



**ANNUAL INSTITUTIONAL PROFILE**  
**September 1, 2010**



*We Teach. We Discover. We Heal. We Care.*

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

Our five campuses and eight schools span the length and breadth of our State. We offer graduate degrees and certificates as well as undergraduate degrees in multiple fields of study including: medical, dental, allied health, nursing, public health and biomedical sciences disciplines. We also encompass the State's foremost safety net hospital, numerous clinical and educational affiliates, New Jersey's only NCI-designated comprehensive cancer center, and a statewide network of mental health providers.

A truly unique and wonderful statewide asset, UMDNJ embraces our responsibility to the people of New Jersey. In this spirit, we proudly present this report to the Commission on Higher Education and to our public constituencies.

A handwritten signature in black ink that reads "William F. Owen, Jr." with a period at the end.

William F. Owen, Jr., MD  
President

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## ***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.umdnj.edu/about/about04\\_trustees.htm](http://www.umdnj.edu/about/about04_trustees.htm)

Kevin M. Barry, MD, MBA  
*Chairperson*

Eric S. Pennington, Esq.  
*Vice Chairperson*

James Broach, PhD

Mary Ann Christopher, RN, MSN

Kevin M. Covert, Esq.

Michael Critchley, Jr., Esq.

Robert J. Del Tufo, Esq.

Mary Sue Henifin, JD, MPH

Bradford W. Hildebrandt

Milton Hollar-Gregory, Esq.

Robert J. Maro, Jr., MD

Jonathan H. Orenstein, DMD

Poonam Alaigh, MD  
*Commissioner, New Jersey Department of Health and Senior Services  
(ex officio, non-voting)*

*Revised 10/1/10*



## **OFFICERS OF THE UNIVERSITY**

**William F. Owen, Jr., MD**  
*President*

**Denise V. Rodgers, MD**  
*Executive Vice President for Academic and Clinical Affairs*

**Lester Aron, Esq.**  
*Senior Vice President and General Counsel*

**Kathleen M. Kirk**  
*Interim Senior Vice President/Chief Ethics and Compliance Officer*

**Christopher O. Kosseff**  
*Senior Vice President for Administration and  
President and CEO of UMDNJ-University Behavioral HealthCare*

**Julane W. Miller-Armbrister**  
*Senior Vice President/Chief for Government and Community Affairs*

**David Miller**  
*University Chief Financial Officer*

**James J. Rowan, Jr., CPA**  
*Chief of Staff*

**Denise Mulkern, CPA**  
*Senior Vice President for Finance*

**Diane Weathers**  
*Senior Vice President for University Advancement and Communications*

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

**Gerard Garcia**  
*Acting Vice President for Human Resources*

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

**Denise Romano**  
*Vice President for Information Services and Technology*

**Neil Schorr**  
*Vice President of Investigations Group*

**Kathleen W. Scotto, PhD**  
*Vice President for Research*

**Robin Wittenstein, EdD**  
*Acting President and CEO of UMDNJ-University Hospital*

**Freda Zackin, Esq.**  
*Vice President for Academic Affairs*

## **DEANS**



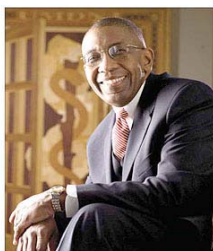
**Peter S. Amenta, MD, PhD**  
*UMDNJ-Robert Wood Johnson Medical School*



**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**  
*Interim 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**  
*Interim Dean, UMDNJ-Graduate School of Biomedical Sciences*



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## **SCHOOLS**

### **UMDNJ-Graduate School of Biomedical Sciences (GSBS)**

#### **GSBS at New Jersey Dental School**

973-972-4511  
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  
Post Office Box 1709  
Newark, New Jersey 07101-1709

#### **GSBS at Robert Wood Johnson Medical School**

732-235-5016  
675 Hoes Lane  
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  
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, 11<sup>th</sup> Floor  
Post Office Box 1709  
Newark, New Jersey 07101-1709

**Stratford Campus**

University Educational Center  
40 East Laurel Road  
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 2200, 3600, 3700  
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 1114  
Stratford, New Jersey 08084-1350



## **DEGREE AND CERTIFICATE PROGRAMS**

Field	Degree/ Certificate	UMDNJ School(s)	Partner Institution (if any)
<b>Medicine</b>	MD MD DO	NJMS RWJMS SOM	
<b>Dentistry/Dental Science</b>	DMD MS Master	NJDS NJDS NJDS	
<b>Graduate Dental Education*</b>	Certificate	NJDS	
<b>Biodefense</b>	Certificate	GSBS	
<b>Biomedical Sciences</b>	PhD PhD MS, MBS MS Certificate	GSBS GSBS GSBS GSBS GSBS	Rutgers University  Rutgers University
<b>Biomedical Programs**</b>	PhD, MS PhD, MS	GSBS GSBS	Rutgers University
<b>Biomedical Engineering</b>	PhD, MS PhD	GSBS GSBS	Rutgers University NJIT
<b>Clinical and Translational Science</b>	MS Certificate	GSBS GSBS	
<b>Environmental Sciences - Human Exposure Assessment</b>	PhD	GSBS	Rutgers University
<b>Pharmacological Sciences</b>	Certificate	GSBS	
<b>Stem Cell Biology</b>	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)
<b>Public Health</b>	PhD DrPH MPH Certificate	SPH SPH SPH SPH	Rutgers University Rutgers University Rutgers University and NJIT
<b>Biostatistics</b>	MS	SPH	
<b>Health Care Management</b>	MS	RWJMS	Rutgers University
<b>Urban Systems - Urban Health</b>	PhD	SN	Rutgers University and NJIT
<b>Nursing Practice</b>	DNP	SN	
<b>Advanced Practice Nursing*</b>	Post-master's Certificates	SN	
<b>Nursing</b>	MSN BSN BSN	SN SN SN	Rowan University
<b>Nursing Informatics</b>	MSN Post-master's Certificate	SN SN	
<b>Allied Health Technologies</b>	BS BS	SHRP SHRP	Bloomfield College Fairleigh Dickinson University Felician College Georgian Court University New Jersey City University Ramapo College of NJ Rutgers University
<b>Biomedical Informatics</b>	PhD MS	SHRP SHRP	
<b>Cardiac Sonography</b>	Certificate	SHRP	

\*Includes Acute Critical Care, Adult Health, Adult Psychiatric and Mental Health, Clinical Trials Research Nurse, Child/Adolescent Psychiatric & Mental Health, Family Health, Gerontology, Nursing Education, Nursing Informatics, Nurse Midwifery, Oncology, Professional Counseling and Women's Health.

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

<b>Field</b>	<b>Degree/ Certificate</b>	<b>UMDNJ School(s)</b>	<b>Partner Institution (if any)</b>
<b>Dietetic Internship</b>	Certificate MS/Certificate	SHRP SHRP	Rutgers University (MS)
<b>Health Care Informatics</b>	Certificate	SHRP	
<b>Health Information Management</b>	Certificate BS BS	SHRP SHRP SHRP	Georgian Court University Fairleigh Dickinson University Felician College Kean University Saint Peter's College Thomas Edison State College
<b>Health Sciences</b>	PhD MS BS BS	SHRP SHRP SHRP SHRP	New Jersey City University Thomas Edison State College
<b>Health Systems</b>	MS	SHRP	
<b>Medical Coding</b>	Certificate	SHRP	
<b>Medical Laboratory Science</b>	Certificate	SHRP	
<b>Nuclear Medicine Technology</b>	Certificate	SHRP	
<b>Physical Therapy</b>	DPT DPT MPT	SHRP SHRP SHRP	Rutgers University Rutgers University
<b>Physician Assistant</b>	MS	SHRP	
<b>Professional Counseling</b>	Certificate	SHRP	
<b>Psychiatric Rehabilitation</b>	PhD MS	SHRP SHRP	

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

## **DUAL-DEGREE PROGRAMS**

<b>Degree/Certificate</b>	<b>UMDNJ School(s)</b>	<b>Partner Institution (if any)</b>
<b>MD/PhD</b>	NJMS/GSBS RWJMS/GSBS NJMS RWJMS	Rutgers University Rutgers University Princeton University
<b>DO/PhD</b>	SOM/GSBS	
<b>DMD/PhD</b>	NJDS/GSBS	
<b>MD/MPH</b>	NJMS/SPH RWJMS/SPH	Rutgers University and NJIT Rutgers University and NJIT
<b>MD/MBA</b>	RWJMS NJMS	Rutgers University Rutgers University
<b>MD/JD</b>	RWJMS RWJMS NJMS	Rutgers University Seton Hall University Rutgers University
<b>MD/MS in Biomedical Informatics</b>	RWJMS/SHRP	
<b>MD/MS in Health Care Management</b>	RWJMS	Rutgers University
<b>MD/MSJ</b>	RWJMS	Seton Hall University
<b>MD/Certificate in Oral &amp; Maxillofacial Surgery</b>	NJMS/NJDS	
<b>DO/MPH</b>	SOM/SPH	Rutgers University and NJIT
<b>DO/JD</b>	SOM	Rutgers University
<b>DO/MBA</b>	SOM	Rowan University
<b>DO/MS</b>	SOM/GSBS	
<b>DMD/MPH</b>	NJDS/SPH	Rutgers University and NJIT
<b>DMD/MS in Biomedical Informatics</b>	SHRP/NJDS	

<b>Degree/Certificate</b>	<b>UMDNJ School(s)</b>	<b>Partner Institution (if any)</b>
<b>PsyD/MPH</b>	SPH	Rutgers University and NJIT
<b>MS in Community Health Nursing/MPH</b>	SPH	Rutgers University and NJIT
<b>MSN/MPH</b>	SN/SPH	Rutgers University and NJIT
<b>MS in Biomedical Informatics/ Certificate in Graduate Dental Education</b>	SHRP/NJDS	
<b>MS in Oral Biology/ GDE Certificate</b>	GSBS/NJDS	
<b>Master of Biomedical Science/MPH</b>	GSBS/SPH	Rutgers University and NJIT
<b>MPH/JD</b>	SPH	Rutgers University
<b>MPH/MS in Physician Assistant</b>	SPH/SHRP	Rutgers University and NJIT
<b>MPH/MBA</b>	SPH	Rutgers University and NJIT
<b>MBA/MS</b>	GSBS	Rutgers University

## **ARTICULATED EDUCATIONAL PROGRAMS**

### **UMDNJ-NEW JERSEY MEDICAL SCHOOL**

- BS/MD program with Stevens Institute of Technology. Seven-year program.
- BS/MD program with New Jersey Institute of Technology. Seven-year program.
- BS/MD program with The College of New Jersey. Seven-year program.
- BS/MD program with The Richard Stockton College of New Jersey. Seven-year program.
- BA or BS/MD program with Drew University. Seven-year program.
- BS/MD program with Montclair State University. Seven-year program.
- BS/MD program with Montclair State University. Eight-year program.
- BA or BS/MD program with Rutgers, The State University of New Jersey-Newark College of Arts and Sciences. Seven-year program.
- BA or BS/MD program with Rutgers, The State University of New Jersey-Newark College of Arts and Sciences. Eight-year program.
- BS/MD program with St. Peter's College. Seven-year program.
- BA/MD program with Caldwell College. Seven-year program.

### **UMDNJ-ROBERT WOOD JOHNSON MEDICAL SCHOOL**

- BA or BS/MD program with The Richard Stockton College of New Jersey. Eight-year program.

### **UMDNJ-NEW JERSEY DENTAL SCHOOL**

- BS/DMD program with Stevens Institute of Technology. Seven-year program.
- BS/DMD program with New Jersey Institute of Technology. Seven-year program.
- BS/DMD program with Rowan University. Seven-year program.
- BS/DMD program with New Jersey City University. Seven-year program.
- BS/DMD program with Ramapo College of New Jersey. Seven-year program.
- BS/DMD program with Fairleigh Dickinson University. Seven-year program.
- BS/DMD program with Montclair State University. Seven-year program.



**UMDNJ-NEW JERSEY DENTAL SCHOOL (continued)**

- BS/DMD program with Caldwell College. Seven-year program.
- BS/DMD program with Caldwell College. Eight-year program.
- Baccalaureate/DMD program with Saint Peter's College. Seven-year program.
- Baccalaureate/DMD program with Rutgers, the State University of New Jersey. Seven- or eight-year program.
- Baccalaureate/DMD program with North Carolina Central University. Seven- or eight-year program.

**UMDNJ-SCHOOL OF OSTEOPATHIC MEDICINE**

- BA or BS/DO program with The Richard Stockton College of New Jersey. Eight-year program.
- BA or BS/DO program with Kean University of New Jersey. Eight-year program.
- BA or BS/DO program with William Paterson University of New Jersey. Eight-year program.
- BA or BS/DO program with Ramapo College of New Jersey. Eight-year program.
- BA or BS/DO program with Rowan University. Eight-year program.
- BA or BS/DO program with New Jersey City University. Eight-year program.
- BA or BS/DO program with The Richard Stockton College of New Jersey. Seven-year program.
- Baccalaureate/DO program with Rutgers, the State University of New Jersey-Camden. Seven-year program.
- Baccalaureate/DO program with Rowan University approved. Seven-year program.

**UMDNJ-GRADUATE SCHOOL OF BIOMEDICAL SCIENCES**

- BA or BS/PhD program with New Jersey City University.
- BS/PhD program with Montclair State University.
- MS/PhD program with Montclair State University.
- MS/PhD program with University of Puerto Rico, Mayagüez Campus.

### **UMDNJ-SCHOOL OF HEALTH RELATED PROFESSIONS**

- AS/BS/MS in Psychosocial Rehabilitation & Treatment /Psychiatric Rehabilitation & Psychology/Psychiatric Rehabilitation program with: Middlesex County College (joint AS with UMDNJ), Kean University (joint BS with UMDNJ), Felician College (AS and BS with UMDNJ) and Union County College (AS with UMDNJ).
- BS/MS in Physician Assistant program with Rutgers University.
- BS/MS in Physician Assistant program with Montclair State University.
- BA in Biology/MS in Physician Assistant program with Kean University. Six-year program.
- BS in Biology/MS in Physician Assistant program with Ramapo College of New Jersey. Six-year program.
- BS in Biology/MS in Physician Assistant program with Saint Peter's College. Six-year program.
- BS in Biology/MS in Physician Assistant program with Felician College. Six-year program.
- BS/MS in Physician Assistant Program with New Jersey Institute of Technology. Six-year program.
- BS/Doctor of Physical Therapy program with Ramapo College of New Jersey (formerly BS/MS PT program).
- BS/Doctor of Physical Therapy program with Montclair State University.
- BS/Doctor of Physical Therapy program with Felician College.
- BS/Doctor of Physical Therapy program with William Paterson University.
- BA/Doctor of Physical Therapy program with Yeshiva University. Seven-year program.
- BS/Doctor of Physical Therapy program with Fairleigh Dickinson University. Six-year program.
- BS/Doctor of Physical Therapy program with New Jersey Institute of Technology. Six-year program.
- BS/MS in Biomedical Informatics with Ramapo College of New Jersey. Six-year program.

### **UMDNJ-SCHOOL OF PUBLIC HEALTH**

- BS/MPH and BA/MPH program with Rutgers, The State University of New Jersey.
- BS/MPH program with William Paterson University.

## ***SPECIAL PROGRAMS AT UMDNJ***

UMDNJ offers numerous special programs to non-UMDNJ students and other participants. These programs include pipeline programs that prepare students for future enrollment in a health professions school or program and internship programs that provide supervised practical training in the student's field of study.

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

Following is a list of UMDNJ special programs. Many of these programs are described in more detail in the Public and Community Service Section of this Profile beginning on page 116.

Name of Program	Program Sponsor	Collaborating or Cooperating Facility	Program Site
<b>UMDNJ PIPELINE PROGRAMS</b>			
Biomedical Careers Program	RWJMS Office of Multicultural Affairs/Special Academic Programs	Seton Hall University; Rutgers University - New Brunswick; Robert Wood Johnson University Hospital	New Brunswick/Piscataway (NB/P)
Bridge to the Doctoral Degree	GSBS at RWJMS	University of Puerto Rico - Mayaguez Campus	NB/P
Center for Advanced Biotechnology and Medicine (CABM) Undergraduate Summer Scholars Program	RWJMS - CABM	Rutgers - New Brunswick, New Brunswick Health Science Technology High School	NB/P
Decision for Dentistry	NJDS	Science Park High School; St. Benedicts High School; Arts High School; Nutley High School; Kearny High School	Newark
Dental Exploration	NJDS	Science Park School and other local middle schools	Newark
Dental Express	NJDS	Newark elementary schools	Newark
Gateway to Dentistry	NJDS		Newark
Health Science Careers	SHRP	High Schools in New Jersey	
Medical Science Academy	SOM and SHRP	Local High Schools	Stratford
Mini Med Program	NJMS		Newark
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 Scholars Program	NJMS	Columbia University College of Physicians and Medicine, Mount Sinai School of Medicine Center for Multi Cultural and Community Affairs and the Manhattan/Staten Island Area Health Education Center	Newark

Name of Program	Program Sponsor	Collaborating or Cooperating Facility	Program Site
Pathways to Careers in Public Health	SPH Office of Public Health Practice	Rutgers University, William Paterson University, Monmouth University	
Pre-Medical Honors Program	NJMS		Newark
Research in Science and Engineering (RISE)	GSBS at RWJMS	Rutgers Graduate School - New Brunswick	NB/P
S.H.A.R.E. (Early Start Mentoring Program)	NJMS		Newark
SMART (Science, Math and Related Topics) Program	NJMS Department of Family Medicine		Newark
SURP - Summer Undergraduate Research Program in Neuroscience	RWJMS Department of Neuroscience and Cell Biology	Rutgers University	NB/P
Summer Clinical Internships	RWJMS	Robert Wood Johnson University Hospital (RWJUH)	NB/P
Summer Medical and Dental Education Program (SMDEP)	NJMS and NJDS	AAMC & ADEA, Robert Wood Johnson Foundation	Newark
Summer Scholars Academy	RWJMS Office of Multicultural Affairs/Special Academic Programs		NB/P
TNT School-Based Youth Service Program	University Hospital	Essex County Vocational Technical Schools	
The Dorothy Dillahunt Memorial Scholarship Fund	GSBS Office of Student Affairs	High School students from the HARP Academy High School in Paterson.	Newark
The Public Health Research Institute (PHRI) Summer High School Research Internship Program	NJMS, PHRI Center		Newark
UMDNJ-SOM Medical Science Academy	SOM	High Schools in Burlington, Camden, and Gloucester Counties	Stratford
Undergraduate Summer Research Program	GSBS Office of Student Affairs		Newark

Name of Program	Program Sponsor	Collaborating or Cooperating Facility	Program Site
<b>UMDNJ INTERNSHIP PROGRAMS</b>			
AVTech Institute of Technology LPN Program	University Hospital	AVTech Institute of Technology	Newark
Alvernia College Occupational Therapy Internship Program	University Hospital, Department of Physical Medicine & Rehabilitation (PM&R)	Avernia College, Reading, PA	Newark
Best Care Training Institute LPN Internship Program	University Hospital	Best Care Training Institute	Newark
Bloomfield College BSN Internship Program	University Hospital	Bloomfield College	Newark
Certificate in Developmental Disabilities	RWJMS	Rutgers University School of Social Work, Institute for Families, Office of Continuing Education	NB
Clinical Pastoral Education	RWJMS, Department of Pediatrics, The Elizabeth M. Boggs Center on Developmental Disabilities	Sponsor: Association for Clinical Pastoral Education, Inc. Participants: seminarians from several seminaries in NJ and other places.	NB/P
College of St. Elizabeth BSN Internship Program	University Hospital	College of St. Elizabeth	Newark
Columbia University (NY) APN Graduate Internship Program	University Hospital	Columbia University	Newark
Emergency Medical Services	University Hospital EMS	Federal Bureau of Investigation	Newark
Essex County College School of Nursing LPN Internship Program	University Hospital	Essex County College	Newark
Essex County College Radiography Program	University Hospital, Radiology Department	Essex County College	Newark
Fairleigh Dickinson University APN Graduate Internship Program	University Hospital	Fairleigh Dickinson University	Newark
Genetic Counseling Internship	RWJMS	Sarah Lawrence College	NB/P
Graduate Internships in Speech-Language Pathology	University Hospital, PM&R	William Paterson University, Seton Hall University, Kean University, Montclair State University	Newark
Hospital & Clinical Pharmacy Rotation	University Hospital Pharmacy	Rutgers College of Pharmacy	Newark

Name of Program	Program Sponsor	Collaborating or Cooperating Facility	Program Site
International Graduate Research Educational Program (IGREP)	GSBS at RWJMS	Moscow State University	NB/P
Mercy College Masters of Occupational Therapy Internship Program	University Hospital, PM&R	Mercy College, Dobbs Ferry, NY	Newark
Merit School of Allied Health LPN Internship Program	University Hospital	Merit School of Allied Health	Newark
Misericordia University Masters of Occupational Therapy Internship Program	University Hospital, PM&R	Misericordia University, Dallas, PA	Newark
Montclair State University Doctor of Audiology Internship Program	University Hospital Ambulatory Care Center - Audiology Service	Montclair State University	Newark
New Community School of Practical Nursing LPN Internship Program	University Hospital	New Community School of Practical Nursing	Newark
New York University Masters of Occupational Therapy Internship Program	University Hospital, PM&R	New York University, NY	Newark
Physical Therapy Internship Program	University Hospital, PM&R	Arcadia University, Glenside, PA	Newark
Podiatric Externship for 4th year medical students	University Hospital		Newark
Quinnipiac University Masters of Occupational Therapy Internship Program	University Hospital, PM&R	Quinnipiac University, Hamden, CT	Newark
Rutgers University College of Nursing Clinical Rotations	University Behavioral HealthCare (UBHC) Acute Services Unit	Rutgers University College of Nursing	NB/P.
Rutgers University Department of Psychology Clinical Rotations	UBHC	Rutgers University Department of Psychology	NB/P
Rutgers University Graduate School of Applied & Professional Psychology Graduate Internship Program	UBHC Division of Schizophrenia Research	Rutgers University Graduate School of Applied & Professional Psychology	NB/P
Rutgers University School of Social Work Clinical Placement Program	UBHC	Rutgers University School of Social Work	NB/P
Rutgers University College of Nursing BSN Internship Program	University Hospital	Rutgers University	Newark
Social Work Internship	University Hospital, Social Work Department	Rutgers University, Kean University	Newark

Name of Program	Program Sponsor	Collaborating or Cooperating Facility	Program Site
The University of Scranton Masters of Occupational Therapy Internship Program	University Hospital, PM&R	The University of Scranton, PA	Newark
University Hospital Department of Orthopaedics Program for Students Considering UMDNJ PA program	University Hospital, Department of Orthopaedics	Montclair State University	Newark
William Paterson University School of Nursing BSN Internship Program	University Hospital	William Paterson University	Newark
<b>UMDNJ ENRICHMENT PROGRAMS</b>			
Cancer Education Program for NJMS Students	NJMS - University Hospital Cancer Center		Newark
Freshman Introduction to Skills and Training (FIRST) Program	NJMS		Newark
Initiative for Maximizing Student Diversity	GSBS at RWJMS		NB/P
National Heart, Lung and Blood Institute Short-Term Training for Minorities	NJMS, Department of Cell Biology and Molecular Medicine		Newark
Physical Therapy Student Program	University Hospital, PM&R		Newark
Pre-Matriculation Summer Program	RWJMS		NB/P.
Robert Wood Johnson Faculty Development Scholars	UMDNJ School of Nursing/Graduate Program	Robert Wood Johnson Foundation	Newark; Stratford
Tutoring	NJDS		Newark
SHRP Psychiatric Rehabilitation	UBHC		NB/P
School of Nursing	UBHC		NB/P

Source: *UMDNJ Pipeline and Special Programs Survey*, UMDNJ-Office of Institutional Research, November 2009. Available online at: <http://php.umdj.edu/~instrsrh/PipeLine/MenuOption.php>



## **ACCREDITING AGENCIES**

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

<b>School/Program</b>	<b>Accrediting Agency</b>
UMDNJ	Middle States Commission on Higher Education
NJMS - MD	Liaison Committee on Medical Education (LCME)
RWJMS - MD	Liaison Committee on Medical Education (LCME)
NJMS & RWJMS - allopathic residency programs	Accreditation Council for Graduate Medical Education (ACGME)
SOM - DO	American Osteopathic Association (AOA)
SOM - osteopathic internship & residency programs	American Osteopathic Association (AOA)
NJDS - DMD	Commission on Dental Accreditation (CODA) of the American Dental Association
NJDS - dental residency programs & postgraduate certificates	Commission on Dental Accreditation (CODA) of the American Dental Association or American Board of Oral Medicine
SPH - PhD, DrPH, MS, MPH	Council on Education for Public Health (CEPH)
<b>SN Programs</b>	
SN - BSN, MSN	National League for Nursing Accrediting Commission (NLNAC), Inc.
SN - MSN, Family Nurse Practitioner in Emergency Care Track	National League for Nursing Accrediting Commission, Inc.
SN - MSN, Nurse Anesthesia Track	Council on Accreditation of Nurse Anesthesia Educational Programs (COA)
SN - MSN, Women's Health Nurse Practitioner Track	National Association of Nurse Practitioners in Women's Health
SN - Nurse Midwifery	American College of Nurse Midwives (ACNM)
<b>SHRP Programs</b>	
Cardiac Sonography	Commission on Accreditation of Allied Health Education Programs (CAAHEP) - Joint Review Committee for Diagnostic Medical Sonography
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

School/Program	Accrediting Agency
Diagnostic Medical Sonography	Commission on Accreditation of Allied Health Education Programs (CAAHEP) - Joint Review Committee for Diagnostic Medical Sonography
Dietetic Internship	Commission on Accreditation for Dietetics Education (CADE)
Coordinated Dietetic Program	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)
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)
Rehabilitation Counseling	Council on Rehabilitation Education (CORE)
Respiratory Therapy/Respiratory Care	Commission on Accreditation for Respiratory Care (COARC)
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

<b>Academic Year</b>	<b>Resident Tuition</b>	<b>% Increase in Resident Tuition</b>	<b>Non-Resident Tuition</b>	<b>% Increase in Non-Resident Tuition</b>
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%

Sources: 1. Annual Tuition Report for AY 2009-2010, Table 1, UMDNJ-Office of Institutional Research.  
 2. UMDNJ Tuition Rates Schedule, Academic Year 2010-2011.

## **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 21<sup>st</sup> 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 21<sup>st</sup> 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, 703 major electronic books in the health sciences and 4,610 of the most highly rated scholarly electronic journals in the health sciences. Utilization of licensed electronic resources, online books and journals exceeded 2 million uses in FY2010.

The University Libraries aggressively support electronic journal subscriptions, having cancelled vast numbers of print journals at each of our campus libraries. As a result of this reduction, retaining access to high quality electronic content and archival collections is our collecting priority. The mass cancellation of print subscriptions was essential to our ability to continue access to the electronic versions of the journals.

Currently, all UMDNJ libraries are fully wireless environments, providing flexible learning and study spaces for all users. Technologies are currently being implemented that will enhance library services to the University community. A new Quick Search feature was introduced on all of the campus libraries' Websites. Student input was a driving influence in the updating of the libraries' Web services. Improved data security, automatic uploading of new patron records, and safeguarding authentication practices have been a priority over the past year.

The UMDNJ Libraries contribute to UMDNJ's community services goals through the delivery of **HealthyNJ**, an extensive consumer health Website (<http://www.healthynj.org>). **HealthyNJ** assists consumers in their quest to rapidly find patient/consumer information tailored to a wide range of cultural, education, and language needs. 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 resulting in more widespread use.

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.umdnj.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.umdnj.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.umdnj.edu/rwjlbweb/>

### **STRATFORD CAMPUS**

#### **UMDNJ-Health Sciences Library at Stratford**

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

<http://www.umdnj.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.umdnj.edu/camlbweb/>

#### **UMDNJ and Coriell Library (Study Annex)**

401 Haddon Avenue, Camden, NJ 08103-1505  
(856) 757-7740

<http://www.umdnj.edu/camlbweb/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 2010

#### **Access to Libraries' Resources**

Gate Count	397,224
Circulation	17,478

#### **Information Services**

Database Accesses/End User	2,042,379
Database Accesses/Librarian Mediated	1,849
Reference Questions Answered	8,829
Education Session (Formal Teaching) Participants	4,189

#### **Interlibrary Cooperation**

Lending to Libraries	9,198
Borrowing from Libraries	5,974

#### **Collection**

Book Volumes	92,802
Electronic Books	703
Journal Volumes	173,951
Print Journal Subscriptions	158
Electronic Journal Subscriptions	4,610
Database Subscriptions	84

#### **Personnel**

Professional Staff (FTE)	36.8
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 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 (RSS) programs (including grand rounds, M&M conferences, tumor boards, and other series).

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

As well, CCOE 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 web-based 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. When an activity is delivered in UMDNJ's academic centers, options such as simulation and multimodal sequential layering of information are incorporated.

UMDNJ's options for activity delivery include:

- Live conferences, workshops and teleconferences
- Regularly scheduled series (RSS)
- Journal-based CE
- Enduring materials
- Performance Improvement
- Internet-based education
- Jointly-sponsored collaborations with non-accredited organizations that are not commercial interests

### 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.

EOM data is analyzed 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 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 (ACPE) 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.

Today, CCOE is a vital part of the university community and employs an experienced staff of professionals, some having advanced educational credentials. The Center works closely with voluntary physician leadership in two active CME committees to oversee a comprehensive regularly scheduled series (RSS) program that covers most clinical disciplines of medicine throughout both New Jersey Medical School and Robert Wood Johnson Medical School. The outreach portion of our organization coordinates online activities through our website and partner websites to bring access to many CME interventions to learners and planners alike.

CCOE maintains a vital presence in the communities of the University's school locations, providing educational services throughout the State of New Jersey. Through our outreach programs, CCOE has extended educational opportunities to learners throughout the United States and the world.

#### Our Staff:

CCOE is currently staffed by a group of approximately 26 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.

#### Division of Aids Education:

The Division of Aids Education is the largest provider of HIV/AIDS continuing professional education in New Jersey. Based in Newark, one of the national epicenters of the epidemic, the Division's mission is to create a continuum of education, training consultation and technical assistance in the care, treatment and prevention of HIV and AIDS for healthcare providers primarily in New Jersey.

The Division conducts targeted, multi-disciplinary education and training programs for health care providers treating persons with HIV/AIDS. It also conducts chart review and related training and technical assistance to HIV care providers to improve the quality of care they provide.

The Division of AIDS Education has been a partner since 1989 in the national AIDS Education and Training Centers (AETCs), whose goal is to increase the number of health care providers who are effectively educated and motivated to diagnose, treat, and manage individuals with HIV infection. Beginning in July 2010, the AETC program in Northern New Jersey will be managed by the FXB Center of UMDNJ School of Nursing, and the Division will continue to support AETC activities under their auspices.

The Division holds two grants from the New Jersey Department of Health and Senior Services, and one from Ryan White Part A through the Newark Department of Family and Child Well-Being, for training and quality improvement in HIV/AIDS healthcare in

New Jersey. These programs link training to health disparities and healthcare quality gaps through on-site intensive case-based workshops and lecture sessions, as well as regional conferences, interactive educational activities, and print and web-based enduring materials. In addition to training healthcare clinicians, the Division also provides or coordinates training for HIV case managers and HIV prevention workers.

## **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  
UMDNJ Informatics Institute

### **NEW JERSEY MEDICAL SCHOOL AND UNIVERSITY HOSPITAL**

AIDS Education and Training Center (AETC) National Resource Center  
Asthma and Allergy Research Center  
Cardiovascular Research Institute  
Carroll M. Leevy Center for Liver Diseases  
Center for Advanced Proteomics Research  
Center for Bloodless Surgery and Medicine  
Center for Childhood and Neonatal Surgery  
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

Osteopathic Rehabilitation Center  
 Pancreatic Biliary Institute  
 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  
 Vascular Biology 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  
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 Mental Health Treatment for Persons with Intellectual Disabilities  
Center for Teaching and Learning  
Center for Vascular Surgery and Vein Care  
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 Health Economics and Health Policy  
Center for School and Community-Based Research and Education  
Center for Tobacco Surveillance & Evaluation Research  
Global Public Health Center  
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  
Institute for Chemical Dependency  
Technical Assistance Center  
Violence Institute of New Jersey at UMD

## **MAJOR TEACHING FACILITIES**

### **NEW JERSEY MEDICAL SCHOOL**

UMDNJ-University Hospital

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

Hackensack University Medical Center

### **ROBERT WOOD JOHNSON MEDICAL SCHOOL**

The Cooper Health System

Robert Wood Johnson University Hospital

Raritan Bay Health Services Corporation/Raritan Bay Medical Center

Somerset Medical Center

Meridian Hospitals Corporation/Jersey Shore  
University Medical Center

University Medical Center at Princeton

### **SCHOOL OF OSTEOPATHIC MEDICINE**

Kennedy Memorial Hospitals-University Medical Center

Lourdes Health System

## **CLINICAL AFFILIATES**

### **UMDNJ-NEW JERSEY MEDICAL SCHOOL**

Atlantic Health Systems Hospital Corp./Morristown Memorial Hospital (Affiliated Residency Program)	Merit Health Systems, LLC/Mountainside Hospital (Affiliated Residency Program)
Atlantic Health Systems Hospital Corp./Overlook Hospital (Affiliated Residency Program)	Methany Medical and Educational Center (Affiliated Residency Program)
Bergen Regional Medical Center Care Alternatives (Hospice)	New Community (Nursing Home)
Children's Specialized Hospital (Affiliated Ophthalmology Residency Program)	North Hudson Community Action Corporation
Chrill Visiting Nurse Association (Home Care Agency)	Palisades Medical Center (Affiliated Residency Program)
Christ Hospital (Affiliated Residency Program)	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)
Essex Valley Visiting Nurse Association (Home Care Agency)	St. Michael's Medical Center
Greystone Park Psychiatric Associates	Summit Oaks Hospital
Kessler Institute for Rehabilitation (Affiliated Residency Program)	The Practice of Dr. Sharad Sahu, Internist
	Trinitas Hospital
	UMDNJ-University Behavioral HealthCare
	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)	Mercer Medical Center
Atlantic Health System/Overlook Hospital	Muhlenberg Regional Medical Center
Bayshore Community Hospital	New Jersey Department of Health and Senior Services
Brooklyn Hospital-Caledonian Hospital Care One	Robert Wood Johnson University Hospital at Rahway
Carrier Foundation	Robert Wood Johnson University Hospital at Hamilton
CentraState Medical Center	Southern Ocean County Hospital
Children's Specialized Hospital	St. Francis Medical Center
Deborah Heart and Lung Center	St. Joseph's Medical Center (Affiliated Family Practice Residency Program)
Foot Hills Acres Rehabilitation and Nursing Center	St. Peter's University Hospital
Francis E. Parker Memorial Home	The New York and Presbyterian Hospital
Hagedorn Psychiatric Hospital	Rutgers University Health Services
Helene Fuld Medical Center	Staten Island University Hospital
Hospital for Special Surgery	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	Willowcreek Rehabilitation and Care Center
Matheny School and Hospital	



**UMDNJ-SCHOOL OF OSTEOPATHIC MEDICINE**

Albert Einstein Medical Center	Lions Gate
Ancora Psychiatric Hospital	Masonic Hospice Services
Atlantic Health System	Meridian/Jersey Shore Medical Center/Ocean Medical Center
Camden County Health Services Center	Mid Atlantic Stone Center
Christ Hospital	St. Joseph's Regional Medical Center
Christiana Care Health Services	South Jersey HealthCare
Cooper University Hospital	Summit Surgical Center
Crozer Keystone Health System	Thomas Jefferson University Hospital
Deborah Hospital Heart and Lung Center	V. A. Hospital, Wilmington, Delaware
Dupont Hospital for Children	Vitas Hospice
Fox Chase Cancer Center	University of Pennsylvania Health System
Health South Surgical Mt. Laurel	
Innova Health and Rehabilitation	

**UMDNJ-NEW JERSEY DENTAL SCHOOL**

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

**UMDNJ-SCHOOL OF NURSING**

Alder Alphasia Center	Clinton Hill Community & Early Childhood Center, Inc.
Atlantic Health System	Columbia University
Amboy Memorial Hospital Ancora Psychiatric Hospital	Community Mobile Partnership
Ancora County Division of Public Health	Community YMCA Services
Babyland Family Services, Inc.	Cooper Health System
Bergen Regional Medical Center	County of Camden
Bobbie's Babies	County of Middlesex
Broadway House for Continuing Care	Covenant House
Burlington County Department of Health	DCF-DYFS
Camden County CDI Head Start	Dominican College
Camden County Department of Health & Human Services	Drexel University
Camden County OEO Head Start	Drexel University College of Nursing and Health Professions
Cancer Institute of New Jersey	East Orange General Hospital
Capital Health	East Orange Health & Human Services
Carrier Clinic	Eastern Children's Christian Retreat
Casa Israel	El Club del Barrio, Inc.
CDC	Elijah's Soup Kitchen
Center for Family Guidance	Englewood Hospital and Medical Center
Central New Jersey Child and Mental Health Consortium	Englewood Hospital and Medical Center/Englewood Home Care
Children's Health Fund	Eric B. Chandler Health Center
Children's Specialized Hospital	Essex County Hospital Center
Christ Hospital	Essex Valley Visiting Nurses Association
Christian Healthcare Center	Fairview Urban Renewal Associates, LP
City of Newark Department of Health and Human Services	Fairleigh Dickinson University Henry P. Bection School of Nursing

Felician College Division of Health Sciences  
 Professional Nursing Program  
 FOCUS  
 Garfield Board of Education  
 Gateway Northwest Maternal Child  
 Consortium  
 Greystone Park Psychiatric Hospital  
 Gross, Elaine  
 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  
 Holy Spirit Health System  
 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  
 Hyacinth AIDS Foundation, Inc.  
 Immaculata University  
 Integrity House  
 Internet Medical Group  
 Ironbound Community Corporation  
 Isaiah House  
 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  
 Kimball Medical Center  
 Kindred Hospital of New Jersey-Rahway  
 Laurel Springs Elementary School  
 Leaguers, Inc.  
 Long Island Jewish Medical Center  
 Maple Glen Center  
 Masonic Home of New Jersey  
 MCOSS  
 Medical Center of Ocean County  
 Memorial Hospital for Cancer and Allied  
 Diseases  
 Memorial Hospital of Burlington County  
 Mental Health Resource Center  
 Middlesex County Public Health Department  
 Minute Clinic Diagnostic  
 Morristown Memorial Hospital  
 NJMS Global Tuberculosis Institute  
 New Jersey Department of Environmental  
 Protection, Center for Occupational  
 Medicine  
 New Jersey Veterans Home - Paramus  
 New Jersey Veterans Memorial Home  
 New Jersey Women and AIDS Network  
 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  
 Our Lady of Lourdes Medical Center  
 Overlook Family Practice  
 Palisades Medical Center  
 Pasack 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.  
 Projecto Mantena Ajuda Corporation  
 Rahway Hospital  
 Rancocas Hospital  
 Raritan Bay Medical Center  
 Ready Healthcare Regional Women's  
 Health Management, 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 Health-Virtua Inc.  
 Summit Oaks Hospital  
 Sunrise House  
 Sunset Road Medical Associates, PA  
 Thomas Edison State College  
 Township of Edison and Edison Department of Health and Human Services  
 Township of Irvington  
 Trenton Psychiatric Hospital  
 Trinitas Hospital  
 Trustees of Columbia University in the City of New York  
 UBHC-Project Impact Program  
 UMDNJ-Special Services Dental Clinic  
 Underwood Hospital-Family Practice Center  
 Underwood Memorial Hospital  
 Union Hospital

Union Township Public Schools  
 United Community Corporation  
 United Health Care System  
 United Hospitals Medical Center-Children's Hospital of New Jersey  
 United Methodist Homes  
 University Correctional HealthCare  
 University Health Services-Princeton University  
 VA New Jersey Health Care Systems  
 Valley Diagnostics  
 Valley Home Care, Inc.  
 Valley Hospital  
 Veterans Affairs Medical Center Office of Research and Development  
 Veterans Memorial Home  
 Virtua Health  
 Virtua Health, Inc  
 Vision of Hope Community Development Corporation, The  
 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

A.R. Rehabilitation and Physical Therapy Associates  
 Abilities Center of Southern NJ, Inc.  
 Active Care Physical Therapy  
 Adams Center at Long Island University  
 Adena Health System  
 Advance Housing, Inc.  
 Advanced Medical Imaging  
 Advanced Physical Therapy Associates  
 AHS Hospital Corp.  
 Alamitos-Belmont Rehab Hospital  
 Albert Einstein Health Care Network  
 Albert Einstein Healthcare  
 Alexian Brothers Hospital  
 Alfred I. DuPont Institute  
 All Care Physical Therapy Center  
 All Children's Hospital  
 All Saints Health Care System  
 Allegheny Graduate Hospital  
 Allergan Medical  
 Alliance Hand & PT, Inc.  
 Allied Healthcare Services, Inc.  
 Alternatives, Inc.  
 Arbor Glen Center & Genesis Eldercare Network

ARC-Somerset County  
 ARC Kohler School  
 Archway School  
 Arlington Hospital  
 Ashbrook Nursing Home  
 ASK Rehab.  
 Aspen Physical Therapy  
 AtHome Medical  
 Atlantic Behavioral Health  
 Atlantic City Medical Center  
 Atlantic Health Systems (AHS) Hospital Corp.  
 Atlantic Health Systems, Inc. (AHS)  
 Atlantic Orthopedic & Sports Physical Therapy  
 Atlantic Rehabilitation Services  
 Atlantic Shore Sports Rehabilitation  
 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  
 Bancroft NeuroHealth

Baptist Medical Center	CentraState Healthcare System
Barnegat Sports Rehabilitation & Physical Therapy	CentraState Medical Center
Barnert Hospital	Century City Doctors Hospital
Barstow Community Hospital	Cerebral Palsy Center in Edison, NJ
Bay Sport Physical Therapy	Cerebral Palsy Center of Camden County
Bayonne Hospital	Cerebral Palsy Center of Essex & West Hudson
Bayonne Medical Center	Cerebral Palsy Center of Gloucester and Salem
Bayshore Community Hospital	Cerebral Palsy Center of North Jersey
BCS Physical Therapy Services, PA	Cerebral Palsy Center of Union County
Bellin Hospital	Children's Hospital of Philadelphia
Bergen Pines County Hospital	Children's Medical Center of Dayton
Berkshire Physical Therapy	Children's Specialized Hospital
Betty Bacharach Rehab Hospital	Children's Therapy Services
Bio-Medical Applications of Fredericksburg Dialysis Inc.	Children's Center for Therapy
Bio-Medical Applications of Maine (BMA) a.k.a. S'Maine Dialysis	Chilton Memorial Hospital
Board of Physical Therapy Examiners	Christ Hospital
BREAKTHRU Physical Therapy	Churchill Orthopedic Rehabilitation
Broadway Physical Therapy	Clara Maass Medical Center
Burdette Tomlin Memorial Hospital	Collaborative Support Programs
Burke Rehabilitation Hospital	Colonial Rehabilitation & Nursing
Burlington County Special Services School District	Columbia River Mental Health Services (CRMHS)
Busch Livingston Health Center	Columbia St. Mary's, Inc.
Caldwell Therapy Center	Community Food Bank of New Jersey
Camcare	Community General Hospital
Cancer Institute of New Jersey	Community Hospital
Cape Cod Hospital	Community Hospital Group
Cape May County Special Services	Community Medical Center
Capital Care-Psych Rehab	Community Physical Therapists
Cardinal Health System	Comprehensive Sports Care Specialists
Cardinal Health Radiopharm	Cooper Health System
Cardiovascular Care Group	Cooper University Hospital
CareOne at Morris	Coram Alternate Site Services, Inc.
CareOne at Teaneck	Covenant Health
CareOne, LLC	CPC Behavioral Healthcare
Carillion Medical Center	Cranford Health and Extended Care
Carolinas Medical Center-Lincoln	Crozer Chester Medical Center
Carrier Foundation	Cybergistics, Inc.
Carroll Hospital Center	Davies Medical Center
Catholic Charities	DaVita, Inc. (DVA Healthcare Renal Care)
Catholic Charities Diocese of Metuchen	Deborah Heart & Lung Center
Catholic Charities Diocese of Trenton	Delaire Nursing Home and Convalescent Center
Catholic Charities Special Education Schools Division	Delaware Division of Vocational Rehabilitation
Catholic Community Services	Department of Veterans Affairs
Center for Advanced Wound Care	Diabetes and Endocrinology Associates
Center for Family Services	Dialysis Clinic, Inc.
Center for Physical Therapy & Sports Rehabilitation	Dover General Hospital
Center State Renal Dialysis Center	Drexel University-Psych
Central New Jersey Jewish Home for the Aged	Durham County General Hospital
	Early Childhood
	East Orange General Hospital

East Penn Sports Medicine  
 Easter Seal Rehabilitation Center  
 Eastern Long Island Hospital  
 Eastern, Joseph, MD  
 El Paso County Hospital District  
 Employment Horizons  
 Englewood Cliffs Physical Therapy  
 Englewood Hospital & Medical Center  
 Fairfield Physical Therapy Center  
 Family Connections  
 Family Service of Burlington County  
 Francis E. Parker Memorial Home  
 Fresinius Medical Care  
 Garden Manor Extended Care Facility  
 Garden/Sullivan Hospital  
 Gateway Day Treatment Program  
 Genesis Hospital Services  
 George Washington University  
 Georgetown University Hospital  
 Gloucester County College  
 Gloucester County Department of Health  
 and Senior Services  
 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  
 Hackensack University Medical Center –  
 Community Nursing Services  
 Hackensack University Medical Center  
 Hackensack University Medical  
 Center/Hillcrest Health Service System  
 Hackettstown Community Hospital  
 Hackettstown Regional Medical Center  
 Hamilton Hospital  
 Hanover Park Regional HS-HSC  
 Harrisburg Hospital  
 Harvard Community Health Plan  
 Hasbro Children's Hospital  
 HCA – HealthOne, LLC  
 Health Barn USA  
 Health Center of Galloway  
 Healthcare Services Group, Inc.  
 HealthSouth  
 HealthSouth Corporation  
 Heartland Rehab. Services  
 Helen Hayes Hospital  
 Helene Fuld Medical Center  
 Hershey, Milton S. Medical Center  
 Hilltop Manor of Niskayuna  
 Holy Name Hospital  
 Home Health Agency of Hackensack  
 HoMed Convalescent Equipment Co  
 Hoover Hospital  
 Horizon House  
 Hospital Center at Orange  
 Hospital of the University of Pennsylvania  
 Hudson Heights Physical Therapy  
 Associates  
 Hudson Physical Therapy  
 Hunterdon Medical Center  
 Hunterdon Physical & Sports Therapy  
 Hunterdon Regional Cancer Center  
 IHC Health Services dba. Pocatello  
 Regional Medical Center  
 In Motion Physical Therapy  
 Independence Rehabilitation  
 Inglemoor Rehabilitation and Care Center  
 Inglis House  
 Institute for Therapeutic Massage, Inc.  
 Integra Life Sciences, Inc.  
 Integrated Health Services at Somerset  
 Valley  
 IOM Health System, LP  
 Irvington General Hospital  
 Ivy Rehab  
 Jamestown Hospital  
 Jersey City Medical Center  
 Jersey City Public School  
 Jersey Shore Medical Center  
 Jewish Family & Vocational Service of  
 Middlesex County  
 Jewish Home and Hospital for the Aged  
 Jewish Hospital & Rehab. Center  
 JFK Medical Center  
 JFK Medical Center/Community Hospital  
 Group  
 John Heinz Institute of Rehabilitation  
 Medicine  
 John Hopkins Hospital  
 Jordan Hospital  
 Joyner Sports Medicine Institute  
 Kean University, Communication Disorders  
 & Deafness Dept.  
 Kennedy Health Systems  
 Kennedy Hospitals  
 Kennedy Hospitals at Cherry Hill  
 Kennedy Hospitals at Stratford  
 Kennedy Hospitals at Washington Township  
 Kennedy Memorial Hospital/University  
 Medical Center  
 Kessler Institute for Rehabilitation  
 Keystone Human Services MidAtlantic  
 Kinetic Physical Therapy.  
 Kline, David, MD  
 Lakeview Subacute Care Center  
 Laurence M. Seitz

Lawnwood Regional Medical Center  
 Lawrence OB/GYN, PC  
 Lee Memorial Hospital  
 Lenape Valley Foundation  
 Lenox Hill Hospital  
 Liberty Health Systems  
 Life Care Medical Center  
 Life Line Center for Women  
 Lock Haven Hospital  
 Lombardi, Anthony (Dr.)  
 Louisiana State University Health Sciences  
 Center  
 Lower Bucks County Hospital  
 Lung Diagnostics  
 Lutheran Medical Center  
 Lynchburg Health Department  
 Magee Rehab  
 Magee Rehab at Voorhees  
 Manor by the Sea  
 Manor Care Corporation  
 Maple Leaf Physical Therapy  
 Margate Physical Therapy  
 Mariner Health Pendleton  
 Marlboro Physical Therapy  
 Marrietta Center for Rehabilitation  
 Marshfield Clinical Cytotechnology Program  
 Matheny Medical & Educational Center  
 Meadowlands Professional Sports Care  
 Meadowview Nursing & Respiratory Care  
 Center  
 Medi Fit  
 Medical Center of Princeton  
 Medicorp Health System  
 Medina County Health Department  
 Med Star dba Georgetown Medical Center  
 Memorial Medical Center at South Amboy  
 Memphis-Shelby County Health Department  
 Mental Health Association of Essex County  
 Mental Health Association of Southeastern  
 Pennsylvania  
 Mercer Bucks Sports Medical Center  
 Mercer Medical Center  
 Mercy College  
 Mercy Fitzgerald Hospital  
 Meridian Hospitals Corporation  
 MeritCare Hospital dba MeritCare Medical  
 Center  
 MeritCare Hospital and MeriCare Medical  
 Group  
 Mesa County Board of Health  
 Methodist Healthcare  
 Metpath, Inc.  
 Miami's Children's Hospital  
 Middlesex County Academy of Allied Health  
 Millennium Respiratory Services  
 Monmouth Medical Center  
 Morristown Memorial Hospital  
 Morristown Memorial Medical Center  
 Morristown Sports Medicine Center  
 Moss Rehab Hospital /Albert Einstein  
 Medical Center  
 Mountainside Hospital  
 MRI of Woodbridge  
 Muhlenberg Regional Medical Center  
 Mullaney & Associates Physical Therapy  
 Multiple Handicapped Program  
 Multiple Handicapped Program – Special  
 Services  
 National Naval Medical Center  
 Nebraska Medical Center  
 Nelson Place  
 Nemours Children's Clinic – Wilmington  
 New Jersey Cancer Institute  
 New Jersey Center of Physical Therapy  
 New Jersey Dept. of Human Services  
 New Jersey HealthCare System (VISN 3)  
 New Jersey Hospital Association  
 New Jersey Office of the Medical Examiner  
 New Jersey VA Health Care Systems  
 New Jersey Veterans Memorial Home  
 New York University Medical Center – Rush  
 Institute for Rehab.  
 Newark Beth Israel Medical Center  
 Newton Memorial Hospital  
 North County Regional Hospital  
 North, Inc.  
 North Jersey Developmental Center  
 North Jersey Physical Therapy Institute  
 North Ridge Hospital  
 Northeast Arkansas Baptist Memorial Health  
 Care  
 Northern Hills Physical Therapy Associates  
 Northern Westchester Hospital  
 Northwest Covenant Medical Center  
 Northwest Essex Community Healthcare  
 Network  
 Northwestern Human Services of Delaware  
 County  
 Northwoods Rehab & Extended Care at  
 Hilltop  
 Norwalk Hospital  
 NovaCare Outpatient Rehab  
 Omni - Fit  
 Optimum Physical Therapy Center  
 Ortho Biotech  
 Orthopedic Specialty Hospital  
 OSI Pharmaceuticals Inc.  
 Our Lady of Lourdes Medical Center  
 Oxford Consulting Services, Inc.  
 Pain Doctor Medical PLLC

Palisades Medical Center  
 Palomar Pomerado Hospital  
 Paragon at Brookhaven  
 Paragon at Morris View Nursing Home  
 Paragon Rehabilitation Incorporated  
 Paragon, Inc.  
 Park Nicollet Health Services  
 Passaic Pediatrics  
 Passaic Valley Hospital  
 Paterson Community Clinic  
 Paterson Public School  
 Pathmark Stores, Inc.  
 Pathways to Independence, Inc.  
 Paul Schweitzer's Therapy and Rehab  
 Pediatric Rehabilitation of North Jersey  
 Pediatric Workshop  
 Peninsula Regional Medical Center  
 Pennsylvania Hospital  
 Pennsylvania Rehab  
 Pfizer, Inc.  
 Philadelphia VA Medical Center  
 Physical Solutions  
 Physical Therapy Center  
 Physical Therapy Services of Jersey Cape  
 Physical Therapy Sports Rehabilitation  
 Physio Therapy Associates  
 Physiofitness  
 Physiotherapy Corporation  
 Pinnacle Health Hospitals  
 Polyclinic Medical Center  
 Presbyterian Healthcare Services  
 Primary Children's Medical Center  
 Procure Rehabilitation  
 Professional Pulmonary Services  
 Professional Sports Care  
 Project Live, Inc.  
 Promise  
 Prospect Heights Care Center  
 Providence Hospital  
 PT Sports Medicine at Quest I  
 Public Health Dayton & Montgomery County  
 Pzena & Null Nutrition Center  
 Quest Diagnostics  
 Rahway Hospital  
 Rancocas Hospital  
 Rapid City Regional Hospital  
 Raritan Bay Medical Center  
 Raritan Valley Physical Therapy Assoc.  
 Regent Care Center  
 Rehab Works  
 Request Physical Therapy  
 Rich Mar Loaner Program  
 Richard Stockton College  
 Richmond University Medical Center  
 Rickard Rehab Services Inc.  
 Riptide Physical Therapy, Inc.  
 Riverview Medical Center  
 Riverview Rehabilitation Center  
 Robert Wood Johnson University Hospital  
 Robert Wood Johnson University Hospital-  
 Hamilton  
 Robert Wood Johnson University Hospital-  
 Rahway  
 Roche Biomedical Laboratories, Inc.  
 Rochester General Hospital  
 Runnels Specialized Hospital  
 Rutgers Cooperative Extension of  
 Hunterdon County  
 Saviano, George MD  
 SeaView Hospital RC&H  
 Select Specialty Hospital Johnstown, Inc.  
 SERV Center of NJ  
 Seton Hall University  
 Shady Lane Home  
 Shore Memorial Hospital  
 Sierra Vista Regional Medical Center  
 Signature Home Care  
 Silver Care Center  
 Soar Physical Therapy  
 Somerset County Office of Aging  
 Somerset Hills Physical Therapy  
 Somerset Medical Center  
 South Amboy Memorial Hospital  
 South Bergen Jointure Commission  
 South Eastern Orthopedic Specialists, PA  
 South Jersey HealthCare  
 South Jersey HealthCare System  
 South Jersey Hospital, Inc.  
 South Jersey Physical Therapy Associates  
 Southampton Hospital  
 Southern New England Rehab  
 Southern Ocean County Hospital  
 Southwest Regional Medical Center  
 Spaulding - Cape Cod Hospital  
 Spine and Orthopedic Physical Therapy  
 Center  
 Spokane Sports Medicine  
 Sports and Back Rehabilitation  
 Sports Physical Therapy at South Jersey  
 Sports Physical Therapy Center of Bergen  
 Sports Physical Therapy, Inc.  
 Sports Rehabilitation and Physical Therapy  
 Sports Rehabilitation of Manhasset  
 Sports Training Physical Therapy of New  
 Jersey  
 Sportscare  
 St. Agnes Medical Center  
 St. Barnabas Ambulatory Care Center  
 St. Barnabas Health Care System  
 St. Barnabas Medical Center

St Barnabas Medical Center (Newark Beth Israel)  
 St. Barnabas Outpatient Radiology Center  
 St. Barnabas Rehabilitation Affiliates  
 St. Bernard's Healthcare  
 St. Claire's Hospital, Inc. - Various  
 St. Cloud Health Care Center  
 St. Elizabeth's Hospital  
 St. Francis Medical Center  
 St. James Hospital  
 St. John of God Community Services  
 St. Joseph's Hospital & Medical Center  
 St. Joseph's Regional Medical Center  
 St. Joseph's Wayne Hospital  
 St. Lawrence Rehabilitation Center  
 St. Luke's-Roosevelt Hospital  
 St. Mary's Child Development Center  
 St. Mary's Hospital  
 St. Mary's Medical Center  
 St. Michael's Medical Center  
 St. Peter's University Hospital  
 St. Vincent's Comprehensive Cancer Center  
 St. Vincent's Hospital and Healthcare, Inc.  
 State of Florida, Dept. of Health, Palm Beach County Health Department  
 State University of New York  
 Staten Island University  
 Strive Physical Therapy & Sports Rehab  
 Tenet Health System Hahnemann, LLC  
 d/b/a Hahnemann University Hospital  
 The County of Gloucester  
 The Trustees of Columbia University in the City of New York  
 The Valley Hospital  
 Therapeutic Associates  
 Township Sports Therapy & Work Hardening – Novacare  
 Trinitas Hospital  
 Triple C Housing  
 Turning Point, Inc.  
 Underwood Memorial Hospital  
 United Cerebral Palsy of Philadelphia  
 United Health Services Hospitals  
 United Healthcare System  
 Universal Institute, Inc.  
 University Hospital  
 University of Cincinnati Medical Center  
 University of Hartford  
 University of the Sciences in Philadelphia  
 US Army Research Institute of Environmental Medicine  
 US Eyecare Sales  
 VA Hospital  
 VA Medical Center – Lake City, FL  
 VA Network – South Texas  
 VA New Jersey Health Care System  
 VA New York Harbor Healthcare System (VISN 3)  
 VA Pittsburgh Healthcare System  
 Valley Hospital  
 Van Pelt Physical Therapy  
 Vascular Access Center  
 Vascular Diagnostic Center  
 Vineland Developmental Center  
 Virtua Health, Inc.  
 Visiting Nurses Association of NJ  
 Visiting Nurses Association of Southern NJ  
 Warren County Technical School  
 Warren Hospital  
 Warren Manor  
 Wasatch Valley Rehabilitation  
 Waterbury Hospital  
 Waterville Osteopathic Hospital  
 Wayne View Care Center  
 Wayneview Corp. dba Wayneview Care Center  
 Weisman Children's Rehabilitation Hospital  
 Welkind Rehab Hospital  
 WellStar Health System, Inc.  
 West Arm Therapy Services  
 West Bergen Mental Healthcare  
 West Caldwell Care Center  
 West Hudson Hospital  
 West Jersey Health System Westport Physical Therapy  
 Woodbridge Developmental Center  
 Woodrow Wilson Rehab Center  
 WWHCS Hospital  
 Young Adult Institute, Inc.



## **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

### **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

**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 School Professional Center**

97 Paterson Street  
New Brunswick, New Jersey 08901-1977

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

317 George Street  
New Brunswick, New Jersey 08901

**Robert Wood Johnson Medical Group at Somerset**

One Worlds Fair Drive  
Somerset, New Jersey 08873

**Robert Wood Johnson Medical Group at Monroe**

18 Centre Drive  
Monroe, New Jersey 08831

**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

**School of Osteopathic Medicine – The University Doctors at Stratford  
(continued)**

Academic Center – Wellness Center/Nutrition & Weight Loss  
One Medical Center Drive  
Stratford, New Jersey 08084-1350

101 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 303  
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

100 Kings Way East – Family Medicine  
Suite D-6  
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

**School of Osteopathic Medicine – Hospital-Based Units (continued)**

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

**New Jersey Dental School (300 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 Extramural All Health Care Dental Centers**

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  
Newark, New Jersey 07101-1709



## PROFILE OF THE STUDENT BODY

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## ENROLLMENT IN SCHOOLS BY GENDER AND RACE / ETHNICITY FALL 2009

	<i>Total Number Enrolled</i>	<i>% Black</i>	<i>% Hispanic</i>	<i>% Asian</i>	<i>% Women</i>	<i>% NJ Resident</i>
<b>NEW JERSEY MEDICAL SCHOOL</b>	<b>750</b>	<b>9.6</b>	<b>11.3</b>	<b>39.6</b>	<b>42.9</b>	<b>98.8</b>
<b>ROBERT WOOD JOHNSON MEDICAL SCHOOL</b>	<b>694</b>	<b>8.9</b>	<b>4.3</b>	<b>32.4</b>	<b>55.2</b>	<b>98.8</b>
<i>New Brunswick/Piscataway Campus</i>	<i>576</i>	<i>6.9</i>	<i>4.0</i>	<i>33.5</i>	<i>54.0</i>	<i>98.6</i>
<i>Camden Campus</i>	<i>118</i>	<i>18.6</i>	<i>5.9</i>	<i>27.1</i>	<i>61.0</i>	<i>100.0</i>
<b>SCHOOL OF OSTEOPATHIC MEDICINE</b>	<b>463</b>	<b>15.8</b>	<b>7.1</b>	<b>22.7</b>	<b>55.5</b>	<b>94.6</b>
<b>NEW JERSEY DENTAL SCHOOL</b>	<b>462</b>	<b>4.8</b>	<b>8.4</b>	<b>32.5</b>	<b>57.1</b>	<b>73.8</b>
<b>GRADUATE SCHOOL OF BIOMEDICAL SCIENCES**</b>	<b>1,037</b>	<b>7.8</b>	<b>7.3</b>	<b>40.4</b>	<b>54.6</b>	<b>54.2</b>
<i>Newark Division</i>	<i>507</i>	<i>6.5</i>	<i>6.9</i>	<i>37.7</i>	<i>57.2</i>	<i>57.0</i>
<i>Piscataway Division</i>	<i>387</i>	<i>5.2</i>	<i>7.5</i>	<i>45.7</i>	<i>50.4</i>	<i>45.2</i>
<i>Stratford Division</i>	<i>143</i>	<i>19.6</i>	<i>8.4</i>	<i>35.7</i>	<i>56.6</i>	<i>68.5</i>
<b>SCHOOL OF HEALTH RELATED PROFESSIONS</b>	<b>1,406</b>	<b>11.7</b>	<b>8.0</b>	<b>16.1</b>	<b>76.5</b>	<b>73.1</b>
<b>SCHOOL OF NURSING</b>	<b>962</b>	<b>26.0</b>	<b>8.2</b>	<b>12.6</b>	<b>85.7</b>	<b>86.8</b>
<b>SCHOOL OF PUBLIC HEALTH</b>	<b>374</b>	<b>19.0</b>	<b>7.2</b>	<b>36.9</b>	<b>67.9</b>	<b>74.6</b>
<i>Newark Campus</i>	<i>114</i>	<i>28.9</i>	<i>14.0</i>	<i>30.7</i>	<i>64.9</i>	<i>68.4</i>
<i>New Brunswick/Piscataway Campus</i>	<i>239</i>	<i>13.0</i>	<i>3.8</i>	<i>42.3</i>	<i>69.0</i>	<i>76.6</i>
<i>Stratford Campus</i>	<i>21</i>	<i>33.3</i>	<i>9.5</i>	<i>9.5</i>	<i>71.4</i>	<i>85.7</i>
<b>GRAND TOTAL***</b>	<b>6,148</b>					
<b>Unduplicated Headcount</b>	<b>6,063</b>	<b>12.9</b>	<b>7.9</b>	<b>27.4</b>	<b>64.4</b>	<b>79.7</b>

\* 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=172) 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.

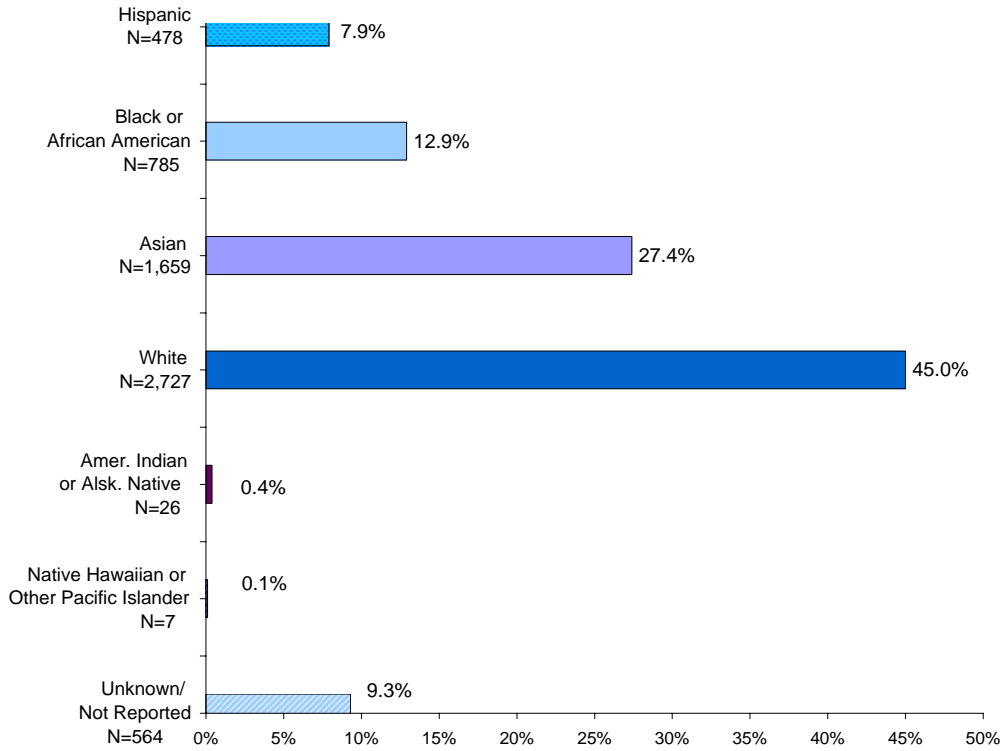
\*\* Thirty-nine students in the Newark Division are in the GSBS joint program with NJIT and 39 are in the joint program with Rutgers. All matriculated students in the Piscataway Division, except for the Master of Science in Clinical and Translational Science program, are in the GSBS joint program with Rutgers.

\*\*\* 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, 2009

## PROFILE OF UMDNJ'S STUDENT ENROLLMENT FALL 2009

### RACE / ETHNICITY\*



RESIDENCE		
	No.	Percent
New Jersey	4,832	79.7%
Other States	801	13.2%
Foreign Countries	430	7.1%
<b>Total</b>	<b>6,063</b>	

TIME STATUS		
	No.	Percent
Full-Time	4,279	70.6%
Part-Time	1,784	29.4%
GENDER		
Female	3,906	64.4%
Male	2,157	35.6%

\*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= 172) 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.

**Unduplicated headcount = 6,063**

Source: Office of the University Registrar: Data as of October 1, 2009

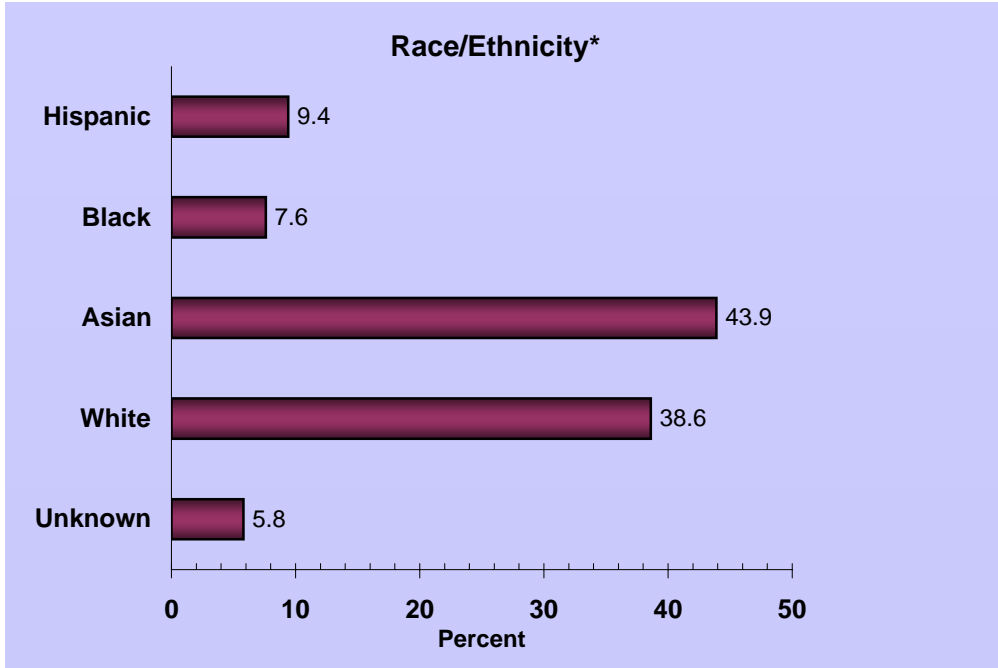
## **ADMISSIONS DATA**

The following figures provide data by School on the characteristics of entering classes in 2009-2010.

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.



**FIRST-TIME FIRST-YEAR MATRICULANTS  
NEW JERSEY MEDICAL SCHOOL  
FALL 2009  
N = 171**



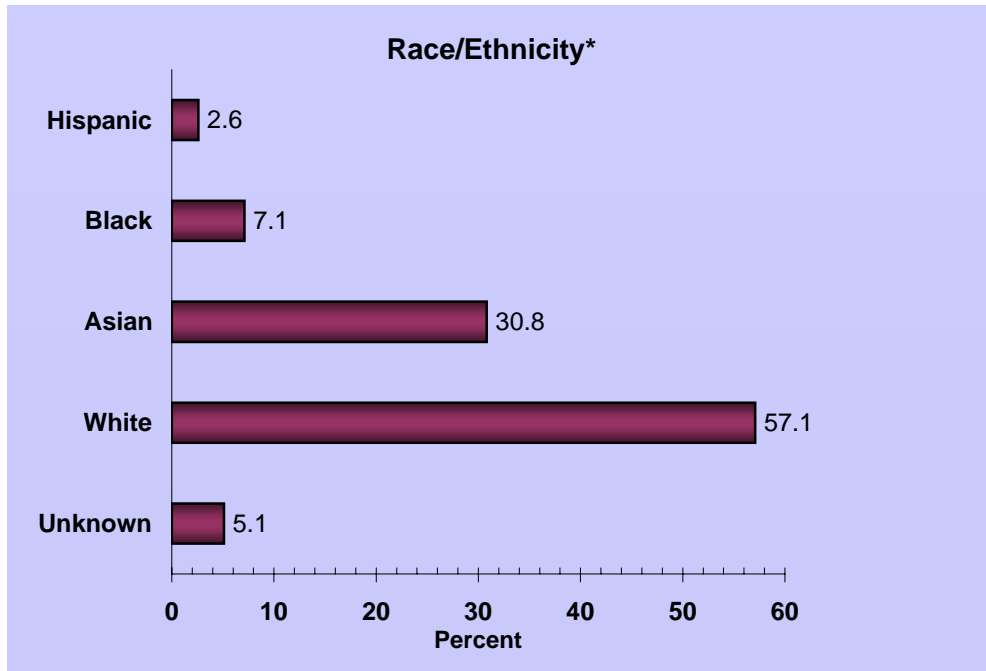
NJ Residents	94.2%	
Female	43.3%	
	<i>Class Average</i>	<i>National Average</i>
Total GPA	3.54	3.66
MCAT**		
Verbal Reasoning	10.1	9.8
Physical Sciences	10.6	10.3
Biological Sciences	10.8	10.8

\* 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.

\*\* MCAT stands for the Medical College Admission Test.

Source: UMDNJ Report on Admissions, 2009-2010, UMDNJ-Office of Institutional Research.

**FIRST-TIME FIRST-YEAR MATRICULANTS  
ROBERT WOOD JOHNSON MEDICAL SCHOOL  
FALL 2009  
N = 156**



NJ Residents	96.2%	
Female	55.8%	
	<i>Class Average</i>	<i>National Average</i>
Total GPA	3.63	3.66
MCAT**		
Verbal Reasoning	9.9	9.8
Physical Sciences	10.6	10.3
Biological Sciences	10.9	10.8

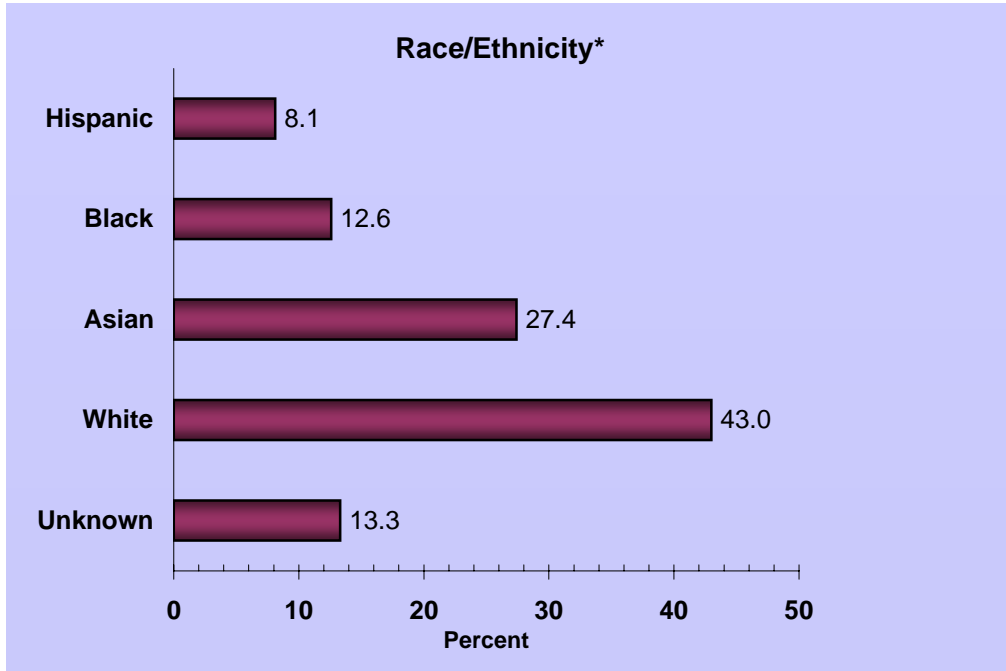
Note: An additional seven students in the BA/MD articulated program with Rutgers were admitted as non-matrices and will enter the second year at RWJMS in Fall 2010. The total GPA including these seven students was 3.64.

\* 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.

\*\* MCAT stands for the Medical College Admission Test.

Source: UMDNJ Report on Admissions, 2009-2010, UMDNJ-Office of Institutional Research.

**FIRST-TIME FIRST-YEAR MATRICULANTS  
SCHOOL OF OSTEOPATHIC MEDICINE  
FALL 2009  
N = 135**



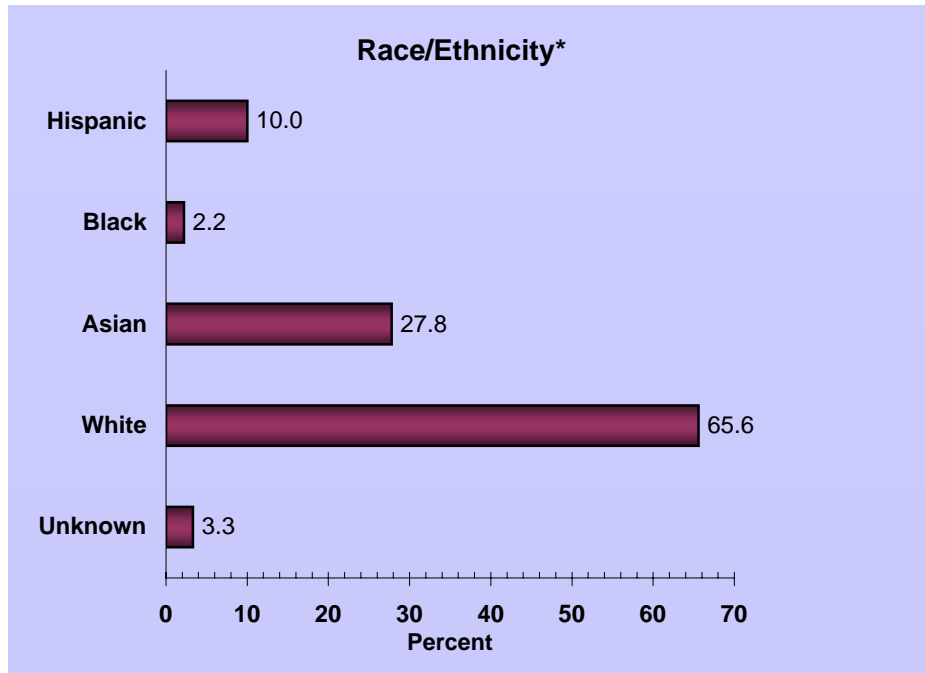
NJ Residents	80.7%	
Female	56.3%	
	<i>Class Average</i>	<i>National Average</i>
Total GPA	3.54	3.4
MCAT**		
Verbal Reasoning	8.7	8.4
Physical Sciences	8.8	8.2
Biological Sciences	9.5	8.9

\* 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.

\*\* MCAT stands for the Medical College Admission Test.

Source: UMDNJ Report on Admissions, 2009-2010, UMDNJ-Office of Institutional Research.

**FIRST-TIME FIRST-YEAR MATRICULANTS  
NEW JERSEY DENTAL SCHOOL  
FALL 2009  
N = 90**



NJ Residents	84.4%
Female	57.8%
Total GPA Class Average	3.56
DAT** Academic Average***	19.4

Note: National averages are not available.

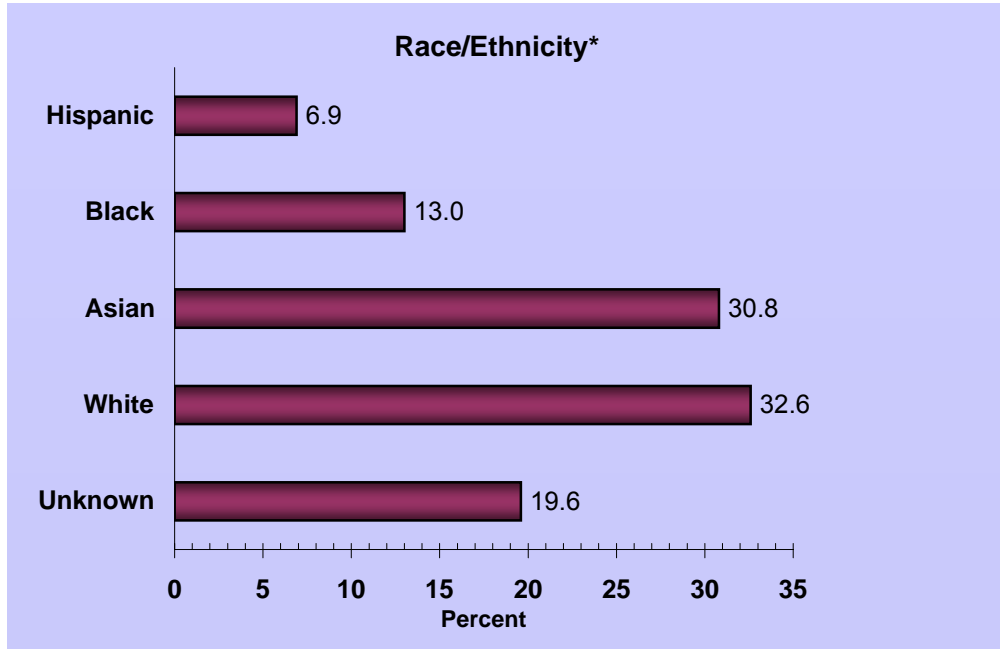
\* Beginning in 2009, students who selected more than one racial category are included in each category reported. Thus, percents reported do not add to 100 and are not directly comparable to percents reported in previous academic years.

\*\* DAT stands for the Dental Admission Test.

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

Source: UMDNJ Report on Admissions, 2009-2010, UMDNJ-Office of Institutional Research.

**FIRST-TIME MATRICULANTS  
GRADUATE SCHOOL OF BIOMEDICAL SCIENCES  
NEWARK AND STRATFORD DIVISIONS  
FALL 2009 AND SPRING 2010  
N = 276**



NJ Residents	63.8%	
Female	54.3%	
	<u>PhD Students</u>	<u>Master's Degree and Certificate Students</u>
Total GPA Class Average**	3.44	3.14
GRE*** Class Averages		
Verbal	496	474
Quantitative	700	620
Analytical Reasoning†	—	477
Analytical Writing†	4.00	4.13

Note: National averages are not available.

\* 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.

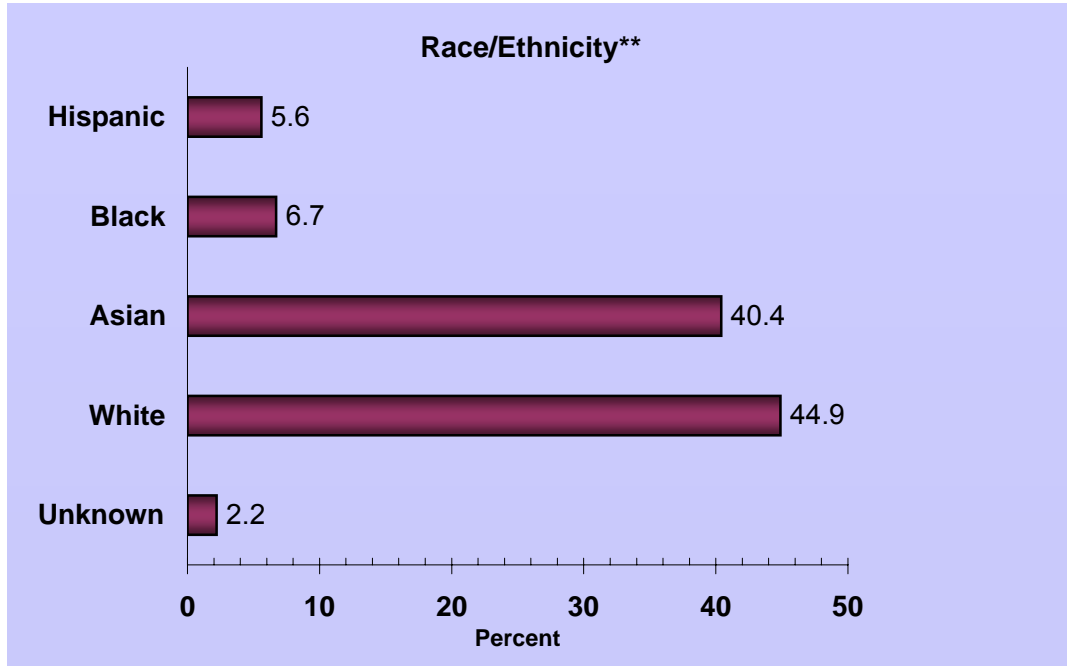
\*\* Baccalaureate degree GPAs.

\*\*\* GRE stands for the Graduate Record Examination.

† The analytical writing section replaced the multiple choice analytical reasoning section on October 1, 2002. The writing section is scored on a scale of 0 to 6. Analytical reasoning scores are reported for students who took the GRE before October 1, 2002.

Source: UMDNJ Report on Admissions, 2009-2010, UMDNJ-Office of Institutional Research.

**FIRST-TIME MATRICULANTS  
GRADUATE SCHOOL OF BIOMEDICAL SCIENCES  
PISCATAWAY DIVISION JOINT PROGRAM WITH RUTGERS UNIVERSITY\*  
FALL 2009 AND SPRING 2010  
N = 89**



NJ Residents	56.2%	
Female	51.7%	
	<u>PhD Students</u>	<u>Master's Degree and Certificate Students</u>
Total GPA Class Average***	3.41	3.35
GRE† Class Averages		
Verbal	574	527
Quantitative	714	730
Analytical Reasoning††	—	700
Analytical Writing††	3.72	4.50

Note: National averages are not available.

\* First-year students are administratively assigned either to UMDNJ or to Rutgers University. The information reported here is for the entire first-year matriculated class.

\*\* 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.

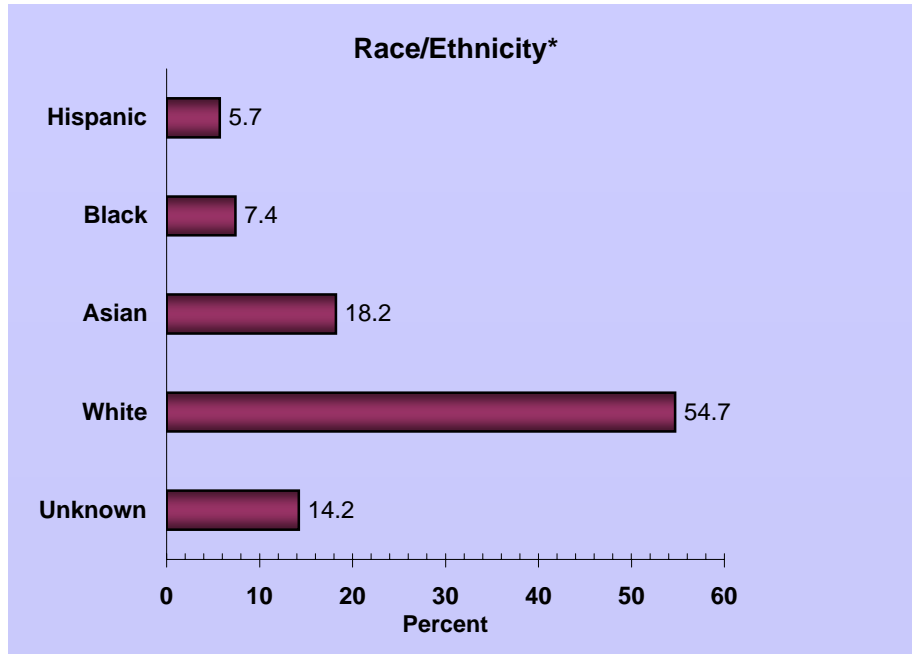
\*\*\* Baccalaureate degree GPAs.

† GRE stands for the Graduate Record Examination.

†† The analytical writing section replaced the multiple choice analytical reasoning section on October 1, 2002. The writing section is scored on a scale of 0 to 6. Analytical reasoning scores are reported for students who took the GRE before October 1, 2002.

Source: UMDNJ Report on Admissions, 2009-10, UMDNJ-Office of Institutional Research

**FIRST-TIME MATRICULANTS  
SCHOOL OF HEALTH RELATED PROFESSIONS  
GRADUATE PROGRAMS  
SPRING, SUMMER AND FALL 2009  
N = 296**



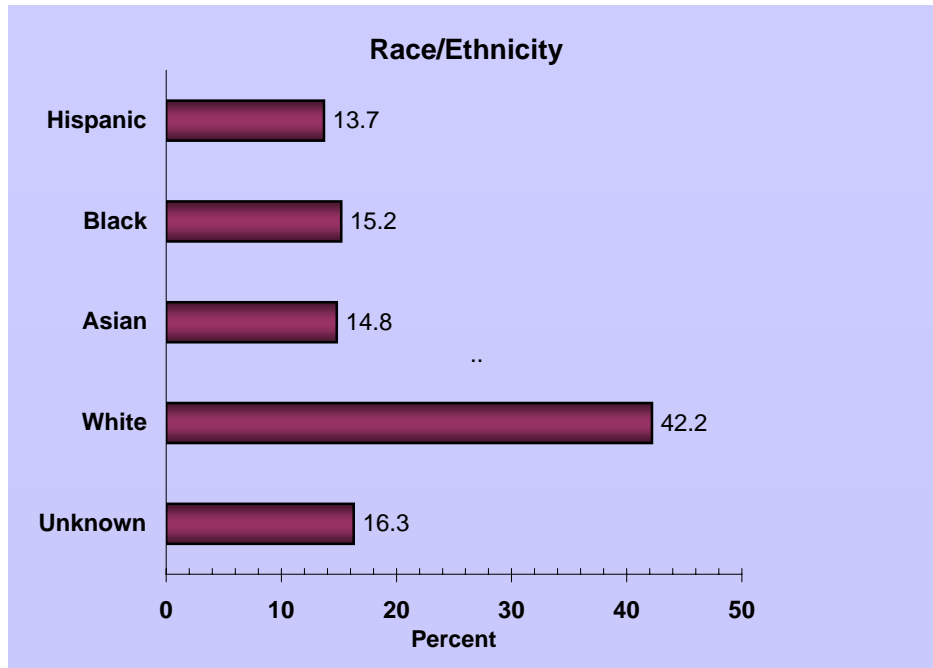
NJ Residents	70.6%
Female	74.3%
Total GPA Class Average**	3.33

\* 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.

\*\* Baccalaureate degree GPAs. National average is not available.

Source: UMDNJ Report on Admissions, 2009-2010, UMDNJ-Office of Institutional Research.

**FIRST-TIME MATRICULANTS  
SCHOOL OF HEALTH RELATED PROFESSIONS  
UNDERGRADUATE PROGRAMS  
SPRING, SUMMER AND FALL 2009  
N = 263**



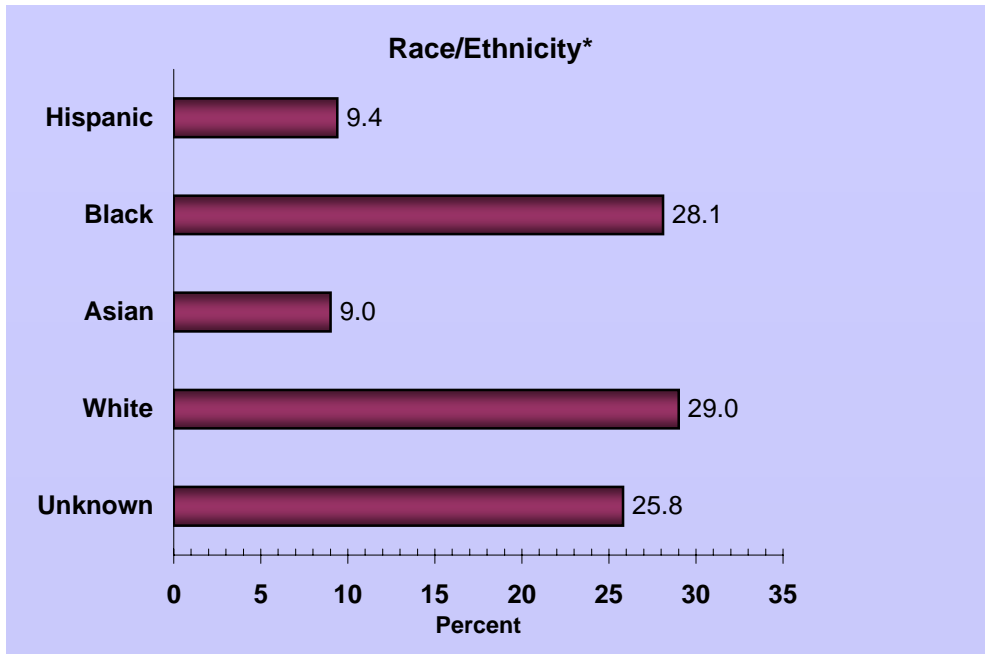
NJ Residents	87.5%
Female	77.2%

\* 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, 2009-2010, UMDNJ-Office of Institutional Research.



**FIRST-TIME MATRICULANTS  
SCHOOL OF NURSING  
GRADUATE PROGRAMS  
SPRING, SUMMER AND FALL 2009  
N = 310**



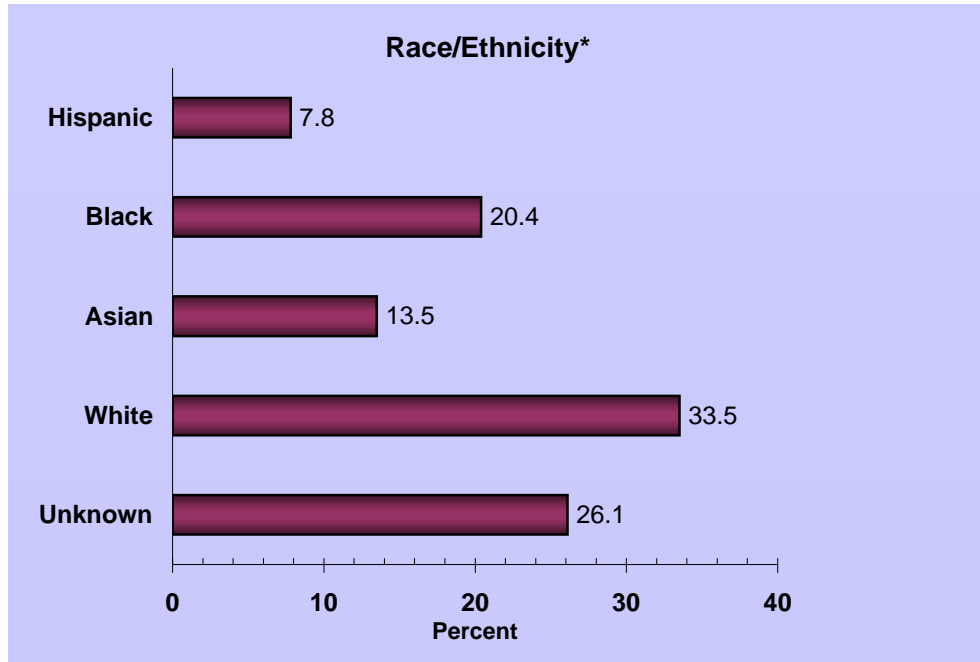
NJ Residents	88.4%
Male	11.6%
Total GPA Class Average**	3.35

\* 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.

\*\* Baccalaureate degree GPAs. National average is not available.

Source: UMDNJ Report on Admissions, 2009-2010, UMDNJ-Office of Institutional Research.

**FIRST-TIME MATRICULANTS  
SCHOOL OF NURSING  
SECOND BACHELOR'S DEGREE PROGRAM  
SPRING, SUMMER AND FALL 2009  
N = 230**



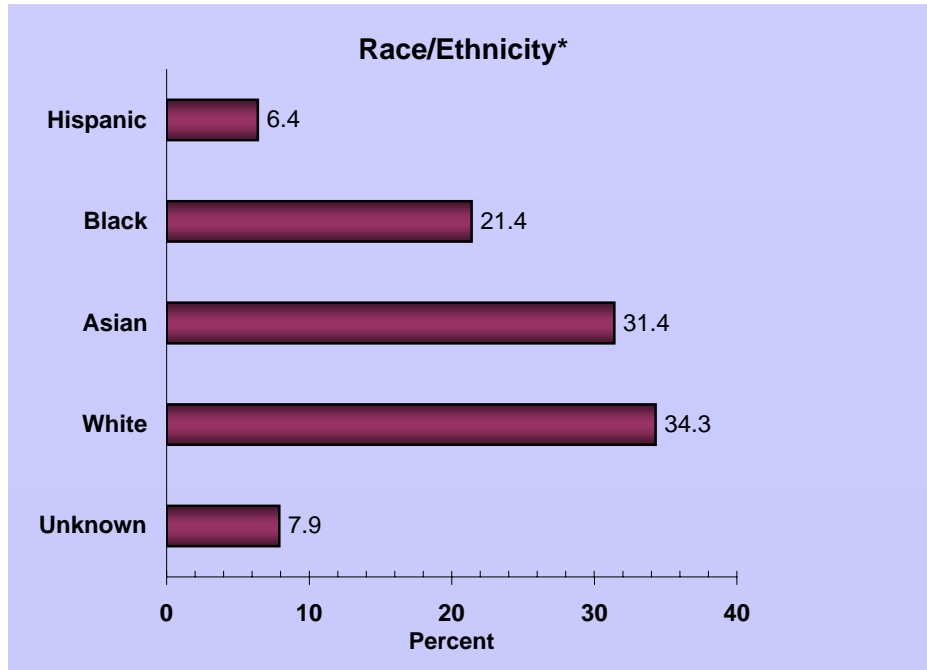
NJ Residents	87.8%
Male	18.7%
Total GPA Class Average**	3.29

\* 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.

\* Baccalaureate degree GPAs. National average is not available.

Source: UMDNJ Report on Admissions, 2009-2010, UMDNJ-Office of Institutional Research.

**FIRST-TIME MATRICULANTS  
SCHOOL OF PUBLIC HEALTH  
FALL 2009 AND SPRING 2010  
N = 140**



NJ Residents	72.9%
Female	69.3%
Total GPA Class Average**	3.18
GRE*** Class Averages	
Verbal	513
Quantitative	640
Analytical Reasoning†	700
Analytical Writing†	4.02

Note: National averages are not available.

\* 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.

\*\* Baccalaureate degree GPAs.

\*\*\* GRE stands for the Graduate Record Examination.

† The analytical writing section replaced the multiple choice analytical reasoning section on October 1, 2002. The writing section is scored on a scale of 0 to 6. Analytical reasoning scores are reported for students who took the GRE before October 1, 2002.

Source: UMDNJ Report on Admissions, 2009-2010, UMDNJ-Office of Institutional Research.

**FINANCIAL AID INFORMATION**

**STATE, FEDERAL, AND INSTITUTION FUNDED PROGRAMS**  
**Academic Year 2009/2010**

<b>Programs</b>	<b>Number of Recipients</b>	<b>Total Disbursed Amount</b>
<b>STATE-FUNDED LOANS</b>		
NJCLASS	148	\$ 2,289,405
<b>STATE-FUNDED SCHOLARSHIPS/GRANTS</b>		
Educational Opportunity Fund	108	\$ 300,300
Tuition Aid Grant	75	\$ 330,028
Martin Luther King Scholarship	38	\$ 602,000
Disadvantaged Student Fund	414	\$ 673,193
<b>FEDERAL FUNDED LOANS</b>		
<i>(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))</i>		
Stafford-Unsubsidized	3,158	\$ 59,269,872
Stafford-Subsidized	2,985	\$ 23,673,115
Federal PLUS Undergraduate	8	\$ 121,521
Graduate PLUS	505	\$ 6,918,681
Federal Perkins Loans	864	\$ 2,256,370
Loans for Disadvantaged Students	147	\$ 2,716,543
Primary Care Loan	2	\$ 62,796
Health Professions Student Loans	110	\$ 601,665
<b>FEDERAL FUNDED SCHOLARSHIP/GRANTS</b>		
<i>(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))</i>		
Federal Work Study	226	\$ 606,062
Federal Pell Grant	137	\$ 414,072
Federal Supplemental Educational Opportunity Grant	92	\$ 29,985
Scholarship for Disadvantaged Students	166	\$ 477,353
Scholarship for Disadvantaged Students-ARRA	175	\$ 214,270
Advance Education Nursing Award	31	\$ 120,099
AmeriCorp Program	5	\$ 18,880
Armed Services Grants	17	\$ 387,751
Nurse Anesthetist Traineeship	19	\$ 22,108
Robert C. Byrd Honor Scholarship	2	\$ 3,000
<b>INSTITUTION FUNDED SCHOLARSHIP/GRANTS</b>		
<i>(These remaining funds are from sources other than Federal and State)</i>		
Scholarships	510	\$ 3,140,184
Grants	34	\$ 133,600
Loans	68	\$ 2,027,103

Source: UMDNJ-Office of Financial Aid.

## DEGREES AND CERTIFICATES AWARDED ACADEMIC YEAR 2008-2009

Degree	No.	Black	His-panic	Asian	White	AI/ AN*	NH/ OPI**	Un- known
Doctor of Medicine	310	37	32	106	139	2	0	3
Doctor of Osteopathic Medicine	92	23	8	19	43	0	0	0
Doctor of Dental Medicine	96	6	7	27	56	0	0	0
Doctor of Clinical Nutrition	5	0	1	0	4	0	0	0
Doctor of Nursing Practice	26	3	1	2	17	0	0	3
Doctor of Physical Therapy	83	4	6	7	58	1	0	9
Doctor of Philosophy	103	5	14	47	38	1	0	2
Master's Degrees <sup>1</sup> /Post- Baccalaureate Certificates	494	80	24	119	243	2	0	34
Post-Master's / Post- Doctoral Certificates	26	1	0	7	18	0	0	0
Undergraduate Degrees <sup>2</sup> / Certificates	384	74	46	66	158	0	0	45
<b>TOTAL<sup>3</sup></b>	<b>1,619</b>	<b>233</b>	<b>139</b>	<b>400</b>	<b>774</b>	<b>6</b>	<b>0</b>	<b>96</b>

### Degrees and Certificates Awarded By Gender<sup>4</sup>

Men	Women	Total
515	1,085	1,600

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= 20) 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

4. Unduplicated Headcount

Source: University Graduation Statistics Report, AY 2008-2009 UMDNJ-Office of Institutional Research.

### **GRADUATION AND RETENTION**

The following tables provide historical data on student graduation and retention by School/Program. Tables describing joint undergraduate and certificate programs report only graduation rates because attrition is rarely reported to UMDNJ by our partner institutions. Please note that these tables track groups of students (cohorts) entering together in the same academic year.

**GRADUATION AND RETENTION  
AS OF JUNE 2009**

**NEW JERSEY MEDICAL SCHOOL - MD PROGRAM  
USUAL DURATION 4 YEARS  
STUDENTS BEGINNING IN AY 2001-02 THROUGH AY 2005-06**

	Number in Beginning Cohort <sup>1</sup>	Total Number Graduated	Total Number Retained <sup>2</sup>	% Retained, Adjusted <sup>3</sup>
<b>2001-02</b>	170	165	168	98.8
<b>2002-03</b>	170	166	166	97.6
<b>2003-04</b>	170	155	165	97.1
<b>2004-05</b>	170	150	163	95.9
<b>2005-06</b>	170	134	163	96.4 <sup>3</sup>

<sup>1</sup> Number in beginning cohort includes:

MD/PhD students - Four in 2001, five in 2003; seven in 2004; and four in 2005;

MD/MPH students - Four in 2001, six in 2002, three in 2003; five in 2004; and five in 2005;  
and MD/MBA students - One in 2004 and one in 2005.

<sup>2</sup> Retained includes both students who have completed the program and students still in progress.

<sup>3</sup> Percent retained is an adjusted percent based on the number beginning minus transfers to another medical program outside UMDNJ.

**GRADUATION AND RETENTION  
AS OF JUNE 2009**

**ROBERT WOOD JOHNSON MEDICAL SCHOOL - MD PROGRAM  
USUAL DURATION 4 YEARS  
STUDENTS BEGINNING IN AY 2001-02 THROUGH AY 2005-06**

	Number in Beginning Cohort <sup>1,2</sup>	Total Number Graduated	Total Number Retained <sup>3</sup>	% Retained, Adjusted <sup>4</sup>
<b>2001-02</b>	147	143	143	97.3
<b>2002-03</b>	148	135	138	94.5 <sup>4</sup>
<b>2003-04</b>	148	140	146	98.6
<b>2004-05</b>	153	141	149	98.0 <sup>4</sup>
<b>2005-06</b>	153	120	151	99.3 <sup>4</sup>

<sup>1</sup>Number in beginning cohort includes MD/PhD students (four in 2001, three in 2002, three in 2003, three in 2004 and six in 2005) and MD/MBA students (three in 2001, five in 2002, one in 2003, two in 2004 and three in 2005).

<sup>2</sup> Number in beginning cohort does not include MD/MPH students (six in 2001, five in 2002, three in 2003, three in 2004 and three in 2005), who are reported on separately in the table on the next page.

<sup>3</sup> Retained includes both students who have completed the program and students still in progress.

<sup>4</sup> Percent retained is an adjusted percent based on the number beginning minus transfers to another medical program outside UMDNJ (two in 2002, one in 2004 and one in 2005).



**GRADUATION AND RETENTION  
AS OF JUNE 2009**

**ROBERT WOOD JOHNSON MEDICAL SCHOOL/  
SCHOOL OF PUBLIC HEALTH - MD/MPH (DUAL DEGREE) PROGRAM  
USUAL DURATION 5 YEARS  
STUDENTS BEGINNING IN AY 2000-01 THROUGH AY 2004-05**

	Number in Beginning Cohort	Number Completed One Degree Only	Number Completed Both Degrees	Number Retained <sup>1</sup>	% Retained
<b>2000-01</b>	2	0	1	1	50.0
<b>2001-02</b>	6	0	6	6	100.0
<b>2002-03</b>	5	2	3	5	100.0
<b>2003-04</b>	3	0	3	3	100.0
<b>2004-05</b>	3	1	2	3	100.0

<sup>1</sup> Retained includes both students who have completed the program and students still in progress.

**GRADUATION AND RETENTION  
AS OF JUNE 2009**

**SCHOOL OF OSTEOPATHIC MEDICINE - DO PROGRAM  
USUAL DURATION 4 YEARS  
STUDENTS BEGINNING IN AY 2001-02 THROUGH AY 2005-06**

	Number in Beginning Cohort <sup>1</sup>	Total Number Graduated	Total Number Retained <sup>2</sup>	% Retained, Adjusted <sup>3</sup>
<b>2001-02</b>	87	83	83	96.5 <sup>3</sup>
<b>2002-03</b>	87	83	84	96.6
<b>2003-04</b>	95	92	93	97.9
<b>2004-05</b>	96	88	95	99.0
<b>2005-06</b>	99	84	95	97.9 <sup>3</sup>

<sup>1</sup> Number in beginning cohort includes DO/MPA students (one in 2001), DO/MS students (one in 2004), DO/PhD students (one in 2003, one in 2004 and one in 2005), DO/MBA students (one in 2003) and DO/JD students (one in 2001, four in 2004 and three in 2005).

<sup>2</sup> Retained includes both students who have completed the program and students still in progress.

<sup>3</sup> Percent retained is an adjusted percent based on the number beginning minus transfers to another medical program outside UMDNJ.

**GRADUATION AND RETENTION  
AS OF JUNE 2009**

**NEW JERSEY DENTAL SCHOOL - DMD PROGRAM  
USUAL DURATION 4 YEARS  
STUDENTS BEGINNING IN AY 2001-02 THROUGH AY 2005-06**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>1</sup>	% Retained
<b>2001-02</b>	78	72	72	92.3
<b>2002-03</b>	83	79	79	95.2
<b>2003-04</b>	79	74	74	93.7
<b>2004-05</b>	82	73	74	90.2
<b>2005-06</b>	89	76	79	88.8

<sup>1</sup> Retained includes both students who have completed the program and students still in progress.

**GRADUATION AND RETENTION  
AS OF JUNE 2009**

**GRADUATE SCHOOL OF BIOMEDICAL SCIENCES - PHD PROGRAM  
MAXIMUM DURATION 7 YEARS  
STUDENTS BEGINNING IN AY 1998-99 THROUGH AY 2002-03**

	Number in Beginning Cohort <sup>1</sup>	Total Number Graduated <sup>2</sup>	Total Number Retained <sup>3</sup>	% Retained
<b>1998-99</b>	66	55	55	83.3
<b>1999-00</b>	64	55	56	87.5
<b>2000-01</b>	59 <sup>4</sup>	45	45	76.3
<b>2001-02</b>	69 <sup>4</sup>	47	53	76.8
<b>2002-03</b>	69	52	56	81.2

<sup>1</sup> Number in beginning cohort includes students in dual-degree programs such as MD/PhD. Number in beginning cohort does not include students in the joint PhD program with Rutgers University whose advisor was a Rutgers faculty member.

<sup>2</sup> Total number graduated includes eleven students with terminal master's degrees in 1998, eight in 1999, four in 2000, six in 2001 and five in 2002.

<sup>3</sup> Retained includes both students who have completed the program and students still in progress.

<sup>4</sup> Number in beginning cohort revised in 2009.

**GRADUATION AND RETENTION  
AS OF JUNE 2009**

**SCHOOL OF PUBLIC HEALTH - PHD and DrPH PROGRAMS  
MAXIMUM DURATION 9 YEARS<sup>1</sup>  
STUDENTS BEGINNING IN AY 1996-97 THROUGH AY 2000-01**

	Number in Beginning Cohort <sup>2</sup>	Total Number Graduated	Total Number Retained <sup>3</sup>	% Retained
<b>1996-97</b>	5	4	5	100.0
<b>1997-98</b>	3	1	1	33.3
<b>1998-99</b>	11	5	8	72.7
<b>1999-00</b>	5	4	5	100.0
<b>2000-01</b>	2	1	2	100.0

<sup>1</sup>The maximum program duration was changed from eight years to nine years in 2008.

<sup>2</sup>Includes students who completed the MPH degree while enrolled in the PhD or DrPH program (two in 1998-99 and two in 1999-00).

<sup>3</sup>Retained includes both students who have completed the program and students still in progress.

**GRADUATION AND RETENTION  
AS OF JUNE 2009**

**SCHOOL OF PUBLIC HEALTH - MPH PROGRAM<sup>1</sup>  
USUAL DURATION 6 YEARS<sup>2</sup>  
STUDENTS BEGINNING IN AY 1999-00 THROUGH AY 2003-04**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>3</sup>	% Retained
<b>1999-00</b>	104	52	73	70.2
<b>2000-01</b>	64	48	54	84.4
<b>2001-02</b>	117	89	101	86.3
<b>2002-03</b>	119 <sup>4,5</sup>	72	102	85.7
<b>2003-04</b>	79	54	65	82.3

<sup>1</sup> RWJMS MD/MPH students are reported on in a separate table.

<sup>2</sup> The maximum program duration was changed from five years to six years in 2007.

<sup>3</sup> Retained includes both students who have completed the program and students still in progress.

<sup>4</sup> Does not include one deceased student.

<sup>5</sup> Includes one student who graduated with a MS degree.

**GRADUATION AND RETENTION  
AS OF JUNE 2009**

**SCHOOL OF NURSING - MSN PROGRAM  
MAXIMUM DURATION 6 YEARS<sup>1</sup>  
STUDENTS BEGINNING IN CALENDAR YEARS 1999 THROUGH 2003**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>2</sup>	% Retained
1999	83	44	44	53.0
2000	95	46	46	48.4
2001	83	41	41	49.4
2002	62	38	38	61.3
2003	79	53	53	67.1

**SCHOOL OF NURSING  
SECOND BACHELOR'S DEGREE PROGRAM  
MAXIMUM DURATION 3 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 2004 THROUGH 2006**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>2</sup>	% Retained
2004	129	108	108	83.7
2005	135	116	116	85.9
2006	154	130	131	85.1

<sup>1</sup> The maximum program duration was changed from five years to six years in 2007.

<sup>2</sup> Retained includes both students who have completed the program and students still in progress.

**GRADUATION AND RETENTION  
AS OF JUNE 2009**

**SCHOOL OF HEALTH RELATED PROFESSIONS  
BIOMEDICAL INFORMATICS - MS PROGRAM  
MAXIMUM DURATION FOR F/T STUDY 5 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 2000 THROUGH 2004**

	Number in Beginning Cohort <sup>1</sup>	Total Number Graduated	Total Number Retained <sup>2</sup>	% Retained
2000	47 <sup>3</sup>	22	22	46.8
2001	44	30	35	79.5
2002	34 <sup>3</sup>	18	18	52.9
2003	33	14	16	48.5
2004	13	7	7	53.8

**SCHOOL OF HEALTH RELATED PROFESSIONS  
CLINICAL NUTRITION - MS PROGRAM  
MAXIMUM DURATION FOR F/T STUDY 5 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 2000 THROUGH 2004**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>2</sup>	% Retained
2000	4	4	4	100.0
2001	5	4	4	80.0
2002	5	5	5	100.0
2003	17	11	11	64.7
2004	24	16	21	87.5

<sup>1</sup> Does not include students who transferred to the SHRP-Biomedical Informatics Ph.D. program (one in 2000 and two in 2001).

<sup>2</sup> Retained includes both students who have completed the program and students still in progress.

<sup>3</sup> Number in beginning cohort changed in 2009 to omit one student who transferred to and graduated from the SHRP-Health Care Informatics certificate program.



**GRADUATION AND RETENTION  
AS OF JUNE 2009**

**SCHOOL OF HEALTH RELATED PROFESSIONS  
DIAGNOSTIC IMAGING TECHNOLOGIES - CERTIFICATE PROGRAM  
MAXIMUM DURATION FOR F/T STUDY 3 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 2002 THROUGH 2006**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>1</sup>	% Retained
2002	7	3	3	42.9
2003	6	2	2	33.3
2004	4	0	0	0.0
2005	3	0	0	0.0
2006	7	0	1	14.3

**SCHOOL OF HEALTH RELATED PROFESSIONS  
DIAGNOSTIC MEDICAL SONOGRAPHY – BS AND CERTIFICATE PROGRAMS  
MAXIMUM DURATION FOR F/T STUDY 3 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 2002 THROUGH 2006**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>1</sup>	% Retained
2002	13	13	13	100.0
2003	14	11	11	78.6
2004	14	10	10	71.4
2005	15	14	14	93.3
2006	14	9	9	64.3

<sup>1</sup> Retained includes both students who have completed the program and students still in progress.

**GRADUATION AND RETENTION  
AS OF JUNE 2009**

**SCHOOL OF HEALTH RELATED PROFESSIONS  
DIETETIC INTERNSHIP - CERTIFICATE PROGRAM  
MAXIMUM DURATION FOR F/T STUDY 2 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 2003 THROUGH 2007**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>1</sup>	% Retained
2003	18	18	18	100.0
2004	15	14	14	93.3
2005	16	16	16	100.0
2006	14	14	14	100.0
2007	15	15	15	100.0

**SCHOOL OF HEALTH RELATED PROFESSIONS  
NUCLEAR MEDICINE TECHNOLOGY -- BS AND CERTIFICATE PROGRAMS  
MAXIMUM DURATION FOR F/T STUDY 2 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 2003 THROUGH 2007**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>1</sup>	% Retained
2003	14	13	13	92.9
2004	11	10	10	90.9
2005	13	9	9	69.2
2006	14	11	11	78.6
2007	14	13	13	92.9

<sup>1</sup> Retained includes both students who have completed the program and students still in progress.

**GRADUATION AND RETENTION  
AS OF JUNE 2009**

**SCHOOL OF HEALTH RELATED PROFESSIONS  
PHYSICAL THERAPY - MPT PROGRAM – SOUTH<sup>1</sup>  
MAXIMUM DURATION FOR F/T STUDY 4 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 2001 THROUGH 2005**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>2</sup>	% Retained
2001	9	9	9	100.0
2002	20	16	16	80.0
2003	13	11	11	84.6
2004	11	8	8	72.7
2005	9	8	8	88.9

**SCHOOL OF HEALTH RELATED PROFESSIONS  
PHYSICIAN ASSISTANT - MS PROGRAM<sup>3</sup>  
MAXIMUM DURATION FOR F/T STUDY 4 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 2001 THROUGH 2005**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>2</sup>	% Retained
2001	79	72	72	91.1
2002	50	41	41	82.0
2003	53	49	49	92.5
2004	54	44	45	83.3
2005	44	39	39	88.6

<sup>1</sup> This program became a DPT (Doctorate in Physical Therapy) program in June 2006. The last MPT cohort entered in the summer 2006 term.

<sup>2</sup> Retained includes both students who have completed the program and students still in progress.

<sup>3</sup> The maximum program duration was changed from three years to four years in 2006.

Note: The Newark Physician Assistant program closed in 2002.

**GRADUATION AND RETENTION  
AS OF JUNE 2009**

**SCHOOL OF HEALTH RELATED PROFESSIONS  
VASCULAR TECHNOLOGY – BS AND CERTIFICATE PROGRAMS  
MAXIMUM DURATION FOR F/T STUDY 2 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 2003 THROUGH 2007**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>1</sup>	% Retained
<b>2003</b>	13	12	12	92.3
<b>2004</b>	10	9	9	90.0
<b>2005</b>	10	9	9	90.0
<b>2006</b>	9	9	9	100.0
<b>2007</b>	13	13	13	100.0

<sup>1</sup> Retained includes both students who have completed the program and students still in progress.

**GRADUATION AND RETENTION  
AS OF JUNE 2009**

**SCHOOL OF HEALTH RELATED PROFESSIONS  
CYTOTECHNOLOGY - BS AND CERTIFICATE PROGRAMS  
MAXIMUM DURATION FOR F/T STUDY 3 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 2002 THROUGH 2006**

	Number in Beginning Cohort	Total Number Graduated	% Graduated
<b>2002</b>	5	5	100.0
<b>2003</b>	8	8	100.0
<b>2004</b>	8	6	75.0
<b>2005</b>	10	10	100.0
<b>2006</b>	10	10	100.0

**SCHOOL OF HEALTH RELATED PROFESSIONS  
DENTAL ASSISTING - CERTIFICATE PROGRAM  
MAXIMUM DURATION FOR F/T STUDY 2 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 2003 THROUGH 2007**

	Number in Beginning Cohort	Total Number Graduated	% Graduated
<b>2003</b>	12	6	50.0
<b>2004</b>	8	7	87.5
<b>2005</b>	10	8	80.0
<b>2006</b>	19	13	68.4
<b>2007</b>	12	6	50.0

**GRADUATION AND RETENTION  
AS OF JUNE 2009**

**SCHOOL OF HEALTH RELATED PROFESSIONS  
DENTAL HYGIENE - AAS PROGRAM  
MAXIMUM DURATION FOR F/T STUDY 4 YEARS<sup>1</sup>  
STUDENTS BEGINNING IN CALENDAR YEARS 2001 THROUGH 2005**

	Number in Beginning Cohort	Total Number Graduated	% Graduated
<b>2001</b>	33	31	93.9
<b>2002</b>	44	38	86.4
<b>2003</b>	36	30	83.3
<b>2004</b>	30	23	76.7
<b>2005</b>	38	31	81.6

**SCHOOL OF HEALTH RELATED PROFESSIONS  
HEALTH SCIENCES - BS PROGRAM  
MAXIMUM DURATION FOR F/T STUDY 8 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 1997 THROUGH 2001**

	Number in Beginning Cohort	Total Number Graduated	% Graduated
<b>1997</b>	12	5	41.7
<b>1998</b>	13	7	53.8
<b>1999</b>	15	10	66.7
<b>2000</b>	24	15	62.5
<b>2001</b>	24	13	54.2

<sup>1</sup> The maximum program duration was changed from five years to four years in 2006.

**GRADUATION AND RETENTION  
AS OF JUNE 2009**

**SCHOOL OF HEALTH RELATED PROFESSIONS  
MEDICAL LABORATORY SCIENCE – BS AND CERTIFICATE PROGRAMS  
MAXIMUM DURATION FOR F/T STUDY 3 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 2002 THROUGH 2006**

	Number in Beginning Cohort	Total Number Graduated	% Graduated
<b>2002</b>	9	7	77.8
<b>2003</b>	12	11	91.7
<b>2004</b>	22	19	86.4
<b>2005</b>	13	11	84.6
<b>2006</b>	22	17	77.3

**SCHOOL OF HEALTH RELATED PROFESSIONS  
PSYCHOSOCIAL REHABILITATION - AS PROGRAM  
MAXIMUM DURATION FOR F/T STUDY 4 YEARS<sup>1</sup>  
STUDENTS BEGINNING IN CALENDAR YEARS 2001 THROUGH 2005**

	Number in Beginning Cohort	Total Number Graduated	% Graduated
<b>2001</b>	27	11	40.7
<b>2002</b>	17 <sup>2</sup>	6	35.3
<b>2003</b>	33 <sup>3</sup>	11	33.3
<b>2004</b>	7	5	71.4
<b>2005</b>	7	4	57.1

<sup>1</sup> The maximum program duration was changed from five years to four years in 2006.

<sup>2</sup> Two additional students transferred to the SHRP Psychiatric Rehabilitation and Psychology BS program.

<sup>3</sup> One additional student transferred to the SHRP Psychiatric Rehabilitation and Psychology BS program.

**GRADUATION AND RETENTION  
AS OF JUNE 2009**

**SCHOOL OF HEALTH RELATED PROFESSIONS  
PSYCHIATRIC REHABILITATION - BS PROGRAM  
MAXIMUM DURATION FOR F/T STUDY 8 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 1997 THROUGH 2001**

	Number in Beginning Cohort	Total Number Graduated	% Graduated
1997	3	1	33.3
1998	18	11	61.1
1999	14	4	28.6
2000	9	5	55.6
2001	13	11	84.6

**SCHOOL OF HEALTH RELATED PROFESSIONS  
RESPIRATORY THERAPIST - AAS PROGRAM– SOUTH  
MAXIMUM DURATION FOR F/T STUDY 4 YEARS<sup>1</sup>  
STUDENTS BEGINNING IN CALENDAR YEARS 2001 THROUGH 2005**

	Number in Beginning Cohort	Total Number Graduated	% Graduated
2001	19	13	68.4
2002	19	12	63.2
2003	16	10	62.5
2004	20 <sup>2</sup>	13	65.0
2005	23	19	82.6

<sup>1</sup> The maximum program duration was changed from three years to four years in 2006.

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



**GRADUATION AND RETENTION  
AS OF JUNE 2009**

**SCHOOL OF HEALTH RELATED PROFESSIONS  
RESPIRATORY THERAPIST - AS PROGRAM - NORTH  
MAXIMUM DURATION FOR F/T STUDY 4 YEARS<sup>1</sup>  
STUDENTS BEGINNING IN CALENDAR YEARS 2001 THROUGH 2005**

	Number in Beginning Cohort	Total Number Graduated	% Graduated
<b>2001</b>	15	6	40.0
<b>2002</b>	18	7	38.9
<b>2003</b>	16	9	56.3
<b>2004</b>	25	16	64.0
<b>2005</b>	35	21	60.0

<sup>1</sup> The maximum program duration was changed from three years to four years in 2006.

**2010 UMDNJ MEDICAL GRADUATES PLACED IN  
FIRST-YEAR HOUSESTAFF PROGRAMS  
As of April 7, 2010**

UMDNJ School	Number Seeking Placement	Percent Placed in the Match	Percent Placed Outside the Match	Number (Percent) Placed	Number Not Placed
<b>NJMS</b>	165 *	94.5	5.5	165 (100.0)	0
<b>RWJMS-NB/P</b>	101	98.0	2.0	101 (100.0)	0
<b>RWJMS-C</b>	49	98.0	2.0	49 (100.0)	0
<b>SOM</b>	106	78.3	20.8	105 (99.1)	1
<b>TOTAL</b>	<b>421</b>	<b>91.7</b>	<b>8.1</b>	<b>420 (99.8)</b>	<b>1</b>

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. ††
<b>NJMS</b>	56 (33.9)	43 (26.1)	36.4	56.4	7.3
<b>RWJMS-NB/P</b>	29 (28.7)	18 (17.8)	47.5	44.6	7.9
<b>RWJMS-C</b>	10 (20.4)	9 (18.4)	42.9	51.0	6.1
<b>SOM</b>	28 (26.7)	22 (21.0)	50.5	29.5	20.0
<b>TOTAL</b>	<b>123 (29.3)</b>	<b>92 (21.9)</b>			

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.

\* Five additional graduates did not participate in the match. One is pursuing an additional degree; one will enter a one-year general surgery residency as part of the NJMS oral and maxillofacial surgery program; and three are deferring residency this year.

Source: 2010 Report on Medical/Dental Intern and Resident Placements of UMDNJ Graduates and Recruitment into UMDNJ-Sponsored Housestaff Programs, UMDNJ-Office of Institutional Research.

**2010 UMDNJ DENTAL GRADUATES PLACED IN  
GRADUATE DENTAL EDUCATION PROGRAMS  
As of March 23, 2010**

UMDNJ School	Number Seeking Placement in a Graduate Dental Education Program	Number (Percent) Placed	Number Not Placed
<b>NJDS</b>	83 <sup>†</sup>	82 (98.8)	1*

UMDNJ School	Number (Percent) Placed in NJ Programs	Number (Percent) Placed in UMDNJ-Sponsored Programs	Percent Placed in General Practice Programs	Percent Placed in Specialty Programs
<b>NJDS</b>	49 (59.8)	9 (11.0)	86.6	13.4

† Twenty additional graduates did not seek placement in a graduate dental education program. Sixteen plan to enter practice, one is entering the Air Force, and three are deferring placement this year.

\* This graduate plans to enter private practice.

Source: 2010 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, 2009-2010\***

School	Number
New Jersey Medical School	54
Robert Wood Johnson Medical School	61
School of Osteopathic Medicine	1
New Jersey Dental School	2
School of Health Related Professions	6
<b>Total</b>	<b>124</b>

\* As of October 1, 2009

Source: Enrollment Statistics Report, Fall 2009, UMDNJ-Office of the University Registrar.



## **PROFILE OF FACULTY, STAFF, INTERNS & RESIDENTS**

### Faculty

Paid Faculty, AY 2009-10 .....	97
Master Educators.....	98
Endowed Chairs.....	105
Medical & Dental Interns, Residents and Fellows.....	109
Non-Faculty Employees.....	115

## UMDNJ FACULTY Academic Year 2009 - 2010

SCHOOL	Paid Faculty*				Volunteer Faculty**			Total
	Tenured	Tenure Track	Non-Tenured	Total	Male	Female	Total	
New Jersey Medical School	147	61	574	782	495	287	782	1,390
Robert Wood Johnson Medical School	143	75	911	1,129	662	467	1,129	1,817
School of Osteopathic Medicine	20	12	190	222	128	94	222	377
New Jersey Dental School	30	7	162	199	152	47	199	159
School of Health Related Professions	10	12	361	383	119	264	383	326
School of Nursing	6	14	138	158	14	144	158	145
School of Public Health	12	15	49	76	38	38	76	124
<b>UMDNJ Total</b>	<b>368</b>	<b>196</b>	<b>2,385</b>	<b>2,949</b>	<b>1,608</b>	<b>1,341</b>	<b>2,949</b>	<b>4,338</b>

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 = 4,277)

Source: UMDNJ Annual Faculty Data Report, Academic Year 2009-2010  
Data as of October 1, 2009

## **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 teachers is being recognized by a broader audience today than in the recent past, the master teacher'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 teaching, 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, 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 this time were "Focus Groups" with UMDNJ President William F. Owen, Jr., M.D. Quarterly, the President, his 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 Educator Award 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 a skilled educator. 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, class room, etc.) in which education occurs at UMDNJ. Toward this purpose, the recipients of the Stuart D. Cook, M.D. Master Educator Award 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, Muralidhar Mupparapu, DMD, who recently completed a two year term as Guild treasurer and is currently Guild President-elect, 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 Master Educator designation 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.

Within these general University-wide guidelines, each School of UMDNJ has developed specific criteria for selection of final candidates. Candidates, who are suggested for Guild membership by peers and students, submit their teaching portfolios, their concept of educational style, their CV and other supporting materials to an established Master Educator Review Committee at their School. The Committee is comprised of faculty and faculty administrators, and in some cases students. Once the potential candidate(s) is chosen by the School's selection committee, the name or names are forwarded to the Dean for final approval. Usually one or two candidates are selected by a School on an annual basis.

In September 2000, the first class of twelve Master Educators were selected and inducted into the Master Educators' Guild. Additional classes have been inducted annually, with a current total of over 80 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 MEG leadership consists of five officers and eight members at large, with one member representing each school. The Guild leadership for 2009-2010 were:

President: Dr. Gloria Bachmann (RWJMS)  
 President-elect: Dr. Elaine Diegmann (SN)  
 VP Finance: Dr. Mel Mupparapu (NJDS)  
 Secretary: Nancy Kirsch (SHRP)  
 Past President: Dr. Debra Heller (NJMS)

***At-Large Members:***

GSBS: Dr. Céline Gélinas  
 NJDS: Dr. Louis DiPede  
 NJMS: Dr. Marian Passannante  
 RWJMS: Dr. Stephen Moorman  
 SHRP: Dr. Barbara Gladson  
 SN: Dr. Ginette Lange  
 SPH: Dr. Bernadette West  
 SOM: Dr. Anita Chopra



**ACCOMPLISHMENTS - UPDATE:**

The Guild is actively engaged in several on going projects as well as new ones that were established during this past academic year. These projects are described below.

***Educational research grants***

The committee reviewed seven grant applications and funded two. Drs. Sarang Kim, John Walker and Laura Willett (RWJMS) are collaborating on studying an interdisciplinary approach to teach safe and effective prescribing practices for medical students. Drs. Krueger and Filipetto (SOM) are collaborating on an inter-professional educational initiative pilot.

As an extension of the educational grants, the MEG is currently in the process of commencing an international visiting scholars 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 MEG believes that this program will promote effective teaching methodologies via a direct one-on-one mentorship program at UMDNJ campuses, which will 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, will be emphasized. Use of technology for effective teaching also will be introduced. The overall goal of this program is to prepare the participant to become a leader-educator in their chosen field. The MEG expects that these leader-educators will return to their countries and continue the mission and goals of the Master Educators Guild of UMDNJ.

***Office hours***

With the dedication of the new MEG office space in the Presidential suite, Guild members have been using the space to mentor not only students, but also junior faculty. The space is also used for leadership and planning meetings by the MEG officers. The first official use of the space was at the ribbon cutting ceremony on January 26, 2010. Newly inducted MEG member Joseph Barone, MD, with Alexander Izaguirre, PhD, demonstrated how simulation is used at our University and some of the unique aspects that they have incorporated into their system that not only makes the teaching more interactive for the student, but also produces a more cost effective model for the University. The demonstration, which took place by participants stationed at the MEG office site and a simulation lab in New Brunswick, showed how a student can be taught a surgical skill by podcast, how the student can demonstrate mastery of the skill by recording a video of the student performing the skill and sending the demo by remote transmission to the teacher. The teacher, who can be in a clinical setting or office setting, can give immediate constructive feedback to the student. Other MEG members and their mentees presented their work at tables set up around the room, demonstrating a wealth of innovative educational approaches.

***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.

**University life**

The Guild is also involved in other aspects of University life in which professionalism and academic integrity issues are voiced. This year, when questions were raised by a group of students, the MEG leadership was asked to be a part of the panel hearing these concerns.

**Master Educator's 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.

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

This center is one of the formats the Guild uses 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 continues 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. Officially launched on University Day (2004), the Center's website provides a venue for the following activities:

- Coordinate and disseminate information on faculty development opportunities provided by the UMDNJ Schools (via an interactive online calendar).
- Provide University-wide mentoring and consultation services (via a new faculty mentoring program, a searchable database of faculty consultants, and a consultation discussion forum).
- Offer selected online programming of broad interest and appeal (via WebCT courses/tutorials).
- Publish and provide desk-top delivery of regular features on selected teaching and learning topics (e.g., educational technology, student evaluation, problem-based learning, clinical education, etc.).
- Serve as a dynamic repository of scholarly information on teaching and learning in the health professions (via provision of pre-structured PubMed bibliographic queries and a large searchable database of relevant educational literature).
- Serve as a gateway to related sites (including other online University teaching centers and education and technology e-journals).
- Provide opportunities for external enrollment in selected online courses and tutorials offered by the University and/or Guild.
- Serve as the Guild's electronic archives, providing background information on the Guild, its origin, purpose, history and achievements.
- Provide a Guild Gallery, to include members' biographies and links to their research/scholarship.
- Furnish a gateway to the Guild's collaborative intranet.

***Faculty Mentoring Initiative***

Academic mentoring is another initiative of the Guild, since an organized system of mentoring promotes educational improvement of all faculty members, especially junior faculty. The Guild provides informational resources on mentoring through its Online Center, and has developed guidelines that provide an overview of successful mentoring models, including the roles and responsibilities of both mentors and mentees. This year, plans were outlined to commence focus groups with the junior faculty, facilitated by UMDNJ Provost and Executive Vice President, Denise Rodgers, MD. These focus groups will further and more thoroughly identify the educational needs of junior faculty so that the Guild can better address ways to strengthen the mentoring process for young faculty at this institution.

***Annual Master Educators' Guild Spring Symposia***

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 features distinguished speakers as well as workshops, demonstrations, discussion groups or poster sessions led by Master Educators and other faculty members. Themes to date have included educational technology, academic mentoring, the scholarship of teaching and learning, collaboration and interdisciplinary education, and academic integrity.

In 2010, the Guild presented a one day educational forum entitled "Seeing the Forest AND the Trees: Science Foundations for Health Professionals." This 2010 symposium topic came in response to the report of a panel that was convened in June, 2009 by the American Association of Medical Colleges (AAMC) and the Howard Hughes Medical Institute (HHMI). This group issued a report that defined scientific competencies for future physicians and provided a template to aid undergraduate institutions and medical schools in developing curricula that will equip future doctors with the tools necessary to provide scientifically sound care to their patients. While the AAMC-HHMI panel was charged to develop guidelines for the education of physicians, the MEG believed that the principles identified in the report can be adapted to the education of all health professionals. The purpose of the MEG 2010 Spring Symposium was to consider some of the principles identified in the panel report and to examine a model of science education that already may be effectively addressing them. The MEG symposium offered active discussion on topics such as, "Are the principles identified in the report ones that faculty at UMDNJ and surrounding undergraduate schools would want to embrace?" and "If so, how might these principles be implemented in pre-professional as well as professional and post-graduate education?"

This Spring Symposium was an MEG first, as the UMDNJ-MEG invited speakers associated with the SENCER Center for Innovation-MidAtlantic. The SENCER is a consortium of undergraduate science educators who set and execute guidelines on how to prepare undergraduate students for a future health professional education. This meeting combined the talents of professionals who define the course work for future health care providers with professionals who provide the actual clinical and research training of these students later in their career..

The keynote speakers of this meeting were Paul Marantz, M.D., Associate Dean for Clinical Research Education at Albert Einstein College of Medicine in New York City who was a member of the AAMC-HHMI panel, and Wm. David Burns, Executive Director of the National Center for Science and Civic Engagement. In addition to the keynote talks,

there were several workshops given by Guild members that participants were able to attend. Principles identified by the AAMC-HHMI panel that the MEG symposium speakers and attendees discussed included:

- Health practice: “requires grounding in scientific principles and knowledge, as well as understanding how current medical knowledge is scientifically justified, and how that knowledge evolves.”
- “Curiosity, skepticism, objectivity, and the use of scientific reasoning are fundamental to the practice of medicine. These attributes should permeate the entire medical education continuum.”
- “Modern medicine requires the ability to synthesize information and collaborate across disciplines.”
- “Effective clinical problem solving and the ability to evaluate competing claims...depend on the acquisition, understanding, and application of scientific knowledge and scientific reasoning based on evidence.”

The keynote addresses and panel discussion with attendee participation were videotaped and the videotape is currently available for interested educators who could not attend the meeting.

### ***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 2009, a new method of introducing new Guild members was introduced. Each new member was 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 2009, twelve faculty members were inducted into the Guild. These new MEG members are:

Joseph G. Barone, MD, chief of pediatric urology in the Department of Surgery at UMDNJ-Robert Wood Johnson Medical School.

Robin Eubanks, PhD, associate professor, Interdisciplinary Studies, at UMDNJ-School of Health Related Professions.

Barbara Fadem, PhD, professor of psychiatry at UMDNJ-New Jersey Medical School.

Mahnaz Fatahzadeh, DMD, associate professor of diagnostic sciences at UMDNJ-New Jersey Dental School.

Patrick M. Foye, MD, associate professor of physical medicine and rehabilitation, UMDNJ-New Jersey Medical School.

Deborah A. Josko, PhD, associate professor of clinical laboratory science at UMDNJ-School of Health Related Professions.

Mary Kamienski, PhD, APRN, FAEN, assistant dean for graduate programs at UMDNJ-School of Nursing.

David C. Mason, DO, acting chair of the Department of Osteopathic Manipulative Medicine at UMDNJ-School of Osteopathic Medicine.

Henry S. Marder, DDS, clinical assistant professor of restorative dentistry at UMDNJ-New Jersey Dental School.

Smita Patel, PhD, professor in the Department of Biochemistry at UMDNJ-Robert Wood Johnson Medical School.

Susan Rosenthal, MD, clinical professor of pediatrics at UMDNJ-Robert Wood Johnson Medical School.

Junfeng (Jim) Zhang, PhD, associate dean for the Piscataway/New Brunswick campus of UMDNJ-School of Public Health and Associate Dean for Global Public Health.

***Educational Grand Rounds in conjunction with University Day***

Beginning in 2003, the Master Educators' Guild instituted another innovative approach to the attainment of its mission: Educational Grand Rounds during the annual University Day program in September. Topics generally complement the theme for the spring symposium and have included professionalism among health care providers, integrating professional education and facilitating collaboration through mentoring, and academic integrity. The 2009 educational program featured Rita Charon, MD, PhD, professor of clinical medicine at Columbia University of Physicians and Surgeons, whose talk was entitled, Narrative Medicine: Transforming our vision of illness, deepening our resolve to care."

## **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 Warshow 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)*  
*Mel L. Kantor, DDS, MPH, PhD*

## 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)  
*Stephen F. Lowry, MD*

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)*  
*Mel L. Kantor, DDS, MPH, PhD*

## **UMDNJ-SCHOOL OF HEALTH RELATED PROFESSIONS**

UMDNJ Endowed Professor of Complementary and Alternative Medicine (2002)  
*Adam I. Perlman, MD*

**MEDICAL AND DENTAL INTERNS, RESIDENTS AND FELLOWS**

**HOUSESTAFF TOTALS BY PROGRAM, 2009-2010**

**UMDNJ-NEW JERSEY MEDICAL SCHOOL**

<b>Program</b>	<b>Total Housestaff</b>
Allergy/Immunology	5
Anesthesiology	27
Cardiology	10
Child Psychiatry	5
Dermatology	6
Dermatology/Pathology	1
DX-Radiology	19
Emergency Medicine	24
Endocrinology	2
Family Medicine	23
Gastroenterology	9
Geriatrics	2
Hepatology	3
Infectious Diseases	6
Medicine	110
Medicine-Pediatrics	6
Nephrology	6
Neurosurgery	12
Neurology	16
Neurology-Multiple Sclerosis	1
Neurology-Pediatric	2
Neurosurgery-Endovascular Neuroradiology	3
OB/GYN	25
OB/GYN-Maternal Fetal Medicine	1
OB/GYN-Reproductive Endocrinology & Infertility	3
Ophthalmology	15
Orthopedics	27
Orthopedics-Hand Surgery	1
Orthopedics-Musculoskeletal Oncology	2
Otolaryngology	10
Pathology	13
Pediatrics	43
Pediatrics-Infectious Diseases	2
Pediatrics-Medical Genetics	1
Pediatrics-Medicine	9
Plastic Surgery	5
PM&R	26
PM&R-Musculoskeletal Medicine	3
PM&R-Pediatric	1
PM&R-Spinal Cord Injury Medicine	1
Podiatry	6

**UMDNJ-NEW JERSEY MEDICAL SCHOOL (Continued)**

<b>Program</b>	<b>Total Housestaff</b>
Psychiatry	29
Pulmonary Critical Care	9
Surgery	62
Trauma	2
Urology	8
Vascular Surgery	4
<b>Total</b>	<b>606</b>

Percent American Medical Graduates = 61.1

Source: Survey of UMDNJ GME and GDE Programs and Housestaff, UMDNJ-Office of Institutional Research. Data as of September 1, 2009

**HOUSESTAFF TOTALS BY PROGRAM, 2009-2010**

**UMDNJ-ROBERT WOOD JOHNSON MEDICAL SCHOOL**

<b>Program</b>	<b>Total Housestaff</b>
Anesthesiology	32
Anesthesiology-Cardiac	2
Anesthesiology-Pain Management	2
Cardiology	14
Cardiology-Interventional	0
Cardiology-Congestive Heart Failure	0
Colon-Rectal Surgery	3
Cranio-Facial Surgery	1
Dermatology	3
Emergency Medicine	1
Endocrinology	4
Family Practice	41
FP/Geriatric Medicine	4
FP/Sports Medicine	2
Gastroenterology	8
Health Policy	1
Hematology/Oncology	12
Infectious Diseases	4
Internal Medicine	79
Neonatal/Perinatal Medicine	8
Nephrology	4
Neurology	6
OB/GYN	20
OB/GYN-Maternal/Fetal	1
Orthopaedics	17
Pathology	9
Pathology/Hematology	0
Pediatric Critical Care	2
Pediatric Hematology/Oncology	1
Pediatrics	36
Preventive Medicine/Occupational Medicine	3
Psychiatry	24
Psychiatry-Child	8
Psychiatry-Forensic	0
Psychiatry-Geriatric	1
Pulmonary Critical Care	6
Radiology/Diagnostic	20

**UMDNJ-ROBERT WOOD JOHNSON MEDICAL SCHOOL (Continued)**

<b>Program</b>	<b>Total Housestaff</b>
Radiology/Oncology	7
Radiology-Interventional	0
Rheumatology	2
Surgery	42
Surgery-Breast	1
Thoracic Surgery	1
Urology	8
Vascular Surgery	2
<b>Total</b>	<b>442</b>

Percent American Medical Graduates = 77.4

Source: Survey of UMDNJ GME and GDE Programs and Housestaff, UMDNJ-Office of Institutional Research. Data as of September 1, 2009

**HOUSESTAFF TOTALS BY PROGRAM, 2009-2010**

**UMDNJ-SCHOOL OF OSTEOPATHIC MEDICINE**

<b>Program</b>	<b>Total Housestaff</b>
Cardiology	11
Critical Care	2
Emergency Medicine	24
Endocrinology	1
Family Medicine	34
Gastroenterology	4
Geriatrics (FM)	1
Geriatrics (IM)	0
IM/Emergency Medicine	10
Infectious Diseases	2
Internal Medicine	45
Internship	19
Nephrology	4
OB/GYN	11
Osteopathic Manipulative Medicine/Neuromusculoskeletal Medicine	1
Oncology	0
Orthopaedics	22
Otolaryngology	7
Psychiatry	11
Psychiatry-Child	0
Pulmonary Critical Care	3
Sleep Medicine	0
Surgery	24
Urology	7
<b>Total</b>	<b>243</b>

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, 2009

## RESIDENT TOTALS BY PROGRAM, 2009-2010

### UMDNJ-NEW JERSEY DENTAL SCHOOL

<b>Program</b>	<b>Total Housestaff</b>
General Practice Dentistry-Oral Medicine	6
Dentistry-Oral/Max Surgery	11
Dentistry-Pediatric	7
<b>Total:</b>	<b>24</b>

Percent American Medical Graduates = 95.8

Source: Survey of UMDNJ GME and GDE Programs and Housestaff, UMDNJ-Office of Institutional Research. Data as of September 1, 2009

**NON-FACULTY FULL- AND PART-TIME EMPLOYEES**  
(As of July 1, 2010)

<b>Job Category</b>	<b>Total</b>	<b>% Amer. Ind./ Alas. Nat.</b>	<b>% Asian</b>	<b>% Black</b>	<b>% Hisp.</b>	<b>% Other*</b>	<b>% White</b>	<b>% Women</b>	<b>% Men</b>
Executive/Administrative/ Managerial	829	0.2	7.5	22.2	5.1	1.4	63.4	60.8	39.2
Professional Non-Faculty	6,429	0.1	26.1	20.5	6.9	1.2	45.0	69.0	31.0
Secretarial/Clerical	2,035	0.1	5.8	46.7	16.9	1.2	29.2	87.0	13.0
Technical/ Para-Professional	1,817	0.1	13.0	32.0	12.3	1.6	33.4	69.0	31.0
Skilled Crafts	202	1.5	8.4	36.1	14.9	0.0	39.1	2.5	98.5
Service/Maintenance	821	0.4	4.5	59.2	15.6	1.0	19.2	50.8	49.2
<b>Total All Categories</b>	<b>12,133</b>	<b>0.2</b>	<b>17.7</b>	<b>30.8</b>	<b>10.0</b>	<b>1.3</b>	<b>40.1</b>	<b>68.9</b>	<b>31.1</b>

Note: Does not include student assistants and graduate students (N=812).

\*Other (N=175) 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 .....116

## **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 240 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 Urban and Community Development Website: [www.umdj.edu/comreweb](http://www.umdj.edu/comreweb).

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 Urban and Community Development Website at [www.umdj.edu/comreweb](http://www.umdj.edu/comreweb) and select "Community Resource Directory."

## **EXAMPLES OF PUBLIC / COMMUNITY SERVICE ACTIVITIES**

### **ALLIED DENTAL EDUCATION (SHRP)**

The Department of Allied Dental Education provides clinical dental preventive services to approximately 400 New Jersey veterans through affiliation with the Veteran's Administration Hospital in Orange, N.J. Dental hygienists in clinical rotations at New Jersey Dental School (NJDS) in Newark and at SHRP's dental clinical facility on the Scotch Plains campus also provide preventive dental treatment to members of the public. While at NJDS, Dental Assisting students assist dental students in providing dental patient services. The faculty and students from the Department's Dental Assisting and Hygiene programs also provide community service presentations to thousands of participants at over 30 events annually at various locations throughout New Jersey. These events include health fairs, classroom presentations, career fairs, shadowing programs and special events during Children's Dental Health Month in February, such as the national Give Kids A Smile program and related activities.

### **ANCORA AND GREYSTONE PARK CLINICAL AFFILIATION (SHRP)**

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" (SHRP)**

In collaboration with persons with serious mental illness 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.

### **ASIAN RISK ASSESSMENT COURSE (SPH)**

In collaboration with New Jersey Institute of Technology, the UMDNJ-School of Public Health (SPH) taught environmental risk assessment in a month-long course funded by the Asian Development Bank. This was the fifth year that the course was taught 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. For more information on this project contact Dr. Mark Robson at [robson@aesop.rutgers.edu](mailto:robson@aesop.rutgers.edu).

In 2007, UMDNJ-SPH with Rutgers and Chulalongkorn University were awarded an NIH Fogarty ITREOH (International Training and Research Program in Environmental and Occupational Health) Center grant. 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/>.

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

The New Jersey Institute for Successful Aging (NJISA) presented the updated “*Healthy Body, Healthy Mind*” (BAM!) program on July 23, 2009. An interactive computer memory game has been added to the program to engage participants and provide an example of brain stimulating activities that anyone can use to challenge the mind. Through the Foundation of UMDNJ, the NJISA has been awarded an educational grant from Novartis Pharmaceuticals for additional support of the BAM! Program. These funds will enable the NJISA to continue its mission of providing this valuable educational programming statewide, meeting a goal of expanding our community outreach efforts in the northern region of the State.

### **BRIDGING THE GAPS (SPH)**

In the summer of 2009, 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 in Stratford created three interdisciplinary teams of students from public health (SPH), medicine (SOM) and GSBS. The students, who were paid a summer stipend, were placed at four Camden sites: the Camden AHEC (Area Health Education Council), Planned Parenthood of Southern New Jersey, Hope Community Outreach Center, and Project HOPE. The students worked for seven weeks on service projects of benefit to the Camden community. In addition to working four days a week at their site, students participated in workshops once a week in Philadelphia on various community issues ranging from violence to oral health to approaches to working with youth. At their sites, students worked with youth, adults 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](mailto:westbm@umdnj.edu).

### **BURLINGTON COUNTY AND CAMDEN COUNTY CHILD HEALTH CLINICS: PHYSICALS FOR CHILDREN (SOM)**

Well-child health clinics are performed three times per month in Burlington County and twice monthly in Camden County, providing health evaluations and care for children who might otherwise not have access or ability to pay for primary healthcare. Child evaluations include vision, hearing, growth and development and nutritional assessments, along with age-appropriate primary and booster immunizations. The program serves approximately 350 children per year in Burlington County and 200 to 250 children per year in Camden County.

### **CAMDEN CITY HEALTHY FUTURES COMMITTEE (SPH)**

The Camden City Healthy Futures Committee, whose membership includes representation from the UMDNJ-School of Public Health, the UMDNJ-School of Osteopathic Medicine and the UMDNJ-School of Nursing, is dedicated to improving the health of the citizens of Camden. The objectives of the Committee are to promote a continuing dialogue among Camden health care and other organizations and to initiate a process that promotes a sustainable network for future joint planning and health delivery in the city.

SPH faculty and students on the Stratford/Camden Campus continued to participate in the Camden City Healthy Futures Committee. Faculty and students serve on the committee and are assisting with health planning around targeted public health issues, including development of a cable television series with segments focusing on teen pregnancy, diabetes, street violence, mental health, and asthma. For more information on this project, contact Dr. Bernadette West at [westbm@umdnj.edu](mailto:westbm@umdnj.edu) or Dr. Sherry Pomerantz at [pomerash@umdnj.edu](mailto:pomerash@umdnj.edu).

### **CAMDEN COMMUNITY HEALTH CENTER (SN)**

The Community Health Center (CHC) is a joint venture of the UMDNJ-School of Nursing, the UMDNJ-School of Osteopathic Medicine, and the Camden County Council on Economic Opportunity (CCCOEO). CCCOEO invited the participation of the School of Nursing to include health care in its array of services offered to residents of Camden and the surrounding communities. The services provided include primary care with referrals to local acute care facilities, health screening programs, and education and advocacy efforts. The majority served are either uninsured employed residents, uninsured students from local colleges and post-secondary trade schools or unemployed residents receiving Medicaid. The CHC receives financial support from an endowment awarded by the William Randolph Hearst Foundation and from the School of Nursing directly. Other funding has also been donated by Sigma Theta Tau, Omicron Pi Chapter.

CHC provides both primary care and health screenings at the following sites on a regular basis: 1) CCCOEO headquarters; 2) Acelera Early Childhood Center; 3) the Hispanic Family Center; and 4) the Urban Women's Center. Health screenings focus on detection of hypertension, metabolic syndrome, diabetes mellitus, anemia, obesity, hypercholesterolemia, and tuberculosis. In addition, adults with acute episodic health problems and those requiring physical examinations are also cared for at the CHC.

Since its establishment, the CHC continues to be an invaluable resource to Camden City residents. Hundreds of patient contacts are made annually by CHC staff, and its reach is expanding through partnerships with community service organizations. For both prelicensure and graduate level nursing students and students of osteopathic medicine, the CHC provides essential learning regarding the delivery of a broad array of community services at a local, very accessible level for the residents of Camden City and its environs.

### **CAMDEN COUNTY HEALTH SERVICES CENTER AT LAKELAND (SOM)**

The UMDNJ-School of Osteopathic Medicine, under a professional services contract, provides all 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 Department of Family Medicine is responsible for all primary care of patients at the CCHS Center. If patients need to be admitted to Kennedy University Hospital-Washington Township Division (KUH-WTD), Family Medicine facilitates the admission and care with the UMDNJ-SOM Department of Medicine Hospitalist team at KUH-WTD. 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 percent Medicaid supported.

### **CAMDEN SATURDAY HEALTH CLINIC (SOM)**

Established in 2003, the primary goal of the clinic, which is held every Saturday from 10 a.m. to 1 p.m., is to provide urgent, primary and preventive healthcare, as well as health education, to the medically underserved population of Camden. To foster an interdisciplinary environment, the Camden Saturday Health Clinic (CSHC) is managed and operated by UMDNJ-SOM students in collaboration with practitioners from an array of healthcare disciplines. The clinic is a collaborative project with the UMDNJ-School of Nursing, which staffs the clinic on Wednesdays. Dr. Carman Ciervo, Chair of the UMDNJ-SOM Department of Family Medicine, and Dr. Susan Salmond, Dean of the UMDNJ-School of Nursing, have enhanced the inter-professional cooperation between the two schools to further improve the delivery of healthcare services at the clinic. The Chairman of the UMDNJ-SOM Department of Medicine, Dr. H. Timothy Dombrowski, also provides physician oversight of students on a regular basis.

Services offered include acute care for walk-ins; immunizations; school physicals; gynecological testing and pap smears; birth control; HIV testing and counseling; STD education; screening tests for chronic diseases (i.e., high blood pressure, diabetes, obesity, asthma, anemia, and depression); chronic disease management; and health education. The UMDNJ-SOM Department of Pediatrics participates four to six times per year, providing school physical, health and developmental evaluations for approximately 35 to 45 children. The UMDNJ-SOM chapter of the Latino Medical Student Association (LMSA) provides Spanish interpretation services on Saturdays. Translation service helps patients avoid a miscommunication with health staff, further ensuring they receive the appropriate care. Not only does the CSHC provide service to the community, but it also promotes cultural awareness and interdisciplinary experiences for medical students as part of their educational experience. The CSHC is supported by school-sponsored fundraising events as well as by grants and donations.

### **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 Novartis Outreach and Education Project (NOEP)**

Established in 1998 with a grant from Novartis Pharmaceutical Corporation, the goal of the Novartis Outreach and Education Project at CINJ is to increase the racial and ethnic diversity of the statewide cancer research clinical trial population. The project combines target outreach and education efforts to both the medically underserved and health care provider segments of New Jersey. The project provides seed funds and program support for local community organizations to provide cancer education and outreach programs throughout the State. This innovative program provides technical and grant support to help community organizations become self-sustaining partners in providing their own cancer education and awareness. The program facilitates increased knowledge and trust, both of which have been shown to be major barriers to cancer clinical trial participation for members of medically underserved groups. Medical literature and the American Cancer Society have published data showing disparities in cancer outcomes, with the African American and Latino population suffering poorer survival rates and later disease stage at diagnosis. In response, many of the current NOEP grantees are focusing specifically on the African American and Latino populations.

#### **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. The Gallo Center's advocacy has a national reputation, and this year also began new outreach and advocacy programs for women who suffer as those they love deal with prostate cancer and its treatment.

#### **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**

CINJ Community Outreach staff work with Robert Wood Johnson University Hospital and other area institutions to offer annual free screenings for prostate, breast and skin cancer. The Office of Outreach also designs curricula for cancer prevention and screening educational programs as well as informative treatment-related lectures to community organizations. Information on cancer screening and clinical trials is offered in both English and Spanish, and the Office of Community Outreach is enhancing its translation service to provide additional patient educational materials on other topics.

The **Office of Community Outreach** (OCO) maintains an Outreach Calendar and Reporting Forms to help plan, coordinate and track all CINJ outreach and screening activities. As of February 2007, staff and faculty of CINJ have:

- conducted 52 outreach activities (including cancer-related community education presentations, health fairs and community festivals) attended by 26,165 individuals;
- educated 1,071 community members about CINJ, cancer, its early detection, prevention (including prevention trials) and clinical trials;
- distributed 16,121 pieces of cancer-related educational literature; and
- conducted 453 free (prostate) screenings for the community.

### 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, chaired by CINJ's Deputy Director for Extramural Affairs. The CINJ Outreach Director co-chairs the NJCEED educational committee.
- CINJ collaborates with the NJ Commission on Cancer Research and the American Cancer Society on a project funded by Aventis entitled IMPACT, Improving Minority and Medically Underserved Participation and Access in Clinical Trials. It is targeted to the Newark, Camden, Trenton, Jersey City, and Paterson communities.
- CINJ collaborates with the UMDNJ-School of Public Health on a grant to identify barriers to participation in cancer clinical trials among African Americans and Hispanics in New Jersey.
- In a goal to increase colorectal cancer screening awareness in populations with low literacy, OCO is developing a 7-10 minute video outlining current screening options in lay terms. To measure participant understanding of video content, a ten-question survey has been developed that will measure changes in pre- and post-test knowledge.
- CINJ Office of Community Outreach has developed clinician-friendly screening guideline pocket guides for breast, prostate, cervical, and colorectal cancer. One thousand copies were printed for distribution to statewide partners, including clinicians within the CINJ Hospital Network and family practice providers throughout New Jersey. A targeted mailing to more than 100 solo and group practices within the NJ Family Medicine Research Network was also completed in December 2008.
- CINJ has partnered with the National Cancer Institute's Information Service to develop a series of symposia on evidence-based outreach programming. These symposia will be offered free of charge to CINJ Network institutions, community organizations and the general public. CINJ has also hosted similar symposia on health literacy and cultural competency.



Through funding from the Robert Wood Johnson Foundation, OCO hired a full-time bilingual Program Development Specialist to oversee the development and translation of relevant materials for diverse audiences. More specifically, the grant uses the following strategies to increase cancer awareness:

**Translation services:** OCO provides no cost translation services for community partners, CINJ departments, and CINJ network institutions. To date, OCO has served CentraState Medical Center, Robert Wood Johnson University Hospital, Cooper Cancer Institute, Gloucester CEED Program, New Jersey Family Medicine Research Network (NJFMRN), Monmouth Cancer Coalition, South Asian Total Healthcare Initiative, and various internal CINJ departments.

**Materials development:** Through the use of Cancer Control P.L.A.N.E.T. and OCO's Community Education Review Committee (CERC), and in partnership with the CINJ Network Colorectal Cancer Task Force, OCO developed patient education fact sheets regarding colonoscopy and fecal occult blood testing (FOBT). To meet the needs of New Jersey's culturally and linguistically diverse audiences, fact sheets were developed at the lowest reading level possible and translated into five initial languages: Spanish, Portuguese, French/Creole, Vietnamese, and Hindi. Initial feedback was very positive, and in response, documents will also be translated into: Gujarati, Urdu, Chinese, Korean, and Arabic. In addition, two educational PowerPoint presentations – one community-based, one clinical – have been developed for health professionals to provide setting-appropriate instruction on colorectal cancer. The community PowerPoint presentation has also been translated into Spanish for use in the Spanish-speaking community with bilingual health educators and/or clinicians.

**Health Education Materials Archive:** The OCO is developing 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 NJDHSS, such as the New Jersey Cancer Education and Early Detection (NJCEED) – Public and Professional Education Subcommittee and County Cancer Awareness Coalitions (Middlesex, Mercer, Essex, Monmouth, Ocean, and Somerset Counties). Samples of statewide projects include:

- Choose Your Cover (August 2008, August 2009): Sponsored by the Ocean County Cancer Coalition, a multi-site melanoma screening held over two days at the Jersey Shore. CINJ provided promotional and educational materials for more than 1,000 participants screened. This

program has been expanded for 2009 to include the entire shoreline from Monmouth to Cape May County.

- Monmouth County Oral Cancer Screening (March 2008, 2009): Sponsored by the Monmouth County Cancer Coalition, CINJ provided NCI-designed educational materials for a month-long screening with dentists throughout the county. In 2008, more than 100 sites agreed to provide no-cost screenings for the general public.
- NJDHSS Breast Cancer Library Project (October 2008): In partnership with the NJDHSS and NJCEED, CINJ provided breast health educational and promotional materials for a mailing to more than 200 libraries throughout the state of New Jersey.

### 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 on medical and mental health issues involved in child abuse or neglect to many professionals and disciplines. The Institute's pediatricians regularly provide training to the caseworkers at the Division of Youth and Family Services (DYFS) and law enforcement officials about the medical indicators of abuse and neglect. The mental health clinicians at the Institute also provide training to DYFS, law enforcement, schools, parents and foster parents about the traumatic impact of child abuse.

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 2010, CARES offered approximately forty 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 Investigation and Trial of Crimes Against Children" for prosecutors and law enforcement agencies; "Understanding the 'Disease' of Sexual Victimization of Children: The Role of Medical History in Making the Diagnosis," at the 28<sup>th</sup> Annual UC Davis National Child Abuse and Neglect Conference in Sacramento, CA.; Delaware Conference on Young Child Mental Health and Child Traumatic Stress, co-sponsored by Delaware Division of Child Mental Health Services and the Delaware Psychological

Association, and held at the University of Delaware; Advanced Trauma Focused-Cognitive Behavioral Therapy (TF-CBT) Training to the Tennessee TF-CBT Learning Collaborative in Nashville, TN.; Camden County and Gloucester County Police Academy training on physical abuse, sexual abuse, failure to thrive, and abusive head trauma; training on Child Abuse and Neglect to Camden County Family Court judges; training for the Division of Youth and Family Services on the topics of physical abuse, sexual abuse, failure to thrive, and abusive head trauma; Statewide Advanced Trauma Focused Cognitive Behavioral Therapy to clinicians in various counties across New Jersey; and Sexual Assault Nurse Examiner training.

### **CENTER FOR ACADEMIC SUCCESS (SN)**

**The Apostle House of Newark Food Pantry** - The School of Nursing Community Ambassadors and the Student Government Association jointly sponsored a food drive for The Apostles' House Food Pantry during the 2009 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 SN Community Ambassadors also participated in the Apostle House Adopt a Family Program, providing age-appropriate holiday gifts for families that submitted a wish list to staff at Apostle House

**The Apostle House of Newark Teen Mom Program** – The School of Nursing Level 3 Pediatric Clinical students participate in 10 programs each year for the Program's mothers and staff on topics such as infant, toddler and adolescent growth and development; infant, toddler and adolescent nutrition; self esteem; anger management; and HIV and Human Sexuality

### **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 counter-terrorism, biodefense 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 breadth of the projects that the Center is supporting demonstrates its close relationship with State efforts to increase New Jersey's state of preparedness. The Center has gained a state and national reputation for its leadership and rapid response to the new age of bioterrorism. 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 terrorism 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.

### **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 7,200 teachers and 140,000 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.

*Regional Teachers' Workshops:* The annual Health Sciences Summer Institute for Educators, Grades K-12, continues to meet the needs of teachers throughout New Jersey. The Summer Institute offers 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, 2,154 teachers have been trained through the annual Summer Institute to use health science as a theme for learning.

*District-Specific Teacher Workshops:* With support from the National Institute of Environmental Health Sciences (NIEHS), CSCBRE conducted the SUC<sub>2</sub>ES<sub>2</sub> (Students Understanding Critical Connections between the Environment, Society and Self) program from 2000-2008. SUC<sub>2</sub>ES<sub>2</sub> was a partnership between CSCBRE and the Woodbridge Township School District, in collaboration with the New Jersey Department of Education, the Graduate School of Education at Rutgers University and Rider University. The goal was to develop three integrative, environmental health units, one for each of the district's second, fifth and seventh grades, based on the award-winning ToxRAP (Toxicology, Risk Assessment and Pollution) curriculum series. A critical project component was the implementation of a comprehensive evaluation of the ToxRAP materials and additional activities. This evaluation determined the effectiveness of the curriculum in increasing environmental health literacy and in improving science attitudes among students. To date, all three curriculum guides have been developed and implemented in all of the district's elementary and middle schools. Student pre- and post-tests were conducted in treatment and comparison schools at each of the district's

three grade levels. Preliminary results for all grades showed significant improvement in student 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.

Working with the LIFE Center at The Cancer Institute of New Jersey (LPGA Pros in the Fight to Eradicate Breast Cancer), CSCBRE developed BioCONNECT, a new high school science curriculum 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.

### Safe Schools

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 forms of print and electronic 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.

As 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 2004-08 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, are guiding revisions to New Jersey child labor laws. Indeed, the updated laws will be finalized in 2010-11 and likely enforced by the start of the 2011-12 school year. In addition, several thousand teachers

and administrators in NJ were 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.

### **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.

For more information on CSCBRE programs and services, contact Ms. Laura Liang at [laura.liang@umdnj.edu](mailto:laura.liang@umdnj.edu) or Dr. Derek Shendell at [shendedg@umdnj.edu](mailto:shendedg@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 40 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](mailto:delnevo@umdnj.edu).

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

UMDNJ-SOM Family Medicine third-year students and residents participate in a program at the Dr. Charles E. Brimm Medical Arts High School (located at Our Lady of Lourdes Medical Center in Camden) 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 being expanded to include more health prevention education programs for Camden's 7th and 8th graders by UMDNJ-SOM Family Medicine physicians. Over the past six years, the UMDNJ-SOM Family Medicine Department has also participated in Camden's Summer Medical Youth Program, which promotes careers in the health sciences. Over the past year, third-year students from UMDNJ-SOM have performed a Community Involved Primary Care (CIPC) project at the Brimm School that focused on meeting with students about opportunities in affiliated medical careers.

### CHERRY HILL BOARD OF EDUCATION—SCHOOL HEALTH SERVICES (SOM)

A pediatrician serves as the Medical Inspector for all of the Cherry Hill schools and, in this role, is responsible to work with the school system's healthcare professionals to coordinate the Health Services Program for the Township. This program includes policy development and provision of care for mandatory immunizations, school sports physicals, communicable disease, and other community health programs.

### 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.

SPH 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%). As the initiative is being expanded statewide for July 2010, faculty members are working with the State in developing an expanded large-scale evaluation to analyze pre- and post-measures provided by screened participants, and assessing whether there are changes in knowledge, attitudes, and perceived willingness to adopt sun safety behaviors as a result of participating in the events. Chose Your Cover in 2010 will target 2,600 people who are engaging in outdoor activities at beaches, lakes, pools, parks and other venues around NJ, and will offer free skin cancer screenings and education on a first-come, first-serve basis at 28 outdoor recreational sites. For more information contact Dr. Marcia Sass at [sassmm@umdnj.edu](mailto: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)

Faculty and students organized the first annual Blood Drive on the Scotch Plains campus. Students organized a bake sale with proceeds donated to the American Red Cross Haiti Relief Fund and distributed toys during the holidays to pediatric patients at a local hospital.

### 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 joint RWJMS–Rutgers University 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 cell biology/histology

All of these programs, as well as RWJMS' affirmative action efforts, have contributed to the School's successful diversity efforts. RWJMS has maintained a commitment to increasing diversity within the medical school class by recruiting underrepresented students 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.

In recognition of the School's commitment to improving the health of the communities served and to increasing diversity, RWJMS has developed specific strategic goals and objectives related to these areas. These goals and objectives are part of the School's five-year strategic planning process. To facilitate planning and implementation of initiatives aimed at meeting these goals, the School has created subcommittees for community health and promoting diversity. Each committee has representation from faculty and administration for promoting diversity and health in the community.



### **COMMUNITY ADVISORY BOARD (SOM)**

Established by Dean Thomas A. Cavalieri, D.O. in 2008, the UMDNJ-SOM Community Advisory Board brings together civic, business, academic, healthcare 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 Community Advisory Board serves as liaison for the academic, research and healthcare leaders at UMDNJ-SOM with individuals and groups that share an interest in and commitment to the healthcare 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, treats 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 2010, the Department contracted with 11 community agencies and schools, along with four hospital-based systems.

### **COMMUNITY HEALTH WORKER INSTITUTE (CHWI) (SOM)**

The CHWI, based at UMDNJ-SOM, was initially established by the Camden Area Health Education Center (AHEC) in 2001. Funded 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 (2004-2011), current plans include expansion of community service learning sites to northern and central New Jersey under the aegis of the NJ AHEC CHWI, which will provide students with exposure to working with community health workers as key members of interdisciplinary teams. The CHWI offers a 200-hour training curriculum for community health workers, who will play a large part in working with minority and underserved communities in improving access to care and empowering individuals to take responsibility for their own healthcare in this new era of healthcare reform.

### **COMMUNITY NUTRITION INITIATIVES (SHRP)**

Annually, the SHRP-Dietetic Internship Program participates in several community nutrition initiatives. For the past few years, these initiatives have been targeted to children and adolescents through efforts with Girl Scouts in NJ. Supermarket tours emphasizing shopping for a healthy heart were conducted with students from Trenton Central High School in conjunction with the Teen Esteem Program sponsored by the Women's Heart Foundation. To celebrate National Nutrition Month, culinary presentations and nutrition exhibits were presented to high school students from the Union County Academy of Health Sciences, and "You R What U Eat" workshops were conducted for Girl Scouts from the Delaware-Raritan Valley Girl Scout Council.

### COMMUNITY- ORIENTED DENTAL EDUCATION PROGRAM (NJDS)

The Community-Oriented Dental Education Program (CODE) is in its fifteenth 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)

A new CODE II Program established last year 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.

### 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.

### CONFERENCE: VACCINE PREVENTABLE DISEASES: EVIDENCE AND STRATEGIES TO PROTECT OUR COMMUNITIES (SPH)

Since the program's inception in 2005, the annual SPH Vaccine Preventable Disease Conference has been dedicated to providing public health and school nurse first responders with the most current findings and guidelines regarding vaccines, particularly for infants and children but also through adulthood. The conference has continued to serve a larger audience as evidenced by the initial ~150 in attendance in 2005 to 350 participants at the 2009 conference titled ***Vaccine Preventable Diseases: Evidence and Strategies to Protect our Communities***. Participants have represented an increasingly varied group of health and social services disciplines each year. In 2009 the conference was expanded to three sites, live and video-streamed to provide easier access for healthcare professionals from all regions of New Jersey. Initiated by UMDNJ-School of Public Health (SPH), New Jersey Center for Public Health Preparedness (NJCPHP) at UMDNJ-SPH, these conferences have been accomplished with the input of the extraordinary contributions of our planning committee members from a wide range of organizations throughout New Jersey. Plans are underway for the July 26, 2010 conference. For more information contact Dr. Marcia Sass at [sassmm@umdnj.edu](mailto:sassmm@umdnj.edu).

### "COVER THE UNINSURED" FAMILY HEALTH FAIR (SOM)

The UMDNJ-SOM chapter of the Student National Medical Association (SNMA), in collaboration with the Minority Association of Pre-medical Students (MAPS) held the 2nd Annual Cover the Uninsured Family Health Fair on April 24, 2010, at the Camden Academy Charter High School. Student volunteers provided families free health screenings for blood pressure, cholesterol, blood sugar level and vision. In addition, information was distributed dealing with physical health, nutrition, kids' health (exercise and diet), geriatric health, breast cancer, infectious diseases and education services. The goal of the event was to inform each family of the importance of maintaining a healthy lifestyle, explain that the body functions as a unit, discuss ways to maintain a state of homeostasis, and educate families on disease prevention and other services that are available to them in the Camden Area. The health fair provided a day of fun while giving participants access to the many resources available to help them to maintain their health.

### 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 seventeenth 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 10 percent are services provided to children and adolescents who are either indigent or have no health insurance.

### CULTURAL COMPETENCY AND INTERDISCIPLINARY HEALTHCARE (SOM)

The UMDNJ-SOM Department of Family Medicine has formed an interdisciplinary partnership with Rutgers, The State University of New Jersey, Graduate School of Social Work, to teach a course entitled “Cultural Competency and Interdisciplinary Healthcare Delivery.” Through this course, medical students, graduate students in social work and other healthcare professionals from the community are trained to be culturally competent and skilled in interdisciplinary healthcare delivery. This past year, the UMDNJ-SOM Department of Family Medicine ran four programs on cultural competency for over 550 community physicians from around the State of New Jersey, which received positive feedback for meeting the needs of local communities.

### 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
- UMDNJ Day, Trenton - Oral Cancer table presentation
- New Community Center, Newark, NJ – Oral Cancer Presentation
- HIV Buddies Hackensack, NJ
- Care One at Teaneck New Jersey
- Lady Liberty Academy, Newark New Jersey
- 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)

### 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.

### DEPARTMENT OF EPIDEMIOLOGY

#### NEWARK (CENTRAL WARD) COMMUNITY-BASED HOUSEHOLD SURVEY (SPH)

During 2009, faculty in the Department of Epidemiology designed and implemented a community-based household survey in select neighborhoods in the Central Ward of Newark, New Jersey. One adult respondent and one randomly selected child per household was interviewed. The goal of the study was to collect data on neighborhood-level structural and social conditions, including access to and use of parks, which may influence obesity and physical activity patterns in children and adults. The study findings will be presented and disseminated to local community-based organizations for organizing around these health topics and for implementing future interventions. The study was made possible through the Foundation of UMDJ, student volunteers and collaborating faculty from the UMDNJ-School of Nursing. Faculty also serve as 'Team Leader' on a physical activity working group for a state-wide initiative funded by the CDC to address obesity and physical inactivity in low income and racial/ethnic minority populations. For more information contact Dr. Sandra Echeverria at [echevese@umdnj.edu](mailto:echevese@umdnj.edu).

### DEPARTMENT OF FAMILY MEDICINE (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 Community Based Sampling course 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'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'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 developed a number of community-based initiatives to help meet these goals.

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. These activities are complemented by didactic sessions on community-oriented primary care and principles of population-based health care. In addition, students may elect to participate in an eight-week **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 attend weekly 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.

The **New Brunswick RWJMS 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 and at clinics within RWJUH; 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 RWJMS 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 became 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 accompanying St. John's prenatal and immunization outreach workers on home visits. 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:

<b><u>Community Affiliation</u></b>	<b><u>Services</u></b>
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
Trinity Health Center, Perth Amboy	Clinical care for indigent populations
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
Jewish Renaissance Medical Center, Perth Amboy	Screenings for breast, uterine and prostate cancer
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 and 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
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

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.

**Center for Healthy Aging at Parker (CHAPS)** was launched in 2006 to enhance clinical care services to Parker residents living both within institutional settings and in the community through ambulatory care services coordinated at an outpatient office facility maintained on-campus by Parker. CHAPS will train health professionals of varied disciplines in the art and science of geriatrics and gerontology, including a geriatrics medicine training program for physicians wishing to specialize in geriatrics. It will also develop and foster coordinated multidisciplinary research between institutions such as nursing homes and the academic health sciences center.

#### **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 120 students and faculty members have worked in the bateyes providing health education and promotion programs as well as primary care. In 2009, 21 students, faculty, alumni and staff participated in the Project in January, April and July trips. Three trips are planned for 2010.

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. Typical projects include parasite control programs, primary care clinics, health education programs and assistance in nutrition and sanitation projects. During the Project’s existence, students have raised funds that have been used to help purchase livestock, build a medical clinic, construct a water system and provide specialized medical care. Since 2009 the Project supported the educational costs of 28 single parent Haitian children as well as a feeding program. In 2009, the project began construction of a community house, adjacent bathroom and small school on donated land to provide safe housing for the children and women who care for them.

For more information on this project contact Dr. Lois Grau at [graulo@umdnj.edu](mailto:graulo@umdnj.edu) and Dr. Bernadette West at [westbbm@umdnj.edu](mailto:westbbm@umdnj.edu).

#### DEPARTMENT OF OBSTETRICS, GYNEGOLOGY AND REPRODUCTIVE SCIENCES (RWJMS)

The Department of Obstetrics, Gynecology and Reproductive Sciences collaborates with both the UMDNJ Newark campus on community outreach programs and two federally funded health centers: EBCHC located in New Brunswick, NJ and Plainfield Health Center located in Plainfield, NJ. Department physicians provide obstetrical and gynecological services as well as high-risk pregnancy consultations and care to the women attending these health centers.

In addition to clinical services, under the leadership of the department’s PhD nutritionist, the Department has:

- a. established a partnership and collaborating mechanisms with the Mt. Zion AME Church to conduct health screenings and education activities for members of the church and the New Brunswick community at large
- b. established a working relationship with the HIPHOP Promise Clinic to conduct joint health screenings for the New Brunswick communities
- c. been invited to present and participate in health activities at Rutgers University through the Willet Health Center programs
- d. provided representation to New Brunswick Tomorrow, and participated in the Get Fit Coalition, a program designed to prevent childhood obesity in the New Brunswick Public School system and New Brunswick communities
- e. been invited to participate in the New Brunswick Mayor’s wellness programs that target healthy eating and increased physical activity for residents, children and adolescents, in particular, of New Brunswick

- f. been invited as regular participants in Congressman Payne's program on preventing the development of obesity among minority groups in Newark
- g. been invited as annual presenters on nutrition and health at the Caregivers Retreat for Women conducted by the Robert Wood Johnson Hamilton Center for Health and Wellness
- h. been chosen as a representative of the HHS regional (New York/New Jersey) office for women to train community leaders in nutrition and healthy living

The Department also serves the community with educational workshops directed at children and adults. The Department takes a leading role in an outreach program that extends across the State inviting young people to experience what it's like being a student doctor. The event is run by the medical and dental students studying at UMDNJ. Two of these events are coordinated annually, one in the spring and one in the fall, with each event serving over 200 children. The fall event usually takes place on the New Brunswick Campus in conjunction with National Make a Difference Day. However, to accommodate the increasing number of students interested in attending this event, the 2008 event took place at the Liberty Science Center. Over 1,000 students participated in the program, during which medical and dental students taught the student doctors for the day. During the spring event on the Newark Campus, student participants put together packets for our troops serving in Iraq. In addition to these two major State-wide outreach events, the Department holds lunch time educational seminars on the New Brunswick campus addressing women's health issues such as bone health.

The Department also participates in several health fairs such as one that is run in conjunction with National Stroke Day. Faculty and staff also participate in several fundraisers such as the Race for the Cure and the March of Dimes Walk. Faculty members work as mentors with students in the New Brunswick Health Science Technology High School in a Career Shadow program to encourage young adults to pursue careers in science. The Department offers education and alternatives to women with menstrual hemorrhage, pelvic pain and uterine fibroids, and offers an HPV vaccination program for young women. The Department also assisted in presenting programs geared at pelvic floor dysfunction and brought in as a speaker Dr. Eboo Versi, a world renowned urogynecologist. The Department also collaborates on educational events with the New Jersey magazine entitled "Garden State Woman."

## 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 and community level prevention services including health communication and public information sessions for young people and parents as well as mini teen forums. A community advisory board has been established to create an opportunity for adolescents to inform services providers of trends and issues impacting young people in 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.
- JUMP (Juveniles Understanding Methods of Prevention) provides health education, prevention and intervention to incarcerated youth of the Juvenile Justice Commission. Services consist of risk reduction groups; safer-sex workshops; high-risk assessments; HIV counseling & testing; case management; linkages and referral services.
- POWER (Peer Outreach Workers Educating Risk-takers) is a peer-led education program that focuses on reducing HIV/STI transmission among African American and Latino young adults ages 13-18, through peer outreach training and certification.

### ***Male Resource Development Programs***

- AYD (Adolescent Youth Development) Program is an intervention that provides group training/support, case-management, and advocacy services for parents of young (12-18 years) minority males. These services are designed to strengthen families by increasing the positive application of knowledge and skills gained through group and individual trainings.

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

### **Division of Developmental Behavioral Pediatrics**

The NJMS Department of Pediatrics' Division of Developmental Behavioral Pediatrics, located on the Newark campus of NJMS, houses three Centers: The Autism Center (TAC), the Child Evaluation Center (CEC), and the Fetal Alcohol Syndrome (FAS) Diagnostic Center. Tyrone Bentley, MD is the Director for the Division, and Medical Director for all three Centers.

**The Autism Center (TAC)** is one of 6 funded Autism Centers in NJ, serving Greater Newark and the Northern NJ region. The mission of TAC is to provide the region with access to quality services using best practice guidelines for screening, diagnosis and medical/behavioral treatment for Autism Spectrum Disorders. An interdisciplinary team of professionals which includes developmental behavioral pediatricians, social workers, school psychologists, nurses, learning disability teaching consultants (LDTC) and ABA specialists work with the primary care provider to complete a comprehensive assessment and provide treatment for infants, children and adolescents with an ASD. In addition, outreach education and advocacy specialists are available to provide systems of support for individuals with ASD, their families, school systems, healthcare professionals, and other allied service providers.

**The Child Evaluation Center (CEC)** is a member of the Federation of Child Evaluations Centers of NJ and is one of 11 State-funded CECs. The CEC provides comprehensive evaluations for children with developmental disabilities and/or behavioral problems and children at risk for behavioral problems. Case management services also are available to families who need support and advocacy to assist them in negotiating needed services in the school and community. A multi-disciplinary team assesses any child referred to the Center. This team consists of the following: developmental behavioral pediatrician, social worker, school psychologist, LDTC, speech pathologist, occupational therapist, a child and adolescent psychiatrist, and an audiologist. A pediatrician who specializes in genetics also serves as a consultant. All staff collaborates to identify the family's need, diagnose possible disorders, and assist with referrals to recommended services. The CEC is active in the community and local school systems, providing not only diagnostic services but educational and outreach activities as well.

**The Fetal Alcohol Syndrome Diagnostic Center (FAS)** provides comprehensive diagnostic services, similar to the CEC, but only for individuals with prenatal alcohol exposure. The Diagnostic System used is the Seattle 4 Digit Coding system. The FAS Center also offers training and education to medical, allied health and community professionals and paraprofessionals on prenatal alcohol exposure and FAS.

### **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.

## **DEPARTMENT OF PREVENTIVE MEDICINE AND COMMUNITY HEALTH (NJMS)**

### **Comprehensive Cancer Control**

Dr. Stanley H. Weiss is principal investigator for the Essex County Cancer Coalition (ECCC). The ECCC's Leadership Council includes Dr. Michael Festa, Essex County Health Officer. This partnership has been instrumental in promoting cancer prevention and control to public employees in the county. The ECCC's mission statement and other

details can be found at <http://www.umdni.edu/esscaweb/>. The ECCC, with input from the American Cancer Society and representatives from other hospitals and medical centers, developed an "Essex County Cancer Resource Flyer" 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 is now in its fifth year.

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

- American Cancer Society
- Cancer Care Inc.
- Lung Cancer Circle of Hope
- Sisters Network
- Susan G. Komen Breast Cancer Foundation
- The Prostate Net
- Essex County Health Department
- Bloomfield Health Department
- South Orange Health Dept
- Montclair Health Department
- Newark Department for Child and Family Well Being
- Livingston Health Department
- East Orange Health Department
- Mountainside Hospital
- Newark Beth Israel Medical Center, Breast Cancer Program
- Cathedral Healthcare
- Saint Michael's Medical Center - Cathedral Regional Cancer Center
- 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
- Essex County Communities Against Tobacco (CAT) Coalition
- New Jersey Cancer Education and Early Detection (NJCEED) Program:
- University Hospital SAVE Women and Men Program
- "In the Pink" Program, St. Michael's Medical Center
- Igreja Luterana & St. Stephan's Church - UCC
- Institute for the Elimination of Health Disparities, UMDNJ
- Newark Cancer Initiative
- Newark Community Health Centers
- Newark Now
- Newark Police Clergy Affairs Unit
- Planned Parenthood of Metropolitan NJ - Ironbound Center
- Hoboken Family Planning
- Prudential Financial, Inc.
- Essex County Division on Aging
- Hudson, Union, Morris, and Passaic County Cancer Coalitions
- St. Barnabas Hospital and Medical Center, Livingston, NJ
- Cancer Institute of New Jersey

- New Hope Baptist Church, Newark, NJ
- New Community Corporation, Newark, NJ

### **New Jersey Prostate Cancer Initiative**

Dr. Weiss is Principal Investigator for the New Jersey Prostate Cancer Initiative in the northern part of the state, a CDC-funded grant supplemental to the funding of comprehensive cancer control in NJ, entering its second year. This program, designed for the whole State, extends the Prostate Net's national Barbershop Initiative™ to enlisting barbers in NJ to educate their customers about prostate cancer in collaboration with NJCEED lead agencies, to which they can refer their customers for screening.

### **Service on State Health Department Advisory Groups**

Drs. Weiss and Rosenblum both serve on two State-wide workgroups that report to the gubernatorially appointed Task Force on Cancer Prevention, Early Detection and Treatment in New Jersey, specifically the Oral & Oropharyngeal Cancer Workgroup and the Prostate Cancer Workgroup. In addition, Dr. Weiss serves on the Breast Cancer Workgroup. For five years, Dr. Weiss chaired the Evaluation Committee for the Task Force. Dr. Weiss helped write the first and second New Jersey Comprehensive Cancer Control Plans, 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](http://www.umdnj.edu/EvalCweb).

### **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 education and information to families of people with developmental disabilities who are making or considering a transition from institutional to community living in New Jersey. CLEP familiarizes individuals and their families with the support coordination team process being used for community transition. The Project supports families to participate as a member of the team in choosing and helping to develop the most effective and viable community living options for their family members. In addition, CLEP provides training for staff about the support coordination transition process and the current options available for those living in the community with developmental disabilities. 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 families with a picture of the possibilities in community living
- New Beginnings Family Meetings on transition to community living
- New Beginnings in Community Living newsletter, a quarterly newsletter
- A New Beginning: Family Guide Series on Transitioning from Developmental Center to Community Living
- The project website, <http://www.umdnj.edu/linkweb>
- A family HELPLINE (1-800-500-0448) for family questions and concerns on community living

- Training for Division of Developmental Disabilities staff on person-centered support coordination and community living transition.

For more information on the Developmental Disabilities Community Living Education Project, contact David Wright, Project Director at [wrightd1@umdnj.edu](mailto:wrightd1@umdnj.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).

### **ELIZABETH M. BOGGS CENTER ON DEVELOPMENTAL DISABILITIES (RWJMS)**

The Elizabeth M. Boggs Center on Developmental Disabilities, within the Department of Pediatrics at RJWMS, 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.

### **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. Dental services for children in grades K through 5 are also provided at the Lord Stirling School in New Brunswick. 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.
- To promote a healthy lifestyle and educate patients to assume responsibility for and participate in their health care decisions.
- To provide high quality educational opportunities for medical students, residents, physicians, nursing and other health professional students who train at the Center. All trainees will learn to provide culturally effective, respectful, quality health care in the context of the community.
- To serve as a community resource for health and social services.

With the support of a federal grant, in March 2006 the Chandler Health Center opened an Annex 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 Chandler Annex have eased the long 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 Healthier New Brunswick 2010 Initiative. 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, immigration, managed care, 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.

### **FACULTY COLLABORATIVE INITIATIVES (SN)**

**Midwives for Haiti** – In response to the catastrophic earthquake in Haiti, Dr. Joyce Hyatt, an assistant professor at the UMDNJ-School of Nursing and a faculty member in the Nurse Midwifery Education Program spent two weeks in Haiti, February 27 through March 6, 2010, assisting pregnant and laboring women and teaching skilled birth attendants/midwives. She also was able to offer compassion and care to women and their families during the time of crisis.

**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.

**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.

**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.

**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.

**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.

**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.

**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.

**Essex County 4th Annual Project Homeless Connect Day** – On January 27, 2010, Professors Lynne McEnroe and Margarita Velez and their community health students provided health education and blood pressure screening at Essex County Branch Brook Park.

**The New Jersey Perinatal Collaborative** – Dr Elaine Diegman serves as a member of this collaborative, which is sponsored by the New Jersey Hospital Association to provide evidence-based care to reduce the caesarean section rate in New Jersey

**Healing the Children Northeast Chapter** – Dr. Clare Golden traveled to Columbia South America for ten days in March 2010 on her 35<sup>th</sup> 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.

**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.

**UMDCare Clinic** - Dr. Leslie-Faith Morritt Taub is a volunteer nurse practitioner at the UMDCare clinic serving the health care needs of the uninsured in Newark and surrounding areas.

**Nursing Service Leadership in Dominican Republic** - UMDNJ School of Nursing faculty and 4<sup>th</sup> 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 2010 to provide care and outreach education to approximately 2,000 individuals in two rural clinics over the course of four days.

**Irvington Family Development Center** – School of Nursing associate professors Ruth Moncheck and Susan Wiedaseck provide classes on contraceptive counseling to pregnant and postpartum teenagers at the Center.

### **FACULTY DEVELOPMENT PROGRAM ON HEALTH LITERACY (SOM)**

In April 2010, the New Jersey Geriatric Education Center (NJGEC) sponsored the third annual 32-hour Faculty Development Program on Health Literacy for faculty members representing seven different health professions disciplines. This program was funded through a grant from the Department of Human Services, Health Resources and Services Administration (DHHS-HRSA).

The program was conducted in Stratford over a three-day period by nationally known experts in the field of health literacy. It included self-directed on-line learning, interactive and didactic workshops on health literacy and cultural competence, as well as skills demonstration by health professionals (trainees) who interacted with simulated patients in the Clinical Education Assessment Center. Also, on June 15, 2010, a day-long inter-professional conference on health literacy was held for healthcare providers at South Jersey Healthcare in Vineland.

### **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, Assistant 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.

### **FOOD STAMP EDUCATION (SHRP)**

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.

### **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.fxbcenr.org](http://www.fxbcenr.org)).

### **Clinical Services**

**FXB Center Ambulatory Care Center** at University Hospital in Newark meets the healthcare and social service needs of families living with HIV infection through the provision of multidisciplinary, culturally competent, 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 hospital, ambulatory care, home and community settings.

**FXB Center Child Health Program**, in collaboration with the New Jersey State Division of Youth and Family Services (DYFS), 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 abuse and neglect, advocate for the quality of health care for children in the child welfare system and assist DYFS staff in meeting children's health needs.

### National Programs

**The HIV/AIDS National Resource Center (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](http://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 on reducing perinatal HIV transmission and innovative approaches to supporting the implementation of rapid HIV testing in labor and delivery for women with undocumented HIV status and routine HIV testing in medical settings.

**New York/New Jersey AIDS Education and Training Center for the Northern New Jersey Region.** 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. We serve the New York and New Jersey healthcare community by providing AIDS and HIV education and training to treat, manage, diagnose, or 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.

### 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 a 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 twelfth year, volunteer faculty and community dentists 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 April 22, 2010 in two locations: the University Dental Center at Somerdale and 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, hosted "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. 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 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 has more than doubled since 2003. In 2004, 280 children were treated, and in 2005, 535 were treated. This year NJDS provided care to over 800 children, including patients registered for the day and walk-ins, as well as over 200 children from the Statewide Network for Community Oral Health.

## **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 2009-10, the program had 2,200 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 program also has a website <http://shrp.umdni.edu/programs/techprep/program.html> to educate students about various health careers. Approximately two-thirds of the students receive college credit ranging from one to a maximum of 22 credits. These credits are accepted by every college in New Jersey and by a number of out-of-state colleges and universities.

### **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 32 students shadowed medical student mentors during the 2009-2010 academic year.

### HIGH SCHOOL TEACHERS' SCIENCE SYMPOSIA (SOM)

In 2009, nearly 30 high school science teachers and counselors from New Jersey, Pennsylvania and Delaware attended one of two "Rx for Science Literacy" workshops presented by UMDNJ-SOM research scientists, in cooperation with the New Jersey Association for Biomedical Research and the Pennsylvania Society for Biomedical Research. The goal of the program was to help educate teachers about the careers in the life sciences that are available to their students. In addition to the didactic sessions, the high school teachers participated in ongoing discussions of research being conducted at UMDNJ-SOM, a tour of the medical school's laboratories and vivarium, and materials to assist with lesson plans at their schools.

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

With the support of the Hunterdon Health Fund, RWJMS will recruit a distinguished professor to serve as the new Endowed Chair in Community Health and Health Policy. With the appointment of the Chair, 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.

### HUNTINGTON'S DISEASE FAMILY SERVICE CENTER MONTHLY SUPPORT GROUP (SOM)

This support group is offered by the New Jersey Institute for Successful Aging on the third Tuesday of the month as part of the Huntington's Disease Family Service Center on the Stratford campus of UMDNJ-SOM. It provides an opportunity for families and those with Huntington's disease to learn about the disease, cope with challenges, and access available resources.

### ILLNESS MANAGEMENT AND RECOVERY (SHRP)

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.

### THE INSTITUTE FOR THE ELIMINATION OF HEALTH DISPARITIES (SPH)

The Institute for the Elimination of Health Disparities (IEHD) is a statewide initiative that engages and fosters research that will lead to a better understanding of the social-economic, cultural and other causes of the significant disparities that exist among various racial and ethnic groups. IEHD seeks to identify strategies to address and eliminate these disparities.

Among its interventions, the Institute is working with St. Barnabas Health Care Center to improve education to diverse populations on the benefits of living kidney donation. The Institute also recently completed research to examine racial differences in clinical trial participation among survivors of breast, prostate and colon cancer in New Jersey, along with implementing a study of the knowledge, attitudes and practices for cervical cancer screening among Black immigrant women from the West Indies, Haiti and the African continent who are currently residing in the local area. In addition to providing field work opportunities in the community for graduate students, IEHD 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](mailto: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.

### **INTEGRATED EMPLOYMENT INSTITUTE (SHRP)**

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.

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

La Clínica Migratorio is a student-organized mobile clinic founded in 2005 by UMDNJ-SOM first-year medical students. Its goal is to improve the health of migrant agricultural workers living near the city of Hammonton, NJ. Each summer, from June to August, students volunteer four nights a week in support of the clinic in an effort to overcome the barriers to healthcare experienced by the migrant worker population. Specific aims include:

- to provide UMDNJ-SOM student volunteers with experience caring for an at-risk and underserved population;
- to address the barriers that can impede the migrant farmworker's access to healthcare;
- to expand the repertoire of screening services available to migrant workers;
- to improve farmworker access to medical professionals; and
- to provide triage services for patients seeking Osteopathic Manipulative Medicine.

Family Medicine residents and Dr. Carman Ciervo, Chair of the Department of Family Medicine, provide physician oversight of the program.

### [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. On September 19<sup>th</sup>, the LMSA worked in collaboration with the Cammy Lee Leukemia Foundation and Los Servicios Latinos de Burlington County to raise awareness of the bone marrow registry in Burlington County. LMSA successfully registered 15 Hispanics out of 110 participants. On October 18<sup>th</sup>, 13 UMDNJ-SOM students participated in the Juvenile Diabetes Research Foundation (JDRF) walk as "Team UMDNJ-SOM." The team, jointly organized by LMSA and the UMDNJ-SOM chapter of the Student National Medical Association (SNMA), raised almost \$1,000. With assistance from several UMDNJ-SOM student clubs, LMSA led a collection in response to the earthquake in Haiti earlier this year. This was a phenomenal success, with so many of the requested items being supplied and many needs met. Donated items were transported to Haiti by the Haitian Professionals of Philadelphia.

### [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 2009-2010:

#### **Piscataway/New Brunswick Campus**

- Protecting the Disaster Recovery Worker – Designing a Disaster Response Exercise and Evaluation Tool for Occupational Safety and Health Professionals, US Department of Labor, Occupational Safety and Health Administration, Region II, New York, NY
- Analysis of Smoking Inter-Puff Interval in Schizophrenics Versus Controls, Robert Wood Johnson Medical School, Department of Addiction Psychiatry, New Brunswick, NJ

- An Analysis of Plans and Policies Among States with the Highest and Lowest Obesity Rates, UMDNJ-SPH, Piscataway, NJ
- Strength, Dietary Needs and Physical Activity Assessments and Project Evaluation for Banishing Childhood Obesity/Overweight Among Hispanic WIC Children, UMDNJ-SPH, New Brunswick, NJ
- Demographic and Clinical Characteristics of Patients Receiving Cryotherapy for Prostate Cancer in the United States: A Population-Based Study, Cancer Institute of New Jersey, New Brunswick, NJ
- Racial Disparities in Breast Cancer Treatment, UMDNJ-SPH, New Brunswick, NJ
- The Role of Social Deprivation Factors on Nicotine Intake, Robert Wood Johnson Medical School, Division of Psychiatry, New Brunswick, NJ
- Association Between Provider-Patient Race Concordance and Cancer Screening, Robert Wood Johnson Medical School, Department of Family Medicine, Somerset, NJ
- Syringe Exchange and Law Enforcement – A Necessary Cooperation, Atlantic City Police Department, Atlantic City, NJ
- Characteristics of Triple Negative Breast Cancer, Robert Wood Johnson Medical School, Department of Family Medicine, Somerset, NJ
- Potential Predictive Factors of Suicide: An Analysis of the Determinants Between Varying Mechanisms of Suicide Incidence in New Jersey, 2003-2007, New Jersey Department of Health and Senior Services, Center for Health Statistics, Trenton, NJ
- Quality Improvement in a Local Public Health Agency, Middle-Brook Regional Health Commission, Middlesex, NJ
- Investigation of 1-Bromopropane Exposure in Dry Cleaning Facilities, New Jersey Department of Health and Senior Services, Division of Environmental and Occupational Health, Trenton, NJ
- Parental Perceptions of Children's Weight, Physical Activity Level, Health, and Neighborhood Safety: Implications for Prevention, East Orange Primary Care Center, East Orange, NJ
- Effect of Age on the Use of Chemotherapy in Women With Breast Cancer, Pharmaceutical Health Services Research Department, University of Maryland-School of Pharmacy, Baltimore, MD
- Pesticide Exposure Monitoring at Rutgers, the State University of New Jersey, Hurtado Health Center, Rutgers University, New Brunswick, NJ
- Program Evaluation of Rutgers Health Services, Health Outreach, Promotion and Education (HOPE), Sexual Health Advocates, Health Outreach, Promotion and Education (HOPE) Rutgers Health Services, Rutgers University Health Center, New Brunswick, NJ
- Portrayal of Breast Self-Exam Following the Release of a Major Scientific Study: A Content Analysis of News Accounts and Selected Websites, New Jersey Department of Health and Senior Services, New Jersey Commission on Cancer Research, Trenton, NJ
- Development of a Triggered Antiviral Medication Dispensing Plan in Response to a Pandemic Influenza Threat, Sanofi-Aventis, Health Management, Department, Bridgewater, NJ

- A Content Analysis of Food and Beverage Advertising in Popular Women's Magazines, Center for Tobacco Surveillance and Evaluation Research (CTSER), New Brunswick, NJ
- A Meta-Analysis and Review of Bisphosphonate and Atrial Fibrillation, UMDNJ-SPH, Piscataway, NJ
- Blood and Body Fluid Exposures at Robert Wood Johnson Medical School Over the Past Decade: Impact of Interventions, Environmental and Occupational Health Sciences Institute (EOHSI), Piscataway, NJ
- Year One Evaluation of Operation Safe Actions for Everyone (S.A.F.E.), The ARC of Warren County, Washington, NJ
- Barriers to Prenatal Care Utilization for Pregnant Teens: A Health Care Providers' Perspective, YES Center - Young Women's Health Forum, Newark Public Schools - Office of Alternative Education, Newark, NJ
- The Compassion Index: Exploring Pain Management in New Jersey's Acute Care Hospitals, New Jersey Hospital Association, Princeton, NJ
- Pressure Ulcers and Healthcare Disparity in New Jersey Nursing Homes, Research and Analytic Services Healthcare Quality Strategies, Inc. (HQSI), East Brunswick, NJ
- Initiation and Cessation Patterns of Tobacco Use Among a Sample of 7,170 Norwegian Men, Tobacco Dependence Program, New Brunswick Trenton, NJ
- Disparities in Sentinel Lymph Node Biopsy Among New Jersey Early Stage Breast Cancer, UMDNJ-SPH, Piscataway, NJ
- A Description and Analysis of Brand-Specific Cigarette Websites: Camel, Doral, and Kool, Trinkets & Trash — Artifacts From the Tobacco Epidemic, New Brunswick, NJ
- Evaluation of the Implementation of a Campus-Wide Tobacco-Free Policy at a Local Hospital, Tobacco Dependence Program, New Brunswick, NJ
- South Asian Perceptions of Health Status and Health Conditions, Robert Wood Johnson Medical School, New Brunswick, NJ
- Under the Radar: How Brand-Sponsored Websites are Being Used to Market Smokeless Tobacco Products, Trinkets & Trash — Artifacts From the Tobacco Epidemic, New Brunswick, NJ
- The Promise Clinic Evaluation, The Promise Clinic, New Brunswick, NJ
- Process Evaluation of Material Dissemination in an Antimicrobial Resistance Education Campaign, New Jersey Department of Health & Senior Services - Communicable Disease Service, Trenton, NJ
- Evaluation of Prevention of Mother -To-Child Transmission (PMTCT) Information, Education, and Communication (IEC) Campaigns in Botswana, François-Xavier Bagnoud Center, Newark, NJ
- Assessment Tools for Personal Protective Equipments for Pesticide Application Operation at the Rutgers University Snyder and Blueberry/Cranberry Research Farms, Snyder Research Farm, Pittstown, NJ & Marucci Research Farm, Chatsworth, NJ
- A Comparison of Cancer Screening and Quality of Diabetes Care in Primary Care Practices with and without Nurse-Practitioners and



- Physician's Assistants, Robert Wood Johnson Medical School, Research Division, Department of Family Medicine, Somerset, NJ
- Medication Occurrences in Medication Administration in Community Programs for Adults with Intellectual Disabilities, Massachusetts Department of Developmental Services, Boston, MA
  - Psychological Predictors of Non-Adherence to Antiretroviral Treatment in Perinatally Infected HIV Children and Adolescent, Robert Wood Johnson Medical School, New Brunswick, NJ
  - Hospital Utilization Associated with a Homeless Population in Camden, NJ, Cooper University Hospital, Department of Family Medicine, Camden, NJ
  - Impact of Care Management on the Highest Utilizers of Camden NJ's Hospitals, Cooper University Hospital, Department of Family Medicine, Camden, NJ
  - Ethnic Variations in Prevalence of Ig E Antibodies to Cockroach and Asthma among US Population, UMDNJ-SPH, Piscataway, NJ
  - Patient Characteristics and Mortality in Patients with Healthcare-associated Pneumonia (HCAP) vs. those with Community-acquired Pneumonia (CAP) and Risk Factors for Mortality, Ortho-McNeil Janssen Scientific Affairs, LLC., Raritan, NJ

#### Stratford/Camden Campus

- Healthy UMDNJ: A Simple Way to Prevent Infection, UMDNJ-SPH, Stratford, NJ
- Emergency Preparedness Focus Group 2008, Princeton Regional Health Department, Princeton, NJ
- Lead Education and Outreach: Best Practices and Recommendations for the Wipe-Out Lead NJ Program in Camden, NJ, Catholic Charities, Camden, NJ
- Pesticide Selection and New Jersey Vegetable Growers Perception of Integrated Pest Management Practices, New Jersey Department of Environmental Protection Pesticide Control Program, Trenton, NJ
- Self-Reported Health Problems and Nutritional Awareness of Soup Kitchen Clients, Elijah's Promise, New Brunswick, NJ
- Needs Assessment of New Jersey Local Health Department Staff Members, NJ Health Officers Association, Sparta, NJ
- The Passion Behind the Mission: A Case Study of Two African-American-Led Community Non-Profits, Camden County Cancer Coalition, Camden, NJ
- No Wrong Door NJ Needs Assessment, New Jersey Coalition of Battered Women Trenton, NJ

#### Newark Campus

- Factors Associated with Maternal Anemia during Pregnancy at University Hospital, UMDNJ-University Hospital, Newark, NJ
- Risk Assessment of Tooth Extraction and Development of Osteonecrosis of the Jaw Among Patients on Bisphosphonates, UMDNJ-New Jersey Dental School, Newark, NJ

- Prostate Cancer: Age-adjusted Incidence Rates and Age-adjusted Mortality rates in New Jersey 21 Counties and the Relationship with Selected Demographic and Environmental Variables, UMDNJ-New Jersey Medical School, Newark, NJ
- Implementation of Evidence Based Practices to Reduce the Incidence of *Clostridium difficile* Infection at the University Hospital, UMDNJ-University Hospital, Newark, NJ
- The Association of Violent Stress and Educational Achievement of 300 Inner City Pregnant Women at University Hospital in Newark, New Jersey for the Years 2005-2007, UMDNJ-New Jersey Dental School, Newark, NJ
- Review of Referral Sources and Clinical History of Individuals Assessed at the UMDNJ-Northern New Jersey Regional FAS Diagnostic Center, UMDNJ-FASD Center, Newark, NJ
- Epidemiologic Assessment of Trauma, Mental Disorders and Young Adults with HIV, UMDNJ-New Jersey Medical School, Newark, NJ
- Oral Cancer Incidence and Mortality Trends Among Adults in New Jersey from 2000-2006, UMDNJ-New Jersey Dental School, Newark, NJ
- Lead Poisoning Navigation: A Community-Based Prevention Program, UMDNJ-New Jersey Medical School, Newark, NJ
- Screening for Oral Cancer Using Adjunctive Techniques: A Qualitative Systematic Review of the Literature, UMDNJ-New Jersey Dental School, Newark, NJ
- Cooling Tower Maintenance in a Recession and its Affects on the Incidence of Legionnaires Disease, Landover Cooling Towers Services, Inc., Mountainside, NJ
- CDC Public Health Advisor Traineeship at Newark Liberty International Airport, CDC Newark Quarantine Station, Newark Liberty Airport, Newark NJ

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

### 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 27th 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 550 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 UMDNJ-School of Health Related Professions. A total of 38 high school students participated in the Medical Science Academy during the 2009-2010 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.

The **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.

The **CHI-Clinic Project** offers community members increased access to primary care by assigning medical students to shadow and assist at St. John's Clinic, EBCHC, and the Robert Wood Johnson AIDS Program. HIPHOP student participants are exposed to indigent health care issues and their varied medical dynamics.

The **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.

The **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 and 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, accompany at-risk young pregnant mothers to health literacy education sessions or clinics 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.

**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 Soup Kitchen, making knot blankets for the homeless, counting the homeless, reading to children, health fair participation, organizing the program's annual drives such as its 5k Run, Youth Science Health Day and incoming first year medical student Volunteer Day.

**The 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. The students manage an on-site medication room that provides medications free of charge under faculty supervision. 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 MOVEN (Motivating Ourselves via Exercise and Nutrition) Project.** In this program, started in September of 2008, a group of medical students work with mothers and children to promote healthy eating habits and exercise. Community participants attend 16 sessions implemented by medical students and community health promoters in which specific nutritional eating alternatives and low impact exercises are taught. The hopes are that these families will form a long-term partnership with medical students while encouraging their families to live healthier lives.

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 a medical student-run facility at the LEAP Academy Health Center. Twenty-nine 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 a comprehensive family health curriculum for students in grades K to 9 at the LEAP Academy. UHI also sponsors a Mentoring Program in which medical students provide small group and one-on-one teaching on a variety of health topics to middle school 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.

### **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. A total of 90 high school students visited UMDNJ-SOM during the summer of 2009.

### **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 the 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 internships, 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 85,000 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 for bilingual medical students in the RWJMS Department of Family Medicine. Additionally, for the past three years the NBCIP has 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. The program is staffed by two program coordinators and 20 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) experience provides an opportunity for students to develop and implement interventional projects on health promotion in underserved communities. First-year medical students are introduced to CIPC through a 15-hour course on conducting community-based asset/needs assessments, accessing national and local resources, and identifying a community-specific health promotion/disease prevention project. As part of the experience, students participate in a "community immersion" experience through one of the three AHEC centers, where they meet with a community health worker, representatives from community-based organizations, and members of the lay community to plan their projects. Projects developed in Year 1 are delivered by the students in the fall semester of Year 2. The goal 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 building 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 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, and in-patient and out-patient substance abuse rehabilitation agencies.

NJ AHEC also facilitates many Kids into Health Careers programs, such as the Medical Explorer program 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 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.

### **NEW JERSEY CENTER FOR PUBLIC HEALTH PREPAREDNESS AT UMDNJ (SPH)**

The New Jersey Center for Public Health Preparedness at UMDNJ (NJCPHP), located at the UMDNJ-School of Public Health, is one of twenty-seven Centers for Public Health Preparedness funded by the federal Centers for Disease Control & Prevention at schools of public health across the country. The New Jersey Center 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 both the NJ Department of Health and Senior Services and the NJ Department of Environmental Protection.

Service accomplishments for NJCPHP in the 2009-2010 academic year include the 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 graduate and undergraduate public health students, public health and 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.

Two of the Center's faculty members served as Chair and Vice Chair of the State Health Department's Health Emergency Preparedness Advisory Council, and two other members of the Center, representing the NJ Chapter of the American College of Physicians and the NJ Society for Public Health Education, are also members of this Council. 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. Glenn Paulson at [paulsojl@umdnj.edu](mailto:paulsojl@umdnj.edu) or Dr. George DiFerdinando at [diferdige@umdnj.edu](mailto:diferdige@umdnj.edu).



### **THE NEW JERSEY CHILDREN'S HEALTH PROJECT: A PROGRAM OF THE UMDNJ-SN MOBILE HEALTHCARE PROJECT (SN)**

The UMDNJ School of Nursing (UMDNJ-SN), 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 in the mutual goal 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, Dr Gloria J. McNeal, who served as the initiating 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.

### **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 25,000 healthcare professionals from multiple disciplines since its inception in 1990.

The current three-year grant cycle (2007-2010) focuses on "Building Capacity and Optimizing Outcomes in Geriatric Care." The UMDNJ-SOM NJISA and its NJGEC continue to work collaboratively with other institutions and organizations to provide training on a variety of aging-related topics. In November 2009, NJISA and the NJGEC joined the New Jersey Long Term Care Leaders Coalition in planning and co-sponsoring the annual statewide conference entitled "Cutting Edge Issues in the Continuum of Care for the Elderly," attended by over 125 healthcare professionals from multiple disciplines from throughout the state. The NJGEC and its consortium partner, University Behavioral HealthCare (UBHC) Technical Assistance Center, has been working with the five

nursing home and assisted living pilot sites selected as part of the Transformational Change in Mental Health Initiative. UBHC staff have been providing 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. NJISA continues to offer clinical practicum experiences for nursing, social work and psychology, and nutrition students from UMDNJ sister schools, Drexel University, Rutgers School of Social Work, The College of New Jersey, and The Richard Stockton College of New Jersey.

### **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.

### 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 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. An opportunity arose for over 20 unemployed workers to work to clean up the Gulf Oil Spill. These workers will be employed for eight months conducting oil spill cleanup.

#### [New York / New Jersey Public Health Training Center](#)

The NY/NJ Public Health Training Center is a collaborative project between the UMDNJ-School of Public Health, the Mailman School of Public Health at Columbia University, and the State University of New York at Albany School of Public Health. The mission of the Center is to enhance the ability of the current and future public health workforce to effectively deliver the Essential Public Health Services programs to the communities of New York and New Jersey. The Center is supported by the Health Resources and Services Administration, and the New Jersey effort is based at OPHP.

The Office of Public Health Practice collaborated in the development of the work plan for the upcoming years, including the development of web-based training programs. The OPHP presented a seminar series on various public health topics, including dementia care; health literacy; multicultural health and health disparities; emergency preparedness and response for the public health professional; working with the medically underserved; public health response to sexual assault; challenges and opportunities in global environmental health; religion and health; and facing facts: sex and American teens.

#### [New Jersey Collaborative for Excellence in Public Health](#)

The NJ Collaborative for Excellence in Public Health (NJCEPH) was created as a result of the NJ Health Officer's Association (NJHOA) receiving a three-year Multi-state Learning Collaborative (MLC) grant. The MLC is funded by the Robert Wood Johnson Foundation (RWJF) and managed by the National Network of Public Health Institutes (NNPHI). It has been implemented in tandem with the efforts toward developing a national voluntary accreditation program for public health agencies. Because this is the third year such projects are being funded, it is referred to nationally as 'MLC-3.'

NJCEPH is facilitated by a partnership of the NJ Health Officer's Association, UMDNJ-School of Public Health – Office of Public Health Practice, and the NJ Department of Health and Senior Services. Its goal, in the short term, is to provide members of New Jersey's public health system with tools, technical assistance, and training in quality improvement to help them identify ways of improving their organization's performance. In the long term, the outcomes of participation will contribute to the national standards/metrics to be used in the public health voluntary accreditation process, anticipated to begin in 2011.

### Emergency Personnel Safety and Health Learning Modules

The Office of Public Health Practice is collaborating with Bandemar Networks (a small business) to develop learning modules to be delivered through cell phone technology. The project is funded by the NIEHS. The learning modules focus on reinforcing safety and health issues for skilled support personnel responding to emergencies.

For more information on the Office of Public Health Practice, please contact Mr. Mitchel Rosen at [mrosen@umdnj.edu](mailto:mrosen@umdnj.edu)

### ORIENTATION WEEK COMMUNITY SERVICE (SOM)

The Second Annual Orientation Week Community Service event took place in August 2009. Thirty-six UMDNJ-SOM students volunteered in an alumni community service project associated with the Heart of Camden-NJ (HOC). The mosaic mural the students helped create is part of HOC's mission to improve the city of Camden through various housing and environmental projects. The event was designed to familiarize new first-year students with community service opportunities available in Camden.

### 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.

### PHYSICAL AND OCCUPATIONAL THERAPY (SHRP)

The Department of Rehabilitation and Movement Sciences offers full physical therapy and occupational therapy evaluation and treatment services to public school children in Newark, Paterson, Morristown and some private schools. These services are part of the faculty practice plan of the Department but also include opportunities for physical therapy students to participate as part of the Department's community service expectations. The service is provided to classified students 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.

### PROJECT H.O.P.E. (SOM)

H. Timothy Dombrowski, D.O., Chair of the UMDNJ-SOM Department of Medicine, provides primary care to the homeless of Camden one afternoon per month in collaboration with Our Lady of Lourdes Medical Center and the Volunteers of America Men's Shelter and Helen Smith House/Leavenhouse. This clinic is one aspect of the larger program that provides medical, social, outreach, and advocacy services to Camden City's homeless via a mobile outreach unit that provides health screenings, counseling, and case management. Among an estimated Camden homeless population of 3,500 to 6,500, over 1,000 are Project H.O.P.E. users. Project H.O.P.E. is also a training site for the UMDNJ-SOM Inner City Medicine rotation.

### 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 will implement 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 was one of only seven projects funded nationally, and the only one based at an osteopathic medical school. It collaborates with a number of other

institutions, including the Camden Board of Education, Rutgers University and the Camden Area Health Education Center (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. In AY 2010-2011, Project REACH will be expanded by two UMDNJ-SOM students who have been chosen as Greater Philadelphia Schweitzer Fellows. Dr. Carman Ciervo, Chair of the Department of Family Medicine, serves as the project's administrative officer and medical reviewer for the problem-based learning modules.

### RESPIRA (NJMS)

The Children's RESPIRA Education Program (1-888-KID-ASMA) is a new program designed to provide bilingual medical and educational services to Latino families in Essex, Union, Hudson, Passaic, Morris and Middlesex Counties who have asthmatic children. The goal of RESPIRA is to increase compliance with therapy, decrease emergency room visits, hospitalizations and school absences, and improve quality of life for both parent and child by empowering families to be more proactive and comfortable with their child's asthma care. The program educates both parents and children about the development, triggers, and treatment of asthma. In addition, each participating child is provided with an individualized Asthma Action Plan, which is currently a state mandate. RESPIRA is a free program offered to all families, including those that do not have medical insurance.

The UMDNJ-Pediatric Pulmonology/Asthma Center in Newark has found a great need to work with Latino families who may face limitations such as language barriers and difficult socioeconomic conditions. Some families may use the emergency room as the primary way for treating their child's asthma, and therefore have inconsistent health care providers. "We have found that many families lack the knowledge necessary to manage their children's asthma conditions and some are using ineffective folk remedies to treat symptoms and/or are incorrectly using prescribed asthma medications" stated Dr. Montalvo Stanton, M.D., Principal Investigator-Assistant Professor of Pediatrics and Pediatric Pulmonologist. "As a result, we have designed 'The Children's RESPIRA Education Program.'"

The program consists of one two-hour education session, subdivided into sessions for parents and children. This program is given at several sites in each county including the schools. After the initial education session, two home visits are conducted by a bilingual Health Educator and Public Health Representatives. At the home visits the RESPIRA staff members assess the child, obtain information about any hospitalizations or emergency room visits, assess asthma triggers in the home setting and provide supplemental asthma education about avoiding allergens. Families who need social service assistance are referred for help.

### RESPIRATORY CARE (SHRP)

The respiratory care faculty have launched the Asthma Education Program for Inner-City Children. This program provides school-aged children and their parents/guardians with educational information about the causes, management and treatment of asthma. Thus far, several parochial and public schools in northern New Jersey are participating in the program, and still others have expressed interest.

The Respiratory Care program in collaboration with the Department of Interdisciplinary Studies and The University Hospital sponsor the continuing education program for respiratory therapists. This program assists over 500 respiratory therapists to obtain the required continuing education units in order to maintain their licensure in the states of New Jersey and New York.

### **RWJMS 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 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.

### **SAINT JUDE'S HEART HEALTH COMMUNITY EDUCATION PROGRAM (SOM)**

This community education program, funded by St. Jude's Medical Grant Committee in St. Paul, MN, 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), over 100 community-dwelling seniors attended presentations during the past year. A DVD has been produced and was distributed at the 7<sup>th</sup> annual Senior Health and Fitness day on June 25, 2010.

### **S.A.V.E. (SCREENING ACCESS OF VALUE TO ESSEX RESIDENTS) PROGRAM (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 anyplace 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.



### SENIOR HEALTH AND FITNESS DAY AND OTHER OUTREACH TO SENIOR CITIZENS (SOM)

The Seventh Annual Senior Health and Fitness Day sponsored by the NJISA and UMDNJ-SOM Marketing Department was held on June 25, 2010. This year's program focused on the importance of building as well as maintaining a healthy lifestyle to preserve health and wellness of community dwelling older adults. The program included a Health Forum, featuring welcome and introductions by Dr. Thomas Cavalieri, Dean, UMDNJ-SOM, Dr. William F. Owen, President, UMNDJ and Dr. Anita Chopra, Director of the NJISA. The keynote speaker was Dr. Donald Noll, the newest faculty addition to the NJISA, presenting; "*Aging Quiz: Separate Fact from Fiction.*" The balance of the day included 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. Nearly 500 senior citizens participated in the day's events.

The NJISA also had the opportunity to present educational and clinical information to over 2,000 community residing older adults who attended, on September 30, 2009, the Camden County Senior Health Awareness Fair, sponsored by Camden County Department of Health and Senior Services, Cooper River, Camden, NJ.

### THE SMART (SCIENCE, MEDICINE AND RELATED TOPICS) PROGRAM (NJMS)

The main focus of SMART (NJMS Department of Family Medicine) 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 Winter SMART Program introduces participants to the biological sciences and provides an opportunity to learn what becoming a health professional involves. Younger students are given age appropriate creative activities to explore topics in human biology such as matter, energy and organization in human systems; diversity and biological evolution; basic anatomy; physics of motion, respiration, and injury prevention. Older students investigate connections between health, science and environment through case based learning and research. All classes incorporate computer use and field trips.

### The SMART Summer Programs

- **Young Explorers** (6<sup>th</sup> grade students) – Sample topics include matter, energy and organization in human systems; genetics; diversity and biological evolution; and basic anatomy.
- **ChemPros** (7<sup>th</sup> grade students) – Participants examine changes of state, solutions, and simple chemical reactions. They develop the knowledge and experience that will allow them to define the properties of chemical compounds and elements and see how this all fits into medical and health related career
- **Biotrek** (8<sup>th</sup> grade students) – Biotrek is a program that explores human biology. Sample topics include body systems, muscles and bones, physics of motion, respiration, and injury prevention.
- **Fantastic Voyage** (9<sup>th</sup> grade students) – Fantastic Voyage is a program of scientific discovery. Sample topics include flight, sound, circulatory system, growth rates, ratios and proportions, tables and graphs.
- **Enviroquest** (10<sup>th</sup> grade students) - Enviroquest explores the connections between health, science and the environment, with an emphasis on laboratory and research skills. Sample topics include bacteria, water, lead poisoning, and radioactivity.
- **Mission Health** (11<sup>th</sup> grade students) – The goal of Mission Health is to teach students what becoming a health professional involves, with an emphasis on community service, investigation of various health problems and the study of relevant human biology through laboratory experiments. Information retrieval is emphasized.
- **Biomedical Apprenticeships** (12<sup>th</sup> grade students) – In this program participants work with professionals in classroom and clinical settings. Advance Placement science courses are offered. S.A.T. preparation, college tours, college counseling, and lectures by health related professionals are also offered.

Email: [smartprogram@umdnj.edu](mailto:smartprogram@umdnj.edu)

Website: [http://njms.umdnj.edu/departments/family\\_medicine/smart/index.cfm](http://njms.umdnj.edu/departments/family_medicine/smart/index.cfm)

### SOM COMMITMENT TO ITS HOST COMMUNITY, THE BOROUGH OF STRATFORD (SOM)

Under the leadership of UMDNJ-SOM Dean Thomas A. Cavalieri, D.O., there is a strong school-wide commitment to being a good neighbor with Stratford. Stratford is a 1.6 square mile borough comprised of approximately 7,000 residents in Camden County. The Second Annual Stratford Fall Festival was held on Saturday, October 3, 2009. UMDNJ-SOM played an integral part of this year's event. The University Doctors provided an array of health screenings, demonstrations and an "Ask the Doctor" segment to attendees. Also contributing to the successful event were the Wellness Center, Public Safety and the UMDNJ-SOM Marketing Department. On December 7, 2009, Dean Cavalieri led the Stratford campus in celebrating the holiday season's spirit of caring with the annual Unity Tree Lighting event. Faculty, staff and students continued the school's tradition of reaching out to add a little more holiday cheer to many in the Stratford area by hosting children from the Stratford school district. The children joined members of the UMDNJ-SOM family for some festive holiday entertainment. Each child received a gift purchased by a medical student, an opportunity to sit on Santa's lap and lunch. Part of the day's activities included a toy and gift drive for needy families in the Stratford community. Dr. Albert Brown, Superintendent of the Stratford Schools, accepted the gifts and thanked the school for its efforts in benefiting local children.

### SPECIAL OLYMPICS SUMMER GAMES (SHRP and NJDS)

For the 14th year, UMDNJ continues to provide services to the Special Olympics Summer Games.

**The Special Olympics-Health Promotions program:** The mission of the Special Olympics-Health Promotions program is to increase awareness in the areas of nutrition education, infection control and general healthy choices. Four health screenings occur: blood pressure screening, weight status evaluation, vascular health, and respiratory health. SHRP provides these services as part of its Special Olympics collaborative effort with NJDS. Students, staff and faculty 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 the Special Olympics-Special Smiles 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 14th year, data collected at the 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. A 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 130,000 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.

### **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 Success through Exercise, Physical Fitness and Sharing Information (STEPS), which is funded by a grant from the Robert Wood Johnson Foundation New Jersey Health Initiatives program, through an award to South Jersey Healthcare.

STEPS is a health intervention program to assist families in the fight against childhood obesity. Through interactive educational sessions on nutrition and exercise, families learn how to implement and sustain necessary lifestyle changes to benefit their children's health. The program is targeted to Vineland students, aged 8 -12, who are over the 85<sup>th</sup> 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. Studies indicate that parent participation is crucial to any health intervention program. In STEPS, parent participation is mandatory. An SJH registered dietitian works directly with parents to learn how to cook traditional foods in a healthier manner. Children learn the importance of portion size. The STEPS Sports Physiologist teaches the children and their parents how to incorporate play activities into their daily lives.

### **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. St. Luke's serves a population that is 60% Latino, 30% African-American, and 10% White. Fifty-three (53) 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 addition of the nurse practitioner to the staff has enabled St. Luke's to add 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. In FY 2009, there were over 5,000 patient visits at St. Luke's, 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 HEALTH ADVOCATES FOR RESOURCES & EDUCATION (S.H.A.R.E.) CENTER (NJMS)

In 1996, students at the UMDNJ-New Jersey Medical School created the S.H.A.R.E. Center (NJMS Department of Family Medicine), an organization dedicated to encouraging and mobilizing all medical students to become more involved with the Newark community. 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 is the student run umbrella organization that supports seven different service groups, allowing NJMS students to pursue patient care, community education, youth mentoring, and more. SHARE activities provide insight into the Newark community and enhance classroom learning through Voices of SHARE, an academic elective offered to NJMS students. SHARE leaders also serve as a resource for fellow students and other student organizations interested in community outreach opportunities and plan events

that help to initiate community service interest in Newark. All programs are collaborations between the Department of Family Medicine and SHARE. 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 will 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)**

The goal of PINACLE is to establish a collaborative partnership between NJMS students and the permanent residents of the Newark community. Specifically, PINACLE seeks to develop a comprehensive primary health prevention program within the SHARE Center. PINACLE operates under the principle that members of a community are more receptive to their religious, cultural, and social community leaders as opposed to outsiders. Therefore, PINACLE works with community leaders to educate them on pertinent health topics; the leaders can then convey these messages to their constituents. The goals and objectives are as follows:

- To facilitate community access to NJMS services including those targeting the uninsured.
- To streamline efforts to avoid duplication of service by fostering collaboration between medical students, other health related students, and faculty.
- To facilitate networking among community interest groups and interested faculty and students.
- To ensure name recognition of the New Jersey Medical School within and beyond the immediate community.
- To gain a better understanding of the community including what resources are available and which populations are currently not being served.
- To better coordinate the service programs provided by University Hospital and other UMDNJ schools on the Newark campus.
- To improve the ability to identify and address which community health needs are being met and which are not.

### **Relationships in Education for the Advancement of Community Health (REACH)**

REACH is an outreach organization that serves the Newark community through health promotion and disease prevention. This organization assesses community health needs at local health fairs and addresses these needs through interactive adult workshops. REACH also holds after-school workshops for Newark's youth to promote healthy lifestyles. Participation in REACH allows medical students to gain valuable skills in clinical medicine and patient education. REACH organizes health fairs at community sites once a month. Patients are provided free screenings for hypertension, diabetes, vision and body mass index by teams of medical students. Patients discuss their screening results with a medical student and attending physician and can request additional material on other health topics. If necessary, health fair patients are referred to the Student Family Health Care Center (SFHCC) clinic for follow-up appointments. REACH also conducts nutrition workshops to teach members of the community how to prepare healthy, low-cost meals.

### **Student Family Health Care Center (SFHCC)**

The Student Family Health Care Center (SFHCC) is a biweekly volunteer free clinic. SFHCC is the student-run clinic at UMDNJ. Running for over 40 years, it was established immediately after the 1967 riots to meet the needs of the medically underserved. The student-run clinic offers free, quality health care to individuals in the Newark community who are lacking in health insurance and the resources necessary to pay for basic healthcare needs. Services include physical examinations, chronic disease management, gynecological care, and psychosocial counseling. All services are provided by volunteer medical students under the supervision of board-certified physicians, many of whom are NJMS Alumni. The SFHCC provides free, quality medical care to the Newark community. Under NJMS faculty, teams of medical students treat individuals of all ages providing an opportunity for students to enhance their clinical skills.

SFHCC provides a unique role in the under-served population of Newark. It gives patients the opportunity to maintain continuity of care with students and physicians, ensuring consistently high quality of personalized care. A significant role of the clinic is to offer preventative care to a population that is most in need, and most often neglected, of such a crucial privilege. Over the past year, this has been accomplished through providing patients with flu vaccines, smoking cessation support, pedometers, and patient education. The clinic also gives patients access to additional resources for the uninsured, both inside and outside of the UMDNJ community.

### **Student Sight Savers**

This is an organization dedicated to eliminating preventable blindness through screening and education and to developing sustainable solutions to reduce health disparities. 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.
- Enrollment in insurance and free health coverage programs (Children's Health Insurance Program, Academy of Ophthalmology's National Eye Care Projects, Academy of Optometry's VisionUSA, Sight For Students, Medicare, Medicaid, VA Insurance).
- 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 sexual health workshops for Newark's middle and high school students. The workshops focus on disease prevention through education and empowerment of teens to make healthy choices. Activities include tutoring at the Academy Street Firehouse, mentoring children at the Francis Xavier Bagnoud (FXB) Center, and conducting educational events for medical students and the NJMS community. STATS also promotes HIV advocacy through World AIDS Day and World AIDS Week lectures, films, and discussions.

### **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. This year's series included presentations on "Healthcare Disparities in Heart Disease," "Risk Behavior in Adolescents," "Breaking Barriers: Caring for the Uninsured and Undocumented" and, as the culmination of the 2009-2010 Community Grand Rounds Series, "The Future of Healthcare Delivery," presented by Assemblyman Herb Conaway, MD, New Jersey 7th Legislative District. Additionally, SNMA held events in celebration of Black History Month, including a slide show presentation, potluck dinner and several meetings and lectures.

### **SUBSTANCE ABUSE PROGRAM (SOM)**

The Community Substance Abuse Unit, started in January 1993, is a 12-bed sub-acute care inpatient unit located in Kennedy University Hospital at Cherry Hill. The Medical Director and physicians are provided by UMDNJ-SOM Department of Psychiatry. Currently, the program provides inpatient and outpatient detoxification and rehabilitation. Additionally, Intensive Outpatient Program (IOP) services ranging from daily partial hospitalization to evening outpatient therapy groups are essential components to the service. IOP services range from three times per week to once a week, stressing relapse prevention. The unit receives referrals from Camden, Burlington, Gloucester and Cumberland counties, all of which have contracts with Kennedy University Hospital to fund services for their indigent population.

### **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 which brief presentations to their peers on topics selected and researched with the guidance of the faculty preceptors.

### **SUMMER MEDICAL AND DENTAL EDUCATION PROGRAM (SMDEP) (NJMS)**

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

### **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.

### **THE TOBACCO DEPENDENCE PROGRAM (SPH)**

The Tobacco Dependence Program at the UMDNJ-School of Public Health is part of a broad range of services developed by the New Jersey Department of Health and Senior Services to reduce illness and death from tobacco. 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 <http://www.tobaccoprogram.org>.

**The Tobacco Dependence Clinic** The Tobacco Dependence Clinic opened its doors in January 2001 to provide specialist assessment and treatment for people who want help relating to tobacco dependence. By June 2009, the Clinic had seen over 5,000 patients, approximately 30% of whom remain abstinent six months following their original quit date. The clinic serves as a tertiary referral and consultancy center for health professionals throughout New Jersey 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 throughout New Jersey, with particular focus in the areas of addictions, mental health and young people. These are three special populations with a high prevalence of smoking but limited access to treatment. We have trained over 1,100 healthcare professionals as Tobacco Dependence Treatment Specialists through a five-day intensive program.

**Tobacco Control in the Community** The Tobacco Dependence Program (TDP) also has two grants aimed at community level interventions on tobacco control. One is from the Rutgers Community Health Foundation and aims to stimulate smoking cessation in New Brunswick's Latino and African American communities [www.proyectovidano.fume.org](http://www.proyectovidano.fume.org) and the TDP also organizes the Middlesex County Community Partnership for a Tobacco-Free New Jersey.

**Research** The TDP is active in tobacco research and has published over 90 papers in peer-reviewed journals over the past 10 years, including many authored by MPH

students on work conducted with community agencies for fieldwork placements. For more information about the Tobacco Dependence Program, please contact Dr. Michael Steinberg at [michael.steinberg@umdnj.edu](mailto: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 downloadable images of the newest products and promotions, along with images of older, more familiar items and some rare antiques. These images are provided to public health professionals to illustrate the long history of the tobacco industry's inventive and seductive marketing and promotional campaigns. 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](mailto: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 Osborne Clinic, located at Our Lady of Lourdes Medical Center in Camden, NJ. The program, funded in part by a grant from the UMDNJ-SOM Alumni Association, was established to help elementary school children with their homework, projects, reading, and any other school-related work. The goals of this project are to encourage communication among parents and children on academic issues; foster a strong work ethic; emphasize the importance of education; and provide an economical resource for parents who themselves feel they cannot help their children with their homework. Twenty-six (26) students signed up to be tutors, and each student tutored a minimum of one hour per month. Tutoring sessions are held two to three times per week; two to three tutors attend each session.

### **UMDNJ SN-STATE HOSPITAL CLINICAL AFFILIATION (SN)**

The UMDNJ-School of Nursing has been involved in state hospital clinical affiliations since December 1999. A School of Nursing faculty member and five advanced practice nurses are currently providing ongoing consultation, education and mentorship to **Greystone Park Psychiatric Hospital** and **Ancora Psychiatric Hospital**. The nursing team works collaboratively with other members from UMDNJ and nursing and administrative staff and managers to improve the implementation and evaluation of the nurse directed care model, clinical nursing leadership, and clinical supervision of client care delivery. An article entitled "The Nurse Directed Care Model: A Model of Clinical Accountability" has been drafted for publication. The affiliation with **Essex County Hospital** is now in its fourth 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 program 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 2010 has been very active: we have

- 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; and
- 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.

We have completed a 10 year re-assessment of nursing staff at Greystone Psychiatric Hospital and submitted a final draft to the CEO and Nursing Administrator on the following areas: Attitudes and Perceptions of Nursing Staff at a State Psychiatric Hospital, Longitudinal Assessment and Analysis from 1999 to 2009. This involved examining several variables including burnout, critical thinking, work index for nursing and ward atmosphere. We also published a paper in the Journal of Clinical Nurse Specialist on the nurse directed care model instituted at Greystone and other psychiatric hospitals in the state.

Trainings with nursing administration are ongoing at Ancora on a monthly basis. Nursing rounds will begin with CEUs being offered. The first training will be entitled "Therapeutic Communication and Recovery: Role of the Professional Nurse."

#### **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 2009 and June 2010, including 45 health lectures, 20 health screenings, and ten health fairs to Southern New Jersey residents. Topics covered ranged from osteopathic manipulative medicine, aging, memory loss, Alzheimer's, GI disorders, fibromyalgia, diabetes, arthritis, heart disease, falls and balance, sleep disorders, menopause, women's health, immunizations, obesity, weight management, flu, vein care and pain management.

#### **VASCULAR TECHNOLOGY (SHRP)**

Under the sponsorship of Saint Clare's Health Services, faculty and students of the Vascular Technology Program participate each year in a myriad of health and wellness fairs and stroke awareness programs throughout Morris County and its surrounding area. The program's involvement has become an integral part of the hospital's

community outreach program. By demonstrating ultrasound testing and discussing its role in vascular disease detection, faculty and students increase public awareness of ultrasound testing for vascular disease and what to expect in a hospital encounter.

### VOCATIONAL TRAINING PROGRAMS (SOM)

The UMDNJ-SOM Family Medicine Department has an affiliation agreement with both Camden County Vocational and Camden County Vocational Institutes (CCVI) to be a training site for students who are pursuing a career as a medical assistant.

### 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 2009-2010, students and faculty worked together on a number of service projects including:

- Haitian Relief Bake Sale (January) which raised over \$1,000 for Partners in Health.
- Two collections of food and medical supplies for Haiti that were given to Eglise Baptiste de la Nouvelle Jerusalem--New Jerusalem Baptist Church in Irvington, NJ and then sent in shipping containers to Haiti.
- In December, February and April students, faculty and staff held several events to help raise funds for the DR Health Outreach Project including a holiday craft sale and bake sale, "Bowling for Soup—Striking Out Hunger" soup sale and "Melting Away Hunger" ice cream sale (with ice cream donated by Blizzard Island (Mountain Ave./ Middlesex).
- V.O.I.C.E.S. partnered with HomeFront in Trenton and organized a holiday gift drive to fill the holiday wishes of 24 homeless children who live in motels along the Rt. 1 corridor.
- "DR Giving Tree"— collection of personal care items for the Dominican Republic Health Outreach Project.
- Sock drive for Project HOPE in Camden which collected over 100 pairs of socks for people who are homeless and living in "tent city" in Camden
- V.O.I.C.E.S. students prepared dinner for families at the Ronald McDonald House in New Brunswick.

- V.O.I.C.E.S. students, faculty and staff participated in several events in conjunction with Christ Episcopal Church in New Brunswick including a food drive for the food pantry, preparation of a meal of rice and chili for people who were homeless and spending the night at the Church and painting the food pantry.

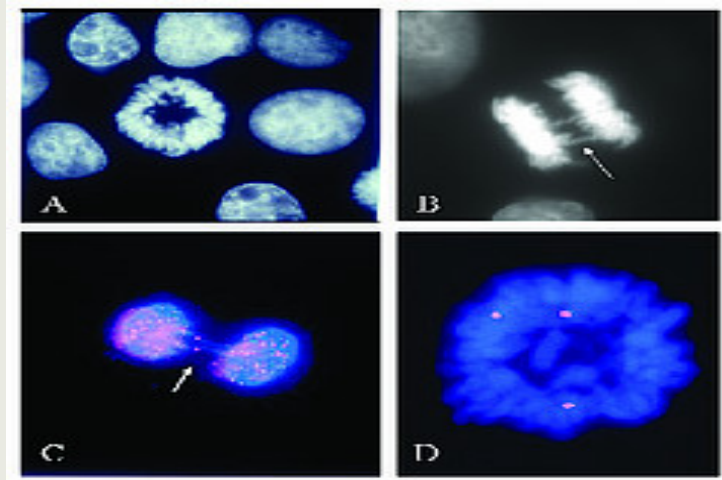
For more information on V.O.I.C.E.S., go to <http://sphprojects.umdj.edu/voices/> or contact Dr. Bernadette West at [westbm@umdj.edu](mailto:westbm@umdj.edu)

### **WOODROW WILSON AND CAMDEN HIGH SCHOOLS (SOM)**

Medical students with the UMDNJ-SOM Family Medicine Department assist in providing pre-participation sports physical examinations for all athletes at the public high schools in the City of Camden. 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.

### **YAFFA ROSE INTEGRATED CARE CENTER (NJMS)**

The Yaffa Rose Integrated Care Center is 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.



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**EXTERNAL FUNDING**  
**Totals for Fiscal Year 2009**

Unit	Total Awards <sup>1</sup>	Research Awards
New Jersey Medical School <sup>2</sup>	\$100,776,919	\$75,650,674
Robert Wood Johnson Medical School-P <sup>3</sup>	\$108,486,497	\$86,930,391
Robert Wood Johnson Medical School-C	\$961,994	\$837,349
School of Osteopathic Medicine	\$17,512,051	\$6,807,130
New Jersey Dental School	\$7,053,092	\$4,496,165
Graduate School of Biomedical Sciences <sup>4</sup>	\$346,720	\$0
School of Health Related Professions	\$4,622,370	\$131,297
School of Nursing	\$28,956,823	\$4,611,323
School of Public Health	\$9,971,063	\$3,433,245
University Hospital	\$6,908,865	\$0
University Behavioral Healthcare-P	\$22,009,975	\$536,530
University Behavioral Healthcare-N	\$5,141,906	\$0
Central Administration and Physical Plant	\$1,783,481	-\$260
University Academic Affairs (Including Continuing Education)	\$7,257,723	\$0
<b>GRAND TOTAL</b>	<b>\$321,789,479</b>	<b>\$183,433,844</b>

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 2009

<b>Expenditures*</b>	<b>Amount</b>
Total Academic R&D Expenditures	\$223,796,000
Federally Financed	\$115,770,000
Institutionally Financed	\$50,776,000

\*As reported in the 2009 National Science Foundation (NSF) Survey of Research Expenditures.

Source: UMDNJ-Office of Cost Analysis

**PATENTS****Issued July 1, 2009 to June 30, 2010**

<b>Inventor</b>	<b>Patent Number</b>	<b>Title</b>
<b>UMDNJ United States Patents</b>		
James Patrick O'Connor	U.S. Patent 7,588,758	COX-2 Function and Wound Healing
Maria L. Gennaro	U.S. Patent 7,709,211	Proteins Expressed by Mycobacterium Tuberculosis and Not by BCG and Their Use as Diagnostic Reagents and Vaccines
	U.S. Patent 7,579,141	
Maria L. Gennaro	U.S. Patent 7,595,383	Secreted Proteins Of Mycobacterium Tuberculosis And Their Use As Vaccines And Diagnostic Reagents
Sanjay Tyagi	U.S. Patent 7,662,550	Assays For Short Sequence Variants
Sanjay Tyagi	U.S. Patent 7,741,031	Optically Decodable Microcarriers, Arrays And Methods
Michael Conte	U.S. Patent 7,699,812	Safety Syringe with Cap Holding Device
James Millonig	U.S. Patent 7,629,123	Compositions and Methods for Diagnosing Autism
Jeffrey D. Laskin	U.S. Patent 7,598,238	Fluorescent fused-ring triazoles that inhibit cell proliferation and uses
Kenneth Khaw	U.S. Patent 7,708,721	Vascular Access Needle
Eric H. Rubin	U.S. Patent 7,632,650	Diagnostic and Therapeutic Uses of Topors
<b>UMDNJ Foreign Patents</b>		
Jeffrey B. Kaplan	Australian Patent 2003284385	Compositions and Methods for Enzymatic Detachment of Bacterial and Fungal Biofilms
Sanjay Tyagi	Australian Patent 2004219707	Optically Decodable Microcarriers, Arrays And Methods
Sanjay Tyagi	Canadian Patent 2,387,306	Assays For Short Sequence Variants
Sanjay Tyagi	Chinese Patent ZL200480018729.6	Homogeneous Multiplex Screening Assays And Kits
David B. Seifer	Eurasian Patent 012444	Mullerian Inhibiting Substance Levels and Ovarian Response

Source: UMDNJ-Office of Legal Management/Patents and Licensing

## **RESEARCH HIGHLIGHTS: 2009-2010**

### **BASIC SCIENCES**

- Discovered new basic mechanisms of genome replication involving coordination between the DNA helicase, primase, and DNA polymerase proteins
- Discovered that the protease domain of the hepatitis C virus helicase contributes to its energy efficient movement on the RNA genome
- Discovered that the mitochondrial RNA polymerase transcription factor aids in the initiation of RNA synthesis by stabilizing the DNA bubble at the promoter region
- Demonstrated that domain interfaces can regulate enzymatic activity by biasing conformational equilibria
- Determined structures of VraR, a regulator of *Staphylococcus aureus* antibiotic resistance, providing the first characterization of a full-length response regulator transcription factor in both inactive and active states
- Discovered that the carboxy terminus of Rpn11 is required for function
- Identified Srp1, Sts1 and Rpn11 as key factors that promote the targeting of proteasomes to the nuclear periphery
- Determined that loss of both Rpn11 and Rpn10 results in lethality
- Discovered that the lethality of *rpn10 rpn11* can be suppressed by certain *rpn10* mutants, but not by *rpn11-1*
- Identified a class of heat shock proteins that bind Rpn11
- Determined that proteasome assembly is a key requirement for interaction with multiubiquitinated proteins
- Determined that proteasome activity can be regulated, without interaction with multiubiquitinated proteins
- Participated in collaborative studies, which showed that proteasome activity is reduced following exposure of human patients to diesel exhaust fumes
- Discovered that the activation and requirement of the HMGA2 molecular pathway in mesenchymal tumorigenesis is the tumor suppressor gene syndrome, tuberous sclerosis. In contrast, biallelic inactivation of the tumor suppressor genes, TSC1 and TSC2, is not a necessary prerequisite to tumor formation in tuberous sclerosis
- Developed a novel method to detect transient short-range chromatin interactions in eukaryotic cells
- Discovered a role for DNA loops in transcriptional memory

- Demonstrated that the translational up-regulation of dihydrofolate reductase by methotrexate in tumor cells is an adaptive mechanism that decreases sensitivity to this drug
- Uncovered a class of kinase inhibitors that can accelerate turnover of apoptosis inhibitor Bfl-1 and sensitize drug-resistant lymphoma cells to anti-cancer agents
- Identified a naturally occurring gene mutation in human lymphoma cells that alters turnover of apoptosis inhibitor Bfl-1 and chemoresistance
- Determined the NMR structure of a thermostable variant of a Type-II Diabetes therapeutic peptide
- Developed a model for predicting the stability of collagen mimetic peptides
- Discovered and characterized *E. coli* toxins, YoeB and YafO, as ribosome-induced mRNA interferases
- Discovered MqsR, a novel mRNA interferase specific for GCU that is not homologous to-MazF
- Demonstrated the significant enhancement of expression and solubility of human proteins by fusion with protein S
- Demonstrated the creation of the dual inducible SPP (Single Protein Production) system
- Completed analysis of the two activities of RNase R, namely helicase and ribonuclease, with respect to their role in the complementation of the cold shock function of CsdA
- Demonstrated that IF1 and Csp proteins have different cellular targets for transcription anti-termination
- Demonstrated the ability of a recombinant bacterial collagen-like protein to form higher order structures
- Introduced collagen mutations leading to Osteogenesis Imperfecta into a recombinant bacterial collagen protein, providing a new system for determining the effect of such mutations on collagen stability and folding
- Discovered that amino acid sequences between the characteristic (Gly-Xaa-Yaa)<sub>n</sub> repeats in non-fibrillar collagens could form amyloid fibrils
- Showed the effect of the amino acid sequence context of mutations on collagen stability and folding
- Characterized the structural properties of four new bacterial collagen proteins
- Submitted a patent on “Modular Triple-helical Collagen-Like Products”
- Identified the GPR172A gene as a viral receptor
- Developed a dual induction system for expression and labeling proteins in condensed cultures of *E. coli*

- Utilized an antibody-conjugated system for gene delivery into hematopoietic early progenitor cells
- Developed new mass spectrometric methods for identifying and validating components of the lysosomal proteome
- Demonstrated efficacy for enzyme replacement therapy in a mouse model of late infantile neuronal ceroid lipofuscinosis
- Demonstrated ENGRAILED 2 autism risk alleles function as a transcriptional enhancer to increase mRNA levels in both cell culture and transgenic mice
- Demonstrated increased ENGRAILED 2 mRNA levels can also be caused by epigenetic changes
- Demonstrated three NOS1AP schizophrenia associated alleles are functional in cell culture and result in increased mRNA levels
- Demonstrated that domain interfaces can regulate enzymatic activity by biasing conformational equilibria
- Determined structures of VraR, a regulator of *Staphylococcus aureus* antibiotic resistance, providing the first characterization of a full-length response regulator transcription factor in both inactive and active states
- Used molecular dynamics simulations to predict the stability and conformational preference of peptide therapeutics containing non-natural amino acids
- Developed a novel structural model for calculating the thermodynamic stability of collagen peptides toward designing oligomerization specificity
- Demonstrated a crucial requirement for the Ebf family of helix-loop-helix transcription factors in specifying multiple retinal cell types and subtypes including ganglion, amacrine, bipolar and horizontal cells
- Demonstrated that the immune response promotes sleep in *Drosophila* in a manner that is regulated by the circadian clock and that requires the NFκB Relish
- Demonstrated that recovery sleep during bacterial infection promotes survival of the host through a mechanism that involves two NFκB genes, Dif and Relish
- Uncovered a class of kinase inhibitors that can accelerate turnover of apoptosis inhibitor Bfl-1 and sensitize drug-resistant lymphoma cells to anti-cancer agents
- Identified a naturally occurring gene mutation in human lymphoma cells that alters turnover of apoptosis inhibitor Bfl-1 and chemoresistance
- Defined the minimum sequence necessary for human mRNA capping enzyme activity and crystallized the protein C-terminal domain
- Modeled the structure of human mRNA capping enzyme guanylyltransferase domain based on X-ray crystallography and protein NMR studies

- Identified and characterized E.coli toxins, YoeB and YafO, as ribosome-induced mRNA interferases
- Described MqsR. a novel mRNA interferase specific for GCU that is not homologous to MazF
- Demonstrated significant enhancement of expression and solubility of human proteins by fusion with protein S
- Established dual inducible SPP (Single Protein Production) system
- Developed a mouse model for prostate cancer where apoptosis resistance and tumorigenesis were conferred by Bcl-2 expression
- Determined that Bfl-1 functions as an antagonist of proapoptotic tBid and Bak and that Bfl-1 is regulated post-translationally by the ubiquitin-mediated proteasome degradation
- Determined that ubiquitination-resistant Bfl-1 mutants markedly accelerate tumor formation and cooperate with the tyrosine kinase Lck to promote leukemias and lymphomas in mice
- Showed that Bfl-1 is an important target in lymphomas, as Bfl-1 knockdown with shRNA sensitized cells to killing with chemotherapy
- Identified a pharmacological inhibitor that can accelerate Bfl-1 elimination in therapy-resistant lymphoma cell lines that sensitizes them to anti-cancer agents
- Determined the structure of Bfl-1
- Demonstrated that Rel/NF- $\kappa$ B induces gene-specific transcriptional repression, including that of tumor suppressor BLNK, and that transcriptional repression is as important as transactivation for lymphocyte transformation
- Showed that the peptidyl-prolyl isomerase Pin1, which is frequently upregulated in human cancers in which Rel/NF- $\kappa$ B is activated, associates with and significantly potentiates Rel-mediated oncogenesis
- Discovered a novel intracellular signal transduction pathway involved in the regulation of apoptosis in mammals
- Found that mesenchymal stem cells have a dramatic effect on lymphocyte activation and proliferation
- Identified specific patterns of gene expression changes as tumor and stromal fibroblasts transition between proliferation and dormancy/quiescence and recovery
- Identified miR-199b and miR-125a as potential regulators of gene expression because their expression increases strongly in response to both contact inhibition- and serum starvation-induced cell cycle arrest
- Discovered that primary fibroblasts induced into proliferative quiescence by contact inhibition maintain a high metabolic rate
- Developed LC-MS methods for quantitating intracellular metabolites and their fluxes

- Indicated, with molecular modeling, that the bay area of ACR-111 can tolerate bulky substitutions; directed the synthesis of new ARC-111 derivatives with different properties and improved potency
- Found that possibly HXDV, which exhibits anti-proliferative and apoptotic activities, is also a novel M-phase blocker, with a mode of action dependent on its G-quadruplex binding activity
- Developed a system that has successfully screened for productive retroviral entry into targeted cells through selection of novel Env/receptor conjugate pairs
- Identified through a screening process, multiple novel Env isolates and more significantly, two cognate receptors for these novel Env have been identified through cDNA screening
- Identified the receptor for the A5 isolate is the SLC35F2 protein, a transporter of unknown function, establishing the proof-of-concept that retroviral entry can be redirected to alternative cell surface proteins
- Reported results indicating that dietary administration of a  $\gamma$ -T rich mixture of tocopherols ( $\gamma$ -TmT) inhibited N-methyl-N-nitrosourea (NMU)-induced mammary carcinogenesis in rats, azoxymethane (AOM)-induced colon aberrant crypt foci (ACF) formation in rats, AOM/DSS-induced colon inflammation and carcinogenesis in mice, and prostate carcinogenesis in the TRAMP mice
- Demonstrated the inhibition of prostate carcinogenesis in the TRAMP mouse model by a tocopherol mixture
- Identified a role for several polycomb-group associated factors in DNA repair
- Found that the polycomb-group proteins are involved in initiation and maintenance of regions of silenced chromatin including the inactive X chromosome and found that a subset of these factors, including CBX2, BMI1 and EZH2 localize to sites of DNA damage and may be required for efficient DNA repair
- Found that the transcriptional co-repressor TRIM33 plays a critical role in DNA repair
- Demonstrated, through proteomic analyses, that TRIM33 is in a complex with DNA repair factors and chromatin remodeling proteins
- Found that both TRIM33 and phosphorylated Smad2 accumulate in nuclear zones subjected to low dose gamma irradiation
- Found that PALB2 also interacts with BRCA1 and that BRCA1 is an upstream regulator of PALB2/BRCA2 complex in terms of its recruitment to DNA damage sites. PALB2 physically connects BRCA1 and BRCA2 to form a central BRCA pathway of the DNA damage response and tumor suppression
- Evaluated the prognostic significance of several novel molecular markers, including COX-2, BCL-2, 53BP1, Triple Negative Status, and others
- Engineered a xenograft model system with a conditional control of the TGF $\beta$  /Smad signaling pathway and a dual-luciferase reporter system for tracing both metastatic burden and TGF $\beta$  signaling activity in vivo

- Established and characterized a novel mouse model for the non-invasive detection of MaSC activity using bioluminescent imaging (BLI)
- Found that MaSCs expand in both total number and percentage during pregnancy and then drop down to or below baseline levels after weaning
- Showed that MMP1 and ADAMTS1 synergistically promote breast cancer bone metastasis by modulating the bone microenvironment to favor osteoclastogenesis
- Showed that elevated MMP1 and ADAMTS1 expression was observed in a significant proportion of breast tumors and was associated with increased risk of bone metastasis
- Established MMP1 and ADAMTS1 as promising therapeutic targets for inhibiting bone metastasis of breast cancer
- Demonstrated the inhibition by  $\gamma$ -TmT (a tocopherol mixture preparation that is rich in  $\gamma$ -tocopherol) of colon inflammation and carcinogenesis in mice that has been treated with AOM and dextran sulfate sodium (DSS)
- Demonstrated that Nrf2 knockout mice have an increased susceptibility to AOM/DSS-induced carcinogenesis
- Demonstrated ten percent degradation of succinylcholine was not observed until approximately 90 days after being placed on ambulances. Temperature variations did not significantly contribute to degradation of succinylcholine and safe for injection up to 90 days under similar conditions
- Discovered that nitrogen mustard functions by cross-linking and inhibiting thioredoxin reductase
- Identified sepiapterin reductase as target for methyl mercury poisoning
- Developed highly sensitive high pressure liquid chromatography assay for biopterin biosynthesis
- Discovered that nitrolipids are potent inducers of MAP kinase signaling in keratinocytes
- Determined the rates of hydrogen peroxide formation by recombinant cytochrome P450 reductase
- Identified tumor necrosis factor alpha as a key cytokine mediating vesicant toxicity in the lung
- Determined that vanilloid carbamates were potent inhibitors of fatty acid amide hydrolase
- Characterized a human skin equivalent model and determined that they were highly sensitive to vesicant toxicity
- Discovered a method for identifying the proteome of mercury binding proteins
- Identified a method for sequencing nitrogen mustard-modifications in thioredoxin and thioredoxin reductase



- Determined that endogenous estrogens were potent redox cycling agents and generated reactive oxygen intermediates
- Identified oxidative stress markers in skin cells exposed to 2-chloroethyl ethyl sulfide
- Identified diclofenac derivatives that were active in suppressing skin inflammation
- Developed a vapor cup model for assessing drugs as inhibitors of vesicant toxicity
- Discovered that higher levels of the organochlorine pesticide DDT is associated with increased risk of Alzheimer's disease
- Identified that the ER-stress pathway and calpain activation are responsible for pesticide-induced apoptosis in neuronal cells
- Developed an improved analytical method for measuring DNA methylation
- Identified the role of calpain and the proteasome in regulation of sodium channels following pesticide exposure
- Discovered that developmental pesticide exposure increases carboxylesterase expression leading to enhanced metabolism of methylphenidate
- Discovered that treadmill exercise of rodents causes epigenetic changes in the brain
- Cloned and functionally characterized the zebrafish dopamine transporter
- Developed a behavioral test for impulsive behavior in mice and characterized amelioration by methylphenidate
- Used a computerized mental health questionnaire for identification of PTSD and other morbidity in NYC EMS workers after the WTC disaster
- Demonstrated an association between NJ air pollutants and severe autism cases
- Found that the prevalence of dental problems in a Mexican immigrant population is due to prevailing cultural attitudes regarding dental care, lack of access to care, and lifestyle factors, among them low SES and diet
- Collaborated on a description of food acquisition behaviors in a large food insecure population in New Jersey
- Demonstrated the importance of using residential history information in assessing the association between environmental exposures and adverse birth outcomes
- Demonstrated a case of reverse environmental justice by showing that in some circumstances more affluent and privileged populations receive higher levels of environmental exposures than minority/lower income populations
- Demonstrated that respiratory symptoms were not associated with estimated World Trade Center plume intensity among residents outside of Lower Manhattan

- Characterized some of the ways in which increasing stringent data access and confidentiality rules are impeding the conduct of important public health research and surveillance activities
- Demonstrated methods for conducting data linkage studies that enable researchers and public health practitioners to assess the impact of environmental exposures on populations using existing health surveillance and environmental monitoring data
- Demonstrated the strength of association of exposure to ambient air pollutants and cleft birth defects
- Demonstrated that the levels of irritant carbonyls produced in aircraft flying at higher enough altitudes and latitudes during the spring exceed that measured in traditional indoor environments and that the ozone levels exceed levels permitted on the ground though are still within the regulatory levels for aircraft which are likely not sufficiently protective of public health
- Identified shortcomings and suggested needed improvements in the environmental sampling protocols for the National Children's Study in order to obtain an adequate exposure assessment of the participants that will be required for an evaluation of the environmental contributors to childhood diseases
- Completed development of a computer-based, planning support system for Areal Characterization of Hazard Impact and Location for Local Emergency Situations in New Jersey (ACHILLES-NJ) that provides screening "pre-assessments" of the impact (hazard and spatial extent) from potential atmospheric releases of hazardous materials from chemical facilities and transportation related incidents in New Jersey
- Developed computational modules for a multiscale modeling framework of hepatic transport, metabolism, elimination, and toxicodynamics of xenobiotics
- Developed novel multiscale mechanistic models of oxidative stress resulting from exposure to environmental contaminants with applications to arsenic and TCE
- Commenced development of an Exposure Index (EI) for the National Children's Study to support the analysis of pregnancy outcomes (pre-term births and low birth weights)
- Developed a prototype generalized risk analysis framework for engineered nanomaterials (ENMs) by implementing, adapting, and expanding the Modeling ENvironment for TOrtal Risk studies (MENTOR) and the DOse Response Information and ANalysis system (DORIAN)
- Developed a novel, virtual liver model that allows the description of heterogeneity in the metabolism and tissue-level response in the liver through a small set of distribution parameters
- Developed geospatial tools for interpreting prospective exposure measurements to inform community risks and emergency event preparedness
- Developed a novel toxicokinetic and toxicodynamic model for describing oxidate stress following exposures to Trichloroethylene
- Developed tools and decision support systems for assessing impacts of transportation-related emergency events through an extensive set of pre-computed simulations

- Defined the computational scheme for assessing Exposure Indices for study segments in the NCS which is expected to be demonstrated for Queens and then be usable by multiple NCS centers
- Found that hexavalent chromium, a carcinogenic species, is enriched in 2-3  $\mu\text{m}$  particle size range in ambient air which will lead to deep lung exposures
- Determined the effects of temperature, humidity and air pollutants (ozone, nitrogen dioxide, and sulfur dioxide) on hexavalent chromium transformation in ambient air
- Determined the chemical and physical characteristics of the biodiesel emissions
- Identified major emission sources contributing to PAH air pollution in Paterson, NJ
- Identified the environmental health and Risk Management issues that require focused and enhanced research in the area of exposure science and published a major review manuscript on the issue
- Initiated a study on the chemical components of artificial turf infill used on NJ athletic fields
- Demonstrated that air pollution in NJ has decreased dramatically over the past 50 years due to NJ regulations and National Regulations
- Determined mutations in translation elongation factor 3 in the ribosome binding site are differentially viable based on the presence of a second fungal protein
- Determined that a small molecule affects mammalian actin bundling by translation elongation factor 1A similar to the yeast proteins
- Determined loss of a translation elongation factor results in altered vacuole phenotypes and processing of resident vacuolar proteins
- Determined that ADP ribosylation of translation elongation factor 2 by diphtheria toxin affects the fidelity of protein synthesis
- Developed a novel cell culture assay for testing interaction of malaria parasites with vascular endothelial cells
- Established the role of inflammatory cytokine-induced intercellular adhesion molecule-1 and vascular cell adhesion molecule-1 in mesenchymal stem cell-mediated immunosuppression
- Found that interferon-gamma induces expansion of Lin(-)Sca-1(+)C-Kit(+) Cells
- Discovered that transforming growth factor beta is dispensable for the molecular orchestration of Th17 cell differentiation
- Found species variation in the mechanisms of mesenchymal stem cell-mediated immunosuppression
- Identified potential ribosomal targets that will allow for the development of drugs that will regulate selenium utilization

- Discovered that the translation elongation reaction required for selenium utilization involves a stable elongation factor/ribosome interaction
- Discovered that translation initiation regulates but is not required for selenocysteine incorporation
- Discovered that a novel SECIS binding protein globally regulates selenoprotein synthesis
- With collaborators at Columbia University, discovered the high resolution crystal structure of the HipBA toxin-antitoxin complex
- Identified the global changes in intracellular protein and mRNA levels in bacterial cells expressing the HipA toxin
- Demonstrated that many bacterial toxins contribute to multi-drug tolerance upon antibiotic treatment
- Determined the mechanism of action of bacterial toxins HigB and YafQ
- Established that preassociation of interferon-alpha receptor chains is required for their biological activity
- Reconstituted stable functional interferon-lambda receptor complexes into heterologous cell lines using only plasmids encoding cDNAs of the two chains
- Demonstrated that the IFN-gR2 chain is less intimately associated with lipid raft domains when strongly preassociated with the IFN-gR1 chain
- Discovered that disruption of the Jak1 binding domain of IFN-gR1 inhibits the association of IFNgR1 with lipid rafts
- Developed real-time, nonenzymatic, and noninvasive reporter systems that are sensitive to Stat3 and Stat5 activation
- Adapted fluorescence resonance energy transfer to a high-content analytical machine to determine ligand-induced conformational changes rapidly in thousands of cells
- Showed that the ratio of subgenomic to genomic Sindbis viral RNA made in vitro is modified both by specific mutations in nsP4 (the viral polymerase), and by the NTP concentrations in the reaction mixtures
- Identified three Arg residues in nsP4 that are essential for the synthesis of genomic RNA, but not subgenomic
- Developed gene therapy-based treatment for T cell-mediated autoimmune disease, mostly for experimental autoimmune encephalomyelitis, a model for human multiple sclerosis
- Developed a new strategy for the treatment of graft versus host disease
- Studied aspects of hematopoiesis, mostly of the myeloid lineage
- Discovered that the neuropeptide VGF requires synaptic activity to induce proliferation of adult hippocampal neural progenitor cells

- Showed that the neuropeptide VGF contributes to the effects of lithium in a behavioral model of chronic antidepressant treatment
- Demonstrated that neuropeptide VGF mimics the effects of Lithium Chloride and is required in a mouse model of mania
- Showed that the neuropeptide VGF activates the same signaling pathways as Lithium Chloride and is required for the activation of those pathways
- Confirmed that the toxic proBDNF pathway is stimulated following injury to the nervous system
- Established an animal model for the study of traumatic brain injury and examined cellular and epigenetic consequences
- Quantitated the number of TrkB positive neuronal cells and p75 positive glial cells following lateral fluid percussion brain injury
- Examined the role of histone deacetylases in mediating axonal and cellular degeneration following traumatic brain injury
- Demonstrated that the autism associated gene, ENGRAILED 2, that controls hindbrain monoamine neurotransmitter development and axon targeting, secondarily controls the size and neuron number of the forebrain with effects on depression-related behaviors
- Demonstrated ENGRAILED 2 autism risk alleles function as a transcriptional enhancer to increase mRNA levels in both cell culture and transgenic mice
- Demonstrated increased ENGRAILED 2 mRNA levels can also be caused by epigenetic changes
- Demonstrated three NOS1AP schizophrenia associated alleles are functional in cell culture and result in increased mRNA levels
- Continued analysis of the genetic basis of individual variation in the anatomy of the hippocampus of the mouse. The hippocampal formation 45 strains of mice are being analyzed quantitatively for this project□
- Continued analysis of cell proliferation in the pigmented and non-pigmented retina. These studies are related to the abnormalities in the visual system of albino humans□
- Showed that exposure during gestation to the neurotherapeutic anticonvulsant, valproic acid, leads to brain macrocephaly with increased excitatory neurons selectively without effects on inhibitory neurons or glia
- Discovered that the PACAP ligand and receptor system stimulates cerebral cortex neurogenesis during early development, but inhibits proliferation later, bidirectional regulation that depends on control of receptor isoform expression in the embryo
- Discovered that the neurotoxicant methylmercury, that is ubiquitous in the human diet, selectively targets hippocampal stem cells for death, resulting in reduced neuronal cell numbers and deficits in learning and memory

- Confirmed that metabotropic agonists elicit increases in BDNF in the cuprizone treated demyelinated corpus callosum and that these occur within 2 hours of injection
- Continued studies indicating that BDNF injected into the corpus callosum reverses deficits in oligodendrocytes elicited in a model of demyelination
- Continued studies that are determining that BDNF injected into the lateral ventricle reverses deficits in oligodendrocytes elicited in a model of Alzheimer's disease
- Discovered that the secreted sFRP proteins are required to mediate neural tube closure in mice via inhibition of BMP signaling
- Discovered that Tcf proteins regulate Sonic Hedgehog target gene expression during CNS development via an epigenetic mechanism
- Continued analysis of cell proliferation in the brain of mice after a spinal cord injury. These studies are showing that the effects of injury to the central nervous system are more widespread than previously believed
- Discovered that after a spinal cord injury that there are changes in stem/progenitor populations in distant parts of the brains. These findings are potentially relevant for depression following a spinal cord or brain injury
- Refined a general model of the molecular interactions occurring during cell proliferation in the developing neocortex□
- Demonstrated that a newly-described propeptide precursor (proSAAS) is involved in weight control and may also exhibit altered responses to drugs of abuse
- Showed that pharmacologic properties consistent with in vivo opioid receptor heterodimer formation emerged from analysis of opioid system knock-out mice when treated with a series of univalent and bivalent ligands to the delta and kappa opioid receptors
- Showed that IGFBP-5 KO mice show increased weight gain on the C57Bl6/J background
- Showed that evolutionarily-conserved residues of chordate tropomyosins required for actin binding have a periodic distribution in the amino acid sequence
- Defined the relationship of conserved tropomyosin residues to atomic structure
- Constructed a phylogenetic tree of invertebrate tropomyosins and identified the evolutionarily-conserved residues and identified residues that are conserved in all eukaryotic groups
- Showed that angiogenin binds to F-actin and inhibits G-actin polymerization
- Determined that leiomodin without the WH2 domain is able to cap the pointed end of the actin filament in a tropomyosin-dependent manner
- Determined residues responsible for differences in tropomodulin binding to short non-muscle tropomyosins

- Demonstrated that mutations in the LRR domain of tropomodulin affect tropomodulin assembly at the pointed ends in cells but not in vitro
- Evaluated the RNA expression of endometrial biopsies from postmenopausal women on placebo vs bazedoxifene/conjugated estrogens vs raloxifene
- Principal investigator of international clinical trial with 28 sites that determined the cycle control, bleeding pattern, blood pressure, lipid and carbohydrate metabolism of the transdermal contraceptive patch with a novel hormonal combination to an oral comparator with ethinylestradiol and levonorgestrel
- Compared the changes in mammographic breast density in postmenopausal women on placebo vs bazedoxifene/conjugated estrogens vs raloxifene
- Evaluated the efficacy and safety of an extended duration oral contraceptive with an ascending dose regimen
- Contributed to the science of assessing the safety and efficacy of a novel SERM for the treatment of vasomotor symptoms associated with menopause
- Evaluated the efficacy and safety study of bazedoxifene/conjugated estrogens combinations on endometrial hyperplasia and on BMD in postmenopausal women
- Studying Recombinant Human Bone Morphogenetic Protein-2 (rhBMP2)/Calcium Phosphate Matrix (CPM) in Subjects with Decreased Bone Mineral Density for dose finding and safety
- Evaluated the Safety and Efficacy Trial of Flibanserin in Naturally Postmenopausal Women with Hypoactive Sexual Desire Disorder in North America (with a 28 week, open-label, safety, extension trial of flibanserin)
- Studied the efficacy and safety of Oxybutynin versus placebo in women with overactive bladder
- Reported on the relationship of location and size of uterine myomas to degree of anemia and symptoms like pelvic pressure and pain
- Reported on the SERM (Ospemifene) in the treatment of Vulvovaginal Atrophy in Postmenopausal Women in a Pivotal Phase 3 Study
- Evaluated the data on the effects of Zoledronic acid compared to raloxifene on bone turnover markers in postmenopausal women with low bone mineral density
- Working with Rutgers School of Public health on accessing ease of use to material on birth control. Performing web evaluation of the association of reproductive health professional's choosing a birth control method program
- Studying the effects of pubic symphysis dehiscence
- Studying women's expectations regarding preventative care during a well-care ob-gyn visit
- Evaluating the impact of pelvic floor dysfunction on sexual function in women

- Assessing medical students and their vitamin D levels
- Continued research using a new method for creating nomograms of fetal biometry to describe normal fetal size and development throughout gestation
- Described the relationship of several polymorphisms in the folate metabolism pathway to placental abruption
- Continued research on the relationship of various phthalates and pesticides between maternal and fetal compartment at the time of delivery
- Described the recurrence of preterm birth in twin gestations in relation to previous preterm birth among singleton births
- Distinguished the physiologic or pathologic contributions to black-white disparities in fetal growth in the United States
- Evaluated the influence of cesarean delivery on temporal trends in triplet stillbirth rates in the United States
- Reconciled the high rates of preterm and postterm birth in the United States as being driven by an artifact of gestational dating
- Carried out research to define the clinical condition of “ischemic placental disease”
- Established epidemiologic recurrence risks associated with ischemic placental disease
- Compared fetal and infant mortality rates between the US and Canada, and evaluated differences in light of differing health care systems and policies
- Evaluated the role of maternal thrombophilia on placental abruption, and assessed histologic lesions associated with them
- Described the epidemiology of maternal anemia in a Chinese population
- Evaluated the association between maternal anemia on perinatal mortality rates in a population-based Chinese cohort of pregnant women
- Evaluated the association between maternal anemia on preterm birth in a population-based Chinese cohort of pregnant women
- Developed a population-based nomogram of fetal size in a sub-Saharan African population
- Described patterns of recurrence of fetal growth restriction among women with a singleton followed by a twin pregnancy
- Evaluated risks of adverse perinatal outcomes in New York city based on maternal ethnic ancestry
- Performed a population-based study to distinguish pathological from constitutional small for gestational age births



- Performed a study to examine the associations between perinatal exposures to perchlorate, thiocyanate, and nitrate and adverse birth outcomes in New Jersey mothers and newborns
- Developed new statistical methodology to model the joint association of discrete survival times in twin gestations in the United States
- Validated a 4 hour quantitative real-time PCR method for 24 chromosome aneuploidy screening in human embryos
- Obtained the first delivery of a healthy newborn after triple factor preimplantation genetic diagnosis
- Obtained the first series of pregnancies and deliveries after microarray based preimplantation genetic screening for patients with balanced translocations
- Continued the development of an IVF patient DNA bank with greater than 7,000 patient samples currently processed and available for research
- Developed an accurate method of relative telomere DNA quantitation in single cells and demonstrated reduced quantities in aneuploid human oocytes and embryos
- Developed an accurate method of relative mitochondrial DNA copy number quantitation in single cells and demonstrated increased quantities in aneuploid human embryos
- Developed a method for preimplantation genetic diagnosis of MELAS and LHON mitochondrial DNA mutation load
- Found possible candidate for E3 ligase that targets P-glycoprotein for ubiquitination
- Discovered the CD44-ICD DNA binding domain
- Determined that selenium affects ovarian cancer cells by decreasing Rad 51-AP expression making cancer cells more sensitive to DNA damage
- Identified several cell surface molecules uniquely expressed in early trophoblasts
- Performed iPS (induced pluripotent stem) cells production in three aneuploid genetic backgrounds, including trisomy 21, 18, 13 and 9
- Performed microarray analysis of early trophoblast of trisomy 21, and identified several molecules that can potentially be used as serum markers for Down syndrome screening
- Identified a Ras/Mapk signaling component, Msk2, interacts directly with Cdx2
- Obtained the IRB approval for the human embryonic stem cell derivation
- Presented Use of epifluorescence and NeuN in designed based stereology
- Demonstrated a role for akt2 in an integrative pathway directly linking glucose, Glut1 expression and activation of apoptosis that is critical for the maintenance of cellular viability particularly in the central nervous system

- Demonstrated that the TOCA/CIP4 proteins have a role in embryonic morphogenesis in *C. elegans*
- Demonstrated that the WAVE/SCAR actin nucleation complex is required for membrane trafficking
- Demonstrated that the WAVE/SCAR actin nucleation complex molecularly interacts with the membrane trafficking machinery
- Established an online flow cytometry data analysis website ([www.flowcytometryonline.com](http://www.flowcytometryonline.com)) where a combined clustering approach was used to cluster flow cytometry data in Hematologic malignancies
- Computerized Visual Approach to Data Analysis and Interpretation for Hematologic Malignancies by Flow Cytometry Immunophenotyping
- Started a study on the role of biomechanics in keratoconus
- Studied the primary sequence of bacterial collagen in relationship to human type I collagen
- Discovered that male mice with cystinuria have profound bladder outlet obstruction compared with female mice
- Discovered that male mice with cystinuria have decreased expression of uroplakins on the apical surface of the bladder urothelium
- Discovered that male mice with cystinuria have altered expression of cytokeratins in the cytoplasm, suggesting alterations in bladder function
- Discovered that bladder obstruction in males with cystinuria leads to renal atrophy in these mice
- Discovered that a commonly used herbal preparation for the control of urolithiasis has no beneficial effects in mice with cystine stones
- Demonstrated that male mice with cystinuria are a good model for studying urinary tract obstruction
- Found using functional magnetic resonance imaging that preadolescent children exposed prenatally to cocaine show less activation of hippocampus than unexposed children during emotion regulation leading to increased aggression
- Found a direct relation between levels of prenatal exposure to cocaine and problems in attention and inhibition abilities for children ages 6 to 11, particularly for boys
- Found using magnetic resonance imaging that brain maturation is accelerated in frontal regions of the brain and delayed in posterior temporal regions in children with autism spectrum disorder relative to typically developing children
- Found that boys with earlier pubertal maturation engage in more risk taking behavior compared to later developing boys, and girls who mature earlier show more internalizing symptoms than later developing girls

- Found that children exposed to prenatal cocaine show greater heart rate variability and are more likely to show cortisol increases following a frustrating task than unexposed children
- Found that overall there is a developmental shift between 3 to 4 years and older ages in the ability to take the perspective of another
- Found a relation between mental age and the ability to take the perspective of another such that gifted 3 to 4-year-olds perform as well on these tasks as average 5 to 6-year-olds, who are their same mental age
- Found that children with an early history of neglect exhibit greater shame and depressive symptoms than children who were not neglected
- Found that neglected and non-neglected children had similar body mass indices (BMIs), although both groups had BMIs that were significantly greater than CDC norms for age, gender, and ethnicity
- Found that children who were prenatally exposed to cocaine had greater rates of aggressive behavior at 8 to 10 years of age
- Found that children who were prenatally exposed to cocaine reported deterioration in their friendship quality from late childhood to early adolescence
- Found using functional magnetic resonance imaging that children prenatally exposed to tobacco had greater activation of the right inferior parietal lobe and less activation of the left and right inferior frontal lobe during a working memory task
- Found that harsh, punitive parenting is associated with poorer emotion recognition in preschoolers, independent of the effects of IQ and CPS status
- Found that individual differences in sad responses to blocked goals at 5-months, but not anger, are related to earlier onset of temper tantrums as well as tantrum severity
- Found sex differences in tantrum behavior of girls and boys by 20 months, earlier than previously reported in the literature
- Found that EEG asymmetry at 10 months is predicted by learning performance and high anger but low sad responses to goal blockage
- Found that individual differences in sad expressions when infants' goals are blocked at 5 months, but not anger, are negatively related to differences in positive temperament and low activity at 4-6 mos. While anger expressions to goal blockage at 5 months are positively related to positive temperament and high activity and reactivity to limits at 4-6 months
- Developed, in collaboration with Dr. Edmond LaVoie at Rutgers University, a non-camptothecin topoisomerase I-targeting compound, GENZ-644282, which has been licensed to Genzyme for phase I clinical trials in multiple institutions, including the Cancer Institute of New Jersey (CINJ)
- Synthesized and characterized G-quadruplex stabilizers as anticancer agents, in collaboration with Drs. Joseph Rice and Edmond LaVoie at Rutgers University

- Employing computational methods in drug design, discovered a series of small-molecule inhibitors of the parasite *Plasmodium falciparum* which is the causative agent of malaria
- Discovered a series of small-molecules inhibitors of  $\beta$ -lactamases to eradicate the growing emergence of bacterial infections to common antibiotics
- Discovered a novel family of 1,3,5-trisubstituted 1,2,4-triazoles as potent and selective ligands for the delta opioid receptor. One of these delta opioid agonists exhibited low-nanomolar in vitro binding affinity ( $IC_{50}=5.8$  nM), excellent selectivity for the delta opioid receptor over the alternative mu and kappa opioid receptors, full agonist efficacy in receptor down-regulation and MAP kinase activation assays
- Demonstrated that human ADA3 regulates RAR $\{\alpha\}$  transcriptional activity through direct contact between LxxLL motifs and the receptor's coactivator pocket (NAR, 2010, vol. 10, p.1093)
- Discovered a novel mechanism of nucleosome survival and maintenance of histone-DNA interactions during transcription by RNA polymerase II (Pol II). This mechanism is most likely involved in maintenance of histone modifications involved in epigenetics and gene regulation
- Identified critical DNA-histone and Pol II-histone interactions involved in nucleosome survival and maintenance of histone-DNA interactions during transcription by Pol II. Some of the identified interaction surfaces have been patented as drug development target
- Identified stress-dependent regulation of the  $Ca^{2+}$ -dependent protein m-calpain by p38 MAP kinase and c-Jun N-terminal kinase (JNK)
- Identified chemical inhibitors of the TRPM7 ion channel that reduce cell death in response to apoptotic stimuli
- Discovered new transcription factors that regulate the expression of peptide deformylase, a novel therapeutic and prophylactic target, in the sexually transmitted pathogen *Chlamydia trachomatis*
- Discovered that mutations in the Junctophilin-2 (JPH2) gene linked to development of hypertrophic cardiomyopathy alter the interaction between JPH2 and the TRPC3  $Ca^{2+}$  channel
- Established that thyroid hormone could decrease the activity of SERCA in cardiac muscle cells and prolong the  $Ca^{2+}$  transient associated with contraction of the heart
- Determined that the mitsugumin 53 (MG53) gene is essential for membrane repair in cardiomyocytes following various types of membrane damage, including ischemia/perfusion injury
- Demonstrated that the mitsugumin 53 (MG53) gene must be functional for preconditioning ischemia to protect the heart against ischemia/perfusion injury
- Submitted project for approval on high-throughput medical image analysis and information retrieval platform based on multicore processor and cloud computing

- Investigated robust and adaptive tracking method of moving deformable targets in fluoroscopy image video sequences
- Investigated multi-modality robust image registration and reconstruction
- Investigated large scale touching cell segmentation in histopathology specimens
- Submitted project for approval on imaging mining for comparative analysis of protein expression in tissue microarrays
- Demonstrated that phosphorylation of HuR is important for binding to the estrogen receptor alpha mRNA
- Showed that tamoxifen treatment alters HuR movement in a phosphorylation specific manner
- Showed that the estrogen receptor alpha is an RNA binding protein that can alter protein translation
- Demonstrated that the binding site for estrogen receptor protein to GATA3 RNA is within the hinge region, not the DNA binding domain
- Published one peer-reviewed paper demonstrating that HuR regulates GATA3 mRNA stability in breast cancer cells
- Selected DU145 androgen-independent prostate cancer cells for resistance to 4-[2-(2-amino-4-oxo-4,6,7,8-tetrahydro-3H-pyrimidino[5,4,6][1,4] thiazin-6-yl)-(S)-ethyl]-2,5-thienoylamino-L-glutamic acid (AG2034) by a step-wise reduction in hypoxanthine levels from 1.7  $\mu$ M to zero in the culture media
- Cloned AG2034-resistant DU145 cells
- Showed that AG2034-resistant DU145 cells proliferate at a much slower rate in comparison to drug-naïve parental DU145 cells
- Demonstrated that the ATP pool levels in AG2034-resistant DU145 cells is similar to that found in the parental cells and this results from the re-activation of (GARFT) enzyme in the resistant clones
- Demonstrated that phosphorylated extracellular signal-regulated kinase (ERK1/2) is upregulated in the drug-resistant cells in comparison to the parental cell line
- Showed that drug resistance is accompanied by increases in the mRNA levels of ERK1/2, and its upstream activators MEK1/2; N-Ras and B-Raf
- Showed that the siRNA knockdown of ERK1 and 2 in the resistant cells results in a rapid decrease in GARFT activity and in the depletion of ATP pool size
- Discovered that talin1 regulates integrin turnover to promote epithelial tissue formation
- Demonstrated that spatial activation of Rac1 is not only required for basement membrane-dependent epiblast survival but also for apoptosis-mediated cavitation during epithelial cyst formation

- Demonstrated that Bnip3 accelerates apoptosis and cavitation during embryonic epithelial morphogenesis
- Discovered that CREG interactions IGFR2 extracellular domains 7-10 and 11-14 enhance differentiation and inhibit proliferation in vascular smooth muscle cells
- Discovered that Cdc42 regulates the trailing edge retraction of migrating endothelial cells
- Discovered a process to enhance brain myelin repair by combinatorial stem cell transplants, published in Cell Research and as an Advance Online Publication at nature.com
- Discovered a novel combination of small chemical agents that promote stem and progenitor cell self renewal, and established confidentiality agreements with Invitrogen to develop these for market
- Characterized the tumorigenic potential of terminal differentiated cultured derived from embryonic stem cells, published in Stem Cells & Development
- Demonstrated that low tidal volume and high positive end-expiratory pressure mechanical ventilation results in increased inflammation and ventilator-associated lung injury in normal lungs
- Discovered that ethanol blocks long-term potentiation of GABAergic synapses in the ventral tegmental area involving mu-opioid receptors
- Demonstrated that PDCD4 plays an essential role in vascular smooth muscle cell apoptosis and proliferation
- Identified that the ischaemic preconditioning-regulated miR-21 protects heart against ischaemia/reperfusion injury via anti-apoptosis through its target PDCD4
- Demonstrated that lysophosphatidic acid-induced arterial wall remodeling is a requirement of PPARgamma but not LPA1 or LPA2 GPCR
- Identified the microRNA expression signature and the role of microRNA-21 in the early phase of acute myocardial infarction
- Developed and patented a treatment that improves cell survival in eyes with age-related macular degeneration (AMD)—a treatment that may help render cell transplantation a sight-preserving and sight-restoring therapy for patients with AMD
- Determined that resurfacing aged Bruch's membrane with a newly synthesized extracellular matrix significantly enhances cell survival on Bruch's membrane
- Contributed to report of long-term incidence and timing of ocular hypertension following intravitreal triamcinolone acetonide therapy
- Reported the prevalence of ocular surface disease in patients with glaucoma using topical intraocular pressure-lowering therapies
- Developed new analysis strategies for peripheral visual field testing to be used for clinical trials of treatment of cocaine and methamphetamine abuse

- Reported demographics, presenting signs and symptoms, pathogens, treatment, management, and visual outcomes of all patients presenting to University Hospital with endophthalmitis after glaucoma surgery
- Evaluated the diagnostic accuracy of clinical eye examination and radiographic imaging in the identification of intraocular foreign bodies in open-globe trauma
- Evaluated demographics, characteristics, and functional and anatomic outcomes of patients with traumatic open-globe injuries at University Hospital
- Identified variables that may affect functional outcome in diabetic eyes that undergo traction retinal detachment repair
- Evaluated the epidemiology, characteristics, and outcomes of pediatric traumatic open-globe injuries
- Assessed anatomic and functional outcomes in eyes undergoing diabetic traction retinal detachment repair with silicone oil tamponade
- Determined the safety and efficacy of a new drug treatment, intravitreal ranibizumab injection, in diabetic eyes with rubeosis and advanced cataracts where panretinal photocoagulation laser is precluded due to a poor view to the fundus
- Identified characteristics, pathogens, and outcomes in eyes with corneal ulcer-associated endophthalmitis at New Jersey Medical School
- Evaluated anterior segment ocular images using a new, energy-saving LED illumination source in slit-lamp biomicroscopy, comparing these to images obtained using standard Tungsten bulb illumination
- Studied safety and efficacy of corneal collagen cross-linking for keratoconus
- Determined use of corneal inlay for presbyopia
- Described additional clinical outcomes of conductive keratoplasty for the treatment of far-sightedness
- Determined the effects of laser in situ keratomileusis, using optical topography, on far-sightedness and astigmatism
- Defined the relative risk of optical perturbations of glare, halo, and diplopia after excimer laser photorefractive keratectomy and laser in-situ keratomileusis
- Determined factors affecting physiologic changes in ocular circulation during lumbar surgery

- Described optic nerve sheath fenestration in cryptococcal meningitis
- Described congenital homonymous hemianopia and cortical migration abnormalities
- Described clinical characteristics of, diagnostic criteria for, and therapeutic outcomes in autoimmune optic neuropathy
- Described trans-orbital intracranial injury
- Studied isolated, progressive visual loss after coiling of paraclinoid aneurysms
- Described severe visual loss associated with idiopathic intracranial hypertension during pregnancy
- Described techniques for handling and care of orbital apex
- Correlated lacrimal gland uptake with gallium scan in sarcoid patients and lacrimal gland biopsy
- Discovered use of debridement and local amphotericin therapy as an alternative to exenteration in sino-orbital fungal disease in immunocompromised patients
- Determined that location of radiographic optic nerve involvement can be a predictor of visual outcome in sarcoid optic neuropathy
- Demonstrated that selective and nonselective COX inhibitors are equally effective in the treatment of non-infectious scleritis
- Demonstrated use of tumor necrosis factor  $\alpha$  inhibitors as adjunctive therapy for chronic non-infectious scleritis and ocular inflammation
- Described persistent corneal epithelial defect associated with Erlotinib treatment
- Described use of keratoprosthesis as a bridge in combined penetrating keratoplasty and pars plana vitrectomy surgery
- Evaluated subtenon triamcinolone injections in the treatment of scleritis
- Demonstrated use of whole-body FDG PET-CT in the diagnosis of occult sarcoidosis
- 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
- Discovered that regulation of human endometrial vascular endothelial growth factor expression is cell type specific
- Discovered that in human endometrial stromal cells vascular endometrial growth factor expression is mediated by cAMP in a PKA-independent but MAP Kinase-dependent signaling pathway



- Discovered that expression of relaxin and of the relaxin receptor are suppressed in endometriotic tissue
- Discovered that the pharmacodynamics of injected FSH are affected by obesity
- In collaboration with Dr. Ragno's group, utilized 3-D QSAR with Ligand Based and Structure Based alignment procedures for *in silico* screening of new Hepatitis C virus NS5B polymerase inhibitors and identified four novel HCV NS5B inhibitor scaffolds through biological evaluation
- Demonstrated that the lead compound NSC 123526 exhibited a docked conformation which was in good agreement with the thumb training set most active compound
- Developed a FRET based biosensor assay to monitor drug resistance in chronic myelogenous leukemia
- Identified a new mechanism by which the Abl tyrosine kinase is trans-activated
- Discovered that naltrindole, a delta opioid receptor antagonist, inhibits the proliferation of human multiple myeloma cells *in vitro* and *in vivo*
- Discovered that naltrindole increases intracellular calcium levels in human multiple myeloma cells
- Discovered that the immunosuppressive drug, FK506, inhibits naltrindole specific binding to human multiple myeloma cells
- Discovered negative regulation of type I interferons by type III interferons
- Demonstrated that type I and type III interferons induce an antiviral state in sensitive cells with different kinetics
- Demonstrated antitumor activities of type III interferons in a mouse model of hepatocellular carcinoma
- Identified distinct immunological mechanisms of anti-cancer action of type I and type III interferons
- Demonstrated that several flavonols, particularly baicalein, can have pro-oxidant effects, but our data suggested that this action was not the sole determinant of growth inhibitory or differentiating effects on colon cancer cells
- Demonstrated that the formation of D-loop within full-length mitochondrial genome does not coincide with 7S DNA synthesis
- Discovered that in response to oxidative stress mtDNA replication is suppressed, whereas 7S DNA synthesis is unaffected and mitochondrial transcription is stimulated
- Discovered novel protein transnitrosylation targets of thioredoxin
- Identified a redox mechanism for regulating thioredoxin-mediated transnitrosylation
- Identified novel targets regulated by low dose ionizing irradiation

- Demonstrated that alternative polyadenylation of MeCP2 is a major regulator of gene expression in neural cells
- Discovered a microRNA that overlaps an alternative polyadenylation signal of PABPN1 and is involved in regulation of PABPN1 expression
- Discovered that the NF90/NF45 complex participates in the repair of DNA damage via non-homologous end-joining of DNA fragments in a reaction mediated by the DNA-dependant protein kinase
- Found that two drugs that target the modification of the cellular factor eIF5A accentuate apoptotic cell death in HIV-infected cells
- Implicated snaR-A in cellular transformation and immortalization, as well as in protein synthesis
- Demonstrated the role of snaR genes in the expression of human chorionic gonadotropin and novel peptides from type 2 HCG genes
- Discovered that the strand displacement synthesis of DNA by DNA polymerase enzyme is a dynamic process requiring participation of all the structural domains of template dependent DNA synthesis and two additional domains, namely SY and RRRY motifs
- Discovered that both 3' and 5' nuclease activities have stimulatory effect on the strand displacement synthesis of DNA. The 5' nuclease further appears to be involved in the degradation of the displaced strand in conjunction with the 3' exonuclease
- Discovered pathway cross-talk regulating arachidonic acid metabolism
- Discovered a positive regulatory role for macrophages in bone regeneration
- Together with Dr. Hanauske-Abel and colleagues, found that two anti-hydroxylase drugs, which efficiently target the cellular factor eIF5A, cause enhanced apoptosis of chronically HIV infected cells via the mitochondrial pathway
- Showed that in cells infected with human papilloma virus, NF90 regulates the expression of p53 and p21
- Discovered that a sequence conserved between mammals and fishes in the Bone Morphogenetic Protein 2 (BMP2) messenger RNA acts as a "switch" controlling BMP2 synthesis in normal and malignant lung cells
- Established that nucleolin binds a sequence conserved between mammals and fishes in the Bone Morphogenetic Protein 2 (BMP2) messenger RNA and influences BMP2 synthesis in normal and malignant lung cells
- Discovered repressive gene regulatory elements near the Bone Morphogenetic Protein 2 (BMP2) promoter

- Demonstrated that the mitochondrial ATP-dependent Lon protease modulates mitochondrial DNA (mtDNA) copy number, when copy number is low. In HeLa cells substantially lacking mitochondrial DNA, the depletion or inhibition of mitochondrial Lon protease results in increased protein levels of TFAM and a concomitant increase in mtDNA copy number
- Demonstrated that the synthetic triterpenoids CDDO, which is in Phase I Clinical trials for the treatment of leukemia and solid tumors, results in the accumulation of electron dense aggregates in mitochondria. We have previously demonstrated that CDDO inhibits the Lon protease and forms adducts with Lon. The mitochondrial aggregates formed in CDDO treated cells resemble the aggregates that accumulate in Lon knockdown cells
- Demonstrated that the mitochondrial ATP-dependent ClpXP protease is responsible for the proteolytic turnover of the death-associated protein 3 (DAP3) is rapidly degraded. DAP3 is not degraded by the mitochondrial Lon protease. DAP3 is not stabilized by compounds shown to inhibit Lon. Thus, DAP3 appears to be a specific substrate of ClpXP
- Discovered that 3'UTRs are dynamically regulated during embryonic development and cell reprogramming
- Discovered that a polyadenylation site needs only A-rich elements and strong downstream elements
- Published results of the 2.3 Angstrom resolution structure of the C-terminal domain of TFIIB from *Trypanosoma brucei* and structure-guided mutagenesis in the Proceedings of the National Academy of Sciences
- Discovered that TFIIB binds specifically upstream of the SL RNA gene promoter
- Defined the exact DNA sequence of TFIIB binding at the SL RNA gene promoter by mutational analysis
- Discovered that widely used human cell lines do not exhibit a common LH receptor polymorphism
- Discovered that cAMP stimulates production of endometrial Interleukin 11, required for implantation, in a PKA-independent manner
- Validation of a new tuberculosis aerosol infection mouse model established an efficient method for testing the candidate anti-tuberculosis vaccines
- Analysis of the immune responses in a new mouse model revealed a state of immune suppression promoted by *M. tuberculosis* infection and localized in the lung
- Identified the anti-tuberculosis vaccines that can overcome the immune suppression induced by *M. tuberculosis* infection and deliver protection from infection in the mouse
- Provided novel criteria for evaluation of anti-tuberculosis vaccine candidates
- Identified a new gene family in *Candida glabrata* that participate in adherence and colonization of host cells
- Discovered two new putative two component response regulator proteins in *Candida albicans*

- Discovered through crosslinking and molecular modeling a quinolone-binding pocket on gyrase that explains the action of resistance mutations and changes in quinolone structure
- Discovered through molecular modeling why quinolone binding to gyrase is a two-step process; this work provides a context for published X-ray structure of drug-topoisomerase-DNA complexes
- Discovered and explored the role of McsB in the delocalization of competence proteins
- Demonstrated the role of the stringent response and CodY in initiation of spore formation
- Discovered new form of regulation of spo0A transcription
- Discovered and explored the role of the Maf protein in the regulation of cell division in cells emerging from the competent state
- Described a mutant in *fadA5*, which causes attenuation in the mouse model, is deficient in utilization of cholesterol as a carbon source and in the conversion of cholesterol to androstadiene and androstadienedione
- Working on the development of biofilms on Arabidopsis plants by *Bacillus subtilis*, using various wild strains isolated from soil
- Characterized the human antibody response to entire proteome of *Mycobacterium tuberculosis*
- Discovered that antibody response during active tuberculosis targets only a ~0.5% of the proteome, enriched for extracellular proteins
- Demonstrated that the antibody response to *M. tuberculosis* proteins varies with outcome of infection in experimentally infected monkeys
- Developed a model describing carbon flow rerouting during the arrest of *M. tuberculosis* growth induced by host immunity
- Discovered that the stress response of central metabolism genes critical for the *M. tuberculosis* transition to dormancy is regulated by feed-forward loops
- Elucidated the effects of treatment of Mtb infected mice and rabbits on the immune response of the animal and INHK killing of the bacilli. These studies provide a proof of principle for immune modulation as adjunctive therapy in humans to shorten treatment and improve clinical outcome. Two 221hosphor221ts are in preparation
- Identified the mechanisms of *M. leprae* subversion of host innate immunity leading to anergy in leprosy patients
- Finalized the experimental assessment of the HIV-1 neutralization potential of rabbit sera from immunized with V3/gp120 antigens
- Characterized and mapped the neutralization domains of novel, quaternary epitope dependent anti-HIV-1 monoclonal antibodies, isolated from immunized macaques

- Developed a rapid, single-tube assay that utilizes molecular beacon probes to identify which mycobacterial species is present in a clinical sample
- Developed a real-time multiplex PCR assay to differentiate the staphylococcal chromosomal cassettes harboring the *mecA* gene among MRSA isolates
- Determined the prevalence of MRSA carriage among healthcare professionals in an urban teaching hospital
- Unraveled the molecular epidemiology of *M. tuberculosis* in a South African township with high rates of HIV disease
- Tested and confirmed the reproducibility of fast method of bacterial susceptibility to antibiotics (BioSense)
- Developed method of *M. tb* strains grouping by PCR of specific biomarkers
- Completed large scale analysis of clinical strains for the presence of *gyrA* mutation in PAN-susceptible clinical *M.tb* strains
- Established that 222phosphor-inositide-3-kinase (PI3K) plays a key role in *M. leprae* regulation of the cytokine-mediated immune response
- Demonstrated that *M. leprae* prestimulation of naïve human monocytes can either suppress or prime key proinflammatory cytokines in response to a secondary stimulus
- Demonstrated that the *M. leprae* specific phenolic glycolipid (PGL-1) may play a key role in *M. leprae* modulation of the monocyte cytokine and chemokine response
- Developed luminescent based nucleic acid hybridization probes for the ultra-sensitive detection of DNA and RNA molecules
- Developed three molecular beacon based real-time PCR assays to identify and quantify pathogens
- Determined how a family of viruses program their gene expression by binding host proteins to their core structures
- Viewed infecting virus particles in cells by attaching fluorescent proteins to them
- General mechanism for high transcription fidelity in cellular RNA polymerase has been suggested based on crystallographic and biochemical evidence
- Based on comprehensive studies the model for ciprofloxacin gyrase inhibition has been inferred. The model explains previous biochemical data and suggests the ways to design better inhibitors
- Developed new luminescent probes for ultrasensitive detection of proteins and nucleic acids
- Drug resistance mechanisms studies helped redefine breakpoints for the treatment of certain systemic fungal infections
- Identified proteins that could serve as biomarkers following antifungal drug therapy

- Developed new molecular tools for rapidly assessing bacterial and fungal infections in blood
- Characterized novel neutralization masking mechanism for clade C viruses
- Defined novel neutralization targets for HIV-1
- Identified polyclonal sera with broad and potent neutralizing activities for HIV-1 that target quaternary
- Identified a siderophore independent pathway for iron acquisition in *M. tuberculosis* (Mtb) which may be relevant for survival of this pathogen during chronic tuberculosis
- Identified genomic changes that may impact Mtb's ability to acquire iron during infection
- Biochemical studies uncovered new and unique components of the Mtb iron acquisition apparatus
- Showed that beta-defensin-1 plays role in reducing the severity of influenza pathogenesis
- Verified that human beta defensin-1 is down-regulated by HSV-1 and influenza virus in their respective target epithelial cells within the first few hours of infection
- Verified that HSV-1 and influenza virus up-regulate human beta-defensin-1 in human plasmacytoid dendritic cells and monocytes
- Characterized the *Mycobacterium tuberculosis*  $\square^B$  mutant and showed it to be defective in survival under hypoxic conditions *in vitro*, suggesting an important role in *M. tuberculosis* latency
- Found that the *M. tuberculosis fadA5* gene, important for bacterial growth in mice, encodes a thiolase that catalyzes thiolysis of acetoacetyl CoA, consistent with a b-ketoacyl CoA thiolase function in cholesterol side-chain b-oxidation
- Showed that the amino-terminal domain of IrtA of the *M. tuberculosis* IrtAB iron transporter is an FAD binding domain that is essential for iron acquisition
- Found that the *M. tuberculosis sigE* mutant elicits higher levels of host protective factors like iNOS, IFN $\square$ , TNF $\square$  and defensins during mouse infections than wild type bacteria and induces a higher level of protection than did BCG with both H37Rv and a highly virulent Beijing strain of *M. tuberculosis*
- Imaged sites in the nucleus where splicing occurs
- Found that mRNAs travel as single molecules in dendrites of neurons
- Identified a F-box protein that functions as part of the SCF E3 ubiquitin ligase and is essential for fungal virulence in *Cryptococcus*
- Mutagenesis analysis revealed two major inositol transporters that are important for virulence in *Cryptococcus*
- Developed an inositol uptake method for yeast inositol transporter activity assays

- Identified a novel gas-based treatment that can potentially eradicate *M. tuberculosis* in hours, if not minutes
- Elucidated how reactive oxygen species help kill bacterial cells exposed to a variety of lethal stressors
- Integrated a novel protein kinase, the toxin-antitoxin modules, and the oxidative stress cascade into a common scheme that describes the bacterial stress-response
- Discovered that mice lacking TNF receptors lack aggressive behavior and are more sociable
- Localized and quantified intact, undamaged right handed double-stranded B-DNA, and denatured single-stranded DNA in normal Human epidermis and linked them to apoptosis and terminal differentiation (denucleation) in skin
- Identified aggressive basal cell carcinomas by their molecular signatures
- Developed biochemical assay for the diagnosis of a series of cases of Cockayne patients with negative molecular signatures
- Developed improved biochemical and immunohistochemical assays for Xeroderma Pigmentosum, Cockayne's syndrome, Trichothiodystrophy, and Ultraviolet Sensitive Syndrome
- Discovered that PHF10 is required for proliferation of human cells and is a component of both PBAF and BAF families of ATP-dependent chromatin remodeling complex in HeLa cells
- Discovered and demonstrated that PHF10 co-localizes with gamma-H2AX , p53BP1 and BRCA1 at DNA damage induced nuclear foci in human cells
- Discovered a type of deadenylase enzyme that regulates the mRNA levels of life-cycle specific protein in African trypanosome parasites
- Discovered that phosphorylation of RNA polymerase II is essential for cell survival in trypanosome parasites, which are ancient eukaryotic organisms
- Demonstrated the efficacy of a drug in inhibiting the invasion of mammalian cells by sporozoites of the malaria parasite, Plasmodium and blocking malaria infection in animals
- Developed genetic methodology to make Plasmodium parasites that lose gene function only during the mosquito stages of development
- Demonstrated that a cGMP dependent protein kinase is required for the Plasmodium parasites to exit infected liver cells
- Demonstrated that parasite mutants that do not express the kinase are arrested within the liver cells
- Demonstrated that Plasmodium parasites arrested in liver stages provide immunity against infection by sporozoites

- Participated in research that prepared and characterized 10 mutants of protein synthesis elongation factor Tu that are suitable for fluorescence resonance energy transfer (FRET) experiments with tRNA
- Investigated the role of genes involved in nuclear pore formation in nuclear and chromosome movement during meiosis in yeast
- Obtained preliminary evidence that several nuclear pore proteins might be involved in chromosome movement
- Obtained evidence that suggests that additional segments of yeast chromosomes are associated with the nuclear periphery during yeast meiosis
- Began to utilize new construct that causes chromosomes to fluoresce during yeast meiosis. This construct should enable us to visualize chromosomes both before and after pairing
- Demonstrated *in vitro* biological activities of several new *E. coli* EF-Tu mutants constructed through site-directed mutagenesis, including *in vitro* translation, tRNA protection and FRET
- Developed an improved method to purify tRNA which relies on a two-step reverse phase HPLC purification of the dye-labeled tRNA
- Developed a comprehensive strategy to determine endogenous plasmid profile of Lyme disease causing bacteria in the USA
- Compared adherence mechanisms of two highly pathogenic *Borrelia burgdorferi* strains
- Found that a mutation in the gene encoding a dual-functional surface protein, Bgp, of *Borrelia burgdorferi* causes a ten-fold reduction in colonization of the mouse tissues
- Identified a virulent factor of human cytomegalovirus that is responsible for viral replication *in vivo*
- Identified a tissue-tropic factor of varicella-zoster virus that is required for viral replication in skin and neurons
- Reported that a behaviorally inhibited temperament and female sex are independent susceptibility factors for acquiring avoidant behavior
- Discovered that acute low-dose progesterone treatments mildly facilitate associative learning in ovariectomized rats
- Demonstrated that a decrease in the levels of plasma membrane calcium ATPase isoform 2 (PMCA2) alone is sufficient to cause spinal cord neuronal death
- Established that PMCA2-induced death of spinal cord neurons is mediated via a decrease in collapsing-response mediator protein1 (CRMP1). This suggests that reduced PMCA2 levels could lead to cytoskeletal or dendritic abnormalities via modulation of CRMP1 expression



- Found that blockade of AMPA/kainate receptors at onset or peak of experimental autoimmune encephalomyelitis, an animal model of multiple sclerosis, restores decreased PMCA2 and CRMP1 levels to control values and ameliorates clinical symptoms
- Showed that activation of neuronal AMPA/kainate receptors causes a decrease in PMCA2 levels via calpain-mediated degradation
- Demonstrated that PMCA2-heterozygous mice show abnormalities in the function of Purkinje neurons of the cerebellum
- Generated and characterized polyclonal antibodies against neolacto-series gangliosides by immunizing rabbits with purified ganglioside LM1
- Established transplantation surgery into cleared mammary gland fat pads to test functional stem cell potential in vivo
- Discovered that the intermediate filament protein nestin expression in MMTV-Wnt-1 mammary gland tumors, with deletion of the tumor suppressors arf6/ink4 is expressed in a cell exhibiting epithelial to mesenchymal transition
- Discovered severe deficiency of GM1 ganglioside in dopamine neurons of Parkinson's disease subjects, which explains the therapeutic benefit of administered GM1 as replacement therapy
- Found that GM1-deficient mice with Parkinson's disease symptoms show significant improvement in physical impairment following L-dopa administration, strengthening that mouse as a physiologically relevant model of Parkinson's disease
- Found that the CD40+ subset of CD4+ T cells is lacking GM1 ganglioside in NOD mice, in contrast to Balb/c
- Discovered that CD4+ and CD8+ T cells express asialo-GM1 on their surface, suggesting interaction with galectin as part of autoimmune suppression
- Demonstrated that the shape of neuronal processes in areas controlling appetite may be influenced by diet and predilection to obesity
- Demonstrated that rats with a genetic predisposition to obesity show increased insulin producing cells and are an appropriate model for addressing questions arising in human obesity
- Demonstrated that the appetite suppressing hormone leptin can show increased activity when administered in conjunction with another hormone, amylin
- Demonstrated how the competition for food of rats raised in large litters interacts with their genetic tendency to gain weight to modify body weight control in later life
- Established that IGF-2 acting independently of the IGF type 1 receptor promotes neural stem cell growth
- Demonstrated that brain development is disturbed as a consequence of inflammation during recovery from hypoxia/ischemia

- Demonstrated that reactive gliosis can be inhibited by administering antagonists to the TGF $\beta$  receptor
- Published results showing that, in MS patients treated with interferon beta, neutralizing anti-interferon beta antibodies abolished bioactivity of the cytokine
- Showed that in MS patients neutralizing antibodies to interferon beta abolished the therapeutic effects of interferon beta on brain MRI scans
- Identified large numbers of immunoglobulin-containing cells in the CNS in the Theiler's virus model of MS, contradicting the commonly held notion that B-lymphocytes don't frequently traffic through the CNS
- Discovered, together with Dr. Jessica Roland, that new motor learning is delayed by highly specific GABA-ergic lesions
- Demonstrated that Vitamin D inhibits the differentiation of human Th17 cells
- Demonstrated that interferon- $\beta$  inhibits the differentiation of human Th17 cells
- Demonstrated that interferon- $\beta$  induces the production of the anti-inflammatory cytokine IL-27
- Localized the new synaptic protein, pikachurin, in retinal neurons and glial
- Recreated the injury response known as sprouting in photoreceptor cells by activating photopigment
- Discovered that insulin-like growth factor receptor is required for expansion of stem and progenitor cells in the mouse mammary gland
- Demonstrated that insulin-like growth factor 1 regulates progression of the cell cycle through G2/Mitosis phases in neural progenitor cells
- Discovered that the mammalian target of rapamycin (mTOR) signaling is activated during remyelination following a demyelinating insult in mouse brain
- Defined the pathway for excitotoxic cell death of immature glial cells
- Completed and published the first round of data regarding the prevalence of anti-neuronal antibodies in human sera and their potential role in neurodegenerative disease progression
- Completed studies demonstrating that brain-reactive autoantibodies in human sera are able to penetrate the blood-brain barrier and drive amyloid accumulation in neurons
- Identified seven putative antigen targets of the neuron-binding autoantibodies that are common in human sera
- Designed and filed a provisional patent application for a diagnostic test kit that detects and measures the amount of brain-specific autoantibodies in human sera
- Filed a provisional patent application for a therapeutic approach that selectively suppresses the production of specific brain-reactive autoantibodies through targeting the appropriate B cells

- Continued studies on a potential therapeutic strategy for treatment of neurodegenerative diseases that involves targeted B cell suppression and lowering blood levels of brain-reactive autoantibodies
- Completed and published studies demonstrating that neurons in the adult brain express vimentin as a damage-response mechanism that attempts to repair dendrite trees and their associated synapses
- Completed studies showing that diabetes and hypercholesterolemia cause blood-brain barrier breakdown and the leak of blood-borne antibodies into the brain
- Determined that darapladib (a test compound developed by Glaxo Smith-Kline and under patent by UMDNJ) blocks blood-brain barrier breakdown and plasma leak into the brain tissue
- Determined that darapladib blocks the deposition of amyloid beta peptide into the brains of diabetic and hypercholesterolemic pigs
- Launched a new biotechnology company, Durin Technologies, that will focus on developing and refining a diagnostic test aimed at detecting brain-reactive autoantibodies in the blood
- Characterized reporter gene silencing by the miR-290-295 microRNA cluster in mouse embryonic stem cells
- Developed methods for the experimental identification of microRNA targets in embryonic stem cells
- Characterized the molecular interfaces of RNA Polymerase complexes with transcript cleavage factor GreA and transcriptional regulator DksA by site-specific protein crosslinking and mutagenesis
- Identified the key residues in Gre, DksA and RNAP secondary channel required for specific Gre/DksA-RNAP interactions
- Discovered that bacterial transcription factors DksA and Gre target different classes of transcription complexes in vivo and in vitro
- Found that E. coli RNA Polymerase, in the absence of Gre factors, falls into a condition of promoter-proximal transcriptional arrest that prevents production of full-length transcripts in vivo and in vitro
- Characterized the molecular mechanism by which Gre factors facilitate transcription at PrpIN and PompX
- Showed that Gre prevent arrest by inducing cleavage of the 3'-proximal backtracked portion of RNA at the onset of arrested complex formation
- Showed that Gre stimulate productive transcription by allowing RNA Polymerase to elongate the 5'-proximal transcript cleavage products in the presence of substrates
- Developed a novel system to study mitochondrial transcription based on highly purified recombinant components, providing a better yeast model of human mitochondrial transcription

- Established that transcription factor Mtf1 plays a role in promoter specificity of the yeast mitochondrial RNA polymerase initiation complex
- Discovered that transcription factor TFB2 serves as a transient component of the catalytic site of human mitochondrial RNA polymerase
- Determined that only transcription factors TFA and TFB2 are required for human mitochondrial transcription initiation in vitro
- Filed a provisional patent application: "Detecting defects in human mitochondrial gene expression and identifying substances affecting mitochondrial transcription by catalytic auto-labeling "
- Discovered that polyadenylation acts as a surveillance mechanism in the transcription of ribosomal RNA in mammalian cells, suggesting a novel mechanism of action for certain anticancer drugs
- Found a previously unknown pathway for the turnover of mature cytoplasmic ribosomes using yeast cells as a model
- 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
- Delineated mechanisms that control tumor cell growth and migration in an effort to elucidate targets for cancer drug development
- Studied the process of transcript slippage, which is an important factor in the fidelity of gene expression in all organisms
- Studied the parameters that affect the frequency of slippage in a simple model transcription system (T7 RNA polymerase) and suggested mechanisms that may account for this phenomenon
- Demonstrated that the process of transcript slippage may play an important role in the process of transcription termination
- Uncovered mechanisms that contribute to recognition and response to the phenomenon of sequence-specific pausing and termination
- Found that RNA processing factor Mss116p also acts as a transcription elongation factor for mitochondrial RNA polymerase in yeast
- Discovered that a single dose of Lipoxin A4 could reduce systemic inflammation and bacterial load as well as increase survival in sepsis
- Discovered that Leukotoxin has preference for activated LFA-1 molecules on the surfaces of white blood cells

- Discovered the Leukotoxin is posttranslationally modified with fatty acid residues
- Identified biologically-derived enzymes for inhibiting and controlling *Staphylococcus aureus* biofilms
- Isolated a new antimicrobial compound from *Citrobacter freundii* which could be used against pathogenic bacteria
- Developed a new method for isolating novel biofilm-derived compounds for controlling pathogenic bacteria and biofilms
- 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*
- Isolated genes involved in *Pseudomonas aeruginosa* biofilm resistance to *Micavibrio* attack
- Isolated new genes involved in predator-prey interactions in *Bdellovibrio bacteriovorus*
- Discovered that *B. bacteriovorus* host-independent derivatives are capable of forming surface attached biofilms
- Examined the biological characteristics of *B. bacteriovorus* biofilms
- Developed a new method for isolating host-independent variants of *B. bacteriovorus* using *E. coli* auxotrophs
- Examined new shuttle vectors for yeast recombineering capable of replication in predatory bacteria
- Results of the study “Overweight Children: Assessing the Contribution of the Neighborhood Environment” published in *Preventive Medicine*
- Began detailed analysis of gene-environment interactions based on physiological and biochemical responses in people to the changes in air pollution levels in Beijing, China before, during and after the Olympic Games
- Carried out additional investigations of whether toxic chemicals can be absorbed from synthetic turf materials through unintentional ingestion
- In collaboration with the US Centers for Disease Control and Prevention completed the PhD study of breast milk and urine samples from 100 subjects to determine perchlorate concentrations

- Began a detailed study of 150 girls in a NJ cohort to examine the role of numerous environmental and genetic factors on initiation of puberty
- Identified knowledge barriers for preventing or reducing prostate and colorectal cancer in underserved minority populations
- Identified more effective strategies for cancer prevention and control in diverse urban populations
- Demonstrated more conclusively that increased air pollution levels are associated with an increase in heart attacks. Air pollution levels also affect asthma, hypertension and strokes in the same population
- Established evidence of the psychometric characteristics of the parsimonious Chinese version of the Smoking Self-Efficacy Survey (CSSSES-20)
- Delineated the psychometric characteristics of the HIV-Related Scales with rural African-American women
- Gathered input from clinicians, national professional organizations, and hospitals across the US on barriers and potential strategies for implementing routine HIV testing in acute care hospitals
- Developed and submitted recommendations for the elimination of perinatal HIV transmission in the U.S. to the White House Office of AIDS Policy for inclusion in the National HIV/AIDS Strategy
- Completed a pilot test in the Republic of Botswana of a faculty questionnaire about HIV and AIDS training needs in collaboration with the Botswana Health Training Institutions
- Established with the Botswana Health Training Institutions that the survey instrument and procedures were appropriate for full scale data collection
- Demonstrated through an initial pilot test that women infected or affected by HIV can meet in an in-person or an online web 2.0 group to develop and carry out community mobilization for women's self-care of health
- Completed a pilot test in Ethiopia of data collection instruments to evaluate the quality of HIV testing and counseling for PMTCT and client outcomes associated with the use of PMTCT Support Tools
- Drafted the Testing and Counseling for PMTCT Support Tools Evaluation Toolkit for resource limited settings in collaboration with the US Centers for Disease Control and Prevention
- Demonstrated that in order to readjust successfully to post-war life, combat veterans must resolve the incongruence between the meaning of war held by society and by veterans by transferring their meaning to the veteran community
- Demonstrated that mentoring nurses to write for publication would result in completed manuscripts to be submitted to nursing journals and magazines

- Continued research in the biochemical parameters of stress in pre-Type II diabetes in the ICAM Research Laboratory, within the newly established SHRP Interprofessional Health Reserch Labs, housed within the department of Clinical Laboratory Sciences
- Investigated Functional Magnetic Resonance Imaging and Cortical Stimulation to expand our understanding of cortical and subcortical neuronal mechanisms involved in learning and control of human motor skill

## TRANSLATIONAL RESEARCH

- Continued studies of differential immune cell gene expression in endotoxemic normal subjects and critically ill patients using microarray and advanced bioinformatics technologies
- Continued studies in human volunteers investigating the effect of enteral versus parenteral feeding on gene expression in purified immune cells (monocytes, T-lymphocytes and neutrophils) using microarray and advanced bioinformatics technologies
- Completed studies investigating the effect of epinephrine pretreatment on monocyte, T-lymphocyte and neutrophil gene expression profiles in volunteers administered endotoxin in vivo
- Continued to investigate the relationship between polymorphisms in toll-like receptor 4, MDM2, and MIF on the response to in vivo endotoxin challenge in normal human volunteers
- Continued studies of time-related changes in heart rate variability in human volunteers challenged with intravenous endotoxin
- Continuing studies to assess influence of time-of-day/diurnal responses to endotoxin in humans
- New initiatives to define the influence of sterile and endotoxin stressors on human circadian gene expression and immune cell function
- Initiated studies of gene expression by microarray analyses in blood leukocytes and purified subsets of blood leukocytes (monocytes, T-lymphocytes, neutrophils) after varying doses of intravenous endotoxin administration to human volunteers
- Initiated studies of the differential regulation of monocyte and neutrophil cell-surface receptors associated with the inflammatory response in human volunteers after pretreatment with glucocorticoid hormone by intravenous infusion for 24 hours followed by intravenous endotoxin administration
- Initiated studies of gene expression by microarray analyses in blood leukocytes and purified subsets of blood leukocytes (monocytes, T-lymphocytes, neutrophils) in human volunteers after pretreatment with glucocorticoid hormone by intravenous infusion for 24 hours followed by intravenous endotoxin administration
- Initiated use of the FACSCanto II flow cytometer for assessment of plasma/serum cytokines using cytometric bead array (CBA) technology

- 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
- Determined that constitutive recycling of FN integrin,  $\alpha 5 \beta 1$  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
- Identified that the ubiquitin-proteasome is pathway required for alpha5 integrin degradation in the absence of FN
- Determined that alpha 5 integrin is Ubiquitinated- most likely by c-Cbl which co-immunoprecipitates with the integrin in the absence of FN
- Using mutational analysis, identified key lysine residues in the alpha 5 integrin cytoplasmic tail that, when mutated to alanine, confer protection from degradation
- Generated a GFP-expressing Dunning rat prostate cancer cell line
- Worked out the percentage of prostatic fibroblasts required to generate spherical co-cultures of Dunning CaP cells
- Performed TST measurements of MLL, AT2 and JHU prostate cancer cell aggregates
- Validated the TST measurements by demonstrating that aggregate surface tension is force and size-independent
- Generated and characterized a MLL-E-cadherin expressing cell line
- Demonstrated that E-cadherin transfection markedly reduces aggregate spreading velocity
- Assessed fibronectin matrix assembly (FNMA) by Dunning rat prostate cancer cells and showed that FNMA is correlated with invasiveness
- Showed that regulators of FNMA such as  $\alpha 5$  integrin and syndecan-4 are down-regulated in aggressive rat and human prostate cancer cell lines
- Demonstrated that over-expression of  $\alpha 5$  integrin restores FNMA in aggressive CaP cells
- Showed that disruption of the MAP Kinase pathway by MEK inhibition restores FNMA by aggressive CaP cells
- Showed that disruption of the MAP Kinase pathway by MEK inhibition promotes aggregate compaction by aggressive CaP cells
- Isolated and characterized rat prostate smooth muscle and fibroblast cells
- Acquired and characterized cadherin, integrin, and matrix assembly capacity of 3 new human prostate cancer cell lines
- Established and tested a miscibility model to study prostate cancer-stromal cell interaction in vitro



- Generated human prostate cancer cell lines expressing chimeric integrin receptors
- Acquired and characterized 2 human prostate cancer cell lines, ARCaPE and ARCaPM
- Performed sorting assays between CHO cells expressing different chimeric  $\alpha 5$  integrin molecules
- Showed that cells expressing  $\alpha 5$  integrin extracellular domain and cytoplasmic domain segregate from parent cell line
- Showed that cells expressing  $\alpha 5$  integrin extracellular domain and  $\alpha 2$  integrin cytoplasmic domain intermix with parent cell line
- Demonstrated that fibronectin matrix correlates with sorting behavior
- Measured surface tension for all chimeric cell lines
- Initiated sorting experiments with N-cadherin/ $\alpha 5$  integrin double transfectants and parent cell lines
- Showed that  $\alpha 5$  integrin and soluble fibronectin can both control tissue biomechanical properties
- Demonstrated that overexpression of  $\alpha 5$  integrin alters the biomechanical property of a tissue from that of a viscous liquid to that of an elastic solid
- Showed that under such conditions, co-expression of N-cadherin can revert the elastic property to that of a viscous liquid
- Demonstrated that this could also influence spatial relationships between cell populations
- Published a paper in which we present a 3D computational model of integrin-based cohesion
- Performed a series of experiments in which we demonstrated the interplay between  $\alpha 5$  receptor number and soluble fibronectin concentration on aggregate material properties
- Demonstrated that this interplay can shift mechanical properties from liquid to elastic
- Showed that depletion of sFn from the microenvironment can also shift an elastic aggregate to a more liquid one
- Showed that highly aggressive brain tumor cell lines cannot assemble fibronectin into a matrix
- Demonstrated that treatment with dexamethasone restores this ability
- Developed an assay to quantify brain tumor dispersal onto ECM components
- Showed that Dex-treatment markedly reduced dispersal velocity
- Explored the role of the ECM in mediating brain tumor dispersal velocity
- Performed tumor dispersal assays to measure spreading velocity on specific substrates

- Tested the efficacy of a 70KDa fragment of fibronectin to block matrix assembly
- Determined the effect of 70KDa treatment on dispersal velocity
- Showed that beta cells express the anti-angiogenic protein EMAPII
- Initiated studies to modify EMAPII expression and to determine effects on vasculogenesis of aggregates of beta cells
- In collaboration with the laboratory of Dr. Margaret Schwarz, showed that embryonic mouse lungs possess the capacity of self-assembly
- Measured aggregate surface tension of self-assembled lung cells
- Showed that EMAPII reduced aggregate surface tension
- Demonstrated that the effects of EMAPII were predominantly altering cohesion of the mesenchymal cell population
- Showed that EMAPII altered epithelial cell polarity
- In collaboration with the laboratory of Dr. Eva Maria Schoetz (Princeton Univ) showed that aggregate surface tension arises as a result of both adhesion molecule expression and cortical tension
- Generated Five CD70 Knock-Out chimeric mice. Germ line transmission is being now tested. If confirmed, we will be the first to generate such a deficient mouse model
- Established colonies of Eight TCR-transgenic mice strains (MTA protected lines) for adoptive transfer experiments and construction of bone marrow chimeric mice
- Performed in vitro studies to generate subsets of T cells that are involved in active immunity and cell suppression (Th1, Th2, Th17 and Treg)
- Measured cell surface markers, chemokine receptors, cytokines and transcriptional factors
- Ongoing studies to define the role of CD70 costimulation in the function and proliferation of Th1, Th2, Th17, and Treg in in vitro as well as in vivo studies
- Initiated collaborations to get key reagents for the project: Southampton Univ (England), NIH and Michigan Univ (USA), Toulouse Univ (France), and Amsterdam Univ (Netherlands)
- Produced large stocks of Five different recombinant listeria (10<sup>14</sup> CFU) for oral feeding experiments (to be used for tolerance and infectious studies)
- Ongoing studies to assess if soluble CD70 (sCD70) is increased in IBD animal models and patients (if confirmed, it can be used as a tool for IBD detection that is affordable and quick to assess)
- Identified (in collaboration with Dr. Guna's team, CINJ, microarray service) the best strategy to determine the origin of the newly identified CD70-APCgut

- Established a colony of Rag-knock-out mice to get ~100 animals for CD70-APCgut isolation
- Isolated and characterized CD70-APCgut in the intestines of wild type and immunocompromised strains
- Established aged mice colonies to assess the presence and study the function of CD70-APCgut in neonate, adult and old mice
- Generated a GFP-expressing colon C26 cancer cell line
- Generated GFP-expressing tumor associated antigen (TAA)-colon cancer cells
- Isolated and characterized T cell subsets in the colon of mice
- Initiated a collaboration with the tissue retrieval service (CINJ) to assess the presence of the newly identified CD70-APCgut in human samples of healthy and colon cancer patients
- Established collaboration with members of the Surgery Department to identify the strategy of the study
- Acquired all key reagents for the study
- Advised and collaborated with Vikas Nanda (Department of Biochemistry) on his R21 application: Awarded by the NIH on March 16th, 2010
- Advising and collaborating with Richard D. Ludescher (Department of Food Science Biochemistry) on his USDA grant proposal
- Found that breast cancers in women carrying a germ line BRCA1 mutation have abnormalities in maintenance of a normal Xi and intriguingly most sporadic basal-like cancers (basal-like breast cancer) were similar to BRCA1-associated breast cancers in that they also lacked a normal Xi-associated heterochromatic superstructure and Xi CpG island methylation

## CLINICAL SCIENCES

- Completed and published a study on the evaluation of 53BP1 polymorphisms on locally recurrent breast cancer
- Completed and published a study on the role of 53BP1 protein on relapse free survival in breast cancer
- Completed and published a study on the role of a BCL-2 family protein on recurrence free survival in breast cancer
- Completed basic science experiments and abstracts related to radiation sensitizing effects of Riluzole in breast cancer and melanoma
- Completed basic science experiments and abstracts related to radiation sensitizing effects of anti-BCL2 therapy in breast cancer

- Investigated the roles of a BRCA2 interacting protein BCCIP in the protection of genomic integrity, embryonic development, and neurological development
- Initiated a study to identify the potential functions of a previously uncharacterized protein SETD4 in DNA damage response
- Conducted a characterization of the genetic defects in a case of Dubowitz Syndrome
- Completed and published candidate gene association studies identifying genetic variants in the cancer related genes 14-3-3tau, CD44, PPP2R5E and MDM4 that associate with cancer incidence and survival
- Completed and published a systems biology model of energy metabolism in cancer cells
- Completed and published a theoretical model predicting an optimal cytoplasmatic density maximizing the cell metabolic rate
- Completed and published a theoretical model describing the dynamics of cell regulatory networks
- Completed and published preliminary results of a Phase I/II clinical trial on partial breast irradiation using Acculoc seeds to increase day to day reproducibility and accuracy of treatment
- Completed and published a study investigating the improvement in inter-observer accuracy in the delineation of the lumpectomy cavity with fiducial markers
- Completed and published outcomes of patients with DCIS stratified by low-risk criteria
- Completed and published the acute toxicity in patients treated with concurrent bevacizumab & radiotherapy
- Completed the development of a Radiation Oncology Quality Improvement Initiative (ROQII)
- Completed and published a study investigating the utilization of radiotherapy in Stage 0-2 breast cancer patients treated in New Jersey
- Completed and published a study demonstrating increased rates of nodal failure in patients overexpressing MDC-1
- Completed and published a study on the clinicopathologic presentation of Asian-Indian American women with stage 0-2 breast cancer
- Identified the oxidative stress sensor KEAP1 as a direct PALB2 interaction partner, characterized the role of PALB2 and BRCA2 in oxidative stress response
- Identified an important DNA replication factor as a BRCA2-binding protein, mechanistic studies are underway
- Continued to breed mouse models for studying PALB2-associated breast cancer and role of autophagy in hereditary breast cancer

- Generated a “knockin” mouse strain harboring a Palb2 mutation that disrupts its binding to BRCA1. The strain will be highly useful in evaluating the importance of homologous recombination in development and tumor suppression
- Performed kinome siRNA screen to identify possible drug targets that may be used to improve current targeted therapy of BRCA-associated breast cancer
- Identified that GLS2 is a novel p53 target gene, which can regulate cellular antioxidant function and energy metabolism in liver cancer cells
- Identified that miR-504 is a novel miRNA targeting p53 protein, which can negatively regulate p53 functions in apoptosis and cell cycle arrest
- Investigated the role and molecular mechanisms for LIF in negatively regulating p53 function in breast cancer cells
- Demonstrated the prognostic value of p16 expression in laryngeal cancer patients treated with radiation
- Showed that cigarette smoking increases the risk of contralateral breast cancer and second primary malignancies in women treated with breast conserving therapy
- Demonstrated the prognostic value of p53 expression in patients treated with breast conserving therapy
- Discovered that increased stability of RNA produced by the Human T-cell Leukemia Virus type 1 is responsible for increased viral gene expression and contributes to pathogenesis
- Discovered that immune activation leads to immortalization of CD4+ T cells carrying the Human T-cell Leukemia Virus type 1 Tax oncogene
- Showed expression of PDCD2, a novel gene associated with leukemia, in developing embryos
- Demonstrated the safety, and defined the phase II dosing, of the regimen of paclitaxel and Velcade in patients with refractory malignancies and resulted in stable disease and regression in some cases
- Established, through the study of a PSA viral vaccine in patients with PSA progression after local therapy without metastasis, the schedule of this vaccine with a prime and boost approach sequentially using vaccinia followed by a fowlpox boost
- Evaluated intravesical recombinant Fowlpox-GM-CSF (rF-GM-CSF) and / or Fowlpox-Tricom (rF-TRICOM) and demonstrated initial evidence for biological and clinical activity
- Showed that orally administered Riluzole had few toxic side effects and can provide clinically evident tumor responses in 34% of patients after only two weeks of administration
- Demonstrated there was no statistically significant decrease in headache recurrence in patients treated with steroids for migraine headaches
- Found a new ultrasound procedural technique for starting difficult IVs. On the ultrasound screen teardrops are a good sign: the needle is in the vein

- Demonstrated Naloxone's use in cardiac arrest in suspected opioid overdosed patients is associated with a change in cardiac rhythm
- Demonstrated Continuous Cardiac Index (CCI) monitoring can provide information to assist in hemodynamic support. This calibrated minimally invasive technique demonstrated low bias compared with CCI measured by PAC
- Demonstrated some of the clinical and electrocardiographic features that will help early diagnosis and differentiation of inflammatory cardiac disorders from other more common conditions
- Demonstrated the dilution of oral contrast media with lemonade, fruit punch, or orange juice is tastier than with water
- Showed the use of computed tomography scans has reduced negative appendectomy rates when combined with a physical examination, and assists in ruling out appendicitis
- Found a new method using one's fist to determine external blood loss. We demonstrated the use of the MAR Method improves blood volume estimations
- Demonstrated that intranasal naloxone is statistically as effective as IV naloxone at reversing the effects of opioid overdose. IN naloxone is a viable alternative to IV naloxone while posing less risk of needle stick injury
- Demonstrated that Babesiosis and other arthropod born illnesses should be considered in immunocompromised patients presenting with fever in the absence of localizing signs or symptoms
- Demonstrated that patient-reported height is the best bedside method to estimate true height to calculate ideal body weight compared to Physician and nurse a regression formula
- Found in the pre-hospital setting, stainless steel blades were superior to plastic disposable blades
- Demonstrated Antiemetics play an important role in the pre-hospital setting. Alleviating nausea and vomiting results in patients who are easier to treat
- Showed extensive review of causes, physiology, and management of hyponatremia and future management with V-2receptor antagonists
- Demonstrated increased bronchial hyper-responsiveness in asthmatics after inhalation of diesel exhaust
- Demonstrated the impact of air pollution in Beijing, China on airway resistance in healthy human subjects
- Demonstrated changes in exhaled breath condensate oxidative stress and systemic inflammatory markers from drastic changes in ambient Beijing air pollution
- Showed marked gene expression changes following diesel exhaust inhalation in healthy human subjects

- Showed decreased proteasome activity following diesel exhaust inhalation in healthy subjects
- Completed data collection for a study of the effects of shift work on circadian biomarkers
- Demonstrated increased nitrite in exhaled breath condensate after controlled diesel exhaust exposure
- Demonstrated reduced particulate matter exposure in a passenger vehicle on the New Jersey Turnpike with the ventilation system closed
- Showed changes in heart rate variability among older persons with diabetes following a car ride on the New Jersey Turnpike during morning rush hour traffic
- Demonstrated increased symptoms during controlled exposure to diesel exhaust, which were associated with higher levels of self-reported chemical odor intolerance
- Showed that respiratory symptoms were not associated with modeled WTC plume strength in areas outside of lower Manhattan
- Discovered a negative dose response relationship between lifetime solvent exposure and functional imaging activation patterns during performance of a working memory task
- Demonstrated neurobehavioral performance deficits among workers chronically exposed to solvents
- Validated a lifetime solvent exposure index with neurobehavioral performance among workers chronically exposed to solvent mixtures
- Documented performance standards for neurobehavioral testing of Thai children
- Demonstrated that DNA barcoding allows species-specific determination of mercury and other contaminant levels in tuna, with highest levels in tuna favored for sushi
- Expanded concept of environmental justice to include the intersection of social and physical risk factors: residence location, low income, low education, hazardous occupations, as well as minority status
- Demonstrated that biomedical research continues to slight sex and gender as variables, leading to continued health care disparities
- Described racial differences in adjuvant systemic therapy of early breast cancer among Medicaid beneficiaries
- Determined that there was a high prevalence of negative attitudes toward extremely obese patients among family physicians
- Determined that many family physicians faced difficulties in performing breast exams and Pap smears on extremely obese patients and overcoming patient barriers and refusal
- Described how improving practice relationships among clinicians and non-clinicians can improve quality in primary care

- Disseminated a Survivors Guide for primary care physicians faced with challenging practice conditions
- Described differences and similarities in breast, colorectal and prostate cancer screening for cancer survivors and non-cancer patients in community primary care practices
- Evaluated chronic illness care quality in US and UK family medicine practices prior to pay-for-performance initiatives and found that UK practices provided more standardized diabetes care but did not achieve better intermediate outcomes than a sample of typical US practices
- Demonstrated that higher global scores of patient centered medical home (PCMH) principles, in particular personal physician, whole person orientation, and linking of patients to community resources, are associated with higher preventive services delivery in community primary care practices
- Demonstrated that integrating a new role into primary care practices requires adequate workspace, change in workflow, communication among practice members, and sufficient financial resources
- Described a new meeting approach primary care practices can use to solve everyday problems
- Described methods evaluating practice change towards a patient-centered medical home (PCMH) that can be used in intervention studies
- Demonstrated that the journey to the patient-centered medical home (PCMH) requires fundamental change in roles and identities of all practice participants
- Described a relationship-centered approach to primary care practice development
- Summarized the findings from the nation's first National Demonstration Project of the patient centered medical home (PCMH) and made policy recommendations
- Compiled a comprehensive list of measures for defining and measuring the patient-centered medical home (PCMH)
- Evaluated the effects of facilitation on practice outcomes in the National Demonstration Project Model of the patient-centered medical home (PCMH)
- Described facilitator impact during a quality improvement process
- Determined how men make decisions regarding prostate cancer screening, diagnosis, and treatment
- Showed that cancer survivorship follow-up care models and plans should be based on evidence of efficacy and effectiveness
- Showed in a multi-site study how intraclass correlations can be used to identify proper sample size for group randomized trials of cancer screening
- Demonstrated crude and adjusted intraclass correlation estimates for cancer screening outcomes for various levels of aggregation (physician, clinic, and county)



- Demonstrated that relationship-centered aspects of Patient Centered Medical Home are more highly correlated with preventive services delivery than are information technology capabilities in community primary care practices
- Showed that demonstration projects and tools that measure Patient Centered Medical Home principles should have greater emphasis on relationship centered aspects of primary care
- Demonstrated that modest levels of chronic care model implementation in unsupported primary care practices are associated with improved care for patients with diabetes and higher rates of behavioral counseling
- Discovered that incremental incorporation of chronic care model components is an option, especially for community practices with stretched resources and with cultures of "innovativeness"
- Developed a model of the barriers and predictors of engagement in quality improvement in primary care practice that involves understanding the relationships between inclusive leadership, psychological safety, and professional status and engagement in quality improvement
- Identified four overarching approaches for coordinating health behavior counseling in primary care. Demonstrated that two of the approaches (proactive referral and traditional referral) could be implemented in primary care and showed promise for health behavior change
- Demonstrated that teachable moments in the primary care encounter share three features: 1) the presence of a salient concern that is relevant to unhealthy behavior, 2) a link that is made between the patient's salient concern and a health topic that attempts to motivate change, and 3) a response from the patient indicating an interest in and commitment to change
- Demonstrated that the success of the teachable moment rests on the physician's ability to identify and explore the salience of patient concerns, and recognize opportunities to link them with unhealthy behaviors
- Demonstrated that the skills necessary for accomplishing teachable moments are well within the grasp of primary care physicians
- Showed that more integrated health systems and those implementing more intensive disease management strategies and using financial incentives related to quality achieved higher levels of diabetes care processes but not better intermediate outcomes
- Found that for patients with diabetes primary adherence to insulin therapy may be improved through better provider communication regarding risks, shared decision making, and insulin self-management training
- Discovered that primary care physicians feel that barriers to cardiovascular risk factor control for patients with diabetes often were beyond their abilities to address
- Identified that training physicians or other members of the primary health care team to address patients' personal barriers and health system barriers to good control could help alleviate high frustration levels, improve relationships with patients, and improve the treatment of diabetes

- Discovered that patients whose physicians prefer more patient involvement in decision-making are more likely than patients whose physicians prefer more physician-directed styles to receive some recommended risk factor screening tests but involving patients in treatment decision-making alone is not sufficient to improve biomedical outcomes
- Found that diabetes treatment intensification improved glycemic control with no worsening of anxiety/depression or health status, especially in elderly, lower-income, and minority patients
- Demonstrated that the incorporation of a shared care plan into primary care practice is possible using motivational interviewing and knowledge management techniques as triggers for implementation
- Demonstrated that a diverse population can effectively execute the usage of the Resperate Breathing device which we propose will help to lower their ambulatory blood pressure
- Demonstrated the utility of plasma cell separation in plasma cell myelomas prior to detection of cytogenetic abnormalities by fluorescent in situ hybridization (FISH)
- Described a new chromosome rearrangement in renal oncocytomas between chromosomes 6 and 9
- Developed and tested a quick, reliable approach for detecting and tracking tumors in deformable organs, e.g. liver and breast across consecutive patient visits to automatically measure response to treatment
- Conducted study to investigate the angiogenic response to selective internal radiation therapy
- Investigated the use of high-resolution multi-spectral imaging for detecting and classifying cancer in pathology specimens
- Established an online flow cytometry data analysis website ([www.flowcytometryonline.com](http://www.flowcytometryonline.com)) where a combined clustering approach was used to cluster flow cytometry data in Hematologic malignancies
- Demonstrated that Prox1 protein is in significant amounts in developing and adult human central nervous system and meningiomas, with localization in cytoplasm, which has not been reported previously
- Showed that I-Z-I complexes, known previously only in early fetal striated muscle development, actually are present in a variety of muscular dystrophies
- Demonstrated disparity in hospital utilization of rapid HIV-1 testing for women in labor with undocumented HIV status
- Evaluated the efficacy of inhaled compared to oral corticosteroids for acute asthma exacerbation in children
- Demonstrated regional tissue oxygenation in association with duration of hypoxaemia and haemodynamic variability in preterm neonates

- Demonstrated the association of TNF- $\alpha$  with the severity of non-motor symptoms in Parkinson's disease
- Demonstrated the superiority of nortriptyline over placebo in the treatment of depression in Parkinson's disease
- Demonstrated the superiority of eszopiclone over placebo in the treatment of insomnia in Parkinson's disease
- Reported that professional airplane pilots increase ventilation and sometimes hyperventilate during stressful maneuvers in a flight simulator
- Reported that adding cardiovascular activity assessment to self-report measure produces better prediction of workload in flight simulator tasks than self-report measures of workload alone
- Reported a greater prevalence of panic disorder among Hispanic patients with asthma than among asthma patients from other ethnic groups
- Reported that sighing can reset respiratory regulation, producing an increase in autocorrelation of breath times
- Found that heart rate variability biofeedback decreases amount of multiple unexplained symptoms and also decreases symptoms of depression
- Found that heart rate variability biofeedback modulates decreases in autonomic activity produced by infusion of inflammatory endotoxin
- Found that anxiety, depression, and substance abuse are related to higher levels of ventilation and a greater tendency to breathe thoracically rather than abdominally
- Showed the value of combining text mining with hierarchical classes analyses (HICLAS) for determining the role of complex emotions in inconsistent diagnoses of schizophrenia
- Demonstrated that three or more concurrent somatic symptoms, whether medically unexplained or not, predict psychopathology and service use in community populations
- Demonstrated that cognitive functioning is associated with antidepressant treatment response in Parkinson's disease
- Demonstrated that antidepressant treatment significantly improved the core mood, anxiety, somatic, and insomnia symptoms seen in depression in Parkinson's disease, including those with great overlap with the disease process
- Demonstrated that impulsive smoking is an impulse control disorder that can occur in Parkinson's patients treated with dopamine agonists
- Discovered Higher Serum Caffeine In Smokers With Schizophrenia Compared To Smoking Controls
- Contributed to the science on the efficacy and safety of Varenicline versus placebo in smokers with schizophrenia and schizoaffective disorder

- Contributed to the science on the efficacy and safety of Selegiline versus placebo in smokers in the community
- Participated in collaborative study of the effects of enteral vs. parenteral feeding preceding endotoxin in human subjects
- Participated in collaborative project for approval to evaluate efficacy and safety of Ambrisentan in subjects with early idiopathic pulmonary fibrosis
- Participated in collaborative Phase/II trial of Letrozole and Sorafenib in postmenopausal women with hormone-receptor positive locally advanced or metastatic breast cancer
- Participated in collaborative study on cerebral venous insufficiency and acute multiple sclerosis lesions
- Investigated changes in liver and spleen volumes and liver function following radioembolization with Yttrium-90 resin microspheres
- Investigated liver injury related to radioembolization
- Investigated correlation of pre- and post-procedure imaging with response to Yttrium-90 radioembolization
- Developed project on prospective analysis of ultrasound in diagnosing craniosynostosis with three-dimensional head CT as control
- Developed retrospective analysis correlating factors predicting positive bleeding seen in mesenteric angiography after positive NM GI scan
- Investigated the relationship between status of autonomic and vagal nerve activity during the course of critical illness in surgical patients
- New initiative to define “decomplexification” of circadian signals in patients with severe injury and infection
- Ongoing studies to define the influence of route of feeding upon heart rate variability parameters in critically-ill patients
- Developed real-time monitoring technology for parameters of HRV
- Demonstrated that IFN-beta inhibits expression of CCR7 and secretion of CCR5 chemokine ligands by plasmacytoid dendritic cells in patients with multiple sclerosis
- Discovered a new type of acute demyelinating lesions with restricted diffusion in patients with multiple sclerosis
- Discovered that several genes involved in endocytosis and lysosomal sorting are associated with control of onset age in Parkinson’s disease
- Concluded that that at a moderate but not a high dosage, the monoamine oxidase B inhibitor rasagiline appeared to slow the progression of early Parkinson’s disease
- Found that the threshold for initiating dopaminergic treatment of Parkinson’s disease declined from the 1980s to the 2000s

- Developed biomarkers that predict clinical response to treatment of multiple sclerosis
- Discovered a new mechanism of action for Glatiramer Acetate therapy in multiple sclerosis which involves Interleukin-27
- Discovered a novel strategy to down-regulate alpha-synuclein protein levels, which accumulates in the brains of patients with Parkinson's disease
- Demonstrated a new mechanism by which DJ-1 protects cells by regulating the redox protein thioredoxin 1, a physiological function that is lost with a Parkinson's disease causing mutation
- Showed that increased expression of the chronic transcription factor DeltaFosB in the striatal brain region of rats leads to involuntary movements similar to those seen in chronically treated Parkinsonian patients
- Discovered that the pattern and frequency of risk factors in SIDS cases remain similar over two eras, despite declining rates of SIDS
- Discovered that the rate of bed sharing in SIDS cases rose over two eras, reflecting infant care habits in living infants
- Discovered that the majority of premature infants who died of SIDS had potentially modifiable risk factors present in the sleep environment including non-supine sleep in over 60% of cases and paternal smoking in 50% of cases
- Demonstrated that more than 96 percent of infants who died of SIDS were exposed to unknown risk factors
- Found that the intensity of self-reported parental grief following a sudden infant death is greater when there has been a history of miscarriage
- Found that prenatal mental illness decreases the likelihood that mothers have health insurance one year after they give birth, while prenatal physical illness increases the likelihood that they are insured one year post-partum
- Found that phthalate plasticizers exert activate white blood cells in newborns, possibly contributing to inflammatory diseases, including bronchopulmonary dysplasia
- Discovered that phthalate plasticizers are present in high concentrations in the urine of pregnant women, with possible effects on the health of newborns
- Discovered that vitamin D plays a role in dampening neutrophil responses in neonates, possibly protecting them from inflammatory diseases
- Determined that mental illness is a risk factor for uninsurance among mothers of infants
- Quantified regional tissue oxygenation in association with duration of hypoxemia and haemodynamic variability in preterm neonates
- Demonstrated that prolonged prone positioning increases intraocular pressure, choroid layer thickness, and optic nerve diameter independent of anesthetics and intravenous fluid infusion

- Discovered that the circulating cell-free microRNA-1 is a novel biomarker in acute myocardial infarction
- First published study on a new oral therapy, Cladribine, a highly effective and safe treatment for relapsing MS
- First head-to-head study of Betaseron vs. Copaxone in multiple sclerosis. Shows significantly fewer destructive lesions (persistent black holes) with Betaseron
- Largest trial study ever done in multiple sclerosis showing no difference in clinical outcomes between different doses of Betaseron and Copaxone
- Discovered that adolescents expressing behaviorally inhibited temperament acquire defensive associations faster than those with uninhibited temperament. These studies support our overall hypothesis that vulnerability is expressed as facilitation of defensive learning, leading to frank psychopathology
- Reported on a new immunodominant antigen of *Toxoplasma gondii* recognized by CD8 T cells
- Discovered MHC-Class I tetramers containing the immunodominant peptide epitope revealed subsets of memory and effector cytotoxic T cells induced by vaccination with an auxotrophic vaccine strain of *Toxoplasma*
- Discovered a new drug which inhibits an essential enzyme in *M. tuberculosis*
- Discovered the probable mechanism of action of SQ109, a new anti-tuberculosis drug currently in human trials
- Identified genes in *M. tuberculosis* that are necessary for development of drug resistance during TB treatment
- Described new mutations responsible for ethambutol resistance in *M. tuberculosis*
- Identified gene expression patterns in *M. tuberculosis* that segregate with different evolutionary lineages
- Developed an improved method to detect disease causing bacteria in patients' blood
- Identified and characterized a repurposed drug, currently used for parasitic diseases, that shows promise for the treatment of latent tuberculosis
- Described the US HIV epidemic as a series of microepidemics with HIV prevalence rates in US HIV hotspots similar to some countries of sub-Saharan Africa
- Continued to collect data on the correlation between the use of Proton-Pump Inhibitors and *Clostridium difficile*-associated diarrhea in nursing home patients
- Discovered that there is not a relationship between the amount the elderly exercise and the degree to which they feel physically attractive and physically functional
- Initiated a study of end-of-life care preferences among Muslims in America

- Initiated a study on urinary catheterization without medical indication in the elderly hospitalized patient
- Examined if there is an association between serum vitamin A and pregnancy outcomes
- Investigated differences of circulating free fatty acids composition in pregnant women with gestational diabetes or mild hyperglycemia
- Investigated circulating vitamin D level and influence on fetal growth
- Examined if increased maternal inflammatory response is correlated with fatty acids composition and dietary fat intake
- Evaluated the effect of a required minimum body fat with standardized mandatory body fat analysis and hydration testing on the attitudes and behaviors of high school wrestlers
- Assessed physician knowledge and perception of the need for drug disposal guidelines and determined that only 25% had received any training about disposal guidelines
- Determined that physician perception of patient knowledge regarding hypertension does not always accurately reflect true patient knowledge of the disease
- Determined that patients are not reporting to their physicians potentially important health-related behavioral changes due to use of health-oriented websites
- Demonstrated that many collegiate rowers have poor body image, misperceptions, and preoccupation about their body weight indicating education is needed to promote healthy dietary habits
- Demonstrated that physicians should consider a more robust screening program for patients with sexual dysfunction to identify potentially reversible causes which may improve quality of life
- Developed a website to assist physicians to efficiently and effectively use evidence-based resources at point-of-care
- Discovered the relationship between osteopathic manipulation and quantitative changes in gait pattern; published in JAOA, the Journal of the American Osteopathic Association
- Demonstrated that parents educating their children inappropriately focus on strangers as potential offenders, but children are much more likely to be sexually abused by individuals they know and trust
- Demonstrated that parents with some personal knowledge about child sexual abuse generally provide more detailed and accurate information
- Investigated the effect of cationic polymer treatment on the adhesion of charged particles to dentin
- Demonstrated in a longitudinal clinical study of over 225 Newark NJ school children that previous caries experience was a strong predictor of future caries; examined in the same study the value of subtle tooth color changes in assessing caries risk
- Examined the efficacy of various commercially available caries detector devices using in vitro tests

- Explored the potential use of charged particles as dental drug delivery systems in laboratory experiments. Filed a provisional US patent application describing a drug delivery system
- Discovered association of human leukocyte antigens with nasopharyngeal carcinoma in high-risk families with two or more close relatives affected by this cancer
- Demonstrated that nasopharyngeal carcinoma (NPC) aggregates within families but occurrences of other cancers are independent of NPC
- Showed that genetic variation in the G protein b3 subunit gene (GNB3) modulates interindividual variation in b-blocker responses
- Started research investigating ergonomic practices associated with microscope use among cytotechnologists
- Studied the use of a novel nanoparticle delivery system to enhance the cytotoxicity of chemotherapy in pancreatic and breast carcinoma
- Explored the impact of Medical Nutrition Therapy among Hispanic women diagnosed with Type 2 Diabetes Mellitus in Puerto Rico
- Explored the effect of peer-counseling in nutrition on clinical and behavioral outcomes in college-age adults
- Received funding and initiated study of markers of stress and inflammation in adults with pre-Type 2 diabetes
- Explored the levels of practice in nephrology care using a Delphi Study
- Completed laboratory analysis of cortisol and DHEA-S levels in serum and saliva samples as part of funded study of markers of stress and inflammation in adults with pre-Type 2 diabetes
- Entered subject recruitment, treatment and assessment phase of UMDNJ pilot clinical trial comparing guided imagery and relaxation techniques to music listening as adjuncts to preparing and recovering from orthognathic (jaw) surgery
- Developed pilot project for study of yoga intervention specifically tailored for people with multiple sclerosis
- Presented systematic review of research on biomarkers as outcomes in mind body therapies at international symposium on yoga therapy and research
- Completed year one of a \$1,400,000 R01 grant from NIH's National Center for Complimentary and Alternative Medicine to undertake a dose-finding trial for massage therapy as a treatment for osteoarthritis of the knee, with recruitment completed at both sites
- Built and tested a virtual reality augmented cycling kit
- Demonstrated that the use of mental practice improves walking for people post stroke



- Characterized the neural reorganization that occurs in stroke survivors after training in virtual reality environments
- Studied the use of robotically assisted virtual reality to augment UE function in individuals post CVA

## EDUCATIONAL RESEARCH

- Completed 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
- Designed, with James Galt (RWJMS Education Office) a novel directed nutrition literature assignment
- Found medical students developed a significantly improved understanding of pre-hospital care after a 4th year clerkship
- Showed Emergency Physicians (EP) use of a scribe was associated with improved overall productivity as measured by patients treated per hour and RVU's generated per hour by EPs. But not measured by TAT to discharge
- Collaborated with Urology on robotics and laparoscopic simulation trials
- Developed and presented Student PACS: How medical students learn to search for abnormal images from hundreds of images – assessment of student created learning modules with peer evaluation
- Evaluated group competency in systems-based practice in anesthesiology
- Designed educational standards for continuing board recertification in orbit and neuro-ophthalmology through the American Academy of Ophthalmology
- Reviewed and updated the International Classification of Diseases10 (ICD10) classification system for diagnoses in neuro-ophthalmology
- Developed teaching strategies and internet-based programs for ophthalmic patient simulation
- Demonstrated that third year students functioning as peer raters in an 8-station geriatric OSCE provide reliable ratings of student performance, comparable to that of expert faculty raters
- Found that peer raters in a geriatric OSCE were moderately confident and objective in completing the rating instruments and rated the peer-rating experience as beneficial to their learning
- Identified that peer raters in a geriatric OSCE had more difficulty in accurately scoring clinical behaviors with a patient than written chart documentation

- Discovered that 52% of physicians surveyed felt they were prepared for a bioterrorism event and said they would apply what they learned in the bioterrorism training at their work or place of practice. Survey results indicate that 51% of physicians who participated in a bioterrorism training do not believe that there is a high probability of a bioterrorism event in their community
- Demonstrated the effectiveness of a standardized patient continuity experience to teach the assessment and care of patients with chronic illness
- Assessed physician knowledge, skills and attitudes regarding evidence based practice at the point of care
- Investigated new methods of teaching psychomotor skills to first year dental students for developing competence in using dental rotary hand pieces
- Explored live vs web-based delivery of a phlebotomy program using a mixed pedagogical approach and implementation of the Seven Principles of Good Practice in Undergraduate Education; compared cognitive outcomes and student perceptions of course quality related to the Seven Principles
- Explored the impact of an educational intervention for continuing education on applying the nutrition care process and international dietetics and nutrition terminology for registered dietitians practicing in the area of long-term care
- Investigated effectiveness of an educational intervention for children with asthma and their parents in "Asthma Education for Inner City Children in New Jersey" in Newark Archdiocese schools
- Extended research investigating the process of medical/health curriculum reform from New Jersey Medical School to include the School of Health Related Professions, School of Nursing, School of Biomedical Sciences, and Robert Wood Johnson Medical School
- Completed a Mechanical Ventilation Clinical Simulation to replace an outdated version for student education and training
- Assessed admission data for incoming class 2003-2006, identifying trends in applicant/admission data in order to design a study to look at what factors in the admissions data may indicate high risk students; identified all students for past four years who have withdrawn, failed out, or decelerated and assessed demographic and academic/experiential factors that may indicate high risk
- Conducted validation study of the health science reasoning test, a standardized test of clinical reasoning skill for health science students
- Compared the effects of a computerized patient simulation program vs. live discussion of patient cases on the outcomes of knowledge acquisition, transfer of knowledge and clinical reasoning skill
- Investigated doctoral level students in physical therapy to characterize types of feedback conditions during learning that will optimize their learning of joint mobilization skills
- Analyzed ethical decision making skills of entry level practitioners

## OTHER RESEARCH

- Showed NJ's preparation, implementation, and management of the US Airways Flight 1549 Hudson River crash
- Investigated the prevalence of early hearing loss in children with existing comorbid conditions who fail newborn/initial hearing screening; the impact of existing comorbid conditions on follow-up of failed initial hearing screenings; the experience and needs of families of children with early hearing loss and comorbid conditions; and the knowledge and experience of audiologists in evaluating and providing services to children with early hearing loss and existing comorbid conditions, in order to understand the impact and interaction of having a child with early hearing loss and an existing comorbid condition
- Continued research on cross cultural validation of Simple Measure of Impact of Lupus Erythematosus in Youngsters©
- Showed that PADT does not improve survival among the majority of elderly men with localized prostate cancer, although there is some suggestion of potential benefit among men with poorly-differentiated cancer
- Found that results following conservative management of clinically localized prostate cancer diagnosed in 1992 – 2002 are substantially better than outcomes in most existing literature that was based on patients diagnosed in the 1970s and 1980s
- Showed that after adjusting for age, race, sex, smoking status, physical activity and body mass index, for every 50 mg/dl increase in fasting plasma glucose, there was a 22% increased risk of overall cancer mortality
- Showed that cancer survivorship follow-up care models and plans should be based on evidence of efficacy and effectiveness
- Showed in a multi-site study how intraclass correlations can be used to identify proper sample size for group randomized trials of cancer screening
- Demonstrated crude and adjusted intraclass correlation estimates for cancer screening outcomes for various levels of aggregation (physician, clinic, and county)
- Demonstrated that relationship-centered aspects of Patient Centered Medical Home are more highly correlated with preventive services delivery than are information technology capabilities in community primary care practices
- Showed that demonstration projects and tools that measure Patient Centered Medical Home principles should have greater emphasis on relationship centered aspects of primary care
- Demonstrated that modest levels of chronic care model implementation in unsupported primary care practices are associated with improved care for patients with diabetes and higher rates of behavioral counseling
- Discovered that incremental incorporation of chronic care model components is an option, especially for community practices with stretched resources and with cultures of "innovativeness"

- Discovered that both mean self-rated health of patients with End Stage Renal Disease and change in patient's self-rated health had negative relationships with their spouse's depressive symptoms
- Determined that changes in the self-rated health of patients with End Stage Renal Disease had a stronger impact on spouse's depressive symptoms than changes in spouse's own self-rated health
- Determined that mean and time-varying depressive symptoms of both patients with End Stage Renal Disease and their spouses were associated with their own marital satisfaction
- Demonstrated that mean marital satisfaction was associated with own depressive symptoms for both patients with End Stage Renal Disease and their spouses
- Demonstrated that time-varying marital satisfaction did not affect depressive symptoms for either patients or spouses with End Stage Renal Disease
- Learned that both mean enduring and time-varying depressive symptoms of the spouse affected marital satisfaction of patients with End Stage Renal Disease
- Discovered that there are no significant differences in the preferences to continue dialysis on the part of black and white patients with End Stage Renal Disease
- Showed that the substituted judgments of black and white spouses of patients with End Stage Renal Disease differ from one another
- Discovered judgment differences of black and white spouses of End Stage Renal Disease patients are explained by differences in perception of patient's health and caregiver burden
- Discovered judgment differences of black and white spouses of End Stage Renal Disease patients are associated with spouse's fear of death and participation in religious services
- Discovered that older people define successful aging as a function of activity/exercise, physical health, social relationships, and psychological/cognitive health
- Demonstrated that there was a positive association between successful aging and social support, life satisfaction, and subjective health
- Demonstrated that spouses of patients with End Stage Renal Disease rated patient quality of life as worse than did the patients
- Showed that change in perceptions of the mood of patients with End Stage Renal Disease and patient's subjective health predicted both patient and spouse ratings of patient quality of life
- Learned that change in the perceptions of spouses of patients with End Stage Renal Disease and patient's functional ability predicted spouse ratings of patient quality of life
- Learned that change in the quality of life experienced by spouses of patients with End Stage Renal Disease was associated with their rating of the patient's quality of life

- Showed that post-loss grief of persons whose spouse with End Stage Renal Disease died was predicted by gender, self-reported health, marital closeness, and pre-loss depressive symptoms
- Determined that caregiver burden and marital closeness assessed before the death of a person with End Stage Renal Disease predicted relief from the caregiver role post-loss
- Discovered that subjective health and pre-loss depressive symptoms predicted change in depressive symptoms over time among persons whose spouse with End Stage Renal Disease died
- Showed that caregiver burden experienced by spouses of patients with End Stage Renal Disease has a stronger effect on caregiver and patient negative affect than caregiver satisfaction
- Showed that caregiver satisfaction experienced by spouses of patients with End Stage Renal Disease has an effect on caregiver positive affect, but has no effect on patient positive affect
- Discovered caregiver burden time-varying effects of spouses of patients with End Stage Renal Disease are consistent with Lawton's 2-factor model for caregiver but not for patient negative affect
- Discovered time-varying effects of caregiver satisfaction experienced by spouses of persons with End Stage Renal Disease are not consistent with Lawton's 2-factor model for either patients or caregivers

## RESEARCH PROJECTS: 2009-2010

### FEDERAL FUNDING

Integrated Curriculum in Patient Centered and Culturally Competent Care; J. Afran, RWJMS; *Health Resources and Services Administration*

Multiple Sclerosis: Molecular Profile of Plasmacytoid Dendritic Cells; K. Balashov, RWJMS; *National Institute of Neurological Disorders and Stroke*

Exposure to Pesticides: A Fetal Environmental Risk Factor for Parkinson's Disease; B. Barlow, RWJMS; *National Institute of Environmental Health Sciences*

Structural Studies of Triple-Helical Proteins; B. Brodsky, RWJMS; *National Institutes of Health*

Transfusion Trigger Trial in Coronary Heart Disease: A Pilot Study; J. Carson, RWJMS; *National Institutes of Health*

Obstructing Androgen Receptor Activation in Prostate Cancer Cells through Post-Translational Modification by NEDDS; J. Chen, RWJMS; *United States Department of Defense*

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 Enhance Diabetes; L. Clemow, RWJMS; *National Institutes of Health*

Functional Analysis of SBP2 and Selenocysteine Incorporation; P. Copeland, RWJMS; *National Institutes of Health*

Health Behavior Changes in Colorectal Cancer Survivors; E. Coups, RWJMS; *National Cancer Institute*

Building an Implementation Toolset for E-Prescribing; J. Crosson, RWJMS; *Agency for Healthcare Research and Quality*

Modulating Drug Resistance in Prostate Cancer: The Dean and Betty Gallo Prostate Cancer Center; R. DiPaola, RWJMS; *United States Department of Defense*

Treating Depression in Parkinson's Disease: A New Method; R. Dobkin, RWJMS; *National Institute of Neurological Disorders and Stroke*

Gene Regulation Using Novel Drugs Modulating Premature Translational Termination; J. Dougherty, RWJMS; *National Institutes of Health*

The Role of Neurotrophin in Oligodendrocyte Function; C. Dreyfus, RWJMS; *National Institute of Neurological Disorders and Stroke*

Critical Research Issues in Latino Mental Health; J. Escobar, RWJMS; *National Institute of Mental Health*

Evaluation of Two Sampling and Analytical Methods for the Measurement of Hexavalent Chromium in Ambient Air; Z. Fan, RWJMS; *United States Environmental Protection Agency*

Breast and Cervical Cancer Screening in Obese Women; J. Ferrante, RWJMS; *National Cancer Institute*

Lead Exposure, HPA Axis Dysfunction, and Blood Pressure: Hypertension Risk; N. Fiedler, RWJMS; *National Institutes of Health*

Neurobehavioral Effects of Pesticide Exposure Among Children in Rural Thailand; N. Fiedler, RWJMS; *National Institutes of Health*

Role of MED1 in Regulating Androgen Receptor Activity During Prostate Cancer Progression; J. Fondell, RWJMS; *United States Department of Defense*

Image Mining for Comparative Analysis of Expression Patterns in Tissue Microarrays; D. Foran, RWJMS; *National Institutes of Health and National Library of Medicine*

Collaborative Systems for Analyzing Tissue Microarrays; D. Foran, RWJMS; *National Institutes of Health*

Tumor Microenvironment, Tissue Liquidity and Cell Interaction in Prostate Cancer; R. Foty, RWJMS; *National Cancer Institute*

Abnormalities in Breast Cancer; S. Ganesan, RWJMS; *United States Department of Defense*

Chromosome Architecture: Cohesion of Transcriptionally Silenced Domains; M. Gartenberg, RWJMS; *National Institute of General Medical Sciences*

Functional Analysis of Bf1-1/A1 in Apoptosis and Oncogenesis; C. Gelinis, RWJMS; *National Cancer Institute*

Trial of Riluzole in Patients with Advanced Melanoma; J. Goydos, RWJMS; *National Institutes of Health*

Validation of Grm1 as a Therapeutic Target in Melanoma; J. Goydos, RWJMS; *National Cancer Institute*

Non-Canonical Wnt Signaling and Cell Motility; R. Habas, RWJMS; *National Institute of General Medical Sciences*

Genetic Analysis of Transcription Initiation in Yeast; M. Hampsey, RWJMS; *National Institutes of Health*

Role of Wound Provisional Matrix in Endothelial Function; H. Hsia, RWJMS; *National Institute of General Medical Sciences*

Life After Cancer: Examining Survivor Transitions from Specialist to Primary Care; S. Hudson, RWJMS; *National Cancer Institute*

Deciphering of the Toxin-Antitoxin Systems in E. Coli; M. Inouye, RWJMS; *National Institutes of Health*

Development of a Rapid, Inexpensive Biosensor for PSA; M. Inouye, RWJMS; *National Cancer Institute*

The Method for Determination of Membrane Protein Structures Without Purification and Protein Structures in Living Cells; M. Inouye, RWJMS; *National Institutes of Health*

Human Keratin (k-14)-MBP/MBP TCR Transgenic Animal Model; K. Ito, RWJMS; *National Institute of Allergy and Infectious Diseases*

Regulation of Cell Survival by the Rapamycin Insensitive mTOR Complex; E. Jacinto, RWJMS; *National Institutes of Health*

The Role of Autophagy in the Age Related Mitochondrial Deterioration; S. Jin, RWJMS; *National Institute on Aging*

The Role of Autophagy in Tumorigenesis; S. Jin, RWJMS; *National Institutes of Health*

Role of Autophagy in Breast Cancer; V. Karantza-Wadsworth, RWJMS; *National Cancer Institute*

Regulators of Translation Elongation Factor eEF1A; T. Kinzy, RWJMS; *National Institute of General Medical Sciences*

Regulation of Cardiac Protein Kinase C by Redox Stress; I. Korichneva, RWJMS; *National Heart, Lung and Blood Institute*

Factors Influencing Regulation of the Dynamics of the Actin Filament Pointed End; A. Kostyukova, RWJMS; *National Institutes of Health*

Myotube Guidance in Drosophila Melanogaster; S. Kramer, RWJMS; *National Institutes of Health*

In-Situ Activation of Antitumor Effectors; E. Lattime, RWJMS; *National Cancer Institute*

Intravesical rF-GMCSF and rF-TRICOM in the Treatment of Advanced Bladder Cancer; E. Lattime, RWJMS; *National Cancer Institute*

Mechanisms of Responses to Diesel Exhaust and Stress; R. Laumbach, RWJMS; *National Institutes of Health*

Heart Rate Variability Biofeedback: Its Role in Asthma Therapeutics; P. Lehrer, RWJMS; *National Institutes of Health*

Developmental Effects of Prenatal Cocaine Exposure; M. Lewis, RWJMS; *National Institute on Drug Abuse*

Maltreated Children's Emotions and Self-Cognitions; M. Lewis, RWJMS; *National Institute of Mental Health*

Regulation of Embryonic Epithelial Morphogenesis; S. Li, RWJMS; *National Institutes of Health*

Conservation of Meiotic Recombination Sites in the Human Genome; H. Li, RWJMS; *National Institutes of Health*

Regulation of Embryonic Epithelial Morphogenesis; S. Li, RWJMS; *National Institute of General Medical Sciences*

Mechanism of Action of TOP2 Directed Anticancer Drugs; L. Liu, RWJMS; *National Institutes of Health*

Novel Lysosomal Enzyme Deficient in Batten Disease; P. Lobel, RWJMS; *National Institutes of Health*

Lysosomal Enzymes and Associated Human Genetic Diseases; P. Lobel, RWJMS; *National Institutes of Health*

Hormone and Cytokine Regulation of Endotoxin Injury; S. Lowry, RWJMS; *National Institute of General Medical Sciences*

Evaluation of Palliative Prostate Cancer Among Elderly Men; G. Lu-Yao, RWJMS; *National Institutes of Health*

Bi-Directional Calcium Signaling in Striated Muscles; J. Ma, RWJMS; *National Heart, Lung and Blood Institute*

Ca Sparks in Muscle Aging and Dystrophy; J. Ma, RWJMS; *National Institutes of Health*

Functional Analysis of RAD23 Protein; K. Madura, RWJMS; *National Institutes of Health*

Studies to Examine Centrin's Role in DNA Repair; K. Madura, RWJMS; *National Institutes of Health*

Molecular Control of Shh-Gli Signaling in the Vertebrate CNS; M. Matise, RWJMS; *National Institutes of Health*

Epigenetic Regulation of the Autism Susceptibility Gene, ENGRAILED 2 (EN2); J. Millonig, RWJMS; *United States Department of Defense*

Neuroprotective Activity of DJ-1 in Parkinson's Disease; M. Mouradian, RWJMS; *National Institute of Neurological Disorders and Stroke*

Computational Design of a Synthetic Extracellular Matrix; V. Nanda, RWJMS; *National Institutes of Health*

Design of Programmable Self-Assembling Collagen; V. Nanda, RWJMS; *National Science Foundation*

Structure-Based Engineering of Allergens to Enhance Digestibility; V. Nanda, RWJMS; *National Institutes of Health*

Mechanism and Regulation of Transcription Initiation; S. Patel, RWJMS; *National Institutes of Health*

Mechanistic Studies of Hexameric Helicases; S. Patel, RWJMS; *National Institutes of Health*

Role of mRNA Decay in the Immune System; S. Pestka, RWJMS; *National Institute of Allergy and Infectious Diseases*

Transcription Antitermination by OB Fold Family Proteins; S. Phadtare, RWJMS; *National Institutes of Health*

Continuation of Thrombosis and Hemostasis Centers Research and Prevention Network; C. Philipp, RWJMS; *Centers for Disease Control and Prevention*

Patenteral Nutrition: Intestinal Metabolism /Adaptation (Denise Ney, PI at University of Wisconsin-Madison); J. Pintar, RWJMS; *National Institutes of Health*

Effects of Prenatal Care on Pediatric Health Care; N. Reichman, RWJMS; *National Institute of Child Health and Human Development*

TGF $\beta$  Receptor Mutations in Cancer and other Diseases; M. Reiss, RWJMS; *National Cancer Institute*



Mechanisms of Pesticide-Induced Neurobehavioral Deficits: Relevance to ADHD; J. Richardson, RWJMS; *National Institute of Environmental Health Sciences*

Peptide Deformylase Inhibitor LBM415 for Sexually Transmitted Infections; J. Richardson, RWJMS; *National Institute of Allergy and Infectious Diseases*

Regulation of MDR1 Expression and Drug Resistance by CD44; L. Rodriguez-Rust, RWJMS; *National Cancer Institute*

Targeting Entry of Retroviral/Lentiviral Vectors; M. Roth, RWJMS; *National Institutes of Health*

Retroviral Integration & HDAC Inhibitors; M. Roth, RWJMS; *National Institutes of Health*

Functional Analysis of the Bifunctional Ion Channel and Kinase TRPM7; L. Runnels, RWJMS; *National Institute of General Medical Sciences*

Regulation of Metal Ion Homeostasis by Channel Kinases; A. Ryazanov, RWJMS; *National Institutes of Health*

Translational Control of Radiation Induced Apoptosis; A. Ryazanov, RWJMS; *National Institutes of Health*

TEL-AML1 Transgenic Zebrafish Model of Human Leukemia; H. Sabaawy, RWJMS; *National Cancer Institute*

A Parkinson's Disease Neuro Protection Trial; J. Sage, RWJMS; *National Institute of Neurological Disorders and Stroke*

The Role of MicroRNAs in Human Hematopoietic Cell Differentiation; D. Schaar, RWJMS; *National Institutes of Health*

Caffeine Regulates Splicing of Cancer-Related Genes: Dissecting the Mechanism; K. Scotto, RWJMS; *National Institutes of Health*

A K<sup>+</sup> Channel Learning Susceptibility Gene; F. Sesti, RWJMS; *National Science Foundation*

Characterization of Floor Level Aerosol (PM) Exposure and Childhood Asthma; S. Shalat, RWJMS; *National Institutes of Health*

Molecular Analysis of Metastatic Prostate Cancer in Mice; M. Shen, RWJMS; *National Institutes of Health*

Inflammatory Cytokines Induced Immunosuppression in Adult Stem Cells; Y. Shi, RWJMS; *National Institutes of Health*

Effectiveness Trial of Attention Shaping for Schizophrenia; S. Silverstein, RWJMS; *National Institute of Mental Health*

Teratogenesis in the Developing Hippocampus; K. Sokolowski, RWJMS; *National Institutes of Health*

Angiotensin and Neurodegeneration; P. Sonsalla, RWJMS; *National Institutes of Health*

Structure and Function of Response Regulator Proteins; A. Stock, RWJMS; *National Institute of General Medical Sciences*

Mechanism Transcript Elongation in Chromatin; V. Studitsky, RWJMS; *National Institutes of Health*

Emotions and Risk to Psychopathology in Infants and Children; M. Sullivan, RWJMS; *National Institutes of Health*

Growth Control of Normal and Malignant Keratinocytes; A. Tallia, RWJMS; *National Cancer Institute*

Developmental Pesticide Exposure: The Parkinson's Disease Phenotype; M. Thiruchelvam, RWJMS; *National Institute of Environmental Health Sciences*

Chromosome Architecture and Domains of Repression; M. Tiku, RWJMS; *National Institute of General Medical Sciences*

Molecular Mechanisms of Ataxin-1 Action; C. Tsai, RWJMS; *National Institutes of Health*

Regulation of Dendritic Differentiation by BDNF-Induced Neuropeptide Nociceptin; S. Varia, RWJMS; *National Science Foundation*

Molecular Mechanisms Regulating Axon Guidance Receptor Activity; W. Wadsworth, RWJMS; *National Institutes of Health*

Cell Cycle Checkpoint Control in Response to DNA Damage; N. Walworth, RWJMS; *National Institute of General Medical Sciences*

Effects of WTC Disaster on NYC Firefighters: Assessing Mental Health Issues; D. Wartenberg, RWJMS; *National Institute for Occupational Safety and Health*

Mechanisms of Inflammatory Lung Disease in Neonatics; B. Weinberger, RWJMS; *National Institutes of Health*

ACER-RITE Development of Risk Paradigm for Pesticides and Ozone/Ozone By-Products; C. Weisel, RWJMS; *Federal Aviation Administration*

Ozone and its Volatile Reaction Biproducts on Domestic & International Flights; C. Weisel, RWJMS; *Federal Aviation Administration*

Calcium Regulation in the Progression of Muscular Dystrophy; N. Weisleder, RWJMS; *National Institutes of Health*

Trial of Nicotine Nasal Spray as an Aid for Smoking Cessation in Schizophrenia; J. Williams, RWJMS; *National Institutes of Health and National Institute of Drug Abuse*

Nicotine Intake in Smokers with Schizophrenia; J. Williams, RWJMS; *National Institutes of Health*

Single Protein Production in Yeast Cells; N. Woychik, RWJMS; *National Institutes of Health*

Functional Dissection of Toxin-Antitoxin Systems in Mycobacterium Tuberculosis; N. Woychik, RWJMS; *National Institutes of Health*

Role of PALB2 in the DNA Damage Response and Breast Cancer Suppression; B. Xia, RWJMS; *National Institutes of Health*

Transcriptional Regulation of Retinal Development; M. Xiang, RWJMS; *National Eye Institute*

Role of Foxn4 Gene During Retinogenesis; P. Yurchenco, RWJMS; *National Institutes of Health*

Growth Control and Anti-Cancer Mechanisms; X. Zheng, RWJMS; *National Institutes of Health*

The Coupling of mRNA Transcription and 3'-End Formation; M. Hampsey, RWJMS; *National Institutes of Health*

Signal Transduction by Histidine Kinases and their Response Regulators; M. Inouye, RWJMS; *National Institute of General Medical Sciences*

Gene Therapy for Prostate Cancer using Bacterial MazF Suicide System; M. Inouye, RWJMS; *Department of Defense*

Structural Genomics of Eukaryotic Domain Families; M. Inouye, RWJMS; *National Institute of General Medical Sciences*

Structural Genomics of Membrane Proteins; M. Inouye, RWJMS; *National Institute of General Medical Sciences*

Tumor Suppressor Role of CAPERa in ERa Negative and Rel/NF-kB-Positive Breast Cancer; P. Molli, (postdoctoral fellow-Dr. Gelinias), RWJMS; *Department of Defense*

Prebiotic Evolution of Redox Chemistry on Earth; P. Falkowski, V. Nanda, Rutgers University; *National Science Foundation*

Bioengineering Human Embryonic Stem Cells; M. Roth, RWJMS; *National Institutes of Health*

Integration of Murine Retroviral Vectors; M. Roth, RWJMS; *National Institutes of Health*

Structure and Function of Response Regulator Proteins; A. Stock, RWJMS; *National Institutes of Health*

Gene Therapy for Prostate Cancer Using Bacterial MazF Suicide System; M. Inouye, RWJMS; *Department of Defense*

Signal Transduction by Histidine Kinases and their Response Regulators; 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*

Identification and Functional Assessment of Autism Susceptibility Genes; J. Millonig, RWJMS; *National Institutes of Health*

A Mouse Knock-in Model for ENGRAILED 2 Autism Susceptibility; J. Millonig, RWJMS; *National Institutes of Health*

Structure and Function of Response Regulator Proteins; A. Stock, RWJMS; *National Institutes of Health*

Role of the Foxn4 Gene during Retinogenesis; M. Xiang, RWJMS; *National Institutes of Health*

Randomized Trial of Inhaled Nitric Oxide to Augment Tissue Perfusion in Sepsis (S); T. Trzeciak, RWJMS; *National Institutes of Health*

RCT of Controlled Breathing Effects on Ambulatory BP; L. Clemow, RWJMS; *National Heart, Lung, and Blood Institute*

Cardiovascular Disease Care and EMR Use in Community-based Primary Care Practice; D. Cohen, RWJMS; *National Heart, Lung and Blood Institute*

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 II (TRIAD II); J. Crosson, RWJMS; *Centers for Disease Control and Prevention/National Institute for Diabetes and Digestive and Kidney Diseases*

Organizational Self-Assessment to Improve Diabetes Care in Primary Care Practices; J. Crosson, RWJMS; *National Institute for Diabetes and Digestive and Kidney Diseases*

Breast and Cervical Cancer Screening in Obese Women; J. Ferrante, RWJMS; *National Cancer Institute*

Factors Affecting Men's Decisions Regarding Prostate Cancer Screening and Treatment; J. Ferrante, RWJMS; *Department of Defense*

Using Learning Teams For Reflective Adaption For Diabetes; E. Shaw, RWJMS; *National Institute for Diabetes and Digestive and Kidney Diseases*

Effect of Caffeine on UVB-Induced Skin Cancer; M. Magliocco, RWJMS; *National Cancer Institute*

Nanospheres as Delivery Vehicles for Psoriasis Therapeutics; M. Magliocco, RWJMS; *National Institute of Arthritis and Musculoskeletal and Skin Diseases*

Mycophenolate vs. oral cyclophosphamide in scleroderma interstitial lung disease; D Riley, RWJMS; *UCLA/National Heart Lung and Blood Institute*

Neuropeptide VGF in Antidepressant-Induced Neurogenesis and Mood Disorders; J. Alder, RWJMS; *National Institute of Mental Health*

Growth and Development of the Nervous System: Molecular Mechanisms (Subproject I Regulation of Neuronal Mitosis); E. DiCicco-Bloom, RWJMS; *National Institute of Child Health and Human Development*

PACAP Regulation of Neurogenesis and Survival; E. DiCicco-Bloom, RWJMS; *National Institute of Neurological Disorders and Stroke*

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*

Molecular regulation of Hedgehog signaling in the vertebrate CNS; M. Matise, RWJMS; *National Science Foundation*

Parenteral Nutrition: Intestinal Metabolism/Adaptation; J. Pintar, RWJMS; *The University of Wisconsin Madison, National Institute of Diabetes and Digestive and Kidney Diseases*

Molecular Control of Corticospinal System Formation; M.R. Rasin, RWJMS; *National Institutes of Health*

Regulation of Dendritic Differentiation by BDNF-Induced Neuropeptide Nociceptin; S. Thakker-Varia, RWJMS; *National Science Foundation*

Nypta as Neuroprotection in Progressive Supranuclear Palsy; L. Golbe, RWJMS; *Noscira Pharmaceuticals*

Pilot Trial of Lithium in Progressive Supranuclear Palsy and Corticobasal Degeneration (NPTUNE); L. Golbe, RWJMS; *National Institute of Neurological Disorders and Stroke*

Regulation of P-glycoprotein Expression and Function by CD44 in Breast Cancer; L. Rodriguez-Rodriguez, RWJMS; *Department of Defense*

Prospective study into the performance of the MicroPhage S. aureus/MSSA/MRSA test direct from Blood Culture positives; T. Kirn and M. Weinstein, RWJMS; *Microphage*

Multiscale Structure-Function Relationships of Collagen in the Marine Cyanobacterium Trichodesmium Erythraeum; F. Silver, RWJMS, *National Science Foundation*

Regulation of the Cytoskeleton During Neuronal Morphogenesis; M. Soto, RWJMS; *National Science Foundation*

Molecular Mechanisms Initiating Cell Migrations in Caenorhabditis Elegans; M. Soto, RWJMS; *National Institutes of Health*

Functional Analysis of the Bifunctional Ion Channel and Kinase TRPM7; L. Runnels, RWJMS; *National Institutes of Health*

Specific Inhibition of Chlamydiae with Hydroxamates; H. Fan, RWJMS; *National Institute of Allergy and Infectious Diseases*

Calcium Regulation in the Progression of Muscular Dystrophy; N. Weisleder, RWJMS; *National Institute of Arthritis and Musculoskeletal and Skin Diseases*

Treatment Issues For Smokers with Schizophrenia; M. L. Steinberg, RWJMS; *National Institute on Drug Abuse*

Protection of Genomic Integrity by BCCIP; Z. Shen, RWJMS, *National Cancer Institute*

The Impact of Common MDM2SNP on the Sensitivity of Breast Cancer to Treatment; B. Haffty CO-PI, Kim Hirshfield-PI, *Department of Defense*

The Role of Glutaminase 2, a Novel p53 Target Gene in Metabolism, in Liver Cancer; Z. Feng, RWJMS, *National Cancer Institute*

Coupling of 5-HT Receptors to Neuroprotective Pathways; D. Ziedonis, RWJMS; *National Institute of Mental Health*

The Role of Histone H2Az in Cardiac Gene Expression; M. Abdellatif, NJMS; *National Heart, Lung and Blood Institute*

The RasGAP-microRNA Connection in Cardiac Hypertrophy; M. Abdellatif; NJMS, *National Heart, Lung and Blood Institute*

Integrated Dual-Use Systems for Bio-Defense and Sepsis Diagnosis; D. Alland, NJMS; *National Institute of Allergy and Infectious Diseases*

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*

AFB Smears for Drug Resistance Detection and Surveillance in MTB; D. Alland, NJMS; *National Institute of Allergy and Infectious Diseases*

Development of Molecular Blood Culture; D. Alland, NJMS; *National Institute of Allergy and Infectious Diseases*

Evolution of Cardiovascular Risk with Normal Aging; A. Aviv, NJMS; *National Institute of Aging*

Human Telomere Genetics; A. Aviv, NJMS; *National Institute Aging*

Genetics of Sodium-Lithium Countertransport; A. Aviv, NJMS; *National Heart, Lung and Blood Institute*

IGF-1, Oxidative Stress and Telomere Dynamics in Cultured Human Somatic Cells; A. Aviv, NJMS; *Ruth L. Kirschstein National Research Service Award*

The Role of Gap-Junction Communication and Oxidative Metabolism in the Biological Effects of Space Radiation; E. Azzam, NJMS; *National Aeronautics and Space Administration*

Cell Targeting Peptide Nucleic Acid for Prostate Cancer; B. Barton, NJMS; *United States Department of Veterans Affairs*

Cell Targeting Peptide Nucleic Acids for Hormone Refractory Prostate Cancer; B. Barton, NJMS; *National Cancer Institute*

Analysis of Trypanosome MrNA Synthesis by Gene Transfer; V. Bellofatto, NJMS; *National Institute of Allergy and Infectious Diseases*

Regulation of Soluble Guanylyl Cyclase, the NO-Receptor; A. Beuve, NJMS; *National Institute of General Medical Sciences*

Age Related Eye Disease Study 2; N. Bhagat, NJMS; *National Eye Institute*

Cerebral Blood Flow and BOLD Changes in TBI Using fMRI; B. Biswal, NJMS; *National Institute of Neurological Disorders and Stroke*

Physiological Neural and Cognitive Basis of Age Related Working Memory; B. Biswal, NJMS; *National Institute on Aging*

Carotid Revascularization Endarterectomy vs. Stenting Trial; T. Brott, NJMS; *National Institute of Neurological Disorders and Stroke*

Novel Targets for Vaccines Against Tuberculosis; Y. Bushkin, NJMS; *National Institute of Allergy and Infectious Diseases*

HLA Releasing Metalloproteinase in Allograft Rejection; Y. Bushkin, NJMS; *National Institute of Allergy and Infectious Diseases*

Early Childhood Development in Relation to Intimate Partner Violence During Pregnancy; P. Chen, NJMS; *National Institute of Child Health and Human Development*

Vitamin D Hormone: Function and Mechanism of Action; S. Christakos, NJMS; *National Institute of Diabetes and Kidney Disease*

Role of TRPV6 in Gender and Age Dependent Alterations in Calcium Homeostasis; S. Christakos; *National Institute of Diabetes and Digestive and Kidney Disease*

Organizational Self Assessment to Improve Diabetes Care in Primary Care Practices; J.C. Crosson, NJMS; *National Institute of Diabetes and Digestive and Kidney Disease*

National Study of Determinants of Early Diagnosis, Prevention and Treatment of TB in the African American Community; A. Davidow, NJMS; *Centers for Disease Control and Prevention*

Tuberculosis Mortality in the US: Epidemiology and Prevention Opportunities; A. Davidow, NJMS; *Centers for Disease Control and Prevention*

Mesenteric Lymph Linking Gut and Distant Organ Injury; E. Deitch, NJMS; *National Institute of General Medical Sciences*

Shock, Trauma, and Gut Origin of Sepsis- Includes Supplement to Promote Diversity; E. Deitch, NJMS; *National Institute of General Medical Sciences*

Pre-Emptive Conditioning of the Ischemic Heart; C. DePre, NJMS; *National Heart, Lung and Blood Institute*

Pediatric HIV/AIDS Cohort Study-NJMS: Adolescent Master Protocol (AMP); A. Dieudonne, NJMS; *National Institute of Child Health and Human Development*

Lethal Action of Fluoroquinolones with Non-Growing Mycobacterium Tuberculosis; K. Drlica, NJMS; *National Institute of Allergy and Infectious Diseases*

Regulation of Genetic Competence in Bacillus Subtilis; D. Dubnau, NJMS; *National Institute of General Medical Sciences*

Genetic Competence Apparatus of Bacillus Suptilia; D. Dubnau, NJMS; *National Institute of General Medical Sciences*

The Role of Pseudopilins During Transformation in Bacillus Subtilis; D. Dubnau, NJMS; *Ruth L. Kirschstein National Research Service Award*

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*

Advanced Rehabilitation Research Training Center on Neuromusculoskeletal Rehabilitation; T. Edwards, NJMS; *United States Department of Education*

Mechanisms Underlying Neuronal Damage in EAE: Role of Microglia; S. Elkabes, NJMS; *National Institute of Neurological Disorders and Stroke*

US Brazil Research Collaboration on Strain Variation in TB; J. Ellner, NJMS; *National Institute of Allergy and Infectious Diseases*

Regulation of Intestinal Phosphate Uptake by Dietary Carbohydrate; R. Ferraris, NJMS; *National Institute of Diabetes and Digestive and Kidney Disease*

Developmental Regulation of Intestinal Sugar Transport; 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 ID Genes During Cardiac Development; D. Fraidenraich, NJMS; *National Heart, Lung and Blood Institute*

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*

Alzheimer Disease Mechanisms in Lens Aging and Disease; P. Frederikse, NJMS; *National Eye 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*

Gr-1+Cells and the Response to Nematode Parasites; W. Gause, NJMS; *National Institute of Allergy and Infectious Diseases*

Cytokine Gene Expression During in Vivo Immune Response; W. Gause, NJMS; *National Institute of Allergy and Infectious Diseases*

Role of ALK3 in Atrioventricular Valve Development; V. Gausin, NJMS; *National Heart, Lung and Blood Institute*

Tick-LES Tick Learning and Education for Schools; W. Halperin, NJMS; *United States Environmental Protection Agency*

Permeability Mediated by Connexin Channels; A. Harris, NJMS; *National Institute of General Medical Sciences*

Structure Function of Connexin Pores; A. Harris, NJMS; *National Institute of Neurological Disorders and Strokes*

Adenosine in Trauma and Sepsis; G. Hasko, NJMS; *National Institute of General Sciences*

Driving Improved Patient Outcomes Through Development of Electronic Infrastructure-Ryan White Title III; S. Hodder, NJMS; *United States Department of Health and Human Services*

Development of an Integrated and Electronic Ryan White Client Level Interface to Improve Reporting and Drive Improved Outcomes; S. Hodder, NJMS; *Health Resources and Service Administration*

Protection Against Radiation-Induced Damage to Intestinal Nutrient Transport; R. Howell, NJMS; *National Institute of Allergy and Infectious Diseases*

Mechanisms of Mistranslation-Mediated Mutator Response; M. Humayun, NJMS; *National Institute of General Medical Sciences*

Myocardial Passive Stiffness: Effect of Aging; W. Hunter, NJMS; *National Institute on Aging*

Generation of Monoclonal and Polyclonal Antibodies to Neolacto-Series Gangliosides; A. Ilyas, NJMS; *National Institute of Neurological Disorders and Stroke*

Clinical Trial to Evaluate the Safety of a New Strategy to Treat Drug Resistant Tuberculosis in an Under-Resourced Country; E. Jones, NJMS; *National Institute of Allergy and Infectious Diseases*

Molecular Organization of Yeast Chromosome 1; D. Kaback, NJMS; *National Science Foundation*

Host Pathogen Interactions and M.tb Drug Resistance; G. Kaplan, NJMS; *National Institute of Allergy and Infectious Diseases*

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 Pathogen Contributions; G. Kaplan, NJMS; *National Institute of Allergy and Infectious Diseases*

Molecular Modulators of HCV Replication; N. Kaushik-Basu, NJMS; *National Institute of Diabetes and Digestive and Kidney Disease*

Assessment of Meridian Theory in the Vascular System; D. Kim, NJMS; *National Center for Complementary and Alternative Medicine*

Evasion of Antiviral Protection by Poxvirus Encoded IFN Antagonists; S. Kotenko, NJMS; *National Institute of Allergy and Infectious Diseases*

Social And Biomedical Risk Factors for Multi Drug Resistance TB in Rural China; B. Kreiswirth, NJMS; *National Institute of Allergy and Infectious Diseases*

Primate Model for Pharmaceutical Development; R. Kudej, NJMS; *National Heart, Lung and Blood Institute*

Regulation of D1 Dopamine Receptor Expression by ncRNA in Cocaine Addiction; E. Kuzhikandathil, NJMS; *National Institute on Drug Abuse*

Functional Characterization of D3 Dopamine Receptor in the Drd3-EGFP Transgenic Mice; E. Kuzhikandathil, NJMS; *National Institute of Mental Health*

DNA Repair Defect in Fanconi Anemia, Group A and Includes Minority Supplement; M. Lambert, NJMS; *National Heart, Lung and Blood Institute*

Vagus Nerve Stimulation in Fibromyalgia; G. Lange, NJMS; *National Institute of Arthritis and Musculoskeletal and Skin Diseases*

Adenosine, Toll Like Receptors and Angiogenesis; S. Leibovich, NJMS; *National Institute of General Medical Sciences*

Neural Stem Cell Responses to Perinatal Brain Damage; S. Levison, NJMS; *National Institute of Mental Health*

IGF2 and Neural Stem Cell Homeostasis; S. Levison, NJMS; *Ruth L. Kirschstein National Research Service Award*

Re-Specification of the Notch Response by the HHV-8 Lytic Switch Protein; D. Lukac, NJMS; *National Institute of Allergy and Infectious Diseases*

Mechanisms of MeCP2 Gene Expression Regulation; C. Lutz, NJMS; *National Institute of Child Health and Human Development*

Ribosome Based Single Molecule Method to Acquire Sequence Data from Genomes; W. Mandeckki, NJMS; *National Human Genome Research Institute*

Functions of Double-Stranded RNA Binding Proteins; M. Mathews, NJMS; *National Institute of Allergy and Infectious Diseases*

Therapeutic Efficacy of Botulinum Metalloendoprotease Inhibitors: Protection and Recovery of Neurotransmitter Release and Neuromuscular Function; J. McArdle, NJMS; *United States Army*

Packaging of the Segmented Genome of Bacteriophage Phi6; L. Mindich, NJMS; *National Institute of General Medical Sciences*

Neuroendocrine Regulation of Erythropoiesis Following Trauma; A. Mohr, NJMS; *National Institute of General Medical Sciences*

SWI/SNF 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*

Molecular Motors in Transport and Signaling by APP; V. Muresan, NJMS; *National Institute of General Medical Sciences*

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*

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 Cystein Desulfurase (MPI); D. Pain, NJMS; *National Institute of General Medical Sciences*

Structure Based Development of Nonnucleoside Anti-HIV-1 RT Drugs; V. Pandey, NJMS; *National Institute of Allergy and Infectious Diseases*

Proteomics of HCV Replication Complex; V. Pandey, NJMS; *National Institute of Allergy and Infectious Diseases*

Roles of Non-Coding RNA, roX in Global Chromatin Organization; Y. Park, NJMS; *National Science Foundation*

Mechanism of Arginine Transport in Cardiac Myocytes; R. Peluffo, NJMS; *National Heart, Lung and Blood Institute*

A Rapid and Expandable Nucleic Acid Platform to Detect Bloodstream Infections; D. Perlin, 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*

Antigenic Properties of the V1/V2 domain of HIV-1 gp120; A. Pinter, NJMS; *National Institute of Allergy and Infectious Diseases*

The Mitochondrial ATP Dependent Lon Protease in Cardiac Ischemia and Hypertrophy; A. Pinter, NJMS; *National Institute of Allergy and Infectious Diseases*

HTS Assays for Reagents Capable of Unmasking Conserved Neutralization Sites HIV; A. Pinter, NJMS; *National Institute of Neurological Disorders and Stroke*

Strategies for Eliciting BnAbs Against Conserved HIV-1 Quaternary Epitopes; A. Pinter, NJMS; *National Institute of Allergy and Infectious Diseases*

Sleep Bruxism and Central Sensitization in Myofascial Face Pain; K. Raphael, NJMS; *National Institute of Dental and Craniofacial Research*

Studies of the Role of MicroRNA MiR-16-1 in the NZB Model of CLL; E. Raveche, NJMS; *National Cancer Institute*

Regulation of the Cardiac Na/Ca Exchanger; J. Reeves, NJMS; *National Heart, Lung and Blood Institute*

Lipid Regulation of Transient Receptor Potential Channels; T. Rohacs, NJMS; *National Institute of Neurological Disorders and Stroke*

Hypoglycemia Induced NO in Glucose Sensing Neurons and Counterregulation; V. Routh, NJMS; *National Institute of Diabetes and Digestive and Kidney Diseases*



Hormonal Regulation of Glucose Sensing Neurons in Health and Diabetes-NIH Director's Bridge Award; 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 Cachexia; V. Routh, NJMS; *National Cancer Institute*

Inflammatory Biomarkers and Progression of Diabetic Retinopathy; M. Roy, NJMS; *National Eye Institute*

Human Beta-Defensin-1 in HSV-1 Innate Immunity; L. Ryan, NJMS; *National Institute of Allergy and Infectious Diseases*

Inhibition of Lung Defense by Air Pollutant Particulates; L. Ryan, NJMS; *National Institute of Environmental Health Sciences*

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 GSK-3; J. Sadoshima, NJMS; *National Heart, Lung and Blood Institute*

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TLR2 Regulation of Host Immune Response in TB; P. Salgame, NJMS; *National Institute of Allergy and Infectious Diseases*

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TLR2 and the Tubercle Granuloma; P. Salgame, NJMS; *National Institute of Allergy and Infectious Diseases*

Immunosuppressive Role of TLR2 in Host Immunity to Mycobacterium Tuberculosis; P. Salgame, NJMS; *Ruth L. Kirschstein National Research Service Award*

Molecular Mechanism of hTERT Function in Mitochondria; J. Santos, NJMS; *United States Army*

Central Cardiovascular Regulation: Role of Urocortin III; H. Sapru, NJMS; *National Heart, Lung and Blood Institute*

Cardiovascular Actions of Melanocortins; H. Sapru, NJMS; *National Heart, Lung and Blood Institute*

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Gating/Permeation Coupling in Ca<sup>2+</sup> Channels; R. Shirokov, NJMS; *National Institute of Mental Health*

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Fatty Acid Metabolism's Role in M. Tuberculosis; I. Smith, NJMS; *National Institute of Allergy and Infectious Diseases*

Molecular Determinants of M. Tuberculosis Virulence; I. Smith, NJMS; *National Institute of Allergy and Infectious Diseases*

Mechanisms and Regulation of Mycobacterium Tuberculosis Iron Acquisition; I. Smith, NJMS; *National Institute of Allergy and Infectious Diseases*

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PARS and Peroxynitrite Induced Cell Death; C. Szabo, NJMS; *National Institute of General Medical Sciences*

The Role of cAMP Signaling Changes in Alcoholic Liver Disease; A. Thomas, NJMS; *Ruth L. Kirschstein National Research Service Award*

Effects of Ethanol on Excitation Contraction Coupling in Cardiac Muscle Cells; A. Thomas, NJMS; *National Institute on Alcohol Abuse and Alcoholism*

Analysis of mRNA Polyadenylation Events Across Species and Tissues; B. Tian, NJMS; *National Institute of General Medical Sciences*

Computational and Experimental Analysis of RNA Structures in mRNA Polyadenylation; B. Tian, NJMS; *National Human Genome Research Institute*

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Imaging the Transport of Individual mRNA Molecules to the Active Synapses; S. Tyagi, NJMS; *National Institute of Mental Health*

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Age and Gender Differences in Apoptosis and Stem Cells; D. Vatner, NJMS; *National Institute on Aging*

Mechanisms of Myocardial Ischemia and Reperfusion; 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*

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IGF and IGF Receptor Function in Mammary Development; T. Wood, NJMS; *National Institute of Diabetes and Digestive and Kidney Diseases*

Mechanism of Intrinsic CardioProtection in Marmota Moxax; L. Yan, NJMS; *National Heart, Lung and Blood Institute*

Gender Differences in Caloric Restriction CardioProtection; L. Yan, NJMS; *National Heart, Lung and Blood Institute*

Anthrophagic Defense Against Intracellular Parasites; G. Yap, NJMS; *National Institute of Allergy and Infectious Diseases*

Regulation of Type 1 Immunity to Toxoplasma; G. Yap, NJMS; *National Institute of Allergy and Infectious Diseases*

Pathogenic and Protective T Cells in Toxoplasmosis; G. Yap, NJMS; *National Institute of Allergy and Infectious Diseases*

Novel Approaches for Burn Injury Cardiac Dysfunction; A. Yatani, NJMS; *National Heart, Lung and Blood Institute*

Ethanol and Mesolimic GABAergic Neurons; J. Ye, NJMS; *National Institute on Alcohol Abuse and Alcoholism*

Alcohol and Mesolimic Glutamatergic Transmission; J. Ye, NJMS; *National Institute on Alcohol Abuse and Alcoholism*

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MPO and NO Signaling in Neointima Formation; C. Zhang, NJMS; *National Heart, Lung and Blood Institute*

New Genes Involved in Cellular Responses to Quinolone Treatment; X. Zhao, NJMS; *National Institute of Allergy and Infectious Diseases*

Identification of Human Cytomegalovirus Pathogenic Genes; H. Zhu, NJMS; *National Institute of Allergy and Infectious Diseases*

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Impaired Glucose Challenge Test & Maternal Fetal Outcomes; X. Chen, SOM; *National Institutes of Health*

Young Sexually Abused Children: Optimal CBT Strategies; E. Deblinger, SOM; *National Institutes of Health*

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RNA Polymerase Structure and Function; W. McAllister, SOM; *National Institutes of Health*

Mechanisms in Developmental Timing; E. Moss, SOM; *National Science Foundation*

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Targeting Hexokinase II in Chemotherapy; J. Pastorino, SOM; *National Institutes of Health*

Effects of Ethanol on TNF Induced Cytotoxicity; J. Pastorino, SOM; *National Institutes of Health*

Monitoring Mechanisms in Mammalian Ribosome Biogenesis; D. Pestov, SOM; *National Institutes of Health*

Vitamin D Status in Pregnant Women; T. Scholl, SOM; *National Institutes of Health*

Phthalate Exposure and Pregnancy Outcome; P. Stein, SOM; *National Institutes of Health*

Developing Treatment, Treatment Validation, and Treatment Scope in the Setting of an Autism Clinical Trial; P. Stein, SOM; *US Army Research Office*

Coordination of Fetal Growth by Nutrient Availability; P. Stein, SOM; *National Institutes of Health*

Role of the Oxidative Stress Pathway in Drug Resistance; R. Strich, SOM; *National Institutes of Health*

Mechanisms of Transient Transcription in Yeast; R. Strich, SOM; *National Institutes of Health*

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Prevalence of Complementary and Alternative Medicine Use and Disclosure to Healthcare Providers in a Complementary Cancer Center; A. Perlman, SHRP; *National Cancer Institute, National Institutes of Health*

Study of Vagus Nerve Stimulation Using the Neurocybernetic Prosthesis System in Patients with Refractory Fibromyalgia with and without Concurrent Major Depression; A. Perlman, SHRP; *The National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health*

Multisite RCT Investigating the Efficacy of Massage for Osteoarthritis; A. Perlman, SHRP; *National Center for Complementary and Alternative Medicine, National Institutes of Health*

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Cancer Survivorship: Identification and Development of Critical Research Pathways and Interventions; E. Lattime, RWJMS; *New Jersey Commission on Cancer Research*

The Role of IDO - Blockade in Melanoma Treatment; J. Lee, RWJMS; *New Jersey Commission on Cancer Research*

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Cell Proliferation and Neurogenesis; R. Nowakowski, RWJMS; *New Jersey Commission on Spinal Cord Research*

Role of BDNF Signaling in Traumatic Brain Injury; S. Thakker-Varia, RWJMS; *New Jersey Commission on Brain Injury Research*

Plasticity of Amnion-Derived Stem Cells (ADSCs) in Vitro and in Vivo; D. Woodbury, RWJMS; *New Jersey Commission on Science and Technology*

Functional analysis of the PALB2-KEAP1 Interaction; J Ma, RWJMS, *New Jersey Commission on Cancer Research*

Regulation of TGF- $\alpha$  Shedding in Cancer; H. Fan, RWJMS; *New Jersey Commission on Cancer Research*

Computer Aided Cancer Target Detection System; J. Zhou, RWJMS, *New Jersey Commission on Cancer Research*

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The Role of LIF in Breast Cancer; C. Zhang, RWJMS, *New Jersey Commission of Cancer Research*

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Tumor Suppression by Telomere Dysfunction Induced Senescence; U. Herbig, NJMS; *NJ Commission on Cancer Research*

Oncogene Induced Telomere Dysfunction; U. Herbig, NJMS; *NJ Commission on Cancer Research*

Multiple Myeloma Cell Growth Inhibition by an Opioid; R. Howells, NJMS; *NJ Commission on Cancer Research*

Characteristics of High Risk Heterosexuals in the Newark Eligible Metro Area; S. Kim, NJMS; *NJ Department of Health and Senior Services*

Stimulating CNS Regeneration after Traumatic Brain Injury; S. Levison, NJMS; *NJ Commission on Brain Injury Research*

Spinal Cord Injury in MS: Biomarkers and Therapy; A. Pachner, NJMS; *NJ Commission on Spinal Cord Research*

The Role of miRNAs and Cancer Stem Cells in CLL; E. Raveche, NJMS; *NJ Commission on Cancer Research*

Mycoplasma and BMP2 in Lung Cell Transformation; M. Rogers, NJMS; *NJ Commission on Cancer Research*

Research for the NJ Domestic Violence Fatality and Near Fatality Review Board; S. Rovi, NJMS; *NJ Department of Community Affairs*

Tonic Gabaergic Inhibition after Traumatic Brain Injury: Role in Epileptogenicity; V. Santhakumar, NJMS; *NJ Commission on Brain Injury Research*

Mitochondrial Telomerase and Its impact in Prostate Cancer; J. Santos, NJMS; *NJ Commission on Cancer Research*

Antimicrobial Resistance Awareness and Judicious Antibiotic Use Among General Physicians and Specialist; A. Sinha, NJMS; *NJ Department of Health and Senior Services*

Regulation of GTPase Signaling by Sec14p Domains; I. Whitehead, NJMS; *NJ Commission on Cancer Research*

Insulin Like Growth Factor-1 (IGF-1); R. Wieder, NJMS; *NJ Commission on Cancer Research*

Mediated Survival of Oligodendrocyte Progenitors in Spinal Cord Injury; T. Wood, NJMS; *NJ Commission on Spinal Cord Research*

IGF Signaling in Normal and Malignant Breast Stem Cells; T. Wood, NJMS; *NJ Commission on Cancer Research*

The Role of the E2F3 Locus in Myc-Triggered Prostate Cancer; L. Wu, NJMS; *NJ Commission on Cancer Research*

Rb/E2F Pathway in Hematopoiesis and Leukemia; L. Wu, NJMS; *NJ Commission on Cancer Research*

Identification of Human Cytomegalovirus Pathogenic Genes; H. Zhu, NJMS; *NJ Commission Cancer Research*

RFLP DNA Analysis; B. Kreiswirth, NJMS; *Department of Health and Mental Hygiene*

Use of BMH as a Diagnostic Marker; R. Nagele, SOM; *NJ Commission on Science and Technology*

Genomic Stability, Chromatin Remodeling and Differentiation Potential of Mesenchymal Stem Cells During ex vivo Expansion; R. Nagele, SOM; *NJ Commission on Science and Technology*

Oxidative Stress and Brain Metabolism in Autism; P. Stein, SOM; *NJ Governor's Council on Autism*

A Novel Biological Therapy for Treatment of Leukemia; S. C. Kachlany, NJDS; *NJ Commission on Cancer Research*

Overall Evaluation of the New Jersey Comprehensive Tobacco Control Program; C. Delnevo, SPH; *New Jersey Department of Health and Senior Services*

Evaluation of a Demonstration on Sterile Syringe Access Program in New Jersey; K. Demissie, SPH; *New Jersey Department of Health and Senior Services*

Evaluation and Technical Assistance in Support of County Coalition Activities and the Comprehensive Cancer Control Plan; M. Sass, SPH; *New Jersey Department of Health and Senior Services*

Assessment of Learning Needs and Clinical Practice Support for Nurse in Substance Use Harm Reduction Settings in New Jersey; C. Burr, FXBC-SN; *New Jersey Department of Health and Senior Services, Division of HIV/AIDS Services*

## **NON-GOVERNMENTAL NON-PROFIT SPONSORS**

Plasmacytoid Dendritic Cells in Multiple Sclerosis; K. Balashov, RWJMS; *National Multiple Sclerosis Society*

Thymectomy Trial on Non Thymomatous Myasthenia Gravis Patients Receiving Prednisone Therapy; J. Belsh, RWJMS; *University of Alabama at Birmingham*

NIDDK Genetics Repository; A. Brooks, RWJMS; *Rutgers, The State University of New Jersey*



Elucidating the Role of Interaction Between Caveolin-3 and MG53 in Muscle Membrane Repair; C. Cai, RWJMS; *American Heart Association*

FOCUS Hip Fracture Transfusion Trial: Delirium & Other Cognitive Outcomes; J. Carson, RWJMS; *University of Maryland, Baltimore*

Transforming Growth Factor Beta Signaling and Melanoma Development; K. Cohen-Solal, RWJMS; *American Cancer Society of New Jersey*

Trial of Short Course Androgen Deprivation Therapy +/- Bevacizumab for PSA Recurrence of Prostate Cancer after Definite Local Therapy; R. DiPaola, RWJMS; *Dana-Farber Cancer Institute*

Multimodality Therapy for Recurrent High Risk Prostate Cancer: A Phase II Study (CTA); R. DiPaola, RWJMS; *Duke University*

Role of (HSP)-32 in Glomerular Microvasculature; P. Duann, RWJMS; *American Heart Association*

Mechanism of Thyroid Hormone Dependent Gene Silencing in Heart Muscle; J. Fondell, RWJMS; *American Heart Association*

Clinically Useful Devices for Meniscus and Anterior Cruciate Ligament (ACL) Reconstruction; C. Gatt, RWJMS; *Rutgers, The State University of New Jersey*

Bfl-1 as a Therapeutic Target and Prognostic Indicator in B-CLL and AML; C. Gelinis, RWJMS; *The Leukemia and Lymphoma Society*

Tropomyosin in Health and Disease I Bioinformatics and Biophysical Approaches; S. Hitchcock, RWJMS; *Muscular Dystrophy Association*

Structural Genomics of Eukaryotic Domain Families; M. Inouye, RWJMS; *Rutgers, The State University of New Jersey*

Structural Genomics of Membrane Proteins; M. Inouye, RWJMS; *Columbia University*

Drug Abuse Prevention During Development Transitions; A. Interian, RWJMS; *Rutgers, The State University of New Jersey*

Mammalian TOR and SIN in Tumor Growth and Metastasis; E. Jacinto, RWJMS; *American Cancer Society*

Autophagy as a Therapeutic Target in Breast Cancer Treatment; V. Karantza-Wadsworth, RWJMS; *Damon Runyon Cancer Research Foundation*

The Women's Health Initiative Memory Study Epidemiology of Cognitive Health Outcomes; J. Kostis, RWJMS; *Wake Forest University Health Sciences*

The Women's Health Initiative Memory Study of Younger Women; J. Kostis, RWJMS; *Wake Forest University Health Sciences*

Treatment of Preserved Cardiac Function Heart Failure with an Aldosterone Antagonist (TOPCAT); J. Kostis, RWJMS; *New England Research Institutes*

Investigation of Six Weeks vs Six Month or Oral Valganciclovir Therapy in Infants with Symptomatic Congenital Cytomegalovirus Infection; B. Kunjumon, RWJMS; *University of Alabama at Birmingham*

The Regulation and Interconnections Between the p53 and Metabolic Signaling Transduction Pathways in Breast Cancers; A. Levine, RWJMS; *The Breast Cancer Research Foundation*

Role of CREG in Vascular Smooth Muscle Cell Phenotype Modulation; S. Li, RWJMS; *American Heart Association*

Molecular Characterization Niemann Pick C2 Disease; P. Lobel, RWJMS; *Ara Parseghian Medical Research Foundation*

Increased Cancer Susceptibility in Aging Tissue- an Embronic Stem Cell Approach; C. Lu, RWJMS; *Ellison Medical Foundation*

Modeling Human Development and Disease with Embryonic Stem Cells; C. Lu, RWJMS; *Living Free for Research*

Alcohol Memory and Affective Regulation; J. Ma, RWJMS; *Rutgers, The State University of New Jersey*

Treatment of Melanoma with Wild Type P53 and Detectable S100B Using Pentamidine: A Phase II Trial with Correlative Biomarker Endpoints; J. Mehnert, RWJMS; *University of Maryland*

Elucidating the Role of miRNA Dysregulation in Schizophrenia and Bipolar Disorder; J. Millonig, RWJMS; *Rutgers, The State University of New Jersey*

DAPT Dual Antiplatelet Therapy; A. Moreyra, RWJMS; *Harvard Clinical Research Institute*

A Cancer Survivor Educational Initiative for the Primary Care Workforce; D. O'Malley, RWJMS; *Lance Armstrong Foundation*

Redesign of Aminoglycosides to Treat Human Genetic Diseases Caused by Nonsense Mutations; D. Pilch, RWJMS; *United States-Israel Binational Science Foundation (BSF)*

Osteoblastic EGFR Signaling in Breast Cancer Bone Metastasis; L. Qin, RWJMS; *Susan G. Komen Breast Cancer Foundation*

The Nematode *C. Elegans* as a Pharmacological Tool; F. Sesti, RWJMS; *American Heart Association*

Interplays Between the Jaw Mesenchymal Stem Cells & T Lymphocytes; Y. Shi, RWJMS; *University of Southern California*

Multiscale Structure-Function Relationships of Collagen in the Marine Cyanobacterium *Trichodesmium Erythraeum*; F. Silver, RWJMS; *Drexel University*

Trial of LBH589 (Rabinstat) at Two Dose Levels Combined with Bicalutamide (Casodex) in Men with Castration Resistant Prostate Cancer; M. Stein, RWJMS; *New York University School of Medicine*

Lower Extremity Angioplasty: Impact of Obesity, Gender and Ethnicity on Utilization and Outcomes; T. Vogel, RWJMS; *American Heart Association*

The Mechanism of HMG2 in Pulmonary Lymphangiomyomatosis; K. Chada, RWJMS; *Centre for Rare Lung Disorders, Columbia University*

Molecular Mechanisms of Signal Transduction; A. Stock, RWJMS; *Howard Hughes Medical Institute*

Intrathecal Enzyme Replacement Therapy for LINCL; S. Xu, RWJMS; *Batten Disease Support and Research Association*

Developing the Medical Home in Primary Care: Implementation of a Practice-based Patient Navigator; J. Ferrante, RWJMS; *Overlook Hospital Foundation*

3g-Nanotechnology-Based Targeted Drug Delivery; P. Ilmari, RWJMS; *European Commission Reserch Directorate General Integrated Project*

The Role of BDNF on Oligodendrocyte Lineage Cells in Cuprizone Model of MS; C. Dreyfus, RWJMS; *National Multiple Sclerosis Society*

Regulation of TNF- $\alpha$  Shedding in Heart Disease; H. Fan, RWJMS; *American Heart Association*

Addressing Tobacco In Addictions Treatment Programs; M. L. Steinberg, RWJMS; *American Legacy Foundation*

Evaluation of the P53 Binding Protein (53BP1) in Local-Regional Management of Breast Cancer; B. Haffty, RWJMS; *Breast Cancer Research Foundation*

Reduction of PTV Margins in APBI; K. Braun, RWJMS; *Radiologic Society of North America*

MicroRNA-145 in the Next Generation of Drug Eluting Stents; C. Zhang, NJMS; *American Heart Association*

Natural Repressors of BMP2 Syntheses; M. Rogers, NJMS; *American Heart Association*

Protection Against Experimental Autoimmune Encephalomyelitis by Calbindin-D28K; S. Christakos, NJMS; *National Multiple Sclerosis Society*

Program of Cardiac Cell Survival in Ischemic Heart; C. Depre, NJMS; *American Heart Association*

The Role of MAP Kinases in Regulating Oxidative Stress and Longevity; A. Ivessa, NJMS; *American Heart Association*

Correction of Vascular Defects in ID Knockout Hearts by Wnt5a Induced Compensatory Mechanism; D. Fraidenraich, NJMS; *American Heart Association*

Embryonic Stem Cells Prevent Duchenne Muscular Dystrophy in MDX Mice; D. Fraidenraich, NJMS; *Muscular Dystrophy Association*

Cardiac Protection with Adenylyl Cyclase; K. Iwatsubo, NJMS; *American Heart Association*

The Role of the GSK-3 Alpha in Cardiac Growth, the Development of Cardiac Hypertrophy and the Progression to Heart Failure; P. Zhai, NJMS; *American Heart Association*

Comparing Docetaxel in Combination with Doxorubicin and Cyclophosphamide (TAC) vs Doxorubicin and Cyclophosphamide Followed by Docetaxel (AC-T); M. Bryan, NJMS; *Breast Cancer International Research Group*

Strategic Timing of Antiretroviral Therapy; S. Hodder, NJMS; *Institute for Clinical Research*

Target in the Malaria Parasite, Plasmodium Casein Kinase I; P. Bhanot, NJMS; *American Heart Association*

Trypanosome Gene Expression as a Drug Target for Chagas Related Cardiomyopathy; A. Das, NJMS; *American Heart Association, Heritage Affiliate*

Structural Analysis of RAP Mediated Signal Transduction; M. Neiditch, NJMS; *United Negro College Fund*

The Role of Homocysteine Thiolactone in Atherosclerosis; H. Jakubowski, NJMS; *American Heart Association*

Notch Signal Specificity in Endothelial Differentiation, Cardiovascular Disease, and Infection by Human Herpesvirus-8; D. Lukac, NJMS; *American Heart Association*

Role of GMI Ganglioside and its Cross-Linking Ligands in Autoimmune Suppression; R. Ledeen, NJMS; *National Multiple Sclerosis Society*

IGF Signaling and Stem Cell Phenotype in Wnt-1 Initiated Mammary Tumorigenesis; D. Lazzarino, NJMS; *Ruth Estrin Goldberg Memorial for Cancer Research*

The mTOR Pathway: A Master Regulator of Oligodendrocyte Differentiation; T. Wood, NJMS; *National Multiple Sclerosis Society*

Influence of the Maternal Immune Response on Development of Autism; N. Ponzio, NJMS; *Autism Speaks*

Influence of Maternal Cytokines Produced During Pregnancy on Development of Effector and Regulatory T. Helper; N. Ponzio, NJMS; *Autism Speaks*

T. Cell Polarization and Candida Reactivity in Autistic Children with Food Allergy; H. Jyonouchi, NJMS; *Autism Research Institute*

Identifying Molecular Mechanisms that Regulate Expression of the D1 Dopamine Receptor Gene in the Kidney; E. Kuzhikandathil, *American Heart Association, Heritage Affiliate*

Cardiac Dystrophy: Cellular Mechanisms; N. Shirokova, NJMS; *American Heart Association, Founders Affiliate*

Role of GTP in Iron Sulfur Cluster Formation in Mammalian Mitochondria; D. Pain, NJMS; *American Heart Association, Founders Affiliate*

Sodium and Calcium Fluxes in Dystrophic Cardiomyopathy; N. Shirokova, NJMS; *American Heart Association, Founders Affiliate*

Genetic Characterization of Carbapenem Resistant Klebsiella Pneumonia; B. Kreiswirth, NJMS; *New York Community Trust*

Role of Two Component Signal Transduction in Candida Interaction with Endothelial Cells; N. Chauhan, NJMS; *American Heart Association*

Mitochondrial Calcium Signaling and its Influence on Neural Activation-Induced Cerebral Response; S. Kannurpatti, NJMS; *American Heart Association*

Mechanism of the Nicotinic Anti-Inflammatory Effects in Sepsis; L. Ulloa, NJMS; *American Heart Association*

Surveillance of Radiation of Associated Illness Through NPDS In Vitro Testing for Respiratory Sensitizers Irritants and Fragrance Materials Agents (A Pilot Study); S. Marcus, NJMS; *American Association of Poison Control Centers*

In Vitro Testing for Respiratory Sensitizers Irritants and Fragrance Materials Agents (A Pilot Study); L. Ryan, NJMS; *Research Institute for Fragrance Materials*

The Role of the Bone Marrow in Wound Healing and Tissue Repair Following Trauma; Z. Sifri, NJMS; *American Association for the Surgery of Trauma*

Regulatory Mechanisms of the Crk Adapter Protein; R. Birge, NJMS; *Rutgers, The State University of NJ*

Numerical and Empirical Investigations of Automotive Related Aortic Injury; J. Siegel, NJMS; *Wayne State University*

Warfarin vs. Aspirin in Reduced Cardiac Ejection Fraction; C. Gerula, NJMS; *Columbia University*

Prevention of Cisplatin or Oxaliplatin Induced Peripheral Neuropathy with Alpha Lipoic Acid; R. Wieder, NJMS; *The University of Texas*

Small Molecule Inhibitors of Mycobacterium TB RNA Polymerase; N. Connell, NJMS; *Rutgers, The State University of NJ*

Women's Health Initiative Memory Study Epidemiology of Cognitive Health Outcomes; N. Lasser, NJMS; *Wake Forest University Health Sciences*

Women's Health Initiative Study of Younger Women; N. Lasser, NJMS; *Wake Forest University Health Sciences*

The Functions of Affect in Treatment Decisions of Rising PSA Patients; A. Natale-Pereira, NJMS; *Mount Sinai School of Medicine*

Telomere Attrition and Cardiovascular Disease; A. Aviv, NJMS; *Washington University*

Role of HVPS34/mTOR Complex in Amino Acid-Induced Obesity and Insulin Resistance; A. Thomas, NJMS; *University of Cincinnati*

Design of Novel Cardiac Glycosides; J. Berlin, NJMS; *Drexel University*

ER Mitochondrial Signaling and Alcoholic Tissue Injury; L. Gaspers, NJMS; *Thomas Jefferson University*

Sleep Bruxism and Central Sensitization in Myofascial Face Pain; K. Quigley, NJMS; *New York University*

Mycobacterium Tuberculosis Infection of Human Lung; G. Kaplan, NJMS; *Cornell University*

Protective Immunity Induced by Newborn BCG Vaccination; G. Kaplan, NJMS; *University of Cape Town*

Cellular Basis for the Antifungal Activity of Amiodarone; D. Perlin, NJMS; *John Hopkins University*

Ultra Sensitive Detection of DNA Using Luminescence Based Molecular Beacons; A. Mustaev, NJMS; *New Jersey Institute of Technology*

Imaging the Cognitive Modulation of Pain in Fibromyalgia; G. Lange, NJMS; *University of Wisconsin*

High Resolution Human Connectome; B. Biswal, NJMS; *Medical College of Wisconsin*

Validating Resting State Derived Brain Connectivity; B. Biswal, NJMS; *Board of Regents of the University of Wisconsin System*

Ginkgo Biloba for ECT Induced Memory Deficits; C. Kellner, NJMS; *Medical University of South Carolina*

The Effect of an American Diabetes Association Diet on Non-Diabetic Gravidia; J. Apuzzio, NJMS; *National Perinatal Foundation*

Biological Function of IRF 5 SNPs in Lupus; B. Barnes, NJMS; *Arthritis Foundation*

In Vivo Evaluation of Insulin as an Adjuvant to Improve Healing in Segmental Bone Defects in a Bilateral Canine Ulna Model; K. Beebe, NJMS; *Orthopaedic Research and Education Foundation*

Effect of a New Curriculum on the Humanism and Professionalism of Medical Students Analysis and Conceptual Model Development; C. Brazeau, NJMS; *The Arnold P. Gold Foundation*

A Novel Approach to Controlling Hyperphosphatemia in Diabetic Rats with End Stage Renal Disease; D. Casirola, NJMS; *Diabetes Action Research and Educational Foundation*

Role of the Toxin Antitoxin of Mycobacterium Tuberculosis in the Development of Persistence; P. Fontan, NJMS; *Stony World Herbert Fund*

Study of Multiple Drug Resistant Strains of Tuberculosis; M. Gennaro, NJMS; *Civilian Research and Development Foundation*

Telomere Dysfunction Induced Senescence in Aging Primates; U. Herbig, NJMS; *Ellison Medical Foundation*

Role of Immune Pressure in Effectiveness of TB Chemotherapy; G. Kaplan, NJMS; *Bill and Melinda Gates Foundation*

Improving treatment and Outcomes for Minority Patients Hospitalized for Heart Failure; M. Klapholz, NJMS; *Robert Wood Johnson Foundation*

Inhibition of Type I and Type III IFNs by Poxvirus Encoded Soluble Proteins; S. Kotenko, NJMS; *The Alliance for Lupus Research*

L Arginine Transport in Cardiomyopathy Models of Muscular Dystrophy; R. Peluffo, NJMS; *Josiah Macy, Jr. Foundation*

Ameliorating Hypothalamic S Nitrosylation Provides a Therapy for HAAF; V. Routh, NJMS; *Juvenile Diabetes Research Foundation International*

Redox and Nitrosative Regulation of Cardiac Remodeling Novel Therapeutic Approaches for Heart Failure; J. Sadoshima, NJMS; *Leducq Foundation*

Proton Modulation of Perisomatic Interneurons in Epilepsy; V. Santhakumar, NJMS; *Epilepsy Foundation of America*

Utilization of Mobile Discharge Instructions in the ED to Improve Communication with Spanish Speaking Patients; S. Scott, NJMS; *Josiah Macy, Jr. Foundation*

Synergistic Role of Retinoblastoma and E2F8 in Maintaining Normal Hematopoiesis and Preventing Hematologic Malignancies; L. Wu, NJMS; *Leukemia Research Foundation*

Extracellular Matrix Development for Cell-Based Therapy of AMD; M. Zarbin, NJMS; *Lincy Foundation*

Anaerobic Shock as a Novel Treatment for Tuberculosis; X. Zhao, NJMS; *Bill and Melinda Gates Foundation*

Geriatric Infusion: Preparing Physicians of the 21st Century to Care of Our Elderly; A. Chopra, SOM; *Reynolds Foundation*

The Role of Cyclin C in Tumor Progression; K. Cooper, SOM; *WW Smith Charitable Trust*

Effect of OMT on the Use of Opioid and Analgesic Medication for Chronic Low Back Pain; R. Jermyn, SOM; *American Osteopathic Association*

Stem Cell Therapy for Canavan Disease; P. Leone, SOM; *Jacob's Cure Foundation*

Embryonic Stem Cell-Based Therapy for Canavan Disease; P. Leone, SOM; *Jacob's Cure Foundation*

Neural Stem Cell as Regenerative Therapy for Canavan Disease; P. Leone, SOM; *Jacob's Cure Foundation*

Role of Ubiquitin in Regulating Ribosome Stability; N. Shcherbik, SOM; *American Heart Association (Founders Affiliate)*

Factors of Racially Disparate Breast Cancer Treatment; K. Demissie, SPH; *American Cancer Society*

Triggering of Myocardial Infraction by Ambient Fine Particles and Fine Particle Components; D. Rich, SPH; *American Heart Association*

Human CYP2A13: A New Link Between Smoking and Breast Cancer; J. Hong, SPH  
*Flight Attendant Medical Research Institute*

Enhancing Living Donor Kidney Transplant Education (ELITE) Study; D. Brown, SPH, St.  
*Barnabas Medical Center*

Tobacco Treatment for High Risk Populations; J. Foulds, SPH, *Healthy Mothers, Healthy Babies Coalition*

Polypharmacy Use among Long-term Care Residents Living at The Francis E. Parker Memorial Home facilities; G. Heider, SN; *The Francis E. Parker Memorial Home*

### PRIVATE INDUSTRY

Study to Evaluate the Efficacy and Safety of a Combination Oral Contraceptive Regimen (DR-103) for the Prevention of Pregnancy in Women; G. Bachmann, RWJMS; *Teva Branded Pharmaceutical Products R&D*

Study to show superiority of the oral contraceptive SH T006581D (Qlaira) over Ortho Tri-Cyclen Lo on hormone withdrawal; G. Bachmann, RWJMS; *Bayer Corporation Pharmaceutical Division*

Clinical Trial Assessing Safety and Efficacy of Menoerba for Hot Flashes and Menopausal Symptoms in Postmenopausal Women; G. Bachmann, RWJMS; *Bionovo*

A multicenter study to assess the efficacy and safety of the beta 3 agonist YM178; G. Bachmann, RWJMS; *Astellas Pharma US*

Clinical Trial to Assess the Osteoporotic Postmenopausal women Treated with Vitamin D and Calcium; G. Bachmann, RWJMS; *Merck and Company*

Multicenter Study to Evaluate Cycle Control Bleeding Pattern Blood Pressure Lipid and Carbohydrate Metabolism of the Transdermal Contraceptive Patch; G. Bachmann, RWJMS; *Bayer Healthcare Pharmaceuticals*

The Effect of Dose Titration and Dose Tapering on the Tolerability of Desvenlafaxine in Women with Vasomotor Symptoms Associated with Menopause; G. Bachmann, RWJMS; *Wyeth-Ayerst Pharmaceuticals*

Registry of Patients Treated with Cartolizumab Pagol (Cimzia) for Crohn's Disease; A. Balani, RWJMS; *Schwarz Biosciences*

Ancillary Immune Studies of Ga 20mg vs. 40mg; D. Banerjee, RWJMS; *TEVA Pharmaceuticals Industries, Ltd.*

Liposomal Drug Treatment in Lymphoma Xenograft in Mice; J. Bertino, RWJMS; *Celator Pharmaceuticals*

Feasibility of 3-D Conformal Accelerated Partial Breast Irradiator (APBI) for Early Stage, Node Negative Breast Cancer Patients Using Aculoc Fiducial Markers: A Phase I Trial; K. Braun, RWJMS; *Radiological Society of North America*

Increased Flow Utilizing Subcutaneously Enabled Pediatric Rehydration (Infuse Pediatrics Rehydration) Clinical Trial; V. Chundru, RWJMS; *Baxter Healthcare Corporation*

Ancillary Immune Studies to Glutiramer Acetate (GA) 20mg vs 40mg Phase II Protocol #0016: Glatiramer Acetate (GA) Induced Regulatory T-Cells (Tregs) in Multiple Sclerosis; S. Dhib-Jalbut, RWJMS; *TEVA Pharmaceuticals Industries, Ltd.*

CINJOG RPP for Carl Henningson, M.D., Dr. Arthur Topilow, and Dr. Kenneth Nahum Holding Staff Privileges at Jersey Shore to Participate in an Investigator Initiated Study (CINJ# 040504); M. Gabel, RWJMS; *Novartis Pharmaceuticals*

CINJOG RPP for Jersey Shore University Medical Center to Participate in an Investigator - Initiated Study (CINJ#040504); M. Gabel, RWJMS; *Novartis Pharmaceuticals*

Interferon-Beta 1a Modulation of B Cells in Multiple Sclerosis; S. Dhib-Jalbut, RWJMS; *EMD Serono*

Study to Evaluate the Single-Dose Pharmacokinetics, Safety and Tolerability of Doripenem in Infants (term and Preterm) Less than 12 Weeks Chronological Age; S. Gaur, RWJMS; *Johnson and Johnson*

Study to Evaluate the Single-Dose Pharmacokinetics and Safety of Ceftiofuroxime in Pediatric Subjects; S. Gaur, RWJMS; *Johnson and Johnson Pharmaceuticals*

Study of Plitidepsin (Aplidin) in Combination with Cytarabine in Patients with Relapsed Refractory Leukemia (CTA); M. Gharibo, RWJMS; *PharmaMar, S.A.*

Multicenter study of MDX-060; M. Gharibo, RWJMS; *Medarex*

Study of R4733 Administered Orally; D. Gibbon, RWJMS; *Hoffman La Roche*

Multicenter Trial of Patupilone (EPO906) versus Pegylated Liposomal Doxorubicin; D. Gibbon, RWJMS; *Novartis Pharmaceuticals*

The Anaconda Endovascular Graft, US FDA Phase II Study; A. Graham, RWJMS; *Terumo Cardiovascular Systems Corporation*

The Experience of Fear in Patients with Rheumatoid Arthritis: A Qualitative Analysis of Patient Interviews; A. Hassett, RWJMS; *Bristol-Myers Squibb Company*

Multicenter study Comparing the effects of Rivastigmine Patch 13cm<sup>2</sup> vs Rivastigmine Patch 5 cm<sup>2</sup> on Activities of Daily Living; J. Heath, RWJMS; *Novartis Pharmaceuticals*

Study of BMS-708163 in the Treatment of Patients with Prodromal Alzheimer's Disease; J. Heath, RWJMS; *Bristol-Myers Squibb Pharmaceutical Research Institute*

An Open Label Trial to Evaluate the Safety of Dasatinib in the Treatment of Scleroderma Pulmonary Interstitial Fibrosis; V. Hsu, RWJMS; *Bristol-Myers Squibb Company*

Distol-EXT: Digital Ischemic Lesions in Scleroderma Treated with Oral Trepstinil Diethanolomine: An Open-Label Multicenter Extension Study; V. Hsu, RWJMS; *United Therapeutics Corporation*

Study of Topical Formulation of Nitroglycerin, Vascan, (MQX-503), and Matching Vehicle in the Treatment and Prevention of Symptoms Associated with Raynaud's Phenomenon; V. Hsu, RWJMS; *MediQuest Therapeutics*

mTOR Targets in T Lymphocyte Development; E. Jacinto, RWJMS; *Cancer Research Institute*

Aminotrexate: A Novel Strategy to Replace Methotrexate Psoriasis; B. Kamen, RWJMS; *Syntrix Biosystems Inc.*

Safety and Feasibility of Short-Course Accelerated Hypofractionated Partial Breast Radiotherapy in Women with Early Stage Breast Cancer Using Contura MLB Breast Brachytherapy Catheter; A. Khan, RWJMS; *SenoRx (SenoRx)*

Evaluation of the Performance of the MicroPhage S. Aureus/MSSA/MRSA Test for the Identification of Methicillin Sensitive and Resistant S. Aureus Directly from Positive Blood Cultures; T. Kirn, RWJMS; *Microphage*

Study to Evaluate the Efficacy and Safety of LCZ696 Compared to Enalapril on Morbidity and Mortality; J. Kostis, RWJMS; *Novartis Pharmaceuticals*

Chronicle Offers Management to Patients with Advanced Signs and Symptoms of Heart Failure (COMPASS HF). A Phase III Clinical Study; J. Kostis, RWJMS; *Medtronic*

Multicenter Study of the effects of Glatiramere Acetate (GA) on the Fetal Nerve Fiber Layer (RNFL) and Visual Function; F. Lepore, RWJMS; *TEVA Neuroscience*

Extension Study of Apremilast (CC-100004) in Subjects Who Completed the Treatment Phase of the Core Study CC-10004-PSOR-005; M. Magliocco, RWJMS; *Celgene Corporation*

Study in Moderate to Severe Chronic Plaque Psoriasis Subjects who Completed a Preceding Psoriasis Study; M. Magliocco, RWJMS; *Abbott Laboratories*

Study to Evaluate the Steady State Pharmacokinetic Parameters of Nevirapine Extended Release Tablets in HIV-1 Infected Children; A. Malhotra, RWJMS; *Boehringer Ingelheim Pharmaceuticals*

Study to Evaluate the Safety and Efficacy of IPX066 in Advanced Parkinson's Disease; M. Mark, RWJMS; *IMPAX Laboratories and Jazz Pharmaceuticals*

Study of RhuMAb IGFR in Patients w/Advanced Solid Tumors; J. Mehnert, RWJMS; *Genentech*

Study to Evaluate the Safety and Efficacy of PROCHYMAL (Exvivo Cultured Adult Human Mesenchymal Stem Cells) Intravenous Infusion; A. Moreyra, RWJMS; *Osiris Therapeutics*

Comparison Study of the CYPHER ELITE to the CYPHER Ex VELOCITY Sirolimus Eluting Stent Systems; A. Moreyra, RWJMS; *Cordis Corporation*

Study of the Safety and Pharmacology of MetMab (PRO143966) a Monovalent Antagonist Antibody to the Receptor C-MET; R. Moss, RWJMS; *Genentech*

Study of the Palatability and Tolerability of Exjade Taken with Meals with Different Liquids or Crushed and Added to Food; M. Neier, RWJMS; *Novartis Pharmaceuticals*

Evaluation of Dotarem Enhanced MRA Compared to Time of Flight (FOF) MRA in the Diagnosis of Renal Arterial Disease; J. Noshier, RWJMS; *Guerbet Group*

A Multicenter, Event-Driven, Non-Inferiority Study; A. Patel, RWJMS; *Johnson and Johnson Pharmaceuticals*

Study to Evaluate the Safety of Sitaxsentan Sodium Treatment in Patients with Pulmonary Arterial Hypertension; L. Patrick-Miller, RWJMS; *Encysive Pharmaceuticals*

Evaluation of Lamictal as an Add on Treatment for Bipolar I Disorder in Children and Adolescents, 10 to 17 Years of Age; T. Petti, RWJMS; *GlaxoSmithKline*

A Postauthorization Safety Surveillance Study of Moroctocog Alfa (AF-CC) in Usual Care Settings; C. Philipp, RWJMS; *Wyeth-Ayerst Pharmaceuticals*

Clinical Study to Investigate Human cl rhFVIII a Newly Developed Human Cell Line Derived Recombinants FVIII Concentrate; C. Philipp, RWJMS; *Octapharma USA*

Development of Azachryseniums as Novel Antimicrobial Agents; D. Pilch, RWJMS; *TAXIS Pharmaceuticals*

Impella Training in Swine; J. Plate, RWJMS; *Abiomed*

Study of Imatinib Mesylate and Gemcitabine for First-Line Treatment of Metastatic Pancreatic Cancer; E. Poplin, RWJMS; *Novartis Pharmaceuticals*

A Multicenter, Open Registry of Patients with Psoriasis Who are Candidates for Systemic Therapy Including Biologics; B. Rao, RWJMS; *Centocor Research and Development*

Artemis-IPF: A Multicenter Study to Evaluate the Efficacy and Safety of Ambrisentan; D. Riley, RWJMS; *Gilead Sciences*

Effect of PDACs on Initiation & Progression of EAE; Y. Ron, RWJMS; *Celgene Cellular Therapeutics*

Pharmacokinetics of Proprietary Pegylate Human Interferon in Mice for PBI; Y. Ron, RWJMS; *PEG Biosciences*

Study of QR-333 for the Treatment of Symptomatic Diabetic Peripheral Neuropathy; S. Schneider, RWJMS; *Quigley Pharma*

Study of Patients Previously Enrolled in Exubera Controlled Clinical Trials; S. Schneider, RWJMS; *Pfizer*

EAP for Aztreonam Lysine for Inhalation in Patients with Cystic Fibrosis and Pseudomonas Aeruginosa Airway Infection Who Have Limited Treatment Options and are at Risk for Disease Progression; W. Sexauer, RWJMS; *Gilead Sciences*

Trial to Assess the Safety and Efficacy of Continous Astreonam for Inhalation Solution (AZLI) in Subjects w/Cystic Fibrosis(CF); W. Sexauer, RWJMS; *Gilead Sciences*

Comparative Study of the Matrics and Integneuro Cognitive Assessment Batteries; S. Silverstein, RWJMS; *AstraZeneca Pharmaceuticals LP*

Peptides with Potential Use as Anti-Wrinkling Agents; P. Sonsalla, RWJMS; *Expression Biosciences, L.L.C.*



Study of E7389 in Combination with Carboplatin in Subjects with Solid Tumors; M. Sovak, RWJMS; *Eisai*

Study of Deforolimus (MK-8669) and MK-0646 in Patients with Advanced Cancer; M. Stein, RWJMS; *Merck and Company*

Trial of a KSP Inhibitor Given as a Constant 24 Hour Infusion in Patients with Advanced Solid Tumors; M. Stein, RWJMS; *Merck and Company*

Trial to Evaluate the Safety and Tolerability of CP-675-206 Administered in Combination with SUO11248; M. Stein, RWJMS; *Pfizer*

Multicenter Clinical & Pharmacokinetics Study of Plitidepson in Combination w/Sorafenib or Gemcitabine in Patients w/advanced Solid Tumors or Lymphomas; M. Stein, RWJMS; *PharmaMar, S.A.*

Multicenter Study of Single Agent R05045337 Administered Orally in Patients with Acute Myelogenous Leukemia; R. Strair, RWJMS; *Hoffman La Roche*

Study of 12-0 Tetradecanoylphorbol-13-Acetate Plus Decamethasone & Choline Magnesium Trisalicylate in the Treatment of Patients with Relapsed/Refractory Myeloid Malignancies/Bone Marrow Disease; R. Strair, RWJMS; *Biosuccess Biotech Company*

Study of Bosutinib Administered in Combination w/Exemestane Vs Exemestane Alone as Second Line Therapy in Postmenopausal Women; A. Tan, RWJMS; *Wyeth Pharmaceuticals*

Multicenter Dose Escalation Study to Assess the Safety and Tolerability of Genz-644282 in Patients with Advanced Malignant Solid Tumors; A. Tan, RWJMS; *Genzyme Corporation*

Hemodynamic Assessment of Renal Artery Disease; A. Tan, RWJMS; *Creare*

International Study to Evaluate the Safety and Efficacy of Ocrelizumab Compared to Placebo; M. Tiku, RWJMS; *Genentech*

Study of Weekly Abraxane and RAD001 in Women with Locally Advanced or Metastatic Breast Cancer; D. Toppmeyer, RWJMS; *Novartis Pharmaceuticals*

Study to Evaluate the Effects of R04607381 on Cardiovascular (CV) Risk in Stable CHD Patients with a Documented Recent Acute Coronary Syndrome; T. Vagaonescu, RWJMS; *Hoffman La Roche*

Multicenter Trial to Determine whether Natural Huperzine A Improves Cognitive Function; W. Vega, RWJMS; *Georgetown University*

Multicenter Study to Evaluate Cardiovascular Outcomes Following Treatment with Alogliptin in Addition to Standard of Care in Subjects with Type 2 Diabetes; X. Wang, RWJMS; *Takeda Global Research & Development Center*

Development of an Inhibitor to Toxoplasma Gondii; W. Welsh, RWJMS; *Snowdon Pharmaceuticals*

Long Term Eslicarbazepine Acetate Extension Study; B. Wu, RWJMS; *Sepracor*

Treatment of Acute Hypertension: A Multicenter Emergency Department Clevidipine Utilization Registry; R. Eisenstein, RWJMS; *Randor Registry Research*

Use of a Solution Applied to Stethoscopes to Prevent MRSA Contamination; M. Merlin, RWJMS; *mPACT Environmental Solutions*

ARTIMIS-IPF: A Multicenter, Study to Evaluate the Efficacy and Safety of Ambrisentan in Subjects with Early Idiopathic Pulmonary Fibrosis (IPF); D. Riley, RWJMS; *Gilead Sciences*

Trial of Anti-IL-20 (109-0012) 100 mg/Vial in Psoriatic Subjects; M. Magliocco, RWJMS; *Novo Nordisk*

Golgi Analysis and BrdU Analysis of Brain; J. Alder and S. Thakker-Varia, RWJMS; *Advanced Technologies and Regenerative Medicine-J&J Subsidiary*

Effect of ATRM Cells and BDNF Neutralizing Antibodies on Dendritic Differentiation; S. Thakker-Varia and J. Alder, RWJMS; *Advanced Technologies and Regenerative Medicine-J&J Subsidiary*

Modulation of Plasmacytoid Dendritic Cell Function by IFN-beta Treatment in MS; K Balashov, RWJMS; *Berlex Laboratories*

High Throughput Data Analysis for Cancer Research; D.J. Foran, RWJMS. *International Business Machines*

Angiogenic Response to Selective Internal Radiation Therapy; J.L. Noshier, and D.J. Foran, RWJMS. *Sirtex Medical, Inc*

The Role of  $\alpha$ -Synuclein in Parkinson's Disease Using Post Mortem Human Tissue; E.K. Richfield, RWJMS; *Elan Pharmaceuticals*

Training Psychiatrists and Psychiatric Advanced Practice Nurses to Treat Tobacco Dependence; J. M. Williams, RWJMS; *Pfizer, Inc*

Multicenter Study Evaluating the Safety and Efficacy of Varenicline Tartrate (CP-526,555) 1mg BID for Smoking Cessation in Subjects with Schizophrenia and Schizoaffective Disorder; J. M. Williams, RWJMS; *Pfizer, Inc*

Motivational Interviewing - Basics & Beyond; M. L. Steinberg, RWJMS; *Pfizer, Inc*

Image Registration Between Fluoroscopic Image and (4D) CT Images and Its Potential Use in Determination of Radiation Beam Gating Parameters, N. J. Yue, RWJMS, *Varian Medical Systems*

Comparison of Dexmedetomidine Sedation vs Propofol in Vitreoretinal Surgery Under Sub-Tenon's Block; M. Potian, NJMS; *Hospira*

qRT-PCR Analysis of Gene Expression in Human Fracture Callus Samples; P. O'Connor, NJMS; *Biomet*

TAC 4-Weeks Study Protocol in SD Rats; C. Hong, NJMS; *CV Dynamics*

Dose Response Study of TGF B Inhibitor 1D11 in a Rodent Model of Myocardial Remodeling; C. Hong, NJMS; *CV Dynamics*

30 Min Ischemia 24hr Reperfusion Injury Study Protocol in SD Rats; C. Hong, NJMS; *CV Dynamics*

Effects of the Inhibitors of Smooth Muscle Myosin CK2018448 and CK2019165 on the Peripheral Vasculature in a Conscious Dog Model of Chronic Hypertension; S. Vatner, NJMS; *CV Dynamics*

Phase 2 of Temozolomide in Subjects with Advanced Aerodigestive Tract Cancers Selected for Methylation of O2-Methyl-Guanine; M. Bryan, NJMS; *Schering Plough Research Institute*

Clinical Effectiveness of Nesiritide in Subjects with Decompensated Heart Failure; M. Klapholz, NJMS; *Scios*

Treatment of Hyponatremia Based on Lixivaptan in NYHA Class III-IV Cardiac Patient Evaluation; M. Klapholz, NJMS; *Cardiokine Biopharma*

IMPROVE IT-A Multicenter, Study to Establish the Clinical Benefit and Safety of Vytorin (Ezetimibe/Simvastatin Tablet) vs Simvastatin Monotherapy in High Risk Subjects; N. Lasser, NJMS; *Schering Plough Research Institute*

Study to Assess Effects of ART-123 on Subjects with Sepsis and Disseminated Intravascular Coagulation; S. Chang, NJMS; *Artisan Pharma*

Assessment of Antibodies to Adeno Associated Vector Type 1 in Patients with Heart Failure; M. Klapholz, NJMS; *Celladon Corporation*

Administration of MYDICAR in Subjects with Heart Failure in Two Stages: Sequential Dose Escalation Cohorts and Placebo Control Parallel Cohorts; M. Klapholz, NJMS; *Celladon Corporation*

Somatuline Depot (lanreotide) Injection for Acromegaly (SODA): A Post Marketing Observation Study; M. Raghuwanshi, NJMS; *Tercica*

Study to Evaluate the Efficacy and Safety of Relaxing in Subjects with Acute Heart Failure; M. Klapholz, NJMS; *Corthera*

Trial Comparing Cervical Arthroplasty to Anterior Cervical Diskectomy and Fusion for the Treatment of Cervical Degenerative Disc Disease; R. Heary, NJMS; *DePuy*

Study for Clinical and Radiographic Outcomes of Spine Deformity Comparing Neurologically Compromised Unstable TL Injuries MI vs Safety and Efficacy; I. Goldstein, NJMS; *K2M*

In Vitro Biomechanical Assessment of Solitaire Anterior Fixation Device Effect of Loading on FSU Stiffness and Range of Motion; R. Heary, NJMS; *Biomet*

Penumbra Imaging Collaborative Study to Assess Outcome of Patients Revascularized by the Penumbra System; C. Gandhi, NJMS; *Penumbra*

A Monoclonal Antibody Directed Against B Cells in an Animal Model of Progressive MS; A. Pachner, NJMS; *Hoffman LaRoche*

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*

Controlled Dose Ranging Study to Investigate the Safety Tolerability Pharmacokinetics and Pharmacodynamics; J. Apuzzio, NJMS; *Glaxo Smith Kline*

The Use of FSH Receptor Polymorphisms to Improve Pregnancy Rates in In-Vitro Fertilization; A. Seungdamrong, NJMS; *Ferring Pharmaceuticals*

Ranibizumab in Subjects with Dense Cataract and Rubeosis Due to Proliferative Diabetic Retinopathy; N. Bhagat, NJMS; *Genentech*

Study of the Epi Rad90 Ophthalmic System for the Treatment of Subfoveal Choroidal Neovascularization; M. Zarbin, NJMS; *Neo Vista*

An Evaluation of the Ocular Surface Health in Subjects Using Travatan Z Ophthalmic Solution Versus Xalatan Ophthalmic Solution; A. Cohen, NJMS; *Alcon Laboratories*

The Role of RHPDGF with Rat DBM or Human DBM on Osseous Regeneration in BB Wistar; S. Lin, NJMS; *Biomimetic Therapeutics*

Evaluation of AIGI's Bone in a Rat Long Fracture Model and a Rat Long Bone Direct Injection Model; S. Lin, NJMS; *Tyrx*

Merck Pharmaco Epidemiology and Outcomes Research; W. Halperin, NJMS; *Merck and Company*

Economic Burden of Acute Lower Respiratory Infection Among Children in South Africa; A. Sinha, NJMS; *Wyeth*

Drug Targets for Tuberculosis; D. Perlin, NJMS; *Merck and Company*

Designing and Validating a Diagnostic Test for Virulent Isolates to Prevent HAP; B. Kreiswirth, NJMS; *Pfizer*

Rapid High ThroughPut Mycobacterium TB Genotyping; B. Kreiswirth, NJMS; *Ibis Biosciences*

Use of NASBA Based Molecular Diagnostics to Evaluate the Presence of Candida Species in Blood Specimens as Part of MSG Protocol 01; D. Perlin, NJMS; *Merck Research Laboratories*

Study to Describe the Genetic Profile of Carbapenem Resistant Klebsiella Pneumonia Strains Causing Nosocomial Infections in the Metropolitan New York and New Jersey Population; B. Kreiswirth, NJMS; *Merck Research Laboratories*

Improving Efficacy of TB Drugs by Immune Modulation with PDE4 Inhibitor; D. Perlin, NJMS; *Celgene Corporation*

A Study for Development of One Day Rest/Stress Cardiac Positron Emission Tomography Perfusion Imaging Protocols; L. Zuckier, NJMS; *Lantheus Medical Imaging*

Micro and Macro Arteriolar Blockade of Hepatocellular Carcinoma (HCC): Treatment with Sorafenib Before and After Hepatic Arterial Embolization (HAE) Therapy for Liver Cancer; A. Dela Torre, NJMS; *Bayer Healthcare Pharmaceuticals*

Study of Regularly Scheduled Neutralizing Antibody Testing on Treatment Patterns versus Usual Care in High-Dose Interferon Treated Subjects; D. Barone, SOM; *Allergan Sales*

Clinical Trial of Oral Cladribine in Subjects with a First Clinical Event at High Risk of Converting to MS; D. Barone, SOM; *EMD Serono*

Trial to Evaluate Electric Autoinjector vs Self-Injection in Subjects with Relapsing Multiple Sclerosis (RMS) Treated with Rebif 44mcg Subcutaneously (sc) Three Times a Week; D. Barone, SOM; *EMD Biosciences*

Trial of Bapineuzumab (AAB-001, ELN115727) in Patients with Mild to Moderate Alzheimer's Disease who are Apolipoprotein E 4 Non-Carriers; A. Chopra, SOM; *Elan Pharmaceuticals*

Study of Albiglutide with Metformin Compared with Metformin Plus Sitagliptin, Metformin Plus Glimepiride, and Metformin Plus Placebo in Subjects with Type 2 Diabetes Mellitus; J. Coren, K. Garnier, SOM; *GlaxoSmithKline*

Study of Albiglutide with Metformin and Glimepiride Compared with Metformin Plus Glimepiride and Placebo and with Metformin Plus Glimepiride and Pioglitazone in Subjects with Type 2 Diabetes Mellitus; J. Coren, K. Garnier, SOM; *GlaxoSmithKline*

Study to Determine Long-Term Safety of Albiglutide Compared with Insulin in Subjects with Type 2 Diabetes Mellitus; J. Coren, K. Garnier, SOM; *GlaxoSmithKline*

Study of Two Dose Levels of Albiglutide Compared with Placebo in Subjects with Type 2 Diabetes Mellitus; J. Coren, K. Garnier, SOM; *GlaxoSmithKline*

Study of MAP0004 in Adult Migraineurs for a Single Migraine Followed by Open-Label Extension to 26/52 Weeks; J. Coren, SOM; *MAP Pharmaceuticals*

Study of 100 mg Enteric-Coated Acetylsalicylic Acid in Patients at Moderate Risk of Cardiovascular Disease; J. Coren, P. Hudrick, SOM; *Bayer Healthcare AG*

Study of Albiglutide when used in Combination with Pioglitazone with or without Metformin in Subjects with Type 2 Diabetes Mellitus; J. Coren, K. Garnier, SOM; *GlaxoSmithKline*

Trial to Evaluate Depagliflozin in Subjects with Type 2 Diabetes Mellitus; E. Helfer, SOM; *Bristol-Myers Squibb*

Study of Taspoglutide vs. Insulin Glargine in Insulin-Naïve Type 2 Diabetic Patients Inadequately Controlled with Metformin and Sulfonylurea Combination Therapy; R. Hudrick, SOM; *Hoffman-La Roche*

A Study of TREXIMA versus Butalbital-Containing Combination Medications (BCM) for the Acute Treatment of Migraine when Administered During the Moderate-Severe Pain Phase of the Migraine; R. Hudrick, L. Mueller, SOM; *GlaxoSmithKline*

Study of SYMBICORT® pMDI 160/4.5 ug x 2 Actuations Twice Daily to Budesonide HFA pMDI 160 ug x 2 Actuations Twice Daily in Adult and Adolescent (≤12 years) African American Subjects with Asthma; R. Hudrick, SOM; *AstraZeneca*

Study of DU-176B Versus Warfarin in Subjects with Atrial Fibrillation-Effective Anticoagulation with Factor xA Next Generation in Atrial Fibrillation; R. Hudrick, SOM; *Daiichi Sankyo Pharma*

Study of Milnacipran for the Treatment of Fibromyalgia; R. Hudrick, SOM; *Forest Research*

Study of Milnacipran for the Treatment of Fibromyalgia in Patients Receiving Long term Milnacipram Treatment; R. Hudrick, SOM; *Forest Research*

Study of Cutaneous Field Stimulation (CFS) as Treatment for Chronic Back Pain; R. Jermyn, SOM; *Meagan Medical*

The Evolution and Management of Migraine Recurrence Beyond 24 Hours: A Prospective Study of Tertiary Care Center Patients; L. Mueller, SOM; *Endo*

Trial of Rizatriptan 10 mg for the Treatment of Acute Migraine in Sumatriptan Non-Responders; L. Mueller, SOM; *Merck and Co.*

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*

Study Comparing the Effects of Rivastigmine Patch 15 cm<sup>2</sup> vs. Rivastigmine Patch 5 cm<sup>2</sup> on Activities of Daily Living and Cognition in Patients with Severe Dementia of the Alzheimer's Type; S. Scheinthal, SOM; *Novartis Pharmaceuticals*

Purification of Bacterial Proteins that Target the Blood Brain Barrier. S. C. Kachlany, NJDS; *InnoPharma*

Childhood Obesity Prevention & Disease Risk Reduction: A Needs Assessment & Education Intervention for Pediatric & Orthodontic Dental Residents; J. Ziegler, SHRP; *American Dietetic Association*

The Effects of Almond Consumption on Pre-diabetes; S. Gould Fogerite, SHRP; *Almond Board of California*

## FOUNDATION OF UMDNJ

Development of a High Fidelity Recording System and Quantitative Visual Activity Map for Online Functional Localization of Targets During DBS Surgery; S. Danish, RWJMS; *Foundation of UMDNJ*

The Roles and Molecular Mechanisms of GLS2, a Novel p53 Target Gene, in Energy Metabolism and Tumorigenesis; Z. Feng, RWJMS; *Foundation of UMDNJ*

Feasibility of APBI for Early Stage Breast Cancer Patients Using Fiducial Markers; S. Goyal, RWJMS; *Foundation of UMDNJ*

B Lymphocyte Homeostasis in Childhood Idiopathic Nephrotic Syndrome; S. Gurkan, RWJMS; *Foundation of UMDNJ*

Intervention for Carotid Stenosis; P. Haser, RWJMS; *Foundation of UMDNJ*

DAXX/ASK1 Pathway in Parkinson's Disease; E. Junn, RWJMS; *Foundation of UMDNJ*

Estrogenic Regulation of NCALD in Breast Cancer; J. Keen, RWJMS; *Foundation of UMDNJ*

Enhancing Radiation Therapy Lethality by Modification of Glutamate Signaling Using Riluzole in Human Melanoma and Other Tumors; A. Khan, RWJMS; *Foundation of UMDNJ*

Validation of Free Tissue Zinc as Stree Biomarker and Potential Role as Supplement in Heart Transplant and Open-Heart Surgery; I. Korichneva, RWJMS; *Foundation of UMDNJ*

Mechanism of Chemo-Resistance Induced by Bone Morphogenetic Protein-6 in Androgen-Independent Prostate Cancer Cells; G. Lee, RWJMS; *Foundation of UMDNJ*

Molecular Design of Type II Diabetes Peptide Therapeutics; V. Nanda, RWJMS; *Foundation of UMDNJ*

Computerized Visual Approach to Data Analysis and Interpretation for Hermatologic Malignancies by Flow Cytometry Immunophenotyping; Y. Qian, RWJMS; *Foundation of UMDNJ*

Role of Adult Stem Cells in Neuronal Repair; H. Sabaawy, RWJMS; *Foundation of UMDNJ*

Blended Learning Teaching Module Using an Virtual Reality Simulator for Performing Knee Injection: A Pilot Study; N. Schlesinger, RWJMS; *Foundation of UMDNJ*

Emotional and Physiological Responses of Young Infants and Risk for Psychopathology: Interactions Among Genetic and Behavioral/Social Factors; M. Sullivan, RWJMS; *Foundation of UMDNJ*

Labile Catalytic Packaging of siRNA for Breast Cancer Therapy; T. Thomas, RWJMS; *Foundation of UMDNJ*

Peripheral Arterial Disease: Analysis of Sociodemographic Disparities in Management & Outcomes; T. Vogel, RWJMS; *Foundation of UMDNJ*

A New Approach for Computer Aided Detection and Analysis of Tumor Response to Treatment in Consecutive CT Studies; L. Yang, RWJMS; *Foundation of UMDNJ*

Strategies for the de novo Design of GFP-like Fluorescent Proteins; V. Nanda, RWJMS; *Foundation of UMDNJ*

Computational Design of Type II Diabetes Therapeutics; V. Nanda, RWJMS; *Foundation of UMDNJ*

Role of Foxn4 Gene during Retinogenesis; M. Xiang, RWJMS; *Foundation of UMDNJ*

Neuropeptide VGF in Antidepressant-Induced Neurogenesis and Mood Disorders; J. Alder, RWJMS; *Foundation of UMDNJ*

Regulation of Neuronal Mitosis; E. DiCicco-Bloom, RWJMS; *Foundation of UMDNJ*

A New Approach for Computer Aided Detection and Analysis of Tumor Response to Treatment in Consecutive CT Studies; L. Yang, D.J. Foran, RWJMS; *UMDNJ Foundation*

Radiotherapy Dose Escalation Study in Unresectable Pancreatic Cancer Using a Simultaneous Intensity Modulated Boost; S. Jabbour, RWJMS, *Foundation of UMDNJ*

Perspectives of Culturally Competent Smoking Cessation Counseling Practices; N. Hymowitz, NJMS; *Foundation of UMDNJ*

Positron Emission Tomography with F-18 Flourodeoxyglucose to Identify Early Events in Latent Infection with Mycobacterium Tuberculosis; N. Ghesani, NJMS; *Foundation of UMDNJ*

The Role of IGF Signaling on Stem Cell Renewal and Expansion of Alveolar Progenitors During Mouse Mammary Gland Development; D. Lazzarino, NJMS; *Foundation of UMDNJ*

Post Initiation Regulation of Gene Expression in the Host Response to M. Tuberculosis; R. Pine, NJMS; *Foundation of UMDNJ*

Role of Autotaxin HCV Associated Hepatocellular Carcinoma; N. Kaushik-Basu, NJMS; *Foundation of UMDNJ*

Mechanism of Post Transcriptional Regulation of COX-2; C. Lutz, NJMS; *Foundation of UMDNJ*

Structural Biology of Multifunctional Bacterial Phosphatases; M. Neiditch, NJMS; *Foundation of UMDNJ*

Mitochondrial DNA Fragmentation and Nuclear Genomic Instability; A. Ivessa, NJMS; *Foundation of UMDNJ*

Induced Oxidative Stress with Hyperthermic Intraperitoneal Chemotherapy; L. Harrison, NJMS; *Foundation of UMDNJ*

Regulatory Networks in DNA Damage Checkpoint Response; K. Sugimoto, NJMS; *Foundation of UMDNJ*

Multigenerational Legacies of Diabetes and Self-Care Decision Making; M. Koliopoulos, NJMS; *Foundation of UMDNJ*

Community Associated MRSA in NY City Hospitals; B. Kreiswirth, NJMS; *Foundation of UMDNJ*

Exploring a Role for Ubiquitin Binding in BCR/ABL Mediated Leukemogenic Activity; I. Whitehead, NJMS; *Foundation of UMDNJ*

Folate Receptor Autoantibodies and Placental Uptake of Folate; N. Illsley, NJMS; *Foundation of UMDNJ*

The Mitochondrial ATP Dependent Lon Protease in Cardiac Ischemia and Hypertrophy; C. Suzuki, NJMS; *Foundation of UMDNJ*

Analysis of the Molecular Mechanisms of Drug Tolerance in Mycobacterium Tuberculosis; P. Fontan, NJMS; *Foundation of UMDNJ*

Regulation of Melanoma Cell Migration by Epac/Calcium Pathway; K. Iwatsubo, NJMS; *Foundation of UMDNJ*

Effects of Caloric Restriction on Mammary Tumor Growth and Metastases; M. DeLorenzo, NJMS; *Foundation of UMDNJ*

CB Cannabinoid Receptors in Trauma and Sepsis; G. Hasko, NJMS; *Foundation of UMDNJ*

Low Oxygen Recovery Assay and TB Drug Screening; N. Connell, NJMS; *Foundation of UMDNJ*

Purification and Crystallization of Meca ClpC Complexes; M. Neiditch, NJMS; *Foundation of UMDNJ*

Synergistic Role of e2F8 and Rb in the Control of Hematopoiesis and Hematologic Malignancies; L. Wu, NJMS; *Foundation of UMDNJ*

IGF Signaling Promotes Bypass of Cellular Senescence During Early Stage Breast Cancer; T. Wood, NJMS; *Foundation of UMDNJ*

Role of GMI Ganglioside in Neuronal Function; R. Ledeen, NJMS; *Foundation of UMDNJ*

Genome targeted Inhibitor of Retrovirus; V. Pandey, NJMS; *Foundation of UMDNJ*

Animal Models for in Vivo Imaging of App Processing and Transport; Z. Muresan, NJMS; *Foundation of UMDNJ*

Analysis of Cytokine Responses in Autism Spectrum Disorders; C. Rohowsky-Kochan, NJMS; *Foundation of UMDNJ*

Determining HIV-1 Subtype C Prevalence in a Newark, NJ Cohort; A. Pinter, NJMS; *Foundation of UMDNJ*

Neuroprotection in Experimental Autoimmune Encephalomyelitis; S. Elkabes, NJMS; *Foundation of UMDNJ*

Designing and Validating a Diagnostic Test for Virulent Isolates to Prevent HAP; B. Kreiswirth, NJMS; *Foundation of UMDNJ*

Crystallization and Preliminary X-Ray Diffraction of Trypanosoma Brucei Transcription Factor HB with its SL RNA Gen Promoter Binding Site; D. Wah, NJMS; *Foundation of UMDNJ*

Anthrax DNA Helicase and Primase Inhibitors for Biodefense; S. Biswas, SOM; *Foundation of UMDNJ*

Structure-Function of Prokaryotic Transcription Elongation Factors Gre and Gfh; S. Borukhov, SOM; *Foundation of UMDNJ*

Regulation of Meiotic Divisions by Hct1p Dependent Proteolysis; K. Cooper, SOM; *Foundation of UMDNJ*

dUTPase as an Effector of Mitochondrial DNA Damage in Normal Cellular Aging and in Response to Chemotherapeutic Agents; J. Fischer, SOM; *Foundation of UMDNJ*

Using Lectins to Target Podoplanin for Chemotherapy; G. Goldberg, SOM; *Foundation of UMDNJ*

Src, Cas, Cx3 and Gap Junctional Communication; G. Goldberg, SOM; *Foundation of UMDNJ*

Use of a Genetically Amenable Model Organism to Identify Potential Autism Predisposition Genes; M. Henry, SOM; *Foundation of UMDNJ*

The Yeast Saccharomyces Cerevisiae as a Model Organism for Autism; M. Henry, SOM; *Foundation of UMDNJ*

Experimental Identification of the Targets of MiRNAs Expressed in Mouse Embryonic Stem Cells; H. Houbaviy, SOM; *Foundation of UMDNJ*

Non-Equivalence of the ES Cell Specific microRNAs miR-290-295/miR-371-373; H. Houbaviy, SOM; *Foundation of UMDNJ*

Use of Biomarkers to Monitor Patient Response to OMT for Treatment of Chronic Low Back Pain; D. Mason, SOM; *Foundation of UMDNJ*

Identification of Transcription Factors Associated with Mitochondrial RNA Polymerase; W. McAllister, SOM; *Foundation of UMDNJ*

Tissue-Specific Analysis of Lin28 Mutant Mice; E. Moss, SOM; *Foundation of UMDNJ*

Biomarkers to Identify Possible Risk for Alzheimer's Disease; R. Nagele, SOM; *Foundation of UMDNJ*

Identification of Ubiquitinated Proteins Associated with Yeast Ribosomes; D. Pestov, SOM; *Foundation of UMDNJ*

Phthalate Exposure and Pregnancy Outcome: Supporting Data; P. Stein, SOM; *Foundation of UMDNJ*

Structure and Function of Human Mitochondrial RNA Polymerase; D. Temiakov, SOM; *Foundation of UMDNJ*

Alzheimer's Disease and ROS-GC Signaling; V. Venkataraman, SOM; *Foundation of UMDNJ*

Can Parks Promote Physical Activity Among Children Living in Low Income Families? A Pilot Study Using Qualitative and Quantitative Methodologies; S. Echeverria, SPH; *Foundation of UMDNJ*

Home Visits for Assessment & Educational Intervention in Support of Enhancing Clinical, Environmental & Behavioral Management of Asthma for Low Income; D. Shendell, SPH; *Foundation of UMDNJ*

Granule Ingestion Research; J. Zhang, SPH; *Foundation of UMDNJ (from private donations)*

Processes by Which Toxic Chemicals in Synthetic Turf Might be Absorbed into the Bodies of Children and Athletes through Ingestion; J. Zhang, SPH; *Foundation of UMDNJ (from private donations)*

Addressing Cervical Cancer Disparities Among Ethnically Diverse Black Women: Their Knowledge, Attitudes and Beliefs About HPV Vaccination and Cancer Screening; D. Brown; *Foundation of UMDNJ*

Identifying Best Practices: Providing Health Care to Children in Foster Care; M. Percy, SN; *Foundation of UMDNJ*

Yoga intervention specifically tailored for people with multiple sclerosis; S. Gould Fogerite, SHRP; *Foundation of UMDNJ (from a private donor)*

Markers of Stress and Inflammation in Pre-Type 2 Diabetes; S. Gould Fogerite, SHRP; *Foundation of UMDNJ*

Guided Imagery and Relaxation Techniques as an Adjunct to Preparing and Recovering from Orthognathic Surgery; S. Gould Fogerite, SHRP; *Foundation of UMDNJ*

The Use of Biofeedback to Augment the Acquisition of Skills in Performing Joint Mobilization Techniques Among Physical Therapy Students; E. Tunik, SHRP; *Foundation of UMDNJ*

Cortical Stimulation of Autism Spectrum Disorder; E. Tunik, SHRP; *Foundation of UMDNJ*

## INTERNAL UMDNJ FUNDING

Targeting Prostate Cancer Initiating Cells with Novel Bmi-1 Inhibitors; J. Bertino, RWJMS; *Cancer Institute of New Jersey*

Enhancing the Theory and Practice of CQI Through a Better Understanding of Organizational Capacities; D. Cohen, RWJMS; *Robert Wood Johnson Foundation*

Method for detecting Inflammation Based on Gene Expression Signature in Peripheral Blood Cells; B. Haimovich, RWJMS; *Office of Patents and Licensing*

Neuroprotective Function of miRNA 7 in Parkinson's Disease; M. Mouradian, RWJMS; *UMDNJ-Robert Wood Johnson Medical School*

Design of an Interactive Online Set of Modules on Biochemistry; E. E. Abali, RWJMS; *The Academic Information Technology Advisory Committee (AcITAC)*

Do Scribes Decrease the Amount of Time a Physician Spends with an Electronic Medical Record?; R Arya, RWJMS; *Funded through Department of Emergency Medicine*

Attitudes and Beliefs Towards Mild Therapeutic Hypothermia after Cardiac Arrest: A Survey of EMS and Emergency Department Staff; J. McCoy, RWJMS; *Funded through Department of Emergency Medicine*

Are there Differences in the Medical treatment of Pre-hospital Patients with DNRs (Do not Resuscitate Orders) vs. Pre-hospital patients without DNRs: A Prospective Analysis; M. Merlin RWJMS; *Funded through Department of Emergency Medicine*

Missed Organ Procurement Opportunities by Declaration of Death in the Pre-hospital Setting; M. Merlin, RWJMS; *Funded through Department of Emergency Medicine*



Pre-hospital Role of Thiamine in Hypoglycemic Patients: A Retrospective Analysis; M. Merlin, RWJMS; *Funded through Department of Emergency Medicine*

The Effect of Menthol on Nicotine Levels and Metabolites in African American Cigarette Smokers; J. M. Williams, RWJMS; *Cancer Institute of New Jersey*

Composition and Dynamics of the PALB2/BRCA2 Breast Cancer Protein Network, a Systematic Approach; B. Xia, RWJMS, *CINJ New Investigator Award*

Host mRNA Processing Factors Affected by M. Tuberculosis; R. Pine, NJMS; *NJMS Dean's Biomedical Research Support Program*

IFG Signaling in Stem and Progenitor Cells of Normal and Hyperplastic Mammary Gland Tissues; D. Lazzarino, NJMS; *NJMS Dean's Biomedical Research Support Program*

Early Development of Aspergillus Fumigatus; D. Perlin, NJMS; *NJMS Dean's Biomedical Research Support Program*

Characterization of Human T Regulatory Cells; C. Rohowsky-Kochan, NJMS; *NJMS Dean's Biomedical Research Support Program*

Generation of Gene Knockout Mouse Model for Reticulocalbin 2; G. Babu, NJMS; *NJMS Dean's Biomedical Research Support Program*

Immunologic Implications of T Lymphocyte CD39 Expression Solid Malnancies; D. Pulte, NJMS; *NJMS Dean's Biomedical Research Support Program*

The Use of Multispectral Imaging Flow Cytometry in Studies of Oxidative Stress Induced Migration of Mitochondrial DNA to the Nucleus; A. Ivessa, NJMS; *NJMS Dean's Biomedical Research Support Program*

Development of IL 12 Signaling Reporter Mouse to Track Endogenous IL 12 Action on CD8 Differentiation; G. Yap, NJMS; *NJMS Dean's Biomedical Research Support Program*

ICAT Analysis of Cardiac Proteins Under Reductive Stress; L. Yan, NJMS; *NJMS Dean's Biomedical Research Support Program*

Characterization of Protein Expression Profile of Stress Resistance and Longevity; Y. Park, NJMS; *NJMS Dean's Biomedical Research Support Program*

Non Canonical Wnt Signaling Protection of Muscular Dystrophy; D. Fraidenraich, NJMS; *NJMS Dean's Biomedical Research Support Program*

ICAT Analysis of Cardiac Proteins Under Reductive Stress; J. Sadoshima, NJMS; *NJMS Dean's Biomedical Research Support Program*

Analysis of Gene Expression Profile Regulating Stress Resistance and Longevity; Y. Park, NJMS; *NJMS Dean's Biomedical Research Support Program*

Defining CD8 T Cell Receptor Diversity in Immune Response to Pathogen Encoded T Cell Epitope; G. Yap, NJMS; *NJMS Dean's Biomedical Research Support Program*

Identification of Precursor Malignant Cells of CLL by Immunoglobulin Sequence; E. Raveche, NJMS; *NJMS Dean's Biomedical Research Support Program*

Multi Parameter Analysis of Plasmacytoid Dendritic Cells Using the LSR11; P. Fitzgerald-Bocarsly, NJMS; *NJMS Dean's Biomedical Research Support Program*

Generation of HCGB 1/2 Transgenic Mouse Models; A. Parrott, NJMS; *NJMS Dean's Biomedical Research Support Program*

Transgenic Expression of the Vitamin D Receptor in Ileum Cecum and Colon of VDR Null Mice; S. Christakos, NJMS; *NJMS Dean's Biomedical Research Support Program*

Gene Expression of Profiling of B Cell Aggregates in the Pulmonary Granuloma Using Laser Capture; K. Bhatt, NJMS; *NJMS Dean's Biomedical Research Support Program*

Identification from Tissues of Specific S Nitrosylated Cysteines in the Soluble Guanylyl Cyclase; A. Beuve, NJMS; *NJMS Dean's Biomedical Research Support Program*

Identifying NF90/110 Binding Partners Through Deep Sequencing; M. Mathews, NJMS; *NJMS Dean's Biomedical Research Support Program*

Pathways of Thermotolerance to Induced Oxidative Stress in Human Tissues Using Proteome Analysis; L. Harrison, NJMS; *NJMS Dean's Biomedical Research Support Program*

Differential Expression of Cold Shock Protein in Malignant and Non Malignant Tissue; D. Pulte, NJMS; *NJMS Dean's Biomedical Research Support Program*

The Glucocorticoid Induced Intermediate Mediating Ontogenic Development of Intestinal Sugar Transporters; R. Ferraris, NJMS; *NJMS Dean's Biomedical Research Support Program*

Role of PHF10 on Cell Growth and Genomic Stability; S. Banga, NJMS; *NJMS Dean's Biomedical Research Support Program*

Chip-Seq Analysis of IRF5 and IRF7 Target Genes in Plasmacytoid Dendritic Cells; B. Barnes, NJMS; *NJMS Dean's Biomedical Research Support Program*

Animal Models for In Vitro Imaging of App Processing; Z. Muresan, NJMS; *NJMS Dean's Biomedical Research Support Program*

Identification of Proteins that Interact with the Agonist Activated D3 Dopamine Receptor; E. Kuzhikandathil, NJMS; *NJMS Dean's Biomedical Research Support Program*

Identification of Cellular and Viral Factors Associated with HCV Genome; V. Pandey, NJMS; *NJMS Dean's Biomedical Research Support Program*

A Proteomics Approach to Study the Synergy of Rb and E2F8 in Preventing Hemolysis and Anemia; L. Wu, NJMS; *NJMS Dean's Biomedical Research Support Program*

Development of Protein Mass Fingerprinting Techniques for Membrane Proteins; J. Berlin, NJMS; *NJMS Dean's Biomedical Research Support Program*

Tracking Immune Cell Trafficking in CD45.1 (irf5+/+) and CD45(irf-/-) Mice; B. Barnes, NJMS; *NJMS Dean's Biomedical Research Support Program*

Identification by Mass Spectrometry of Sites of Cx37 Nitrosylation; A. Harris, NJMS; *NJMS Dean's Biomedical Research Support Program*

Assay for the Measurement of IGF Type 1 Receptor and Insulin Receptor Expression in Human Cells and Tissues; T. Wood, NJMS; *Office of Patents and Licensing*

Treatment of Sepsis; K. Yin, SOM; *UMDNJ Patents and Licensing*

Determination of autoimmune patient WBC binding and sensitivity to LtxA; S. C. Kachlany, NJDS; *Office of Patents and Licensing*

Development of the Process of Change Scale in Delaying Smoking Initiation for African American Children; H. Chen, SN; *UMDNJ School of Nursing*

Smoking prevention with Native Taiwan Adolescents; H. Chen, SN; *Nan-Tou County, Department of Health, Taiwan, Republic of China and UMDNJ School of Nursing*

Virtual Laboratory for Biomedical Data Management; S. Srinivasan, SHRP; *The UMDNJ Academic Information Technology Advisory Committee*



## APPENDICES

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## **CAPITAL PLAN**

### **NEWARK CAMPUS – Existing Facility Upgrades**

**Energy Conservation Measures** – This project engages approximately \$11 million in funding from PSE&G for major infrastructure upgrades at the campus power plant. Work will renovate existing systems and provide new infrastructure as required to significantly reduce energy consumption on the campus.

**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.

**BOARD OF TRUSTEES MEMBER PROFILES**

**KEVIN M. BARRY, MD, MBA**  
*(Chairperson)*

Kevin M. Barry, MD, MBA, an attending anesthesiologist at Morristown Memorial Hospital, is chairperson of the UMDNJ Board of Trustees. 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 and on the planning committee of the Helms Medical Institute.

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.

*Revised 10/1/10*



**ERIC S. PENNINGTON, Esq.**  
*(Vice Chairperson)*

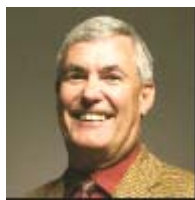
Eric S. Pennington, Esq., is an attorney with a Newark practice specializing in employment discrimination and civil litigation. Since 2000, he has served as Municipal Court Judge in the City of Orange Township.

Mr. Pennington was an associate with the Labor and Employment Group of Gibbons, Del Deo, Dolan, Griffinger & Vecchione in Newark and with Paul, Weiss, Rifkind, Wharton & Garrison in New York City from 1995 to 1997. He has clerked for the Honorable Damon J. Keith of the United States Court of Appeals for the Sixth Circuit in Detroit and, prior to that, for the Honorable Robert N. Wilentz, Chief Justice of the New Jersey Supreme Court. He was a trustee of the Robert Wood Johnson University Hospital.

He is a member of the New Jersey State Bar Association, the National Bar Association, the Garden State Bar Association, and the American Bar Association.

He received his Bachelor of Science in business administration from Thomas A. Edison State College and his Doctor of Jurisprudence from Rutgers University School of Law.

Mr. Pennington was appointed to the UMDNJ Board of Trustees in January 2001. He was reappointed in December 2004.



**JAMES R. BROACH, PhD**

James R. Broach, PhD, is currently serving as Associate Chair and Professor at Princeton University, Department of Molecular Biology.

Dr. Broach completed his undergraduate studies at Yale University and was awarded a Bachelor of Science degree in chemistry in 1969. In 1973, he was awarded a Ph.D. in Biochemistry from the University of California, Berkeley where he also completed his

predoctoral fellowship in Biochemistry, and postdoctoral fellowship in medical Physics. In addition, he completed a postdoctoral fellowship at Cold Springs Harbor Laboratory,

upon which he was employed in the capacity of a Staff Scientist. Subsequently, he joined the State University of New York at Stony Brook as an Assistant/Associate professor, a position he held just prior to serving in his current position at Princeton University.

In the past, Dr. Broach has served as a Postdoctoral Fellow with the American Cancer Society, an Investigator for the American Heart Association, a Fellow with the American Academy of Microbiology, and a member of the National Institutes of Health's Genetics Section. He has also served as an Associate Editor for the journals *Cell* and *Molecular and Cellular Biology* and Associate Editor for the *Journal Cell*. He also served as Co-Chairman of the 1991 Gordon Conference on Extrachromosomal Elements and Chairman of the 1993 Gordon Conference on Plasmid and Chromosome Dynamics

He was appointed to the Board of Trustees in April 2007.



**MARY ANN CHRISTOPHER, RN, MSN, FAAN**

Mary Ann Christopher, RN, MSN, FAAN is President and Chief Executive Officer of Visiting Nurse Association of Central Jersey (VNACJ), a community based organization which 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 in June 2006 and reappointed to a full five-year term in 2007.



**KEVIN M. COVERT, Esq.**

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.





**MICHAEL CRITCHLEY, JR., Esq.**

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.



**ROBERT J. DEL TUFO, Esq.**

Robert J. Del Tufo, Esq., of counsel to Skadden, Arps, Slate, Meagher & Flom LLP, practices primarily in the areas of commercial litigation, environmental law, product liability, white collar defense, and governmental relations.

Mr. Del Tufo was New Jersey's Attorney General from 1990 to 1993. As Attorney General, he headed the Department of Law and Public Safety, which has 11 divisions and approximately 10,000 employees. Among other things, he supervised approximately 500 attorneys providing legal advice to state agencies and representing those agencies in civil litigation. He was also responsible for overseeing New Jersey's criminal justice system.

Mr. Del Tufo served as United States Attorney for the District of New Jersey from 1977 to 1980, where he was responsible for the representation of the federal government in

civil litigation and in criminal investigations and prosecutions. He also served as Commissioner of the New Jersey State Commission of Investigation, First Assistant State Attorney General, and Director of New Jersey's Division of Criminal Justice. He is a member of and/or supports, many charitable organizations, including Legal Services of New Jersey, Integrity, Inc., the Daytop Village Foundation and John Cabot University.

He received his undergraduate degree from Princeton University *cum laude* and his law degree from Yale University Law School, where he was editor of the *Yale Law Journal*.

Mr. Del Tufo was appointed to the UMDNJ Board of Trustees in March 2006.



**MARY SUE HENIFIN, JD, MPH**

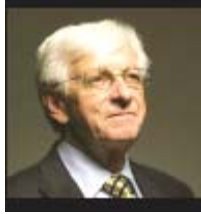
Mary Sue Henifin, JD, MPH, is an attorney with expertise in litigation and investigation matters involving a wide array of legal issues including environmental, technology, health care and white collar defense. She is a shareholder in Buchanan Ingersoll & Rooney PC, a law firm with offices throughout the country, including Newark and Princeton. She has served as an adjunct faculty member of the UMNDJ-Robert Wood Johnson Medical School's Department of Environmental and Community Medicine. She developed the Public Health Law course for the school, for which she received the Adjunct Faculty of the Year Award.

Henifin has taught Business Law and Ethics as the Executive in Residence for Rider University's Executive MBA Program. She is also a member and former chair of the Lawyers Advisory Committee to the Federal District Court of the District of New Jersey. She previously served as a deputy attorney general for the State of New Jersey.

She has written extensively on legal issues and public health and is co-author of the New Jersey Brownfield's Law and chapters on medical testimony and toxicology for the Reference Manual on Scientific Evidence, a standard work on how to present scientific evidence in court.

A graduate, with honors, from Rutgers University School of Law, Henifin graduated from Harvard College, *cum laude*, with a bachelor's degree in biology, and she holds a master's degree in public health from Columbia University.

Ms. Henifin was appointed to the Board in November 2007.



**BRADFORD W. HILDEBRANDT**

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.



**MILTON HOLLAR-GREGORY, Esq.**

Milton Hollar-Gregory, Esq., is a graduate of Rutgers Law School and has had more than 30 years of combined experience in law, healthcare, business, and academia.

He has particular expertise in government healthcare programs, Medicaid and Medicare. He served as consultant to state governments on matters of health policy and managed care implementation for underserved populations. He has also been a consultant to county mental health facilities and managed community health centers.

Mr. Hollar-Gregory's diverse health care experience has included various executive management positions in the public and private sector, including New York City's Health and Hospital Corporation, Johns Hopkins Health System, and Amerigroup Corporation,

the largest Medicaid-only HMO in the country. His responsibilities in his various positions have encompassed operations, strategic planning, business development, contracting, and marketing and sales.

He is presently an assistant professor of business management and Director of Paralegal Studies at LaGuardia Community College of the City University of New York, where he is active in teaching, professional development, and community service. Mr. Hollar-Gregory has a particular interest in workplace diversity and multiculturalism, areas in which he has published and presented at various conferences. Mr. Hollar-Gregory serves as the Chairman of the Diversity Committee and a member of the Legal Committee for the UMDNJ Board of Trustees.

Mr. Hollar-Gregory was appointed to the UMDNJ Board of Trustees in February 2007.



**ROBERT J. MARO, JR., MD**

Robert J. Maro, Jr., MD, is a member of the volunteer faculty at UMDNJ-Robert Wood Johnson Medical School in Camden, where he is clinical assistant professor of medicine. Dr. Maro has a private practice in general internal medicine and geriatrics; his office is in Cherry Hill.

Dr. Maro served his internship and residency at Cooper University Medical Center in Camden, where he was chief resident in 1983. He is currently a member of the attending staff at both Cooper and Virtua Health System. He has been included among the "Top Docs" for both facilities in SJ, the magazine for South Jersey.

Dr. Maro earned a BS in biology from St. Joseph University in Philadelphia and his MD from Jefferson Medical College there. He is a member of the American College of Physicians, the American Society of Internal Medicine and the New Jersey and Camden County medical societies. Dr. Maro serves on the Executive Committee of Cooper University Medical Center and as treasurer of the medical staff at the hospital.

Dr. Maro was appointed to the UMDNJ Board of Trustees in June 2007.



**JONATHAN H. ORENSTEIN, DMD**

Jonathan H. Orenstein, DMD, received his dental degree from Temple University, School of Dental Medicine in 1985 and his Certificate in Prosthodontics in 1987. He has a staff appointment to Cooper University Medical Center, a consulting staff appointment to the Regional Cleft Palate Program and Cooper Trauma Center, and a staff appointment to UMDNJ. Dr. Orenstein was granted a U.S. patent in 1989 on implant-related hardware. He co-authored several articles on various prosthetic topics in refereed journals and presented at various local, national, and international meetings on innovative implant restorative dentistry.

Dr. Orenstein is a Fellow of the Academy of Osseointegration, member of the Board of Trustees and current President of the Delaware Valley Academy of Osseointegration, and is a member of the American College of Prosthodontics, the American Dental Association, and the Southern Dental Society of New Jersey. He is in private practice in Marlton, New Jersey.

Dr. Orenstein was appointed to the UMDNJ Board of Trustees in January 2004.



**POONAM ALAIGH, MD**

*Ex-Officio*

Poonam Alaigh, MD, was serving as executive medical director for Horizon Blue Cross Blue Shield when she was nominated by Gov. Chris Christie on Jan. 27, 2010 as Commissioner of the New Jersey Department of Health and Senior Services.

Dr. Alaigh has a multifaceted background in health care administration, clinical practice, pharmaceutical medicine, health care policy and academia.

At Horizon, Dr. Alaigh was the executive medical director responsible for quality, care management, medical policy, clinical outcome study and member advocacy. Before joining Horizon, Dr. Alaigh served as national medical director for GlaxoSmithKline, where she worked to improve health care technology use, reduce health care disparities and improve access to care for the uninsured.

She also worked at the Veterans Administration Hospital in Lyons and as an assistant professor at the University of Medicine and Dentistry of New Jersey-Robert Wood Johnson Medical School in New Brunswick.

A board certified internist with a specialty in vascular diseases, Dr. Alai is licensed to practice in New Jersey and New York and is certified as a Diplomate in Internal Medicine. She earned her medical degree from the State University of New York (SUNY) at Stony Brook. She received a Master of Science in Healthcare Policy and Management from SUNY. She is certified as a Black Belt in Six Sigma.

She also is a founding member of the South Asian Total Healthcare Initiative, which was created in 2009 to develop a research-based data resource on South Asian health, to improve the delivery of culturally competent care, and to address health disparities and empower the South Asian community.

**UMDNJ GOVERNING BOARD CHARACTERISTICS 2010**

**Race/Ethnicity and Gender of Governing Board**

Race/Ethnicity	Male	Female	Total
<i>White</i>	8	2	10
<i>Black</i>	2	0	2
<i>Hispanic</i>	0	0	0
<i>Asian</i>	0	1	1
<i>Native American</i>	0	0	0
<i>Non-Resident Alien</i>	0	0	0
<b>Total</b>	<b>10</b>	<b>3</b>	<b>13</b>

Source: UMDNJ Office of Workplace Diversity, July 23, 2010