to reduce the incidence of postoperative sepsis is ineffective in eliminating Bacteroidetes, a major constituent of the gut bacterial flora that induces pro-inflammatory cytokines causing sepsis
- Continued ongoing studies to define the effects of Bacteroidetes on the development and progression of gut mucosal injury and sepsis
- Collaborated with Dr. Kouichi Ito, Department of Neurology RWJ SPH, to study the effect of commensal bacteria on the development of encephalitogenic T cells
- Determined that expression of 2B4 (shown by our lab as a major biomarker for gut immune cells in mice and humans) is very low among gut hematopoietic cells early in life, reaches its maximum at adulthood, and significantly decreases with age
- Demonstrated that gut bacterial flora drives 2B4 expression on gut immune cells, and that change of the gut flora composition with antibiotic therapy and obesity affect 2B4 expression
- Ongoing functional studies on the role of 2B4 in gut immunity using 2B4 knock-out mice (provided to us by our collaborators, the Dallas-Southwestern University)
- Continued ongoing studies to define the role of CD70 costimulation in the gut and periphery using CD70 knock-out mice that we generated in our lab
- Ongoing studies to define the role of mammary milk cells in the development and function of the immune system in neonates and infants
- Examined Effect of New Compounds on Cystine Stone Formation in Knock Out Mouse Model
- Determined that Bladder Dysfunction in Cystinuria Male Mice is Associated with Apical Membrane, Cytoskeletal and Epithelial to Mesenchymal Alterations
- The Role of Transforming Growth Factor-Beta (TGF- β) Neutralizing Antibody (1D11) in Preclinical Experiments for Prostate Cancer
- Evaluated the Relationship Between BMP-6 and Obesity in Transgenic Mice
- Developed a Model for BMP-6 Manipulation in Zebrafish
- Determining if Procalcitonin and Interleukin-6 Differentiate Identify Significant UTI in Patients in Long Term Care Facilities
- Continued differentiation analysis of carotid plaque in an ex-vivo model assessing a newly derived class of anti-cholesterol polymers through the phase one Coulter Grant

- Furthered the investigation of a viable and realistic teaching model for carotid angioplasty and stenting with use of an anti-embolic protection filter in comparison with computer simulated models.
- Discovered that GATA-6 regulates BMP-2 expression to protect epiblast cells from apoptosis (Molecular Biology of the Cell, in revision)
- Demonstrated for the first time that GATA-6 directly binds to the promoter of BMP-2
- Demonstrated that Bnip3 and AIF cooperates to promote apoptosis and cavitation during epithelial morphogenesis (accepted by Journal of Cell Biology)
- Discovered that AIF induces apoptosis through reactive oxygen species-dependent stabilization of hypoxia-inducible factors and upregulation of Bnip3
- Demonstrated that $\alpha 1$ integrin-mediated signaling is required for migration and myofibroblastic differentiation of fibroblasts on nanofibers scaffolds (published in Biomaterials)
- Demonstrated that type I collagen cleavage is essential for effective fibrotic repair after myocardial infarction (published in American Journal of Pathology)
- Demonstrated that CREG regulates vascular endothelial cell migration through ILK, Akt, mTOR and VEGF (published in Experimental Cell Research)
- Demonstrated that the binding of bacterial transcriptional regulators DksA and TraR to RNA polymerase occurs through cooperative interaction with two structural elements: the SI1-domain, a sequence insertion element in the β -subunit, and the β' -subunit coiled coil element that forms the rim of the enzyme's secondary channel
- Found that both stimulatory and inhibitory activities of *E. coli* DksA depend on electrostatic interactions between conserved residues of the N-terminal domain of DksA and the β' trigger loop element of RNAP
- Performed comparative CHIP-on-chip analysis of chromosomal distribution of *E. coli* transcript cleavage factor GreA and RNA polymerase under normal growth conditions
- Found that *E. coli* GreA is a specific elongation factor which does not always accompany RNA polymerase: only ~49% of DNA sites occupied by RNA polymerase contain GreA, of which one third are promoter-proximal sites and two thirds are sites located >100 bp downstream from promoter regions
- Discovered that *E. coli* GreA is predominantly associated with RNA polymerase molecules transcribing RNA-coding genes
- Demonstrated that the distinct seed regions of the mature miRNAs encoded by the mouse miR-290-295 cluster are conserved in its human miR-371-373 homologs
- Optimized the High Throughput Sequencing - Crosslinked Immunoprecipitation (HITS-CLIP) procedure for experimental discovery of miRNA targets to utilize an antibody against the endogenous Ago protein instead of relying on the immunoprecipitation of affinity-tagged overexpressed Ago protein

- Generated small scale HITS-CLIP libraries from mouse ES cells and performed their initial characterization
- Discovered a previously unknown role of the ubiquitin ligase Rsp5 in maintaining the stability of cytoplasmic ribosomes
- Discovered that the drug rapamycin triggers extensive ribosome turnover in yeast cells
- Demonstrated the importance of the exosome function and its cofactors for the efficient ribosomal RNA decay in the cytoplasm
- Discovered that acetylation of a non-histone transcription factor controls meiotic development
- Generated a knockout mouse to study tumor progression and drug resistance
- Discovered that Sirtuin-3 sensitizes cancer cells to apoptosis induced by chemotherapeutics
- Characterized a novel regulator of neural stem cell development
- Delineation of mechanisms that control tumor cell growth and migration in an effort to elucidate targets for cancer drug development
- Designed and filed thirteen provisional patents for the development of diagnostic blood tests that detect the presence of various cancers using protein microarrays as targets for disease-specific autoantibodies in human sera
- Completed and published studies demonstrating that neurons in the adult human and mouse brain express peptidyl arginine deiminase 4 (PAD4) as a damage-response mechanism that appears to conserve energy expenditure and redirect cellular resources to a repair mode
- Proposed that post-translational modification of proteins by PAD enzymes, which results in protein citrullination, may lead to the generation of brain-reactive autoantibodies that can trigger neurodegenerative diseases
- Completed studies showing that the conditions of diabetes mellitus and hypercholesterolemia in a porcine animal model result in chronically increased gene and protein expression of the key tight junction proteins that form the structural basis of the blood-brain barrier, claudin 5 and occludin
- Continued the development of a new biotechnology company, Beren Technologies, that will focus on developing and refining new diagnostic tests aimed at the early detection of various cancers
- Initiated a study funded by the Michael J. Fox Foundation aimed at verifying the diagnostic accuracy of our chosen panel of 10 disease-specific autoantibody biomarkers using a larger patient cohort

- Initiated a study aimed at developing a diagnostic test for the early detection of Parkinson's disease using autoantibodies as diagnostic indicators and human protein microarrays as a detection platform
- Completed studies showing that it may be possible to accurately distinguish and detect the various clinical stages of Parkinson's disease using autoantibodies as diagnostic biomarkers and human protein microarrays as a testing platform
- Initiated a biomarker discovery study aimed at detecting and identifying blood-borne autoantibodies that can serve as early diagnostic indicators of multiple sclerosis
- Initiated a study that seeks to determine if autism is caused by the presence in the blood of certain brain-reactive autoantibodies in combination with a developmental delay in the formation and closure of the blood-brain barrier in early infancy
- Completed a study revealing that humans typically have over 6,000 autoantibodies at any one time in their serum and that human autoantibody profiles are stable over long time periods and can be used to detect the presence of ongoing disease
- Completed a study showing that the presence of abundant autoantibodies in the blood is evolutionarily conserved among all mammals
- Initiated a study in a mouse model aimed at testing the hypothesis that post-surgical delirium is due to an anesthetic-induced transient breakdown of the blood-brain barrier and the disruption of brain homeostasis caused by the resulting plasma influx into the brain tissue
- Demonstrated conclusively that gingival epithelial cells can convert inactive vitamin D to the active form
- Demonstrated the potent activity of antimicrobial peptide mimetics against oral infections of *Candida albicans* in a mouse model
- Showed that antimicrobial peptide mimetics kill fungi by acting on the fungal cell membrane
- Isolated a new antimicrobial and antibiofilm compound from *Citrobacter freundii* which could be used against pathogenic bacteria and biofilms
- Developed a new method for isolating novel biofilm-derived compounds for controlling pathogenic bacteria and biofilms
- Developed a new method for measuring biofilm movement in flow cell systems
- Developed a new system which allows the culturing of microorganisms in adverse environmental conditions
- Examined the potential use of predatory bacteria to manage and reduce bacteria associated with human infection including oral disease
- Examined the potential use of predatory bacteria to control infection caused by single and multi-specie biofilms

- Determined the host specificity of predatory bacteria from the genera *Bdellovibrio* and *Micavibrio*
- Examined environmental and biological factors which influence the predation aptitude of *Bdellovibrio* and *Micavibrio*
- Determined the effect of predation on host bacteria at the molecular level
- Isolated new genes involved in predator-prey interactions in *Bdellovibrio bacteriovorus* and *Micavibrio*
- Identified the toxicity of RTX-toxin produced by *K. kingae*
- Performed whole genome sequencing *K. kingae* septic arthritis isolate
- Performed *K. kingae* clinical isolates genotyping
- Discovered that Leukotoxin can deplete HIV-infected cells
- Discovered the Leukotoxin kills monocytes using a novel, lysosomal-mediated mechanism
- Discovered genetic pathways that regulate the influence of tumor suppressor genes in the development of germinal center-derived B cell lymphomas in a rodent model
- Discovered that a human germinal center derived B cell lymphomas, and other cancers express proteins coded for by human endogenous retroviral genes
- Showed that periodontal disease induces systemic immune responses that impact lymphocyte population
- Showed in rodent model of diabetes that the systemic immune responses gravely influence the development of periodontal disease
- Discovered a small peptide that interferes with the attachment of *Aggregatibacter actinomycetemcomitans* to mucosal tissue
- Discovered a salivary glycoprotein, cystatin A that has the ability to kill *A. actinomycetemcomitans*
- Discovered a cytokine MIP1Alpha that appears to detect periodontal bone loss 6-9 months prior to radiographic evidence of periodontal disease
- Discovered a compound derived from garlic that has potent killing activity Antimicrob Agents Chemotherapy In vitro efficacy of diallyl sulfides against the periodontopathogen *Aggregatibacter actinomycetemcomitans*
- Demonstrated the first genome sequence of a primate oral bacteria *Aggregatibacter actinomycetemcomitans*
- Discovered a new way of detecting oral bacteria using a convection current PCR
- Developed a new statistical method to detect differentially expressed proteins using continuously measured label-free quantitative data, with special attention to a proper handling of missing data

- Demonstrated the similarities and differences in ambient particulate matter across major U.S. cities; conducted a quantitative research synthesis on the associations between personal NO₂ exposures and ambient NO₂ concentrations
- Demonstrated that small silver nanoparticles (20nm) are more toxic than large ones (110nm) in in-vitro cytokine and gene expression assays with human cells
- Used phenomenology method to describe the lived experiences of the behavioral change nutritional practices of pre-K students
- Discovered that women's concerns about routine prenatal HIV testing could be grouped into the categories of fear, protecting the baby, protecting the woman, confidentiality and stigma
- Suggested strategies for addressing the concerns related to themes of education and information, normalizing HIV testing, patient-provider relationships, systems and private communication
- Demonstrated effectiveness of in person and online web 2.0 group meetings for community mobilization of self-care of health with women infected or affected by HIV in Jersey City and Paterson
- Discovered that individual motivational differences were associated with women's productivity in community mobilization, with autonomous motivation associated with greater productivity
- Demonstrated that the Access to Reproductive Care and HIV Services (ARCH) program of co-located nursing services in New Jersey's syringe exchange programs (SAPs) effectively increases access to a range of health services and HIV prevention by men and women who are active substance users
- Demonstrated that the ARCH program addresses missed opportunities for perinatal HIV prevention among active substance users and/or their partners by supporting effective access to reproductive health counseling, pregnancy testing and effective referrals and linkages to HIV testing, prenatal care and substance abuse treatment
- Examined missed opportunities for prevention of perinatal HIV transmission through in-depth retrospective case reviews of HIV-infected and exposed infants born at two Newark medical centers and chart reviews and interviews of their mothers
- Developed and implemented a distance mentorship program for New Investigators in HIV research from resource-limited settings for International Maternal Pediatrics and Adolescents AIDS Clinical Trial Group (IMPAACT)
- Examined the preferred rape disclosure methods and factors influencing psychological outcomes in rape victims
- Assessed the potential of salivary endothelin-1 for detecting oral cancer in patients with oral lichen planus or oral cancer in remission

- Examined salivary basic fibroblast growth factor as a biomarker for oral squamous cell carcinoma (OSCC) in oral lichen planus patients and patients monitored for OSCC recurrence
- Studied the perceptions of smoking initiation among highly susceptible precontemplators in urban low income communities
- Examined the differentiation and care of acute delirium
- Assessed the effectiveness of exercise therapy for non-specific low-back pain

TRANSLATIONAL RESEARCH

- Participated in a published study reporting a molecular classification of prostate cancers based on gene expression profiles
- Completed and submitted research on the angular dependency of MOSFET detectors and its impact on in vivo dosimetry of breast cancer patients
- Participated in research aimed at comparing the difference between fiducial markers in various imaging modalities
- Contributed to a project to improve the statistical soundness in Intensity Modulated Radiation Treatment (IMRT)
- Performed data acquisition and modeling for fluoroscopy based pre-treatment patient setup methodology
- Completed and submitted research focusing on the development of machine learning, deformable registration and their application in image based patient setup
- Completed the development of a manual contouring tool for fluoroscopy images
- Initiated research to analyze the correlation between heart motion and tumor movement for lung cancer patients
- Developed a web based educational tool for breast cancer target volume delineation
- Collaborated on a national task force and published an article on the metrics used to develop, conduct and evaluate a successful cancer nurse navigation program
- Presented anatomic considerations and dosimetric data on image guided low dose rate brachytherapy at the World Congress of Brachytherapy
- Presented epidemiologic study on racial disparities in breast cancer treatment in New Jersey at the National American Public Health Association Conference
- Presented the CINJ Network experience and lessons learned as beta test site members for the Commission on Cancer's National Cancer Data base Rapid Quality Reporting System at a national workshop

- Completed and published a study determining the optimal fiducial marker across image guided radiation therapy modalities
- Completed and published a study of the significance of IFIT-1 in early stage breast cancer
- Published a study of the utilization of radiation in early stage breast cancer
- Collaborated as co-investigator for National Trial on Neo-adjuvant therapy and radiation for breast cancer
- Collaborated as co-investigator for National Trial on Partial Breast Re-Irradiation for breast cancer
- Collaborated as co-investigator for 3 institution novel study partial breast irradiation using brachytherapy for newly diagnosed breast cancer
- Completed and published a study on 53BP1 and local relapse in breast cancer
- Completed and published a study on partial breast irradiation for breast cancer
- Completed and published a review of accelerated radiation in breast cancer
- Completed and published a study of BRCA1/BRCA2 in Korean Breast Cancer patients
- Completed and published a study on VCAM-1 in breast cancer with collaborators from Princeton University
- Completed and published a study on a novel marker DEADBOX in breast cancer
- Completed and published a study on p53 and BRCA1 in breast cancer
- Completed and published a study on estrogen receptor quantification in breast cancer using a novel technique
- Published a study, as co-author, on the relationship between ethics and the law on informed consent for disparities in hospital outcomes
- Completed a study on and submitted an abstract to the American Radium Society on factors associated with patient enrollment in 2 in-house accelerated breast radiotherapy protocols
- Completed and published a review on the most recent Early Breast Cancer Trialists' Collaborative Group meta-analysis
- Completed a study on and submitted an abstract to the American Society of Radiation Oncology evaluating treatment delays faced by African American patients between diagnosis and treatment of oropharyngeal cancer, using NCDB data
- Completed and published a study on Anterior mediastinal mass in a young marijuana smoker: a rare case of small-cell lung cancer

- Completed and published a study on A novel paradigm in the treatment of oligometastatic non-small cell lung cancer
- Completed and published a study on Changes in liver and spleen volumes and liver function after radioembolization with yttrium-90 resin microspheres
- Completed and submitted for publication a study inferring drug interactions from the pooled analysis of clinical trial reports
- Completed and published a study on the Importance of Initial Aggressive Treatment for Pineal Parenchymal Tumor of Intermediate Differentiation: A Case Report and Review of Literature
- Completed a study and submitted an abstract on the Use of a non-coplanar half-beam block on the lower spinal field to decrease the maximum bowel and cumulative dose in craniospinal irradiation
- Initiated a study on the impact of treatment couch on beam attenuation
- Completed and published a genome-scale model of human cell metabolism
- Completed and published a report on the long-term toxicities with 5-day balloon brachytherapy based accelerated partial breast irradiation (APBI)
- Completed enrollment on the first cohort for a clinical trial of a novel, short course APBI schedule delivered over 2 days. Acute toxicities reported from the first cohort, and enrollment on second cohort initiated
- Developed a novel prone treatment technique for testicular non-Hodgkin's lymphoma
- Published characterization of respiratory motion in external beam partial breast patients and implications for target definition
- Completed and submitted for publication a study of the relationship between heterogeneity-corrected and uncorrected maximum critical structure doses in breast balloon brachytherapy patients
- Initiated collaboration with I-Star laboratory at Johns Hopkins to develop deformable registration between pre-operative and post-operative images of patients undergoing breast conserving therapy
- Initiated collaboration with William Beaumont Hospital to study correlation of heterogeneity-corrected dose and toxicity in breast balloon brachytherapy patients
- Investigated concurrent segmentation of the prostate on MRI and CT via linked statistical shape models for radiotherapy planning
- Completed and submitted a review paper on treatment of recurrent metastatic head and neck cancer: focus on Cetuximab

- Implemented a patient positioning optimization method to improve efficacy of fiducial marker-based image-guided radiation therapy in prostate Tomotherapy and potential dose coverage improvement
- Investigated gastrointestinal toxicities following radiation therapy for prostate cancer using SEER Medicare Database
- Investigated and wrote a case report on Cetuximab as primary treatment for Cutaneous Squamous cell carcinoma to the neck
- Collaborated on a review paper of Adjuvant radiotherapy after radical prostatectomy: evidence and analysis
- Completed and published a study on DCIS in African-American vs. Caucasian women who received breast conserving surgery and whole breast radiotherapy
- Completed and published a study on Concurrent segmentation of the prostate on MRI and CT via linked statistical shape models for radiotherapy planning
- Completed and published a study on Multi-Institutional Experience of Ductal Carcinoma In-Situ in African American versus White Patients Treated With Breast Conserving Surgery and Whole Breast Radiation Therapy
- Completed and published a study on Comparison of radiation-induced fatigue across 3 different radiotherapeutic methods for early stage breast cancer
- Completed and published a study on A comparison of helical intensity-modulated radiotherapy, intensity-modulated radiotherapy, and 3D-conformal radiation therapy for pancreatic cancer
- Completed a study and submitted an abstract on CT Image Guidance for Low Dose Rate Brachytherapy for Cervical Cancer: Transitioning from 2D to 3D
- Completed a study and submitted an abstract on Early Results of a Novel Hypofractionated Schedule for Adjuvant Radiation Therapy in Early-Stage Breast Cancer
- Completed a study and submitted an abstract on Certificate of Need (CON) Status and its Impact on Overtreatment of Low Risk Prostate Cancer in the Elderly
- Initiated a study in a 4D adaptive approach to improve pre-treatment positioning accuracy in lung cancer radiation treatments
- Completed and submitted for publication a study inferring drug interactions from the pooled analysis of clinical trial reports
- Completed and published a study in the ATM kinase signaling induced by the low-energy β -particles
- Completed and published a study in efficacy of fiducial marker-based IGRT in prostate Tomotherapy
- Completed and published a study in motion study of breast irradiation

- Completed and published a study in investigation of intra-fractional target motions in partial breast radiation treatments
- Completed and published a study in the use of fiducial markers in IGRT
- Completed and published a study in the motion pattern of left- and right-sided breast during APBI
- Completed and published a study in radiotherapy quality assurance analysis
- Completed and published a study in dynamic pattern of seroma cavity in APBI
- Initiated a study in a quantitative study of the correlations of lung tumor motion to cardiac and respiratory motion
- Initiated a study in motion pattern for liver tumor and its correlation to external surrogates
- Initiated a study in objected constrained registration and manifold learning: a new patient setup approach in image guided radiation therapy of thoracic cancer
- Initiated a study in a clinical object IMRT QA method based on partial dosimetry and electronic portal imager device
- Completed the development of a new clinical objective IMRT QA procedure
- Initiated a study on the radiation enhancement of gold nano-particles in megavoltage radiation therapy
- Developed human breast cancer xenograft model for assessing mechanistic parameters
- Developed a polymer-based vaccine formulation for administration to the tumor microenvironment
- Refined first-in-man pancreatic cancer vaccine strategy and tested in Phase I trials
- Found that Abiraterone's efficacy shows the importance of androgen signaling in patients with castrate-resistant metastatic disease, with additional confirmation from recent studies of other novel agents such as MDV3100, an androgen receptor signaling inhibitor
- Demonstrated that oral administration of Riluzole, at the highest FDA-approved dose, can cause shrinkage of advanced melanoma tumors and stabilization of disease in 34% of patients treated on a Phase II clinical trial
- Demonstrated that the oral administration of Riluzole can inhibit signaling through the MAPK and PI3K/AKT pathways in vivo in patients with melanoma and that this inhibition correlates with response to treatment
- Demonstrated through a Phase I trial that the oral administration of Riluzole, at the highest FDA-approved doses, combined with a standard dose of Sorafenib, is well tolerated by patients with advanced melanoma

- Evaluated breast cancer patient participation behavior and coping during pre-surgical consultations
- Explored the negative association between patient self-initiated questions and aspects of patient satisfaction during consultation with surgeons prior to breast-cancer surgery
- Demonstrated the Optimal PTV Margin in Patients with Fiducial Markers Treated with Accelerated Partial Breast Irradiation (APBI) using 3D-CRT
- Evaluated the effect of post-mastectomy radiotherapy on tumor recurrence rate in patients with T1-2 disease and 1-3 positive nodes
- Discovered bone morphogenetic protein-6 and M2 polarization of macrophages in renal cell carcinoma
- Discovered bone morphogenetic protein-6, macrophages, and castration resistance in prostate cancer
- Showed maximum tolerated dose for weekly paclitaxel and bortezomib combination was 60 and 1.0 mg/m², respectively, using modified continual reassessment method adapted for 2-drug escalation. Treatment was generally well tolerated and produced disease stabilization and/or regression in one third of evaluable patients, several of whom had received prior taxane exposure
- Initiated a research program focused on developing optical imaging systems for cancer diagnosis
- Received U.S. Food & Drug Administration clearance for the Prostate Mechanical Imaging device which provides real-time 2D and 3D tactile elasticity images of prostate and prostate abnormalities
- Found that omega-3 fatty acids in HFFO diet have beneficial effects against UVB-induced skin carcinogenesis, and these effects may be associated with an inhibition on UVB-induced inflammatory response
- Found that voluntary exercise in combination with oral caffeine exerts a stronger effect than either treatment alone for decreasing tissue fat, increasing UVB-induced apoptosis, lowering the levels of cytokines associated with inflammation and for inhibiting UVB-induced carcinogenesis in UVB-pretreated high-risk mice
- Demonstrated that surgical removal of a specific tissue fat results in inhibition of carcinogenesis in obese mice. This inhibition was associated with an increase in apoptosis and a decrease in proliferation in tumors and in precancerous areas away from tumors
- Found that when used together by clinicians with appropriate knowledge, training, and experience, dermatoscopy and confocal microscopy are noninvasive tools that allow dermatologists to gather pertinent information about the gross morphological and cellular features of the lesion, thus improving diagnostic accuracy before deciding to biopsy

- Demonstrated that breast cancer WBC specimens show differential response to proteasome inhibition. Because proteasome inhibitors are potential cancer therapeutic agents, identifying patients who would be most receptive to this treatment regimen is crucial. A provisional patent application was filed.
- Continued evaluation of CTA Measurement of Pro-angiogenic Markers in Patients with Hepatic Metastases undergoing Selective Internal Radiation Therapy
- Performed preclinical studies to test the potential of neural stem cell-based therapy in an animal model of White Matter Disease
- Conducted proof-of-concept gene transfer studies to generate an intravenous deliverable gene therapeutic for the treatment of Canavan Disease
- Tested the hypothesis that metabolic therapy can mitigate the degeneration associated with White Matter Disease
- Assessed whether targeted overexpression of specific genes in neurons using recombinant viral vectors lead to the reduction of cells death and associated pathology in models of neurodegenerative diseases as well as traumatic brain injury
- Evaluated the long-term stability of ceramic abutments utilized with dental implants using torqueanalysis, SEM and elemental analysis
- Studied the stresses in prostheses supported by dental implants and impact of these stresses on the structural integrity of the implants
- Completed a study on persistence of reflexive pain behaviors (mechanical hypersensitivity and decreased reflexive grip strength) even after conservative secondary interventions due to presence of spinal cord sensitization changes
- Compared motion analysis equipment for future research
- Studied Robotically Facilitated Virtual Rehabilitation of Arm Transport Integrated With Finger Movement in Persons with Hemiparesis. Federal Funding
- Participated in a study of Robots integrated with virtual reality simulations for customized motor training in a person with upper extremity hemiparesis: Federal Funding
- Demonstrated that among older adults with asthma and/or COPD indoor residential exposures (e.g. specific genera/species of fungi via floor dust wipe sampling then microscopy and qPCR) effect respiratory health (e.g. lung function)
- Discovered that diesel exhaust particles affect NFκB pathway and adversely affect human immunity against Mycobacterium tuberculosis
- Showed that addition of Cerium oxide nanoparticles (Envirox) to diesel fuel alters the toxic effects of diesel exhaust particles on human immunity against Mycobacterium tuberculosis

CLINICAL SCIENCES

- Discovered the utility of topical timolol for treatment of periocular pediatric hemangiomas
- Discovered the use of a new generation of fluoroquinolone drugs for the treatment of nasal lacrimal obstruction
- Demonstrated that combined pars plana vitrectomy and Baerveldt tube placement in the posterior chamber is effective in lowering elevated intraocular pressures
- Conducted a prospective pilot study to determine whether intravitreal injections of ranibizumab into eyes with dense cataract result in regression of proliferative diabetic retinopathy
- Reviewed the characteristics, demographics, treatment, and outcomes of traumatic endophthalmitis
- Described characteristics and outcomes of eyes with neovascular glaucoma that have undergone combined pars plana vitrectomy and Baerveldt glaucoma shunt procedures
- Described preliminary results of an ongoing prospective study comparing dexmedetomidine sedation versus propofol in vitreo-retinal surgery under local block
- Described demographics and outcomes of vitreo-retinal surgeries in eyes with assault-related open globe injuries
- Described demographics, characteristics, and outcomes of open globe injuries secondary to falls
- Described the demographics, characteristics, and outcomes of open globe eyes with intraocular foreign bodies in a 9-year retrospective review
- Described characteristics and outcomes of delayed repair of open-globe injuries
- Described demographics, characteristics, and anatomic/functional outcomes of eyes that have undergone surgical removal of glass intraocular foreign bodies
- Described use of silicone oil for complex retinal detachment in a pediatric population
- Described outcomes and complications of silicone oil use for complex retinal detachment repair after open-globe injuries in pediatric eyes
- Described benefits of using subthreshold micropulse diode laser for diabetic macular edema
- Participated in an ongoing NIH-sponsored prospective trial to evaluate the effect of nutritional supplements on progression of age-related macular degeneration
- Participated in an ongoing NIH-sponsored prospective trial on the effect of patient education on diabetic retinopathy
- Participated in a NIH-sponsored prospective trial to evaluate the effect of NSAIDs on progression of non-center involving diabetic macular edema

- Participated in a on going NIH-sponsored prospective genetics trial for age-related macular degeneration
- Investigated ocular screening for diabetic retinopathy in diabetic children
- Validated fundus autofluorescence in patients with diabetes mellitus
- Investigated long-term outcomes following use of selective laser trabeculectomy in glaucoma
- Validated new software systems for optic nerve imaging
- Demonstrated that the Miller-Fisher Variant of Guillian Barre syndrome may masquerade as acute sphenoid sinusitis with orbital apex syndrome
- Developed a unique new system for telemedicine in ophthalmology
- Reported on long-term incidence and timing of ocular hypertension following intravitreal triamcinolone acetonide therapy
- Continued study of prevalence of ocular surface disease in patients with glaucoma using topical intraocular pressure-lowering therapies
- Validated use of fundus autofluorescence in patients with diabetes mellitus
- Investigated long-term outcomes of selective laser trabeculectomy in glaucoma
- Developed and validated new software for optic nerve imaging in glaucoma
- Investigated validity of ocular screening in children with diabetes mellitus
- Continued studies of analysis strategies for peripheral visual field (PVF) testing (using the Humphrey Field Analyzer 60-4 program), to be used for clinical trials of treatment of cocaine and methamphetamine abuse
- Collected data on infectious endophthalmitis related to glaucoma procedures
- Collected data on demographics, presenting signs and symptoms, pathogens, treatment, management, and visual outcomes of all patients presenting with endophthalmitis after glaucoma surgery in University Hospital
- Studied safety and efficacy of corneal collagen cross-linking for keratoconus
- Determined use of corneal inlay for presbyopia
- Studied outcomes of corneal ring inlays for keratoconus
- Correlated lacrimal gland uptake with gallium in sarcoid patients and lacrimal gland biopsy
- Determined amplitude latency and constriction/dilation velocity of an afferent pupillary defect, as measured by pupillometry
- Studied effects of head elevation and time on intraocular pressure, retinal imaging, ultrasound imaging of the optic nerve, and pupillometry in the prone position

- Continued epidemiological studies of non-arteritic ischemic optic neuritis
- Conducted a prospective study of pseudotumor cerebri
- Studied practical uses of antibiotic-impregnated polymethyl methacrylate cement for treatment of infected orbital implants
- Ascertained genetic factors in diabetic retinopathy in type 1 insulin-dependent African Americans
- Described relationship of depression and diabetic retinopathy in type 1 insulin-dependent African Americans
- Determined that retinal vein dilation is an early and independent indicator of progression of diabetic retinopathy from mild to severe in type 1 insulin-dependent African Americans
- Investigated the involvement of inflammatory biomarkers in the development of diabetic retinopathy in type 1 insulin-dependent African Americans
- Demonstrated caregiver confidence in cardiovascular resuscitation with simulation
- Showed comparison of emergency department patients transported via EMS versus self-presentation with STEMI changes on initial EKG
- Demonstrated emerging workflow technology in point of care ultrasound
- Demonstrated success of advanced vascular ultrasound in the care of an unstable patient
- Showed a case of missed unilateral twin ectopic pregnancy and its discovery by ultrasound in the emergency room
- Showed the relationship between shift length and paramedic venipuncture success
- Demonstrated discordance between microcirculatory alterations and arterial pressure in patients with hemodynamic instability
- Published in JAMA that ambient air pollution affects multiple biomarkers of cardiovascular health in healthy subjects based on a study during the 2008 Beijing Olympics.
- Determined that multiple biomarkers of respiratory health are affected by ambient air pollution in healthy human subjects based on a study during the 2008 Beijing Olympics.
- Published on rates of asthma among WTC disaster responders
- Published on the interaction of PTSD and dust exposure among WTC responders
- Published on the burden of full and subsyndromal PTSD among police involved in the WTC rescue and recovery effort.

- Completed data collection for a neurobehavioral study of Thai children exposed to organophosphate pesticides
- Published that HPA axis function is altered among workers chronically exposed to lead
- Published information for physicians on the risks of exposure to methyl mercury from seafood consumption.
- Demonstrated that for cancer survivors there is a diverse range of patient experiences and expectations of long term cancer follow-up and that patient centered medical home approaches to survivorship care need to be multifaceted to address their complex care needs
- Discovered that higher primary care utilization is associated with earlier colorectal cancer stage at diagnosis and lower mortality among Medicare beneficiaries with colorectal cancer
- Discovered that Medicare beneficiaries with breast cancer had earlier stage at diagnosis and lower mortality if they had greater use of primary care
- Discovered that Medicare beneficiaries with melanoma have greater odds of earlier stage at diagnosis and lower mortality if they had visits to both primary care and dermatologists
- Described how personality may act as an important mediator in breast and cervical cancer screening among obese women
- Described emotional consequences of persistently elevated PSA in men with negative prostate biopsies
- Developed an on-line discussion forum to collect and analyze qualitative information elicited from care coordinators in real-time
- Described barriers and facilitators in performing care coordination in primary care
- Showed that ambulatory blood pressure and health behaviors that affect blood pressure are strongly related to depressive symptoms in uncontrolled hypertensives and that the relationship between depression and blood pressure appears to be partly mediated by sleep disturbance
- Found that depressive symptoms and ruminative thinking, rather than general anxiety, predict the magnitude of the "white coat effect" in hypertensive patients
- Demonstrated that post-traumatic stress symptoms related to Acute Coronary Syndrome (ACS) episodes (either a heart attack or hospitalization for unstable angina) place patients at increased risk for recurrent coronary events or death in the 42 months following their ACS episode
- Showed the importance of facilitative leadership qualities for effective quality improvement implementation

- Discovered insights into the value of having two discrete types of change champions for practice-based quality improvement efforts: 1) those associated with a specific project (project champions) and 2) those leading change for entire organizations (organizational change champions). Practices that had both types of champions who complemented each other were best able to implement and sustain diabetes improvements
- Showed practical strategies for using "quality improvement collaboratives" as a quality improvement method for disseminating practice-based healthcare innovations
- Discovered how three types of team-based reflection mattered for quality improvement implementation: organizational reflection promoted buy-in, motivation, and feelings of inspiration; process reflection enhanced team problem-solving and change management; and relational reflection enhanced discussions of relational dynamics necessary to implement desired QI changes
- Compiled a list of the 275 most innovative primary care practices in the United States in terms of the use of their workforce
- Synthesized the literature on primary care workforce strategies and models published since 2000
- Developed a theoretical model of barriers and facilitators to team-based care from an international comparison of studies from Australia, Canada, and the United States
- Showed the differing benefits and work burdens for healthcare providers and medical practice staff after the implementation of an electronic health record (EHR)
- Developed a typology of workarounds observed in independent, community-based primary care practices that were created in response to problems with electronic health record design, implementation, or poor interface with other systems
- Examined the complex relationship between electronic health records (EHRs) and safety, showing that EHRs can lead to and exacerbate cognitive distractions and information inaccuracies
- Participated in studies evaluating antimicrobial resistance in New Jersey and across the US.
- Evaluated of the MicroScan automated identification and antimicrobial susceptibility testing system for susceptibility testing of streptococci including *S. pneumoniae* and gram-negative pathogens.
- Undertook a controlled evaluation of the BacT/ALERT resin vs. charcoal blood culture media for the detection of microorganisms from blood and sterile body fluids in adults.
- Evaluated two innovations for the BACTEC blood culture system: (1) a culture medium with a new blend of antibiotic-binding resins; (2) a plastic culture vial to replace the currently-marketed glass culture vial.
- Investigated the accuracy and reproducibility of manual broth microdilution, commercial broth microdilution (MicroScan instrument), and an agar diffusion gradient (Etest) method for measuring the susceptibility of enterococci and *S. aureus* versus daptomycin.

- Evaluating rapid identification of Methicillin-resistant vs. Methicillin-susceptible *S. aureus* from positive blood cultures.
- Implemented, statewide, a program to verify rapid HIV results using a second rapid test with linkage to healthcare for HIV-affected individuals within 1 business day
- Assisted the NJ Department of Health and Senior Services, DHSTS in developing a unique collaborative centers to connect community based organizations testing for HIV exposure with clinical facilities treating affected individuals
- Optimized and validated separation of T-cells and myeloid cells in patients undergoing stem cell transplantation using Stem Cell Technologies CD3 and CD33 cell separation kits, and evaluated the purity of the separated cell fractions by flow cytometry
- Verified karyotypes of cell lines established from stem cells with trisomy 13, 18 and 21
- Established karyotypes of additional BAR-T cell lines to clarify data on the discovery of specific chromosome abnormalities acquired in malignant transformation of BAR-T cell line exposed to acid and bile
- Participated in a project designed to optimize combined fluorescence in situ hybridization and immunofluorescence (FISH - IF), a powerful technique that allows detection of chromosome aberrations within specific cell lineages
- Examined the incidence (as seen in our laboratory) of activation of the C-MYC oncogene by translocation or amplification in acute leukemia
- Gathered and completed FISH analysis of “double hit lymphomas” (diffuse large B-cell lymphomas with C-MYC translocation and another translocation, such as BCL2/IgH.) seen in our laboratory
- Discovered that native and nitrated fatty acids regulate oxidant generation in neonatal neutrophils
- Discovered that native and nitrated fatty acids can counteract increased inflammatory activity induced by phthalate plasticizers in neonatal neutrophils.
- Demonstrated decreased anti-inflammatory responses to vitamin D in neonatal neutrophils
- Quantified the relationship between maternal exposure to bisphenol A and phthalates, prematurity, and genital abnormalities
- Described the effects of bilirubin on immune function in neonatal neutrophils.
- Found that, among immigrant mothers, rates of low birth weight appear to decline over the first few years in the U.S. and increase thereafter.
- Found that women who initiate prenatal care after the first trimester are more likely than those with late or no prenatal care to have another child within 18 months.

- Found that welfare reform in the U.S. led to decreases in illicit drug use among mothers at risk for relying on welfare.
- Found that financial insecurity reduces social connections among mothers with young children.
- Described the relationship of Co-bedding of twins in SIDS cases.
- Discovered that pathogen associated molecular patterns (pamps) induce proteinuria through type 1 interferon (IFN) signaling mediated podocyte B7-1 induction.
- Demonstrated that a novel set of miRNAs regulate podocyte TLR signaling mediated proteinuria
- Participating in study of Unrecognized Mucopolysaccharidosis I, II, IVA, and VI in the Pediatric Rheumatology Population.
- Participating in an Analysis of Pulmonary Disease in Pediatric Patients with Sickle Cell Disease.
- Participating in a Multicenter, Randomized, Double-blind, Placebo-controlled Study to Evaluate the Efficacy, Safety, Tolerability and Pharmacokinetics of Saxagliptin (BMS-477118) as Monotherapy in Pediatric Patients with Type 2 Diabetes.
- Participating in a study of Airway and Systemic Inflammation in PreTerm Infants with Bronchopulmonary Dysplasia.
- Participating in an investigational medicine (a direct factor Xa inhibitor) on the prevention of venous thromboembolism in children (neonates through adolescents) with a central venous catheter.
- Participating in an Open-Label Study to Evaluate the Single-Dose Pharmacokinetics, Safety and Tolerability of Doripenem in Neonates and Infants, Less Than 12 Weeks Chronological Age (Term and Preterm).
- Participating in registry of Increlex® (mecasermin [rDNA origin] injection) Growth Forum Database - IGFD Registry: for Monitoring Long-Term Safety and Efficacy of Increlex®.
- Participating in registry The ANSWER Program American Norditropin® Studies: Web Enabled Research – An Observational Study (Registry) Assessing Treatment Outcomes and Safety for Children and Adults Who Are Prescribed Norditropin® (Human Growth Hormone)
- Participating in registry Pfizer International Growth Study (KIGS)
- Participating in registry The Genetics and Neuroendocrinology of Short Stature International Study (GeNeSIS)
- Participating in the Enhanced Drug Safety Surveillance Project in Juvenile Rheumatoid Arthritis and Idiopathic Arthritis and determining the adverse events related to NSAIDS

- Establishing and maintaining a clinical database for children with rheumatic diseases in an effort to improve future access to and treatment via research protocols managed by CARRA (Childhood Arthritis and Rheumatology Research Alliance).
- Determining the incidence of previously unrecognized MPS I, II, IVA, and VI in children presenting to pediatric rheumatology clinic.
- Participated in the development of consensus treatment plans for lupus nephritis
- Showed the burden of disease management in pediatric lupus
- Developed the consensus treatment plans for induction therapy of newly-diagnosed proliferative lupus nephritis in juvenile systemic lupus erythematosus.
- Described the clinical characteristics observed in the pediatric rheumatology clinic
- Compared Health-Related Quality of Life, Disease Damage, Disability, Age and Disease Duration in Pediatric Lupus Across Different Continents
- Discovered that African Americans, but not Latinos, exhibited significantly higher rates of clinical diagnoses of schizophrenia than non-Latino White subjects, despite the fact that African Americans did not differ significantly from Whites in overall severity of affective symptoms, as determined by blinded experts.
- Demonstrated that task persistence prospectively predicts smoking cessation in smokers with and without schizophrenia.
- Showed that smokers with schizophrenia exhibit less task persistence than do non-psychiatric control smokers.
- Collaborated on submission of a project to study MRI-guided laser-induced thermal therapy for cytoreduction of inoperable grade III/IV gliomas prior to administration of adjuvant chemotherapy and radiation
- Continued collaboration on submission of a project to study economic impact of central venous access selection in the pediatric oncology population
- Participated on Phase II trial of Capecitabine (Xeloda) and Lapatinib (Tykerb) as first-line therapy in patients with HER2-neu-Overexpressing advanced or metastatic breast cancer
- Participated on project studying effects of Enteral vs. Parenteral Feeding Preceding Endotoxin in Human Subjects
- Participated in writing groups analyzing NLST/ACRIN results
- Participated in Phase I/II Trial of Letrozole (Femara) and Sorafenib (Nexavar) in Post-menopausal Women with Hormone-Receptor Positive Locally Advanced Metastatic Breast Cancer
- Analyzed women participants in NLST
- Analyzed environmental factors affecting Lung Cancer Development

- Analyzed tumor morphology
- Completed Multicenter Infection Surveillance Study Following Cardiac Surgical Procedures
- Completed A Post-Approval Study (PAS) to Monitor the Clinical Performance of the AbioCor in Severe End-Stage Heart Disease Patients
- Demonstrated Interagency Registry for Mechanically Assisted Circulatory Support (INTERMACS)
- Post Approval Study Protocol of the St. Jude Medical Biocor™ and Biocor™ Supra Valves, PMA P04021
- Aquired a supplement to an IDE in Collaboration with Cardiothoracic Anesthesia (Jonathan Kraidin, MD and Study PI and Enrique Pantin, MD) to study the use of the Endovent as a conduit for a pacing wire as patient is coming off bypass (George Batsides, MD surgeon of Record for this FDA Study)
- A Retrospective Chart Review of Subjects Requiring Cardiac Support with the Impella Pump at Robert Wood Johnson University Hospital.
- Completed an Impella Database that contains all the patients at RWJUH who had Impella heart devices placed after developing heart failure. We now have the largest database and experience with Impella in the country
- Demonstrated Cardiac Valve Replacement Surgery Thromboembolic-Related Complications Randomized Trial of Previous and Current Generation Mechanical Prosthesis 9TRC-MP)
- Found that low steroids are effective in treating patients who develop acute respiratory distress syndrome following a lobectomy
- Discovered a novel means to prevent fogging of video scopes in the operating room. A provisionary patent application on this device has been submitted. The Storz company has demonstrating an interest in marketing this device
- Collaborator in the lung cancer screening trial showing low-dose CT screening reduces lung cancer mortality
- Published retrospective review of the first 100 athlete hernias
- IRB in progress for prospective study of athlete hernia
- Retrospective review of Incisional Hernia repairs, submitted to the American College of Surgeons Surgical Forum for consideration
- Discovered, in collaboration with Dr. Louis Amorosa from the Department of Medicine, that leukocytes from a subset of Type 2 diabetes patients express a protein expression signature identical to the one detected in in vivo endotoxin challenged leukocytes. These findings provided the basis for an invention filed under provisional RWJ-12-008

- Project in progress for “Correlation of lymph node mapping and physical examination with final pathological staging of papillary thyroid cancer.”
- Showed that mobile microelectrode data during DBS surgery can be interpolated from depth to time axes utilizing kernel functions
- Showed that Intraventricular trajectories during DBS surgery affects brain shift
- Showed that the programming strategy after DBS surgery can be modified depending on the knowledge of active lead location
- Showed that MRI guided LITT is a feasible and safe neurosurgical procedure in the treatment of intracranial neoplasms
- Showed that pre-fixation head measurements can guide frame placement for DBS surgery
- Showed that direct volumetric analysis of post thermally ablated cerebral neoplasms results in more accurate assessment of treatment effect
- Completed assessment of impedance measuring reliability and accuracy of Deep Brain Stimulation (DBS) neuro-modulation devices
- Initiated assessment of impedance measuring reliability and accuracy of Deep Brain Stimulation (DBS) neuro-modulation devices as a function of device battery charge
- Completed assessment of Magnetic Resonance Imaging (MRI) impact upon Deep Brain Stimulation (DBS) Activa-PC system, effect upon on/off state, effect parameter settings, and effect upon brain impedance
- Completed assessment of output reliability and accuracy of Deep Brain Stimulation (DBS) neuro-modulation devices
- Completed following the brain impedance post- Deep Brain Stimulation (DBS) implantation during the initial months of DBS parameter adjustment; contrasting current to voltage programming
- Completed measurement of brain impedance intra-operatively during Deep Brain Stimulation (DBS) targeting of the subthalamic nucleus (STN)
- Completed the determination of the appropriate guide cannulae length to avoid trans-ventricular deflection of Deep Brain Stimulation (DBS) leads
- Initiated evaluation of FOUR score interrater reliability used by nurses, residents and attending physicians in neurosurgical patients
- Long term follow-up of breast reconstruction
- Continued studies into the identification of risk factors for wound healing complications and hernia recurrence after abdominal wall reconstruction, in collaboration with Division of General Surgery, Department of Surgery, UMDNJ-Robert Wood Johnson Medical School

- On-going health care disparities research in collaboration with the School of Public Health examining psychosocial and epidemiologic factors influencing outcomes in breast cancer patients
- Identified receptor status to be a stronger predictor of survival in breast cancer patients than race Abstract presented in oral session at Society of Surgical Oncology in March 2012
- On-going research on influences of social media and the internet in surgical care
- Evaluated post-mastectomy patient with 1-3 positive lymph nodes for differences in disease free and overall survival
- Initiated opening of ECOG E-2108 A Randomized Phase III Trial of the Value of Early Local Therapy for the Intact Primary Tumor in Patients With Metastatic Breast Cancer
- On-going research in health-care disparities in the South Asian population via the Cancer 101 project
- Evaluated breast cancer patient participation behavior and coping during pre-surgical consultations
- Explored the negative association between patient self-initiated questions and aspects of patient satisfaction during consultation with surgeons prior to breast-cancer surgery
- Demonstrated the Optimal PTV Margin in Patients with Fiducial Markers Treated with Accelerated Partial Breast Irradiation (APBI) using 3D-CRT
- Evaluated the effect of post-mastectomy radiotherapy on tumor recurrence rate in patients with T1-2 disease and 1-3 positive nodes
- Demonstrated the effectiveness of single port varicocele repair in adolescents
- Demonstrated an association between environmental tobacco Smoke and bladder dysfunction in children
- Determined the relationship between child temperament and dysfunctional voiding
- Development of Bladder/Urothelial Cancer Tissue Bank and Prospective Clinical Database at CINJ
- Evaluation of Peri-Operative Bleeding Complications in Patients Taking Vitamin E Prior to Robotic Assisted Radical Prostatectomy
- Development of a Database from Data Acquired During the Annual CINJ Prostate Screening Event
- Determined Sprafilm and Potency Following Robotic Prostatectomy
- Determined the Impact of Penile Rehabilitation on Post-Robotic Prostatectomy Potency
- Evaluated the Impact of Robotic Prostatectomy on Penile Length

- Evaluating Screening Patterns and Outcomes of Prostate Cancer Screening in the State of NJ
- Examined the Role of Sacral Neuromodulation in Refractory Overactive Bladder
- Evaluated the Role for Urodynamic Evaluation in Patients with Chronic Abacterial Prostatitis
- Determining the Role of bBtulinum Toxin Type A in Neurogenic and Idiopathic Overactive Bladder
- Examining the Role of Antimuscarinics in Overactive bBadder
- Determination of the Optimal Frequency of Self-Calibration of the Urethra to Prevent Recurrence of Urethral Strictures
- Examining the Role of Botulinum Toxin type A Neurogenic Detrusor Overactivity due to Parkinsonism, Cerebrovascular Accidents & Multiple System Atrophy
- Evaluating the Utility of Sacral Neuromodulation in Neurogenic Overactive Bladder secondary to Parkinsonism
- Phase IIa Study with an Investigational Compound on Patients Suffering from Interstitial Cystitis/Bladder Pain Syndrome (IC/BPS) (Allergan)
- Astellas PPI Study-VESlcare YM905 CDA in Urinary Incontinence Following Robotic Radical Prostatectomy
- Role of Biomarkers to Differentiate Between Pyelonephritis and Lower Urinary Tract Infections in Long-term Care Patients, Patients with Spinal Cord Injuries and Bedridden Patients
- Evaluated the Risk of Radiation Exposure During Surveillance of Early stage Non Seminoma Germ Cell Testis Cancer
- Examined the Early Learning Curve in Robotic Cystectomy
- Discovered A Novel Method for Renal Hilar Control During Open and Robotic Partial Nephrectomy
- Analyzed the Function of Affect of Treatment Decision of Rising PSA Patients
- APTUS - STAPLE-2 -The Pivotal Study of the Aptus Endovascular AAA Repair System.
- Documented feasibility of a new intra-arterial securing mechanism for endovascular aortic aneurysm repair and the inefficacy of an unsupported lower limb design due to a high thrombosis rate
- ANACONDA - Establish the safety and efficacy of a new design of endovascular aortic aneurysm stent graft which allows for repositioning at the time of implantation and a unique proximal neck securing design to preserve renal blood flow

- Defined the clinical effectiveness of a joint community cardiology and university vascular surgery program utilizing academic and community multi-specialty physicians and care givers in establishing a limb preservation program.
- Developed an alternative approach for improved outcomes for complex ruptured aneurysms utilizing “snorkel” technique for side branch perfusion
- CHOICE Trial - continued and concluded the post-FDA approval registry for carotid stenting utilizing FDA approved stent and filter-wire systems for both vascular surgeons and peripheral interventional cardiologists and began the first steps toward the CANOPY Trial for moderate risk carotid stenosis patients
- TRIVASCULAR OVATION Trial - A Pivotal Clinical Study to Evaluate the Safety and Effectiveness of the TriVascular AAA Stent Graft System – Continued to study the safety and efficacy of a new endovascular aortic aneurysm repair stent-graft
- SUPERB –Comparison of the Supera Peripheral System to a Performance Goal Derived from Balloon Angioplasty Clinical Trials in the Superficial Femoral Artery (Closed)
- Translumbar embolization utilizing interlock coils to treat Type 2 endoleak after endovascular abdominal aortic aneurysm repair
- Discovered that EVAR (endovascular repair of abdominal aortic aneurysm) technology provides significant decrease in hospital mortality among Medicare patients compared to open AAA (abdominal aortic aneurysm) repair.
- Demonstrated using the NJ State Inpatient Database 2004-2008 a significant diffusion of EVAR technology from high volume to low volume centers over time.
- Found that lowest income patients were significantly more likely than those with the highest income to go to low volume centers.
- Discovered that patients with AAA repair in low volume centers had significantly greater postoperative complication rates, longer lengths of stay and increased total hospital cost. It was estimated that if the trend to LV centers in NJ had not occurred, there would have been a potential cost savings of \$2.38 million during the study period
- Found that among Medicare beneficiaries undergoing elective open AAA repair, the development of any infectious complication significantly increased not only hospital mortality, but also the 30-day and 90-day mortality after discharge from the hospital
- Demonstrated that hospital-acquired infections had a dramatic affect by increasing readmission rates and longitudinal mortality after both open AAA repair and EVAR. The development of an index hospital infection after EVAR almost doubled the 30-day readmission rate and significantly minimized the 30-day mortality benefit
- Discovered that development of C. difficile infection after EVAR or sepsis after open AAA repair resulted in the highest 30-day readmission rates
- Showed that patients undergoing tibioperoneal angioplasty with concomitant stenting or atherectomy during their initial intervention for ulceration incurred greater hospital charges and demonstrated no improvement on amputation rates over time compared to tibial angioplasty alone

- Discovered that less invasive endovascular low extremity procedures for peripheral vascular disease were not associated with decreased readmission rates compared to open surgery. Predictors of readmissions included Black race and increased severity of disease
- Showed that use of statins before lower extremity revascularization might improve 1-year amputation-free survival among patients with claudication. It was less effective in patients with rest pain and non-effective in patients with ulceration and gangrene
- Found that patients who underwent carotid artery stenting were more likely to be readmitted at 30, 60 and 90 days after discharge from the hospital than those who received endarterectomy. Predictors of readmissions included advanced age, congestive heart failure, renal failure and diabetes
- Demonstrated that the rates of overall post-operative infection, pneumonia, and blood product usage were significantly lower after minimally invasive CABG compared to traditional open CABG (full sternotomy). However, it was shown that minimally invasive techniques failed to reduce rates of common infectious problems such as UTI and wound complications
- Continued analyzing data on the correlation between the use of Proton-Pump Inhibitors and Clostridium difficile-associated diarrhea in nursing home patients
- Began to analyze data on end-of-life care preferences among Muslims in America
- Continued to collect data on urinary catheterization without medical indication in the elderly hospitalized patient
- Collected data on identifying delirium in elderly patients in the emergency department and their transition to inpatient care
- Collected data on nurses and nurses aides on their approach to problem behaviors related to dementia and their related stress
- Collected data on the degree to which age is an independent predictor of adverse events in hospitalized elderly patients who are prescribed diuretics
- Completed an office based observational study that linked unilateral osteoarthritic knee pain in the elderly to the side of the body with a short leg
- Initiated a study on the degree to which age is an independent predictor of hypoglycemia in elderly patients prescribed diabetic medications
- Initiated a study on identifying the osteopathic manipulative techniques (OMT) used, the diagnoses for which they are used, and the techniques that are typically avoided with elderly patients
- Began to collect data on practice change resulting from the implementation of delirium protocols, guidelines, and related screening tools with elderly hospitalized patients
- Examined maternal and fetal glucose metabolism in normal and gestational diabetic women

- Investigated if maternal serum vitamin D deficiency is associated with increased risk of cesarean delivery
- Examined if there are ethnic differences in maternal circulating adiponectin level
- Examined if changes in endothelial dysfunction markers predict preterm delivery
- Established the utility of a new caries detection device The Spectra™ to accurately assess early occlusal caries in an in vitro study
- Established that the Spectra caries detector can accurately assess caries in teeth where the occlusal (biting) surface was covered with a pit and fissure sealant
- Discovered particle system that has affinity for human tooth dentin. This particle system can be used as a to deliver anti-inflammatory, analgesics and other drugs to the dental pulp
- Determined the ability of various anti-inflammatory drugs to diffuse through the dentin and influence inflammatory pharmacological processes
- Developed a model for *K. kingae* septic arthritis in rat offsprings
- Showed the *K. kingae* outer membrane vesicles potential to be used as a vaccine
- Evaluated clinically, utilizing a Visual Analogue Scale, the patient's proprioceptive responses to forces applied to dental implants
- Evaluated the clinical success of a novel dental implant design utilized for extracted molar sites
- Demonstrated that changes in air pollution levels during the Beijing Olympics were associated with acute changes in biomarkers of inflammation and thrombosis and measures of cardiovascular physiology in healthy young persons
- Showed that there is little evidence of non-viral NPC risk factors significantly altering Epstein-Barr Virus (EBV) serological patterns, suggesting that non-viral nasopharyngeal carcinoma (NPC) risk factors act through pathways independent of EBV serological responses
- Completed a study of the Biomechanical and Neuromotor Effects of Spinal Manipulation in Subjects with Signs of Shoulder Impingement
- Completed a study of the Clinical Outcomes Associated with Spinal Manipulation in Subjects with Signs of Shoulder Impingement
- Completed a study of the Effect of Attentional Focus on Temporal-Spatial Parameters of Gait.
- Completed a study of the effect of an Inclined Walking Surface and Balance Abilities on Spatiotemporal Gait Parameters of Older Adults
- Completed systematic literature reviews of the following:
 - Evidence Based Approach for the Treatment of Intersection Syndrome
 - Efficacy of Inspiratory Muscle Training in Individuals with Heart Failure

- The Effects of Aerobic Exercise on Perceived Fatigue in People with Multiple Sclerosis
 - Vestibular Rehabilitation of Persons with Post-Concussion Syndrome
 - Efficacy of a Pelvic Stability Belt for Pelvic Girdle Pain during Pregnancy
- Studied the use of a novel nanoparticle delivery system to enhance the cytotoxicity of chemotherapy in breast cancer
- Studied the usage of preventative services among those with severe mental illness
- Demonstrated the Feasibility of Delivering Motor Imagery Training for Recovery of Walking Post-Stroke Using Tele-rehabilitation: Department Funding
- Determined relationships between nutritional status indicators and health-related quality of life among participants in the Dialysis Outcomes and Practice Patterns Study (DOPPS).
- Developed a preliminary predictive energy equation for maintenance hemodialysis patients using data collected from clinical trials at Vanderbilt University Medical Center.
- Measured the effectiveness of ArmyMOVE! versus traditional nutritional education and counseling for overweight U.S. soldiers.
- Determined the effect of a dietitian-managed bone management algorithm on serum phosphorus level in maintenance hemodialysis patients.
- Determined the impact of presence and timing of feeding tube insertion in head and neck cancer patients for whom chemoradiation was the primary mode of treatment on select clinical outcomes
- Utilized the Vanderbilt Head and Neck Symptom Survey to assess the impact of symptom burden on oral intake and weight change over time in head and neck cancer patients post concurrent chemoradiation
- Determined an optimal practical dose for massage therapy for osteoarthritis of the knee, published and presented results in completed \$1.4M, R01 grant from NIH's National Center for Complementary and Alternative Medicine.
- Began four-year multisite, NIH Phase IIb clinical trial to verify the efficacy of an optimal practical dose of Swedish massage therapy for OA of the knee, and investigate duration of effect, maintenance dosing, and health care cost utilization.
- Completed industry funded study of pressure treatment for pain in sciatica.
- Continued pilot clinical trial comparing guided imagery and relaxation techniques to music listening, as adjuncts to preparing and recovering from orthognathic (jaw) surgery, in collaboration with UMDNJ Dental School.
- Advanced plans, including Delphi study for design, of pilot clinical trial of yoga intervention specifically designed for people with moderate disability due to multiple sclerosis, with additional funding.
- Participated in design and initial funding of interprofessional, interdepartmental UMDNJ study to provide "Actions at the Interface of Individual/Household and Community Food Security To Improve Maternal-Child Health Outcomes".

- Began interdepartmental pilot study of hand, foot, and head massage for cancer patients undergoing outpatient treatment at NJMS UH Cancer Center
- Observed in a case-control study that statin use was associated with a substantially diminished risk of death from prostate cancer, a finding that needs confirmation
- Demonstrated that a deadline in resting to ambulatory pulse oximetry (PO) can serve as a clinical aid in the diagnosis of grade 2-3 for radiation pneumonitis (RP) in patients who receive thoracic radiotherapy (RT)
- Investigated racial disparities in the receipt of optimal treatment for breast cancer
- Investigated racial disparities of delays in diagnosis and treatment of breast cancer
- Determined that patient factors (as opposed to health services or provider factors) were most important in racial disparities of delays in breast cancer diagnosis and receipt of treatment
- Demonstrated that very low birth weight infants born in hospitals recognized for nursing excellence have better chances of survival early in life and have lower risks of developing serious complications such as nosocomial infection or intraventricular hemorrhage
- Demonstrated that in U.S. neonatal intensive care units there is widespread nurse understaffing relative to national guidelines

EDUCATIONAL RESEARCH

- Designed new educational standards for continuing board recertification in orbit and neuroophthalmology through the American Academy of Ophthalmology
- Participated as an education site in a national collaborative research study entitled Medical Student Well-Being and Professionalism: A Multi-center, Longitudinal Study Exploring the Factors that Shape Development of Professional Attributes
- Completed a study evaluating the relationship between medical student empathy and service
- Completed revision of and successfully used a computer-based, highly specialized dietary analysis/energy expenditure program, tailor-made for the requirements of the nutrition course for medical students
- Demonstrated the effect of new emergency medicine ultrasound education techniques during medical student clerkships and its impact on testing
- Demonstrated high fidelity simulation for ACLS Education
- Developed a digital learning aid for neuropathology

- Continued coordination of the development of additional modules for the Radiology Clerkship Companion for Medical Students of the Radiological Society of North America
- Continued project to study predicting outcome of Selective Internal Radiation Therapy treatment based on pre- and post-procedure Bremsstrahlung and PET scans
- Continued project to study Pampiniform Plexus Venography
- Continued project to study the effect of radiation education and risk awareness in
- Emergency Room CT utilization
- Continued project to study nuclear medicine vs. catheter angiography in GI bleeding
- Continued project on ACR Appropriateness Criteria: Radiology Resident Questionnaire
- Developed project looking at ways in which residents review cases with faculty on PACS
- Developed project to study computer aided analysis and prediction of liver lesion response to treatment in consecutive CT studies
- Developed project on SPGR vs. Fast-SPGR in detection of brain metastasis for pre-gamma knife planning
- Developed project on impact of in-patient PET-CT utilization
- Developed piloted teaching module for teaching medical students disease progression through imaging: Ischemic stroke interactive timeline
- Demonstrated a Retrospective Chart Review of Subjects Requiring Cardiac Support with the Impella Pump at Robert Wood Johnson University Hospital
- DSMB Member May 2012 for Collaborative Study with Cardiothoracic Surgery and Cardiothoracic Anesthesia
- Evaluated Correlation Between Resident Temperament and Performance on Professionalism Evaluations
- Determined Utility of Robotic Surgical Simulator for Resident Education
- Examining how Resident Temperament Affects Performance on Robotic Simulation Trainer
- Validated face validity of the RoSS Robotic Simulator as a Teaching Tool for Residents
- Analyzed data on student knowledge, attitudes, abilities and application of U.S. Preventive Service Task Force Guidelines in Community Involved Primary Care health promotion intervention projects
- Continued to collect data on student knowledge, attitudes, skills and abilities as related to population health, needs assessment and development/delivery of a health promotion intervention project in underserved populations

- Continued to collect data on impact of the Community Involved Primary Care experience on third year medical students during their Community Service Learning rotation
- Began to collect data on scholars' knowledge gain in geriatrics and impact on practice through a 160 hour collaborative Faculty Development Program delivered via webinar
- Explored undergraduate and graduate Clinical Laboratory Science students' perception of course quality related to the seven principles of good practice in undergraduate education in multiple course delivery methods
- Assessed the outcomes of clinical nutrition expert training by University of Medicine and Dentistry of New Jersey for University of Shizuoka faculty and graduate students.

OTHER RESEARCH

- Completed a study of Health System Factors and Patient Outcomes in Breast Cancer and published four peer-reviewed manuscripts
- Completed a study of Patterns and Correlates of Chemotherapy Delivery Quality and published a peer-reviewed manuscript
- Completed a study of Breast Reconstruction Decision-Making & Outcomes in Latinas and African Americans and published two peer-reviewed manuscripts
- Showed that higher total phenolic intake was associated with decreased endometrial cancer risk
- Showed an inverse association between selenium intake from food sources and ovarian cancer risk
- Showed that higher body mass index was associated with more advanced cancer diagnosis in African American women
- Showed that obese ovarian cancer patients tended to get less paclitaxel and carboplatin per kg of body weight compared to normal weight patients
- Identified demographic, medical, and psychosocial correlates of skin surveillance intentions among family members of patients with melanoma
- Identified demographic and acculturation factors associated with the receipt of physician skin examinations in a national sample of Hispanic adults
- Conducted a systematic review of correlates of indoor tanning
- Determined that patient factors (as opposed to health services or provider factors) were most important in racial disparities of delays in diagnosis and receipt of treatment
- Discovered that higher primary care utilization is associated with earlier colorectal cancer stage at diagnosis and lower mortality among Medicare beneficiaries with colorectal cancer

- Discovered that Medicare beneficiaries with breast cancer had earlier stage at diagnosis and lower mortality if they had greater use of primary care
- Discovered that Medicare beneficiaries with melanoma have greater odds of earlier stage at diagnosis and lower mortality if they had visits to both primary care and dermatologists
- Described how personality may act as an important mediator in breast and cervical cancer screening among obese women
- Described emotional consequences of persistently elevated PSA in men with negative prostate biopsies
- Developed an on-line discussion forum to collect and analyze qualitative information elicited from care coordinators in real-time
- Described barriers and facilitators in performing care coordination in primary care
- Demonstrated that for cancer survivors there is a diverse range of patient experiences and expectations of long term cancer follow-up and that patient centered medical home approaches to survivorship care need to be multifaceted to address their complex care needs
- Found that early treatment of low-risk, localized PCa with PADT does not delay the receipt of subsequent palliative therapies and is associated with an increased use of chemotherapy
- Found that patients treated with radiation therapy are more likely to have procedural interventions for GI toxicities than patients with conservative management, and the elevated risk persists beyond 5 years
- Found that cryotherapy remains a novel strategy to treat men initially diagnosed with clinically localized prostate cancer
- Found that the proportion of patients developing erectile dysfunction or urinary incontinence may increase over time, suggesting that the effects of cryotherapy may not only arise immediately after cryotherapy, but remotely as well
- Found that given the lack of evidence of effective treatment for men older than 65 years of age diagnosed with low- and intermediate-risk prostate cancer and our inability to distinguish indolent from aggressive cancer, intensive PSA testing is likely to exacerbate the risk of overdiagnosis and overtreatment among elderly men
- Demonstrated that an intimacy-enhancing couples intervention can reduce distress and quality of life among men diagnosed with early stage prostate cancer
- Found that coping responses early in a quit attempt may help smokers trying to quit feel better, but may not help them stay smoke-free
- Developed behavioral theory-based instruments for mixed methods research, designed 3 surveys (survivor, family member, physician) and 2 in-depth interviews (survivor and family member)

- Discovered (preliminary results from surveys): timeline for cancer: More than half of survivors feel that cancer in general is lifelong; only 20 percent feel that cancer will generally last a few months then go away. However, when thinking about their own cancer, an equal number of survivors see their own cancer as lasting only a few months as feel that their cancer will be lifelong
- Discovered (preliminary results from surveys): cure – control: Most survivors expect that a person can do at least some things to cure or control a recurrence of cancer. Their family members have lower expectations about the ability of a survivor to prevent a recurrence
- Discovered (preliminary results from surveys): consequences: When asked about quality of life, an equal number of survivors report favorable changes as report unfavorable changes resulting from their cancer experience, and another 18 percent report both
- Discovered (preliminary results from surveys): social support for self-care decisions: Most survivors and family members concurred that the patient receives support and/or advice in making decisions about blood pressure screenings and mammograms. However, about 1/3 – 1/2 of family members say they are not providing the advice or support about decision-making
- Demonstrated that task persistence prospectively predicts smoking cessation in smokers with and without schizophrenia
- Showed that smokers with schizophrenia exhibit less task persistence than do non-psychiatric control smokers
- Demonstrated that graphic warnings as displayed on cigarette packs may reduce cravings to smoke more than current text warnings and neutral graphic images among smokers seeking tobacco dependence treatment
- Discovered that physicians' beliefs regarding the effectiveness of tobacco treatment medications is not consistent with evidence-based data
- Illustrated that face-to-face clinical interventions initiated during hospitalization and continuing after discharge can significantly improve treatment outcomes for hospitalized smokers
- Discovered that the RNA-binding protein IMP3 confers resistance of chronic myeloid leukemia cells to gamma-irradiation-induced apoptosis
- Showed that IMP3 promotes synthesis of insulin-like growth factor-II protein upon exposure of cells to gamma-irradiation
- Discovered that phosphorylation of chaperone Hsp27 promotes degradation of the RNA-binding protein AUF1 by proteasomes thereby promoting stabilization of selected mRNAs
- Demonstrated that lipopolysaccharide-induced expression of anti-inflammatory cytokine interleukin-10 in monocytes requires RNA binding protein AUF1
- Showed that AUF1 promotes translation of TAK1 mRNA to activate NF- κ B signaling in monocytes in response to lipopolysaccharide exposure

- Discovered that tumor suppressor protein von Hippel-Lindau, pVHL, binds AUF1 to control expression of vascular endothelial growth factor, VEGF, Mrn
- Discovered that persons who ever smoked cigarettes were less likely to age successfully than people who never smoked
- Found that former smokers and current smokers were equally likely to age successfully
- Demonstrated that people who quit smoking before age 30 experienced modest benefits compared with those who continued to smoke
- Discovered that neighborhood social vulnerability has significant effects on the functional limitations of older adults that are independent of individual-level attributes, including age, gender, income, education, and race
- Identified a significant global pattern of clustering in depressive symptoms among older people living in New Jersey
- Found that places in which people have high levels of depressive symptoms are near to other places in which people have high levels of depressive symptoms
- Identified specific areas in New Jersey where older people have high levels of depressive symptoms
- Found that the extent to which older people adhere to health behaviors varies from 28.6% (adherence to exercise recommendation) to 83.9% (adherence to smoking recommendations), with 29.2%, 31.1%, and 39.4% of people adhering respectively to BMI Mediterranean diet, and alcohol recommendations
- Discovered that there is a heterogeneity of adherence to clusters of health behaviors, with 4.9% of people adhering to no health behaviors (exercise, smoking, BMI, Mediterranean diet, alcohol recommendations), 28.4% adhering to only one, 31.4% adhering to two, 22.1% adhering to three, 10.3% adhering to four, and 2.8% of people adhering to all five health behaviors
- Found that adherence to each of five health behaviors had a significant and independent relationship with successful aging
- Demonstrated that adherence to recommendations regarding exercise and alcohol was more strongly associated with successful aging than adherence to other health behaviors
- Found that people adhering to two health behaviors were most likely to age successfully when the two behaviors adhered to were exercise and smoking
- Discovered that people adhering to three health behaviors were most likely to age successfully when they adhered to alcohol and smoking recommendations and either diet, BMI, or exercise
- Identified the longitudinal trajectories of blood lead levels in exposed workers and showed differences in mean levels and variations in blood lead levels between construction workers and manufacturing workers
- Identified individual-level and community-level disparities in modern contraceptive use in an analysis of 10 countries of the former Soviet Union

- Found that many ethnic and immigrant groups in New York City, in particular Hispanic groups, are at an increased risk of cesarean delivery, even after adjusting for other risk factors
- Developed a conceptual model based on a qualitative research study of racism and access to maternal health care among Romani women in the Balkans
- Compared the usual lifestyle and cardiovascular risk factors between Asian Indian and white men who were enrolled in the same health maintenance organization and found that the differences were not sufficient to explain the higher rates of heart attack in Asian Indians
- Reviewed still birth rates for New Jersey from 1997-2005 and found a modest decline among whites, but not among blacks and Hispanics, thus widening the two fold black-white disparity in this pregnancy outcome
- Demonstrated that in U.S., three quarters of the black-white gap in health status for persons over 55 years of age can be accounted for by differences in childhood socioeconomic status and neighborhood and family factors in young adulthood
- Demonstrated that disparities in neighborhood conditions in young adulthood account for one-quarter of the variation in mid-to-late-life health in the U.S. population
- Completed a systematic review of the effectiveness of group medical visits on diabetes mellitus type 2 specific outcomes in adults
- Completed a systematic review of Telehealth in adult patients with congestive heart failure in long term home health care
- Completed a systematic review of rapid response team composition effects on outcomes for adult hospitalized patients
- Completed a systematic review of the effectiveness of patient-caregiver dyad discharge interventions on hospital readmissions of elderly patients with community acquired pneumonia
- Completed a systematic review of the effectiveness of nurse coordinated transitioning of care on readmission rates for patients with heart failure
- Completed a systematic review of the effectiveness of the structured discharge process in reducing hospital readmission of adult patients with community acquired pneumonia
- Completed a systematic review of family witnessed resuscitation and family witnessed invasive procedures in adults in hospital settings internationally focused on the perspectives of health care providers
- Completed a systematic review of family witnessed resuscitation and family witnessed invasive procedures in adults in hospital settings internationally focused on the perspectives of patients and families

RESEARCH PROJECTS: 2011-2012

FEDERAL FUNDING

A RasGAP-microRNA Connection in Cardiac Hypertrophy; M. Abdellatif, NJMS; *National Heart, Lung and Blood Institute*

The Role of MicroRNA in Cardiac Cell Death; M. Abdellatif, NJMS; *National Heart, Lung and Blood Institute*

Development of a Second Generation MDR-XDR TB Assay; D. Alland, NJMS; *National Institute of Allergy and Infectious Diseases*

Rapid Diagnosis of XDR Tuberculosis; D. Alland, NJMS; *National Institute of Allergy and Infectious Diseases*

On Demand Blood Tests for Select Agent Diagnosis; D. Alland, NJMS; *National Institutes of Health*

IGF-1, Oxidative Stress and Telomere Dynamics in Cultured Human Somatic Cells; A. Aviv, R. Stone, NJMS; *Ruth L. Kirschstein National Research Service Award*

Leukocyte Telomere Dynamics, Gender, Menopause, Insulin Resistance, and Survival; A. Aviv, NJMS; *National Institute on Aging*

Proteasome Activity and Reversal of Post Ischemic Ventricular Remodeling; G. Babu, NJMS; *National Heart, Lung and Blood Institute*

Analysis of Trypanosome MrNA Synthesis by Gene Transfer; V. Bellofatto, NJMS; *National Institute of Allergy and Infectious Diseases*

Mechanism for Reduced Adrenomedullary Epinephrine Release in Type 1 Diabetes; J. Berlin, B. Orban, NJMS; *Ruth L. Kirschstein National Research Service Award*

Regulation of Soluble Guanylyl Cyclase the NO Receptor; A. Beuve, NJMS; *National Institutes of Health*

Age-Related Eye Disease Study 2 (AREDS2); N. Bhagat, NJMS; *National Eye Institute*

Identification of the of a Compound that Inhibits Plasmodium Sporozoites; P. Bhanot, NJMS; *National Institutes of Health*

Functional MRI of Aging: Biophysical Characterization; B. Biswal, NJMS; *National Institute on Aging*

Teaching Innovative Primary Care Practice Models in a Student Run Free Clinic; C. Brazeau, NJMS; *Health Resources and Services Administration*

Carotid Revascularization Endarterectomy vs. Stent Trials; T. Brott, NJMS; *National Institute of Neurological Disorders and Stroke*

HLA-Releasing Metalloproteinase in Allograft Rejection; Y. Bushkin, NJMS; *National Institute of Allergy and Infectious Diseases*

Defensins in STI Mediated Enhanced HIV Infectivity; T. Chang, Y. Li, NJMS; *National Institute of Allergy and Infectious Diseases*

HIV-Human Peritoneal Macrophage Interactions; T. Chang, Y. Li, NJMS; *National Institute of Allergy and Infectious Diseases*

Vitamin D and the Immune System; S. Christakos, NJMS; *National Institute of Allergy and Infectious Diseases*

Vitamin D and Innate Immunity in Respiratory; G. Diamond, S. Christakos, NJMS; *National Institute of Allergy and Infectious Diseases*

Therapeutics for Drug-Resistant Bacteria: Myzopyronins; N. Connell, NJMS; *National Institute of Allergy and Infectious Diseases*

Gating and Regulation of Connexin Hemichannels; J. Contreras, NJMS; *National Institute of General Medical Sciences*

Mesenteric Lymph Linking Gut and Distant Organ Injury - Includes Supplement to Promote Diversity; E. Deitch, NJMS; *National Institute of General Medical Sciences*

Shock, Trauma, and Gut Origin of Sepsis; E. Deitch, NJMS; *National Institute of General Medical Sciences*

Training in Trauma and Critical Care Research; E. Deitch, NJMS; *National Institute of General Medical Sciences*

Frequency Comb Spectroscopy Biomarkers for Hemorrhage Induced ARDS; E. Deitch, NJMS; *United States Army Medical Research Acquisition Activity*

Novel Approaches to Shock Induced Acute MODS; E. Deitch, NJMS; *United States Army Medical Research and Materiel Command*

Pediatric HIV/AIDS Cohort Study (PHACS) Data and Operations Center (DOC) AMP; A. Dieudonne, NJMS; *National Institute of Child Health and Human Development*

Genetic Competence Apparatus of Bacillus Subtilis; D. Dubnau, NJMS; *National Institute of General Medical Sciences*

Regulation of Genetic Competence in Bacillus Subtilis; D. Dubnau, NJMS; *National Institute of General Medical Sciences*

Inactivation of Hyperpermeability after Ischemia-Reperfusion Induced Inflammation; W. Duran, NJMS; *National Heart, Lung and Blood Institute*

Control of Microcirculatory Exchange Function; W. Duran, NJMS; *National Heart, Lung and Blood Institute*

Nutrient-Nutrient Interactions in the Small Intestine; R. Ferraris, NJMS; *National Science Foundation*

Plasmacytoid Dendritic Cells in HIV Pathogenesis; P. Fitzgerald-Bocarsly, NJMS; *National Institute of Allergy and Infectious Diseases*

Role of Murine Induced Pluripotent Stem Cells on the Correction of Cardiac and Skeletal Disease in Mice; D. Fraidenraich, NJMS; *National Heart, Lung and Blood Institute*

Pharmaceutical Counter Measure Effects on Tissue Level Quality of Immobilized Bone; C. Fritton, D. Bajaj, NJMS; *National Space Biomedical Research Institute*

The Role of Hormone-Evoked Mitochondrial Calcium Increases in the Pathogenesis of Alcoholic Liver Disease; L. Gaspers, NJMS; *National Institute on Alcohol Abuse and Alcoholism*

Cytokine Gene Expression During in Vivo Immune Response; W. Gause, NJMS; *National Institute of Allergy and Infectious Diseases*

Mapping and Modeling Host Pathogen Interactions in TB Latency and Reactivation; M. Gennaro, NJMS; *National Heart, Lung and Blood Institute*

Sigma Factor Networks of M. Tuberculosis; M. Gennaro, NJMS; *National Institute of Allergy and Infectious Diseases*

Treatment of Shock with Adenosine Receptor Ligands; G. Hasko, NJMS; *United States Department of Defense*

Tumor Suppression by Telomere Dysfunction Induced Senescence; U. Herbig, NJMS; *National Cancer Institute*

Host and Pathogen Determinants of M. Tuberculosis Latency; G. Kaplan, NJMS; *National Institute of Allergy and Infectious Diseases*

Analysis of XDR-TB and MDR-TB Strains: Safety, Diagnosis and Pathogenesis; G. Kaplan, NJMS; *John E. Fogarty International Center*

Emerging XDR-TB: Host and Pathogen Contributions; G. Kaplan, NJMS; *National Institute of Allergy and Infectious Diseases*

A Multidisciplinary Approach to Understanding TB Latency and Reactivation; G. Kaplan, NJMS; *National Heart, Lung and Blood Institute*

Environmental Cues and Responses in Tuberculosis; G. Kaplan, NJMS; *National Institute of Allergy and Infectious Diseases*

Role of Autotoxin in HCV Associated Hepatocellular Carcinoma; N. Kaushik-Basu, NJMS; *National Cancer Institute*

Remote Ischemic Preconditioning in Neurological Death Donors (ISO); B. Koneru, NJMS; *Health Resources and Services Administration*

Evasion of Antiviral Protection by Poxvirus-Encoded IFN Antagonists; S. Kolenko, NJMS; *National Institute of Allergy and Infectious Diseases*

The Molecular Basis of the Epidemic blaKPC Gene Klebsiella; B. Kreiswirth, NJMS; *National Institute of Allergy and Infectious Diseases*

Prevention of Cardiac Cell Death by Mst1 Inhibitor; R. Kudej, NJMS; *National Heart, Lung and Blood Institute*

Role of Nuclear Gangliosides in Neuronal Function; R. Ledeen, NJMS; *National Institute of Neurological Disorders and Stroke*

Adenosine, Toll-Like Receptors and Angiogenesis; S. Leibovich, NJMS; *National Institute of General Medical Sciences*

Glial Dysgenesis in the Injured Developing Brain; S. Levison, Frances Calderon, NJMS; *National Institute of Child Health and Human Development*

Structure and Function of the HIV-1 Envelope Protein; M. Lu, NJMS; *National Institute of Allergy and Infectious Diseases*

The Role of Scavenger Receptor gp340 in Mucosal HIV 1 Transmission and Inhibition; M. Lu, NJMS; *National Institute of Allergy and Infectious Diseases*

Development of an HIV-1 Entry Inhibitor Pre-Drug as a Microbicide; M. Lu, NJMS; *National Institute of Allergy and Infectious Diseases*

Re-Specification of the Notch Response by the HHV-8 Lytic Switch Protein; D. Lukac, NJMS; *National Institute of Allergy and Infectious Diseases*

Impacting Oxidative Stress and Cell Injury Through Novel Pathways of the Wnt Gene; K. Maiese, NJMS; *National Institute of Neurological Disorders and Stroke*

Ribosome-Based Single Molecule Method to Acquire Sequence Data from Genomes; W. Mandrecki, NJMS; *National Human Genome Research Institute*

Pediatric HIV/AIDS Cohort Study-NJMS: Adolescent Master Protocol (AMP); G. McSherry, NJMS; *National Institute of Child Health and Human Development*

Neuroendocrine Regulation of Erythropoiesis Following Trauma; A. Mohr, NJMS; *National Institute of General Medical Sciences*

PDGF Responsive Glial Progenitors of the SVZ in Glioma; S. Levison, L. Moore, NJMS; *National Institute of Neurological Disorders and Stroke*

Related Complex Components in Osteoblast Differentiation; E. Moran, NJMS; *National Institute of General Medical Sciences*

The p270 SWI/SNF Subunit as Potential Wilm's Tumor Susceptibility Gene; E. Moran, NJMS; *National Cancer Institute*

Reporter Mice for APP Processing and Transport; Z. Muresan, NJMS; *National Institute on Aging*

Structure and Function of RNA Polymerase in E.Coli; A. Mustaev, NJMS; *National Institute of General Medical Sciences*

Structural Biology of Multifunctional Bacterial Phosphatases; M. Neiditch, NJMS; *National Institute of Allergy and Infectious Diseases*

Local Modulation of Inflammation to Heal Cranial-Facial Bone Defects; P. O'Connor, NJMS; *National Institute of Dental and Craniofacial Research*

Novel Cell Targets for Enhancing Osteogenesis; P. O'Connor, NJMS; *United States Department of Defense*

Diabetic Fracture Healing; P. O'Connor, NJMS; *National Institute of Arthritis and Musculoskeletal and Skin*

Targeting Pediatric, Adolescent, and Maternal HIV Infection; J. Oleske, NJMS; *National Institute of Allergy and Infectious Diseases*

Mitochondrial Aconitase: Fe-S Cluster Biogenesis and Interaction with mtDNA; D. Pain, NJMS; *National Institute on Aging*

Mitochondrial Cysteine Desulfurase (MPI); D. Pain, NJMS; *National Institute of General Medical Sciences*

Effect of a Typical Antipsychotics on Fructose Metabolism and its Implications for Weight Gain; C. Palavincino-Maggio, NJMS; *National Institute of Mental Health*

Fuse Binding Protein as a Cellular Effector of HCV Replication; V. Pandey, NJMS; *National Institute of Diabetes and Digestive and Kidney Diseases*

Roles of Non-Coding RNA, roX, in Global Chromatin Organization; Y. Park, NJMS; *National Science Foundation*

Borrelia Burgdorferi Glycosaminoglycan Interactions and Lyme Disease Pathogenesis; N. Parveen, NJMS; *National Institute of Allergy and Infectious Diseases*

Mechanism of Clinical Resistance to Echinocardin: Antifungal Drugs; D. Perlin, NJMS; *National Institute of Allergy and Infectious Diseases*

Novel Epitopes that Mediate Broad Neutralization of Clade B and C HIV-1 Isolates; A. Pinter, NJMS; *National Institute of Allergy and Infectious Diseases*

Antigenic Properties of the V1/V2 Domain of HIV-1 GP120; A. Pinter, NJMS; *National Institute of Allergy and Infectious Diseases*

Strategies for Eliciting BnAbs Against Conserved HIV-1 Quaternary Epitopes; A. Pinter, NJMS; *National Institute of Allergy and Infectious Diseases*

Studies of the Role of MicroRNA MiR-16-1 in the NZB Model of CLL; E. Raveche, NJMS; *National Cancer Institute*

Aspergillus-Specific CD4 T Cells in Invasive Aspergillosis; A. Rivera-Medina, NJMS; *National Cancer Institute*

CD4+T Cells in Invasive Aspergillosis; A. Medina-Rivera, P Salgame, NJMS; *National Cancer Institute*

Mechanisms and Regulation of Mycobacterium Tuberculosis Iron Acquisition; G. Rodriguez, NJMS; *National Institute of Allergy and Infectious Diseases*

Lipid Regulation of Transient Receptor Potential Channels; T. Rohacs, NJMS; *National Institute of Neurological Disorders and Stroke*

Functional Analysis of Pirt and Pirt2 Novel Regulators of TRP Channels; T. Rohacs, NJMS; *National Institute of General Medical Sciences*

Regulation of the Intestinal Ca²⁺ Channels TRPV6; T. Rohacs, NJMS; *National Institute of General Medical Sciences*

Hypoglycemia-Induced NO in Glucose Sensing Neurons and Counterregulation; V. Routh, NJMS; *National Institute of Diabetes and Digestive and Kidney Diseases*

Role of Neuropeptide Y-Glucose inhibited (NPY-GI) Neurons in Cytokine-Induced Anorexia; V. Routh, NJMS; *National Cancer Institute*

Characterization of Estrogen Sensitive Ventromedial Hypothalamic Glucosensing; A. Santiago, V. Routh, NJMS; *National Institute of Diabetes and Digestive and Kidney Diseases*

A Novel Antimicrobial Mimetic for Oral Candidiasis; L. Ryan, NJMS; *National Institute of Dental and Craniofacial Research*

Cardioprotective Effects of Thioredoxin 1; J. Sadoshima, NJMS; *National Heart, Lung and Blood Institute*

Redox Regulation in Aging and Failing Heart; J. Sadoshima, NJMS; *National Institute on Aging*

Regulation of Myocardial Growth and Death by Autophagy; J. Sadoshima, NJMS; *National Heart, Lung and Blood Institute*

Regulation of Myocardial Growth and Death by GSK-3; J. Sadoshima, NJMS; *National Heart, Lung and Blood Institute*

Regulation of Myocardial Growth and Death by the Hippo Pathway; J. Sadoshima, NJMS; *National Heart, Lung and Blood Institute*

Immunosuppressive Role of TLR2 in Host Immunity to Mycobacterium Tuberculosis; P. Salgame, A. McBride, NJMS; *Ruth L. Kirschstein National Research Service Award*

TLR2 and the Tubercle Granuloma; P. Salgame, NJMS; *National Institute of Allergy and Infectious Diseases*

Perisomatic Inhibitory Network Dysfunction in Neurological Disease; V. Santhakumar, NJMS; *National Institute of Neurological Disorders and Stroke*

Molecular Mechanism of hTERT Function in Mitochondria; J. Santos, NJMS; *United States Army*

Modulation of Autophagy Mediates the Sensitization to Oxidative Stress by Mitochondrial Telomerase; J. Santos, NJMS; *United States Department of Defense*

Central Cardiovascular Regulation: Role of Urocortin III; H. Sapru, NJMS; *National Heart, Lung and Blood Institute*

Central Cardiovascular Regulation and Proangiogenesis-12; H. Sapru, NJMS; *National Heart, Lung and Blood Institute*

Infectious Triggers in Chronic Fatigue Syndrome; S. Schutzer, NJMS; *National Institute of Allergy and Infectious Diseases*

Assessment of Multiple Intrauterine Gestations from Ovarian Stimulation; A. Seungdamrong, NJMS; *National Institute of Child Health and Human Development*

Dissection of Mycobacterium Tuberculosis Metabolic and Regulatory Pathways to Persistence; L. Shi, NJMS; *National Institute of Allergy and Infectious Diseases*

Triacylglycerol Metabolism and Mtb Virulence; L. Shi, NJMS; *National Institute of Allergy and Infectious Diseases*

Gating/Permeation Coupling in Ca²⁺ Channels; R. Shirokov, NJMS; *National Institute of Mental Health*

Mitochondria and Calcium Signaling in Skeletal Muscle; Shirokova, NJMS; *National Institute of Arthritis and Musculoskeletal and Skin*

Cardiac Dystrophy Cellular Mechanisms; N. Shirokova, NJMS; *National Heart, Lung and Blood Institute*

X-Chromosome, Injury and Infection; Z. Spolarics, NJMS; *National Institute of General Medical Sciences*

Vitamin D Analogs as Adjuvants in Chemotherapy; G. Studzinski, NJMS; *National Cancer Institute*

Regulatory Networks in DNA Damage Checkpoint Response; K. Sugimoto, NJMS; *National Institute of General Medical Sciences*

Surveillance and Maintenance of DNA Ends; K. Sugimoto, NJMS; *National Cancer Institute*

High Throughput Screening Assays to Identify Small Molecules that Target the ClpXP Protease; C. Suzuki, NJMS; *National Institute of Neurological Disorders and Stroke*

Roles of the Mitochondrial Chaperones Mortalin and Tid1 in Protein Degradation and Disaggregation; C. Suzuki, NJMS; *National Institutes of Health*

The Role of cAMP Signaling Changes in Alcoholic Liver Disease; A. Thomas, V. Prince, NJMS; *Ruth L. Kirschstein National Research Service Award*

Role of HVPS34/mTOR Complex in Amino Acid-Induced Obesity and Insulin Resistance; A. Thomas, NJMS; *National Institute of Diabetes and Digestive and Kidney Diseases*

A Novel Ryanodine Receptor in the Hormonal Regulation of Hepatic Metabolism; A. Thomas, NJMS; *National Institute of Diabetes and Digestive and Kidney Diseases*

Malaria Melatonin Receptor Signaling as a Novel Drug Target; A. Thomas, NJMS; *National Institutes of Health*

Analysis of mRNA Polyadenylation Events Across Species and Tissues; B. Tian, NJMS; *National Institute of General Medical Sciences*

Alternative MRNA Processing in Cardiac Hypertrophy; B. Tian, NJMS; *National Heart, Lung and Blood Institute*

Computational and Experimental Analysis of RNA Structures in mRNA Polyadenylation; B. Tian, NJMS; *National Human Genome Research Institute*

Long Non Coding RNAs in Adipogenesis; B. Tian, NJMS; *National Institute of Diabetes and Digestive and Kidney Diseases*

Plasticity and Regeneration of Retinal Synapses; E. Townes-Anderson, NJMS; *National Eye Institute*

Neural Stability After Retinol Detachment; E. Townes-Anderson, NJMS; *National Eye Institute*

Imaging the Transport of Individual mRNA Molecules to the Active Synapses; S. Tyagi, NJMS; *National Institute of Mental Health*

Cholinergic Regulation of NF-kB in Sepsis; L. Ulloa, NJMS; *National Institute of General Medical Sciences*

Pre-Emptive Conditioning of the Ischemic Heart; D. Vatner, NJMS; *National Heart, Lung and Blood Institute*

Rescue of Beta-Adrenergic Cardiomyopathy by Inhibition of Adenylyl Cyclase; D. Vatner, NJMS; *National Heart, Lung and Blood Institute*

Longevity and Stress Resistance; S. Vatner, NJMS; *National Institute on Aging*

Cardiovascular Control in Normal and Disease States; S. Vatner, NJMS; *National Heart, Lung and Blood Institute*

Adenylyl Cyclase Isoforms in Hypertrophy and Heart Failure; S. Vatner, NJMS; *National Heart, Lung and Blood Institute*

Integrative Mechanism in Cardiovascular Disease; S. Vatner, NJMS; *National Heart, Lung and Blood Institute*

Intrinsic Vascular Smooth Muscle Cell Stiffness; S. Vatner, NJMS; *National Heart, Lung and Blood Institute*

Skeletal Muscle Basis for Improved Exercise Endurance in AC5 KO; S. Vatner, NJMS; *National Heart, Lung and Blood Institute*

Status of the Common Snapping Turtles in New Jersey's Assessment of Human Consumption Safety; P. Weis, NJMS; *Department of Environmental Protection*

Novel Pathways for Bcr-Abl Transformation; I. Whitehead, NJMS; *National Cancer Institute*

Reactivation of Breast Cancer Micrometastases by Senescent Bone Marrow Stroma; R. Wieder, NJMS; *United States Department of Defense*

Microfluidic Flow Retardation for Tagless Cancer Cell Analysis; R. Wieder, NJMS; *United States Department of Defense*

IGF and IGF Receptor Function in Mammary Development; T. Wood, NJMS; *National Institute of Diabetes and Digestive and Kidney Diseases*

TSC Regulates Oligodendroglial Differentiation and Myelination in the CNS; T. Wood, NJMS; *United States Department of Defense*

Antiarrhythmic Mechanisms in the Hearts of Hibernating Mammals; L. Xie, NJMS; *National Institutes of Health*

Mechanism of Intrinsic Cardioprotection in Marmota Momax; L. Yan, NJMS; *National Heart, Lung and Blood Institute*

Pathogenic and Protective T Cells in Toxoplasmosis; G. Yap, NJMS; *National Institute of Allergy and Infectious Diseases*

Alcohol and Mesolimbic Glutamatergic Transmission; J. Ye, NJMS; *National Institute on Alcohol Abuse and Alcoholism*

Glycine Regulates Ethanol Intake; J. Ye, NJMS; *National Institute on Alcohol Abuse and Alcoholism*

Enhancing Autism Surveillance in New Jersey; W. Zahorodny, NJMS; *Centers for Disease Control and Prevention*

TRP Channels in Supramolecular Complexes with Inorganic Polyphosphate and Polyhydroxybutyrate; E. Zakharian, NJMS; *National Institutes of Health*

MPO and NO Signaling in Neointima Formation; C. Zhang, NJMS; *National Heart, Lung and Blood Institute*

Role of MIR 145 in Vascular Smooth Muscle Cell Biology; C. Zhang, NJMS; *National Heart, Lung and Blood Institute*

Anaerobic Shock as a Novel Treatment for Tuberculosis; X. Zhao, NJMS; *National Institutes of Health*

DNA Helicase and Primase Inhibitors for Biodefense; S. Biswas, SOM; *National Institutes of Health/DHHS*

Cardiovascular Risk Factors and Preterm Delivery; X. Chen, SOM; *National Institutes of Health/DHHS*

Trauma-Focused CBT: Potential Mechanisms that Inhibit and Facilitate Change; E. Deblinger, SOM; *National Institutes of Health/DHHS*

Evolution of Developmental Regulatory Pathways; R. Ellis, SOM; *National Institutes of Health/DHHS*

Evolution of Complex Traits; R. Ellis, SOM; *National Science Foundation*

Mitochondrial Transcription and Its Regulation in Neural Tissue; D. Markov, SOM; *National Institutes of Health/DHHS*

Interaction of LIN-28 and Let-7 Family MicroRNAs in the Heterochronic Pathway; E. Moss, SOM; *National Science Foundation*

Targeting Hexokinase II in Chemotherapy; J. Pastorino, SOM; *National Institutes of Health/DHHS*

Effects of Ethanol on TNF Induced Cytotoxicity; J. Pastorino, SOM; *National Institutes of Health/DHHS*

Monitoring Mechanisms in Mammalian Ribosome Biogenesis; D. Pestov, SOM; *National Institutes of Health/DHHS*

Trauma Informed Disaster and Evidence Based Services (TIDES); M. Runyon, SOM; *SAMHSA/DHHS*

Child Abuse and Traumatic Loss T/S Development Center; M. Runyon, SOM; *SAMHSA/DHHS*

Differentiation of Cord Blood Mesenchymal Stem Cells to Corneal Endothelium; B. Saitta, SOM; *National Institutes of Health/DHHS*

Vitamin D Status in Pregnant Women; T. Scholl, SOM; *National Institutes of Health/DHHS*

Phthalate Exposure and Pregnancy Outcome; P. Stein, SOM; *National Institutes of Health/DHHS*

Developing Treatment, Treatment Validation, and Treatment Scope in the Setting of an Autism Clinical Trial; P. Stein, SOM; *US Army Research Office*

Mechanisms of Transient Transcription in Yeast; R. Strich, SOM; *National Institutes of Health/DHHS*

Role of the Oxidative Stress Pathway in Drug Resistance; R. Strich, SOM; *National Institutes of Health/DHHS*

A Novel Antimicrobial Peptide-Mimetic for Oral Candidiasis; R. Scott, Polymedix, Inc./ G. Diamond, NJDS. *National Institute for Dental and Craniofacial Research*

Vitamin D and Innate Immunity to Respiratory Infections; G. Diamond (NJDS)/S. Christakos (NJMS), *National Institute of Allergy and Infectious Diseases*

Optimizing Hand Rehabilitation Post-Stroke Using Interactive Virtual Environments; A. Merians, SHRP; *National Institutes of Health*

Integrated Motor Imagery for People Post-Stroke; J. Deutsch, SHRP; *National Institutes of Health*

EMBARC: Exploring Massage Benefits for Osteoarthritis of the Knee; A. Perlman, S. Gould-Fogerite, SHRP; *National Institutes of Health*

Cognitive Remediation among Post-Secondary Students with Serious Mental Illness; M. Mullen, SHRP; *National Institute of Disability and Rehabilitation Research (NIDRR)*

A Study of Age-Associated Need, Services, and Outcomes of Participants enrolled in Supported Education; K. Gill, SHRP; *National Institute of Disability and Rehabilitation Research (NIDRR)*

Effectiveness of Educational Supports on Retention of Postsecondary Students with Psychiatric Disabilities; K. Gill, SHRP; *National Institute of Disability and Rehabilitation Research (NIDRR)*

Cell Phone RDD Sampling to Reach Young Adults for Tobacco Control Surveillance; C. Delnevo, SPH; *National Cancer Institute*

Second Level Quality Control Checking of the 2010-2011 Tobacco Use Supplement; C. Delnevo, SPH; *National Cancer Institute*

Understanding the growth in moist snuff: a mixed methods study; C. Delnevo, SPH; *National Institutes of Health*

Hazardous Materials Worker Health and Safety Training (U45) Cooperative Agreement; A. Gotsch, SPH; *National Institute of Environmental Health Sciences*

A Competent Person Program Applied to Fall Protection; K. Koshy, SPH; *Occupational Safety and Health Administration*

Investigating the scope of tobacco industry direct mail and its impact on smoking; J. Lewis, SPH; *National Institutes of Health*

Enhancing Living Donor Kidney Transplant Education (ELITE) Study; D. Brown, SPH; *Health Resources and Services Administration (Subcontract from St. Barnabas Medical Center)*

NJ Preparedness & Emergency; G. DiFerdinando, SPH; *Centers for Disease Control (Subcontract from The State University of New York at Albany)*

Understanding Smokeless Tobacco Marketing; J. Lewis, SPH; *National Institutes of Health (Subcontract from University of San Francisco)*

Epigenetic Modifications by Dietary PEITC in Prostate Cancer; Y. Lin, SPH; *National Cancer Institute (Subcontract from Rutgers, The State University of New Jersey)*

An Evaluation of Safety Liaisons and Worker Training Among Vulnerable Workers in Residential Construction; E. Marshall, SPH; *National Institute for Occupational Safety Health (Subcontract from Rutgers, The State University of New Jersey)*

Impact of Air Pollution Reductions During the Beijing Olympics on Pre-Term Birth; P. Ohman-Strickland, SPH; *National Institutes of Health (Subcontract from University of Rochester)*

National Children's Study (Passaic Option); G. Rhoads, SPH; *National Institute of Child Health and Human Development (Subcontract from Mount Sinai School of Medicine)*

National Children's Study (Manhattan Option); G. Rhoads, SPH; *National Institute of Child Health and Human Development (Subcontract from Mount Sinai School of Medicine)*

Respiratory Effects of Silver and Carbon Nanomaterials; S. Schwander, SPH; *National Institute of Environmental Health Sciences (Subcontract from University of Southern California)*

Risk Assessment for Manufactured Nanoparticles Used in Consumer Products; S. Schwander, SPH; *National Institute of Environmental Health Sciences (Subcontract from University of Southern California)*

Salivary Endothelin-1 Potential for Detecting Oral Cancer in Patients with Oral Lichen Planus or Oral Cancer in Remission; H.S. Chen, SN, et al; *National Institutes of Health - National Institute of Dental and Craniofacial Research*

Salivary Basic Fibroblast Growth Factor as Biomarker for Oral Squamous Cell Carcinoma (OSCC) in Oral Lichen Planus Patients and Patients Monitored for OSCC Recurrence; H.S. Chen, SN, et al; *National Institutes of Health - National Institute of Dental and Craniofacial Research*

Genetic Analysis of Transcription Initiation in Yeast; M. Hampsey, RWJMS; *National Institute of General Medical Sciences*

Impact of Alport Syndrome Mutations and Natural Interruptions on Collagen Folding; E. Hwang, RWJMS; *National Institute of Diabetes and Digestive and Kidney Disease*

Studies to Examine Centrin's Role in DNA Repair; K. Madura, RWJMS; *National Institute of General Medical Sciences*

Mechanism and Regulation of Transcription Initiation (Competing); S. Patel, RWJMS; *National Institute of General Medical Sciences*

Mechanistic Studies of Hexameric Helicases; S. Patel, RWJMS; *National Institute of General Medical Sciences*

Retroviral Integration & HDAC Inhibitors; M. Roth, RWJMS; *National Institute of Allergy and Infectious Diseases*

Targeting Entry of Retroviral/Lentiviral Vectors; M. Roth, RWJMS; *National Cancer Institute*

Functional Analysis of Bfl-1/A1 in Apoptosis and Oncogenesis; C. Gelinas, RWJMS; *National Institutes of Health*

Deciphering of the Toxin-Antitoxin Systems in E. Coli; M. Inouye, RWJMS; *National Institutes of Health*

The Method for Determination of Membrane Protein Structures without Purification; M. Inouye, RWJMS; *National Institutes of Health*

Lysosomal Enzymes and Associated Human Genetic Diseases; P. Lobel, RWJMS; *National Institutes of Health*

Novel Lysosomal Enzyme Deficient in Batten Disease; P. Lobel, RWJMS; *National Institutes of Health*

Characterization of New Toxins (YmgD and YdfD) from E. Coli, Targeting Cell Wall; H. Masuda, RWJMS; *National Institutes of Health*

A Mouse Knock-in Model for ENGRAILED 2 Autism Susceptibility; J. Millonig, RWJMS; *National Institutes of Health*

Identification and Functional Assessment of Autism Susceptibility Genes; J. Millonig, RWJMS; *National Institutes of Health*

Tumor Suppressor Role of CAPER Alpha in ER Alpha-Negative and Rel/NF-KappaB-Positive Breast Cancer; P. Molli, RWJMS; *Department of Defense*

A Computational Approach to Developing Heterochiral Peptide Therapeutics; V. Nanda, RWJMS; *National Institutes of Health*

Computational Design of a Synthetic Extracellular Matrix; V. Nanda, RWJMS; *National Institutes of Health*

Design of Programmable, Self-Assembling Collagen Biomaterials; V. Nanda, RWJMS; *National Science Foundation*

Structure-Based Engineering of Allergens to Enhance Digestibility; V. Nanda, RWJMS; *National Institutes of Health*

Computational Design of Beta-Barrel Membrane Proteins; J. Stapleton, RWJMS; *National Institutes of Health*

Structure and Function of Response Regulator Proteins; A. Stock, RWJMS; *National Institutes of Health*

Dll4 Gene Regulation and Function During Retinogenesis; M. Xiang, RWJMS; *National Institutes of Health*

Transcriptional Regulation of Retinal Development; M. Xiang, RWJMS; *National Institutes of Health*

Caspr2 as an Autism Candidate Gene: A Proteomic Approach to Function and Structure; D. Comoletti, RWJMS; *National Institutes of Health*

Enhancing Tumor Immunity with PLZF: The Master Regulator of Innate T Cell Functions; D. Sant'Angelo, RWJMS; *Department of Defense*

The Function of PLZF in Innate T Cells; D. Sant'Angelo, RWJMS; *National Institutes of Health*

Immunosuppression by Adult Stem Cells; Y. Shi, RWJMS; *National Institutes of Health*

Regulation of MDR1 Expression and Drug Resistance by CD44; L. Rodriguez-Rust, RWJMS; *National Cancer Institute*

53BP1 Abnormalities in Breast Cancer; A. Aly, RWJMS; *United States Department of Defense*

Changes in Physical Activity and Diet in Colorectal Cancer Survivors; E. Coups, RWJMS; *National Cancer Institute*

Early Clinical Trials of New Anti-Cancer Agents with Phase I Emphasis; R. DiPaola, RWJMS; *National Institutes of Health*

Modulating Drug Resistance in Prostate Cancer: The Dean and Betty Gallo Prostate Cancer Center; R. DiPaola, RWJMS; *United States Department of Defense*

The Impact of a Common MDM2 SNP on the Sensitivity of Breast Cancer; K. Hirshfield, RWJMS; *United States Department of Defense*

Role of Autophagy in Breast Cancer; V. Karantza-Wadsworth, RWJMS; *National Cancer Institute*

Role of Autophagy in Keratin Homeostasis in Breast Cancer; S. Kongara, RWJMS; *United States Department of Defense*

A Phase 0 Trial of Hydroxychloroquine; an Inhibitor of Autophagy in Patients with Stage III or IV Resectable Melanoma; J. Mehnert, RWJMS; *National Institutes of Health*

Asymmetric Cell Division and Notch Signaling in Lung Cancer Stem Cells; S. Pine, RWJMS; *National Institutes of Health*

The Role of MicroRNAs in Human Hematopoietic Cell Differentiation; D. Schaar, RWJMS; *National Institutes of Health*

Psychosocial Stress Promotes Irradiation-Induced Tumorigenesis Through the Attenuation of p53 Function; W. Hu, RWJMS; *United States Department of Defense*

Life After Cancer: Examining Survivor Transitions from Specialist to Primary Care; S. Hudson, RWJMS; *National Cancer Institute*

Predictors of Follow-Up Care Seeking Among Breast and Prostate Cancer Survivors; S. Hudson, RWJMS; *National Institutes of Health*

Evaluate Long-Term Prognosis of Localized Prostate Cancer Following Initial Radiation Therapy (Supplement); G. Lu-Yao, RWJMS; *National Institutes of Health*

Evaluation of Palliative Prostate Cancer Care Among Elderly Men; G. Lu-Yao, RWJMS; *National Institutes of Health*

Psychological Intervention for Ovarian Cancer Patients; S. Manne, RWJMS; *National Institutes of Health*

Intimacy-Enhancing Couples' Intervention for Localized Prostate Cancer; S. Manne, RWJMS; *National Institutes of Health*

Decisional Aid Intervention for Women Considering Breast Reconstruction; S. Manne, RWJMS; *National Cancer Institute*

Facilitating Parent Adaptation to Pediatric Transplant: the P-SCIP Trial; S. Manne, RWJMS; *National Institutes of Health*

Obesity in Ovarian Cancer Prognosis; E. Bandera, RWJMS; *National Cancer Institute*

Validation of GRM1 as a Therapeutic Target in Melanoma; J. Goydos, RWJMS; *National Cancer Institute*

Combination Therapy that Targets Glutamate Signaling in Melanoma; J. Goydos, RWJMS; *National Cancer Institute*

TGF β Receptor Mutations in Cancer and other Diseases; E. Lattime, RWJMS; *National Cancer Institute*

Surveillance, Epidemiology, and End Results (SEER) Program; E. Lattime, RWJMS; *National Cancer Institute*

Evaluation of Two Sampling and Analytical Methods for the Measurement of Hexavalent Chromium in Ambient Air; Z. Fan, RWJMS; *United States Environmental Protection Agency*

Neurobehavioral Effects of Pesticide Exposure Among Children in Rural Thailand; N. Fiedler, RWJMS; *National Institute of Environmental Health Sciences*

Development of Drugs to Mitigate Parathion Intoxication; J. Laskin, RWJMS; *National Institute of Neurological Disorders and Stroke*

Mechanisms of Pesticide-Induced Neurobehavioral Deficits: Relevance to ADHD; J. Richardson, RWJMS; *National Institutes of Health*

Linkage Study of Air Quality PM 2.5 and Cardiovascular Effect Data from the Tracking Network; D. Wartenberg, RWJMS; *Centers for Disease Control and Prevention*

ACER-Exposure to Flame Retardants in Commercial Aircraft; C. Weisel, RWJMS; *Federal Aviation Administration*

RCT of Controlled Breathing Effects on Ambulatory BP; L. Clemow, RWJMS; *National Heart, Lung, and Blood Institute*

Taking Action by Learning and Knowledge Management to Improve Diabetes Mellitus; L. Clemow, RWJMS; *National Institute for Diabetes and Digestive and Kidney Diseases*

Integrating Practice and Community Cancer Control; B. Crabtree, RWJMS; *National Cancer Institute*

Enhancing Colorectal CA Screening Through Learning Teams; B. Crabtree, RWJMS; *National Cancer Institute*

Translating Research into Action for Diabetes (TRIAD) Legacy Study – Coordinating Center; J. Crosson, RWJMS; *Centers for Disease Control and Prevention/National Institute for Diabetes and Digestive and Kidney Diseases*

Redesigning Diabetes Work Processes for Population-based Primary Care; J. Crosson, RWJMS, *National Institute for Diabetes and Digestive and Kidney Diseases*

Lessons Learned from Care Coordinators in Patient-Centered Medical Homes; J. Ferrante, RWJMS; *Agency for Healthcare Research and Quality*

Life After Cancer: Examining Survivor Transitions from Specialist to Primary Care; S. Hudson, RWJMS; *National Cancer Institute*

Predictors of Follow-up Care Seeking Among Breast and Prostate Cancer Survivors; S. Hudson, RWJMS; *National Cancer Institute*

RCT of an Online Multimedia Program to Boost Coping and Function for Prostate Cancer Survivors; S. Hudson, *National Cancer Institute*

Using Learning Teams For Reflective Adaption For Diabetes; E. Shaw, RWJMS; *National Institute for Diabetes and Digestive and Kidney Diseases*

Transfusion Trigger Trial in Coronary Heart Disease: A Pilot Study; J. Carson, RWJMS; *National Heart, Lung and Blood Institute*

Public Health Surveillance for the Prevention of Complications of Bleeding and Clotting Disorders to HTCs; C. Philipp, RWJMS; *Centers for Disease Control and Prevention*

Mycophenolate vs. Oral Cyclophosphamide in Scleroderma Interstitial Lung Disease; D. Riley, RWJMS; *National Institutes of Health*

Posttranscriptional Regulation of Oncogene Messenger RNA; G. Brewer, RWJMS; *National Cancer Institute*

Expanding the Genetic Code in Yeast; P. Copeland, RWJMS; *National Institute of General Medical Sciences*

Functional Analysis of SBP2 and Selenocysteine incorporation; P. Copeland, RWJMS; *National Institute of General Medical Sciences*

Functional Dissection of Toxin-Antitoxin Systems in Mycobacterium Tuberculosis; N. Woychik, RWJMS; *National Institute of Allergy and Infectious Diseases*

Membrane Protein Production Using the Yeast SPP System; N. Woychik, RWJMS; *National Institute of General Medical Sciences*

Regulators of Translation Elongation Factor EF-1alpha; T. Kinzy, RWJMS; *National Institutes of Health*

Expanding The Genetic Code In Yeast, T. Kinzy, RWJMS; *EUREKA National Institutes of Health*

Conservation of Meiotic Recombination Sites in the Human Genome; H. Li, RWJMS, *National Institute of General Medical Sciences*

Gene Regulation Using Novel Drugs Modulating Premature Translational Termination; J.P. Dougherty; RWJMS; *National Institute of Allergy and Infectious Diseases*

Neuropeptide VGF in Antidepressant-Induced Neurogenesis and Mood Disorders; J. Alder, RWJMS; *National Institute of Mental Health*

Caspr2 as an Autism Candidate Gene: A Proteomic Approach to Function and Structure; D. Comoletti, RWJMS; *National Institute of Mental Health*

Perinatal Methylmercury Targets Hippocampal Stem Cells and Reduces Neurogenesis; E. DiCicco-Bloom, RWJMS; *National Institute of Environmental Health Sciences*

Developmental Ah Receptor Activity in the CNS: Neurogenesis & Neurotoxicity; E. DiCicco-Bloom, RWJMS; *University of Rochester; National Institute of Environmental Health Sciences*

Growth and Development of the Nervous System: Molecular Mechanisms; C. Dreyfus, RWJMS; *National Institute of Child Health and Human Development*

The Role of Neurotrophins in Oligodendrocyte Function; C. Dreyfus, RWJMS; *National Institute of Neurological Disorders and Stroke*

Molecular Control of Shh-Gli Signaling by Gli Factors; M. Matise, RWJMS; *National Institutes of Health/NICHD*

Molecular Regulation of Hedgehog Signaling in the Vertebrate CNS; M. Matise, RWJMS; *National Science Foundation*

Molecular Control of Corticospinal System Formation by Intermediate Targets; M.R. Rasin, RWJMS; *National Institute of Neurological Disorders and Stroke*

Role of First Neocortical RNA-operon in Specification of Neocortical Projection Neurons; M.R. Rasin, RWJMS; *National Institute of Neurological Disorders and Stroke*

Regulation of Dendritic Differentiation by BDNF-Induced Neuropeptide Nociceptin; S. Thakker-Varia, RWJMS; *National Science Foundation*

The Par-6/aPKC Complex in Synaptic Assembly and Function; H. Zhang, RWJMS; *National Institute of Neurological Disorders and Stroke*

BDNF-Engineered Stem Cell Mediated Neuroprotection in EAE; S. Dhib-Jalbut, RWJMS; *National Institute of Neurological Disorders and Stroke*

Alpha-Synuclein Regulation by microRNAs; E. Junn, RWJMS; *National Institutes of Health*

Manipulating Gene Expression in the Dyskinesia of Parkinson's Disease; M. Mouradian, RWJMS; *National Institutes of Health*

Neuroprotective Activity of DJ-1 in Parkinson's Disease; M. Mouradian, RWJMS; *National Institute of Neurological Disorders and Stroke*

A Parkinson's Disease Neuro Protection Trial; J. Sage, RWJMS; *National Institute of Neurological Disorders and Stroke*

Collaborative Systems for Analyzing Tissue Microarrays; D. Foran, RWJMS; *National Institute of Health*

Mechano-Visual Phenotyping of Cancer: From Onset through Disease Progression; D. Foran, RWJMS; *National Institute of Health*

Investigating Cell Adhesion During Heart Tube Formation in Drosophila; S. Kramer, RWJMS; *National Science Foundation*

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The Role of the Par-6/aPKC Complex in Glutamatergic Neurotransmission; H. Zhang, RWJMS; *The Brain and Behavior Research Foundation*

Informatics Brain Tumor Whole Slide Analysis; D. Foran, RWJMS; *Emory University*

Unrecognized Mucopolysaccharidosis I, II, IVA, VI in the Pediatrics Rheumatology Population; L. Moorthy, RWJMS; *The National MPS Society*

NJ Integrated Community Systems Project--Autism Spectrum Disorders & Other Developmental Disabilities; D. Spitalnik, RWJMS; *Statewide Parent Advocacy Network*

Supporting People with Intellectual Disabilities to Exercise Their Right to Vote; D. Spitalnik, RWJMS; *Disability Rights New Jersey*

Disposition of Environmental Chemicals During Pregnancy (Outstanding New Environmental /Scientist Award); A. Vetrano, RWJMS; *Rutgers, The State University of New Jersey*

Chronic Kidney Disease in Children (cKids); L. Weiss, RWJMS; *The Children's Hospital of Philadelphia*

Redesign of Aminoglycosides to Treat Human Genetic Diseases Caused by Nonsense Mutations; D. Pilch, RWJMS; *United States – Israel Binational Science Foundation*

Targeting Protein Quality Control for Cancer Therapy; E. Jacinto, RWJMS; *American Association for Cancer Research*

mTOR Targets in T Lymphocyte Development; E. Jacinto, RWJMS; *Cancer Research Institute, Inc.*

The Nematode C. Elegans as a Pharmacological Tool; F. Sesti, RWJMS; *American Heart Association, Inc.*

Rescuing Ca²⁺ Deregulation and Contractile Function in Muscle Aging; X. Zhao, RWJMS; *American Heart Association, Inc.*

Testing CBT Models and Change Mechanisms of Alcohol Dependent Women; J. Williams, RWJMS; *Rutgers, The State University of New Jersey*

Contouring In Radiation Oncology Education—A Self-Assessment Module For Radiation Oncologists; S. Goyal, RWJMS; *Radiologic Society of North America (RSNA) Education Scholar Grant*

A Population-Based Approach To Survivorship Care: Delivering Interventions Via The Web; J. Graff, RWJMS; *University of Michigan Innovation in Research Award*

The PALB2-BRCA2 Pathway In Oxidative Stress Response And Tumor Suppression; B. Xia, RWJMS; *American Cancer Society*

New Drugs for Cystinuria Pilot Project; A. Sahota; RWJMS; *Rare Kidney Stone Consortium, Mayo Clinic*

Assembly and Maintenance of the Contractile Cytoskeleton of Cardiomycocytes by a Myosin Specific Chaperone Complex; D.A. Winkelmann, RWJMS; *American Heart Association*

PRIVATE INDUSTRY

Evaluation of the Xpert MTB/RIF Assay Using Archived Specimens a from Non-US Population; D. Alland, NJMS; *Cepheid*

Study of Xolair (Omalizumab): Evaluating Clinical Effectiveness and Long-Term Safety in Patients with Moderate-to-Severe Asthma; D. Axelrod, NJMS; *Genentech*

Study to use the Material (Apo-L1) in University's Cell Culture T. Brucei Model to Study Effects of Apo-Li on Cell Viability; V. Bellofatto, NJMS; *Merck Sharp and Dohme Research Laboratories*

Vitamin D: Mechanism of Action; S. Christakos, NJMS; *Merck Sharp and Dohme Research Laboratories*

Basic and Applied Studies on Tuberculosis; N. Connell, NJMS; *Jacobus Pharmaceutical*

Characterization of Focal Liver Lesions with SonoVue Enhanced Ultrasound Imaging: A Comparative Study Versus Unenhanced Ultrasound Imaging Using Histology or Combined Imaging; A. DelaTorre, NJMS; *Bracco Diagnostics*

Testing Talactoferrin; E. Deitch, NJMS; *Aggenix*

Study Comparing Combination Antivirals (Amantadine, Ribavirin, Oseltamivir) versus Oseltami; N. Dharan, NJMS; *Social and Scientific Systems*

Comparing Oseltamivir versus Placebo for Treatment of Influenza in low-Risk Adults; N. Dharan, NJMS; *Social and Scientific Systems*

Roche COBAS Project - COBAS TaqMan HIV-1 Test, v 2.0 For Use With the High Pure System and COBAS AmpliPrep/COBAS TaqMan HIV-1 Test, v 20; H. Fernandes, NJMS; *Roche Molecular Systems*

Utiliziing a TGF-a inhibitor at different doses to determine a dose response to reduce the fibrotic development post ischemic event in a rat model of ischemia reperfusion; G. Shumin, NJMS; *CV Dynamics*

Controlled Trial Comparing Cervical Arthroplasty to Anterior Cervical Diskectomy and Fusion for the Treatment of Cervical Degenerative Disc Disease; R. Heary, NJMS; *DePuy*

Multicenter Trial to Compare the Efficacy, Safety, and Tolerability of PREZISTA by Gender and Race; S. Hodder, NJMS; *Tibotec Pharmaceuticals*

Cardiovascular, anthropometric and skeletal effects of anti-retroviral (ARV) initiation with tenofovir/emtricitabine plus (ATV/r), (DRV/r) or (RTG): Metabolic Substudy of A5257; S. Hodder, NJMS; *Social and Scientific Systems*

Study of the Effects of Ranolazine on Major Adverse Cardiovascular Events in Subjects with a History of Chronic Angina; E. Kaluski, NJMS; *Gilead Sciences*

Study to investigate the long-term safety, tolerability and efficacy of 10, 20, and 40 mg/day ACT-128800, an oral S1P1; S. Kamin, NJMS; *Actelion Pharmaceuticals*

Trial of the Effects of Titrated Oral SAMSCa (Tolvaptan) 15,30 or 60 mg QD Compared to Placebo Plus Fluid Restriction; J. Kaplan, NJMS; *Otsuka Pharmaceutical*

Study to evaluate the 6 months efficacy and safety of aliskiren; M. Klapholz, NJMS; *Novartis Pharmaceuticals*

Study to Evaluate the Long-Term Efficacy and Safety of Concentration-Controlled Everolimus in Liver Transplant; B. Koneru, NJMS; *Novartis Pharmaceuticals*

Salto Talaris Anatomic Ankle Arthroplasty Outcomes Study; S. Sheldon, NJMS; *Tornier*

Trial to Evaluate the Safety and Effectiveness of Augment Injectable Bone Graft Compared to Autologous Bone Graft; S. Sheldon, NJMS; *Biomimetic Therapeutic*

Exogen Tendinopathy Pilot Study; S. Sheldon, NJMS; *Smith and Nephew*

Clinical Trial Evaluating the Safety and Effectiveness of Adherus TM Dural Sealant When Used as a Dural Sealant in Cranial Procedures; J. Liu, NJMS; *Hyper Branch Medical Technology*

Study to Evaluate the Efficacy and Safety of Oral BAY 63-2521 (1mg, 1.5 mg, 2 mg, or 2.5 mg TID); J. Maher, NJMS; *Bayer Healthcare Pharmaceuticals*

Left Atrial Pressure Monitoring to Optimize Heart Failure Therapy; J. Maher, NJMS; *St. Jude Medical*

The Effect of Recombinant Luteinizing Hormone on Follicular Response, Oocyte Quality, and Pregnancy in In-Vitro Fertilization Cycles in Women; P. McGovern, NJMS; *Serono Laboratories*

Use of Genetically Modified Stem Cells to Treat Critical Size Bone Defects; P. O'Connor, NJMS; *TissueGene*

Teriflunomide in a model of MS; A. Pachner, NJMS; *Sanofi-Aventis*

Study of the Efficacy of Natalizumab on Reducing Disability Progression in Subjects with Secondary Progressive Multiple Sclerosis; A. Pachner, NJMS; *Biogen Idec*

Comparison of Dexmedetomidine Sedation vs Propofol in Vitreoretinal Surgery Under Sub-Tenon's Block; A. Patel, *Hospira*

Steinmann Pin Augmentation Versus Locking Plate Constructs in Cemented Proximal Tibial Defects; F. Patterson, NJMS; *Synthes*

Reference Center for Evaluation of Reduced Antifungal Susceptibility to Echinocandin Drugs; D. Perlin, NJMS; *Pfizer*

In Vitro Susceptibility of Enfumafungin Compound MK-3118 and a Merck Affiliate GS Inhibitor Against Echinocandin Resistant Clinical Isolates; D. Perlin, NJMS; *Merck Sharp and Dohme Research Laboratories*

Assessing the in Vivo Potential for Micafungin Resistance Induced by FKS Mutations in *Candida Glabrata*; D. Perlin, NJMS; *Astellas Pharma US*

Study of YONDELIS (Trabectedin) or Dacarbazine for the treatment of Advanced Liposarcoma or Leiomyosarcoma Previously Treated With an Anthracycline and Ifosfa; L. Pliner, NJMS; *Johnson and Johnson Pharmaceuticals*

Cost-Effectiveness Analysis of a Potential Group B Streptococcal Vaccine in a Resource-Constrained Setting; A. Sinha, NJMS; *P3S*

A New Marker for Chronic Demyelination in Diabetic Neuropathy Study; N. Souayah, NJMS; *Talecris Biotherapeutics*

A Severe Combined Immuno-Deficient (SCID) Hu Chimeric Mouse Model for Studying HCMV Viral Replication; H. Zhu, NJMS; *Merck Sharp and Dohme Research Laboratories*

Constructing Recombinant MCV with ddKBP/Shd-1 Inactivation; H. Zhu, NJMS; *Merck Sharp and Dohme Research Laboratories*

Generation and Evaluation of a Varicella Zoster Virus with an ORF7 Deletion (v7D); H. Zhu, NJMS; *Beijing Wantai Biological Pharmacy*

JCV Antibody Program in Patients with Relapsing Multiple Sclerosis Receiving or Considering Treatment with Tysabri: STRATIFY-2; D. Barone, SOM; *Biogen Idec*

Trial of Oral Cladribine in Subjects with a First Clinical Event at High Risk of Converting to MS (1072); D. Barone, SOM; *EMD Serono*

Registry of Multiple Sclerosis Patients Who Have Participated in Cladribine Clinical Trial; D. Barone, SOM; *EMD Serono*

Trial to Assess Oxycodone/Naloxone Controlled-release Tablets Compared to Placebo in Opioid-experienced Subjects with Moderate to Severe Pain due to Chronic Lower Back Pain who Require Around-the-Clock Opioid Therapy; R. Jermyn, SOM; *Purdue Pharma*

Efficacy and Safety of Cyclobenzaprine Hydrochloride Extended-Release for the Treatment of Chronic Migraine; L. Mueller, SOM; *Cephalon*

Beneficial Effects of SB in Preventing Structural and Functional Breakdown of the Blood-Brain Barrier Mediated by Diabetes and Hyperlipidemia in the Porcine Brain; R. Nagele, SOM; *GlaxoSmithKline*

Purification of bacterial proteins that target the blood brain barrier; S. C. Kachlany, NJDS; *InnoPharma*.

The Effects of Pressure on Lower Back Pain in Sciatica; A. Perlman, G.M. Mahon, SHRP; *Johnson and Johnson Consumer and Personal Products Worldwide*

Efficacy of Lactobacillus Rhamnosus Subspecies GG (LGG) and Bifidobacterium Animalis Subspecies Lactis (BB12) on Health-Related Quality of Life in College Students with Upper Respiratory Infection; T. Smith, SHRP; *Chr Hansen Grant*.

Establishing a Drug-Screening System for a Human Calcium Channel Protein, Cav1.3; M. Inouye, RWJMS; *Dainippon Sumitomo Pharma*

Targeting Tripeptidyl Peptidase 1 Across the Blood-Brain Barrier; P. Lobel, RWJMS; *Johnson & Johnson Services*

Trial of Patupilone (EPO906) versus Pegylated Liposomal Doxorubicin; D. Gibbon, RWJMS; *Novartis Pharmaceuticals*

Study Evaluating MK-1775 in Combination with Paclitaxel and Carboplatin vs Paclitaxel and Carboplatin Alone in Adult Patients w/Platinum Sensitive p53 Mutant Ovarian Cancer; D. Gibbon, RWJMS; *Merck Sharp and Dohme Research Laboratories*

Darinaparsin in Vitro Studies; J. Bertino, RWJMS; *ZIOPHARM Oncology*

Efficacy and Safety of Oral Kanlaite (KLTC) Gelcap in Men w/Prostate Cancer; R. DiPaola, RWJMS; *KangLaiTe USA*

Study of MDX-060 in Patients with Relapsed or Refractory Classic Systemic or Primary Cutaneous Anaplastic Large Cell Lymphoma; M. Gharibo, RWJMS; *Medarex*

Study of KW 2478 in combination with Bortezomib in Subjects with Relapsed and/or Refractory Multiple Myeloma; M. Gharibo, RWJMS; *Kyowa Hakko Kirin Pharma*

Study of ABT-263 in Combination with Carbotaxel (Carboplatin/Paclitaxel) in the Treatment of Subjects with Solid Tumors; V. Karantza, RWJMS; *Abbott Laboratories*

Study of Abiraterone Acetate in Subjects w/Metastatic Castration-Resistant Prostate Cancer Who Have Progressed After Taxane-Based Chemotherapy; T. Mayer, RWJMS; *Cougar Biotechnology*

Study of ICT-107 in Newly Resection and Chemoradiation; T. Mayer, RWJMS; *ImmunoCellular Therapeutics*

Study of ARQ7436 in Adult Subjects with Advanced Solid Tumors Harboring BRAF and/or NRAs Mutations; J. Mehnert, RWJMS; *ArQule*

Study of the Safety and Pharmacology of GDC 0941 in Combination w/Erlotinib in Patients with Advanced Solid Tumors; R. Moss, RWJMS; *Genentech*

Study to Assess the Effect of TKT258 on the Pharmacokinetics of Caffeine Diclofenac & Omeprazole; R. Moss, RWJMS; *Novartis Pharmaceuticals*

Trial of Deforolimus; an mTOR Inhibitor for Patients with Advanced Cancer; E. Poplin, RWJMS; *Ariad Pharmaceuticals*

Trial of CP-675-206 Administered in Combination with SUO11248 to Patients with Treatment Naïve Metastatic Renal Cell Carcinoma; M. Stein, RWJMS; *Pfizer*

Study of Plitidepson in Combination w/Sorafenib or Gemcitabine in Patients w/advanced Solid Tumors or Lymphomas; M. Stein, RWJMS; *PharmaMar; S.A.*

Trial Investigating Two Doses of EMD 525797 in Subjects with Asymptomatic or Mildly Symptomatic Metastatic Castrate-resistant Prostate Cancer; M. Stein, RWJMS; *EMD Serono*

Study of Single Agent R05045337 Administered Orally in Patients with Acute Myelogenous Leukemia; R. Strair, RWJMS; *Hoffman La Roche*

Trial of Letrozole (Femara) and Sorafenib (Nexavar) in Postmenopausal Women With Hormone-Receptor Positive Locally Advanced or Metastatic Breast Cancer; A. Tan, RWJMS; *Novartis Pharmaceuticals; Bayer Healthcare Pharmaceuticals*

Study of the Phosphoinositide 3 Kinase Inhibitor GSK 2126458 in Subjects with Solid Tumors or Lymphoma; A. Tan, RWJMS; *GlaxoSmithKline*

Study of Ketoconazole and the Effects of Esomeprazole on the Pharmacokinetics of Orally Administered Repeat Doses of Pazopanib in Subjects With Solid Tumor Malignancies; A. Tan, RWJMS; *GlaxoSmithKline*

Understanding Iniparib and its Role in the Treatment of Triple Negative Breast Cancer; A. Tan, RWJMS; *Sanofi-Aventis*

Study of Pazopanib in combination with Weekly Paclitaxel and Carboplatin in Patients with Advanced Solid Tumors; A. Tan, RWJMS; *GlaxoSmithKline*

Study of Weekly Abraxane and RAD001 in Women with Locally Advanced or Metastatic Breast Cancer; D. Toppmeyer, RWJMS; *Novartis Pharmaceuticals*

Race and Risk Factors for Early/Aggressive Breast Cancer; E. Bandera, RWJMS; *Health Research*

Assessment of Content Validity and Other Quantitative Measurement Properties of the Cochin Hand Functional Scale (CHFS) for use in a Scleroderma Patient Population with Digital Ulcers (DUs); V. Hsu, RWJMS; *United BioSource Corporation*

Equivalent Level of Safety - Define the Air Quality Provided by 0.55lb/min Occupant; N. Fiedler, RWJMS; *Boeing Corp.*

Equivalent Level of Safety - Defining what 0.55lb/min/Occupant Provides in Terms of Air Quality; N. Fiedler, RWJMS; *Boeing Corp.*

Clinical Trials for Red Cells; J. Carson, RWJMS; *Cerus Corporation*

Study of Tocilizumab vs Placebo in Patients with Systemic Sclerosis; V. Hsu, RWJMS; *Hoffman La Roche*

Study of Macitentan in Patients with Ischemic Digital Ulcers Associated With Systemic Sclerosis; V. Hsu, RWJMS; *Actelion Clinical Research, Inc.*

Effects of Resistant Starch on Insulin Sensitivity in Women; V. Hsu, RWJMS; *National Starch*

Effects of Soluble Fiber on Human Gut Microbiota, Formation of Bioactive Metabolites Inflammation and Blood Glucose Control; V. Hsu, RWJMS; *National Starch*

Trial to Assess the Gastrointestinal Tolerability of a Dietary Fiber Ingredient in Healthy Men and Women; V. Hsu, RWJMS; *National Starch*

Assessing Fermentability of a Novel Carbohydrate Fiber in Healthy Non-Obese Men and Women; V. Hsu, RWJMS; *National Starch*

Molecular Expression Testing on Blood Samples (Allomap Testing in Cardiac Transplant Patients); V. Hsu, RWJMS; *XDx*

Trial Evaluating Repeated Courses of Aztreonam for Inhalation Solution Aztreonam 75 mg Powder and Solvent for Nebuliser Solution Subjects; S. Hussain, RWJMS; *Gilead Sciences*

Evaluation of Lixisenatide in Acute Coronary Syndrome (ELIXA); J. Kostis, RWJMS; *Sanofi-Aventis*

Assess whether Regular Administration of Advate in the Absence of Immunological Danger Signals Reduces the Incidence Rate of Inhibitors in Previously Untreated Patients; C. Philipp, RWJMS; *Baxter Healthcare Corporation*

Trial Evaluating the Effect of Oral BIBF 1120 150 mg Twice Daily on Annual Forced Vital Capacity Decline in Patients with Idiopathic Pulmonary Fibrosis; D. Riley, RWJMS; *Boehringer Ingelheim Pharmaceuticals*

Assessment of Gouty Arthritis Patients Quality of Life and Beliefs Regarding Gouty Arthritis; N. Schlesinger, RWJMS; *Novartis Pharmaceuticals*

The Treatment of Acute Gouty Arthritis at a University Hospital Emergency Room; N. Schlesinger, RWJMS; *Novartis Pharmaceuticals*

ALERTS (Angelmed for Early Recognition and Treatment of STEMI); T. Vagaonescu, RWJMS; *ANGEL Medical Systems*

TRANSLATE-ACS: Treatment with ADP Receptor Inhibitors: Longitudinal Assessment of Treatment Patterns and Events after Acute Coronary Syndrome; T. Vagaonescu, RWJMS; *Eli Lilly and Company*

Sequential Evaluation of the BDBACTEC New Resin Blend Blood Culture Medium and BACTEC Plastic Blood Culture Bottles for the Detection of Bacteremia & Fungemia; M. Weinstein, RWJMS; *Becton Dickinson*

Validation of Antimicrobial Susceptibility Testing Results for Microscan Susceptibility Testing Panels versus Gram Negative Bacteria (AQ-14); M. Weinstein, RWJMS; *Siemens Healthcare Diagnostics*

Targeting Selenoprotein P for the Development of a Male Contraceptive; P. Copeland, RWJMS; *Found Animals Foundation*

Effect of PDACs on Initiation and Progression of EAE; Y. Ron, RWJMS; *Celgene Corp*

Immune Regulation in Multiple Sclerosis: MicroRNA and Antigen Presenting Cells; K. Balashov, RWJMS; *Biogen Idec*

IL 27 Mediated Glatiramer Acetate (GA) Therapeutic Effect in MS and EAE; K. Ito, RWJMS; *TEVA Pharmaceuticals Industries*

Randomized Evaluation of Recurrent Stroke Comparing PFO Closure to Established Current Standard of Care Treatment (RESPECT); J. McKinney, RWJMS; *AGA Medical Corporation*

Trial of Pregabalin CR as Adjunctive Therapy in Adult Patients w/ Partial Onset Seizures; B. Wu, RWJMS; *Pfizer*

Study to Assess the Safety of ADXS11-001 the Treatment of Cervical Intraepithelial Neoplasia Grade 2/3; C. Ayers, RWJMS; *Numoda Corporation*

Trial of MF101 for Hot Flashes and Menopausal Symptoms in Postmenopausal Women; G. Bachmann, RWJMS; *Bionovo*

Non-Invasive Chromosomal Examination of Trisomy Study (NEXT Study); T. Rosen, RWJMS; *Ariosa Diagnostics*

Evaluation of the Performance of the E-test and the Microscan Pos Combo Panel Type 33 MIC MicroTiter Plate Methods for Staphylococcus Aureus and Enterococcus spp. Daptomycin Susceptibility Testing; T. Kirn, RWJMS; *Cubist Pharmaceuticals*

Evaluation of Performance of Abbott HIV 1 /2 Ag/Ab Combo Assay in a Clinical Laboratory Setting; E. Martin, RWJMS; *Abbott Diagnostics*

Study of Apixaban in Pediatrics Subjects with an Indwelling Central Venous Catheter; S. Das, RWJMS; *Bristol-Myers Squibb Company*

Function Based Problem Solving for Students with Behavioral Support Needs; S. Lohrmann, RWJMS; *Knowledge is Power Program (KIPP) NYC*

Study of Saxagliptin (BMS-47718) as Monotherapy in Pediatric Patients w/Type II Diabetes; I. Marshall, RWJMS; *Bristol-Myers Squibb Company*

Cross-Cultural Adaptation and Preliminary Validation of SMILEY (Simple Measure of Impact of Lupus Erythematosus in Youngsters); L. Moorthy, RWJMS; *Arthritis Foundation*

Development of Azachryseniums as Novel Antimicrobial Agents; D. Pilch, RWJMS; *TAXIS Pharmaceuticals*

Integrative Physiology of Gulf War Illness: Role of Autonomic Function Central Neural Processing and Sleep; P. Lehrer, RWJMS; *Veterans Biomedical Research Institute, Inc.*

Study Evaluating the Neuropsychiatric Safety and Efficacy of 12 Weeks Varenicline Tartrate 1 mg BID for Smoking Cessation; J. Williams, RWJMS; *Pfizer*

Measurement of Pro-angiogenic Markers in Patients with Hepatic Metastases Undergoing Selective Internal Radiation Therapy (SIRT); J. Noshier, RWJMS; *Sirtex Medical*

Potential Accuracy Improvement In Patient Positioning For The Moving Target Volumes Based On Dynamic Image Registration Between 4DCT And Fluoroscopy; N.J. Yue, RWJMS; *Varian Medical Systems*

Zenith Spiral Z AAA Iliac Leg Graft Post Market Registry; S. Rahimi, RWJMS; *Cook Incorporated*

FOUNDATION OF UMDNJ

Determinants of Telomere Length at Birth; A. Aviv, NJMS

Role for IRF5 in Lymphomagenesis Tumor Suppressor Versus Immune Regulator; B. Barnes, NJMS

OB/GYN Preterm/Prenatal Health Project; T. Barrett, NJMS

Novel Unnatural Amino Acids to Study H⁺-ATPase Function; J. Berlin, NJMS

Mechanisms of Breast Cancer Immune Evasion; R. Birge, NJMS

Genome Wide Changes in the 24 (OH) Use Gene in Response to 1,25 (OH)₂D₃; S. Christakos, NJMS

Epigenomic Mechanisms Involved in Dysregulation of Calcium Homeostasis; S. Christakos, NJMS

Vitamin D: Molecular Mechanism of Action; S. Christakos, NJMS

Trigeminal neuralgia of the facial nerve (Kilow Family Trust); S. Cook, NJMS

Nutrient-Nutrient Interactions in the Small Intestine; R. Ferraris, NJMS

Analysis of the Molecular Mechanisms of Drug Tolerance in Mycobacterium Tuberculosis; P. Fontan, NJMS

The Structure Based Evolution of M. Tuberculosis Pks13 Inhibitors An Approach Towards a Novel Tuberculosis Therapeutic; J. Freundlich, NJMS

Integrative Studies of Fatty Acid Biosynthesis Modulation by Small Molecules Mechanism of Action and Potency; J. Freundlich, NJMS

Positron Emission Tomography with F-18 Fluorodeoxyglucose to Identify Early Events in Latent Infection with Mycobacterium Tuberculosis; N. Ghesani, NJMS

IGF Signaling Promotes Bypass of Cellular Senescence During Early Stage of Breast Cancer; U. Herbig, NJMS

Effects of Nonuniform Distributions of Radioactivity; R. Howell, NJMS

Moringa Bioactives as Novel Anti HCV Agents; N. Kaushik-Basu, NJMS

Exploring a Role for Tumor Suppressor Nore in HCV Pathogenesis; N. Kaushik-Basu, NJMS

X-Ray Crystallographic Analysis of Diguanylate Cylase Enzyme Inhibitor Complexes; M. Neiditch, NJMS

BMP2 Repression and Embryogenesis and Adult Physiology; M. Rogers, NJMS

Diabetic Retinopathy Research at UMDNJ-New Jersey Medical School; M. Roy, NJMS

Development of High Throughput Screening Assays for Modulators of Mitochondrial ATP-Dependent Proteolysis; C. Suzuki, NJMS

The Mitochondrial ATP Dependent Lon Protease in Cardiac Ischemia and Hypertrophy; C. Suzuki, NJMS

Malaria Melatonin Receptor Signaling as a Novel Drug Target; A. Thomas, NJMS

Anti inflammatory Mechanism of the Vagus Nerve; L. Ulloa, NJMS

Vagal Inhibition of Lymph Toxicity; L. Ulloa, NJMS

Macular Degeneration Research; M. Zarbin, NJMS

AMD Research; M. Zarbin, NJMS

Gram Positive DnaA Replication Initiator Protein and DnaB Helicase as Targets of Drug Development; S. Biswas, SOM

Rational Drug Design by Targeting Bacterial RNA Polymerase Captured in In-Active State; S. Borukhov, SOM

Pilot Study for Epigenetics of Preterm Delivery: The Influence of Methyl Donor and Inflammation; X. Chen, SOM

Regulation of Meiotic Divisions by Hct1p Dependent Proteolysis; K. Cooper, SOM

Metabolic Gene Therapy for Neurodegenerative Disease; J. Francis, SOM

Using Lectins to Target Podoplanin for Chemotherapy; G. Goldberg, SOM

Mechanisms that Control Pdpn Mediated Cell Migration; G. Goldberg, SOM

Healthy Obesity? Is It True?; A. Gupta, SOM

Use of a Genetically Amenable Model Organism to Identify Potential Autism Predisposition Genes; M. Henry, SOM

Control of Cellular Differentiation by Histone Methylation; M. Law, SOM

Myogenic Differentiation of Cord Blood Mesenchymal Stem Cells; P. Leone, SOM

Effects of Prolonged Low-Dose Methamphetamine Exposure on Dopamine Storage in Cultured Rat Dopaminergic Neurons; D. Markov, SOM

Identification of Ubiquitinated Proteins Associated with Yeast Ribosomes; D. Pestov, SOM

Pain Reactivity in Couples with Osteoarthritis: A Feasibility Study; R. Pruchno, SOM

Identification of Genes Controlling Ribosome Degradation; N. Shcherbik, SOM

Structure and Function of Human Mitochondrial RNA Polymerase; D. Temiakov, SOM

Mechanisms of Transcription: Initiation in Human Mitochondria; D. Temiakov, SOM

Can the Resolution of Inflammation of the Blood-Brain Barrier by Natural Lipoxin A4 and Neuroprotectin D1 Prevent/Slow Down Alzheimer's Disease?; V. Venkataraman, SOM

Effects of Lipoxin A4 and Lipoxin Analogs in Sepsis; K. Yin, SOM

A Method for Isolating Bioactive Compounds from Biofilms. D. Kadouri, NJDS

Kingella kingae outer membrane vesicles for vaccine development. N. Balashova

Role of retroviral superantigen-specific genes in B cell lymphoma development. V.K. Tsiagbe, NJDS

Nano-technology for Breast Cancer Therapy; S. Mehta, D. Josko , SHRP

The Impact of Self-Help Center Characteristics on the Satisfaction and Empowerment of People with Serious Mental Illness; N. Gao, SHRP

Peer Employment Support Study; M. Roberts, SHRP

Effect of Self-efficacy and Outcome Expectations on Work Seeking Behavior Among People with Psychiatric Disabilities; A. Spagnolo, SHRP

Yoga intervention specifically designed for people with Multiple Sclerosis; S. Gould Fogerite, D. Kietrys, E. Cohen, SHRP

Markers of Stress and Inflammation in pre-Type 2 Diabetes; S. Gould Fogerite, SHRP

Guided Imagery and Relaxation Techniques as an Adjunct to Preparing and Recovering from Orthognathic Surgery; S. Gould Fogerite, SHRP

Mediating the Science and the Practice of Healthcare: Health Insurance Companies, Health Reform and Evidence Based Practice; S. Parrott. SHRP

Rape Trauma: A Study of Preferred Rape Disclosure Methods and Factors Influencing Psychological Outcomes in Rape Victims (study #2); C. Carretta, SN

Perceptions of Smoking Initiation among Highly Susceptible Precontemplators in Urban Low Income Communities; H.S. Chen, SN

Two-Component Regulation of Virulence in Staphylococcus Aureus; A. Stock, RWJMS

Immune Functions of a Novel Gut-Specific Innate Cell Type; A. Laouar, RWJMS

Regulation of Synaptic Functions in Hypothalamus by Leptin; Z. Pang, RWJMS

Development of Extra Cellular Matrix; D. Banerjee, RWJMS

Intensity Modulated Radiation Therapy for Prostate Cancer and the Effect of Certificate of Need; T. Mayer, RWJMS

Zebrafish Model of TEL-AML1 Leukemia; H. Sabaawy, RWJMS

Leukemia Inhibitory Factor Negative Regulation p53 in Colorectal Cancer; W. Hu, RWJMS

Comparative Effectiveness of Different Treatments for Locally Advanced CaP; T. Jang, RWJMS

How does Emergency Department overcrowding, as measured by the National Emergency Department of Overcrowding Scale (NEDOCS) affect Medical Student Satisfaction – A Pilot study; G. Wei, R. Arya, J. McCoy; RWJMS

The Impact of a Change in ICU Admission policy on Length of Stay and Morbidity; J. McCoy, J. Sunderram, A. Gale, R. Eisenstein; RWJMS

A novel approach to Emergency Medicine Ultrasound Education during Medical Student Clerkships and its impact on testing: a pilot program; G. Wei, J. McCoy, R. Geria, A. Church, R. Kapitanyan, P. Ohman-Strickland, R. Eisenstein, R. Riggs; RWJMS

How do Emergency Medicine Interns affect Medical Student Clerkship Experience in the Emergency Department?; A. Yang, R. Riggs, G. Wei; RWJMS

Ultrasound guided peripheral intravenous lines performed by Physician Assistants in patients with difficult intravenous access in the Emergency Department; L. West, R. Geria, J. McCoy, D. Morrison; RWJMS

Is there a relationship between Emergency Medicine attending lecture satisfaction evaluations and patient satisfaction scored as measured by Press-Ganey surveys?; G. Wei, R. Eisenstein, A. Yang, R. Riggs, R. Arya, J. McCoy, P. Ohman-Strickland; RWJMS

Effects of Beta-Blockage on Bone Metabolism in Thyroid Cancer Patients Receiving Thyroid Suppressive Therapy.; X. Wang, RWJMS

Adenosine and Neurodegeneration; P. Sonsalla, RWJMS

Regulation of Synaptic Functions in Hypothalamus by Leptin; Z. Pang, RWJMS

Functional Analysis of the Bifunctional Ion Channel and Kinase TRPM7; L. Runnels, RWJMS

Mechanism of Transcript Elongation in Chromatin by RNA Polymerase II; V. Studitsky, RWJMS

Atrophin Proteins in Development and Diseases; C.-C. Tsai, RWJMS

Phase I/II Radiotherapy Dose Escalation Study In Unresectable Pancreatic Cancer Using A Simultaneous Intensity Modulated Boost; S. Jabbour, RWJMS

Enhancing Radiation Therapy Lethality By Modification Of Glutamate Signaling Using Riluzole In Human Melanoma And Other Tumors; A. Khan, RWJMS

Modulating Glutamergic Signaling To Enhance Radiation Therapy In Gliomas; A. Khan, RWJMS

Development of a High Fidelity Recording System and Quantitative Visual Activity Map for Online Functional Localization of Targets During DBS Surgery; S. Danish, RWJMS

INTERNAL UMDNJ FUNDING

I-Care 4 Health Transition - Improving Care for Healthy Transition; M. Scollan-Koliopoulos, NJMS; *Robert Wood Johnson Foundation*

Phospho Proteome Changes in Bystander Cells from Cultures exposed to Ionizing Radiation; E. Azzam, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Generation of Knockout Mouse Model For HECW2; G. Babu, NJMS, *NJMS Core Facilities Matching Funds Small Grants Program*

Automated Method for Pattern Recognition and End-Titer Determination of Autoantibodies by Imaging Flow Cytometry; B. Barnes, NJMS; *Office of Technology Transfer and Business Development*

Identification of Oxidized Cysteines of Soluble Guanlyl Cyclase; A. Beuve, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

FACS Enrichment of P Berghei Infected HepG2 Cells; P. Bhanot, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

FACS Enrichment of P Berghei Infected HepG2 Cells; P. Bhanot, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Defensins in STI Mediated Enhanced HIV Infectivity; T. Chan, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Genome Wide Analysis of VDR Occupancy; S. Christakos, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Role of HIF 1 in Gut Barrier Dysfunction; R. Feinman, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Determining the Effects of Chronic Fructose Intake on the Kidney Liver and Colon; R. Ferraris, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Sorting of Virus Infected Human Plasmacytoid Dendritic cell Subsets; P. Fitzgerald-Bocarsly, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Imaging of PDC Interactions with Virus and Virus Infected Cells; P. Fitzgerald-Bocarsly, NJMS; *Core Facilities Matching Funds Small Grants Program*

Generation of Chimeric Mice by WT Embryonic Stem Cell Injection Into Muscular Dystrophy Blastocysts; D. Fraidenraich, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Separation of Stem Cell Derived Cardiomyocytes From Blastocyst Derived Cardiomyocytes in WT MDX Chimeric Hearts; D. Fraidenraich, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Multi-Parameter Cytokine Expression Analysis in T Cells; M. Gennaro, NJMS; *Office of Technology Transfer and Business Development*

PCR Assays Utilizing Binary Probes, Cruciform Hybrids, and Universal Molecular Beacons; F. Kramer, NJMS; *Office of Technology Transfer and Business Development*

Use of RNA Seq to Define the Genomic Landscape in Splicing Factor Knockdowns; C. Lutz, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Cochleates Technology; R. Mannino, NJMS; *Office of Technology Transfer and Business Development*

Hairpin-shaped Antiprimers for the Diagnosis of Minimal Residual Disease; S. Marras, NJMS; *Office of Technology Transfer and Business Development*

Use of Non-Sense Mediated Inhibitors; M. Mathews, NJMS; *UMDNJ Office of Technology Transfer and Business Development*

Chip Seq Analysis of Promoter Targets of the ARID Subunits of the SWI SNF Chromatin Remodeling Complex; E. Moran, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Characterization of Bone Formation in BRM-Null Mice; E. Moran, NJMS; *Office of Technology Transfer and Business Development*

Cellular Origins of Uterine Cells in a Murine Model; S. Sinha, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Kinesin-1 Mediated Phosphorylation of Disease Relevant Cargo Proteins; V. Muresan, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Role of COX 2 in Chondrocyte Differentiation Proteomics Analysis; P. O'Connor, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Aspergillus Biomarker Discovery; D. Perlin, NJMS; *Core Facilities Matching Funds Small Grants Program*

Strategies For Isolating BNABS from HIV Positive B Lymphocytes; A. Pinter, NJMS; *Core Facilities Matching Funds Small Grants Program*

A Modified Allele for Conditionally Inducing BMP2; M. Rogers, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

T Regulatory Cells and Trophocytosis; C. Rohowsky-Kochan, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Mst1 Inhibits Bcl XI Bax Interaction; J. Sadoshima, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Identifying Protein Partners of Telomerase; J. Santos, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

New Marker for Demyelination in Diabetic Neuropathy; N. Souayah, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Phosphorylation sites within Transcription Factor A Mitochondria Identified by Mass Spectrometry; C. Suzuki, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Screening of Factors and Elements Regulating 3 End Processing by FACS Aria II; B. Tian, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Inducible Knockdown of RNA Binding Proteins in Mouse Heart; B. Tian, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

SILAC Phospro Proteomic Screen for Novel Mtor Targets Regulating Oligodendrocyte Progenitor Cell Differentiation; T. Wood, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Molecular Mechanisms of the Synergy Between Rb and E2f8 to Prevent Anemia; L. Wu, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Characterization of an E3 Ubiquitin Ligase in Cryptococcus with Proteomics Approaches; C. Xue, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Phosphoproteomic Identification of Host Cellular Substrates for Toxoplasma Virulence Kinases; G. Yap, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Identification of Candidate Proteins Contributing to Cell Survival in Eyes with Age Related Macular Degeneration; M. Zarbin, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Involvement of Reactive Oxygen Species in Stress Mediated Bacterial Cell Death; X. Zhao, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Identification of Genes Involved in Gas Mediated Mycobacterial Killing by Comparative Genomics; X. Zhao, NJMS; *NJMS Core Facilities Matching Funds Small Grants Program*

Multi-Network Practice and Outcome Variation Examination Study (IMPROVE); P. Thomas, NJMS; *Robert Wood Johnson Foundation*

Impact Evaluation of State Dependent Coverage; A. Monheit, SPH; *Robert Wood Johnson Foundation (Subcontract from Rutgers, The State University of New Jersey)*

Health Literacy Initiative with Monolingual Latinos (Instrucción en Salud Latina); F. Munet-Vílaro, SN; *Robert Wood Johnson Foundation New Jersey Health Initiative*

Detection of human endogenous retrovirus in cancer and normal cells; V.K. Tsiagbe, NJDS; *Office of Patents and Licensing & UMDNJ Foundation*

Efficacy of Inspiratory Muscle Training on Respiratory muscle strength and functional capacity in adults with Cystic Fibrosis; R. Dekerlegand, SHRP; *Ross Memorial Scholarship*

The Role of Self-efficacy in Employment Tenure for Persons with Serious Mental Illness in Supported Employment; W. Waynor, SHRP; *Departmental funding*

Evaluated a practical training model relating outcomes of clinician training in CBT techniques to treat PTSD among adults with serious mental illnesses in order to disseminate evidence-based practice of CBT treatments; W. Lu, SHRP

Evaluated the level of trauma exposure and commonly reported most distressing trauma among persons with serious mental illness; W. Lu, SHRP

Evaluated peer-delivered selected modules of IMR; C. Pratt, SHRP

Multi-disciplinary Pilot Program to Address Metabolic Syndrome for Persons with Mental Illness; K. Gill, SHRP; *UMDNJ-School of Health Related Professions Department of Psychiatric Rehabilitation and Counseling Professions Program and Foundaton of UMDNJ*

Registered Nurses Study; B. Caldwell, SN; *UMDNJ-School of Nursing Grant*

HIV and AIDS Prevention, Transmission, Knowledge and Attitudes of Participants in Community Health Fairs; F. Munet-Vílaro, SN; *Francois Xavier Bagnoud Center*

Development of an Antitumor Humanized Antibody to Active Matipose Conjugated to Doxorubicin; J. Bertino, RWJMS; *Office of Technology Transfer and Business Development*

Circadian Genes and Their Expression During Inflammation; B. Haimovich, RWJMS; *UMDNJ Office of Technology Transfer and Business Development*

Production of mAb Against FRY; H. Zarbl, RWJMS; *UMDNJ Office of Technology Transfer and Business Development*

Predictors of Follow Up Care Seeking Among Breast and Prostate Cancer Survivors; S. Hudson, RWJMS; *Robert Wood Johnson Foundation*

Understanding Primary Care Workforce Innovations and Barriers to Spread; B. Crabtree, RWJMS; *Robert Wood Johnson Foundation*

The Primary Care Team: Learning from Effective Practices; B. Crabtree, RWJMS; *Robert Wood Johnson Foundation*



APPENDICES

| | |
|--|-----|
| Capital Projects..... | 331 |
| Board of Trustees Member Profiles | 333 |
| UMDNJ Governing Board Characteristics..... | 341 |

CAPITAL PROJECTS

NEWARK CAMPUS – Existing Facility Upgrades

Central Research Animal Facility Renovation

Using approximately \$15 million in American Recovery and Reinvestment Act of 2009 funding, this project will provide for a reconstruction of the existing animal research facility in the Medical Science Building. The project will allow the New Jersey Medical School to enhance its research mission.

Energy Conservation Measures

This \$11.0 million project, funded in large part with funds made available through PSE&G is for major infrastructure upgrades at the Newark Power Plant. The work consists of installing HVAC equipment and related campus distribution systems as required to reduce energy consumption at the plant.

UH Cardiology/Radiology Equipment Replacement

This \$2.4 million project funded by University Hospital (UH) will renovate three Cardiology Labs on I level and two Radiology Suites on C level of UH to receive new state-of-the-art cardiac and interventional radiologic equipment. The new GE equipment on I-Level and Siemens equipment on C-Level will significantly increase up-time and revenue in both units of UH.

NJDS Pediatric / Special Care Dental Clinic Renovation

This \$4.5 million project funded by New Jersey Dental School will renovate a dental clinic on C-Level of the Bergen Street Pavilion. Twenty eight (28) pediatric original and now outdated operatories will be replaced with twenty four (24) modern pediatric operatories and seven (7) specialty care operatories with chairs and two (2) without that conform to today's preferred dental practices.

SN Classroom and Administrative Renovations

This \$8.0 million project funded by the School of Nursing will provide much needed classroom space and offices on the GA, 6th, 10th and 11th floors of the Stanley S. Bergen Building. Six (6) new state-of-the-art classrooms, a nursing simulation lab, a nursing skills lab, an expanded computer laboratory and faculty / IT offices will be created with this project. The project includes new mechanical systems for GA and the 6th floor as well as the necessary fire protection systems for the 6th floor.

SHRP HVAC Upgrade in Scotch Plains

This \$2.0 million project funded by the School of Health Related Professions will provide much needed mechanical ventilation, cooling and heating upgrades to the SHRP building on the Scotch Plains Campus. The buildings educational, research and clinical components demand ventilation well in excess of what the original mechanical system can provide. New state-of-the-art efficient mechanical equipment will be installed and replace existing equipment which are well beyond useful life.

Healthcare Information Technology Training Space for the Technology Roadmap

This \$2.0 million project funded by University Hospital will provide state-of-the-art training space for University Hospital patient records conversion to Computerized Physician Order Entry or Management System. The new training space will include data and audio visual systems to accommodate all the needs of staff development for the conversion. The training suites are designed for multi-functional use, bringing flexibility to the training spaces as well as support for longer training sessions. The suites provide a conference room, break space, restrooms and work stations for the various instructors that will utilize the space.

UH Lab Medicine HVAC Upgrade

This \$485,000 project funded by University Hospital will provide much needed mechanical ventilation and cooling upgrades to the Lab Medicine space on C Level of the Hospital. Lab Medicine has been cited by the College of American Pathologists in 2010 and in 2012 for space temperature shortcomings. This project will satisfy the citation issues. In addition, the project includes the installation of a separate chiller that will provide cooling during the scheduled downtime of the central Power Plant.

NJDS DOC Faculty Practice Upgrades

This \$246,000 project funded by New Jersey Dental School will renovate the Faculty Practice Suite 7700 on the Seventh Floor of the Doctors Office Center for NJDS on the Newark campus. This project will provide much needed new flooring, wall covering, casework, sinks, dental chairs and painting in operatories one through six.

Campus Infrastructure Upgrades

Approximately \$11 million of upgrades to campus infrastructure is in various phases of design and construction. These projects range from fire alarm upgrades to high voltage system work.

PISCATAWAY CAMPUS – Existing Facility Upgrades**UBHC Seclusion Room Improvements**

This \$550,000 project funded by University Behavioral HealthCare (UBHC) will renovate and update two (2) seclusion rooms and surrounding areas in the inpatient areas of UBHC's Piscataway campus. The project will enhance the behavioral program, update the configuration and aging infrastructure serving these rooms, and bring the space up to current hospital and health care facility construction guidelines.

151 Centennial Envelope Repair and Restoration

This \$780,000 project will allow for repairs to the exterior stone façade of the building. Repairs and restoration will alleviate deteriorated conditions and water infiltration around the exterior.

BOARD OF TRUSTEES MEMBER PROFILES



KEVIN M. BARRY, MD, MBA
- CHAIRPERSON -

Kevin M. Barry, MD, MBA is an attending anesthesiologist at Morristown Memorial Hospital. He has served as president of Anesthesia Associates of Morristown since 1994.

Dr. Barry was a Henry Rutgers Scholar and graduated Phi Beta Kappa with a BA in Biochemistry from Rutgers College in 1983. He received his medical degree in 1987 from UMDNJ-New Jersey Medical School. He interned at Memorial Sloan Kettering Cancer Center and then completed an anesthesia residency at The New York Hospital and Hospital for Special Surgery, Cornell Medical Center, where he served as the chief resident from 1990 to 1991. In 1995 he received an MBA from New York University's Stern School of Business.

Dr. Barry is a Diplomat of The American Board of Anesthesiology, The American Board of Pain Medicine, and The American Board of Medical Acupuncture and is a Certified Physician Executive of The Certifying Commission in Medical Management.

He is a member of the American Medical Association, New Jersey Medical Society, Morris County Medical Society, American Society of Anesthesiologists, New Jersey State Society of Anesthesiologists, American Academy of Pain Medicine, American Academy of Medical Acupuncture, and American College of Physician Executives. He has served as a consultant in anesthesia to the State Board of Medical Examiners, on the planning committee of the Helms Medical Institute, and the Health Care Transition Team for Governor Christie.

He also teaches medical acupuncture to physicians in programs accredited by UCLA and Stanford Schools of Medicine. He serves on the Anesthesia Steering Committee for Health Volunteers Overseas, and has provided medical care and physician training in many countries over the past 20 years. His first trip abroad was as a fourth-year medical student at New Jersey Medical School.

Dr. Barry was appointed to the UMDNJ Board of Trustees in February 2007.



MARY ANN CHRISTOPHER, RN, MSN, FAAN
- VICE-CHAIRPERSON -

Mary Ann Christopher, RN, MSN, FAAN is President and Chief Executive Officer of Visiting Nurse Association of Central Jersey (VNACJ), a community-based organization that provides comprehensive care to individuals and families throughout Monmouth, Middlesex, Ocean, Mercer, Somerset, Union, Burlington and Gloucester counties. VNACJ is the largest Visiting Nurse Association in the State of New Jersey and among the largest in the nation, with 1,500 serving over 100,000 individuals each year. Mrs. Christopher has been a nurse for thirty years and has worked at the VNACJ since 1983.

During her tenure as President and CEO, Mrs. Christopher has spearheaded the agency's growth into its region's leading provider of in-home and hospice care. Under her stewardship, the VNACJ provides a broad array of programs, including clinics for the poor, school-based health services, a mobile nursing program to the deinstitutionalized mentally ill and community outreach and prevention programs. The agency serves as an essential safety-net for thousands of individuals and families without access to primary and preventative services.

Mrs. Christopher is a leading national voice on a wide range of health care issues. She regularly interacts with decision-makers on Capitol Hill and in her State Capitol to develop legislative and regulatory policies to enhance the delivery of home care, hospice, and community-based health care services. Her public policy work has included advancement of public/private partnerships to address the growing nursing shortage, expansion of telehealth services, ensuring adequate reimbursement for Medicare home health, improving Medicaid managed care programs strengthening her state's human services system for the most vulnerable.

Her work has included serving with distinction on numerous Boards of Directors, and appointments to several health-care related positions across the country. She currently serves on the Board of Trustees for both the National Association for Home Care and Hospice ("NAHC") and the Visiting Nurse Associations of America ("VNAA"), and is the Chair of the Robert Wood Johnson Foundation New Jersey Nursing Initiative, aimed at addressing the shortage of nurses across the state. She is also a Fellow of the American Academy of Nursing, the Nurse Executive Program at the Wharton School of Business, and the Public Health Leadership Institute of the Centers for Disease Control.

Mrs. Christopher earned a Bachelor of Science Degree in Nursing from Fairfield University and a Master of Science Degree in Nursing from Seton Hall University. She and her husband George Christopher reside in Avon By The Sea, and have four children.

Mrs. Christopher was appointed to the UMDNJ Board of Trustees by Governor John S. Corzine in June 2006, and reappointed to a full five-year term in 2007.



BRADFORD W. HILDEBRANDT
- SECRETARY -

Bradford W. Hildebrandt is the founder of Hildebrandt, Inc., an international management and consulting firm that services government agencies, law firms, and other professional service firms. He is recognized as an international authority on the subjects of strategy planning, leadership and organizational development, governance and management, compensation, economics, and mergers. He is acknowledged with creating an industry standard of specialized tools needed for successful professional management consulting in the legal profession worldwide.

He is a member of the Pace University School of Law Board of Visitors, a faculty advisor and lecturer at the George Washington University School of Professional Services, and a faculty advisor to several universities.

Mr. Hildebrandt, a Merchant Marine officer, is a board member of the Rutgers Institute of Marine and Coastal Sciences.

He earned a B.S. from Rutgers, the State University of New Jersey, and continued with graduate studies at Pace University in New York.

Mr. Hildebrandt joined the Board in June 2007.



KEVIN M. COVERT, ESQ.
- TRUSTEE -

Kevin M. Covert, Esq., is the Vice President and Deputy General Counsel for Human Resources at Honeywell International Inc., headquartered in Morristown. At Honeywell, Mr. Covert is responsible for all legal matters including litigation, compliance and corporate transactions relating to labor, employment, employee benefits and compensation. He oversees labor negotiations and the language of collective bargaining agreements.

Prior to joining Honeywell in 1998, Mr. Covert was a shareholder in Kulzer & DiPadova, P.A., in Haddonfield. His practice areas included employee benefits, retirement plans, and compensation planning.

He is a member of the bar in New Jersey and Pennsylvania. He is also a member of the American Benefits Counsel and has served as chairman of that organization's Government Relations Committee.

Mr. Covert received a B.S. in Finance from Rider University, an LL.M. in Taxation from New York University, and a J.D. from Rutgers University School of Law and is currently working towards his MBA from Wharton Business School.

Mr. Covert was appointed to the Board of Trustees in March 2007.



DAVID CRITCHLEY
- TRUSTEE -

David Critchley is Secretary-Treasurer of the New Jersey State Building and Construction Trades Council, AFL-CIO, which coordinates activity and provides resources to 15 affiliated trades unions in the construction industry. It also represents 13 local building trades councils, more than 100 local unions and over 150,000 rank and file members.

Mr. Critchley also serves as president of the Morris County Building and Construction Trades Council.

Mr. Critchley has worked exclusively in the construction industry. Since 1985, he has held a series of union leadership positions, beginning as business agent of United Union of Roofers, Waterproofers and Allied Workers Local #4. In 1993, he was appointed vice president of United Union of Roofers, Union of Roofers, Waterproofers and Allied Workers Local #4 and was appointed president in 1998.

In addition, Mr. Critchley was elected president of New Jersey District Council of Roofers in 2004 and business manager of United Union of Roofers, Waterproofers and Allied Workers Local #4 in 2007.

He was appointed to the Board of Trustees in January 2011.



MICHAEL CRITCHLEY, JR., ESQ.

- TRUSTEES -

Michael Critchley, Jr., Esq., is a partner in Critchley & Kinum, a West Orange law firm where he represents individuals and corporations at all stages of federal and state litigation and during regulatory proceedings. Mr. Critchley has also counseled boards of directors and senior management on internal investigations as well as advised corporations on the implementation of comprehensive compliance systems.

Mr. Critchley received his BA from Rutgers University and his JD from Seton Hall University Law School. He also received an MBA in finance from New York University's Stern School of Business.

Following law school, Mr. Critchley clerked in the United States District Court for the District of New Jersey. His extensive business experience includes several years working at the investment banking firm of Credit Suisse First Boston.

Mr. Critchley was appointed to the UMDNJ Board of Trustees in June 2007. His term will expire in 2011.



CHRISTINE GRANT, JD, MBA

- TRUSTEE -

Christine Grant, JD, MBA, is founder and chief executive officer of InfecDetect, LLC, of Princeton, which specializes in rapid diagnostic tests and protective gear for the detection of and protection from infectious disease.

Ms. Grant is a nationally recognized expert in health care finance, reimbursement and public health programs and law. She has provided public service to six New Jersey governors, including service as a former New Jersey Commissioner of Health and Senior Services and Cabinet Officer.

Previously, Ms. Grant held senior management positions in government and policy at Merck & Co. and Sanofi Pasteur. She was a senior program officer at The Robert Wood Johnson Foundation.

She is active in the American Bar Association and chaired the ABA's Science and Technology Law Section. She is Vice Chair of the National Partnership for Prevention and a member of the NIH National Science Advisory Board for Biosecurity.

Ms. Grant earned a BA degree from Swarthmore College, an MBA from The Wharton School of the University of Pennsylvania and a JD from Rutgers Law School, Newark.

She was appointed to the Board of Trustees in October 2010.



MARILYN M. ("PENNY") JOSEPH

- TRUSTEE -

Marilyn M. Joseph is Director of Corporate Outreach Programs at Panasonic Corporation of North America. She is responsible for the management, coordination and implementation of Panasonic's annual corporate giving efforts throughout North America. Ms. Joseph joined Panasonic in 1989.

Earlier, concurrent with leading the company's philanthropic efforts, Ms. Joseph served as Director, Panasonic Corporate Recruiting, from 2001-2005, with specific emphasis on the recruitment and retention of minorities and women to enhance the diversity of Panasonic's workforce. Prior to that, she was Assistant General Manager in Panasonic's Government and Public Affairs Department.

Before joining Panasonic, she was Manager, Public Affairs, for Mutual Benefit Life Insurance Company, and also worked for the City of Newark in various positions, including Senior Personnel Technician and Administrative Analyst in the Planning Office, with responsibility for the administration of several federal grant programs budgets.

Ms. Joseph's memberships, current and past, include the Board of Directors of the Foundation of Bronx Community College of the City University of New York; Essex County Commission on the Status of Women; Corporate Associates Board of Gallaudet University; Board of Directors of Girls Inc.; Board of Directors of Meadowlands Hospital Medical Center; Board of Directors of NJ Seeds; Board of Trustees of the New Jersey

World Trade Center Scholarship Fund; Corporate Associates Advisory Board of the Puerto Rican Family Institute, and the Board of Directors of Youth for Understanding.

She is a graduate of Spelman College in Atlanta, Georgia.

Ms. Joseph was appointed to the Board in February 2011.



IRA P. MONKA, DO
- TRUSTEE -

Ira P. Monka, DO, is chief executive officer and medical director of the Medical Institute of New Jersey, P.C., a comprehensive medical facility in Cedar Knolls and Mendham, NJ with ten board-certified physicians.

He received his D.O. degree from the UMDNJ - School of Osteopathic Medicine (SOM). He completed an internship in family practice in South Broward, Florida, and a residency in family practice at Memorial General Hospital, Union, New Jersey. Dr. Monka completed his Health Policy Fellowship from Ohio University School of Osteopathic Medicine in 2003-2004. He received his master's degree in Health Administration from Andrew Taylor Still University, Kirksville, MO., in 2006. He volunteers as an assistant professor in the family practice department at SOM.

Dr. Monka is president of the New Jersey Osteopathic Educational Foundation and past president of the Board of Directors of the New Jersey Association of Osteopathic Physicians and Surgeons. He is a member of the Bureau of State Government Affairs of the American Osteopathic Association and the Committee on Federal Legislation of the American College of Osteopathic Family Physicians. He is also 2011 co-chair and 2012 chair of the National Convention of the American Osteopathic Association.

Dr. Monka joined the Board of Trustees in October 2010.



MARY E. O'DOWD, MPH
EX-OFFICIO

Mary O'Dowd was serving as Deputy Commissioner of the Department of Health and Senior Services when she was nominated by Governor Chris Christie on March 25, 2011, to serve as the State's health commissioner. Ms. O'Dowd has wide ranging experience in the health care field with a focus on management and finances. As Deputy Commissioner since March 2010, she oversaw the areas of healthcare financing, facilities evaluation and licensing, and senior benefits.

She previously served as chief of staff for the department from January 2008 to March 2010. In that capacity, she managed a workforce of more than 1,800 and a budget of nearly \$3 billion and shaped the department's policy in the areas of health care delivery, senior services, public health, and emergency preparedness.

Earlier, Ms. O'Dowd managed revenue cycle operations for the Emergency Department at NYU Medical Center, served as a legislative aide for the New Jersey General Assembly on education and healthcare issues, and was assistant vice president of legislation and policy for the New Jersey Hospital Association.

Commissioner O'Dowd is a graduate of Douglass College at Rutgers University and holds a Master's in Public Health from Columbia University Mailman School of Public Health. She also completed a fellowship in hospital finance at NYU Medical Center.

UMDNJ GOVERNING BOARD CHARACTERISTICS 2012

Race/Ethnicity and Gender of Governing Board

| Race/Ethnicity | Male | Female | Total |
|-----------------------|-------------|---------------|--------------|
| White | 6 | 3 | 9 |
| Black | 0 | 1 | 1 |
| Hispanic | 0 | 0 | 0 |
| Asian | 0 | 0 | 0 |
| Non-resident alien | 0 | 0 | 0 |
| Total | 6 | 4 | 10 |

Source: UMDNJ Office of Workplace Diversity, July 27, 2012