



<b>UMDNJ</b>	<b>University of Medicine and Dentistry of New Jersey</b>
GSBS	Graduate School of Biomedical Sciences
NJDS	New Jersey Dental School
NJMS	New Jersey Medical School
RWJMS	Robert Wood Johnson Medical School
SHRP	School of Health Related Professions
SN	School of Nursing
SOM	School of Osteopathic Medicine
SPH	School of Public Health
UH	University Hospital
UBHC	University Behavioral HealthCare



## **INTRODUCTION**

The University of Medicine and Dentistry of New Jersey (UMDNJ) is a public research university dedicated to excellence in the health sciences. A true statewide asset, the institution serves the people of New Jersey through its unique four-pronged mission of education, research, healthcare, and community service.

Comprised of eight schools, encompassing the medical, dental, allied health, nursing, public health and biomedical sciences disciplines, as well as leading academic medical centers, an NCI-designated comprehensive cancer center, and a statewide network of mental health providers, UMDNJ touches the lives of millions annually. Since our founding as the College of Medicine and Dentistry in 1970, UMDNJ has developed one of the most diverse faculty, staff and student bodies in the United States. We continue to build on this momentum by strengthening our academy and our commitment to New Jersey and its communities.

As president, I am proud of our accomplishments and confident that our successes as educators and innovators, and our contributions to enhancing the health and quality of life of New Jerseyans, will only accelerate in the future. We present this report to the Commission on Higher Education and to our public constituencies with the hope that this material will be informative and useful.

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*

## **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)

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*Chairperson*

Eric S. Pennington, Esq.  
*Vice Chairperson*

Anita V. Spivey, Esq.  
*Secretary*

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James Broach, PhD

Mary Ann Christopher, RN, MSN

Kevin M. Covert, Esq.

Michael Critchley, Jr., Esq.

Mary Sue Henifin, JD, MPH

Bradford W. Hildebrandt

John A. Hoffman, Esq.

Milton Hollar-Gregory, Esq.

Robert J. Maro, Jr., MD

Jonathan H. Orenstein, DMD

Oliver B. Quinn, Esq.

Harold T. Shapiro, PhD

Heather Howard, JD

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



## **OFFICERS OF THE UNIVERSITY**

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*Senior Vice President for Administration and  
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*Senior Vice President for Government and Community Affairs*

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*Chief Financial Officer*

**Denise Mulkern, CPA**  
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*Vice President for Supply Chain Management*

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*Vice President for Information Services and Technology*

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*Vice President for Research*

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

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

## **DEANS**

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*Dean, UMDNJ-Robert Wood Johnson Medical School*

**Thomas A. Cavalieri, DO**

*Dean, UMDNJ-School of Osteopathic Medicine*

**Cecile A. Feldman, DMD, MBA**

*Dean, UMDNJ-New Jersey Dental School*

**Julie O'Sullivan Maillet, PhD**

*Interim Dean, UMDNJ-School of Health Related Professions*

**Audrey R. Gotsch, DrPH**

*Dean, UMDNJ-School of Public Health*

**Robert L. Johnson, MD**

*Interim Dean, UMDNJ-New Jersey Medical School*

**Susan W. Salmond, EdD, RN**

*Dean, UMDNJ-School of Nursing*

**Kathleen W. Scotto, PhD**

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



## PROFILE OF UMDNJ

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## **SCHOOLS**

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

#### **GSBS at New Jersey Medical School**

30 Bergen Street, ADMC 110  
Post Office Box 1709  
Newark, New Jersey 07101-1709

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

675 Hoes Lane  
Piscataway, New Jersey 08854-8021

#### **GSBS at School of Osteopathic Medicine**

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

### **UMDNJ-New Jersey Dental School (NJDS)**

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

### **UMDNJ-New Jersey Medical School (NJMS)**

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

### **UMDNJ-Robert Wood Johnson Medical School (RWJMS)**

#### **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)**

**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)**

**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)**

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

**UMDNJ-School of Public Health (SPH)**

**New Brunswick Campus**

335 George Street  
Liberty Plaza, Suites 2200, 3600, 3700  
Post Office Box 2688  
New Brunswick, New Jersey 08903

Tobacco Dependence Program  
317 George Street, Suite 210  
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, Master MS Certificate	GSBS GSBS GSBS GSBS GSBS	Rutgers University  Rutgers University
<b>Biomedical Engineering</b>	PhD, MS PhD	GSBS GSBS	Rutgers University NJIT
<b>Clinical and Translational Science</b>	MS	GSBS	
<b>Environmental Sciences - Human Exposure Assessment</b>	PhD	GSBS	Rutgers University
<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	

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

\*\* Includes Anatomy, Biochemistry, Cell & Developmental 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>Advanced Practice Nursing</b>	Post-master's Certificate	SN	
<b>Nurse Midwifery</b>	Post-master's Certificate	SN	
<b>Nursing</b>	MSN BSN BSN	SN SN SN	Rowan University
<b>Nursing Informatics</b>	MSN	SN	NJIT
<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>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>Field</b>	<b>Degree/ Certificate</b>	<b>UMDNJ School(s)</b>	<b>Partner Institution (if any)</b>
<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	SHRP	Essex County College
<b>Dietetic Internship</b>	MS/Certificate	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 Kean University 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>Field</b>	<b>Degree/ Certificate</b>	<b>UMDNJ School(s)</b>	<b>Partner Institution (if any)</b>
<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	
<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 Technology</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**

- BA/MD program with Boston University. Seven-year program.
- 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 Rutgers, The State University of New Jersey (any school on any campus). Eight-year program (can be accelerated to seven years).
- BA or BS/MD program with The Richard Stockton College of New Jersey. Eight-year program.
- BA or BS/MD program with Rutgers, the State University of New Jersey (New Brunswick campus) (ACCESS-MED). Eight-year program.
- BA or BS/MD program with Seton Hall University (ACCESS-MED). 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 The Richard Stockton College of New Jersey. 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.
- BS/DMD program with New Jersey Institute of Technology. Eight-year program.
- 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.
- BA/DMD program with New Jersey City University (NJCU). 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.

**UMDNJ-SCHOOL OF OSTEOPATHIC MEDICINE (continued)**

- 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/Doctor of Physical Therapy program with Kean University (formerly BS/MS PT 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/MS in Physician Assistant 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.



**UMDNJ-SCHOOL OF HEALTH RELATED PROFESSIONS (continued)**

- 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.
- BA in Biology/MS in Physician Assistant program with Kean University. Six-year program.
- BS/MS in Physician Assistant 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 NURSING**

- ASN/BSN program with New Jersey Institute of Technology (joint BSN with UMDNJ).
- AS plus diploma in nursing/BSN program with Camden County College (AS), Our Lady of Lourdes School of Nursing (diploma) and New Jersey Institute of Technology (joint BSN with UMDNJ).
- AS plus diploma in nursing/BSN program with Camden County College (AS), Helene Fuld School of Nursing (diploma) and New Jersey Institute of Technology (joint BSN with UMDNJ).

**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/ENRICHMENT/PREPARATORY/INTERNSHIP/PROGRAMS**

School/Program	Population Served
<p><b>GSBS</b></p> <ul style="list-style-type: none"> <li>• Summer Undergraduate Research Experience</li> <li>• Bridge to the Doctoral Degree</li> <li>• International Graduate Research Educational Program</li> </ul>	<p>Undergraduate students</p> <p>University of Puerto Rico &amp; Montclair State University underrepresented graduate students</p> <p>M.S. students from Russia</p>
<p><b>GSBS/NJMS</b></p>	
<ul style="list-style-type: none"> <li>• Dorothy Dillahunt Summer Research Program for High School Students</li> </ul>	<p>High school students in the Paterson, NJ school district</p>
<p><b>NJMS</b></p>	
<ul style="list-style-type: none"> <li>• SMART (Science, Medicine &amp; Related Topics) <ul style="list-style-type: none"> <li>Young Explorers Program</li> <li>BIOTREK: The Way to Go!</li> <li>Fantastic Voyage</li> <li>ENVIROQUEST</li> <li>Mission: Health</li> <li>Biomedical Apprenticeships</li> </ul> </li> <li>• NJMS Saturday Science Academy</li> <li>• NJMS Pre-Medical Honors Program</li> <li>• S.H.A.R.E.: Early Start Mentoring Program</li> <li>• The Public Health Research Institute Summer High School Research Internship Program</li> <li>• AAMC Robert Wood Johnson Foundation Summer Medical &amp; Dental Education Program</li> <li>• Northeast Regional Alliance (NERA) MedPrep Scholars Program</li> <li>• Summer experience in Research for Minority Students (SERMS)</li> <li>• NJMS Linkage Programs</li> </ul>	<p>6th grade students</p> <p>7th grade students</p> <p>8th grade students</p> <p>9th grade students</p> <p>10th grade students</p> <p>11th and 12th grade students</p> <p>9th and 10th grade students</p> <p>High school students in Northern and Central NJ</p> <p>Local elementary school students</p> <p>Economically disadvantaged high school students from Newark</p> <p>Underrepresented college students</p> <p>Underrepresented undergraduate and graduate students</p> <p>Underrepresented high school students</p> <p>Post-baccalaureate premed students from Columbia University School of General Studies, Rutgers-New Brunswick, Rutgers-Newark and New York University who are interested in the MD degree at NJMS</p>

School/Program	Population Served
<b>NJMS (Continued)</b>	
<ul style="list-style-type: none"> <li>• National Heart, Lung and Blood Institute Short-Term Training for Minorities</li> <li>• Cancer Education Program for NJMS Students</li> <li>• Freshman Introduction to Resources and Skills Training (F.I.R.S.T)</li> <li>• Office of Research-Summer Biomedical Program</li> <li>• NJ Poison Information and Education System</li> <li>• University Advancement Center for Career Services and Community Based Learning Program</li> <li>• American Association of Orthopaedic Surgeons (AAOS) Association of Southeast Asian Nations (ASEAN) Fellows Program</li> <li>• Ophthalmic Medical Assistant Program</li> <li>• Mini-Med Program</li> </ul>	<p>Undergraduate and medical students</p> <p>Undergraduate and medical students</p> <p>Pre-matriculated medical students</p> <p>NJMS medical students</p> <p>Medical residents from New Jersey hospitals</p> <p>Montclair State University under-graduate students enrolled in Biology/Physician Assistant courses</p> <p>Asian orthopaedic surgeons</p> <p>Individuals working in ophthalmology settings</p> <p>Community residents</p>
<b>NJMS/NJDS</b>	
<ul style="list-style-type: none"> <li>• Summer Medical and Dental Education Program</li> </ul>	<p>College freshman and sophomore students underrepresented in medicine and dentistry</p>
<b>RWJMS</b>	
<ul style="list-style-type: none"> <li>• Summer Clinical Internships</li> <li>• Biomedical Careers Program</li> <li>• Undergraduate Summer Research Program</li> <li>• Undergraduate Research Scholars Program</li> <li>• Mini Medical School</li> <li>• Science Enrichment Program</li> <li>• Summer Science Scholars</li> <li>• Summer Research Program for Science Educators</li> <li>• CURE (Continuing Umbrella for Research Experience) Program</li> </ul>	<p>Undergraduate college students</p> <p>Economic and/or educationally disadvantaged undergraduates</p> <p>Undergraduate college students</p> <p>Undergraduate college students</p> <p>High school students</p> <p>Academically and socioeconomically disadvantaged high school students</p> <p>Gifted and talented high school students</p> <p>Underserved high school teachers from New Jersey and underserved community college faculty</p> <p>Underserved high school students from New Brunswick Health Sciences Technology High School and underserved first and second year students from Rutgers University</p>

School/Program	Population Served
<b>RWJMS (continued)</b>	
<ul style="list-style-type: none"> <li>• Clinical Pastoral Education Program</li> <li>• Genetic Counseling Internship</li> <li>• Interdisciplinary Traineeship in Developmental Disabilities</li> <li>• Certificate in Developmental Disabilities</li> <li>• Health Sciences Academy</li> <li>• Pre-matriculation Summer Program</li> </ul>	<p>Seminarians and community clergy</p> <p>Graduate students from Arcadia University (PA) and Sarah Lawrence College (NY)</p> <p>Graduate students</p> <p>Human services professionals with bachelors and/or master's degrees in social work or related disciplines</p> <p>High school seniors from Camden, NJ</p> <p>RWJMS pre-matriculated medical students</p>
<b>RWJMS/GSBS</b>	
<ul style="list-style-type: none"> <li>• Research in Science &amp; Engineering (RISE)</li> </ul>	Undergraduate students traditionally underrepresented in the sciences
<b>SOM</b>	
<ul style="list-style-type: none"> <li>• Summer Pre-Matriculation Program</li> <li>• SOM PREP Program</li> <li>• SOM ShaD.O.w Program</li> <li>• Medical Science Academy</li> <li>• National Youth Leadership Forum on Medicine (NYLF)</li> </ul>	<p>Incoming SOM students</p> <p>Undergraduate EOF students</p> <p>High school students</p> <p>High school senior honor students</p> <p>10th through 12th grade high school students from across the country who have an interest in medicine</p>
<b>NJDS</b>	
<ul style="list-style-type: none"> <li>• Dental Exploration Program Dental Express</li> <li>• Decision for Dentistry</li> <li>• Gateway to Dentistry</li> </ul>	<p>Students from Newark and surrounding communities. Elementary level - grades K-3 and 5-8</p> <p>NJ high school students, with priority given to students from Newark high schools, educationally disadvantaged and under- represented minority groups</p> <p>Undergraduate college students</p>
<b>SHRP</b>	
<ul style="list-style-type: none"> <li>• High School Shadowing</li> <li>• Graduate Programs in Clinical Nutrition</li> <li>• Health Science Career Program</li> <li>• Educational Opportunity Fund Program</li> </ul>	<p>High school students</p> <p>Nutrition and food science graduate students and faculty from the University of Shizuoka, Japan</p> <p>High school students from over 35 high schools throughout the state of NJ</p> <p>High school and college students summer enrichment program</p>

School/Program	Population Served
<b>SPH</b>	
<ul style="list-style-type: none"> <li>• Project EXPORT-Student Research Opportunity in Health Disparities</li> </ul>	Undergraduate students from NJCU and other universities
<b>UNIVERSITY BEHAVIORAL HEALTHCARE CENTER</b>	
<ul style="list-style-type: none"> <li>• Student Placement Program</li> </ul>	Rutgers University students
<b>UNIVERSITY HOSPITAL</b>	
<ul style="list-style-type: none"> <li>• Podiatric Externship Program</li> <li>• Pharmacy Clinical Rotations</li> <li>• Radiography Program Clinical Rotations</li> <li>• Social Work Internship Program</li> <li>• Dietetic Technician supervised field experience</li> <li>• Community Service Project</li> <li>• Child Life Internship Program</li> <li>• Speech-Language Pathology Graduate Internship Program</li> <li>• Occupational Therapy Clinical Fieldwork</li> <li>• Physical Therapy Student Program</li> <li>• Northeastern University Paramedic Clinical Internship</li> <li>• EMS Services</li> <li>• Vocational Surgical Tech Program</li> <li>• LPN Program</li> <li>• RN, BSN Program</li> <li>• RN NP Graduate Program</li> <li>• RN AD Program</li> <li>• RN, BSN and NP Graduate Program</li> </ul>	<p>Fourth year students from colleges of podiatric medicine</p> <p>Students from Ernest Mario School of Pharmacy, Rutgers University</p> <p>Essex County College undergraduate students</p> <p>Students enrolled in college social work programs</p> <p>Middlesex County College students</p> <p>High school students</p> <p>College students</p> <p>Graduate students</p> <p>Masters of Occupational Therapy students</p> <p>Doctor of Physical Therapy students</p> <p>College students</p> <p>Special Agents of the Newark Division of the Federal Bureau of Investigation (FBI) and agents of the Bureau of Alcohol, Tobacco and Firearms (ATF)</p> <p>Anthem Institute</p> <p>AV Technical Institute, Best Care Training Institute, Merit Technical Institute and New Community</p> <p>Bloomfield College, William Paterson University and Ramapo College</p> <p>Columbia University, Fairleigh Dickinson University and New York University</p> <p>Essex County College</p> <p>Rutgers University</p>

## **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
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
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)
SN - BSN, MSN	National League for Nursing Accrediting Commission (NLN)
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 for Reproductive Health (NANPRH)
SN - Nurse Midwifery	American College of Nurse Midwives (ACNM)
SOM - DO	American Osteopathic Association (AOA)
SOM - osteopathic internship & residency programs	American Osteopathic Association (AOA)
SPH - PhD, DrPH, MS, MPH	Council on Education for Public Health (CEPH)
<b>SHRP Programs</b>	
Cytotechnology	Commission on Accreditation of Allied Health Education Programs (CAAHEP)

School/Program	Accrediting Agency
Dental Assisting	Commission on Dental Accreditation (CODA) of the American Dental Association
Dental Hygiene	Commission on Dental Accreditation (CODA) of the American Dental Association
Diagnostic Medical Sonography	Commission on Accreditation of Allied Health Education Programs (CAAHEP)
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)
Nuclear Medicine Technology	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	Commission on Accreditation of Allied Health Education Programs (CAAHEP)
Vascular Technology	Commission on Accreditation of Allied Health Education Programs (CAAHEP)

**UMDNJ MEDICAL / DENTAL FIRST-YEAR TUITION HISTORY**

<i>Academic Year</i>	<i>Resident Tuition</i>	<i>% Increase in Resident Tuition</i>	<i>Non-Resident Tuition</i>	<i>% Increase in Non-Resident Tuition</i>
1971 - 1972	\$750	--	\$1,000	--
1972 - 1973	\$1,100	46.67%	\$1,750	75.00%
1973 - 1974	\$1,100	0.00%	\$1,750	0.00%
1974 - 1975	\$1,100	0.00%	\$1,750	0.00%
1975 - 1976	\$1,750	59.09%	\$3,000	71.43%
1976 - 1977	\$3,000	71.43%	\$4,000	33.33%
1977 - 1978	\$4,000	33.33%	\$5,000	25.00%
1978 - 1979	\$4,000	0.00%	\$5,000	0.00%
1979 - 1980	\$4,500	12.50%	\$5,625	12.50%
1980 - 1981	\$5,000	11.11%	\$6,240	10.93%
1981 - 1982	\$5,500	10.00%	\$6,875	10.18%
1982 - 1983	\$6,325	15.00%	\$7,905	14.98%
1983 - 1984	\$6,825	7.91%	\$8,530	7.91%
1984 - 1985	\$7,175	5.13%	\$8,965	5.10%
1985 - 1986	\$7,535	5.02%	\$9,860	9.98%
1986 - 1987	\$8,000	6.17%	\$10,500	6.49%
1987 - 1988	\$8,250	3.13%	\$10,825	3.10%
1988 - 1989	\$8,660	4.97%	\$11,365	4.99%
1989 - 1990	\$9,093	5.00%	\$11,933	5.00%
1990 - 1991	\$10,457	15.00%	\$13,723	15.00%
1991 - 1992	\$11,053	5.70%	\$14,505	5.70%
1992 - 1993	\$11,550	4.50%	\$15,158	4.50%
1993 - 1994	\$12,128	5.00%	\$15,916	5.00%
1994 - 1995	\$12,795	5.50%	\$16,791	5.50%
1995 - 1996	\$13,295	3.91%	\$17,445	3.89%
1996 - 1997	\$14,492	9.00%	\$22,679	30.00%
1997 - 1998	\$14,927	3.00%	\$23,359	3.00%
1998 - 1999	\$15,509	3.90%	\$24,270	3.90%
1999 - 2000	\$16,052	3.50%	\$25,119	3.50%
2000 - 2001	\$16,694	4.00%	\$26,124	4.00%
2001 - 2002	\$17,362	4.00%	\$27,169	4.00%
2002 - 2003	\$18,143	4.50%	\$28,392	4.50%
2003 - 2004	\$19,776	9.00%	\$30,947	9.00%
2004 - 2005	\$20,567	4.00%	\$32,185	4.00%
2005 - 2006	\$21,390	4.00%	\$33,472	4.00%
2006 - 2007	\$22,246	4.00%	\$34,811	4.00%
2007 - 2008	\$23,136	4.00%	\$36,203	4.00%
2008 - 2009	\$25,218	9.00%	\$39,461	9.00%
2009 - 2010	\$26,227	4.00%	\$41,039	4.00%

Sources: 1. Annual Tuition Report for AY 2008-2009, Table 1, UMDNJ-Office of Institutional Research.  
 2. UMDNJ Tuition Rates Schedule, Academic Year 2009-2010.



## **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 to an ever increasing extent, preserving past knowledge while offering the latest resources, services and information technology. To do this well necessitates acquiring extensive and appropriate 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. Technology and access to information are being transformed at a pace that requires dynamic, research libraries to be more nimble and flexible than ever before. New emphases in research and teaching, and the heightened expectations of the UMDNJ user community require that the 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 concept of knowledge management. These include the systems and processes used to acquire, organize, store, access, retrieve, teach and disseminate knowledge and information in all formats – traditional and digital. The University Libraries provide a critical portal, where scholarship in all formats 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.

Access to scholarly resources and information services to the students, housestaff, faculty, and staff is our primary goal. The Libraries are continually expanding information access, in particular, to electronic scholarly resources available onsite and remotely. Currently, the Libraries provide access to 84 electronic databases, 607 major electronic textbooks and 4,350 of the most highly rated scholarly electronic journals in the health sciences. Utilization of licensed electronic resources, online books and journals exceeded 2.3 million uses in FY2009.

The University Libraries are more aggressively supporting electronic journal subscriptions while continuing to cancel large numbers of print journals at each of our campus libraries. As a result of the reduction, we attempt to address the ongoing needs for new electronic content and archival collections. The reduction in print subscriptions is 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. New technologies are currently being implemented that will enhance library services to the University community. These include expanding access to electronic resources using open-link/URL technology through a comprehensive knowledge base called SFX and deploying federated search capability enabling searches of multiple resources simultaneously. Improved data security and authentication practices have been a priority over the past year as the libraries move closer to a single sign-on process.

The UMDNJ Libraries contribute to UMDNJ's community services goals and the reality of Internet medicine through HealthyNJ, an extensive consumer health Web site

(<http://www.healthynj.org>). The recent link to HealthyNJ on the University's main Web page will dramatically increase its utilization. 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 Libraries received funding to join other states in the National Library of Medicine's Go Local project, which provides information about health services in local geographic areas, including hospitals, physicians, nursing homes, support groups, and health screening providers throughout New Jersey.

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://www.umdnj.edu/librweb>

### **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://www.umdnj.edu/librweb/newarklib/index.htm>

### **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://www2.umdnj.edu/rwjlib/index.htm>
- **UMDNJ-Robert Wood Johnson Media Library**  
675 Hoes Lane, Piscataway, NJ 08854-5635  
(732) 235-4460  
<http://www.umdnj.edu/librweb/medialib/index.html>

### **STRATFORD CAMPUS**

- **UMDNJ-Health Sciences Library at Stratford**  
One Medical Center Drive, Stratford, NJ 08084-1501  
(856) 566-6800  
<http://www.umdnj.edu/librweb/stratlib/index.html>

**CAMDEN CAMPUS**

- ***The Reuben L. Sharp Health Science Library***  
The Cooper Health System, One Cooper Plaza, Camden, NJ 08103-1489  
(856) 342-2525  
<http://www4.umdj.edu/camlbweb/index.html>
- ***UMDNJ and Coriell Library***  
401 Haddon Avenue, Camden, NJ 08103-1505  
(856) 757-7740  
<http://www4.umdj.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 2009****Access to Libraries' Resources**

Gate Count	436,237
Circulation	19,454

**Information Services**

Database Accesses/End User	2,308,785
Database Accesses/Librarian Mediated	1,950
Reference Questions Answered	14,172
Education Session (Formal Teaching) Participants	4,038

**Interlibrary Cooperation**

Lending to Libraries	11,348
Borrowing from Libraries	7,455

**Collection**

Book Volumes	91,726
Journal Volumes	174,156
Print Journal Subscriptions	158
Electronic Journal Subscriptions	4,350
Database Subscriptions	84

**Personnel**

Professional Staff (FTE)	34.0
Support Staff (FTE)	29.5

## **CENTER FOR CONTINUING & OUTREACH EDUCATION (CCOE)**

### **CONTINUING MEDICAL EDUCATION MISSION STATEMENT**

#### **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 medical 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 medical 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 CME 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 physicians as defined by the Institutes of Medicine and the American Board of Medical Specialties, the content of UMDNJ educational interventions is derived from experts, national specialty guidelines and consensus statements, observed quality management indicators, and the needs of learners. The content of CME is matched to those assessed gaps and addresses strategies to close those gaps.

#### **Target Audience**

UMDNJ-CCOE serves several principal audiences, as follows:

- **Local and Regional**

*Internal learners* through their participating affiliated institutions who participate in a comprehensive regularly scheduled series (RSS) program that encompasses grand rounds, M&M conferences, tumor boards, and other series scheduled on a regular basis.

*Regionally-based physicians throughout the State of New Jersey* who rely upon UMDNJ-CCOE to provide education on new developments in medicine and for those competencies they must master for relicensure and recertification.

- **National and International**

*Physician-learners throughout the United States and throughout the world* who look to UMDNJ as a source of expertise based on distinctions earned by its distinguished faculty.

*Collaborative audiences* in partnership with specialty societies and jointly sponsored activities.

### **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 mechanisms and processes to sustain change in physician 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 also 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 CME
- Enduring materials
- Internet-based education
- Jointly-sponsored collaborations with non-accredited organizations that are not commercial interests

### **Expected Results**

Educational outcomes measurement (EOM) mechanisms are determined based on the intended result of the activity.

- **For Improvement in Competence** - When an activity is designated for "improved competence," it will measure competence based on the administration of either (1) a case study with questions that determine ability of the learner to apply the knowledge learned in a patient care setting, (2) a questionnaire that assesses the learner's ability to apply knowledge learned to patient care, or (3) a paired-question model in which competence is assessed prior to and immediately after the learning episode.
- **For Improvements in Performance** - When an activity is designated for "improved performance-in-practice," a follow-up questionnaire will be administered to some or all learners to determine if key new behaviors and practices were actually implemented in the practice setting. ...
- **For Improvements in Patient Outcomes** - When an activity is designated for "improved patient outcomes," it will be measured based on either (1) actual chart entries through quality management resources, or (2) through anecdotal reports from learners based on their observation of patients subsequent to the learning episode.

**From Evaluation to Improvement** - The analysis of EOM data will form the basis of improvements to UMDNJ's overall CME Program. A process of continuous quality improvement is fundamental to UMDNJ-CCOE. 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. Our program of

quality assessment and improvements is directly tied to the commitments made in the CME Mission and are in concert with the Accreditation Council for Continuing Medical Education (ACCME) updated Criteria for Accreditation.

## OVERVIEW

The Center for Continuing & Outreach Education serves as a the “hub” for the University’s continuing and outreach education thrust and is the official “approved provider” for all continuing education activities sponsored by the University.

The CCOE draws upon the multiplicity of resources within the medical, osteopathic, health related professions, nursing, dental, public health, and biomedical science schools of the University and the network of UMDNJ affiliates throughout the state. Because CCOE works within the strictest interpretation of all relevant governmental and industry regulations, the importance of centralized administration of all the University’s continuing education and educational outreach activities assures coordinated efforts for the comprehensive development and implementation of state-wide programming of the various schools and institutes, and all significant or distinguished continuing and outreach education initiatives.

An experienced and well-credentialed staff is available to assist in the development and implementation of continuing education and educational outreach activities. The day-to-day operation of the department is headed by the Director of Operations, Continuing Education. Many staff possess master’s degrees as well as certificates in adult and continuing education, public health, business, accounting, communications, marketing and advertising, and fund-raising management. Collectively, their expertise, education and background provide UMDNJ with an unparalleled resource

The continuing medical education thrust emanates from three UMDNJ Schools: New Jersey Medical School, Newark; Robert Wood Johnson Medical School, New Brunswick; and the School of Osteopathic Medicine, Stratford.

### ***Enrollment & Student Services and Financial & Accounting Services:***

To optimize physical and human resources, CCOE employs a centralized staff dedicated to providing a variety of customer support services and accounting and financial services in support of the University’s continuing education and educational outreach mission and activities.

## DIVISION OF AIDS EDUCATION

The Division is the largest provider of HIV/AIDS continuing professional education in New Jersey. It holds the contract for the New Jersey Local Performance Site of the New York/New Jersey AIDS Education and Training Center (NY/NJ AETC). The NY/NJ AETC is one of 11 regional AIDS Education and Training Centers established through grants from HRSA under the Ryan White CARE Act. The Division has held this position since 1989 and was represented as the New Jersey AIDS Education and Training Center through 2001. In 2002 UMDNJ partnered with Columbia University, Mailman

School of Public Health to form the current regional entity. New Jersey continues to be seriously affected by the AIDS epidemic.

The mission of the Division 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.

The Division holds, in addition to the AETC contract, six grants for training and quality improvement in HIV/AIDS healthcare in New Jersey. Programs offered include discipline-specific, hands-on clinical preceptorships for physicians, physician assistants, nurses, nurse practitioners, dentists and dental hygienists/dental assistants, on-site intensive updates and multidisciplinary HIV update lecture sessions. Other grants support the training of HIV case managers, substance abuse counselors and providers working in HIV prevention.

## **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 Disaster Preparedness and Emergency Response  
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 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  
Special Care Treatment Center  
Northeastern Minority Oral Health Research Center  
University Craniofacial Center of New Jersey

**SCHOOL OF OSTEOPATHIC MEDICINE**

Center for Mental Health Treatment for Persons with Intellectual Disabilities  
Center for Teaching and Learning  
Center for Wellness  
Child Abuse Research Education and Service (CARES) Institute  
Geriatric Education Center  
NeuroMusculoskeletal Institute  
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 Health Education  
Center for Tobacco Surveillance & Evaluation Research  
New Jersey Center for Public Health Preparedness at UMDNJ

**UNIVERSITY BEHAVIORAL HEALTHCARE**

Behavioral Research and Training Institute  
Institute for Alzheimer's Disease and Related Disorders  
Institute for Chemical Dependency  
Technical Assistance Center  
Violence Institute of New Jersey at UMDNJ

## **MAJOR TEACHING FACILITIES**

### **New Jersey Medical School**

UMDNJ-University Hospital

Department of Veterans Affairs, New Jersey Health Care System

Kessler Institute for Rehabilitation

Saint Barnabas 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

Our Lady of Lourdes Medical Center

## **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

### **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

**Focus Community Health Center**

449 Broad Street  
Newark, New Jersey 07102

**Robert Wood Johnson Medical School Professional Center**

97 Paterson Street  
New Brunswick, New Jersey 08901-1977

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

317 George Street  
New Brunswick, New Jersey 08901

**Robert Wood Johnson University Medical Group at Somerset**

One Worlds Fair Drive  
Somerset, New Jersey 08873

**Robert Wood Johnson University Medical Group**

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, NJ 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 – Pain Center/Institute for Successful Aging/  
CARES Institute/Family Medicine/Surgery/Cancer Center/  
Ob-Gyn/Medicine/Physical Therapy/Orthopedics/Osteopathic Manipulative  
Medicine/Sports Medicine  
42 East Laurel Road  
Stratford, New Jersey 08084-1350

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

101 East Laurel Road – Developmental Disabilities  
Stratford, New Jersey 08084

**School of Osteopathic Medicine – The University Doctors at Turnersville**

Fries Mill Pavilion – Pediatrics and Adolescent Medicine  
188 Fries Mill Road, Suite M-5  
Turnersville, New Jersey 08012

**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 – Suite C2 – Family Medicine, Medicine, Obstetrics & Gynecology, Orthopedics, Pain Management, Surgery  
Sewell, New Jersey 08080

400 Medical Center Drive  
Suite – E - Internal Medicine  
Sewell, New Jersey 08080

100 Kings Way East – Family Medicine  
Suite D-6  
Sewell, NJ 08080

**School of Osteopathic Medicine – Hospital-Based Units**

Lourdes Medical Center of Burlington County  
218 Sunset Road  
Willingboro, NJ 08046

Our Lady of Lourdes Medical Center  
1600 Haddon Avenue  
Camden, NJ 08101

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

Kennedy Memorial Hospital – Washington Township Division  
435 Hurfville-Cross Keys Road  
Turnersville, NJ 08012

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

South Jersey Healthcare – Regional Medical Center of  
South Jersey Health System  
1505 West Sherman Avenue  
Vineland, NJ 08360

**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**

1176 Raritan Road  
Scotch Plains, New Jersey 07076

**School of Nursing Mobile Health Project**

65 Bergen Street  
Newark, New Jersey 07101-1709





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**ENROLLMENT IN SCHOOLS BY GENDER AND RACE / ETHNICITY  
FALL 2008**

<b>SCHOOL</b>	<b>TOTAL NUMBER ENROLLED</b>	<b>% BLACK</b>	<b>% HISPANIC</b>	<b>% ASIAN</b>	<b>% WOMEN</b>	<b>% NJ RESI- DENT</b>
<b>NEW JERSEY MEDICAL SCHOOL</b>	<b>746</b>	<b>11.4</b>	<b>13.1</b>	<b>35.9</b>	<b>45.2</b>	<b>99.9</b>
<b>ROBERT WOOD JOHNSON MEDICAL SCHOOL</b>	<b>681</b>	<b>9.5</b>	<b>4.3</b>	<b>31.4</b>	<b>54.9</b>	<b>98.8</b>
<i>New Brunswick/Piscataway Campus</i>	<i>575</i>	<i>6.8</i>	<i>4.3</i>	<i>32.2</i>	<i>53.7</i>	<i>98.8</i>
<i>Camden Campus</i>	<i>106</i>	<i>24.5</i>	<i>3.8</i>	<i>27.4</i>	<i>61.3</i>	<i>99.1</i>
<b>SCHOOL OF OSTEOPATHIC MEDICINE</b>	<b>428</b>	<b>18.7</b>	<b>7.0</b>	<b>20.6</b>	<b>56.1</b>	<b>99.1</b>
<b>NEW JERSEY DENTAL SCHOOL</b>	<b>453</b>	<b>6.0</b>	<b>5.7</b>	<b>32.7</b>	<b>55.8</b>	<b>82.8</b>
<b>GRADUATE SCHOOL OF BIOMEDICAL SCIENCES</b>	<b>1,094</b>	<b>7.9</b>	<b>9.0</b>	<b>41.0</b>	<b>56.0</b>	<b>52.8</b>
<i>Newark Division</i>	<i>461</i>	<i>6.9</i>	<i>8.2</i>	<i>38.4</i>	<i>60.5</i>	<i>59.9</i>
<i>Piscataway Division</i>	<i>498</i>	<i>5.0</i>	<i>9.0</i>	<i>46.6</i>	<i>51.2</i>	<i>42.4</i>
<i>Stratford Division</i>	<i>135</i>	<i>21.5</i>	<i>11.1</i>	<i>28.9</i>	<i>58.5</i>	<i>67.4</i>
<b>SCHOOL OF HEALTH RELATED PROFESSIONS</b>	<b>1,382</b>	<b>13.2</b>	<b>7.5</b>	<b>14.6</b>	<b>75.0</b>	<b>74.7</b>
<b>SCHOOL OF NURSING</b>	<b>823</b>	<b>26.7</b>	<b>8.3</b>	<b>14.9</b>	<b>84.6</b>	<b>89.6</b>
<b>SCHOOL OF PUBLIC HEALTH</b>	<b>375</b>	<b>15.7</b>	<b>6.4</b>	<b>34.4</b>	<b>68.3</b>	<b>78.4</b>
<i>Newark Campus</i>	<i>119</i>	<i>21.0</i>	<i>12.6</i>	<i>29.4</i>	<i>65.5</i>	<i>69.7</i>
<i>New Brunswick/Piscataway Campus</i>	<i>231</i>	<i>11.7</i>	<i>3.0</i>	<i>39.0</i>	<i>68.8</i>	<i>81.8</i>
<i>Stratford Campus</i>	<i>25</i>	<i>28.0</i>	<i>8.0</i>	<i>16.0</i>	<i>76.0</i>	<i>88.0</i>
<b>GRAND TOTAL*</b>	<b>5,982</b>					
<b>Unduplicated Count</b>	<b>5,906</b>	<b>13.4</b>	<b>8.0</b>	<b>27.1</b>	<b>63.9</b>	<b>81.1</b>

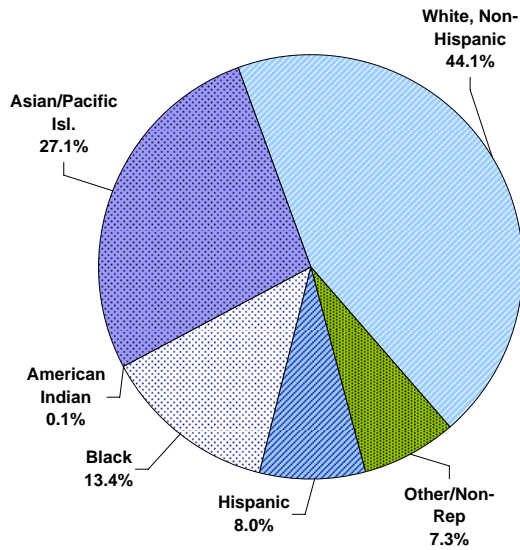
\*Students with dual enrollment are counted in each School/program in which they are enrolled.  
Grand Total percents are based upon unduplicated headcount.

**Unduplicated headcount = 5,906**

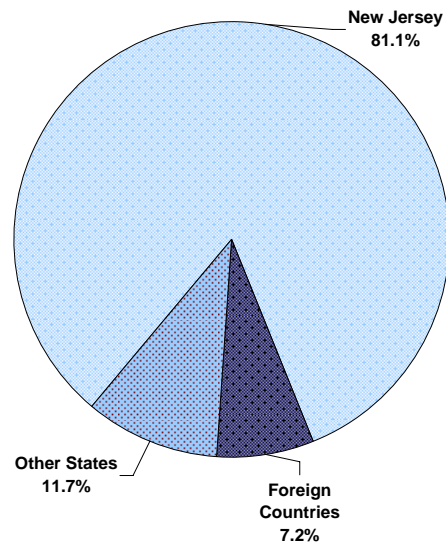
Source: Office of University Registrar: Data as of October 1, 2008.

## PROFILE OF UMDNJ'S STUDENT ENROLLMENT FALL 2008

**RACE / ETHNICITY**



**RESIDENCE**



	<i>Enrolled Headcount</i>
American Indian	7
Asian/Pacific Islander	1,599
Black	792
Hispanic	473
White, Non-Hispanic	2,605

	<i>Enrolled Headcount</i>
New Jersey	4,789
Other States	693
Foreign Countries	424

Full-Time	71.0%
Part-Time	29.0%

Female	63.9%
Male	36.1%

**Unduplicated headcount = 5,906**

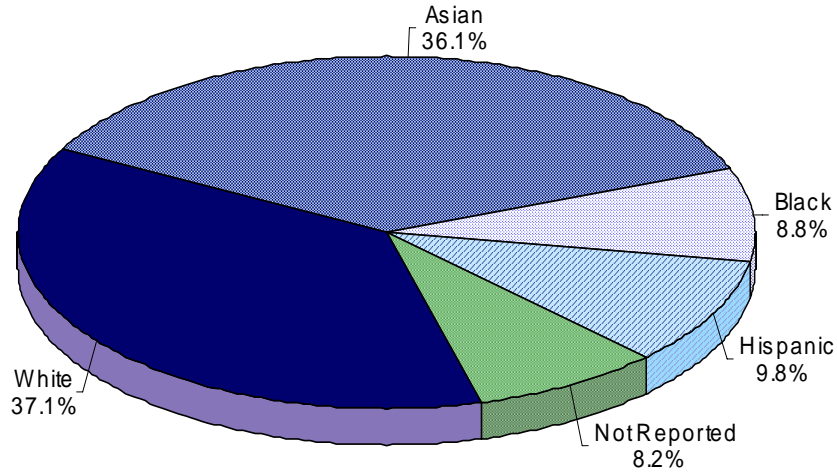
Source: Office of the University Registrar: Data as of October 1, 2008

## **ADMISSIONS DATA**

The following figures provide data by School on the characteristics of entering classes in 2008-2009.

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 2008  
N = 194**

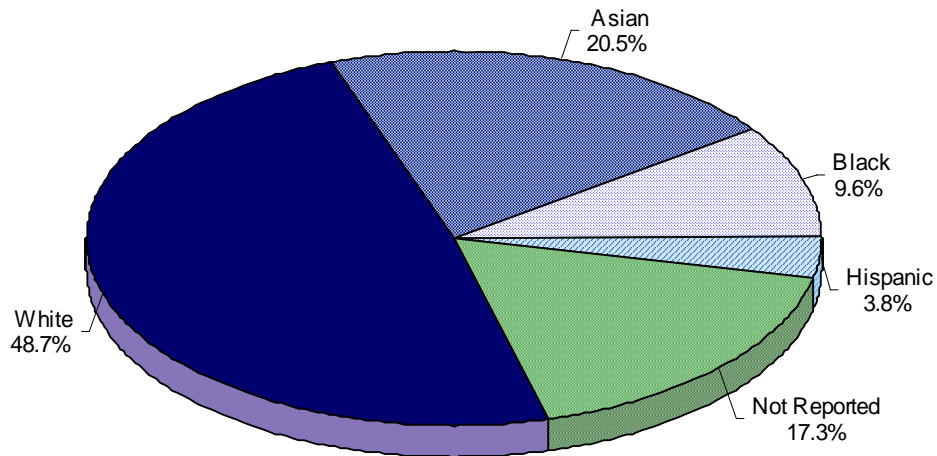


NJ Residents	100.0%	
Female	37.6%	
	<i>Class Average</i>	<i>National Average</i>
Total GPA	3.58	3.66
MCAT*		
Verbal Reasoning	9.9	9.9
Physical Sciences	10.6	10.3
Biological Sciences	10.9	10.7

\* MCAT stands for the Medical College Admission Test.

Source: UMDNJ Report on Admissions, 2008-2009, UMDNJ-Office of Institutional Research.

**FIRST-TIME FIRST-YEAR MATRICULANTS  
ROBERT WOOD JOHNSON MEDICAL SCHOOL  
FALL 2008  
N = 156**



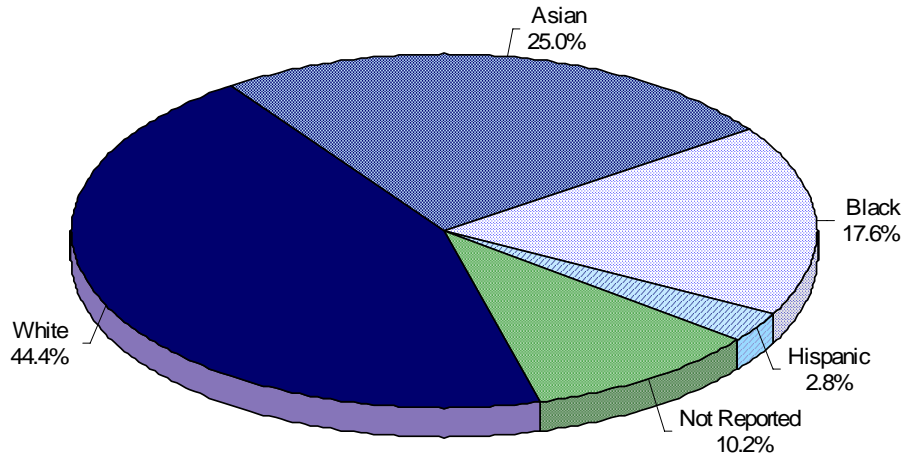
NJ Residents	98.7%	
Female	55.1%	
	<i>Class Average</i>	<i>National Average</i>
Total GPA	3.62	3.66
MCAT*		
Verbal Reasoning	9.6	9.9
Physical Sciences	10.2	10.3
Biological Sciences	10.8	10.7

Note: An additional ten students in the BA/MD articulated program with Rutgers were admitted as non-matriculants and will enter the second year at RWJMS in Fall 2009. The total GPA including these 10 students was 3.64.

\* MCAT stands for the Medical College Admission Test.

Source: UMDNJ Report on Admissions, 2008-2009, UMDNJ-Office of Institutional Research.

**FIRST-TIME FIRST-YEAR MATRICULANTS  
SCHOOL OF OSTEOPATHIC MEDICINE  
FALL 2008  
N = 108**

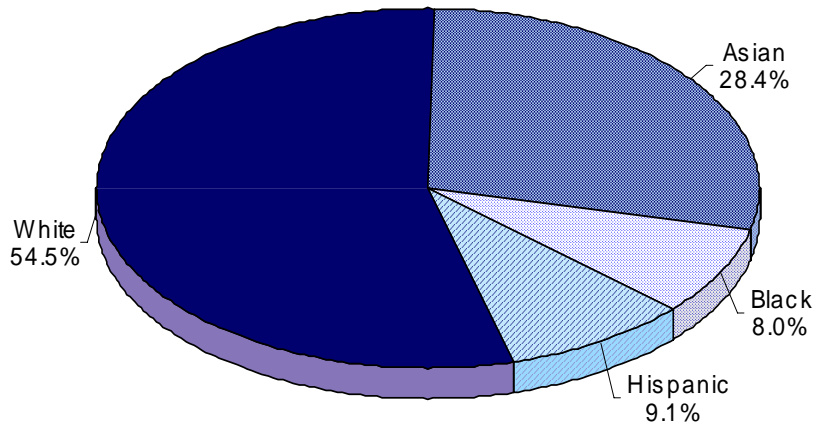


NJ Residents	99.1%	
Female	46.3%	
	<i>Class Average</i>	<i>National Average</i>
Total GPA	3.53	3.4
MCAT*		
Verbal Reasoning	8.6	8.3
Physical Sciences	9.0	8.2
Biological Sciences	9.5	8.8

\* MCAT stands for the Medical College Admission Test.

Source: UMDNJ Report on Admissions, 2008-2009, UMDNJ-Office of Institutional Research.

**FIRST-TIME FIRST-YEAR MATRICULANTS  
NEW JERSEY DENTAL SCHOOL  
FALL 2008  
N = 88**



NJ Residents	93.2%
Female	53.7%
Total GPA Class Average	3.47
DAT* Academic Average**	18.8

Note: National averages are not available.

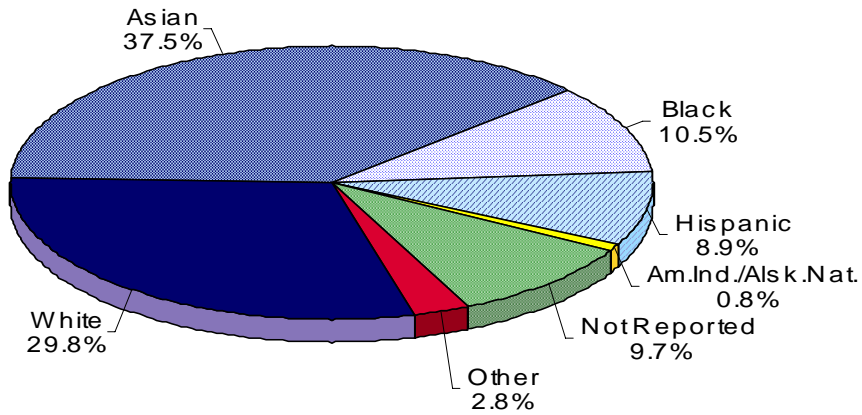
\* DAT stands for the Dental Admission Test.

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

Source: UMDNJ Report on Admissions, 2008-2009, UMDNJ-Office of Institutional Research.



**FIRST-TIME MATRICULANTS  
GRADUATE SCHOOL OF BIOMEDICAL SCIENCES  
NEWARK AND STRATFORD DIVISIONS  
FALL 2008 AND SPRING 2009  
N = 248**



NJ Residents	65.7%
Female	56.5%
Total GPA Class Average*	3.13
GRE** Class Averages	
Verbal	486
Quantitative	659
Analytical Reasoning†	450
Analytical Writing†	4.10

Note: National averages are not available.

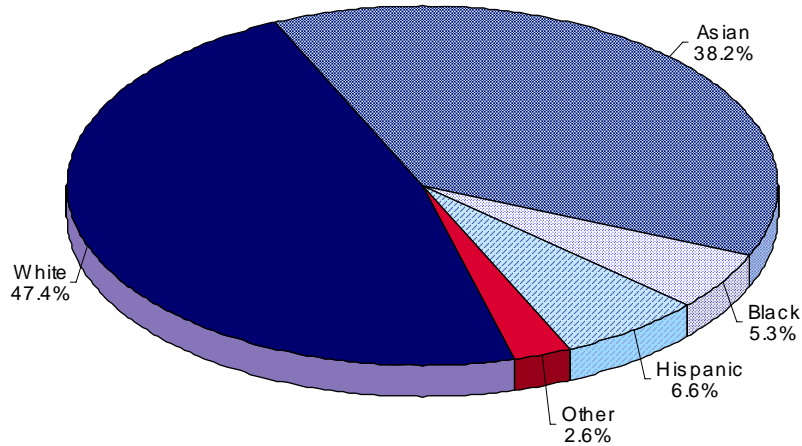
\* Baccalaureate degree GPAs.

\*\* 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, 2008-2009, UMDNJ-Office of Institutional Research.

**FIRST-TIME MATRICULANTS  
GRADUATE SCHOOL OF BIOMEDICAL SCIENCES  
PISCATAWAY DIVISION JOINT PROGRAM WITH RUTGERS UNIVERSITY\*  
FALL 2008 AND SPRING 2009  
N = 76**



NJ Residents	64.5%
Female	57.9%
Total GPA Class Average**	***
GRE† Class Averages	
Verbal	***
Quantitative	***
Analytical Reasoning	***
Analytical Writing	***

Note: National averages are not available.

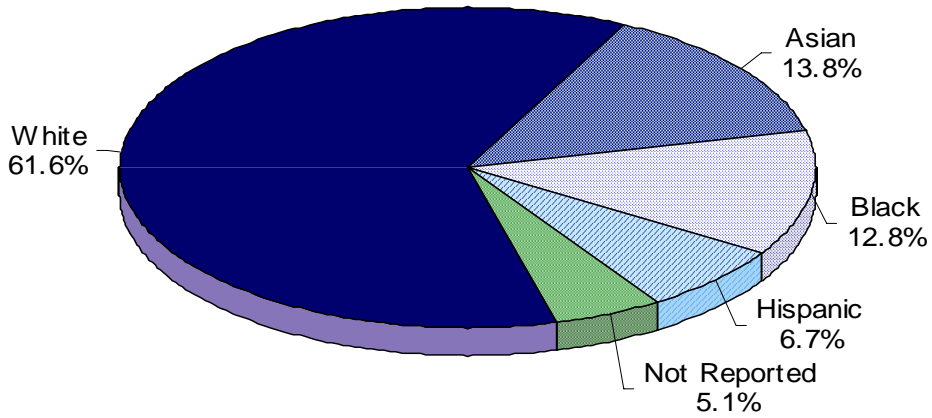
\* First-year students are administratively assigned either to UMDNJ or to Rutgers University. The information reported here is for the entire first-year matriculated class.

\*\* Baccalaureate degree GPAs.

† GRE stands for the Graduate Record Examination.

\*\*\*Efforts to load data from the Rutgers Student Records Database into UMDNJ's Banner system are still underway, resulting in incomplete reporting of grade point averages and GRE scores. The interface is expected to be completed in late Spring 2009.

**FIRST-TIME MATRICULANTS  
SCHOOL OF HEALTH RELATED PROFESSIONS  
GRADUATE PROGRAMS  
SPRING, SUMMER AND FALL 2008  
N = 297**



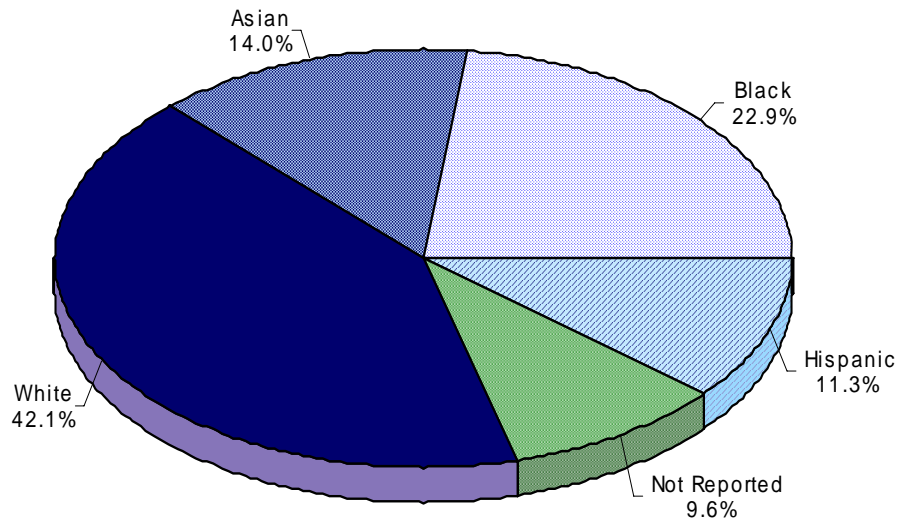
NJ Residents	82.5%
Female	68.0%
Total GPA Class Average*	3.24

Note: National average is not available.

\* Baccalaureate degree GPAs.

Source: UMDNJ Report on Admissions, 2008-2009, UMDNJ-Office of Institutional Research.

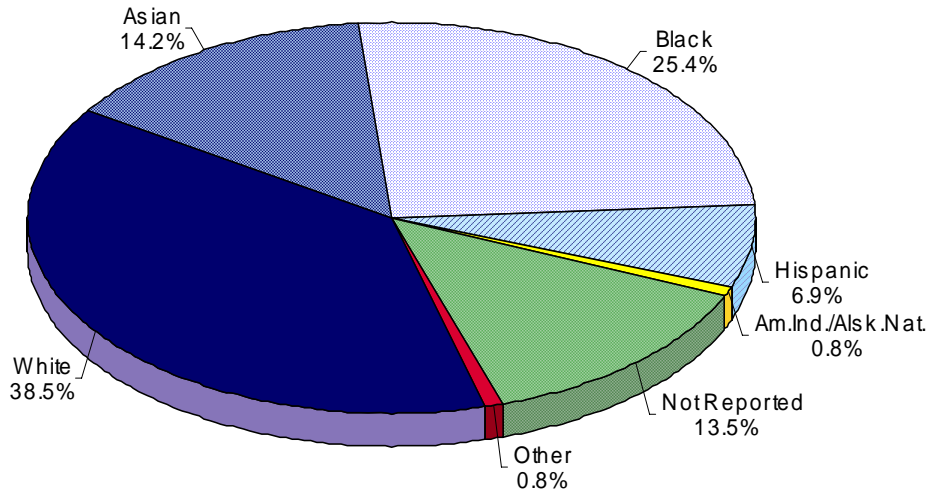
**FIRST-TIME MATRICULANTS  
SCHOOL OF HEALTH RELATED PROFESSIONS  
UNDERGRADUATE PROGRAMS  
SPRING, SUMMER AND FALL 2008  
N = 292**



NJ Residents	87.3%
Female	76.0%

Source: UMDNJ Report on Admissions, 2008-2009, UMDNJ-Office of Institutional Research.

**FIRST-TIME MATRICULANTS  
SCHOOL OF NURSING  
GRADUATE PROGRAMS  
SPRING, SUMMER AND FALL 2008  
N = 260**



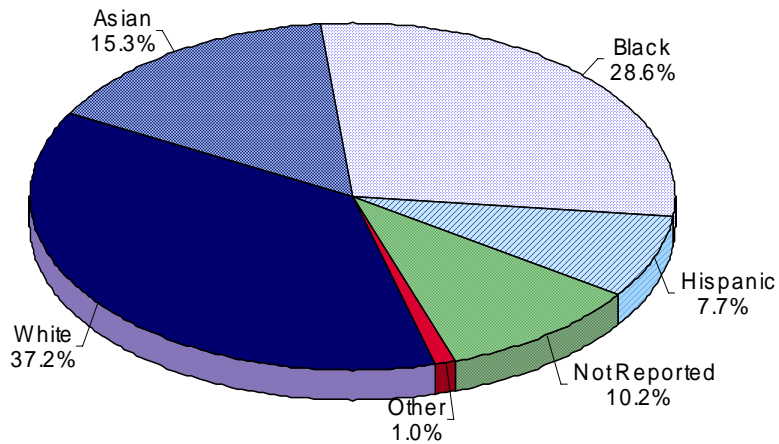
NJ Residents	86.9%
Male	11.9%
Total GPA Class Average*	3.36

Note: National average is not available.

\* Baccalaureate degree GPAs.

Source: UMDNJ Report on Admissions, 2008-2009, UMDNJ-Office of Institutional Research.

**FIRST-TIME MATRICULANTS  
SCHOOL OF NURSING  
SECOND BACHELOR'S DEGREE PROGRAM  
SPRING, SUMMER AND FALL 2008  
N = 196**



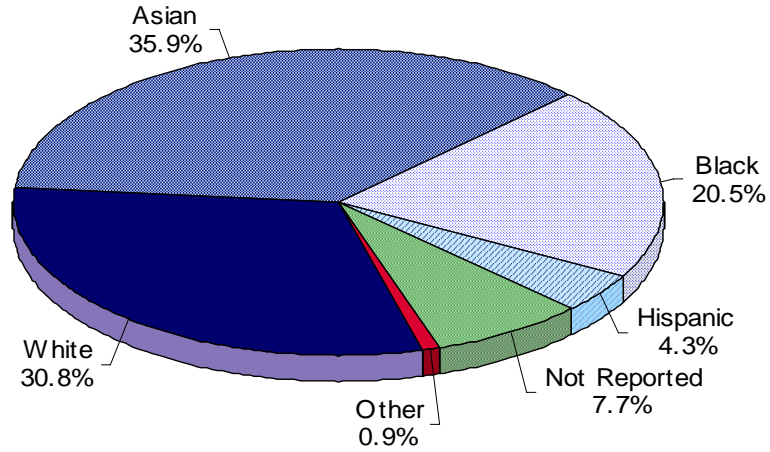
NJ Residents	89.3%
Male	19.9%
Total GPA Class Average*	3.25

Note: National average is not available.

\* Baccalaureate degree GPAs.

Source: UMDNJ Report on Admissions, 2008-2009, UMDNJ-Office of Institutional Research.

**FIRST-TIME MATRICULANTS  
SCHOOL OF PUBLIC HEALTH  
FALL 2008 AND SPRING 2009  
N = 117**



NJ Residents	73.5%
Female	59.8%
Total GPA Class Average*	3.32
GRE** Class Averages	
Verbal	512
Quantitative	614
Analytical Reasoning <sup>†</sup>	636
Analytical Writing <sup>†</sup>	4.15

Note: National averages are not available.

\* 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, 2008-2009, UMDNJ-Office of Institutional Research.

**FINANCIAL AID INFORMATION**  
**STATE-FUNDED PROGRAMS**  
*Academic Year 2008-2009*

<b><i>Programs</i></b>	<b><i>Number of Recipients</i></b>
<b>STATE-FUNDED LOANS</b>	
NJCLASS	171
<b>STATE-FUNDED SCHOLARSHIPS/GRANTS</b>	
Educational Opportunity Fund	122
Tuition Aid Grant	85
Martin Luther King Scholarship	46
Disadvantaged Student Fund	408

Source: UMDNJ-Office of Financial Aid.



**DEGREES AND CERTIFICATES AWARDED  
ACADEMIC YEAR 2007-2008**

<i>Degree</i>	<i>Black</i>	<i>His-panic</i>	<i>Asian</i>	<i>White</i>	<i>Native Amer.</i>	<i>Un-known</i>	<i>Total</i>
Doctor of Medicine	34	31	108	123	0	3	299
Doctor of Osteopathic Medicine	20	4	22	44	0	1	91
Doctor of Dental Medicine	2	2	15	48	0	0	67
Doctor of Clinical Nutrition	0	1	0	4	0	0	5
Doctor of Nursing Practice	1	1	1	7	0	2	12
Doctor of Physical Therapy	2	3	12	45	0	3	65
Doctor of Philosophy	7	6	59	49	0	2	123
Master's Degrees <sup>1</sup> / Post-Baccalaureate Certificates	83	33	122	220	0	23	481
Post-Master's / Post-Doctoral Certificates	1	2	6	16	0	0	25
Undergraduate Degrees <sup>2</sup> / Certificates	106	47	76	199	1	53	482
<b>TOTAL</b>	<b>256</b>	<b>130</b>	<b>421</b>	<b>755</b>	<b>1</b>	<b>87</b>	<b>1,650</b> <sup>3</sup>

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

<i>Men</i>	<i>Women</i>	<i>Total</i>
<b>504</b>	<b>1,130</b>	<b>1,634</b>

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 2007-2008, 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 2008**

**NEW JERSEY MEDICAL SCHOOL, MD PROGRAM  
USUAL DURATION 4 YEARS  
STUDENTS BEGINNING IN AY 2000-2001 THROUGH AY 2004-05**

	Number in Beginning Cohort <sup>1</sup>	Total Number Graduated	Total Number Retained <sup>2</sup>	% Retained, Adjusted <sup>3</sup>
<b>2000-01</b>	170	164	165	97.1
<b>2001-02</b>	170	162	168	98.8
<b>2002-03</b>	170	165	166	97.6
<b>2003-04</b>	170	154	165	97.1
<b>2004-05</b>	170	130	165	97.1

<sup>1</sup> Number in beginning cohort includes MD/PhD students (two in 2000, six in 2001, one in 2002, six in 2003 and seven in 2004); MD/MPH students (four in 2000, three in 2001, six in 2002, four in 2003 and five in 2004); and MD/Oral Maxillofacial students (one in 2000).

<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 2008**

**ROBERT WOOD JOHNSON MEDICAL SCHOOL, MD PROGRAM  
USUAL DURATION 4 YEARS  
STUDENTS BEGINNING IN AY 2000-2001 THROUGH AY 2004-05**

	Number in Beginning Cohort <sup>1,2</sup>	Total Number Graduated	Total Number Retained <sup>3</sup>	% Retained, Adjusted <sup>4</sup>
<b>2000-01</b>	153	147	147	96.1
<b>2001-02</b>	147	141	143	97.3
<b>2002-03</b>	148	132	138	94.5 <sup>4</sup>
<b>2003-04</b>	148	135	146	98.6
<b>2004-05</b>	153	123	151	99.3 <sup>4</sup>

<sup>1</sup> Number in beginning cohort includes MD/PhD students (one in 2000, five in 2001, three in 2002, four in 2003 and three in 2004) and MD/MBA students (five in 2000, three in 2001, five in 2002, one in 2003 and two in 2004).

<sup>2</sup> Number in beginning cohort does not include MD/MPH students (two in 2000, six in 2001, five in 2002, three in 2003 and three in 2004), who are reported on separately in Table 3.

<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 and one in 2004).

**GRADUATION AND RETENTION  
AS OF JUNE 2008**

**ROBERT WOOD JOHNSON MEDICAL SCHOOL/  
SCHOOL OF PUBLIC HEALTH, MD/MPH (DUAL DEGREE) PROGRAM  
USUAL DURATION 5 YEARS  
STUDENTS BEGINNING IN AY 1999-2000 THROUGH AY 2003-04**

	Number in Beginning Cohort	Number Completed One Degree Only	Number Completed Both Degrees	Number Retained <sup>1</sup>	% Retained
<b>1999-00</b>	3	1	2	3	100.0
<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

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

**GRADUATION AND RETENTION  
AS OF JUNE 2008**

**SCHOOL OF OSTEOPATHIC MEDICINE, DO PROGRAM  
USUAL DURATION 4 YEARS  
STUDENTS BEGINNING IN AY 2000-01 THROUGH AY 2004-05**

	Number in Beginning Cohort <sup>1</sup>	Total Number Graduated	Total Number Retained <sup>2</sup>	% Retained, Adjusted <sup>3</sup>
<b>2000-01</b>	80	78	78	98.7 <sup>3</sup>
<b>2001-02</b>	87	83	83	96.5 <sup>3</sup>
<b>2002-03</b>	87	83	85	97.7
<b>2003-04</b>	95	91	93	97.9
<b>2004-05</b>	96	81	95	99.0

<sup>1</sup> Number in beginning cohort includes DO/MPA students (one in 2000 and one in 2001), DO/MS students (one in 2004), DO/PhD students (one in 2000, one in 2003 and one in 2004), DO/MBA students (one in 2003) and DO/JD students (two in 2000, one in 2001 and four in 2004).

<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 2008**

**NEW JERSEY DENTAL SCHOOL, DMD PROGRAM  
USUAL DURATION 4 YEARS  
STUDENTS BEGINNING IN AY 2000-01 THROUGH AY 2004-05**

	<b>Number in Beginning Cohort</b>	<b>Total Number Graduated</b>	<b>Total Number Retained<sup>1</sup></b>	<b>% Retained</b>
<b>2000-01</b>	76	69	69	90.8
<b>2001-02</b>	78	71	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	68	74	90.2

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

**GRADUATION AND RETENTION  
AS OF JUNE 2008**

**GRADUATE SCHOOL OF BIOMEDICAL SCIENCES, PHD PROGRAM  
MAXIMUM DURATION 7 YEARS  
STUDENTS BEGINNING IN AY 1997-98 THROUGH AY 2001-02**

	Number in Beginning Cohort <sup>1</sup>	Total Number Graduated <sup>2</sup>	Total Number Retained <sup>3</sup>	% Retained
<b>1997-98</b>	56	38	38	67.9
<b>1998-99</b>	66	55	55	83.3
<b>1999-00</b>	64	55	56	87.5
<b>2000-01</b>	60	45	45	75.0
<b>2001-02</b>	76	49	59	77.6

<sup>1</sup> Number in beginning cohort includes students in dual-degree programs such as MD/PhD.

<sup>2</sup> Total number graduated includes five students with terminal master's degrees in 1997, eleven in 1998, eight in 1999, four in 2000 and six in 2001.

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



**GRADUATION AND RETENTION  
AS OF JUNE 2008**

**SCHOOL OF PUBLIC HEALTH, PHD and DrPH PROGRAMS  
MAXIMUM DURATION 9 YEARS<sup>1</sup>  
STUDENTS BEGINNING IN AY 1995-1996 THROUGH AY 1999-2000**

	Number in Beginning Cohort <sup>2</sup>	Total Number Graduated	Total Number Retained <sup>3</sup>	% Retained
<b>1995-96</b>	4	2	2	50.0
<b>1996-97</b>	5	4	5	100.0
<b>1997-98</b>	3	1	1	33.3
<b>1998-99</b>	11	4	8	72.7
<b>1999-00</b>	5	4	5	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 2008**

**SCHOOL OF PUBLIC HEALTH, MPH PROGRAM<sup>1</sup>  
USUAL DURATION 6 YEARS<sup>2</sup>  
STUDENTS BEGINNING IN AY 1998-99 THROUGH AY 2002-03**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>3</sup>	% Retained
<b>1998-99</b>	74	52	57	77.0
<b>1999-00</b>	104	51	73	70.2
<b>2000-01</b>	64	48	54	84.4
<b>2001-02</b>	117	88	101	86.3
<b>2002-03</b>	119 <sup>4</sup>	70	103	86.6

<sup>1</sup> RWJMS MD/MPH students are reported on separately in Table 3.

<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.

**GRADUATION AND RETENTION  
AS OF JUNE 2008**

**SCHOOL OF NURSING, MSN PROGRAM  
MAXIMUM DURATION 6 YEARS<sup>1</sup>  
STUDENTS BEGINNING IN CALENDAR YEARS 1998 THROUGH 2002**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>2</sup>	% Retained
<b>1998</b>	78	52	53	67.9
<b>1999</b>	83	44	44	53.0
<b>2000</b>	95	46	49	51.6
<b>2001</b>	83	39	43	51.8
<b>2002</b>	62	38	38	61.3

**SCHOOL OF NURSING  
SECOND BACHELOR'S DEGREE PROGRAM  
MAXIMUM DURATION 3 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 2004 THROUGH 2005**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>2</sup>	% Retained
<b>2004</b>	129	108	108	83.7
<b>2005</b>	135	116	116	85.9

<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 2008**

**SCHOOL OF HEALTH RELATED PROFESSIONS  
BIOMEDICAL INFORMATICS - MS PROGRAM  
MAXIMUM DURATION FOR F/T STUDY 5 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 1999 THROUGH 2003**

	Number in Beginning Cohort <sup>1</sup>	Total Number Graduated	Total Number Retained <sup>2</sup>	% Retained
1999	31	24	24	77.4
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

**SCHOOL OF HEALTH RELATED PROFESSIONS  
CLINICAL NUTRITION - MS PROGRAM  
MAXIMUM DURATION FOR F/T STUDY 5 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 1999 THROUGH 2003**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>2</sup>	% Retained
1999	8	7	7	87.5
2000	4	4	4	100.0
2001	5	4	4	80.0
2002	5	5	5	100.0
2003	17	10	12	70.6

<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 2008**

**SCHOOL OF HEALTH RELATED PROFESSIONS  
DIAGNOSTIC IMAGING TECHNOLOGIES - CERTIFICATE PROGRAM  
MAXIMUM DURATION FOR F/T STUDY 3 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 2001 THROUGH 2005**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>1</sup>	% Retained
2001	3	0	1	33.3
2002	7	3	3	42.9
2003	6	2	2	33.3
2004	4	0	0	0.0
2005	3	0	0	0.0

**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 2001 THROUGH 2005**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>1</sup>	% Retained
2001	12	12	12	100.0
2002	13	13	13	100.0
2003	14	11	11	78.6
2004	14	10	10	71.4
2005	15	14	14	98.3

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

**GRADUATION AND RETENTION  
AS OF JUNE 2008**

**SCHOOL OF HEALTH RELATED PROFESSIONS  
DIETETIC INTERNSHIP - CERTIFICATE PROGRAM  
MAXIMUM DURATION FOR F/T STUDY 2 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 2002 THROUGH 2006**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>1</sup>	% Retained
2002	16	16	16	100.0
2003	18	18	18	100.0
2004	15	14	14	93.3
2005	16	16	16	100.0
2006	14	14	14	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 2002 THROUGH 2006**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>1</sup>	% Retained
2002	9	6	6	66.7
2003	14	13	13	92.9
2004	11	10	10	90.9
2005	13	9	9	69.2
2006	14	10	11	78.6

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

**GRADUATION AND RETENTION  
AS OF JUNE 2008**

**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 2000 THROUGH 2004**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>2</sup>	% Retained
<b>2000</b>	21	20	20	95.2
<b>2001</b>	9	9	9	100.0
<b>2002</b>	20	16	16	80.0
<b>2003</b>	13	11	11	84.6
<b>2004</b>	11	8	8	72.7

**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 2000 THROUGH 2004**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>2</sup>	% Retained
<b>2000</b>	68	62	62	91.2
<b>2001</b>	79	72	72	91.1
<b>2002</b>	50	41	41	82.0
<b>2003</b>	53	49	49	92.5
<b>2004</b>	54	44	45	83.3

<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 2008**

**SCHOOL OF HEALTH RELATED PROFESSIONS  
VASCULAR TECHNOLOGY – BS AND CERTIFICATE PROGRAMS  
MAXIMUM DURATION FOR F/T STUDY 2 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 2002 THROUGH 2006**

	Number in Beginning Cohort	Total Number Graduated	Total Number Retained <sup>1</sup>	% Retained
<b>2002</b>	14	13	13	92.9
<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	8	9	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 2008**

**SCHOOL OF HEALTH RELATED PROFESSIONS  
CYTOTECHNOLOGY - BS AND CERTIFICATE PROGRAMS  
MAXIMUM DURATION FOR F/T STUDY 3 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 2001 THROUGH 2005**

	Number in Beginning Cohort	Total Number Graduated	% Graduated
2001	8	8	100.0
2002	5	5	100.0
2003	8	8	100.0
2004	8	6	75.0
2005	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 2002 THROUGH 2006**

	Number in Beginning Cohort	Total Number Graduated	% Graduated
2002	19	13	68.4
2003	12	6	50.0
2004	8	7	87.5
2005	10	8	80.0
2006	19	13	68.4

**GRADUATION AND RETENTION  
AS OF JUNE 2008**

**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 2000 THROUGH 2004**

	Number in Beginning Cohort	Total Number Graduated	% Graduated
<b>2000</b>	39	37	94.9
<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

**SCHOOL OF HEALTH RELATED PROFESSIONS  
HEALTH SCIENCES - BS PROGRAM  
MAXIMUM DURATION FOR F/T STUDY 8 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 1996 THROUGH 2000**

	Number in Beginning Cohort	Total Number Graduated	% Graduated
<b>1996</b>	22	2	9.1
<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

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

**GRADUATION AND RETENTION  
AS OF JUNE 2008**

**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 2001 THROUGH 2005**

	Number in Beginning Cohort	Total Number Graduated	% Graduated
<b>2001</b>	11	11	100.0
<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

**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 2000 THROUGH 2004**

	Number in Beginning Cohort	Total Number Graduated	% Graduated
<b>2000</b>	14	2	14.3
<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

<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 2008**

**SCHOOL OF HEALTH RELATED PROFESSIONS  
PSYCHIATRIC REHABILITATION - BS PROGRAM  
MAXIMUM DURATION FOR F/T STUDY 8 YEARS  
STUDENTS BEGINNING IN CALENDAR YEARS 1996 THROUGH 2000**

	Number in Beginning Cohort	Total Number Graduated	% Graduated
1996	20	6	30.0
1997	3	1	33.3
1998	18	11	61.1
1999	14	4	28.6
2000	9	5	55.6

**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 2000 THROUGH 2004**

	Number in Beginning Cohort	Total Number Graduated	% Graduated
2000	12	9	75.0
2001	19	13	68.4
2002	19	12	63.2
2003	16	10	62.5
2004	20 <sup>2</sup>	13	65.0

<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 2008**

**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 2000 THROUGH 2004**

	Number in Beginning Cohort	Total Number Graduated	% Graduated
<b>2000</b>	22	10	45.5
<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

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

**2009 UMDNJ MEDICAL GRADUATES PLACED IN  
FIRST-YEAR HOUSESTAFF PROGRAMS  
As of April 24, 2009**

UMDNJ School	Number Seeking Placement	Percent Placed in the Match	Percent Placed Outside the Match	Number (Percent) Placed	Number Not Placed
<b>NJMS</b>	158 *	92.4	3.2	151 (95.6)	7
<b>RWJMS-NB/P</b>	103	97.1	2.9	103 (100.0)	0
<b>RWJMS-C</b>	46	100.0	0.0	46 (100.0)	0
<b>SOM</b>	89 **	78.7	21.3	89 (100.0)	0
<b>TOTAL</b>	<b>396</b>	<b>91.4</b>	<b>6.8</b>	<b>389 (98.2)</b>	<b>7</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>	51 (33.8)	36 (23.8)	33.8	61.6	4.6
<b>RWJMS-NB/P</b>	37 (35.9)	24 (23.3)	42.7	52.4	4.9
<b>RWJMS-C</b>	5 (10.9)	5 (10.9)	45.7	43.5	10.9
<b>SOM</b>	36 (40.4)	29 (30.0)	50.6	23.6	25.8
<b>TOTAL</b>	<b>129 (33.2)</b>	<b>92 (23.7)</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. Two are pursuing an additional degree; one is applying to the Peace Corps prior to pursuing residency; one is pursuing research prior to reentering the match in 2010; and one is deferring residency this year to pursue a service/international fellowship.

\*\* One additional graduate is pursuing research.

Source: 2009 Report on Medical/Dental Intern and Resident Placements of UMDNJ Graduates and Recruitment into UMDNJ-Sponsored Housestaff Programs, UMDNJ-Office of Institutional Research.

**2009 UMDNJ DENTAL GRADUATES PLACED IN  
GRADUATE DENTAL EDUCATION PROGRAMS  
As of April 22, 2009**

UMDNJ School	Number Seeking Placement	Percent Placed in the Match	Percent Placed Outside the Match	Number (Percent) Placed	Number Not Placed
<b>NJDS</b>	74 †	87.8	12.2	74 (100)	0

UMDNJ School	Number (Percent) Placed in NJ Programs	Number (Percent) Placed in UMDNJ Programs	Percent Placed in General Practice Programs	Percent Placed in Specialty Programs
<b>NJDS</b>	40 (54.1)	9 (12.2)	85.1	14.9

† Twenty-one additional graduates plan to enter practice.

Source: 2009 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, 2007-2008\***

<i>School</i>	<i>Number</i>
New Jersey Medical School	65
Robert Wood Johnson Medical School	61
School of Health Related Professions	9
School of Osteopathic Medicine	3
<b>Total</b>	<b>138</b>

\* As of October 1, 2008

Source: Enrollment Statistics Report, Fall 2008, UMDNJ-Office of the University Registrar.





## PROFILE OF FACULTY, STAFF, INTERNS & RESIDENTS

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## UMDNJ FACULTY Academic Year 2008 - 2009

<i>SCHOOL</i>	<b>Paid Faculty*</b>				<b>Volunteer Faculty**</b>			
	<i>Tenured</i>	<i>Tenure Track</i>	<i>Non-Tenured</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>	
New Jersey Medical School	148	70	572	790	502	288	790	1,445
Robert Wood Johnson Medical School	146	71	879	1,096	642	454	1,096	1,749
School of Osteopathic Medicine	20	12	183	215	124	91	215	388
New Jersey Dental School	29	8	166	203	156	47	203	157
School of Health Related Professions	11	13	325	349	110	239	349	301
School of Nursing	6	14	142	162	15	147	162	132
School of Public Health	12	14	47	73	36	37	73	129
<b>UMDNJ Total</b>	<b>372</b>	<b>202</b>	<b>2,314</b>	<b>2,888</b>	<b>1,585</b>	<b>1,303</b>	<b>2,888</b>	<b>4,301</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 = 4,237)

Source: UMDNJ Annual Faculty Data Report, Academic Year 2008-2009  
Data as of October 1, 2008

## **MASTER EDUCATORS' PROGRAM AT UMDNJ**

### **BACKGROUND**

**Purpose:** Although education is the primary mission of the University, faculty members often garner greater recognition internally and externally for their research and clinical accomplishments than their excellence as educators. This paradox is by no means unique to UMDNJ, but quite common in academic health centers, in which excellence in education often is subordinated to research and clinical achievements in promotion and tenure decisions.

To emphasize the value placed upon faculty excellence in teaching, consistent with the University's strategic goals, Dr. Stuart Cook formally launched the Master Educators' Program at UMDNJ at his inauguration 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 determine 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, charged to help the University forge 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 through educational scholarship, research and innovation. In June 2004, the Guild was officially named the Stuart D. Cook, M.D. Master Educators' Guild, in honor of its founder.

The Stuart D. Cook, M.D. Master Educator Award recognizes faculty members for a commitment to excellence in education as demonstrated over a long period of time. It 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 the multiple settings in which education occurs at UMDNJ. Toward this purpose, the recipients of the Stuart D. Cook, M.D. Master Educator Award are expected to work together in the Stuart D. Cook, M.D. Master Educators' Guild to continuously improve education at UMDNJ. Through a formal structure and bylaws that were first approved in September 2001 and revised in 2005, the Guild provides a stable foundation and home for the Master Educators to bring their influence to bear on the improvement of education throughout the Schools of UMDNJ and to share this expertise with educators in health sciences venues across the nation.

**Criteria:** Nominees 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 and has established a Master Educator Review Committee comprising faculty, students and faculty administrators.

## **ACCOMPLISHMENTS TO DATE**

**Induction of Guild Members:** In September 2000, the first 12 Master Educators were selected and inducted into the newly formed Master Educators' Guild. Additional classes have been inducted annually, with a current total of over 66 members from the eight Schools of the University. It is a diverse group with regard to professional background and focus, and in 2006 the first librarian was inducted.

The Guild is actively engaged in several projects, described below.

### **Online Resource Center for Professionalism and Academic Integrity (2008 - ongoing)**

The Guild is creating an **Online Resource Center for Professionalism and Academic Integrity**. The audiences for the Resource Center will be both the internal UMDNJ community (administrators, faculty and students), and those external to the University with shared interests in promoting professionalism and academic integrity in the health professions. 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.

Specific objectives of the proposed Resource Center are:

1. Establish and maintain a network of faculty groups (e.g., School committees) and administrators to identify and promote University-wide best-practices, academic integrity strategies and professionalism initiatives;
2. Consolidate and make more readily accessible all applicable University and School codes, statements and policies and procedures related to professional behavior and academic integrity;
3. Provide appropriate training programs for UMDNJ students on academic integrity;
4. Serve as a gateway to resources on professionalism and academic integrity practices (including those developed within UMDNJ) specifically targeted to the needs of faculty, students and administrators in health professions education.

### **Master Educators' Strategic Plan (2008)**

The Guild developed its first 5-year strategic plan on April 1, 2008. The plan will form the framework around which the Guild will operate in the next five years. The plan identified five strategic goals and strategies to accomplish these goals. The strategic goals are:

1. Facilitate teaching and education excellence for faculty and students (infrastructure)
2. Increase emphasis on teaching as a valued role in mission triad
3. Increase impact and visibility of Guild with administration, faculty and students
4. Improve internal organizational structure and effectiveness of Guild
5. Expand active participation of Guild members

**Master Educator's Website** (<http://meg.umdj.edu>) (2008)

The purpose of the website is to provide its members online access to documents 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, which helps the Guild achieve its role in promoting educational excellence through the innovative use of information technologies, was established and funded through the University's Educational Technology Mini-Grant Program. The Center has 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 during the 2004 University Day ceremonies, 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 prestructured 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.

Use of the Center for Teaching Excellence continues to be robust. In the one-year period of May 2008-2009, the Center for Teaching Excellence had 149,272 visitors (+31% from the same 07-08 period) and 301,166 pageviews (+18% from the same 07-08 period). Visitors came from 206 countries/territories, with 87% of them being new to the site.

**Faculty Mentoring Initiative:** Academic Mentoring is a major initiative of the Stuart D. Cook, M.D. Master Educators' Guild, reflecting the conviction of the members of the Guild that an organized system of mentoring will promote educational improvement

across the University. The Guild already provides informational resources on mentoring through its Online Center, and has developed draft recommendations and guidelines on faculty mentoring. The guidelines first provide an overview of successful mentoring models, including the roles and responsibilities of both mentors and mentees. They then focus on mentoring at UMDNJ, including structure, responsibilities, incentives, evaluation and the role of the Stuart D. Cook, M.D. Master Educators' Guild in the process.

**Academic Integrity Initiative:** In association with the theme of Academic Integrity selected by the Master Educators' Guild for its AY 2005-2006 Grand Rounds and Symposium (see below), the Guild formed a Committee on Academic Integrity. The Committee has gathered data from all Schools to determine the current status of academic integrity and activities designed to foster academic integrity at UMDNJ; analyzed the existing honor codes and codes of ethics of each School; and prepared a "white paper" that presents recommendations for unification or standardization of guidelines among all Schools. The Committee disseminated the document to the UMDNJ President and Academic Deans for review/adoption.

**Annual Master Educators' Guild Symposia:** Since 2002, the Guild has sponsored a series of annual symposia open to all faculty of the University on topics it believes to be integral to its purposes. Each has featured a distinguished keynote speaker as well as workshops, demonstrations, discussion groups or poster sessions led by Master Educators and other faculty members. Themes have included educational technology, academic mentoring, the scholarship of teaching and learning, collaboration and interdisciplinary education, and academic integrity. In 2009 Lindsey Henson, MD PhD, Vice Dean for Education and Professor of Anesthesiology, University of Minnesota Medical School gave the keynote address during the 2009 Symposium "Portfolios in Competency-Based Education: Keys to Success."

**Annual University Day Educational Grand Rounds:** 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.

## **ENDOWED CHAIRS**

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

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

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

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

Ledyard H. Pfund Chair in Medicine (1993)  
*Dorothy Vatner, M.D.*

UMDNJ Endowed Professor of Geriatric Medicine (1994)  
*(vacant)*

UMDNJ Endowed Professor of Emerging and Re-Emerging Infectious Diseases  
(1998)  
*Jerrold J. Ellner, M.D.*

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

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

Rena Warshow Chair in Multiple Sclerosis (2003)  
*Teresa L. Wood, Ph.D.*

The Sharon L. and Joseph Muscarelle Endowed Dean (2005)  
*Robert L. Johnson, M.D.*

The Thomas P. Infusino Endowed Chair (2005)  
*Andrew P. Thomas, Ph.D.*

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, M.D.*

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, M.D., M.P.H.*

William Dow Lovett Chair in Neurology (1990)  
Department of Neurology  
*Mary Maral Mouradian, M.D.*

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

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)  
*(Vacant)*

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, Ph.D.*



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

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

Richard Harvey Professorship in Innovative Teaching (2002)  
*Stephen F. Lowry, MD*

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

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)  
*(Vacant)*

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, Ph.D.*

Osteopathic Heritage Endowed Chair for Primary Care Research (2005)  
*Thomas Cavalieri, D.O.*

#### **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, M.D.*

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

**HOUSESTAFF TOTALS BY PROGRAM, 2008-2009**

**UMDNJ-NEW JERSEY MEDICAL SCHOOL**

<b>PROGRAM</b>	<b>TOTAL HOUSESTAFF</b>
Allergy/Immunology	6
Anesthesiology	27
Cardiology	10
Child Psychiatry	5
Dermatology	6
Dermatology/Pathology	1
DX-Radiology	22
Emergency Medicine	25
Endocrinology	2
Family Medicine	29
Gastroenterology	9
Geriatrics	2
Hepatology/Transplant	2
Infectious Diseases	6
Medicine	110
Medicine-Pediatrics	9
Nephrology	6
Neurosurgery	14
Neurology	17
Neurology-Endovascular Surgical Neuroradiology	2
Neurology-Endovascular Neuroradiology	1
Neurology-Pediatric	3
Neurology-Vascular	3
OB/GYN	26
OB/GYN-Maternal Fetal	2
OB/GYN-Reproductive Endocrinology & Infertility	3
Ophthalmology	16
Orthopedics	29
Orthopedics-Hand Surgery	1
Orthopedics-Musculoskeletal Oncology	1
Otolaryngology	10
Pathology	13
Pediatrics	52
Pediatrics-Infectious Disease	2
Pediatrics-Medical Genetics	1
Pediatrics-Medicine	7
Plastic Surgery	5
PM&R	26
PM&R-Musculoskeletal Medicine	3
PM&R-Spinal Cord Injury Medicine	1
PM&R-Traumatic Brain Injury	1
Podiatry	6

<b>PROGRAM</b>	<b>TOTAL HOUSESTAFF</b>
Psychiatry	29
Pulmonary Critical Care	9
Surgery	58
Trauma	2
Urology	8
Vascular Surgery	4
<b>Total</b>	<b>632</b>

Percent American Medical Graduates = 58.5%

Source: Survey of UMDNJ GME and GDE Programs and Housestaff, UMDNJ-Office of Institutional Research. Data as of September 1, 2008

**HOUSESTAFF TOTALS BY PROGRAM, 2008-2009****UMDNJ-ROBERT WOOD JOHNSON MEDICAL SCHOOL**

<b>PROGRAM</b>	<b>TOTAL HOUSESTAFF</b>
Anesthesiology	30
Anesthesiology-Cardiac	0
Anesthesiology-Pain Management	2
Cardiology	12
Cardiology-Interventional	1
Cardiology-Congestive Heart Failure	1
Colon-Rectal Surgery	3
Cranio-Facial Surgery	1
Dermatology	3
Emergency Medicine	2
Endocrinology	4
Family Practice	43
FP/Geriatric Medicine	4
FP/Sports Medicine	1
Gastroenterology	8
Health Policy	0
Hematology/Oncology	10
Infectious Diseases	4
Internal Medicine	78
Neonatal/Perinatal Medicine	8
Nephrology	4
Neurology	5
OB/GYN	22
OB/GYN-Maternal/Fetal	3
Orthopaedics	18
Pathology	8
Pathology/Hematology	1
Pediatric Critical Care	3
Pediatric Hematology/Oncology	1
Pediatrics	38
Preventive Medicine/Occupational Medicine	3
Psychiatry	21
Psychiatry-Child	8
Pulmonary Critical Care	6
Radiology/Diagnostic	20
Radiology/Oncology	6
Radiology-Interventional	1
Rheumatology	2

<b>PROGRAM</b>	<b>TOTAL HOUSESTAFF</b>
Surgery	41
Surgery-Breast	1
Thoracic Surgery	2
Urology	8
Vascular Surgery	2
<b>Total</b>	<b>439</b>

Percent American Medical Graduates = 76.4

Source: Survey of UMDNJ GME and GDE Programs and Housestaff, UMDNJ-Office of Institutional Research. Data as of September 1, 2008

**HOUSESTAFF TOTALS BY PROGRAM, 2008-2009**

**UMDNJ-SCHOOL OF OSTEOPATHIC MEDICINE**

<b>PROGRAM</b>	<b>TOTAL HOUSESTAFF</b>
Cardiology	10
Critical Care	2
Emergency Medicine	20
Endocrinology	1
Family Practice	20
Gastroenterology	2
Geriatrics (FM)	1
Geriatrics (IM)	0
IM/Emergency Medicine	11
Infectious Diseases	0
Internal Medicine	29
Internship	71
Nephrology	4
OB/GYN	7
Osteopathic Manipulative Medicine/Neuromusculoskeletal Medicine	2
Oncology	1
Orthopaedics	18
Otolaryngology	5
Psychiatry	7
Psychiatry-Child	0
Pulmonary Critical Care	2
Surgery	18
Urology	5
<b>Total</b>	<b>236</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, 2008

**RESIDENT TOTALS BY PROGRAM, 2008-2009**

**UMDNJ-NEW JERSEY DENTAL SCHOOL**

<b>PROGRAM</b>	<b>TOTAL HOUSESTAFF</b>
General Practice Dentistry-Oral Medicine	5
Dentistry-Oral/Max Surgery	11
Dentistry-Pediatric	9
<b>Total:</b>	<b>25</b>

Percent American Medical Graduates = 96.0%

Source: Survey of UMDNJ GME and GDE Programs and Housestaff, UMDNJ-Office of Institutional Research. Data as of September 1, 2008



**NON-FACULTY FULL- AND PART-TIME EMPLOYEES**  
**(As of July 1, 2009)**

<i>Job Category</i>	<i>Total</i>	<i>% Amer. Ind./ Alas. Nat.</i>	<i>% Asian</i>	<i>% Black</i>	<i>% Hisp.</i>	<i>% Other*</i>	<i>% White</i>	<i>% Women</i>	<i>% Men</i>
Executive/Administrative/ Managerial	784	0.3	7.9	24.5	6.3	0.9	60.2	63.4	36.6
Professional Non-Faculty	6,606	0.2	26.0	20.9	7.3	1.0	44.7	68.3	31.7
Secretarial/Clerical	2,143	0.1	5.7	47.1	16.2	1.1	29.8	87.4	12.6
Technical/ Para-Professional	1,846	0.1	12.9	40.5	12.6	1.5	32.6	68.7	31.3
Skilled Crafts	217	0.9	8.8	35.0	13.8	0.0	41.5	1.8	98.2
Service/Maintenance	853	0.2	4.3	59.3	15.6	1.3	6.4	50.9	49.1
<b>Total All Categories</b>	<b>12,449</b>	<b>0.2</b>	<b>17.6</b>	<b>31.4</b>	<b>10.2</b>	<b>1.1</b>	<b>39.5</b>	<b>69.0</b>	<b>31.0</b>

Note: Does not include student assistants and graduate students (N=969).

\*Other (N=131) includes Not Reported, Two or More Races & Native Hawaiian/Pacific Islander.

Source: UMDNJ-Office of Workplace Diversity



## MEETING THE STATE'S NEEDS

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Public and Community Service .....	103
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## ***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 Greystone Park affiliation is to enhance the quality of patient care services at this state psychiatric hospital 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 some 250 patients at Greystone Park 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/>.

### **THE AUTISM CENTER (NJMS)**

In cooperation with UMDNJ, New Jersey Medical School, parents, advocacy groups, local leaders, and members of the autism community, the Autism Center is planning for the future to ensure that the Center becomes the region's finest and most comprehensive autism center.

In order to achieve this goal, the Autism Center has:

- Recruited renowned faculty to serve New Jersey and the region
- Funded new and innovative translational research
- Expanded staff to meet the needs of the autism community

Future plans include:

- Development of a fellowship in clinical care and research in autism spectrum disorders (ASD)
- Creation of a fund to support the care of the indigent and the uninsured

The mission of the Autism Center is to provide all New Jersey residents with unprecedented access to the highest quality care, state-of-the-art facilities and advanced research programs involving ASD.

The Autism Center of New Jersey Medical School represents a coalition of researchers, clinicians, parents, educators, and service providers who are committed to eliminating ASD in current and future generations and to improving the quality of life for the growing number of persons affected by ASD.

The Autism Center is committed to:

- Research to identify the biological pathways of ASD
- Safe and effective treatments for individuals with ASD
- Outreach to provide systems of support for individuals with ASD, their families and health care professionals

The Autism Center is driven by sound, innovative science and is supported and enhanced by community involvement. ([www.umdnj.edu/autismcenter](http://www.umdnj.edu/autismcenter))

### **BRAIN AND MEMORY PROGRAM (BAM!) (SOM)**

Funded by the Wallerstein Foundation, Shop-Rite Sybase Classic and the New Jersey Foundation on Aging, the New Jersey Institute for Successful Aging (NJISA) at UMDNJ-SOM continues to provide programs for community residents throughout the state of New Jersey in over 17 of 21 counties. Sessions are publicly advertised and promoted through local service groups, such as the AARP, Rotary, JCC, Lions Clubs, Maturity Club, Sassy Seniors of Haddon Heights, Four Seasons at Weatherby, Interfaith Caregivers, Saltzman House, senior nutrition sites, senior community centers and church groups.

This program was updated in 2008 to include the latest research in the connection between heart and brain health. The BAM! Program was originally developed by the NJISA as a community education program. It includes brain health activities to improve memory as well as education concerning the benefits of good nutrition, regular exercise and management of chronic disease. In addition to keeping mind and body healthy, the focus is to increase awareness of the importance of early evaluation of memory problems. This outreach effort, originally launched in September 2004, targets the 55+ age group and has also served a large church-affiliated minority population in Camden County. It continues to be one of the most requested community programs offered by the NJISA, having served over 2,500+ New Jersey senior residents since its inception.

### **BRIDGING THE GAPS (SOM)**

UMDNJ joined the Bridging the Gaps (BTG) program as a network affiliate in 2007 as a means of linking the inter-professional training of health and social service professionals with the provision of health-related services for underserved and economically disadvantaged populations. BTG strives to facilitate the collaboration of these diverse voices for mutual benefit, creating a model of partnership, respect and understanding between communities and future health and social service professionals.

Working under the auspices of the UMDNJ-School of Public Health on the Stratford campus, UMDNJ-SOM participates in BTG by matching medical students with nonprofit community partners in New Jersey. Students' projects are designed in collaboration with the community organizations based on community-defined needs and the professional discipline and interests of the students. During the 2008-2009 academic year, three medical school students worked, via the BTG program, on behalf of the Camden Area Health Education Center, the Hope Community Outreach Center and Planned Parenthood of Southern NJ.

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

In the summer of 2008, 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 the Camden AHEC (Area Health Education Council), Planned Parenthood of Southern New Jersey and Hope Community Outreach Center in Camden. 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, once a week students participated in workshops in Philadelphia on various community issues ranging from violence to oral health to approaches to working with youth. The students worked with inner-city youth in several summer programs. They taught workshops on nutrition and physical exercise, visited local South Jersey farms and took the children shopping at the Camden Farmers Market where they bought fresh produce and cooked healthy meals. The students worked with adults at Planned Parenthood where they conducted health workshops for pregnant mothers and provided information on reproductive health at the Camden Farmer's Market. They also assisted with the needle exchange project in the city. For more information on Bridging the Gaps, contact Dr. Bernadette West at [westbm@umdnj.edu](mailto:westbm@umdnj.edu).

**CAMDEN CITY HEALTHY FUTURES COMMITTEE**  
**and**  
**CITY OF CAMDEN COMMUNITY HEALTH ASSESSMENT PROJECT (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 Institute for the Elimination of Health Disparities, 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 assist the Camden City Healthy Futures Committee in conducting their community health assessment. 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 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 Camden residents. 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.

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. These 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 eight psychiatrists, five advanced practice nurses and three 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 Health System-Washington Township Division (KHS-WTD), Family Medicine facilitates the admission and care with the UMDNJ-SOM Hospitalist team at KHS-WTD.

Ira Cuttler, M.D., a UMDNJ-SOM New Jersey Institute for Successful Aging geriatrician, continues to provide primary care medical services to more than 230 older residents at Camden County's long-term care facility at Lakeland, with over 3,000 visits logged in the past year. This facility is 99 percent Medicaid supported.

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

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 preventative health care, 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 health care disciplines.

Since the clinic is a collaborative project with the School of Nursing, Dr. Carman Ciervo, Chairman of UMDNJ-SOM Family Medicine, and Dr. Susan Salmond, Dean of the 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 School of Nursing provides services at the Clinic on Wednesdays that are followed up on Saturdays by Family Medicine.

Patients are seen by appointment or on a walk-in basis by a team of two medical students who perform the initial patient exam/assessment. An attending physician from the SOM Family Medicine Department then sees the patient and guides the team to develop a treatment plan.

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. 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.

This initiative was launched in June 2004 with funding by a "Caring for Community" (CFC) grant award from the Association of American Medical Colleges (AAMC), in collaboration with the Pfizer Medical Humanities Initiative. SOM was one of only eight medical schools in the country to win this award. Most recently, in May 2009, two first-year students, along with Dr. Ciervo, received one of only seven nationwide 2009 CFC grants from the AAMC. This special national award provides funding in support of SOM's Family Medicine Clinic and its REACH (Revitalizing Education and Advancing Camden's Health) project.



## **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. In addition, OCO recruited a Program Development Analyst

who has been charged with the development, implementation, and evaluation of programs and services to meet the needs of the growing cancer survivorship population. 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 submission of materials for inclusion and ordering of materials.

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 on 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. CARES 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.

Below is a list of training and educational activities provided to community members and professionals in fiscal year 2009:

#### **July 2008**

- New Jersey Child Abuse Training Institute Case Consultation Project
- Educational training to physicians and staff on suspected child abuse and neglect and the prevention of child abuse and neglect through the program provided by the New Jersey Pediatric Council on Research and Education (NJ PCORE).

#### **August and September 2008**

- Preventing Date Rape
- New Jersey Child Abuse Training Institute Case Consultation Project
- Preventing Sexual Harassment

#### **October and November 2008**

- Getting It Right: What Can Be Done to Avoid Pitfalls in Evaluating Suspected Child Abuse
- New Jersey Child Abuse Training Institute Case Consultation Project
- Educational training to physicians and staff on suspected child abuse and neglect and the prevention of child abuse and neglect through the program provided by the New Jersey Pediatric Council on Research and Education (NJ PCORE).
- Expert in Child Abuse and Neglect Lecture Series: "Getting It Right: What CPS & Law Enforcement Can Do to Avoid Pitfalls in Evaluating Suspected Child Abuse" by John M. Leventhal, MD from Yale-New Haven Children's Hospital.

#### **December 2008**

- Preventing Date Rape
- Symposium: Expert Testimony in Criminal Court – for Health Care Professionals
- New Jersey Child Abuse Training Institute Case Consultation Project
- Preventing Sexual Harassment
- Trauma-Focused Cognitive Behavioral Treatment and the Stabilization and Trauma Treatment for Adolescents at-Risk (STTAR)

#### **January and February 2009**

- Caring for Kids: What Parents Need to Know
- Preventing Date Rape
- New Jersey Child Abuse Training Institute Case Consultation Project
- Preventing Sexual Harassment

- Educational training to physicians and staff on suspected child abuse and neglect and the prevention of child abuse and neglect through the program provided by the New Jersey Pediatric Council on Research and Education (NJ PCORE).
- Expert in Child Abuse and Neglect Lecture Series: "Incorporating Culture into the Delivery of Child Protection Services: Assumptions, Perceptions and Behaviors" by Jessica Henderson Daniel, PhD, ABPP from Harvard Medical School.

### March and April 2009

- Fourth Annual Statewide Best Practice Symposium: Optimizing Outcomes in Child Abuse and Neglect: Integrating Passion, Commitment and Best Practices Connecting Science and Passion in Protecting Children
- Introduction to Combined Parent-Child Cognitive Behavior Therapy for Physical Abuse
- Introduction to Trauma Focused Cognitive Behavioral Therapy
- Medication and Traumatized Children
- New Jersey Child Abuse Training Institute Case Consultation Project
- Opportunities to Use What We Have Learned: Medical and Mental Health Needs of Children in Foster Care
- Renewing Our Commitment: Seeing the Hard Work with New Eyes
- Trauma Treatment for Adolescents At-Risk: 10 Questions You Should Know
- Understanding the Sexual Victimization of Children: The Importance of the Medical History

### May 2009

- Preventing Date Rape
- New Jersey Child Abuse Training Institute Case Consultation Project
- Preventing Sexual Harassment
- Expert in Child Abuse and Neglect Lecture Series: Assessing the Timing of Cutaneous, Skeletal and Head Injuries in Children: A Key to Identifying "Who Done It?" by Stephen C. Boos, MD, FAAP from Baystate Children's Hospital.

### June 2009

- Date Rape
- New Jersey Child Abuse Training Institute Case Consultation Project
- Sexual Harassment
- Educational training to physicians and staff on suspected child abuse and neglect and the prevention of child abuse and neglect through the program provided by the New Jersey Pediatric Council on Research and Education (NJ PCORE).

## 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 2008 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

UMDNJ Day in Trenton - Five School of Nursing student volunteers participated in UMDNJ Day at the State House in Trenton, NJ on Thursday, October 23, 2008. UMDNJ-SN volunteers

provided weight and blood pressure screenings in collaboration with the UMDNJ-SN New Jersey Children's Health Project, distributed healthcare literature, attended a legislative session, and met with elected officials.

### **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 HEALTH EDUCATION (SPH)**

The Center for School and Community Health Education (CSCHE), headquartered in New Brunswick, follows a mission to empower diverse populations to make informed decisions about their health through innovative outreach, creative partnerships and applied research. CSCHE translates leading scientific research into comprehensive educational materials through several outreach initiatives including professional development; curriculum development; website development for classroom enhancement and parental involvement; the Safe Schools Program; and community outreach.

#### **Professional Development**

Training workshops support the use of CSCHE 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. CSCHE workshops are designed to meet the specific needs of each target audience. To achieve this goal, CSCHE 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, CSCHE'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 CSCHE 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, 2,083 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), CSCHE 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 CSCHE 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), CSCHE 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

Safe Schools is a project supported by the New Jersey Department of Education, Office of Career and Technical Education, to assist schools in reducing risk due to occupational safety and health hazards. Safe Schools 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.

As one of its components, project staff developed recommendations regarding prohibited and restricted hazardous automotive and diesel work activities for minors (youth under the age of 18) involved in school-sponsored structured learning experiences. These recommendations, which were developed through a Safe Schools Program Task Force for the New Jersey Department of Education and the New Jersey Department of Labor and Workforce Development, will guide revisions to New Jersey child labor laws. In addition, 1,193 teachers and administrators in New Jersey were trained during 66 courses focusing on occupational safety and health issues through the Safe Schools Program. 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**

The five-year HOPE Partnership (Health Observances and Public Education), made possible with funding from the National Center for Research Resources, is a collaboration of seven universities. The HOPE Partnership concentrates on three established national health observances that focus on diseases, illnesses or ailments to which a majority of the population can relate: Cancer Control Month, Allergy and Asthma Awareness Month and Lead Poisoning Prevention Week. Partners develop, implement and evaluate outreach programs that contain educational materials designed to raise public awareness of how research is leading towards the prevention, detection and/or treatment of diseases/illnesses. The materials are being implemented through community learning, formal and informal education, the media, non-profit organization events and science centers/museums.

Team members have completed more than 50 focus groups among project target audiences (middle and high school students and teachers and the general public) to help guide the development of the educational materials. The Health Observance Package for Asthma and Allergy Awareness Month (held every May) was reviewed by target audiences and implemented in spring 2007 and 2008. The educational materials for Lead Poisoning Prevention Week (nationally observed the third week of October) were reviewed by target audiences and implemented in fall 2007 and 2008. Materials for Cancer Control Month (held every April) were reviewed by target audiences and implemented in spring 2008 and 2009. CSCHE is partnering with Oregon State University; University of Arizona; University of North Carolina at Chapel Hill; University of Southern California/University of California Los Angeles; University of Texas M. D. Anderson Cancer Center; and the University of Wisconsin-Madison.

For more information on CSCHE programs and services, contact Ms. Laura Hemminger at [hemminlb@umdnj.edu](mailto:hemminlb@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, and 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 25 reports and briefs for NJ CTCP, delivered over 100 conference presentations, and published over 35 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).

### **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 an 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.

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

SOM Family Medicine third-year students and residents participate in a program for 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 SOM Family Medicine physicians. Over the past six years, the 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 Oriented Primary Care (COPC) project at the Brimm School that focused on meeting with students about opportunities in affiliated medical careers. On May 21, 2009, UMDNJ-SOM students provided health screenings and information at the Brimm Medical Arts High School Health Fair in Camden.

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

“Given the strong commitment to community health and service by the UMDNJ-School of Osteopathic Medicine, it is essential that residents from local communities and the region play an important role in advising our school to help support our continued growth, diversity and development,” said Dean Thomas A. Cavalieri, D.O in announcing the creation of the UMDNJ-School of Osteopathic Medicine Community Advisory Board in early 2008.

The Board brings together civic, business, academic and religious leaders to advise the School on fulfilling its commitment to excellence. Dr. Cavalieri said he was honored by the prominent local residents who agreed to share their talents and time to promote medical education, research and community-based health programs serving Southern New Jersey. Recognizing that the school has made significant contributions to the health of the state’s residents since its creation over 30 years ago, the UMDNJ-SOM Community Advisory Board focuses on supporting and expanding the school’s programs, sustaining its leadership in diversity, and developing new alliances to further its mission.

The Community Advisory Board participates in regular roundtable discussions of the school’s progress and serves as liaison for the academic, research and health care leaders at SOM with individuals and groups that share an interest in addressing future needs.

### **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. 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 2008, the Department contracted with 14 various community agencies and schools, along with four hospital based systems.

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

One of only two statewide initiatives in the country aimed at developing the emerging profession of Community Health Worker (CHW), the Community Health Worker Institute (CHWI) is administered through the Camden Area Health Education Center (AHEC). Its goal is to enable medical and other health professions students in UMDNJ to gain knowledge about the potential of community health workers to improve health literacy, increase knowledge about cultural sensitivity and cultural competence in health care delivery, enhance quality of care and provide diverse learning experiences in underserved communities.

The CHWI, based at UMDNJ-SOM, was initially established by the Camden AHEC in 2001. In 2004, through SOM, CHWI obtained federal funding from the U.S. Department of Health and Human Services-Health Resources and Services Administration (DHHS-HRSA) for a Model State-Supported AHEC. A new three-year grant to support the NJ AHEC program and the

CHWI was approved for 2008-2011. Plans include expansion of community service learning sites to northern and central New Jersey under the aegis of the NJ AHEC CHWI.

The CHWI has facilitated identification of competencies/standards and training resources for community health workers that can be applied statewide and that will ultimately lead to clear identification of this important new occupation. It is also finalizing a 200-hour curriculum for community health workers which will provide a consistent level of training based on the identified core competencies. The UMDNJ-School of Health Related Professions is assisting in the development of this model curriculum.

As the nation moves toward health care reform, community health workers 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 health care.

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

Annually, the SHRP-Dietetic Internship Program participates in several community nutrition initiatives. For the past two 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.

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

The Community-Oriented Dental Education Program (CODE) is in its fourteenth 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 this 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 community service activities per year for 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.

### **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 Health System is in its seventeenth year as a state-designated Children's Crisis Intervention Services facility. Since its inception, the UMDNJ-SOM Department of Psychiatry has supplied medical services for this unit. The unit 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% of admissions to the CAPU are compensated by Medicaid, and approximately 10% are services provided to children and adolescents who are either indigent or have no health insurance.

### **CULTURAL COMPETENCY AND INTERDISCIPLINARY HEALTHCARE (SOM)**

The 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 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.

The Area Health Education Centers (AHECs) support this course by providing a two-week service-learning experience for these medical students at host sites in a medically underserved community. These sites include a homeless shelter, an HIV/AIDS mobile van, a senior center, a primary care clinic, and a hospice. Students implement the cultural and interdisciplinary skills learned in the course in their community service rotation.

### **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:

- Essex County College Child Development Center
- Liberty Science Center
- Native American Reservation Pinalia Arizona
- Native American Reservation Red Mesa Arizona
- Tri-City People's After School Program

- 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
- Senior Community Center of Piscataway New Jersey
- Milton School - Livingston
- Trinity Academy Early Childhood Center
- Jersey Shore Relay-Special Olympics
- Oral Cancer Walk, NY
- Hackensack Christian School
- Lakeview School (Children with cerebral palsy)
- Yeshiva Central Queens Elementary School
- Robert Treat Academy
- Asian & Pacific Islander Coalition on HIV/AIDS
- Kindercare, Newark
- Moriah School, Engelwood
- Nutley Extended Day Care
- Heywood Avenue School Healthfair, Orange
- Special Olympics-Special Smiles
- Lutheran Hospital
- Jewish Family Services, Meals on Wheels

### **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 100 students and faculty members have worked in the bateyes providing health education and promotion programs as well as primary care. In 2008, 22 students participated in the Project in April and July trips. Three trips are planned for 2009.

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 2007 the Project has supported the educational costs of 27 single parent Haitian children. In 2009, the project will begin construction of a bathroom and sleeping quarters 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 PEDIATRICS (NJMS)

### Circle of Life Children's Center

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, Division Director, 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.

### The Child Evaluation Center

The Child Evaluation Center is a member of the Federation of Child Evaluation Centers of New Jersey and is one of 11 state funded centers. The Child Evaluation Center provides medical and therapeutic services to children with developmental disabilities and/or behavioral problems and to children at risk for behavioral problems. Services are also available to the families of these children who may need support in order to cope with their child's disability or advocacy services to assist them in negotiating accommodations in the schools and community. A multidisciplinary team comprised of a parent advocate, developmental and behavioral pediatricians, pediatric neurologists, a clinical geneticist, a child and adolescent psychiatrist, school psychologists, a learning disability specialist, a speech and language pathologist, an occupational therapist, an audiologist and a social worker collaborate to identify a child's needs, initiate treatment or assist families with referrals to other specialized intervention services. The Child Evaluation Center works closely with school personnel and other community providers. The Center also organizes and conducts educational and outreach activities directed at early identification, prevention and treatment of neurodevelopmental disorders.

### Fetal Alcohol Syndrome Diagnostic Center

The Fetal Alcohol Syndrome Diagnostic (FASD) Center is housed within the Child Evaluation Center and is one of six centers funded by the Department of Health and Senior Services of New Jersey. A New Jersey licensed psychologist leads the comprehensive diagnostic and treatment services provided to children through adults. Members of the FASD diagnostic center

provide training and education to medical and allied health professionals on FAS and recognition and prevention of addiction disorders in women.

### **The Division of Adolescent and Young Adult Medicine (D.A.Y.A.M)**

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.
- **STAND** (Services Targeting Adolescents & Young Adults in Need of Direct Outreach) offers individual mental health counseling, couples counseling and supportive outreach services by the Clinician Supervisor and Outreach Worker.
- **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

## **DEPARTMENT OF FAMILY MEDICINE (NJMS)**

### **Yaffa Rose Integrated Care Center**

The Yaffa Rose Integrated Care Center is a collaboration between UMDNJ-University Behavioral Health Care Center (UBHC) and New Jersey Medical School, Department of Family Medicine to provide comprehensive healthcare to UBHC consumers. Integrated care is a health care approach in which primary care and mental health providers partner to manage the treatment of persons with mental health problems in the primary care setting. Two decades of research have demonstrated that the integrated care model improves primary care patients' mental health outcomes with a minimal investment of resources.

[Super Neighborhood Community Covenant Partnership for Health Care \(SNCC-PH\)](#) is a partnership between the 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.

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

The Student Family Health Care Center (SFHCC) is a biweekly student-run volunteer free clinic. This program is collaboration between the Department of Family Medicine and the SHARE Center (Student Health Advocates for Resources & Education Center). Please see a full description of this program under the description of the SHARE Center below.

### **C.O.M.U.N.I.T.Y.**

This unique student run-outreach program, initiated in 1992, is designed to serve the Newark community through health promotion and disease prevention. Student volunteers are recruited from all schools on the UMDNJ-Newark campus to serve as health advocates to promote healthy lifestyles among the residents of Newark communities. Student volunteers develop skills



in clinical medicine and patient education, in addition to fostering relationships between UMDNJ and the greater Newark community.

The three components of C.O.M.U.N.I.T.Y. are:

1. *Health Fairs and Patient Education*: community health needs assessment, screenings for preventable medical conditions, patient education.
2. *Adult and Youth Workshops*: interactive workshops conducted at churches, afterschool programs and local organizations to address specific health topics.
3. *Lecture Series*: Student volunteers participate in a "Health of Our Community" lecture series at UMDNJ. Lectures focus on developing clinical skills, conducting workshops, and patient education.

The success of this program earned UMDNJ-New Jersey Medical School national recognition in 1994, when it was awarded a "Health of the Public" grant from the Pew Charitable Trusts and the Robert Wood Johnson Foundation and received the Association of American Medical Colleges (AAMC) Outstanding Community Service Award.

### **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 program is collaboration between the Department of Family Medicine and SHARE. Please see a full description of this program under the description of the SHARE Center below.

### **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 collaboration between the Department of Family Medicine and SHARE. Please see a full description of this program under the description of the SHARE Center below.

### **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. This program is collaboration between the Department of Family Medicine and SHARE. Please see a full description of this program under the description of the SHARE Center below.

### **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. This program is collaboration between the Department of Family Medicine and SHARE. Please see a full description of this program under the description of the SHARE Center below.

### **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. This program is collaboration between the Department of Family Medicine and SHARE. Please see a full description of this program under the description of the SHARE Center below.

**The SMART (Science, Medicine, and Related Topics) Program ([smartprogram@umdnj.edu](mailto:smartprogram@umdnj.edu); <http://nmjs.umdnj.edu/smart>)** - The SMART Program is a summer and school year program

dedicated to promoting academic excellence. SMART focuses on preparing students for careers in the sciences and health-related fields. Pre-college students in grades 6—12 are able to maximize their learning experience through participation in one of the six SMART programs which is customized for each grade level. All courses within each program are designed to enhance the student's knowledge base as well as to enhance their critical thinking skills.

The SMART Program offers exposure to students within a medical school setting and encourages interaction with doctors, medical students and other highly skilled professionals. Academically, 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** (5<sup>th</sup> and 6<sup>th</sup> grade students) – Sample topics include matter, energy and organization in human systems; genetics; diversity and biological evolution; and basic anatomy.
- **Biotrek** (7<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** (8<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** (9<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** (10<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 (10th 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.

### 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) (see further details below under “Working with NJDHSS”). 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.umdj.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 statewide 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.umdj.edu/EvalCweb](http://www.umdj.edu/EvalCweb).

## DEVELOPMENTAL DISABILITIES FAMILY EDUCATION AND INFORMATION PROJECT (SPH)

The Developmental Disabilities Family Education and Information Project provides information and support to families of people with developmental disabilities who are making a transition from institutional to community living in New Jersey. Support for this Project is provided by the New Jersey Division of Developmental Disabilities. The Project engages families in choosing and helping to develop the most effective and viable community living options for their family members. Project activities include:

- Family Forums 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 periodic newsletter
- A New Beginning: Family Guide Series on Transitioning from Developmental Center to Community Living
- The project website, <http://www.umdj.edu/linkweb>
- A family HELPLINE (1-800-500-0448) for family questions and concerns on transition to community living
- Training for Developmental Center staff on family participation in community living transition

For more information on the Developmental Disabilities Family Education and Information Project, contact Dr. Susan Hammerman at [hammersr@umdj.edu](mailto:hammersr@umdj.edu).

### 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 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; 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.

#### **Health Information on Spanish Website**

The Chandler Center, with the support of the New Brunswick Interpreter Project, has just put its new Spanish language website online. This will make important health information more accessible and will provide a Spanish language guide to services available at Chandler.

### ESSEX COUNTY HOSPITAL CLINICAL AFFILIATION (SN)

The UMDNJ-School of Nursing's affiliation with Essex County Hospital is now in its third 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. As part of the restraint reduction program, which is based on a nationally known crisis prevention program, over 97% of the personnel are certified using a competency validation methodology. Over the past year, Barbara A. Caldwell, PhD, APN and Michael Sclafani, MS, M.Ed., RN have conducted half of the twenty-four hours of continuing education credited programs to professional nursing staff. An article entitled, "Moving Psychiatric Patients to a New Hospital" published in the February 2009 *Journal of Psychosocial Nursing and Mental Health Services* was authored by Michael Sclafani, Maryellen Phillips and Barbara Caldwell and highlights the process of safely and effectively moving patients to a new setting.

### FACULTY COLLABORATIVE INITIATIVES (SN)

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 Sikora 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.

Occupational and Community Health Center Papathon – On May 19, 2009, several faculty provided gynecological examinations for 54 underserved women at the Occupational and Community Health Center in Union City. Drs. Ginette Lange, Joyce Hyatt, and Pat Hindin participated in this free service that was sponsored by Omicron Pi Chapter of Sigma Theta Tau International, Inc.

**Planned Parenthood of Metropolitan New Jersey** – Drs. Ginette Lange, Joyce Hyatt, Patricia Hindin, Ruth Mochek, 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 Felicia 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 3rd Annual Project Homeless Connect Day** – On January 28, 2009, 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 First Annual National Women and Girls HIV/AIDS Awareness Day** – On March 10, 2009, faculty and students provided blood pressure and diabetes screenings and self breast examination, STD and bone density education workshops at El Club del Barrio.

**Screenings and Health Education** – Faculty and students at several sites throughout the greater Newark area participated in health education and screenings at the Irvington Health Department on May 23, 2009; at the Newark Dayton School on May 31, 2009; and at the McKinley School on April 7, 2009.

**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 American for ten days in March 2009 on her 34<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.

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

In April 2009, the New Jersey Geriatric Education Center (NJGEC) sponsored the second 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. The course will be offered again in the spring of 2010.

### **FAMILY MEDICINE CENTER FOR INFORMATION MASTERY (SOM)**

The Department of Family Medicine launched the Center for Information Mastery (CIM) at UMDNJ-SOM on Friday, March 13<sup>th</sup>, 2009. The CIM, located in Suite 2100 of the University Doctors Pavilion, was developed by the Department of Family Medicine 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 (NJMS AND SN)**

The François-Xavier Bagnoud (FXB) Center, School of Nursing, receives public and private funding of approximately \$24 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.fxbceneter.org](http://www.fxbceneter.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.

### Global Programs

- **President's Emergency Plan for AIDS Relief (PEPFAR)** contributes to the efforts to build capacity and infrastructure for providing health care to people living with HIV/AIDS in resource-limited settings. FXB Center offers in-country training and technical assistance on the prevention of mother-to-child HIV transmission (PMTCT) and pediatric care in the Caribbean, Africa and Asia. In

- Guyana, South America, the FXB Center provides clinical support and technical assistance for HIV/AIDS care and treatment services, HIV/TB co-infection and laboratory services. The Center plays a lead role in training initiatives for PMTCT including partnering in the development of the World Health Organization (WHO)/CDC-US Department of Health and Human Services (HHS) Generic PMTCT Training Package and leading its adaptation and implementation in a growing number of African countries, the Newly Independent States (NIS) and South America.
- **World Health Organization Regional and National Workshops** contribute to capacity-building initiatives in the developing world. The FXB Center coordinates workshops to transfer knowledge and skills to train healthcare providers in several regions in Africa, Latin America, Asia and the Caribbean.
  - **International Maternal/Pediatric/Adolescent AIDS Clinical Trials Group (IMPAACT) Global Training Program** (formerly PACTG) builds clinical and research capacity at IMPAACT sites in Africa, Asia and South America by developing and offering HIV clinical training for healthcare providers and other site staff. In addition, the project has worked closely with community members to educate them about clinical trials and empower informed decision-making about participation in clinical trials.

### **FREE ORAL CANCER SCREENING AT UMDNJ (NJDS)**

For the eleventh 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 23, 2009 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 stamp 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.umdnj.edu/qtbiweb>, 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 SCIENCE CAREERS PIPELINE (SHRP)**

The Health Science Careers Program, formerly Tech Prep, began in the 1993-94 academic year with three high schools and 12 students. In academic year 2007-08, the program had 1,800 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 [www.healthcareers.umdj.edu](http://www.healthcareers.umdj.edu) 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 2010 INITIATIVE (RWJMS)**

Healthier New Brunswick 2010 is a longitudinal community-based, community-owned health improvement initiative managed by the Community Health Advisory Group. In addition to the Medical School and several RWJMS institutes, the Advisory Group includes representatives from foundations, hospitals, community organizations, and development groups. Building on numerous previous health improvement efforts, the initiative is developing innovative strategies to address some of the persistent health problems affecting the residents of New Brunswick. In order to focus educational and preventive health care interventions, Healthier New Brunswick 2010 seeks to understand and incorporate a broad range of variables that influence children's health. Interventions are targeted to individuals, families, neighborhoods, the larger community and, when appropriate, to the city as a whole. Partnerships with the New Brunswick Public Schools are particularly important in helping to achieve the project's goals. The four focus areas initially chosen for intervention are domestic violence, mental health/substance abuse, lead poisoning, and childhood obesity.

### **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
- 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 56 students shadowed medical student mentors during the 2008 – 2009 academic year.

### **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 and cultural causes for the significant disparities that exist among various racial and ethnic groups. IEHD seeks to identify strategies to address and eliminate these disparities.

Among its community interventions, the Institute is using Geographic Information Technology to identify the location of at-risk populations along with appropriate community resources that can be mobilized to reach these populations with health education and outreach. The Institute is also conducting research to examine racial differences in treatment offered to cancer patients in New Jersey, as well as examining social and cultural factors impacting adherence of African American women to adjuvant breast cancer treatment. Another study is investigating parents' perceptions and practices related to childhood obesity. In addition to providing field work opportunities in the community for graduate students, IEHD has coordinated summer internships for undergraduate students from New Jersey City University, pairing them with UMDNJ faculty mentors. To commemorate the 40th anniversary of the Newark rebellion, IEHD also published a monograph on Newark Mortality Trends whose findings were presented in a University-Community Forum. For more information on IEHD, contact Dr. Diane R. Brown at [browndi@umdnj.edu](mailto:browndi@umdnj.edu)

### **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.

### **LEAD SCREENING PARTNER WITH NJ PUBLIC ADVOCATE (SOM)**

Free lead screening for children who attended a lead-contaminated Gloucester County child care center -- the Children's First Learning Center in Mantua -- was provided by the UMDNJ-SOM Department of Pediatrics on August 21, 2008. Working in cooperation with the N.J. Office of the Public Advocate, the Department of Health and Senior Services and law enforcement authorities, the Acting Chair of Pediatrics, Dr. Jackie Kaari, tested the blood lead levels of 44 children who attended the school from 2005 to 2007.

### **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 2008-2009:

#### **Newark Campus**

- Determinates of Poor Visual Outcomes in Diabetes Related Posterior Segment Surgery, Institute of Ophthalmology and Visual Science, Newark, NJ
- Grant Writing for Diabetes Management: A Proposal for Diabetes Self-Management, St. Michael's Medical Center, Newark NJ
- Assessment of a Tobacco Dependence Pilot Intervention for Pregnant Women, Tobacco Dependence Clinic, Newark, NJ
- Improving Patient Satisfaction in Federally Qualified Health Centers, Newark Community Health Center/East Orange Primary Care Center, East Orange, NJ
- Managing Quality at North Jersey Community Research Initiative, North Jersey Community Research Initiative, Newark, NJ
- Use of Folk Remedies for the Treatment of Pediatric Asthma in the Latino Community, University Hospital's Asthma Center of Excellence, Newark, NJ
- Effectiveness of Educational Programs for Influenza Vaccination Among Health Care Workers, NJDHSS Division of Health Infrastructure Preparedness & Emergency Response, Trenton, NJ

- Ladder Falls at Home and the Trauma Registry as an Injury Surveillance System, NJ Trauma Center Newark, NJ
- Comparison of Hospital-related costs for treatment of Acetaminophen Poisoning with Oral Versus Intravenous N-Acetylcysteine, Medical Education and Research Alliance of America, New York, NY
- NJ FamilyCare Increased Enrollment Project, NJDHSS NJ Family Care, Trenton, NJ
- An Evaluation: Hudson Perinatal Consortium - Lunch and Learn Seminar Series, Hudson Perinatal Consortium, Jersey City, NJ
- Program Design and Grants Development for a Health Care Workforce, Essex County College Office of Grants and Development, Newark, NJ
- The Rupture of Intracranial Aneurysms and the Relationship to Weather Variables, University Hospital Department of Neurosurgery, Newark, NJ
- A Pilot Study Determining the Prevalence of Myofascial Pain in HIV + Patients, NJ Dental School Orafacial Pain Clinic, Newark, NJ
- Evaluation of the Accuracy of Birth Certificates, University Hospital Department of Obstetrics, Gynecology, & Women's Health, Newark, NJ
- Radiation Dose and the Electronic Medical Record, University Hospital Department of Radiology, Newark, NJ
- U.S. Veterans with Service-Connected Disabilities: Estimating Total Federal Disability Compensation, Department of Preventive Medicine & Community Health, Newark, NJ

#### Piscataway/New Brunswick Campus

- The Prevalence of Overweight 7-12th Graders in NJ Public Schools, Center for Tobacco Surveillance and Evaluation Research, New Brunswick, NJ
- Body Image Focus Groups, Rutgers University Health Services, New Brunswick, NJ
- Mosquito Collection Risk Assessment: Triethylamine Exposure Assessment and Other Safety Concerns, Rutgers University Environmental Health and Safety, Piscataway, NJ
- Triethylamine Exposure Assessment During the Mosquito Collection, Rutgers University Environmental Health and Safety, Piscataway, NJ
- Clinical Training of Medical Students in Obesity Management. Philadelphia College of Osteopathic Medicine, Philadelphia, PA
- A Qualitative Study: Identifying 4th, 5th and 6th Graders' Snack Purchasing Behaviors in Neighborhood Corner Stores, Temple University's Center for Obesity Research and Education, Philadelphia, PA
- Pilot Study of Diesel Exhaust Exposure in Longshoremen, Environmental and Occupational Health Sciences Institute Piscataway, NJ
- Increase in Population-based Prevalence Estimates of Sun Safe Behaviors among U.S. Adults: Due to Change in Operational Definition? Center for Tobacco Surveillance and Evaluation Research, New Brunswick, NJ
- Acute Changes in Blood Cell Counts Following Short Term Increases in Ambient Particulate Air Pollution, Environmental and Occupational Health Sciences Institute, Piscataway, NJ
- We Speak Your Language? The Nature of Language Services for Potential Participants in New Jersey Cancer Clinical Trials Who Have Limited English Proficiency, Cancer Institute of New Jersey, New Brunswick, NJ

- Learning Nutrition at English-as-a- Second-Language Class, Department of Family and Community Health Sciences Cooperative Extension, Rutgers University, New Brunswick, NJ
- Expanding Radon Communication, Outreach and Education, New Jersey Department of Environmental Protection, Bureau of Environmental Radiation, Radon Section, Ewing, NJ
- Hydroxyurea Use Is Associated with Avascular Necrosis of the Femoral Head Among Children with Sickle Cell Disease, Division of Pediatric Hematology-Oncology, Albert Einstein College of Medicine, Bronx, NY
- Exploring Patient Experiences Navigating the Healthcare System, Schenck, Price, Smith, & King LLP, Morristown, NJ
- Childhood Obesity in the Latino WIC Community: A Focus Group and Interview Analysis, Family Health Center/WIC Program, New Brunswick, 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

### Stratford/Camden Campus

- An Indoor Environmental Observational Research Study in Camden, NJ – Perceptions of Environmental Health, City of Camden, Camden, NJ
- Focus Groups in Southern Camden for Community Themes Assessment, Camden County Department of Health and Human Services, Blackwood, NJ
- Current Practices in Delaware Child Care Centers Surrounding Emotional and Behavioral Challenges of Children, Nemours Health and Prevention Services, Newark, DE

- Expansion of Camden School Community Integrated Pest Management Partnership and Impact on Community Health, C-PAC at Hispanic Family Center, Camden, NJ; Center for Family Services, Camden NJ; and NJ Community Health Workers Institute, Camden NJ
- A Case Study of Camden County Health Services Center on the Implementation of a Restraint-Free Policy and Fall Incidents, Longer-Term Care-Camden County Health Services, Camden, NJ
- Osteoporosis Awareness, Risk Factors and Experiences with Their Physicians Among Elderly Persons in the City of Camden, UMDNJ-School of Osteopathic Medicine, Stratford, NJ
- Knowledge of Third and Fourth Year Medical Students, Interns, and Internal Medicine Residents of Preventive Primary Health Care Issues Concerning Lesbian, Gay, Bisexual and Transgender Geriatric Patients, UMDNJ-School of Osteopathic Medicine, Stratford, NJ
- Older Adults with HIV as Residents in Nursing Homes: Acceptance by New Jersey's Long Term Care Nursing Facilities, UMDNJ-School of Osteopathic Medicine, 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

For more information on fieldwork projects contact Ms. Deidre Holland (Newark) at [hollande@umdnj.edu](mailto:hollande@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 p.m. to 3:30 p.m. on the Stratford Campus.

Concluding its 25<sup>th</sup> year, the Medical Science Academy offers integrated and thematically organized presentations by UMDNJ-SOM faculty who volunteer their time to represent the medical and health care 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 500 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 46 high school students participated in the Medical Science Academy during the 2008 – 2009 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, faculty/staff members, and community representatives. In 2004, HIPHOP evolved into an umbrella program containing two major initiatives: the Community Health Initiative (C.H.I.) and the Promise Clinic. 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)** has many projects and electives that promote healthy living practices, teach preventive health education, support and advocate for underserved and indigent populations and expose students to indigent primary health care services. 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, Robert Wood Johnson AIDS Program and Edison Job Corp Wellness Center. These clinics and/or community centers serve indigent and underserved Greater New Brunswick area community members. 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, self-esteem, environmental influences on health and behavior, conflict resolution, 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), 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.

The final component of CHI is **Project Outreach** which offers a multitude of one-time volunteer experience for anyone 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, and organizing the program's annual drives and 5k Run.

**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 Soup Kitchen, a shelter 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. Students are responsible for managing the operation of this experience (scheduling patients and faculty, purchasing and tracking medication).

The **Urban Health Initiative (UHI)** at the RWJMS regional campus in Camden provides a broad range of services to the Camden community and is critically important to RWJMS-Camden students. UHI is an organized opportunity for third- and fourth-year medical students to become involved in the Camden community in order to improve the overall quality of life of its citizens through service, charity, and education. Programs

include an Adult Health Outreach Project (HOP) Clinic, a Pediatric HOP Clinic, a Women's HOP Clinic, and many school and community outreach programs.

In August 2000, the AAMC-Pfizer Caring for Communities Project awarded funding to third- and fourth-year medical students from RWJMS-Camden to support the development of the first Adult HOP Clinic. This clinic provides free medical care to 110 uninsured adult residents of Camden in 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.

### **MINI-MEDICAL SCHOOL (SOM)**

The Third Annual UMDNJ-SOM Mini-Medical School began on the Stratford campus in mid-March of 2009 and ran through early May. For those eight weeks, nationally and internationally-known faculty from the medical school led the students on in-depth discussions of specific health topics. The NJISA faculty participated in one of the eight week sessions presenting the latest information on Cognitive Dysfunction in Older Adults as well as the Implications for Caregiving. Class sessions took place in the same settings where SOM's medical students learn. Sessions covered the basic science and/or the clinical application of the week's topic, followed by interactive demonstrations or case illustrations. Topics included osteopathic manipulation, infectious diseases, biological nanotechnology, anti-depressant medications and menopause, among others.

### **THE NATIONAL BORICUA LATINO HEALTH ORGANIZATION (SOM)**

Throughout the year, the UMDNJ-School of Osteopathic Medicine chapter of the National Boricua Latino Health Organization (NBHLO) sponsors a series of medical, cultural and social events for Hispanic Heritage Month, co-sponsors the Juvenile Diabetes Walk-a-thon, co-sponsors a Christmas party at a local nursing home and supports a mentoring program for high school students at LEAP Academy in Camden.

UMDNJ-SOM students are active in the leadership of the NBLHO, which is a member of the National Network of Latin American Medical Students (NNLAMS). This is a national partnership between other regional Latino medical student groups to create one strong voice for Latino medical students throughout the United States.



The NBLHO has honored the student chapter at SOM as its “Dr. Helen Rodriguez-Trias Chapter of the Year.” The Dr. Helen Rodriguez-Trias Chapter of the Year award is given annually to the chapter that best represents the ideals of NBLHO, which include recruiting Latinos into higher education, advocating for increased Latino representation in health-related areas and promoting awareness about social, political and economic issues involving Hispanic populations.

### **NATIONAL YOUTH LEADERSHIP FORUM ON MEDICINE (SOM)**

The National Youth Leadership Forum on Medicine is designed to provide high school students from across the U.S. with exposure to the medical and health-related professions. Students from the NYLF 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.

The Mini-Medical School enables students 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 2008.

### **NEW BRUNSWICK COMMUNITY INTERPRETER PROJECT (RWJMS)**

The New Brunswick Community Interpreter Project (NBCIP), formerly a grant-funded program now supported by the Office of Community Health, currently provides Spanish medical interpretation and translation services in three area health centers: The Eric B. Chandler Health Center (EBCHC), The High Risk Obstetrics Ambulatory Care Clinic at the Robert Wood Johnson University Hospital, and the Cancer Institute of New Jersey (CINJ).

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 75,000 patient-provider encounters, and over 100 vital medical documents and the EBCHC website have been translated into Spanish under the 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. The program is staffed by two program coordinators and 35 student interpreters.

### **NEW JERSEY AREA HEALTH EDUCATION CENTERS (AHECs) (SOM)**

In collaboration with the New Jersey Area Health Education Centers (AHECs) and with the assistance of the Community Health Worker Institute (CHWI), the UMDNJ-SOM Department of Family Medicine has expanded its clinical experiences in underserved communities for students during their first and second year.

This year completed the transition from what was formerly known as the Community Oriented Primary Care (COPC) experience to the Community Involved Primary Care (CIPC) experience, where students develop and implement interventional projects on health promotion in underserved communities. First-year medical students were introduced to CIPC through an 18-hour course on conducting community-based needs assessments, accessing national and local resources, and identifying a community-specific health promotion/disease prevention project.

As part of the experience, students participated in a “community immersion” experience through one of the three AHEC centers, where they met 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 will be 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 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 2008-2009 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 nurses, practicing physicians, medical students, hospital emergency room staff, and senior managers and their staffs in local and county health departments and the state health department, among others. These included two major conferences on emerging and re-emerging infectious diseases, and many smaller training sessions as well. Training was also provided to county and local emergency management and hazmat teams regarding radiological incidents, including transportation accidents and "dirty bombs".

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 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 expanded its formal educational work by opening the two preparedness courses developed for the SPH Graduate Certificate in Public Health Preparedness to Rutgers juniors and seniors; the courses are an integral component of a new undergraduate certificate in public health preparedness at Rutgers. For more information contact Dr. Glenn Paulson at [paulsojl@umdnj.edu](mailto:paulsojl@umdnj.edu) or Dr. George DiFerdinando at [diferdge@umdnj.edu](mailto:diferdge@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 serves as the Project Director, has 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.

### **THE NEW JERSEY INSTITUTE FOR SUCCESSFUL AGING AND ITS 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 health care 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 20,000 health care 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 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 2008, NJISA and the NJGEC participated in program planning and served as a co-sponsor for the annual conference of the New Jersey Geriatrics Society, in collaboration with the Long Term Care Leaders Coalition. The statewide conference, entitled, "The Dollars and Sense of Prevention: Natural Progression of Eldercare," included nationally known speakers, and was attended by over 150 health care professionals from multiple disciplines from throughout the state.

The NJGEC and NJISA continue to provide faculty support for the University Behavioral HealthCare-Technical Assistance Center as part of their contract with NJ Division of Mental Health Services. In June 2009, a two-day workshop, "Mission Possible: Changing Culture, Changing Practice, Changing Care," was presented to "champion teams" of health care professionals from multiple disciplines who work in nursing homes and assisted living facilities. Content focused 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. Introduction of a decisional algorithm for managing challenging behaviors and optimizing team input serves as the framework for facility-centered plans for change.

This two-day workshop will serve as the basis for selection of five facilities that will become "pilot" sites for consultation and supportive intervention strategies for behavioral management, which is a project sponsored by NJGEC as it expands to include a larger state-supported initiative in "transformational change" in the mental health system.

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.

In another joint research project, the UMDNJ-School of Health Related Professions and the NJISA provide medical nutrition therapy to community-dwelling seniors who use the NJISA for primary care medical services. Interventions include monitoring weight, blood

pressure, body fat and eating and exercise habits. This individually designed program provides participants with nutrition assessment; identification of nutrition-related health problems, such as diabetes, heart disease, and cancer; and diet counseling, behavioral modification, and dietary intervention, including how to track what they eat. There is also an exercise component, which includes a walking program.

### **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.

### **NUTRITION MANAGEMENT OF INDIVIDUALS WITH HIV / AIDS (SHRP)**

This initiative, funded by Ryan White Title A and B, embodies UMDNJ's four missions: education, research, patient care and community service. For six years, SHRP's M.S. in Clinical Nutrition faculty has been providing nutrition services to individuals with HIV/AIDS in the Infectious Disease Practice at University Hospital and other Newark agencies. This program started in 1998 with Ryan White Title III funds (which initially supported a half-time Registered Dietitian) and gradually increased with Ryan White Title I monies to one full-time RD in 1999, the equivalent of 1.5 RD's in 2000, and then to two R.D.'s in 2002. Currently, there is one full-time RD in the clinic program. The program fulfills a critical need in Newark, a city with one of the largest HIV/AIDS populations in the U.S. Nutrition education services, food and clothing drives, a food bank for patients and education of staff and patients have helped to provide a valuable service to the New Jersey community.

### **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.

### **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 First Annual Orientation Week Community Service event took place on August 9, 2008. The event was designed to familiarize first-year students with several community service opportunities available in Camden. About 30 first-year student participated in community service activities at the Ronald McDonald House, as well as with the South Camden Citizens in Action Neighborhood Health Fair and the Urban Promise Community Block Party.

On August 12, 2008, the International Federation of Medical Students' Association (IFMSA) of SOM hosted its first community concert to raise funds for international student medical rotations. Several professional organizations from UMDNJ-SOM participated in this first-time event to raise funds for their activities and local community service programs.

### **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.

### **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.

### **PRE-COLLEGE PROGRAM (SHRP)**

The College Bound program offered jointly with New Jersey Institute of Technology and Rutgers University-Newark serves approximately 500 students in grades 7-12 from Newark, Irvington and East Orange. The program provides academic support through the academic year and generally offers a six-week full-time program in the summer.



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

H. Timothy Dombrowski, D.O., Chair of the UMDNJ-SOM Department of Internal 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. The outreach unit provides health screenings, counseling, and case management; two weekly satellite primary care clinics that provide physicals, non-emergency care, and case management; and a weekly evening clinic at the Bergen Lanning Health Center for extended follow-up. Christopher Myers, M.S.N., A.P., the nurse practitioner from St. Luke's, volunteers eight hours per month at the Bergen Lanning Health Center.

Among an estimated Camden homeless population of 3,500 to 6,500, 1,340 are Project H.O.P.E. users. Project H.O.P.E. is also a training site for the SOM Inner City Medicine rotation.

### 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.

### 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.

### RWJMS DEPARTMENTAL ACTIVITIES (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.

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:

<u>Community Affiliation</u>	<u>Services</u>
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 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.

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 takes place on the New Brunswick Campus in conjunction with National Make a Difference 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 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, who is a world renowned urogynecologist. The department also collaborates on educational events with the New Jersey magazine entitled, "Garden State Woman."

**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.

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.

**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.

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*, *Psychoneuroendocrinology*, and *Social Development*.

The Institute also provides clinical services through the Gifted Child Clinic and Neuropsychological Clinic.

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.

### **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), a community needs assessment was completed in 2008 to guide creation of the curriculum to serve as the basis for the healthy heart community education program. This program was launched in February, 2009 with an additional program scheduled to be delivered to community-dwelling seniors living in the Four Seasons 55+ adult community at Weatherby in Swedesboro, NJ in October, 2009.

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

SAVE, a program of the UMDNJ-New Jersey Medical School 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 an 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 (SOM)**

The Sixth Annual Senior Health and Fitness Day sponsored by the New Jersey Institute for Successful Aging (NJISA) and the UMDNJ-SOM Marketing Department was held on Friday, May 29, 2009, focusing on maintaining a healthy lifestyle to preserve health and wellness of community dwelling older adults.

The program included a Health Forum that featured introductions by Dr. Thomas Cavalieri, Dean, UMDNJ-SOM, Dr. William F. Owen, President, UMDNJ and Dr. Anita Chopra, Director of the New Jersey Institute for Successful Aging (NJISA).

The keynote speaker was Dr. Stephen Scheinthal from the NJISA presenting *Don't Let Aging Get You Down; Myths vs. Reality*. The balance of the day included exercise demonstrations, health screenings, interactive mind stimulating games, lunch, entertainment, and prizes. Over 40 state and local agencies that provide seniors with information about community resources and services participated.

### **SOM CHAPTER OF THE STUDENT NATIONAL MEDICAL ASSOCIATION (SOM)**

The Student National Medical Association (SNMA) chapter at SOM, a previous recipient of the Northeast region's "Chapter of the Year" by SNMA's national board, was established in 1964.

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.

Selected from among the 18 SNMA chapters in the region, the members of UMDNJ-School of Osteopathic Medicine's chapter were noted for their tireless work to promote the SNMA mission of cultural competence and service to the medically underserved. Among the many events sponsored by the local SNMA chapter were a series of community lectures on topics related to health disparities, free health screenings at several events, a school supplies drive for Operation Backpack, a bone marrow donor registration drive and a fashion show and fundraiser to benefit local charities.

### **SOM COMMITMENT TO OUR 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 7,271 residents, 2,736 households and 1,906 families in Camden County.

SOM and its student organizations provide a wide array of health-related services to Stratford schools and community organizations, including blood pressure screenings, diabetes testing, flu immunization programs and regular education programs that are well attended by the community.

SOM had a high profile at the Stratford Day festivities on October 4, 2008. The school's hometown hosted over 5,000 people for games, rides, contests and food, with The University Doctors of SOM providing an array of health screenings to the attendees. Also contributing to the successful event were the Wellness Center, Public Safety and the UMDNJ-SOM Marketing department.

On December 8, 2008, Dean Cavalieri led the Stratford campus in celebrating the holiday season's spirit of caring with the annual Unity Tree Lighting event. A group of young children and their teachers from the Stratford schools sang holiday songs, accompanied on guitar by Dr. Albert Brown, Superintendent of the Stratford Schools. Dr. John Gentless, Mayor of Stratford, was on hand to participate in the festivities as well as to thank the School for the gift drive benefiting local children.

SOM's leadership of the Steering Committee that formed the Stratford Business and Civic Association (SBCA) in 2004 has demonstrated support for the borough's business community. SOM's Director of Strategic Planning and Program Development served as the organization's first President in 2005. In April 2009, Dean Cavalieri hosted a breakfast meeting of the SBCA on the Stratford campus, with an overview of the school's vision for the years to come.

UMDNJ-SOM supported the launching of the privately published "Stratford Times" newspaper in December 2008. This bimonthly guide to news of local interest is providing an important vehicle for communicating to the community the services available through the SOM-University Doctors.

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

For the 13th year, UMDNJ continues to provide services to the Special Olympics Summer Games.

**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, nutrition education, blood pressure screening and the fabrication of sports mouth guards are part of a collaborative effort by NJDS and SHRP 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.

**The Special Olympics-Healthy Choices program:** The mission of the Special Olympics-Healthy Choices program is to increase awareness in the areas of nutrition education, infection control, dental home care 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.

For the 13th year, data collected at the NJ Special Olympics Summer Games will help to generate a snapshot of the oral 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.

### **STANDARDIZED PATIENT LABS (SOM)**

UMDNJ-SOM is a pioneer in developing Standardized Patient Labs that assess medical students caring for patient “actors”, thereby providing evaluation not only of diagnostic skills but of cultural competency as well. The full survey of SOM by the Commission on Osteopathic College Accreditation (COCA) commended the school for inclusion of cultural competency in the Standardized Patient Lab. In recognition of SOM's leadership, the Governor came to the school's Stratford campus to tour the Standardized Patient Labs and sign legislation requiring cultural competency education as a requirement for medical licensure in the State.

### **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 RWJ Foundation N.J. Health Initiative awarded 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 85th percentile of their recommended body mass index (BMI), or overweight. Students are referred by their physicians or school nurse. However, parents and guardians can also apply directly to the program.

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 healthier. 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. Christopher Myers, M.S.N., A.P., a nurse practitioner, joined Dr. D'Ambola in the practice in May 2004. 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. Thirty 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 health care with a focus on cancer screening and immunizations. In 2008, there were over 6,500 patient visits at St. Luke's, with Type II diabetes mellitus, hypertension, hyperlipidemia, asthma, and anemia the most common diagnoses.

St. Luke's is 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 also 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. St. Luke's is also a training site for SOM third- and fourth-year medical students.

### **STUDENT HEALTH ADVOCATES FOR RESOURCES & EDUCATION CENTER (S.H.A.R.E.) (NJMS)**

In 1996, students at the UMDNJ-New Jersey Medical School created the S.H.A.R.E. Center, 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 six 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. SHARE supports the following groups:

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

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.

### **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 SFHCC clinic for follow-up appointments.

### **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.

### **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.

### **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.

### **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. 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.

### **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 Memorial Hospital-UMC at Cherry Hill. With the Medical Director and physicians provided by UMDNJ-SOM Department of Psychiatry, the program accommodates up to six outpatient clients.

Currently, the program provides inpatient/outpatient detoxification and some rehabilitation, and Intensive Outpatient Program (IOP) services ranging from daily partial hospitalization to evening outpatient therapy groups. 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 Health System to fund services for their indigent population. The program also has contracts with numerous high schools in the South Jersey area, with diagnostic evaluations, including testing and a physical exam, provided for those teenagers suspected of substance abuse. Certified Addiction Counselors provide the appropriate referrals for follow-up.

### **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

#### **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 2008, the Clinic has seen over 4,000 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. For more information visit <http://www.tobaccoclinic.org>.

**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. Recent examples of work include:

- Training of staff members at over 40 New Jersey high schools to implement the "Youth Quit2Win" smoking education and cessation program; and
- Training of over 1,000 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.proyectovidanofume.org](http://www.proyectovidanofume.org)) and the TDP also organizes the Middlesex Partnership Against Tobacco (MPAT).

**Research.** The TDP is active in tobacco research and has published over 80 papers in peer-reviewed journals over the past seven 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. Jonathan Foulds at [fouldsja@umdnj.edu](mailto:fouldsja@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 contact Dr. Jane Lewis at [lewismj@umdnj.edu](mailto:lewismj@umdnj.edu).

### **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. It is dedicated to working together with community groups in cities across New Jersey to identify public health needs and design useful service projects to address these needs. Its mission is to provide a forum for public health students and faculty 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 2008-2009, students and faculty worked together on a number of projects including:

- Summer Camp Event at Hope Community Outreach Project/Camden (August)
- Empty Bowls Soup Sale/World Hunger (November and February)
- Dominican Republic Health Outreach Art Show/Fundraiser (October)
- Diaper Drive for Hudson Cradle (November)
- Dominican Republic Giving Tree (December)
- Holiday Gift Drive with HomeFront (December)
- Ronald McDonald Cooking Night/New Brunswick (January)
- Socks and Underwear Drive for Camden AHEC (February)
- American Heart Association/Red Dress/Hearts Sale (February)
- Public Health Club at New Brunswick Health Sciences Technology High School and Public Health Club at Brimm Medical Arts High School in Camden
- Guest Speaker on Rwanda
- Healthcare Career Exploration Fair/New Brunswick Health Sciences Technology High School
- Undergraduate Mentoring in Public Health/Rutgers Public Health Club

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

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

The UMDNJ-School of Nursing has been involved in the state hospital clinical affiliation 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 UNIVERSITY DOCTORS COMMUNITY PROGRAMS (SOM)**

Residents of Southern New Jersey were exposed to the UMDNJ-School of Osteopathic Medicine and the University Doctors at the following community lectures/programs, health fairs and other events from June 2008 through May 2009.

## June

- “Migraine: A Guide To Latest Advances in Migraine Headaches”
- Fifth Annual Senior Health & Fitness Day
- Health Screenings, Demonstrations, Exhibits, Lunch, Prize Drawings
- Bariatric Surgery Seminar
- Community Diabetic Foot Screening
- “Bouncing Back from Adversity: Building Resilience in the Journey Toward Wellness”
- Burlington County Office on Aging Senior Exposition
- First Annual Stratford Campus Summer Concert Series – June

## July

- Bariatric Surgery Seminar
- “Mindful Living”
- Community Diabetic Foot Screening
- First Annual Stratford Campus Summer Concert Series – July

## August

- Community Varicose Vein Screening
- Community Diabetic Foot Screening
- Bariatric Surgery Seminar
- UMDNJ-SOM Student Community Summer Concert
- Rancocas Health Fair

## September

- “Ask The Pediatrician”
- Community Varicose Vein Screening
- Red Cross Blood Drive
- “Mindful Living – HELP”
- “Osteopathic Manipulative Medicine and Arthritis Pain”
- 2008 Health & Wellness Expo
- Bariatric Surgery Seminar
- 11<sup>th</sup> Annual UMDNJ-SOM Golf Classic
- “Back & Neck Pain: Causes, Symptoms, Treatment and Prevention”
- Community Diabetic Foot Screening
- Dental School Admission Symposium
- Community Blood Pressure Screenings
- Working Well – NJ Fitness Challenge Walk and Rally

## October

- Stratford Fall Festival
- Blood Pressure, Diabetic Foot, Body Fat, Varicose Vein, Balance Screenings
- Print a Kid – Dept. of Public Safety
- Tai Chi Demonstration
- 113<sup>th</sup> American Osteopathic Assn. Convention and Scientific Seminar
- 9<sup>th</sup> Annual Gloucester County Women’s Health Summit
- “Facts About Childhood Vaccines”
- “Stretch Your Food Budget with Healthy Choices”

- “Falls in Older Adults: Strategies for Prevention”
- Bariatric Surgery Seminar
- “Getting the Most from Each Breath: Treatment Options with chronic Bronchitis, Emphysema or COPD Diagnosis”
- Inter-Professional Grand Rounds Series: “Patient with HIV and Chronic Pain”
- National Day of Compassion
- Alumni/Student Fall Festival
- Health Career Fair – Stratford Campus

### November

- “Control Your Diabetes for Life: Tips for Feeling Better and Staying Healthy”
- “Keeping Your Diabetic Feet in Shape”
- 9<sup>th</sup> Annual Diabetes Forum
- Bariatric Surgery Seminar
- First Annual Christmas Concert
- Greater Delaware Valley MS Conference and Expo

### December

- “How to Stay Healthy During the Holidays”
- Winter Unity Celebration/Gift Drive for Needy Children in Stratford Community
- Cultural Competency Program

### January

- Free Community Diabetic Foot Screening
- “Caring for the Caregiver”
- Print-a-kid Fingerprinting
- Bariatric Surgery Seminar
- 13th Annual Student Talent Show
- Interprofessional Grand Rounds: “The Value of Interprofessional Education in the Community/ Bridging the Gaps”

### February

- Free Community Blood Pressure and Diabetes Screening to Celebrate Black History Month
- Common Shoulder Injury Class
- “Aging and Heart Disease”
- Bariatric Surgery Seminar
- Free Community Varicose Vein Screening
- American Red Cross Blood Drive
- “The Vagina Monologues”
- National Bone Marrow Program Donor Drive
- Community Grand Round Series: Assessing Health Literacy-Medicines’ Newest Vital Sign”
- Role of Very-Low Calorie Diets in Weight Loss and Maintenance

## March

- “Common Knee Injuries”
- 10th Annual Camden County Women’s Conference
- “Osteopathic Manipulative Treatment for Chronic Lower Back Pain”
- First Annual Cover The Uninsured Week – Family Fair 2009
- “Diabetic Neuropathy: Symptoms, Signs, Treatment
- “New Parents: Baby Basics 101”
- “Stretch Your Food Budget with Healthy Choices”
- “Healthy for Life: Fitness for Women at any Stage of Life”
- National Doctors Day
- Research Day
- “Osteopathic Research: Integrating Science, Evidence and Clinical Practice to Inform Health Policy”
- Community Grand Rounds: “Health Disparities: the Health Policy High Ground”
- Grand Opening Center for Information Mastery (CIM)
- “Walter Reed, The Washington Post and 40 Days of Winter: A Study in Leadership Crisis”
- “The Scientific and Medical Evidence behind the Shroud of Turin”
- Second Annual Easter Concert
- “From Surgical Strike to Microsurgery: Confessions from an Army Ophthalmologist”
- NJ AHEC Community Health Workers Annual Conference
- Heart Health Fair – Sacred Heart Church, Camden

## April

- “How to Interact with Someone with Dementia”
- “Trim & Tone”
- MOB Health Fair
- “High Blood Pressure: A Look at the Causes”
- Camden County Dept. of Health “Biggest Loser” Program
- Atlantic Regional Osteopathic Convention
- Inter-Professional Grand Rounds: “Cystic Fibrosis”
- AACOM Annual Convention
- “Social Media Marketing to the Virtual Generation”
- 2009 Governor’s Conference for Women
- “Swine Flu: An Update on What You Need to Know”
- Camden County Women’s Health Summit
- “Stretching Your Food Budget with Healthy Choices”
- “Keeping Fit at All Stages of Your Life”
- Cherry Hill Chamber of Commerce Health Expo
- Free Community Blood Pressure and Body Fat Screenings
- Mini Medical School – April through May
- “Fitness 101: A Walk Through the University Wellness Center”

**May**

- “Swine Flu – What You Need to Know”
- “Preventing Colorectal Cancer”
- Sixth Annual Senior Health & Fitness Day
- Free Community Health Screenings: balance, blood pressure
- “Don’t Let Aging Get You Down: Myth vs. Reality”
- “Health Fest” Brimm Medical Arts High School in Camden
- “Are You Ready for the Warm Weather”
- Burlington County Farm Fair
- Mind Body and Spirit Health Fair, United Methodist Church
- OMT Demonstration, Senior Fitness Demonstration
- Cultural Competency Training Forum

**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.

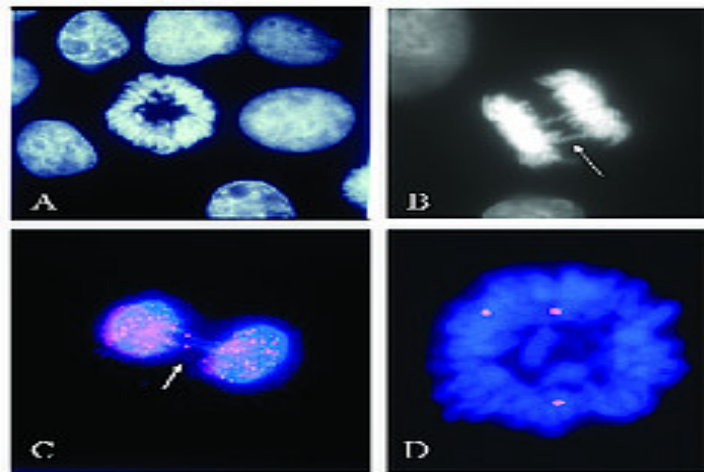
**VOCATIONAL TRAINING PROGRAMS (SOM)**

The 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. The Department administrator, Pam Matukonis, sits on the advisory board of CCVI to provide guidance as to the skills needed to be a medical assistant.

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

Medical students with the 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, SOM residents provide medical coverage for all varsity football games.





## RESEARCH & EXTERNAL FUNDING

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**EXTERNAL FUNDING**  
Totals for Fiscal Year 2008

<i>UNIT</i>	<i>TOTAL AWARDS</i> <sup>1</sup>	<i>RESEARCH AWARDS</i>
New Jersey Medical School <sup>2</sup>	\$105,400,109	\$76,041,125
Robert Wood Johnson Medical School-P <sup>3</sup>	\$107,618,492	\$89,898,152
Robert Wood Johnson Medical School-C	\$704,634	\$668,494
School of Osteopathic Medicine	\$10,043,751	\$6,045,389
New Jersey Dental School	\$6,191,376	\$3,686,066
Graduate School of Biomedical Sciences <sup>4</sup>	\$330,013	\$0
School of Health Related Professions	\$3,369,461	\$33,640
School of Nursing	\$29,366,656	\$6,513,574
School of Public Health	\$12,659,645	\$5,769,916
University Hospital	\$5,872,121	-\$2,889
University Behavioral Healthcare-P	\$18,777,745	\$1,204,342
University Behavioral Healthcare-N	\$4,356,612	\$0
Central Administration and Physical Plant	\$74,836	\$30,370
University Academic Affairs (Including Continuing Education)	\$9,529,149	\$0
<b>GRAND TOTAL</b>	<b>\$314,294,600</b>	<b>\$189,888,179</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 2008**

<i>EXPENDITURES*</i>	<i>AMOUNT</i>
Total Academic R&D Expenditures	\$236,834,000
Federally Financed	\$121,472,225
Institutionally Financed	\$53,969,000

Note: Dollar amount as reported to the National Science Foundation (NSF) on Form #411  
(*Survey of Research and Development Expenditures at Colleges and Universities* ).

Source: UMDNJ-Office of Cost Analysis

## **PATENTS AND LICENSES**

### **U.S. Patents Issued July 1, 2008 - June 30, 2009**

#### **UMDNJ United States Patents**

<b><u>Inventor(s)</u></b>	<b><u>Patent Title</u></b>
Inouye, Masayori	<i>Cold shock regulatory elements, constructs thereof and method of use</i>
Milles, Maano	<i>Method and apparatus for evacuating nitrous oxide</i>
Decout, Jean-Luc Pandey, Virendra N. RiguetNo, Emmanuel	<i>PNA-Neamine conjugates and methods for producing and using the same</i>
Divani, Afshin A. Qureshi, Adnan	<i>System and method for transcutaneous monitoring of endotracheal tube placement</i>
Langenfeld, John	<i>Bone morphogenetic protein-2 in the treatment and diagnosis of cancer</i>
Barone, Joseph G.	<i>Drip chamber dropper bottle</i>
Yeo, Inhwan Wang, Brian	<i>Method for verification of intensity modulated radiation therapy</i>
Seifer, David B.	<i>Mullerian inhibiting substance levels and ovarian response</i>

#### **UMDNJ Foreign Patents**

<b><u>Inventor(s)</u></b>	<b><u>Patent Title</u></b>
	<b>Australian</b>
Seifer, David B.	<i>Mullerian inhibiting substance levels and ovarian response</i>
Kramer, Fred R.	<i>Homogeneous multiplex screening assays and kits</i>
	<b>Canadian</b>
Huq, Ikramul Rana, Tariq M.	<i>Inhibition of hiv-1 replication using oligocarbamate derivatives</i>

**European**

Tyagi, Sanjay *Detectably labeled dual conformation oligonucleotide probes, assays and kits*

Tyagi, Sanjay *Wavelength-shifting probes and primers*

**Korean**

Inouye, Masayori *DHCP and its antibacterial activity*

**Japan**

Alland, David  
Kramer, Fred R.  
Piatek, A  
Tyagi, Sanjay  
Vet, Jacqueline  
*Non-competitive co-amplification methods*

**New Zealandian**

Kaplan, Jeffrey B. *Compositions and methods for enzymatic detachment of bacterial and fungal biofilms*

Seifer, David B. *Mullerian inhibiting substance levels and ovarian response*

License and Option Agreements were executed with the following companies:

Actinobac Biomed	Micronics
Alphagenics	Novus Biologics
ATCC	OncoMethylome
Colgate Palmolive	Oxford Immunotec
Constellation Pharmaceuticals	PTC Therapeutics
Fate Therapeutics	Smiths Detection
Longevica	TriMedicine
Mayo Medical Ventures	WellGen
Merck	

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

## **RESEARCH HIGHLIGHTS: 2008-2009**

### **BASIC SCIENCES**

- Demonstrated infection of neurons with intracerebral injection of HIV-1 acutely, in a mouse model of HIV-1 infection, using a chimeric virus with envelope sequences from a murine leukemia virus
- Discovered the alternative splicing factor SF2/ASF, upregulated in many tumors, binds to specific sequences within DNA replication initiation sites
- Discovered a cryptic activation of caspase 2 facilitates the synergistic enhancement of tumor cell death by combinations of TNF and chemotherapeutic agents
- Discovered pathway-specific silencing of the expression of the human chitinase protein YKL-40 when stem cells differentiate into neurons
- Discovered that bone cancer cells undergo autophagy when deprived of key growth factors, which allows long-term survival
- Discovered that a mammalian chitinase, YKL40, potentiates the inhibitory effect of cytokines on macrophage migration
- Discovered that anti-inflammatory compounds can enhance differentiation of human leukemia cells, suggesting an anti-leukemic effect of anti-inflammatory drugs
- Determined that the recently discovered KSR-2 gene plays a role in cell survival of leukemia cells, and thus provides a target for chemotherapy
- Demonstrated in an animal model that a plant extract increases the anti-leukemia activity of vitamin D analog
- Identified controlling genes involved in regulation of leukemia cell differentiation
- Identified control of leukemia cell proliferation by small RNAs (microRNAs)
- Demonstrated the involvement of Fanconi anemia proteins with the DNA interstrand cross-linking process
- Discovered that the structural protein nonerythroid  $\alpha$  spectrin ( $\alpha$ IIISp) is important in chromosome stability in normal human cells
- Demonstrated that human umbilical cord blood cells produce IL-10 in IL-10 deficient mice without immunosuppression
- Found that nuclear pore complex proteins mark the implantation window in human endometrium
- Discovered epigenetic regulation of adrenergic receptor expression in murine T cells
- Detected age-associated increase in cancer stem cells as the side population in the NZB model of CLL

- Discovered that MicroRNA miR-16 is linked to the development and progression of B cell malignancies in the NZB de novo murine model of CLL
- Found that downstream effects of decreased MicroRNA miR-16 levels in NZB B Cell malignancies involve alterations in cell cycle progression and apoptosis
- Discovered that Interferon regulatory factor 7-mediated responses are defective in cord blood plasmacytoid dendritic cells
- Determined that the cancer causing virus Kaposi's sarcoma-associated herpes virus reprograms the cellular response to the Notch signal transduction pathway
- Developed a system for determining the persistence of epigenetic changes of the host that are induced by the Kaposi's sarcoma-associated herpes virus
- Developed a genetic system for identifying the targets of transactivators from Kaposi's sarcoma-associated herpes virus
- Discovered a novel nucleotide polyphosphate hydrolase in African trypanosomes that may be developed into a novel drug target
- Demonstrated that the human pathogen *Trypanosoma brucei* that causes African sleeping sickness requires a novel protein component for cell growth
- Discovered the chickenpox virus gene that allows the virus to infect several cell types and organs
- Completed functional analysis of the chickenpox viral genes involved in infection
- Developed several organ culture systems for the study of chicken pox and CMV viral infections
- Developed molecular beacon probes for simultaneous quantification of Lyme disease causing spirochetes and infected tissues by real-time PCR
- Developed a high-throughput screening method to evaluate novel antimicrobials against Lyme disease causing spirochetes, *Borrelia burgdorferi*
- Identified novel nucleosidase targets in *Borrelia burgdorferi* for antimicrobials
- Discovered inhibitors against MTA/SAH nucleosidase enzymes that show significant antispirochetal activities
- Investigated the effects of meiotic mutants on the recently discovered vigorous movements of paired chromosomes and nuclei during the pachytene stage of meiosis in *Saccharomyces cerevisiae*
- Investigated the effects of chemicals and of meiotic mutants on the fidelity of meiotic chromosome transmission in *Saccharomyces cerevisiae*
- Found that the muscle toxin Latrunculin B affects the fidelity of meiotic chromosome transmission in *Saccharomyces cerevisiae*
- Determined best choices among EF-Tu mutants for the FRET assay involving a fluorescently tagged tRNA and tRNA labeled with a quencher

- Developed a new technique for quantification of homocysteine in proteins from biological fluids and tissues
- Discovered that genetic or nutritional disorders in homocysteine or folate metabolism greatly increase levels of pro-atherogenic N-homocysteinylated proteins in humans and mice
- Demonstrated that IRF-5 is a critical mediator of death receptor-induced apoptosis by acting upstream of caspase 8 cleavage
- Identified putative phosphorylation sites on the IRF-5 polypeptide after DNA damage
- Identified HSP90 as a new interacting partner of IRF-5 in response to gamma-irradiation
- Discovered that IRF-5 is significantly upregulated at both the transcript and protein levels in patients with systemic lupus erythematosus (SLE)
- Determined that the upregulation of IRF-5 in SLE patients is in part due to an association with the risk haplotype
- Identified 2-Aryl-3-heteroaryl-1,3-thiazolidin-4-one as a novel hepatitis C virus (HCV) polymerase (NS5B) non-nucleoside inhibitor scaffold
- Identified aurintricarboxylic acid (ATA) as a potent HCV NS5B inhibitor
- Demonstrated that ATA exerts a unique dual mode of mechanistic inhibition against HCV NS5B
- Demonstrated that ATA treatment ablated HCV RNA replication in the low nanomolar range with no apparent cytotoxic effect
- Identified novel tyrosine phosphorylations in the Crk oncogene induced by Bcr-Abl
- Characterized a novel signaling pathway in CML cells involving the tyrosine phosphorylation of Stat6
- Discovered that naltrindole, a delta opioid receptor antagonist, inhibits the proliferation and induces apoptosis of human multiple myeloma cells in vitro
- Discovered that naltrindole inhibits the MAP kinase, Akt, and NFkB pathways in multiple myeloma cells
- Discovered that naltrindole inhibits voltage-gated sodium and potassium channels in AtT-20 cells
- Demonstrated that naltrindole inhibits the growth of multiple myeloma tumors in a xenograph mouse model in vivo
- Demonstrated that interferon gamma treatment sensitized human colorectal carcinoma cells to type III interferon-mediated apoptosis
- Identified type III interferons as principal interferons produced by bronchial epithelial cells in response to rhinovirus infection



- Showed differential effect of type I and type III interferons on hematopoiesis
- Discovered that inhibition of colon cancer cell proliferation is greater with quercetin 3-beta-glucoside than with quercetin or its rutinoides
- Established a real-time quantitative PCR condition with which the copy number of both 7S DNA and full-length mitochondrial genome can be measured for any human cells or tissue sample with the highest accuracy
- Discovered that unlike full-length mitochondrial genome whose abundance remains relatively unchanged, the copy number of 7S DNA greatly fluctuates along the cell cycle, increasing almost 100-fold in S phase, declining thereafter
- Discovered novel protein reduction targets of thioredoxin in heart
- Identified a redox mechanism for regulating cardiac gene expression during hypertrophy
- Identified myelin lipid abnormality in aspartoacylase-deficient mice
- Discovered abnormal proteolysis in an animal model of multiple sclerosis
- Identified novel targets regulated by the motor pathway during oligodendrocyte differentiation
- Discovered that auxiliary RNA sequence elements previously predicted by bioinformatic analysis can impact polyadenylation in both positive and negative ways using in vivo methodologies
- Showed that microRNAs can influence polyadenylation signal choice
- Discovered that depletion of the NF90/NF45 complex from cells caused a large increase in double-stranded DNA breaks and reduced the ability of the depleted cells to repair their DNA
- Found that two drugs that target hydroxylases, specifically the hydroxylase that modifies the cellular factor eIF5A, are effective inhibitors of the proliferation of cervical carcinoma cells and modulate the expression of a number of cellular proteins
- Traced the origin of the snaR genes to Alu sequences via two novel gene families, in concert with major evolutionary events in the primate/African Great Ape lineage
- Found that snaR genes contribute to the expression of human chorionic gonadotropin genes
- Demonstrated that newly discovered template overhang binding track in DNA polymerase I class of enzymes is also utilized for all other activities associated with polymerases, namely, mismatch correction, the strand displacement synthesis and the 5' nuclease
- Discovered that an anti-hydroxylase drug which efficiently targets the hydroxylase modifying the cellular factor eIF5A inhibits replication of patient-derived HIV-1 in an ex-vivo PBMC model system, causing enhanced apoptosis of infected cells and preventing viral rebound

- Showed that NF90 regulates, at the translational level, the expression of the cellular transcription elongation factor P-TEFb, an essential factor for HIV-1 transcription and replication
- Discovered species-specific genetic elements that control processing of the Bone Morphogenetic Protein 2 (BMP2) messenger RNA
- Discovered that a human polymorphism in a Bone Morphogenetic Protein 2 (BMP2) regulatory element is associated with normal human variation in fat, muscle, and bone mass before and after resistance training
- Demonstrated that the mitochondrial ATP-dependent Lon protease selectively degrades Transcription Factor A of Mitochondria (TFAM), when this factor is not bound to mitochondrial DNA (mtDNA)
- Demonstrated that in cells depleted of mtDNA, TFAM is rapidly degraded by the Lon protease. Down-regulating Lon either by pharmacological treatment or by RNA interference leads to increased TFAM levels, which results in increased mtDNA copy number
- Developed primary and secondary high throughput screening assays for identifying small molecule inhibitors and activators of the Lon protease
- Discovered that transposable elements can make significant contributions to mRNA polyadenylation sites in genomes
- Discovered that 3' untranslated regions of mRNAs are dynamically regulated during embryonic development
- Solved the crystal structure of the C-terminal domain of Transcription Factor IIB (TFIIB) from *Trypanosoma brucei*, demonstrating that the TFIIB structure is divergent from other eukaryotic TFIIB structures
- Using the structure as a guide, performed site-directed mutagenesis on the full-length TFIIB protein and determined which regions of the protein were important for activity by *in vitro* transcription
- Discovered a specific DNA binding site for TFIIB at the Spliced Leader (SL) RNA gene promoter
- Discovered a novel mechanism by which amino acid nutrients signal to the mammalian target of rapamycin (mTOR) complex and control cell growth
- Investigated the role of the mitochondrial uncoupling protein UCP2 as an oxidant defense mechanism in cardiac muscle, and discovered that it enhances arrhythmogenic potential
- Discovered that nitric oxide signaling is critical for glucose sensing by glucose-inhibited neurons *in vitro* as well as for hypoglycemia counter-regulation *in vivo*
- Discovered that the FDA-approved anti-oxidant, N-acetyl-cysteine (NAC), may prevent the development of hypoglycemia associated autonomic failure and initiated a patent on this finding
- Discovered that glucose-inhibited neurons may play a role in the restoration of energy homeostasis after a fast

- Discovered that an interaction between AMP activated protein kinase (AMPK) and nitric oxide regulates the glucose sensitivity of glucose inhibited neurons
- Discovered that insulin resistance during type 2 diabetes mellitus alters the glucose sensitivity of glucose excited neurons
- Proposed a novel hypothesis for the initiation of neuritic plaques in Alzheimer's Disease
- Discovered that the Alzheimer's Disease protein APP generates multiple polypeptides with independent functions
- Discovered the significance of eNOS translocation to cytosol in the regulation of endothelial permeability
- Demonstrated that nitric oxide is a molecular target that explains beneficial effects of Chinese herbs and of acupuncture in Oriental Medicine
- Reported the novel finding that Iloprost (an analog of prostacyclin) inhibited the inflammation-associated increase in permeability caused by ischemia-reperfusion
- Investigated the ionic regulation of the cardiac sodium-calcium exchanger
- Demonstrated that the developmental reprogramming of rat GLUT5 requires glucocorticoid receptor translocation to the nucleus
- Demonstrated that the precocious enhancement of the developmentally dormant intestinal fructose transporter GLUT5 involves glucocorticoid receptor-mediated transcription
- Investigated the calcium-dependent activation of mitochondrial metabolism in mammalian cells
- Investigated L-lysine uptake in giant vesicles from cardiac ventricular sarcolemma, and elucidated two components of cationic amino acid transport
- Investigated acetylcholine receptor (AChR) channel conversion and AChR-adjusted neuronal survival during embryonic development
- Investigated the functions of Dre2, a conserved eukaryotic Fe/S cluster protein, in cytosolic Fe/S protein biogenesis
- Demonstrated Aldosterone increases oxidant stress to impair guanylyl cyclase activity by cysteinyl thiol oxidation in vascular smooth muscle cells
- Demonstrated the altered binding of thioflavin T to the peripheral anionic site of acetylcholinesterase after phosphorylation of the active site by chlorpyrifos oxon and dichlorvos
- Reported on Vitamin B<sub>6</sub> deficiency after intestinal and multivisceral transplantation
- Demonstrated that brain-derived neurotrophic factor facilitates maturation of mesenchymal stem cell-derived dopamine progenitors to functional neurons

- Investigated nucleotide-dependent iron-sulfur cluster biogenesis of endogenous and imported apoproteins in isolated intact mitochondria
- Demonstrated that inorganic polyphosphate modulates TRPM8 channels
- Investigated phosphoinositide regulation of non-canonical transient receptor potential channels
- Investigated phospholipase C-mediated regulation of transient receptor potential vanilloid 6 channels: implications in active intestinal calcium transport
- Investigated reciprocal amplification of ROS and calcium signals in stressed mdx dystrophic skeletal muscle fibers
- Discovered that only 10-30% of wild-type (normal) embryonic stem cells incorporated into mutant muscles predisposed to develop muscular dystrophy prevents disease from occurring
- Discovered a new signaling pathway of cardiomyocyte survival that involves a bone morphogenetic protein
- Discovered an essential role of the heat shock protein H11 kinase in the cardiac response to stress
- Discovered that sarcolipin ablation results in structural and electrophysiological remodeling, and predisposes sarcolipin knockout mice to atrial arrhythmias
- Developed a new transgenic mouse model expressing phosphorylation defective sarcolipin
- Demonstrated that ablation of sarcolipin and phospholamban results in the development of cardiac hypertrophy
- Generated an adenylyl cyclase type 6 (AC6) knockout mouse model
- Demonstrated that the frequency of migrations of mitochondrial DNA fragments to the nucleus increases during the chronological aging process in baker's yeast
- Demonstrated that the Pif1 DNA helicase is required to protect the yeast mitochondrial genome from chemical attack
- Discovered an increase in Epac expression in metastatic melanoma, and thus that Epac is a potential indicator of cancer malignancy
- Discovered a new molecule for melanoma metastasis: Epac accelerates melanoma metastasis
- Discovered a new molecule for cell migration: Epac increases cell migration
- Discovered a new molecule for Ca<sup>2+</sup> signaling: Epac elevates intracellular Ca<sup>2+</sup>
- Discovered a new molecule producing extracellular matrix (heparan sulfate)
- Demonstrated cardioprotective effects with an enzyme inhibitor, a possible future drug in the treatment of heart disease

- Discovered a new signaling pathway activating Ca<sup>2+</sup> signaling: Gbetabamma subunits of heterotrimeric G-protein activates the Ca<sup>2+</sup> release-activated Ca<sup>2+</sup> (CRAC) channel
- Demonstrated that histone H4 Lys16 acetylation in *Drosophila melanogaster* is regulated by predicted alternative secondary structures in roX noncoding RNAs
- Discovered that telomere binding proteins inhibit localization of ATM proteins to DNA ends
- Discovered that down regulation of microRNA-199a, during hypoxia, results in upregulation of hypoxia-inducible factor and Sirtuin 1, and protects cardiomyocytes vs. hypoxic damage
- Acquired a patent for microRNA-199a
- Discovered that microRNA-21 is required for cell-cell connections
- Discovered that GSK-3 $\beta$  protects against ischemic injury but exacerbates reperfusion injury by modulating autophagy through mTOR-dependent mechanisms
- Discovered that active GSK-3 $\beta$  causes heart failure by inhibiting mitochondrial Complex I through cyclin D1-E2F-dependent mechanisms
- Discovered that GSK-3 $\alpha$  inhibits cardiac growth and hypertrophy through MEK-ERK-dependent mechanisms
- Discovered that reactive oxidative species, such as H<sub>2</sub>O<sub>2</sub>, induced after depolarizations and arrhythmias
- Obtained evidence linking oxidative stress, CaMKII activation, ion channel alterations and after depolarizations as triggers of lethal ventricular arrhythmias in diseased hearts
- Revealed interactions between spontaneous Cai waves, delayed after depolarizations and action potential-triggered SR Ca release and subcellular Cai dynamics
- Discovered that early after depolarizations in a single cell exhibit chaotic behaviors
- Demonstrated that regional synchronization of chaotic early after depolarizations causes ectopic beats and reentry, resulting in polymorphic ventricular tachycardia and fibrillation
- Discovered that the switch of macrophages from an inflammatory to an angiogenic, wound healing phenotype involves regulation of the phospholipase-Cbeta2 (PLCbeta2) isoform
- Discovered that endotoxin from gram negative bacteria (LPS) strongly suppresses expression of PLCbeta 1 and 2 isoforms in macrophages in vitro and in vivo
- Demonstrated that the Hypoxia-Inducible Factor-1alpha I.1 isoform is selectively induced in macrophages by adenosine, and plays an important role in the regulation of inflammatory and angiogenic cytokine expression
- Demonstrated that nicotine modulates GABAergic transmission to dopaminergic neurons in substantia nigra pars compacta

- Discovered that glycine receptors contribute to hypnosis induced by ethanol
- Demonstrated behavior and cellular evidence for propofol-induced hypnosis involving brain glycine receptors
- Demonstrated that ethanol enhances glutamate transmission by retrograde dopamine signaling in a postsynaptic neuron/synaptic bouton preparation from the ventral tegmental area
- Discovered that ethanol facilitates glutamatergic transmission to dopamine neurons in the ventral tegmental area
- Evaluated that the “protective” ventilation method in normal lungs in a pig study
- Identified that miR-145 is a novel phenotypic modulator of vascular smooth muscle cells and plays an important role in vascular lesion formation
- Demonstrated that miR-221 and miR-222 are critical for vascular smooth muscle cell growth and vascular neointimal lesion formation
- Discovered that microRNAs play important roles in isoflurane-mediated cardiac protection
- Identified microRNA expression profile in hearts with ischemic preconditioning
- Demonstrated that critical roles of PDCD4, microRNAs and KLF5 in cardiovascular diseases
- Developed a miRNA-eluting stent
- Demonstrated that Propofol may be an addictive drug
- Demonstrated the long-term impact of childhood physical abuse on weight into adulthood and suggested that physically abused children may be at risk for other adverse health outcomes associated with increased weight
- Identified the chromatin remodeling ATPase BRM as a global repressor of terminal differentiation in osteoblasts, making BRM an attractive therapeutic target for enhancing bone regeneration
- Demonstrated association of pRB with a tissue-specific promoter selectively during osteoblast activation, revealing a new activity for pRB as a transcriptional activator, and locating pRB at a pivotal point synchronizing induction of tissue-specific genes with the onset of cell cycle arrest
- Demonstrated that deficiency of the chromatin remodeling subunit ARID1A makes cultured primary baby rat kidney cells susceptible to transformation
- Determined that ARID1A deficiency corresponds to an oncogene complementation group represented by anti-apoptotic factors such as Bcl2
- Identified antagonistic roles for BRM and BRG1 SWI/SNF complexes in differentiation
- Explored the role of SWI/SNF-related complex components in osteoblast differentiation

- Examined the role of the p270 SWI/SNF subunit as a potential Wilms' tumor susceptibility gene
- Demonstrated the effect of local BMP in the treatment of segmental defect of femur in DM rat model
- Determined the effect of INSR and IGF1R osteoblast specific knockout upon fracture healing
- Examined the role of local insulin in the treatment of segmental defect of femur in non-DM rat model
- Developed a new therapy, Cladribine for multiple sclerosis. First oral therapy awaiting FDA approval
- Developed a metabolic model of carbon flow rerouting for *Mycobacterium tuberculosis* during immunity-induced stress by bacterial transcriptional analysis in vivo and in vitro, and by in silico simulations. The proposed model identifies common features between mycobacterial dormancy and stress responses across biological species
- Characterized the first complete immunoproteome (full protein complement inducing immune responses) of a human bacterial pathogen, indicating that immunoproteomics can shape immunodiagnostic and vaccine research and generate new knowledge on pathogen biology *in vivo*
- Completed two major antifungal drug studies that have helped to redefine guidelines for assessing drug resistance among prominent fungal infection
- Developed a novel method to image single molecules of mRNAs by in situ hybridization useful in a variety of cell biology research applications
- Solved the crystal structure of the C-terminal domain of Transcription Factor IIB (TFIIB) from *Trypanosoma brucei*, demonstrating that the TFIIB structure is divergent from other eukaryotic TFIIB structures
- Determined which regions of the protein were important for activity by in vitro transcription
- Discovered a specific DNA binding site for TFIIB at the Spliced Leader (SL) RNA gene promoter
- Developed a new agar-plate assay to evaluate quinolone antibacterials, including novel quinazoline-1,2-diones, for resistance likely to occur during treatment
- Elucidated quinolone killing pathways; one was shown to involve both chromosome fragmentation and production of reactive oxygen species
- Identified a novel family of GPI anchored proteins as putative adhesions, which provide the foundation for the future development of novel therapeutic approaches to block candidal adherence and enhance host defense
- Showed that the localization of competence proteins to the cell poles proceeds by diffusion and capture by an unknown anchoring protein, and the ensuing programmed de-localization depends on degradation of the putative anchoring protein McsBp

- Discovered that members of a disintegrin and metalloproteinase family of enzymes, namely ADAM10, ADAM17 and ADAM19, process in lysosomes and release into extracellular milieu MHC class I ectodomains in response to cytokines suggest a novel antigen presentation pathway regulated by ADAMs
- Established the suitability of a new mouse model based on HHDII strain for probing human cytotoxic T lymphocyte responses to candidate anti-tuberculosis vaccines
- Showed rapid cell killing of *M. tuberculosis*, including XDR isolates, with anaerobic shock
- Identified a general pathway of reactive oxygen species formation for a variety of lethal antimicrobial agents
- Established that the competence proteins of the *Bacillus subtilis* bacterium localize to the poles of the cell by a diffusion and capture mechanism, but delocalize via an energy driven process that involves degradation of an unknown anchor protein
- Showed that the wild type *Mycobacterium tuberculosis* produces androstenedione and androstadienedione from cholesterol, and a */fadA5/* mutant defective for this activity is attenuated, which points to the production of prohormones as a mechanism for modulation of the immune response
- Identified two */M. tb /*proteins which bind to the promoter of */fabD/*, which is part of one of the operons encoding proteins of the FasII system required for mycolic acid biosynthesis
- Reported on a novel PCR screening assay, which utilizes sloppy molecular beacon probes for the detection of mycobacteria
- Developed novel luminescent based molecular beacon probes
- Postulated a metabolic adaptation model of *M. tuberculosis* persistence based on *in vivo* transcription profiling of central metabolism and lipid metabolism
- Provided *in vitro* evidence showing that metabolic transformation during *M. tuberculosis* persistence is independent of substrate availability and this finding challenges the notion that establishment of persistence is coupled with a “diet” switch
- Developed a new inducible EBV cell line that upon tamoxifene treatment induces a 50 fold increase in EBV production and will increase the efficiency of infection of B cells
- Found using functional magnetic resonance imaging gender differences in brain regions active during emotion regulation at ages 10 to 12 years
- Found using functional magnetic resonance imaging that preadolescent children exposed prenatally to cocaine show less activation of brain regions than unexposed children during emotion regulation
- Found a direct relation between levels of prenatal exposure to cocaine and problems with inattention and inhibition, particularly for boys
- Found that self representation abilities in children with autism spectrum disorder are delayed relative to typically developing children



- Found that self representation abilities in children with autistic disorder are especially delayed relative to children with pervasive developmental delays spectrum disorder in addition to their delays relative to typically developing children
- Found that prenatal cocaine exposure is related to alterations in pubertal development, with exposed boys showing later physical development than unexposed boys and exposed girls showing higher levels of DHEA compared to unexposed girls
- Found that both neglect and harsh, punitive parenting interfere with the development of emotion knowledge in pre-school children
- Found that the frequency of bedwetting reported by children is related to their psychological adjustment
- Found that children's shame about their nighttime enuresis is related to their psychological adjustment
- Found that the effect of mothers' negative response to their children's enuresis on children's psychological adjustment is mediated by children's shame regarding their enuresis
- Found that parental punitiveness, IQ and parental neglect affect children's labeling, recognition, and understanding of emotional contexts for basic emotions such as happy, sad, angry, and fear. More punitive parenting leads to slower recognition of expression.
- Found that greater positive emotion during learning is related to better retention of a contingent response by young infants, likely related to better attentional responses as indexed by cardiac vagal tone
- Found that individual differences in anger and sad responses to blocked goals at 5-months are related to toddler persistence
- Found that individual differences in sad, but not anger, responses to blocked goals at 5-months are related to earlier tantrum onset, more frequent and more severe tantrums at 2 years by parent report
- Found that individual differences in anger and sad expressions occur when infants' goals are blocked at 5 months and that sad and blended expressions, but not anger, are related to differences in temperament, specifically soothability and distress to limits
- Found that neglected children's cortisol reactivity varies as a function of the number of neglectful incidents reported to child protective services
- Found that neglected children show differences in total immune, strep specific IgA and herpes simplex IgA as a function of individual differences in cortisol reactivity
- Found that shame mediates the relation between physical abuse and internalizing (e.g., anxiety and depression) symptoms among 7-year olds. Children who are physically abused and who exhibit shame are more likely to have internalizing symptoms as rated by their teacher
- Found that pre-vaccination cortisol levels are higher when 4-year-old children arrive at the doctors' office than at the same time of day at home, suggesting the occurrence of an anticipatory cortisol response to the impending stress

- Found that in first-grade children of depressed mothers, the risk for psychopathology was lower if they had insecure rather than secure attachments with their depressed mother
- Found that juvenile offenders who convert shame to blame are more likely to have been exposed to parental abuse and have had higher rates of violent behavior (i.e. assault or rape) as opposed to those who do not convert shame to blame
- Found relations between disgust sensitivity and psychopathology (i.e. obsessive compulsive disorder and phobic disorders)
- Found that aggression mediates the relation between substance abuse, parental abuse and successful completion of a residential academic and vocational training program for at-risk youths
- Found that intervention by a Child Life Specialist results in less distress behavior, both observed and reported, in children seen in the emergency department for laceration repair. Parents also rated the overall quality of care higher when their child received Child Life services
- Found that there is little concordance between observed distress and self-reported pain in children seen in the ER for laceration repair. Furthermore, children with high cortisol prior to the procedure showed more distress but reported less pain
- Discovered that Sudden Infant Death Syndrome in the absence of risk factors is extremely rare
- Found that the majority of Sudden Infant Death Syndrome cases contain multiple 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 the intensity of self-reported parental grief following a sudden infant death is not related to the infant's age at death
- Elucidated the role of lipoxins in ameliorating inflammatory diseases in neonates
- Quantified the inflammatory effects of phthalate plasticizers in neonatal neutrophils. These compounds, which are ubiquitous in the NICU environment, may contribute to chronic disease in this population
- Discovered that vitamin D plays a role in dampening neutrophil responses in neonates, possibly protecting them from inflammatory diseases
- Found that having a seriously unhealthy young child does not affect the parents' social interactions
- Found that neighborhood racial composition does not have an independent effect on birth weight, but that city racial composition may have an adverse effect
- 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 early prenatal care decreases the likelihood that the mother will smoke in the postpartum year and increases the number of well-baby health care visits that her child will receive
- Investigated the association between a child's weight and asthma
- Synthesized and characterized a novel non-camptothecin Top1-targeting anticancer drug, GENZ-644282, which has been licensed to Genzyme and is scheduled for clinical phase I trials
- Synthesized and characterized novel G-quadruplex stabilizers as anticancer agents
- Determined the crystal structure and autoactivation pathway of the precursor form of human tripeptidyl-peptidase 1, the enzyme deficient in late infantile ceroid lipofuscinosis
- Determined the identity of the enzyme responsible for removing the mannose 6-phosphate targeting modification from lysosomal proteins
- Devised and applied mass spectrometric methods to determine the basis for lysosomal storage disorders of unknown etiology
- Developed new computational algorithms for rapid prediction of pharmacological and toxic inhibitors of acetylcholinesterase using regression and classification machine learning approaches with combinations of molecular descriptors
- Developed NetCSSP, a novel computational tool for rapid prediction of chameleon sequences and amyloid fibril formation
- Constructed a novel computational framework for understanding, interpreting and predicting the clinically important family of regulatory proteins known as nuclear receptors in terms of the toxic side effects of xenobiotics
- Developed novel computational models to guide the rational design of nanolipoblockers as pharmacological agents useful for lowering cholesterol levels in humans
- Developed ebTrack, a novel computational tool useful as an integrated bioinformatics system for environmental research and analysis
- Discovered that the major human pregnane X receptor (PXR) splice variant, PXR.2, exhibits significantly diminished ligand-activated transcriptional regulation
- Discovered a novel microtubule polymerization inhibitor with potent antiproliferative and antitumor activity as a potential pharmacological treatment for cancer
- Developed novel hybrid computational tools for predicting activators of the human pregnane X receptor (hPXR)
- Evaluated the trans-sulfuration pathway in multiple liver toxicity studies
- Conducted metabolic and transcriptomic studies which show that the trans-sulfuration pathway in animals is disturbed by administration of hepatotoxicants leading to drug-induced liver injury and disease

- Conducted experimental and computational studies which show that specific interactions between the viral co-receptor CXCR4 and the novel biguanide-based compound NB325 mediate inhibition of human immunodeficiency virus type 1 (HIV-1) infection
- Discovered that the orphan nuclear receptor PXR is regulated preferentially by a specific isoform of the transcriptional corepressor SMRT
- Identified a novel small compound that binds and antagonizes the activity of a breast cancer related orphan nuclear receptor ERRα
- Showed the prostate cancer-related androgen receptor is regulated by post-translational modification by a small ubiquitin like protein NEDD8
- Showed that inactivation of a ubiquitous protein kinase eEF2 kinase specifically protects normal (non-cancer) cells and tissues from the toxic effect of chemotherapy and radiation therapy
- Developing small molecule eEF2 kinase inhibitors capable of specifically protecting normal cells from the toxic effect of chemotherapeutic treatment of cancer
- Demonstrated that cytoplasmic HuR levels can alter the degree of responsiveness to tamoxifen when the estrogen receptor is reintroduced in resistant breast cancer cells
- Demonstrated that high cytoplasmic HuR levels enhance responsiveness to gemcitabine treatment in pancreatic cancer cells by stabilizing the enzyme that metabolizes gemcitabine
- Demonstrated that HuR binds to the GATA3 3'UTR and is involved in increasing its stability
- Demonstrated that the estrogen receptor alpha can bind to the GATA3 3'UTR directly and is involved in increasing its protein translation
- Showed that the estrogen receptor alpha is an RNA binding protein that can alter protein translation
- Demonstrated that inhibition of IL4 re-establishes tamoxifen sensitivity in resistant, estrogen receptor negative breast cancer cell lines
- Showed that 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) significantly induces senescence in LNCaP prostate cancer cells regardless of the presence or absence of hypoxanthine
- Demonstrated that prostate cancer cells DU145, PC-3 and LNCaP cells are primarily dependent on de novo purine synthesis while the non-tumorigenic prostate cells (RWPE-1) largely favor salvage purine synthesis for the maintenance of their ATP pools
- Showed that ATP synthesis via the salvage of hypoxanthine is insufficient to support the growth of LNCaP cells but enough to restore ATP levels and support growth in RWPE-1 cells after the treatment of these cells with AG2034
- Demonstrated that the anti-proliferative effect of AG2034 involves increasing phosphorylation of AMP-activated protein kinase (AMPK)

- Showed that the treatment of LNCaP prostate cancer cells and RWPE-1 non-tumorigenic cells with AG2034 activates p53 and AMPK and increases the protein expression levels of p16, p27 and p21 in a time-dependent manner
- Demonstrated the formation of a heterotrimeric collagen model peptide and NMR evidence for its heterotrimeric nature
- Demonstrated evidence that short interruptions in the (Gly-X-Y)<sub>n</sub> sequence lead to local perturbations in the collagen triple-helix
- Discovered that interruptions of lengths less than 23 residues have a high beta-sheet propensity and can lead to amyloid type fibrils in some cases; this suggests some interruptions may play a role in molecular association to tissue forms of non-fibrillar collagens
- Demonstrated that Imino acid- aromatic residue CH... $\pi$  interactions may be important in the molecular association of collagen triple-helices to form fibrils and other higher order structures
- Defined the structural distortion caused when a Gly in the (Gly-X-Y)<sub>n</sub> repeating sequence is replaced by Ala, Ser, Arg, or Asp
- Demonstrated that Hmga2 was found to promote neural stem cell self-renewal in fetal and young adult mice by the negative regulation of the p16<sup>Ink4a</sup> and p19<sup>Arf</sup> genes
- Demonstrated that peptidyl-prolyl isomerase PIN1, which is frequently upregulated in human cancers in which Rel/NF- $\kappa$ B is activated, is an important regulator of Rel/NF- $\kappa$ B's transforming activity
- Discovered that ubiquitination is a key mechanism to regulate the anti-apoptotic protein Bfl-1 and that defective Bfl-1 protein turnover can predispose mice to leukemia/lymphoma
- Discovered the role of two actin-binding proteins in regulating gastrulation and neural tube closure
- Developed a novel technique to define chromosome architecture in yeast cell
- Discovered a role for the Ess1 isomerase in regulating the structure of RNA polymerase II
- Discovered distinct functions for the Pta1 scaffold protein in regulating transcription termination and mRNA processing
- Discovered a physiological role for gene loops
- Established that the condensed single-protein production system produces a single target protein in *E. coli*
- Identified 28 toxin-antitoxin systems in *E. coli*
- Discovered a novel mRNA interferase from a super halophilic archaeon, which specifically recognizes a seven-base RNA sequence
- Discovered that a new *E. coli* toxin called YeeV targets FtsZ, an essential protein from cell division

- Developed lentivirus system for prostate anti-cancer gene therapy based upon bacterial toxin
- Characterized four new bacterial-collagen like proteins which provide resource for the development of advanced biomaterials
- Elucidated the mechanism of regulation of cell sensitivity to anti-cancer drugs mediated by human YrdC protein
- Discovered three synergistic mechanisms that coordinate the leading and lagging strand synthesis during DNA replication
- Discovered that the transcription factor of the mitochondrial RNA polymerase interacts directly with the DNA to aid open complex formation
- Developed new fluorescence-based ways to study in real time the transition from transcription initiation to elongation
- Demonstrated that RNase R has two distinct activities, ribonuclease and helicase, and the latter is essential for its ability to complement the cold shock function of CsdA
- Demonstrated using DNA microarray analysis that overproduction of Csp proteins and IF1 lead to specific global changes of genes expression by suppressing transcription termination of specific genes
- Created a computer-based, highly specialized dietary analysis/energy expenditure program, tailor-made for the requirements of the nutrition course for medical students
- Determined the crystal structure of the precursor form of human tripeptidyl-peptidase 1, the enzyme deficient in late infantile ceroid lipofuscinosis (Batten disease), providing insight to the mechanism of auto-activation
- Identified the inactive and active conformations of the *Escherichia coli* response regulator PhoB
- Characterized the specificity of dimerization of *Escherichia coli* OmpR/PhoB family transcription factors in vitro and discovered a limited amount of heterodimerization
- Discovered a novel retroviral Env protein (CP) through a random library selection
- Identified the cognate host cell receptor (GPR172A) for the retroviral CP Env protein
- Discovered a new role for the yeast Cdc31/Centrin protein in protein degradation
- Determined that of the three Centrin homologs in human, only one, encoded by CEN3 is functionally similar to its yeast counterpart
- Discovered that Centrin binds a subset of proteasome subunits in the hexameric ATPase ring
- Determined that Rpn11 contributes to proteasome stability
- Discovered that multiubiquitinated proteins are not delivered to proteasomes in an rpn11-1 mutant

- Discovered that multiubiquitinated proteins are targeted to the proteasome, and accumulate to high levels due to a failure to degrade them
- Discovered that the carboxy-terminus of Rpn11 contributes to proteasome stability
- Established that the carboxy-terminus of Rpn11 can partially complement the rpn11-1 mutation in *trans*
- Discovered that loss of both Rpn11 and Rpn10 results in synthetic lethality that cannot be suppressed by the carboxy-terminus of Rpn11
- Identified novel factors in association with the carboxy-terminus of Rpn11 that facilitate proteasome assembly
- Detected a new interaction between Rpn11 and Rpn3
- Obtained crystals of human mRNA capping enzyme guanylyltransferase domain and X-ray diffraction data at 3.1 Å resolution
- Constructed human mRNA methyltransferase point and truncation mutants for structure/function analyses
- Determined the crystal structure and auto-activation pathway of the precursor form of human tripeptidyl-peptidase 1, the enzyme deficient in late infantile ceroid lipofuscinosis
- Identified the inactive and active conformations of the Escherichia coli response regulator PhoB
- Characterized the specificity of dimerization of Escherichia coli OmpR/PhoB family transcription factors in vitro and discovered a limited amount of heterodimerization
- Identified the key phosphorylation code on the PERIOD protein that controls the speed of circadian clocks, endogenous pacemakers that drive daily rhythms in physiology and behavior, such as our wake-sleep cycles
- Showed that natural variation in the splice sites strengths of a key clock component is the basis for species-specific behavioral responses to seasonal changes in temperature, i.e. RNA-RNA interactions help direct thermal adaptation
- Developed mouse transgenic system to investigate in vivo function of ENGRAILED 2 autism risk alleles
- Demonstrated an essential role for the orphan nuclear receptor Nr4a2/Nurr1 in specifying retinal GABAergic and dopaminergic neurons
- Developed an E. coli expression system for producing native, disulfide-bonded, isotope-enriched secreted and membrane-bound proteins involved in human cancer protein interaction pathways for 3D structure characterization
- Solved the NMR structure of a computationally designed thermostable peptide
- Computationally designed a novel, two-component collagen peptide hydrogel for use in biomaterials applications

- Developed a software platform for predicting beta-barrel orientation in the outer membrane of bacteria and mitochondria
- Discovered a new class of hydrogen bonds that modulate the stability and catalytic activity of metallo-enzymes
- Demonstrated that peptidyl-prolyl isomerase PIN1, which is frequently upregulated in human cancers in which Rel/NF- $\kappa$ B is activated, is an important regulator of Rel/NF- $\kappa$ B's transforming activity
- Identified an important target gene for Smad3 tumor suppressive function
- Determined the identity of the enzyme responsible for removing the mannose 6-phosphate targeting modification from lysosomal proteins
- Devised and applied mass spectrometric methods to determine the basis for lysosomal storage disorders of unknown etiology
- Produced large quantities of the hepatitis C virus envelope protein 2 capable of blocking virus infection and sensing changes in pH
- Demonstrated that altering neuronal excitability of distinct regions of the brain affects sleep and impacts survival during bacterial infection in *Drosophila*
- Showed that allelic loss of beclin1 compromises the autophagy potential of immortalized mouse mammary epithelial cells (iMMECs) in vitro and in mammary tumors in vivo, sensitizes iMMECs to metabolic stress and accelerates lumen formation in mammary acini
- Showed that autophagy defects also activate the DNA damage response in vitro and in mammary tumors in vivo, promote gene amplification, and synergize with defective apoptosis to accelerate mammary tumorigenesis
- Discovered functional analysis of MTDH and revealed its dual role in promoting tumor cell adhesion to endothelial cells and enhancing chemoresistance
- Demonstrated a novel approach to identify key mediators of metastasis through innovative analysis of expression profiling data and established MTDH as an important therapeutic target for breast cancer
- Demonstrated the inhibitory effect of voluntary running wheel exercise on the growth of human pancreas Panc-1 and prostate PC-3 xenograft tumors in immunodeficient mice
- Developed a cell-based screen for apoptosis induction using the isogenic apoptosis-competent and –defective cell lines developed in the White laboratory
- Created the crystal structure of Bfl-1/A1 that will be critical for understanding the mechanism by which it regulates apoptosis and for the development of inhibitors
- Discovered that PLK1 interacts with myosin phosphatase targeting subunit1 (MYPT1)
- Showed that the Suv4-20 (histone methyltransferase for histone H4 lysine 20) mediates di- and trimethylation of this histone and its loss is associated with increased monomethylation at this site, but is not required for survival



- Identified novel regulation of alternative mRNA splicing by caffeine
- Identified requisite cis-acting sequences
- Discovered the effects of caffeine in studies mimic alternative splicing seen in many cancers and thus caffeine serves as an important tool to dissect mechanisms of regulation of gene expression and ultimately of cancer development and cancer cell growth
- Showed that HMGA2 is highly expressed in fetal neural stem cells but decreases due to expression of let-7b microRNA
- Showed in studies of HMGA-2 knockout mice that HMGA-2 promotes stem cell self-renewal
- Showed that the alpha pyronin antibiotic, myxopyronin, and related antibiotics, bind to this switch and interfere with its opening thus blocking bacterial transcription
- Demonstrated that Nrf-2 knockout mice are more susceptible to colitis-associated colorectal cancer
- Demonstrated the synergistic mechanism of inhibition by the combinations of sulforaphane and PEITC or sulforaphane and curcumin
- Studied the gene expression changes caused by soy isoflavones in the prostate of Nrf-2 deficient and wild-type mice
- Demonstrated that ISG15 (Interferon-Stimulated Gene 15) is a novel tumor marker and is a tumor biomarker for CPT sensitivity
- Synthesized a class of non-camptothecin Top1 inhibitors that are berberine-based
- Identified Hes1 as essential for quiescence
- Demonstrated the key role of Pak-4 protein kinase in cell survival and tumorigenesis in cell culture and athymic mice
- Discovered a new checkpoint which monitors crossover formation and depends on the conserved Pch2 protein
- Reported that RAD52 and BCCIP/BRCA2 may represent two parallel pathways for recombinational repair of DNA damage
- Found that BCCIP is required for the transactivation activity of p53 protein, which raised the question as to whether lack of BCCIP expression is correlated with clinical outcomes for DNA damage based therapy
- Found that lack of BCCIP in p53 wild type laryngeal cancers is correlated with poor therapeutic outcome after radiation therapy, which suggest BCCIP as a marker for prognosis
- Demonstrated the tumorigenic effect of some commonly used moisturizing creams

- Indicated that treatment of high risk mice with Dermabase, Dermovan, Eucerin, or Vanicream for 17 weeks increased the total number of histologically characterized tumors by 69% (average of 2 experiments;  $p < 0.0001$  in each experiment), 95% ( $p < 0.0001$ ), 24% ( $p < 0.01$ ) and 58% ( $p < 0.0001$ ), respectively
- Indicated that several commercially available moisturizing creams increase the rate of formation and number of tumors when applied topically to UVB-pretreated high risk mice
- Elucidated the effect of caffeine on the ATR/Chk-1 pathway in the epidermis of UVB-irradiated mice
- Indicated that administration of caffeine enhances the removal of DNA-damaged cells by inhibiting the ATR-mediated phosphorylation of Chk1 and prematurely increasing the number of cyclin B1-containing cells that undergo lethal mitosis
- Studied the effect of caffeine on UVB-induced carcinogenesis, apoptosis, and the elimination of UVB-induced patches of p53 mutant epidermal cells in SKH-1 mice
- Studied the structure-activity relationship in the inhibitory effects of caffeine analogues on neoplastic transformation
- Showed the aberrant expression of a neuronal receptor, metabotropic glutamate receptor 1 (GRM1), in melanocytes is sufficient to induce spontaneous melanoma development in vivo
- Identified a second major signaling pathway to also play an important role in GRM1-positive melanoma cell growth
- Found that breast cancers in women carrying a germ line BRCA1 mutation reveal defects in the maintenance of a normal, inactive X chromosome (Xi) and are phenotypically similar to sporadic basal-like cancers
- Showed that TLR activation of B cells leads to increased stability of a series of mRNAs encoding proteins involved in B cell response, through effects on the polypyrimidine binding tract protein
- Found that Cdk2 phosphorylates Smad2 on Thr 8 in myeloma cells, leading to inhibition of Smad2-Smad4 association thus, providing the first direct evidence that phosphorylation of Smad2 couples deregulation of Cdk2 to TGF- $\beta$  resistance in primary cancer cells
- Demonstrated increased oxidative stress and antioxidant expression in mouse keratinocytes following exposure to paraquat
- Found that paraquat readily undergoes redox cycling in both undifferentiated and differentiated keratinocytes, generating superoxide anion and hydrogen peroxide as well as increased protein oxidation which was greater in differentiated cells
- Found Paraquat treatment also resulted in increased expression of HO-1, Cu,Zn-SOD, catalase, GSTP1, GSTA3 and GSTA4
- Demonstrated that paraquat induces oxidative stress in keratinocytes leading to increased expression of antioxidant genes

- Found that in addition to the accumulation of damaged proteins, autophagy-defective cells and tumors also accumulate abnormal organelles including mitochondria, which can be an additional source of oxidative stress
- Showed that inhibiting Bcl-2 with ABT-737 works effectively in combination with either taxane or platinum chemotherapy, which targets anti-apoptotic Mcl-1
- Demonstrated activation-induced subunit rearrangements within ASTRC and identify chaperone Hsp27 as a novel subunit that is itself an ARE-binding protein essential for rapid ARE-mRNA degradation
- Developed image analysis and segmentation methods for automated grading of prostate cancer histopathology (over 90% accuracy)
- Developed CAD methods for identifying malignant regions on multi-protocol MRI based on their morphological, contrast kinetic, and metabolic attributes
- Developed segmentation methods for extracting the prostate boundary on endorectal in vivo MRI scenes, and also co-registration tools for aligning and fusing data from multi-protocol MRI scenes and also for registering whole mount prostatectomy histological and MRI scenes
- Demonstrated that a novel class of transient voltage potential-1 protein antagonists are effective topical anti-inflammatory agents
- Discovered that toxicity induced by redox cycling enzymes is not dependent on flavin-containing enzymes
- Identified two estrogen catechols that are potent generators of reactive oxygen intermediates
- Used microarray technology to demonstrate that a methoxychlor metabolite regulated rat ovarian granulosa cell transcription in vitro
- Discovered that paraquat, a herbicide used in rodent models of Parkinson's disease, readily accumulates in the brain
- Showed that reduced vesicular storage of dopamine exacerbates methamphetamine-induced neurodegeneration and astrogliosis
- Determined that developmental heptachlor exposure increases susceptibility of dopamine neurons to N-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP) in a gender-specific manner
- Identified bifunctional acetylcholinesterase inhibitors and non-steroidal anti-inflammatory agents that were effective inhibitors of vesicant-induced inflammation
- Demonstrated that the central nervous system effects of developmental lead exposure are enhanced by combined maternal and offspring stress
- Identified cytochrome b5 reductase as a mediator of redox cycling of diesel exhaust generated phenanthrenequinone
- Discovered that that hypoxia stimulates synthesis of the acute phase protein lipocalin-2 in isolated macrophages

- Showed increased oxygen utilization during redox cycling is dependent on NADPH cytochrome P450 reductase
- Developed a high throughput assay for DNA damage
- Demonstrated that in utero exposure to the pyrethroid pesticide deltamethrin causes long-term changes in sodium channel subunit expression in the brain
- Demonstrated that increased serum levels of beta-hexachlorocyclohexane are associated with increased risk of Parkinson's disease
- Showed that in utero pesticide exposure causes epigenetic alterations in the brain
- Discovered that the pyrethroid pesticide deltamethrin causes apoptosis through the ER-stress pathway
- Developed a novel zebrafish model of ADHD based on developmental pesticide exposure
- Demonstrated that developing zebrafish are a valid model for studying the developmental effects of pesticide exposure
- Discovered that D1 dopamine receptor alterations mediate the behavioral deficits observed in a novel mouse model of ADHD
- Discovered that treadmill gait analysis is not sensitive enough to detect motor dysfunction in animal models of Parkinson's disease and Amyotrophic Lateral Sclerosis
- The MENTOR (MOdeling ENvironment for TOtal Risk studies) has been validated as a novel framework for source-to-dose exposure analyses for individuals and populations and now incorporates new methods for exposure reconstruction by combining biomarker, and genomic data with environmental information through a Bayesian approach
- Provided a first link for modeling a toxicant's movement from a source to a health effect through the the DORIAN (DOse Response Information ANalysis) system for multiple elements of the toxicant dose-to-outcome sequence
- Completed a computer-based, planning support system for Areal Characterization of Hazard Impact and Location for Local Emergency Situations in New Jersey (ACHILLES-NJ) that is now part of the Department of Health and Senior Services computerized health response system call Hippocrates. ACHILLES provides screening of the impact tool from atmospheric releases of hazardous materials from chemical facilities and transportation related incidents in the State of New Jersey
- Validated the first sensitive and reliable method to measure hexavalent chromium, a human carcinogen, in human exposure and epidemiological studies
- Determined that the enrichment of hexavalent chromium in fine particulate matter size fraction for the soil particles collected from the chromium waste sites in Hudson County, NJ will increase risk

- Determined that there are significant differences in the time-activity location patterns between the socioeconomic disadvantaged group and the general US general population because socioeconomic disadvantaged group spent significant more time outdoors in neighborhoods with sources of air toxics resulting in more significant health risks
- Demonstrated that permethrin was at detectable levels on seats and tray tables of aircraft flying international routes which will result in exposures to passengers and flight attendants during a trip
- Demonstrated that long-chain aldehydes, formed by ozone reactions in aircraft, are present at levels that can explain a variety of symptom reports in aircraft for eye aching, a sense of claustrophobia, headaches and nausea
- Demonstrated that for the National Children's Study to test environmental toxicants hypotheses for human exposure – health response relationships - a robust integration of modeling and measurements will be required and that an Exposure Index will be essential during the initial phases of the 21 year study
- Demonstrated that lead present in artificial turf fibers are released from aged athletic turf fields and cause exposures to lead among athletes, especially younger children
- Analyzed different risk assessment and exposure scenarios for Native Americans and subsistence fishermen around former U.S. Department of Energy sites and their workers
- Analyzed the risk-benefit tradeoff for fish consumption: methyl mercury versus omega-3 fatty acids
- Demonstrated prevalence of cultural/superstitious uses of mercury in New Jersey
- Analyzed household dust concentrations and childhood exposure to hexavalent chromium in New Jersey
- Completed neurobehavioral evaluation of 130 construction painters exposed to solvent mixtures and 130 unexposed controls from the construction trades
- Collaborated with Mt. Sinai Medical School to complete a study of solvent exposed workers with preliminary results suggesting reduced activation patterns during task performance among solvent exposed relative to controls
- Conducted translational study of 80 lead exposed workers and controls to evaluate the effects of chronic lead exposure on HPA axis function
- Developed a pilot study to determine neurobehavioral effects of pesticide exposure among children in Thailand
- Developed protocols for study of the interaction of air pollutants and stress among children
- Quantified 1-aminopyrene in human urine after a controlled exposure to diesel exhaust to develop a biomarker for diesel exposure in the field
- Completed study of symptoms and explanatory labels in 1990-1991 US Gulf War veterans

- Demonstrated acute changes in heart rate variability in Type II diabetics following a highway traffic exposure
- Demonstrated triggering of transmural infarctions, but not non-transmural infarctions, by ambient fine particles
- Completed physiologic and air pollution data collection in Beijing on 130 subjects exposed to the drastic air quality changes before, during, and after the 2008 Olympics
- Continued pilot physiologic studies of mild-to-moderate asthmatics acutely exposed to diesel exhaust
- Initiated pilot physiologic studies of COPD subjects exposed to rush hour traffic
- Refined methods for collection of exhaled breath condensate for measurement of oxidative stress
- Showed that a carcinogenic dose of NMU disrupts circadian rhythm in rat mammary gland (target organ)
- Demonstrated that a chemopreventive regimen methylselenocysteine restores circadian rhythm in mammary tissue
- Showed that chemopreventive MSC enhances the rhythmic expression of core circadian and circadian controlled genes, including the melatonin receptor, estrogen receptor beta, and several growth control genes
- Demonstrated that the FRY gene suppresses the growth of human mammary carcinoma cells
- Used bioinformatics to demonstrate that loss of FRY expression is associated with a more aggressive breast cancer phenotype
- Described liver steatosis as the major phenotype associated with CBF-A (hnRNP A/B) null phenotype in mice
- Demonstrated a No Transcriptional Effect Level (NOTEL) and a corresponding No Detectable DNA Adduct Level (NODAL) in human lung cells exposed to carcinogen
- Validated the use of cell-SELEX to identify biomarkers associated with HPV-induced cell transformation
- Found that the anticancer drug Taxol activates latent HIV-1, which has implications for treatment of infected patients and for virus eradication
- Discovered that eukaryotic release factor 1 can modulate HIV-1 programmed ribosomal frameshifting, which is essential for HIV-1 replication. This points to a novel target for anti-HIV-1 drug development.
- Found that antisense transcription from the HIV-1 promoter is a predominant force in establishing HIV-1 persistence for a subpopulation of latently infected cells that are more resistant to reactivation and not transcriptional interference from the cellular gene into which the virus genome is integrated
- Proposed novel mechanism for malaria parasite interaction with endothelial cells

- Identified elements with the ribosome that are altered in the presence of selenocysteine incorporation factors
- Developed a novel in vitro assay for studying complex formation among the factors required for selenium utilization
- Explored the phylogenetic history of SECIS binding proteins in order to decipher the evolutionary constraints for selenium utilization
- Identified the protein domain within the selenocysteine specific elongation factor that interacts with SECIS binding protein 2
- Developed novel antagonists of Type I interferons for research use and possible application to the treatment of lupus and other autoimmune diseases
- Identified that hnRNP A1 is required for Sindbis virus replication
- Demonstrated that far upstream element binding protein 2 (FBP 2) interacts with enterovirus 71 internal ribosomal entry site (IRES) and negatively regulates viral translation
- Demonstrated that molecular chaperone Hsp27 is an RNA-binding protein that promotes degradation of messenger RNAs encoding cytokines in monocytes
- Discovered that RNA-binding protein AUF1 and Hsp27 form a complex with other molecular chaperones and translation initiation factors
- Developed a genetic system to examine the roles of RNA-binding proteins in cytokine gene expression
- Showed that RNA-binding protein AUF1 is required for expression of anti-inflammatory interleukin-10 gene expression
- Revealed the role of indoleamine 2, 3-dioxygenase in human mesenchymal stem cell-mediated immunosuppression
- Established the critical function of C/EBP $\beta$  in inflammatory cytokine-induced iNOS and IL-6 expression
- Identified how apoptotic cells induce immunosuppression
- Demonstrated the role of plasma osteopontin in chronic restraint stress-induced thymus atrophy
- Developed an effective way for the isolation of intestinal epithelial lymphocytes and found the role of IL-4 in regulating the survival of these cells
- Determined mutations in translation elongation factor 1A that affect the actin cytoskeleton are not part of the TOR signalling pathway
- Determined loss of a translation elongation factor results in altered expression of stress response proteins via effects on the vacuole

- Determined that yeast strains resistant to diphtheria toxin are not due to the loss of the ability of the toxin to ADP ribosylate the protein
- Revealed genetic structures of copy number variants on a large scale
- Determined chromosomal regions with loss of heterozygosity in a cancer cline MFC-7
- Revealed a possible new mechanism that lipopolysaccharide potentiates hydrogen peroxide toxicity in T98G astrocytoma cells
- Reconstituted a stable functional interferon-alpha receptor complex into heterologous cell lines using only plasmids encoding cDNAs of the two chains
- Developed a bicistronic expression system to visualize mesenchymal stem cells synthesizing interferons or other antitumor biotherapeutics in living mice
- Determined optimal donor:acceptor fluorescent proteins pairs for spectroscopy, fluorescence microscopy or fluorescence-activated cell sorting
- Utilized fluorescence resonance energy transfer to demonstrate the localization of interferon-gamma receptor chains within lipid rafts
- Developed fluorescence models to illustrate the ease of detection of interactions among three or four fluorescent proteins of other fluorescent markers
- Discovered that the neuropeptide VGF mimics the behavioral and biochemical effects of lithium in an animal paradigm of bipolar disease
- Showed that the neuropeptide VGF has antidepressant-like properties that replicate the time course of clinical antidepressants
- Demonstrated that the neuropeptide VGF enhances proliferation of adult neural progenitor cells from the hippocampus
- Showed that the toxic proBDNF pathway is stimulated following injury to the nervous system
- Established animal model for the study of traumatic brain injury
- Examined the cellular and epigenetic consequences of traumatic brain injury
- Examined the role of histone deacetylases in mediating axonal and cellular degeneration following traumatic brain injury
- Discovered that the autism associated gene, Engrailed 2 that controls hindbrain development has a major impact on forebrain monoamine neurotransmitters that control attention, mood and repetitive behaviors, all symptoms associated with autism
- Discovered that exposure during gestation to the neurotherapeutic anticonvulsant, valproic acid can lead to brain macrocephaly with increased neurons postnatally
- Showed that the PACAP ligand and receptor system is required for normal development of the hippocampus, and that when deficient there is increased neuronal cell death



- Demonstrated that IGF1 signaling during cerebral cortical development regulates generation of neurons
- Demonstrated in a paper published in *Developmental Dynamics* that the divergent hox gene *Prox1* plays an interneuron-specific role in regulating neurogenesis in the CNS
- Discovered that Tcf proteins regulate Sonic Hedgehog target gene expression in the ventral CNS
- Developed mouse transgenic system to investigate in vivo function of ENGRAILED 2 autism risk alleles
- Discovered that metabotropic agonists elicit the release of BDNF from astrocytes and oligodendrocytes
- Determined that BDNF injected into the corpus callosum reverses deficits in oligodendrocytes elicited in a model of demyelination
- Determined that BDNF injected into the lateral ventricle reverses deficits in oligodendrocytes elicited in a model of Alzheimer's disease
- Discovered that the cell's primary cilium functions as a gravity sensor and regulates transcriptional noise
- Demonstrated that one of the opioid receptors-MOR-1-is involved in weight control. Mutant mice lacking this receptor have larger body mass and altered insulin secretory dynamics
- Showed that pharmacologic properties consistent with in vivo opioid receptor heterodimer formation emerged from analysis of opioid system knock-out mice
- Discovered that during development cell proliferation in the hippocampus demarcates 2 distinct regions prior to the appearance of most of the neurons
- Discovered that gene expression in the developing neocortex of the mouse includes about one-third of the genome and that the expression similarity of co-expression of the transcripts is scale-free
- Developed a comprehensive model of neurogenesis that accounts for both cell number and cell class during normal and disrupted development of the retina
- Investigated the role of miRNA and mRNA networks and their regulation of transcription factors in the differential expression of genes in the brain of the adult mouse
- Continued analysis of the genetic basis of individual variation in the anatomy of the hippocampus of the mouse. The hippocampal formation of 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
- 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

- Developed a general model of the molecular interactions occurring during cell proliferation in the developing neocortex
- Showed through mutagenesis experiments that the actin regulatory protein, tropomyosin, bind actin via regions that have a destabilizing coiled-coil interface
- Identified primary and secondary actin binding sites on tropomyosin, and showed that destabilization of the coiled coil interface can convert a secondary site into a primary site
- Individual actin binding sites on tropomyosin can contribute in two ways to overall binding, by influencing the cooperativity as well as affinity of binding
- Assays of tropomyosin function in intact cardiac cells showed the contribution of periodic site 3 (of seven sites) influences cooperative activation of contraction by myosin
- Constructed a phylogenetic tree showing the molecular evolution of chordate tropomyosin genes, identified the most conserved residues, and related the findings to the structure and to disease-causing mutations
- Constructed a phylogenetic tree showing the molecular evolution of fungal tropomyosin genes, identified the most conserved residues, and found that many of them are also conserved in human tropomyosins
- Determined on tropomodulin molecule three phosphorylation sites for TRPM7 kinase: Ser2, Thr54 and Ser163
- Showed that phosphomimic mutation T54E causes loss of tropomodulin capping ability
- Determined dissociation constants for binding tropomodulin isoforms 1, 2 and 3 to muscle and non-muscle tropomyosins
- Determined residues in tropomodulin responsible for differences in isoform-specific tropomyosin binding
- Discovered that chronic caffeine ingestion protects dopamine cell bodies in the substantia nigra but does not protect against dopamine nerve terminal loss in a rat chronic model of Parkinson's disease
- Discovered that the angiotensin converting enzyme inhibitor captopril is neuroprotective towards dopamine neurons in a chronic rat model of Parkinson's disease
- Showed that the total content of glutathione is elevated in the brains of parkinsonian rats
- Discovered that the pro-inflammatory cytokine TNF $\alpha$  is increased in the striata of rats chronically exposed to the dopamine neurotoxin MPP+
- Unraveled that the mechanism of neuroprotection of the anti-epileptic drug zonisamide in a mouse model of Parkinson's disease was due to inhibition of monoamine oxidase
- Discovered a gene that acts in mothers of autism cases during pregnancy to eliminate contributions to the clinical picture of autism in their affected children, a gene that may act by an immune mechanism
- Discovered a gene that acts in individuals with autism to contribute to their autism clinical picture, a gene that may ameliorate oxidative stress in the affected individual

- Studied mechanisms of genes that act in mothers during pregnancy to contribute to the clinical picture of neurodevelopmental disorders in their offspring and discovered a small number of unifying mechanisms
- Discovered that IFN-beta inhibits Toll-like receptor 9 processing in patients with multiple sclerosis
- Determined the regional distribution for glutaredoxin-1 message in brain. Decreased message in the striatum was found to be consistent with low enzyme activity and protein
- Showed that glutaredoxin-1 and glutaredoxin-2 message is present in neurons but not in astrocytes
- Demonstrated that the major metabolite of dopamine, i.e., DOPAC, when oxidized, was equipotent to dopamine in inhibiting mitochondrial function
- Provided evidence that the quinone of dopamine and DOPAC were responsible for disruption of mitochondrial electron transport and that the sites of inhibition were at complexes I and III
- Demonstrated the irreversibility of inhibition of complex I by dopamine at a site unmasked by active electron flow
- Showed that a liposomal formulation of glutathione was 100-fold more potent than glutathione in replenishing intracellular levels in mesencephalic cultures
- Demonstrated that liposomal glutathione had to be hydrolyzed prior to synthesis and replenishment of intracellular glutathione
- Discovered that a specific microRNA down-regulates expression of the Parkinson disease-associated protein alpha-synuclein resulting in neuroprotection
- Demonstrated that the GDNF-inducible transcription factor (GIF) gene promoter is activated by glucocorticoids and progesterone
- Showed that the dopamine receptor regulating factor (DRRF) autoregulates its own gene transcription
- Uncovered potential biomarkers of treatment response in Multiple Sclerosis
- Demonstrated a therapeutic effect for BDNF gene transfer in an animal model of Multiple Sclerosis
- Discovered the mechanism of age-dependent self-tolerance in MBP-specific T cells
- Discovered the suppressive function of HLA-DR2a-restricted MBP-specific Foxp3 regulatory T cells in spontaneous experimental autoimmune encephalomyelitis
- Demonstrated the lifestyle and nutrition of patients with epilepsy are not maximized to prevent bone loss. Patients who undergo DXA scan are more likely to take calcium and vitamin D supplement to improve bone health

- Revealed the relationship between rhythmic non-classical EEG abnormalities and neuropsychiatric symptoms in patients as well as responses to pharmacological treatments
- Demonstrated EEG pattern recognition in patients with intractable epilepsy and undergoing intracranial EEG studies. Co-PI. Manuscript 'Feature Extraction of Linear Predictors at Spectral Bands of Interests' (in press)
- Received funding to develop 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
- Initiated a newly funded project to investigate the angiogenic response to selective internal radiation therapy
- Received best paper and NIH travel award to present scientific findings at IEEE International Symposium on Biomedical Imaging
- Developed reliable approach for classifying imaged pathology specimens based upon their staining characteristics and protein expression signatures
- Demonstrated that the receptor Roundabout negatively regulates E-Cadherin levels at the cell membrane in the *Drosophila* heart and large intestine
- Showed that increasing Slit and Roundabout signaling in the large intestine causes ectopic microvilli formation
- Discovered that the cytokinesis gene *RacGap50C* is required to maintain the uniform array of microtubules in the *Drosophila* myotube
- Developed new reagents for in vivo imaging of actin nucleation in *C. elegans*
- Demonstrated that the WAVE/SCAR actin nucleation complex guides axonal migrations
- Demonstrated that the WAVE/SCAR actin nucleation complex is required at either apical or basal regions of epithelial cells during morphogenesis
- Demonstrated that the ATPase Rme-1 acts with amphiphysin to regulate membrane tubule formation
- Discovered that the SM protein, Sec1p, is required for both secretory vesicle docking and SNARE-mediated membrane fusion
- Demonstrated that VEGF increases the leakiness of the blood brain barrier during cerebral ischemia and hyperosmolarity in the rat
- Showed that erythropoietin protects the blood brain barrier during cerebral ischemia
- Demonstrated the exogenous excitatory amino acids increase permeability of the blood brain barrier during cerebral ischemia in rats
- Demonstrated that activation of the sarcoplasmic reticulum  $\text{Ca}^{2+}$ -ATPase (SERCA) is an important controller of the action of the cyclic GMP signaling system in both control and hypertrophic cardiac myocytes

- Showed that hypoxia inducible factor-1 improves the action of positive inotropic agents in stunned cardiac myocytes
- Discovered a newly identified protein TPC2 is the long-searching NAADP receptor, which mobilizes Ca<sup>2+</sup> from lysosomes and plays important physiological roles in animal cells
- Demonstrated that autoantibodies from a subset of advanced type 2 diabetes may contribute to diabetic vascular complications by activating Rho kinase and apoptosis in endothelial cells
- Discovered a role for calcium-insensitive phospholipase A2 (iPLA2) in the regulation of calcium release in skeletal muscle
- Showed that mitsugumin 53 (MG53) can bind phosphatidylserine during membrane repair
- Demonstrated the molecular machinery necessary for store-operated calcium entry in skeletal muscle
- Discovered that stimulation with emotional pictures presented at 0.1 Hz produces large heart rate variability responses at 0.1 Hz, with larger responses to pictures evoking negative emotions
- Discovered that exposure to an experimentally introduced endotoxin (lipopolysaccharide) decreases heart rate variability (HRV) which increases endogenous inflammatory cytokines, and that HRV effects are increased by exposure to epinephrine although cytokine production is reduced
- Discovered that physiological monitoring gives added predictive strength to self-report measures regarding work load in a flight simulator among professional airline pilots
- Discovered that particularly high-workload flight simulator tasks produce hyperventilation in some professional pilots
- Identified and validated PALB2/BRCA2-interacting proteins using tandem affinity purification, mass spectrometry, molecular cloning and immunoprecipitation
- Defined the functions of the newly identified/validated PALB2/BRCA2 binding proteins in the DNA damage response, cell cycle regulation and cellular resistance to drugs
- Defined the mechanism of PALB2 function in the DNA damage response and developed mouse models of PALB2/BRCA2-associated breast cancer
- Investigated the potential role of GLS2 in preventing tumorigenesis through its regulation of cellular energy metabolism
- Investigated the roles of a BRCA2 interacting protein BCCIP in the protection of genomic integrity and cell cycle regulation
- Investigated association of RAD52 with replication blockage
- Investigated the role of cytoskeleton protein filamin-A in DNA homologous recombination and cell mobility

- Completed basic science experiments demonstrating enhanced radiation sensitivity targeting 53BP1
- Completed a study evaluating polymorphisms in 53BP1 as risk factors for local relapse
- Completed basic science experiments demonstrating enhancement of radiation sensitivity in cell lines with the concurrent use of Riluzole
- Completed and published a study demonstrating increased local relapse rates in patients overexpressing BCL-2
- Completed and published a study evaluating the prognostic significance of tubular histology in breast cancers
- Completed and published a study in collaboration with Princeton University evaluating this novel gene as a potential target in breast cancer
- Completed and published a study evaluating the significance of ERCC1 in early stage breast cancer
- Evaluated the toxicity and efficacy of conventional 10-fraction, 5 day course of accelerated partial breast irradiation vs compressed 2 day short course treatment
- Evaluated the toxicity and efficacy of accelerated whole breast or chest wall radiotherapy; the conventional 6 week course is compressed to 3 weeks
- Initiated a Phase I/II clinical trial on partial breast irradiation using Acculoc seeds to increase day to day reproducibility and accuracy of treatment
- Investigated the clinicopathologic presentation of Asian-Indian American women with stage 0-2 breast cancer
- Investigated the use of electronic tissue compensation for whole abdominal radiotherapy
- Investigated the clinicopathologic significance of ERCC1 expression in patients treated with breast conserving therapy
- Investigated the 4 year cosmetic outcomes in patients treated with Mammosite brachytherapy
- Evaluated acute toxicity in patients treated with concurrent bevacizumab & radiotherapy
- Evaluated utilization of radiotherapy in Stage 0-2 breast cancer patients treated in New Jersey
- Determined the optimal timing for initiation of APBI
- Investigated image registration and segmentation to improve treatment accuracy and quality in image guided radiotherapy and exploration of potential adaptive radiotherapy
- Evaluated physical characteristics of brachytherapy source with time dependent energy spectrum to improve both dosimetric accuracy and radiation safety
- Developed fluoroscopy based dynamic tracking technology to potentially optimize radiation treatment for a moving target volume

- 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
- Continued 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
- Continued studies of the differential regulation of monocyte and neutrophil cell-surface receptors associated with the inflammatory response in human volunteers administered intravenous endotoxin
- Continued gene expression by microarray analyses in purified subsets of blood leukocytes (monocytes, T-lymphocytes, neutrophils) after endotoxin administration to human volunteers who were pretreated with counter-regulatory endocrine hormones including cortisol and epinephrine
- Continued use of more advanced bioinformatics approaches for analysis of microarray data
- Completed a study to compare a novel microfluidics approach to prepare peripheral blood leukocytes with a “standard” buffy coat approach after endotoxin administration to human volunteers
- Initiated a study (in collaboration with Mass General Hospital-Harvard Medical School) to use a microfluidics approach to prepare subsets of peripheral blood leukocytes (monocytes, neutrophils and T-lymphocytes) for subsequent RNA preparation and microarray analyses
- Received basic training in the use of the FACSCanto II flow cytometer and FACSDiva software and initiated its use in the laboratory
- 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
- 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  $\alpha$  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 presenting a 3D computational model of integrin-based cohesion
- Showed that highly aggressive brain tumor cell lines cannot assemble fibronectin into a matrix and 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
- 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
- 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
- Using an si RNA library screened for possible candidates of P-glycoprotein ubiquitination pathway
- Discovered that CD44 processing results in a small molecule that when transported into the nucleus binds to the MMP-9 promoter
- Determined that selenium affects ovarian cancer cells by decreasing Rad 51 expression making cancer cells more sensitive to DNA damage
- Demonstrated that features of trophoblast differentiation can be detected in differentiating human embryonic stem cells
- Completed the generation of the viral vectors required for induced pluripotent stem cells (iPS). Currently generating iPS cells for some specific disease
- Opening laboratory to investigate maternal history of human parturition
- Compared the science on the efficacy, safety and patient acceptance of the superiority of a new oral contraceptive compared to one in market on hormone withdrawal-associated symptoms after several cycles of treatment
- Contributed to the science on the efficacy and safety of Oxybutynin versus placebo in women with overactive bladder
- Contributed to the science on the safety and efficacy of Odanacatib to reduce the risk of fracture in osteoporotic postmenopausal women treated with vitamin D and calcium

- Completed a study that evaluated the relationship of location and size of uterine myomas to degree of anemia and symptoms like pelvic pressure and pain
- Evaluated SERM (Ospemifene) in the treatment of vulvovaginal atrophy in postmenopausal women in a pivotal phase 3 study
- Reported on the effect of bazedoxifene in non-flushing postmenopausal women
- Contributed to the data on the long-term safety of two low-dose regimens of conjugated estrogens vaginal cream in postmenopausal women with atrophic vaginitis
- Determined the cycle control of drospirenone 3mg/ethinylestradiol 20 mcg 24/4 compared desogestrel 150 mcg/ethinylestradiol 20 mcg: in a pooled analysis
- Demonstrated that potassium values in women taking the oral contraceptive drospirenone (3mg/EE 20 mcg24/4 regimen) concomitantly with medications does not increase serum potassium
- Reviewed for colleagues the attitudes and barriers of physicians in discussing sexual health
- Evaluated the effect of Zoledronic acid compared to raloxifene on bone turnover markers in postmenopausal women with low bone mineral density
- Reported on the symptom relief associated with two low-dose regimens of conjugated estrogens vaginal cream in postmenopausal women with atrophic vaginitis
- Contributed to the science of the efficacy, safety and patient acceptance of extended cycle combination hormonal contraception
- Reviewed the role of dietary complex carbohydrates and low glycemic index/load diets and their effects on specific metabolic syndrome/cardiovascular disease risk factors
- Reported on the need for premenopausal women with sexual dysfunction to have a complete bladder health history as part of their work-up
- Developed a screening tool for identifying women with menorrhagia for hemostatic evaluation
- Reviewed available randomized, controlled trials and showed the benefits of vitamin and pharmacologic treatments in reducing carotid intima media thickness (CIMT)
- Provided evidence based data on the use of estrogen and progestogen in postmenopausal women: July 2008 position statement of The North American Menopause Society Menopause
- Assessed the incidence of vulvodynia symptoms in a sample of U.S. women
- Provided for the scientific community a new conceptual paradigm on sexual well-being, happiness and satisfaction in women
- Determined that there is continued symptom improvement in sexually active women with overactive bladder and urgency urinary incontinence treated with tolterodine ER for 6 months

- Proved that there is improved GI tolerability with monthly Ibandronate in women previously using weekly bisphosphonates
- Determined that Bazedoxifene/conjugated estrogens combinations in postmenopausal women with vaginal dryness is safe and efficacious
- Collaborated with the division of hematology regarding the incidence of bleeding disorders in women and female adolescents
- Reported the data from a vulvodynia trial that was a randomized comparison of self-management, amitriptyline and amitriptyline plus triamcinolone that showed drug interaction was minimally effective in reducing vulvar pain
- Reported the data that the efficacy of a low oxalate diet vs. a high fiber diet was not more effective in improving overall quality of life in women with vulvodynia
- Studied the effect of pro-inflammatory agents on autism candidate gene expression in fetal rat brains
- Studied carriers of minor alleles of follicular stimulating hormones
- Explored the effects of neoadjuvant chemotherapy in ovarian cancer
- Published a collaborative study with Advanced Cell Technology on SCNT in Cloning and Stem Cells
- Published a single cell DNA fingerprinting method that discriminates sibling IVF embryos for embryo tracking in fertility and sterility
- Published a study on the lack of association of a p53 polymorphism with IVF outcome in fertility and sterility
- Developed a genetic fingerprinting method for human IVF embryo identification using only the 1st polar body and parental genomic DNA
- Developed an accurate method of embryo tracking by DNA fingerprinting of embryonic DNA from maternal peripheral circulation
- Determined the human oocyte miRNA transcriptome during maturation
- Developed a method for quantitative real-time 24 chromosome aneuploidy screening in human embryos
- Obtained the first delivery of babies after rapid microarray based 24 chromosome embryo aneuploidy screening and fresh embryo transfer
- Found an association of a PTEN haplotype with IVF treatment outcome
- Determined the sequence of the AMHR2 gene in IVF patients with poor response to ovarian stimulation
- Continued the development of an IVF patient DNA bank with greater than 5,000 patient samples currently processed and available for research

- Continued to develop an IVF embryo conditioned media bank with over 40,000 samples electronically logged and available for research
- Discovered that during meiosis Pd1p (a negative regulator of chromosome segregation during mitosis) is required to prepare the chromosomes for the loading of the recombination machinery
- Developed a new technique for visualizing protein:protein interactions in living animals
- Discovered that the mammalian microRNA regulator Lin28 is required for normal growth and development of the embryo
- Discovered that during neurogenesis, Lin28 acts to control the fate of stem cells that produce neurons and glial cells
- Identified a class of small molecules that inhibit Anthrax DnaB helicase as well as growth of Anthrax in culture
- Demonstrated that tyrosine kinases need focal adhesion proteins to block communication between cancer cells
- Discovered that cancer cells have an increased concentration of cholesterol in their mitochondria that may account for their reliance on glycolysis and their resistance to certain chemotherapeutic agents
- Discovered that ethanol-exposure stimulates the activity of sterol response element binding protein (SREBP-1)
- Discovered that the induction of meiotic genes in budding yeast required the destruction of the transcriptional repressor Ume6p by the Anaphase Promoting Complex ubiquitin ligase
- Continued to collect data on the prevalence of anti-neuronal antibodies in human sera and their role in neurodegenerative disease progression
- Determined that the presence of neuron-binding autoantibodies is ubiquitous among mammals and that these antibodies are directed against common protein targets
- Developed the basis for a diagnostic kit that detects and measures the amount of brain-specific autoantibodies in human sera
- Based on the discovery of the disease-relevance of brain-specific autoantibodies in the blood, developed a potential therapeutic strategy for treatment of neurodegenerative diseases that involves lowering body levels of these autoantibodies
- Identified three new putative protein targets for brain-specific autoantibodies in human sera
- Discovered that neurons in the adult brain express vimentin as a damage-response mechanism in an effort to repair physical damage to cytoplasmic extensions including axons and dendrites
- Determined that the blood-brain barrier in the mouse forms and closes at or near gestational day 18, suggesting that this event may be prerequisite for the differentiation of neurons that populate the cerebral cortex

- Detected the presence of brain-specific autoantibodies in sera derived from autistic children, raising the possibility that a delayed formation of the blood-brain barrier may allow an influx of neuron-binding autoantibodies into the brain, leading to autism
- Initiated a collaborative project that is testing the possibility that reception of radio signals emanating from neurons in the brain may be useful for functional brain imaging
- Developed a novel system for isolating genes involved in predator-prey interactions using host independent derivatives of *Bdellovibrio bacteriovorus* 109J
- Discovered and studied biofilm formation of *Bdellovibrio bacteriovorus* host-independent derivatives
- Developed a new method for isolating host-independent variants of *Bdellovibrio bacteriovorus* using *E. coli* auxotrophs
- Studied microbial pathogens response to predation
- Studied the biology of predatory bacteria *Micavibrio* spp
- Developed new yeast recombineering tools for bacteria
- Demonstrated that diabetes induces early steps in microvascular diseases such as diabetic retinopathy through a process that is mediated by TNF and involves activation of the transcription factor FOXO1
- Indicated that activation of the acquired immunity by a periodontal pathogen reduces the formation of new bone that occurs following an episode of bone resorption
- Discovered a new mechanism of antibiotic resistance in the respiratory pathogen *Haemophilus influenzae*
- Completed the genome sequence of *Aggregatibacter aphrophilus*
- Developed a novel method for coating hydrogels onto biomaterial surfaces which enables spatially controlled bacterial adhesion
- Developed a novel method for measuring the physicochemical properties of biofilm matrix polymers
- Discovered that a deacetylase enzyme from *Aggregatibacter actinomycetemcomitans* can sensitize biofilms
- Tested the *in vitro* and *in vivo* anti-leukemia activity of the toxin *Aggregatibacter actinomycetemcomitans* to determine if it could be used as a therapeutic agent for the treatment of WBC diseases
- Determined Leukotoxin kills human malignant WBC lines and primary leukemia cells from acute myeloid leukemia patients, but healthy peripheral blood mononuclear cells (PBMCs) are relatively resistant to LtxA-mediated cytotoxicity
- Discovered in a SCID mouse model for human leukemia, LtxA had potent therapeutic value resulting in long-term survival in LtxA-treated mice

- Discovered IL-6 and IL-1 $\beta$  play an important role in neuropathic pain. IL-6 activity is more prominent in the early phase of the process, while IL-1 $\beta$ , activity is more significant in a later stage
- Showed the toxicity of *Aggregatibacter actinomycetemcomitans* leukotoxin to different human cells
- Completed the characterization of gene for *Aggregatibacter actinomycetemcomitans* leukotoxin modification
- Discovered a new membrane-associated leukotoxin from *Kingella kingae*, a human emerging pathogen
- Discovered the major motif for attachment of *aggregatibacter actinomycetemcomitans* (the microbe associated with aggressive periodontal disease) to epithelial cells and developed a 40 mer peptide that blocks that attachment. Asked to be featured on NIH radio for studies of aggressive periodontal disease in children
- Compared fluoride release and uptake by hydroxyapatite from a fluoride varnish and an experimental fluoride containing polyethylene glycol hydrogel
- Discovered the vitamin D-mediated expression of a novel innate immune receptor, TREM-1, on airway and gingival epithelial cells
- Demonstrated that vitamin D induces antibacterial activity on the surface of gingival epithelial cells
- Demonstrated that an antimicrobial peptide mimetic kills biofilms of *Candida albicans* grown on denture surfaces
- Discovered that a unique set of genes with Ikaros binding motifs in their promoter regions regulate development of germinal center-derived B cell lymphomas of SJL mice
- Discovered that that superantigen driven B cell lymphomas of SJL mice stimulate both normal and T regulatory cells to produce cytokines necessary for their growth
- Showed that regulatory T cells are central regulators of both autoimmunity and B cell malignancy in New Zealand Black mice
- Discovered that a group of human germinal center derived B cell lymphomas express proteins coded for by human endogenous retroviral genes
- Showed that deregulated cytokine and chemokine production due to bacterial infection may explain the development of bone resorption in periodontal disease
- Conducted a nationwide survey among practicing general dentists and found that the overwhelming majority are willing to conduct screening for medical conditions in their dental office
- Expanded available assays within the ICAM Research Laboratory to include measurement of human salivary and serum levels of the hormones cortisol and DHEA-S for research purposes
- Results of the study "Overweight Children: Assessing the Contribution of the Neighborhood Environment" published in Preventive Medicine

- Completed gathering field data for the 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
- Published results demonstrating that urinary 1-aminopyrene is a sensitive biomarker for diesel exhaust exposure
- Continued studies of whether toxic chemicals can be absorbed from synthetic turf materials through unintentional ingestion
- Completed, in collaboration with the US Centers for Disease Control and Prevention, the analysis of breast milk and urine samples from 100 subjects to determine perchlorate concentrations
- Published results showing that men with larger waist size are more likely to die from prostate cancer than those with smaller waist sizes
- Recruited over 150 girls in a NJ cohort to examine the role of numerous environmental and genetic factors on initiation of puberty
- Completed in Nigeria a set of pilot studies on urban community outdoor air quality and in-vehicle exposure to multiple pollutants with real-time monitoring, the first study of that type in the country
- Analyzed health status in “baby boomers” nearing 60 years of age
- Examined the effect of different salaries on personal smoking histories
- Reported the implications of being overweight for adolescent health expenditures
- Assessed the effects of triple combination pharmacotherapy in medically-ill smokers
- Identified knowledge barriers for preventing or reducing prostate and colorectal cancer in underserved minority populations
- Determined the effect of peer relations on excessive weight in children
- Identified more effective strategies for cancer prevention and control in diverse urban populations
- Identified the effects of different preferences for coverage in decisions on enrolling in health insurance plans
- Specified the effects of different family medicine practices on knowledge management techniques
- Demonstrated that increased air pollution levels are associated with an increase in heart attacks
- Air pollution levels also affect asthma, hypertension and strokes

## CLINICAL SCIENCES

- Demonstrated that ligand-induced intracellular mass rearrangements are predictive of malignant potential of breast cancer cell lines
- Demonstrated heightened progranulin expression in microglial cells and multinucleated cells infected with HIV-1 in brains of children who died with HIV-1 encephalitis, compared with uninfected, reactive microglial cells
- Demonstrated that p16 is a marker that can help differentiate atypical lipomatous tumor from deep-seated lipoma
- Demonstrated the clinical utility of fluorodeoxyglucose PET/CT based evaluation of esthesioneuroblastoma
- Found that gene expression of a human defensin is downregulated by influenza virus in bronchial epithelial cells and upregulated in dendritic cells and monocytes
- Discovered that the production of interferon alpha by plasmacytoid dendritic cells is subverted in HIV-infected cells
- Demonstrated that a deficiency in nonerythroid  $\alpha$  spectrin in cells from patients with the bone marrow failure disorder, Fanconi anemia, may play an important role in the chromosome instability observed in these cells
- Developed a method to reverse the deficiency in nonerythroid  $\alpha$  spectrin in FA cells and in turn correct some of the cellular phenotypic changes characteristic of this disorder
- Optimized protocols for stabilization of HIV-1 viral load for molecular diagnosis
- Identified the effects of prone and reverse trendelenburg positioning on ocular parameters
- Finished the development of a logistic-based systolic model to provide additional hemodynamic measurements using the esophageal Doppler monitor
- Investigated the roles of high g-force in patients with non-heart surgeries
- Further confirmed that a bispectral index scale monitor is also suitable for the patients with mental retardation
- Revealed that high risk surgical procedures and female gender have a strong correlation with perioperative hyperglycemia
- Discovered that regulation of vascular endothelial growth factor expression in human endometrium is cell type specific
- Discovered that prostaglandin production in human endometrial epithelial cells is mediated via a cAMP-Protein Kinase A signaling pathway
- Discovered that hypoxia decreases trophoblast mitochondrial mass
- Discovered that serum hCG concentrations following the ovulatory injection are inversely associated with the time of implantation in patients undergoing in vitro fertilization



- Discovered that serum hCG concentrations following the ovulatory injection do not predict pregnancy outcome in patients undergoing in vitro fertilization
- Demonstrated that treatment of HIV positive pregnant women with protease inhibitors does not affect infant birth weight
- Discovered that the birth rate in Hispanic teenage girls in Newark increased from 2000 to 2005
- Demonstrated the healing response after graft processing with a novel cortical bone processing technique
- Compared the effects of locking plate fixation to standard plate fixation in musculoskeletal oncology patients
- Demonstrated functional outcomes in musculoskeletal oncology patients after implantation of expandable prosthesis
- Demonstrated effect of 5-lipoxygenase inhibitor to enhance allograft fusion in a rat posterolateral lumbar fusion model
- Demonstrated the poor readability of patient educational materials made available by Spine Specialty Societies
- Demonstrated the correlation between various radiographic measurements made intra-operatively and post-operatively in scoliosis surgery
- Demonstrated relationship between fracture pattern/size and resultant instability in lateral mass fractures of the cervical spine in a cadaveric model
- Demonstrated biomechanical stability of different fixation constructs for ORIF of radial neck fractures
- Demonstrated percutaneous management of scaphoid nonunions
- Evaluated the different techniques for treatment of scaphoid non-unions by percutaneous means
- Explored bilateral comminuted radial shaft fractures from a single gunshot: fixation with alternative techniques
- Explored osteochondral autografting for an acute articular defect of the metacarpal head
- Described a new technique of local osteochondral grafting for defects in the metacarpal head
- Explored the effect of rotational malalignment on X-rays of the wrist
- Investigated the relationship of malrotation on radiographs of the wrist
- Examined the biomechanical stability of four different fixation construct for distal radius fractures
- Examined the accuracy of fluoroscopy in closed reduction and percutaneous fixation of simulated Bennett's Fracture

- Evaluated the accuracy of fluoroscopy to accurately depict fracture displacement of basilar thumb fractures
- Examined the effects of NSAID Therapy on skeletal healing in a rabbit model
- Critically evaluated the readability and comprehensibility of patient education material in hand related websites
- Examined the conduct of delivery, shoulder dystocia and neurological birth injuries
- Demonstrated the role of vascular fibula for talar avascular necrosis in the presence of osteomyelitis
- Determined “novel radiographic sign” of jilted talus for unrecognized medial calcaneal subluxation/dislocation
- Explored role of local growth factors in DM Charcot hindfoot arthrodesis for prognostication of outcome
- Determined role of rhPDGF in TCP carrier for the treatment of hindfoot fusion
- Documented reliable change on cognitive testing from before to after treatment with computer assisted behavioral memory retraining interventions in persons with MS
- Discovered the role of norepinephrine in hematopoietic progenitor cells mobilization to sites of tissue injury
- Discovered the role of beta blockade progenitor cell growth and mobilization
- Discovered that adenosine A2A receptor activation inhibits T helper 1 and T helper 2 cell development and effector function
- Discovered that CB<sub>2</sub> cannabinoid receptors contribute to bacterial invasion and mortality in polymicrobial sepsis
- Discovered that gut-derived factors carried in mesenteric lymph are responsible for acute trauma/hemorrhagic shock-induced cardiac dysfunction
- Discovered that ethyl pyruvate may attenuate systemic inflammatory responses during resuscitation and improve survival in experimental models of hemorrhage with trauma
- Developed and implemented instruments and protocols to train New Jersey barbers to act as health advocates concerning prostate cancer
- Discovered that mouse mammary epithelial stem and progenitor cells require IGF signaling for in vitro growth using mammosphere assay
- Discovered that GalNAcT<sup>-/-</sup> knockout mice lacking ganglioside gangliosides show  $\alpha$ -synuclein accumulation in the substantia nigra and develop motor deficits with maturation, indicating a new model for Parkinson’s disease
- Found that NOD mice, an established model for type 1 diabetes, have effector T cells that are not suppressed by regulatory T cells due to deficiency of ganglioside GM1

- Showed that spliceosomes isolated from nuclei of brain cells contain disaturated phosphatidylcholine, essential for splicing activity
- Demonstrated, together with graduate student, that providing obesity-prone juvenile rats with running wheels prevents them from becoming obese on high fat diets and affords them continued protection against becoming obese for 2 ½ months after exercise cessation
- Demonstrated, together with postdoctoral fellow, that a single bout of insulin-induced hypoglycemia markedly increased the sensitivity of hypothalamic glucose sensing neurons to glucose
- Demonstrated that altering the in vivo activity of hypothalamic glucokinase, the regulatory of neuronal glucose sensing, markedly alters the counter-regulatory neurohumoral and feeding responses to insulin-induced hypoglycemia
- Described, together with postdoctoral fellow, the mechanisms by which hypothalamic neurons alter their activity in response to the adipose-derived hormone, leptin
- Established that the EGF receptor is necessary for the naturally occurring expansion of neural stem cells during the repair process that ensues subsequent to brain injury
- Demonstrated that the mammalian target of rapamycin (mTOR) is essential for oligodendrocyte differentiation, but not for the differentiation of neurons or astrocytes
- Demonstrated that the neuropoietic cytokine CNTF collaborates with gamma interferon to enhance the immune surveillance properties of microglia
- Demonstrated that plasma cells within the CNS during chronic inflammation can be identified by intracellular; these cells occur in nests of inflammation around blood vessels and in the meninges
- Showed that antibody production, once established within the CNS, does not respond to immunosuppression
- Showed that antibody production within the CNS is highly correlated to disability progression in an animal model of MS
- Demonstrated the selectivity of a novel GABAergic immunotoxin
- Completed a study showing that GABAergic neurons of the septohippocampal pathway are important in working memory
- Found that an animal model of anxiety lacks selective attention
- Demonstrated that IL-1 $\beta$ , IL-6, IL-23 and TGF- $\beta$  promote the differentiation of human naïve T cells into the Th17 subset
- Demonstrated that IL-17 production is downregulated by IL-27 via a mechanism involving STAT1 and SOCS1 activation
- Investigated cytokine abnormalities in children with autism spectrum disorders and found that IFN- $\gamma$  and IL-4 responses are decreased in these children compared with healthy children

- Created techniques for easy use of optical tweezers to micromanipulate neurons. Examined axon targeting during regeneration. A provisional patent on these techniques has been filed
- Demonstrated that activity in the RhoA pathway is a cause of synaptic disturbance after injuries to the retina such as detachment. A provisional patent was filed on the use of anti-RhoA drugs for retinal detachment
- Discovered that women using the active pills of oral contraceptive medications exhibit quicker acquisition of conditioned motor responses, compared to non-users, suggestive of a drug influence on neural plasticity
- Demonstrated that insulin-like growth factor-1 (IGF-1) mediates long-term survival of oligodendroglia through activating PI3K/Akt in cholesterol-enriched membrane microdomains
- Discovered that activated (truncated) Bid is a binding partner for pro-apoptotic Bax in oligodendrocyte progenitor (OP) cells undergoing glutamate-mediated excitotoxic death
- Demonstrated that Bax and Bid associate with mitochondria in glutamate treated OPs but not IGF-treated OPs
- Found Beta IV tubulin, identified in a proteomic screen as a binding partner for Bax, in cell processes in IGF-treated OPs but not in glutamate-treated OPs suggesting it may be involved in cytoskeletal changes and Bax translocation during apoptosis
- Identified the mammalian target of rapamycin (mTOR) pathway as essential for oligodendrocyte differentiation and myelination of axons
- Demonstrated reduction in mammary epithelial proliferation and markers of differentiation during alveolar development in mammary glands of transgenic mice with reduced IGF type 1 receptor signaling
- Discovered that respiration ceases in most all law enforcement personnel exposed to 5-seconds of a conductive energy device (CED) as a component of their training
- Discovered breast cancer is protected in bone marrow by mesenchymal stem cells via the recruitment of Tregs suppressor cells
- Identified combination therapy for efficient treatment of breast cancer with CXCL12 antagonist and chemotherapy
- Identified a subset of Oct-4-expressing breast cancer cells that confer chemoresistance
- Identified the master regulator of pluripotency for stem cells
- Discovered roles for microRNAs in breast cancer dormancy in bone marrow in areas close to the endosteum
- Evaluating the safety, tolerability and antiviral activity of TMC125 in antiretroviral experienced HIV-1 infected children and adolescents
- Evaluating the attitudes and behaviors of Indian Americans towards mental health symptoms, diagnoses and treatment

- Evaluating the Clinico-epidemiological aspects of methicillin-resistant staphylococcus aureus among infected children in the hospital setting
- Evaluating the safety, efficacy and pharmacokinetics of daptomycin in pediatric subjects aged seven to seventeen years with complicated skin and skin structure infections caused by gram-positive pathogens
- Conducting an open-label, multiple dose, cross-over study to evaluate the steady-state pharmacokinetic parameters of nevirapine extended release tablets in HIV-1 infected children, with an optional extension phase
- Discovered genomic gain of 8q22 is linked to elevated expression of the metastasis gene metadherin (MTDH) and poor clinical outcome of breast cancer patients
- Completed the Phase 0 Clinical Trial using an inhibitor of glutamate release, Riluzole. Riluzole is an inhibitor of glutamate release and is a FDA approved drug for the treatment of ALS. Found that the maximum-tolerated daily dose in humans is 200 mg, so a dose-finding phase I trial was not necessary
- Showed that systemic depletion of CD4+CD25+ T regulatory cells (Tregs) enhances the therapeutic anti-tumor effects of a recombinant vaccinia virus vaccine encoding tumor-specific MHC Class I and Class II dominant epitopes and the GM-CSF gene
- Developed a first-in-man trial of intralesional antigen-based immunization in patients with pancreatic cancer
- Concluded that vaccination with PROSTVAC-V and PROSTVAC-F combined with TRICOM is well-tolerated and generated an immune response to vaccinia. Therefore, PROSTVAC-VF/TRICOM represents a feasible therapeutic approach for further phase II and III study in patients with prostate cancer
- Identified a novel method for determining necessity of emergency medical service units
- Examined Emergency Department revisit rates based on patient satisfaction scores
- Developed a quick method of decontaminating stethoscopes of MRSA
- Established that emergency personnel can determine motorcycle ejection distances
- Determined that succinylcholine can be left on ambulances for 3 months
- Analyzed whether or not EMS providers adhere to NEXUS criteria
- Examined the effects of naloxone administration during non-traumatic cardiac arrest
- Examined rapid sequence intubation in an EMS system with two ALS providers
- Improved rates of successful pre-hospital intubations with metal versus plastic laryngoscope blades
- Reviewed the over triage of trauma patients by using mechanism of injury
- Developed a computerized mental health questionnaire for identification of PTSD and other morbidity in NYC Firefighters after the WTC disaster

- Developed protocols for assessment of World Trade Center cough and for a trial of inhaled steroid treatment in these patients
- Completed longitudinal assessment of spirometry measurements in the World Trade Center medical monitoring program
- Completed a population study of asthma symptoms related to World Trade Center dust exposure, including boroughs outside of Manhattan
- Completed study of enduring mental health morbidity and social function impairment in world trade center rescue, recovery, and cleanup workers
- Initiated a partnership with a community-based organization in Newark (Ironbound Community Corporation) to address the community's air pollution and multi-media pollution concerns
- Conducted pilot studies of exposure of truck drivers and longshoremen to diesel exhaust, in collaboration with the Coalition for Healthy Ports, a labor-environment coalition addressing environmental health concerns related to the Newark-Elizabeth seaport
- Demonstrated that primary care practices that had identification tools and/or linking strategies for physical activity counseling were significantly more likely to have patients who reported exercising regularly compared to practices that lacked them
- Evaluated the performance of a brief set of measures to routinely assess multiple health risk behaviors among primary care patients and found that they were usable in a variety of primary care settings with adults and adolescents
- Demonstrated that implementation of the chronic care model by primary care practices was significantly related to patient health status and health-related quality of life
- Demonstrated that there were no racial differences in receipt of initial breast cancer treatment among Medicaid enrollees who had similar access to treatment and were relatively homogeneous with respect to socioeconomic status
- Identified seven criteria for good qualitative research. Demonstrated that qualitative research is not a unified field. Rather than applying a generic set of criteria when evaluating qualitative research, reviewers need to be aware of and evaluate the research from within the theoretical and methodological framework from which it emerges
- Developed a website ([www.qualres.org](http://www.qualres.org)) that is an educational tool for those interested in qualitative research
- Demonstrated that changes are common when interventions are implemented into practice settings. The translation of evidence into practice will be improved when research design and reporting standards are modified to help quality-improvement teams understand both these adaptations and the effort required to implement interventions in practice
- Demonstrated that creating linkages between primary care practices and community resources has potential to benefit patients and clinicians, and to lessen the burden on the US healthcare system resulting from poor health behaviors

- Demonstrated that conflicting regulatory messages under which research must be conducted impacts research design, feasibility and dissemination; working with IRBs at the start of research projects and creating common templates within multisite projects may improve generalizability of findings
- Found that studies involving multiple projects and seeking to use a common set of measures to identify and assess risky health behaviors over time will be more effective when such measures are tailored to application settings and patient demographics and when they are fully incorporated into usual care processes
- Assessed family physicians' practices and attitudes regarding care of extremely obese patients
- Determined family physicians' barriers to cancer screening in extremely obese patients
- Demonstrated that relationships are more important than information technology in achieving higher preventive services delivery in community primary care practices
- Assessed how a patient navigator can help foster the principles of a patient centered medical home in primary care practices
- Showed elderly men in community settings receive PSA testing at rates comparable to their younger counterparts even though major clinical practice guidelines discourage the practice for this population
- Demonstrated that intraoffice practice interventions that target PSA testing to the most appropriate populations and focus on communication (both within the office and with patients) are needed
- Demonstrated that cancer survivors in community practices were more likely to self-report receipt of cancer screening than noncancer patients
- Showed that medical record reports of cancer screening in community practices were lower than self-reports for cancer survivors and noncancer patients
- Demonstrated that identifying factors that affect cancer screening among cancer survivors in primary care is important and has implications for intervention design
- Described the dual hierarchical organization of primary care practices and the implications of this for interventions to enhance quality of care
- Demonstrated that self determination theory provides a new perspective on factors that impact preventive counseling delivery in the primary care setting
- Participated in the development of the SQUIRE consensus publication guidelines for quality improvement interventions in health care
- Described patient and clinician barriers that limit communication about the use of traditional, complementary and alternative medicine
- Described the role of conversation in health care interventions that enable sensemaking and learning

- Demonstrated that transforming contemporary primary care practices into a Patient-Centered Medical Home (PCMH) will require a much longer term commitment and more resources than generally acknowledged in the current health care reform debate
- Demonstrated low rate of complications associated with proper insertion and removal of Implanon™ a single-rod subdermal contraceptive
- Showed that tricyclic antidepressants were superior to newer serotonin based antidepressants in patients with Parkinson's disease and depression
- Showed that successfully treating depression in patients with Parkinson's disease led to improvements in quality of life
- Discovered ethnic disparities in diagnosis of major depression mediated by bilingualism
- Discovered that rhythmical muscle tension produced at a frequency of 0.1 Hz produces a large increase in baroreflex gain and heart rate variability, with smaller increases in pulse transit time and blood pressure. These reflect effects of resonance in the cardiovascular system
- Discovered that panic and asthma often co-occur, and may be causally related
- Discovered lower quit rates among menthol cigarette smokers at a specialist tobacco treatment clinic
- Reported on a successful CME initiative for training psychiatrists and advanced practice nurses to treat tobacco dependence
- Reported results from a pilot wellness approach to addressing tobacco in mental health settings: the Learning about Healthy Living Manual
- Described tobacco use among individuals with intellectual or developmental disabilities
- Explored the development of quantitative phenotypical signatures for breast lesions on MRI
- Continued investigation on CTA for the measurement of vascular density of liver tumors before and after radioembolization with Yttrium 90 Spheres
- Received IRB approval to investigate prospective analysis of the results of CTPAs in young patients presenting to the ER
- Completed student project on quantification of calcification of carotid artery plaque with dual-energy CT
- Completed student project on physicians using the American College of Radiology appropriateness criteria
- Investigated novel kinetic texture features for breast lesion classification on dynamic contrast- enhanced (DCE) MRI
- Investigated multi-detector CT evaluation of active extravasation in blunt abdominal and pelvic trauma patients
- Investigated traumatic pseudoaneurysm of the basilar artery



- Investigated the Scapho-capitate Syndrome Variant: 180-degree rotation of the proximal capitate fragment without identifiable scaphoid fracture
- Investigated non-traumatic fracture of an osteochondroma mimicking malignant degeneration in an adult with hereditary multiple exostoses
- Investigated a deformable model for tracking tumors across consecutive imaging studies
- Investigated estimation of hemodynamic significance of arterial stenoses
- Started development of project on image mining for comparative analysis of protein expression in tissue microarrays
- Investigated reporting-driven workflow orchestration and regional imaging exchange
- Investigated cord compression due to extramedullary hematopoiesis in an adolescent with known beta thalassemia major
- Explored a multicore-based parallel image registration method
- Submitted project to investigate external analysis of the pulmonary embolisms rule-out criteria for evaluation of pulmonary embolism in an Emergency Department setting
- Completed work on case review of radiologic diagnostic modalities (MRI, US, CT) in the central nervous system
- 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
- Discovered that talin binds to Rab11 and regulates integrin recycling during epithelial tissue formation
- Elucidated the signaling pathway that mediates basement membrane-dependent survival in embryonic epithelial morphogenesis
- Demonstrated that integrin is required for visceral endoderm differentiation
- Discovered that CREG has anti-apoptosis effect on vascular smooth muscle cells
- Discovered that Cdc42 regulates vessel formation from embryonic stem cells through protein kinase Clambda/iota
- Demonstrated that the risk of thromboembolic disease is increased in siblings and parents of women with placental abruption
- Reported on the effect of cigarette smoking on placental abruption histology

- Completed a comprehensive review of the recurrence of fetal growth restriction and outlined potential strategies for prevention of recurrence
- 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
- Published a description of the epidemiology of preterm birth and its clinical subtypes
- Described the recurrence of preterm birth in relation to the gestational age at the initial preterm birth
- Published a comprehensive review of placental abruption
- Described that etiology of placental abruption varies significantly at preterm and term gestations
- Evaluated recurrence of spontaneous and medically indicated preterm births
- Published the associations between acute and chronic respiratory diseases in pregnancy and risk of placental abruption
- Distinguished the physiologic or pathologic contributions to black-white disparities in fetal growth in the United States
- Described the influence of cesarean delivery on temporal trends in triplet stillbirth rates in the United States
- Described the epidemiology of medically indicated preterm birth
- Reconciled the high rates of preterm and post term 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
- Completed a review manuscript on medically indicated preterm birth and ischemic placental disease
- Evaluated the associations between polymorphisms in Methionine Synthase Reductase and Betaine-Homocysteine S-Methyl-transferase genes and risk of placental abruption
- Examined the associations amongst plasma folate, reduced folate carrier gene and risk of placental abruption
- Assessed use of magnesium folate to prevent cerebral palsy in survey of all New Jersey hospitals
- Studied patterns of embryonic growth

- Completed review of pregnancy in very advanced maternal age women
- Participating in multi-center study to assess micro array technology to replace standard karyotyping in prenatal diagnosis
- Conducted observational study of contingency screening for prenatal detection of Down Syndrome
- Initiated a study of the effects of bazedoxifene/conjugated estrogens combinations on endometrial hyperplasia and prevention of osteoporosis in postmenopausal women
- Initiated an evaluation of changes in mammographic breast density associated with bazedoxifene acetate/conjugated estrogens, raloxifene, and placebo in postmenopausal women
- Initiated an RNA expression analysis of endometrial biopsies and comparing placebo, bazedoxifene/CE and raloxifene
- Initiated a study to evaluate cycle control, bleeding pattern, blood pressure, lipid and carbohydrate metabolism of the transdermal contraceptive patch vs. an oral comparator for 7 cycles in 400 women
- Contributed to the science of the efficacy, safety and patient acceptance of extended cycle combination hormonal contraception
- Studied the safety and efficacy of Bazedoxifene/conjugated estrogens combinations in postmenopausal women with vaginal dryness
- Contributed to the science on the effects of the progesterone intrauterine device in the treatment of menorrhagia
- Compared the efficacy of hormonal oral contraceptives to placebo in the treatment of menorrhagia
- Studied compliance and adherence of weekly vs. monthly bisphosphonate drug use in menopausal women
- Investigated new intravenous medication for the treatment of osteoporosis in postmenopausal women
- Investigated the use of the hormonal intrauterine device for the control of abnormal uterine bleeding
- Investigated the efficacy of a newly formulated oral contraceptive for women
- Collaborated with the division of hematology regarding the incidence of bleeding disorders in women and female adolescents
- Developed an algorithm of care for women with bleeding problems in New Jersey
- Continued research on von Willebrand factor levels in women after childbirth
- Continued research on women with relapsing multiple sclerosis estrogen treatment

- Published an article on the effect of exclusive breastfeeding promotion in low-income women
- Initiated the regional pelvic floor program, a clinical and research collaboration with Urogynecology, colorectal surgery, urology and physical therapy for women with incontinence
- Selected as an expert for women with bleeding disorders
- Invited to present at a national meeting - Preterm Birth in Twin Gestations: Contributions of ischemic placental disease
- Invited to present at a national meeting - Adverse Pregnancy Outcomes in Women with Mental Health Disorders
- Invited to present at a national meeting -The Effect on Advanced Maternal Age Patients Desire for Invasive Testing
- Demonstrated postpartum regression rate of ASCUS pap smears
- Examined the relationship of uterine weight and location of myomas to anemia and Pelvic pain
- Performed a randomized trial of low oxalate dietary intervention in women with vulvodynia
- Explored the effects of the Interval between cerclage removal and delivery
- Showed that PADT does not improve survival or reduce the use of secondary cancer therapy 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 some Gemini analogs are many-fold more active than  $1\alpha,25(\text{OH})_2\text{D}_3$  in growth inhibition assay using MCF10 breast cell lines
- Found that PALB2 also interacts with BRCA1 and in such a way connects BRCA1 and BRCA2, the two major breast cancer susceptibility proteins, to form a “central BRCA pathway” of the DNA damage response and tumor suppression
- Developed a new technique to analyze microarray expression profiles using a combination of principal components analysis and consensus ensemble k-clustering to find robust clusters and gene markers in the data
- Identified the clusters and their pathways with distinct subtypes of breast cancer (Luminal, Basal and Her2+) and the results of this analysis were consistent with the idea that the cancer phenotype develops early (in early hyperplasia or ADH stage) and that each subtype progresses from ADH to DCIS to IDC along its own specific pathway, suggesting that each represents a distinct disease
- Discovered that primary fibroblasts induced into proliferative quiescence by contact inhibition maintain a high metabolic rate and this finding contradicts the commonly held perception that decreased metabolism is a hallmark of quiescence
- Studied TGF- $\beta$ /Smad signal transduction, transcriptional regulation, cell cycle control, and their roles in tumorigenesis

- Indicated that flavor was one of the most important factors influencing diabetic patients' food choices, regardless of income
- Discovered that patients with Clinically Isolated Syndrome have elevated Epstein Barr Virus titers
- Demonstrated that targeted education about CRC screening might ease concerns for African-Americans who have a higher mistrust of a colonoscopy procedure
- Discovered that parental education is needed to address concern about vaccine safety which is the leading reason for not vaccinating daughters for the human papilloma virus
- Examined parental efforts to educate their children about sexual abuse
- Discovered that parents continue to disproportionately focus on strangers as potential offenders and provide limited information particularly in terms of the nature of sexual abuse and the secrecy associated with it
- Discovered that parents with no direct or indirect experience with child sexual abuse were least likely to talk with their children about the issue in general and when they did so provided less information
- Aimed to examine the differential effects of trauma-focused cognitive behavioral therapy (TF-CBT) for children delivered with or without the trauma narrative component in 8 vs. 16 sessions. Findings indicated that TF-CBT produces significant and rapid reductions in PTSD, depression and behavior problems with little benefit to doubling the length of treatment
- Discovered that after their participation in combined parent-child CBT, children and parents at-risk for CPA reported pre- to post-treatment changes in the use of physical punishment, parental anger towards their children, consistent parenting, and children's posttraumatic stress symptoms and behavioral problems
- Demonstrated that children and parents who are at-risk for child physical abuse and participating in combined parent-child CBT had greater improvements in total posttraumatic symptoms and positive parenting skills, respectively, at post-test than the group where only the parents received treatment
- Demonstrated that the group where only the parents received treatment reported using less corporal punishment to control their children's behavior at post-test than the parents in the combined parent-child condition
- Examined the psychometric properties of the Beck Youth Scale for adolescents who have experienced child sexual abuse and discovered that the measure has clinical utility with this population and that self-concept is an important variable to consider when treating adolescents with an abuse history
- Discovered that physicians treating elderly inner city patients should be more proactive in educating them about osteoporosis, especially regarding exercise and calcium supplementation
- Discovered that staff training to increase awareness and knowledge about caring for patients with HIV+/AIDS is related to admission patterns for patients with HIV+/AIDS in New Jersey nursing homes

- Continued to collect data on the correlation between the use of Proton-Pump Inhibitors and *Clostridium difficile*-associated diarrhea in nursing home patients
- Continued to expand the inter-school collaborative clinical trials program with other UMDNJ campuses resulting in increased corporate awareness of University resources as they relate to clinical trials (patient populations, IRB, Legal Management) and better economies of scale
- Initiated a new clinical trial for dementia
- Examined if there is an increased inflammatory response in women with mild maternal hyperglycemia
- Investigated metabolic abnormalities in women with mild maternal hyperglycemia
- Examined free fatty acid composition with poor pregnancy outcome and dietary fatty acid intake
- Investigated circulating vitamin D level and influence on pregnancy outcomes
- Examined if increased maternal inflammatory response impacted fetal growth
- Evaluated the postnasal use of *Bdellovibrio* to reduce biofilms of oral pathogens
- Evaluated the postnasal use of predatory bacteria to attack and reduce human pathogens and biofilms
- Developed a new method for preventing, removing, reducing, and disrupting biofilms of *Staphylococcus aureus*
- Developed a new invertebrate model-system for the study of oral pathogens
- Evaluated a new denture adhesive prototype for patient comfort, durability, ease of placement and sensate qualities
- Evaluated several experimental denture soaking cleansers for possible deleterious effects (e.g., tarnish corrosion, absorption, and discoloration) on the materials used in fabricating complete dentures and removable partial dentures.
- Evaluated subjects with persistent oral deafferentation pain; demonstrated sensory alterations for cold after-sensation, suggesting a central sensitization mechanism This can serve as a simple test to support the diagnostic oral neuropathic pain
- Discovered that MIP 1 alpha is elevated 50 fold above baseline in saliva in subjects prior to periodontal bone loss and could be used as a biomarker for bone loss in disease
- Conducted a longitudinal study of occlusal caries in Newark New Jersey school children and the relationship between dental findings and the development of new lesions
- Identified factors affecting the diagnostic performance laser fluorescence in detecting occlusal caries
- Showed more periodontal bone loss in patients with cardiac disease than in patients without cardiac disease

- Demonstrated that antimicrobial mouth rinse could reduce bacteremia resulting from daily activity. Nominated as one of the 10 research projects by Johnson and Johnson worldwide sponsored by Johnson and Johnson
- Explored the effect of worksite wellness intervention on quality of life among overweight and obese employees enrolled in a 12-week worksite wellness intervention
- Studied indications for total parenteral nutrition
- Explored the relationship between health weight status, demographic characteristics, chronic diseases, and chronic disease risk factor among adult women seen in an obstetric and gynecology clinic at an academic health sciences university center in Puerto Rico
- Received funding and initiated study of markers of stress and inflammation in adults with pre-Type 2 diabetes
- Published study showing improvement in fibromyalgia symptoms
- Published findings of improved function and reduced pain with Qigong therapy
- Completed laboratory analysis of levels of stress hormones cortisol and DHEA-S in adults with pre-Type 2 diabetes in the ICAM Research Laboratory
- Received funding and began development of pilot project investigating yoga for improving quality of life and physical, psychological, and biochemical parameters in people with multiple sclerosis
- Discovered that levels of perceived and actual social support were associated with length of employment tenure among persons with serious mental illness
- Found evidence to support inference of construct validity of employment readiness among people with psychiatric illnesses
- Found relationship between employment readiness and employment outcomes among persons with serious mental illness
- Demonstrated feasibility of providing employment services in non-vocational service modalities of psychiatric rehabilitation programs
- Improved employment acquisition an average of 34% of residents of housing programs of persons with serious mental illness
- Revealed that HR professionals seek education on the hiring and employing of individuals with psychiatric disabilities because of preconceived biases regarding the impact of mental illness on job performance
- Found educational level is positively correlated with wages among individuals with psychiatric illness
- Found longer work history predicted higher wages among individuals with psychiatric illness

- Found later onset of psychiatric illness was linked to higher employment rates among individuals with psychiatric illness
- Found individuals with psychiatric illness who have comparable educational level achieved similar re-employment rates compared to non-disabled counterparts
- Showed supported employment program increased employment rate from 13% to 54% within two years among people with serious mental illness
- Demonstrated that using team approach to provide employment service to Program in Assertive Community Treatment increased employment rate from 5% to 23% within a 12-month period
- Found that participants with serious mental illness who attended five or more sessions of Illness Management and Recovery demonstrated overall improvements on the IMR Client and Perceived Social Support Scales, and the Coping subscales
- Demonstrated that as a result of participation in illness management and recovery, perception of social support improved as well as participants' array of coping skills were strengthened among persons with serious mental illness
- Found that participants reported unpleasant experiences related to the process of making a choice to take medications. Many participants indicated that they hoped to no longer need the prescribed psychiatric medication in the future
- Demonstrated that group illness management training improves mental health consumers' coping strategies and increases their support networks
- Demonstrated mental health consumers working in teams with professionals provide illness management services comparable to teams without a mental health consumer
- Increased implementation of employment related services in mental health day treatment programs
- Decreased reported barriers to implementation of employment related services
- Correlated lifestyle and physiological factors with PSA concentrations
- Concluded upon completion of a systematic review that ANCC magnet designation has a definite impact on nurse outcomes with lower levels of burnout, higher levels of nurse satisfaction and greater likelihood to remain in their jobs
- Determined that Magnet-designated hospitals have a significantly stronger professional nursing practice environment, more autonomous nurses, stronger staffing resources and stronger nurse manager leadership
- Established that there is insufficient evidence to conclude that Magnet designation is associated with better patient outcomes
- Concluded after a systematic review of relocation stress following in-house transfer out of critical/intensive care units that for most patients transfer to the general unit was not a traumatic or negative experience but viewed positively as a sign of recovery
- Concluded that positive emotions following in-house transfer coexisted with uncertainty or fear



- Detected that most negative relocation stress was related to lack of observation and care on the general unit where nurses many times were unaware or unresponsive to assistance with functional deficits that the patients required
- Concluded that the systems of care were not structured to effectively deal with the complex ICU transfer patient
- Concluded after a systematic review of nurses' inter-shift hand-off reports in acute care hospitals that an embedded hierarchy exists that influences the conduct of hand-offs
- Established that participating in inter-shift nursing hand-offs enhanced acculturation to the Unit's norms, expectations and rituals
- Recognized that evidence supported that the nurse is the gatekeeper for the flow of information handed off regarding patient care decisions
- Recognized that epidemiological, behavioral, and experimental research strongly implicate sleep and sleep disorders as contributors to diabetes
- Established that disturbed sleep, nocturia, and nocturnal pain are common in adults with T2DM
- Reported that sleep time was short for both men and women with T2DM (□ 6 hours)
- Established that sleep disturbances associated with nocturia □ 3x week and problems with sleep maintenance affected more that 60% of all subjects with T2DM
- Showed that sleep onset insomnia was significantly worse for females though less pervasive a problem than nocturia and poor sleep maintenance
- Demonstrated that pain, sleep quality, comorbid conditions, EDS, nocturia and % efficiency were not significantly different for men and women with T2DM
- Established that research is needed about potential gender-related differences in sleep, other factors related to sleep in these individuals, and sleep-promoting interventions
- Established that Emergency Departments (EDs) use a variety of patient and staffing models to implement routine HIV testing ranging from an ED staff-only model to models using designated staff for RHT
- Stimulated adoption of routine HIV testing (RHT) in Emergency Departments (EDs) and promoted the practice changes needed to implement ED RHT through Strategic planning workshops
- Revised the standard of care for HIV testing in the perinatal period and the education level of nurses across the state about implications of the new law in collaboration with The New Jersey Department of Health and Senior Services (NJDHSS) and a national resource center (NRC)
- Demonstrated that the translation of new legislation regarding perinatal HIV testing into clinical practice is through collaborative efforts of state agencies, educators, and clinicians

- Collaborated on the development of an HIV and AIDS Training Needs Assessment package with a Reference Group of faculty members from eight Health Training Institutions in Botswana
- Demonstrated in a survey of women in the Newark vicinity that women engage in a range of self-care
- Established that the highest proportions of women (~75% or more) reporting significantly more health care-related self-care behaviors, such as seeking medical care, medication adherence and Pap tests, were HIV patients
- Illustrated how women receiving care at HIV-care sites are more effectively engaged in managing their health
- Demonstrated that high levels of life stress, sleep pattern disturbance, and psychological distress were common among women living in an inner city
- Determined that self-reported sleep patterns, but not objective sleep pattern variables, explained 12.5% to 44% of the variance in psychological distress
- Posited that interventions focusing on sleep and psychological distress may reduce symptoms

## EDUCATIONAL RESEARCH

- Calculated the educational levels required to cancer educational materials distributed by local health departments and other organizations in New Jersey
- Found that the required literacy levels were substantially higher than recommended by the National Cancer Institute and the National Workgroup on Literacy and Health
- Showed that community-based bilingual asthma education for Latino families with children with asthma improves asthma knowledge
- Explored use of traditional and home remedies in the context of standard medical treatment for asthma in Latino families with children with asthma
- Identified methods of improving medical students understanding of emergency medical services through a 4th year EM clerkship
- Correlated the importance of residency program web sites to emergency medicine applicants
- Continued work on developing a radiology clerkship companion for medical students
- Reviewed the use of intravenous bisphosphonates in the treatment of osteoporosis
- To further research and educational collaboration co-chaired the organization of the Robert Wood Johnson Medical School/Rutgers University Women's Leadership Group
- Discovered that more training is needed for physicians to increase their comfort levels in providing care relating to gender identity concerns for transgendered patients

- Demonstrated that appropriate training results in effectively screening patients for intimate partner violence by both male and female medical students
- Demonstrated that physicians increased their awareness about bioterrorism in our trainings
- Confirmed that physicians continue to deny the probability of a bioterrorism event in their community
- Revealed that twenty percent of primary care physicians believe they are prepared to respond to a bioterrorism event
- Demonstrated that computer experience is significantly correlated with positive attitudes about Evidence Based Medicine as well as with EBM skills
- Conducted a needs assessment for a predoctoral fellowship in Nutrition and Cancer
- Studied the impact of an oral health assessment education program for nurses in long term care on nursing knowledge and practices regarding completion of patient oral health assessments.
- 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
- Started research investigating the process of medical school curriculum change at New Jersey Medical School

## OTHER RESEARCH

- 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
- Investigated technical assistance providers' experiences implementing universal behavioral interventions with public schools
- Documented common barriers present in schools when implementing universal behavioral interventions and the need for additional technical assistance support based on the presence of barriers
- Investigated the effectiveness and sustainability of a comprehensive approach to behavior support with families of children with developmental disabilities and problem behavior
- Identified the Impact of Scribes on Performance Indicators in the Emergency Department
- Demonstrated the effect on emergency physician productivity by a comparison of 8-hour versus 12-hour shifts

- Established that there is overutilization of medical evacuation helicopters for trauma
- Examined the effects of a financial incentive program on increasing emergency medicine faculty performance of bedside ultrasound
- As one of three collaborators (U of Tenn and U of Rochester), worked on NIH funding for multicenter research to further study vulvodynia
- Found differences in the effects of pre-loss marital closeness on indicators of post-loss well-being (depressive symptoms, grief, and relief) as spouses transition from the role of caregiver to that of widowed spouses
- Examined emotional contagion across the Center for Epidemiologic Studies Depression Scale (CES-D)'s subscales (positive affect, negative affect and somatic complaints); positive affect showed the highest levels of contagion between spouses within the context of long-term marriages and end stage renal disease
- Showed support for Lawton's environmental docility hypothesis which posits that environments have their greatest effects on persons in moderate health
- Found that a woman's education, income, and race, lower neighborhood socioeconomic status, and less street connectivity predict obesity
- Found that only a man's education predicts obesity in a sample of community-dwelling people aged 50 to 74 living in New Jersey
- Defined and operationalized "successful aging" both objectively, according to criteria that include avoiding disease, maintaining functional ability, retaining sensory abilities, preserving memory, and having minimal pain; and subjectively
- Examined how health behaviors, social connections, emotional well-being, and demographic characteristics distinguish people who are: "unsuccessful", "resilient", "disenchanted", and "successful" agers
- Demonstrated that income, gender (female), chronological age, cardiovascular exercise, volunteerism, having strong social relationships, as well as perceiving the self to be younger than the chronological age, predict subjective successful aging
- Showed that objective successful aging is predicted by education, income, gender (male), cardiovascular exercise, social relationships, and perceiving the self to be younger than the chronological age
- Demonstrated that volunteering was observed to be a significant and negative predictor of depressive symptomatology when controlling for age, race, and overall incidence of diagnosed illnesses
- Identified correlates of volunteerism indicating that volunteers have lower depression, lower negative affect, higher positive affect, higher self-reported successful aging, and higher self-rated than non-volunteers

## RESEARCH PROJECTS: 2008-2009

### FEDERAL FUNDING

The Role of Histone H2Az in Cardiac Gene Expression; M. Abdellatif, NJMS; *National Heart, Lung and Blood Institute*

A 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*

Evolution of Cardiovascular Risk with Normal Aging [Tulane]; A. Aviv, NJMS; *National Institute on Aging*

Human Telomere Genetics; A. Aviv, NJMS; *National Institute on Aging*

Genetics of the Sodium-Lithium Countertransport; A. Aviv, NJMS; *National Heart, Lung and Blood Institute*

IGF-1, Oxidative Stress and Telomere Dynamics in Cultured Human Somatic Cells (Stone, Rivka); A. Aviv, NJMS; *Ruth L. Kirschstein National Research Service Award*

Leukocyte Telomere Dynamics, Gender, Menopause, Insulin Resistance, and Survival; A. Aviv, NJMS; *National Institute on Aging*

The Role of Gap-Junction Communication and Oxidative Metabolism in the Biological Effects of Space Radiation; E. Azzam, NJMS; *National Aeronautics and Space Administration*

In Vivo Mammalian Tissue Response to Low Dose Ionizing Radiation: The Role of Oxidative Metabolism and Intercellular Communication; E. Azzam, NJMS; *United States Department of Energy*

Role of IRF5 in SLE Pathogenesis - (TRANSFER); B. Barnes, NJMS; *National Institute of Arthritis and Musculoskeletal and Skin Diseases*

In Vivo Role of IRFs in the Pathogenesis of Ductal Carcinoma; B. Barnes, NJMS; *United States Department of Defense*

Cell-Targeting Peptide Nucleic Acid for Prostate Cancer; B. Barton, NJMS; *United States Department of Veterans Affairs*

Regulation of mRNA Turnover in Trypanosomes; V. Bellofatto, NJMS; *National Institute of Allergy and Infectious Diseases*

III-CXT: Structure Comparison and Mining for RNA Genomics[NJIT]; V. Bellofatto, NJMS; *National Science Foundation*

Molecular Mechanism of Ion Transport by the Na,K-Pump; J. Berlin, NJMS; *National Institute of General Medical Sciences*

Regulation of Soluble Guanylyl Cyclase, the NO-Receptor; A. Beuve, NJMS; *National Institute of General Medical Sciences*

S-Nitrosylation of Soluble Guanylyl Cyclase: Potential Role in Nitrate Tolerance; A. Beuve, NJMS; *National Heart, Lung and Blood Institute*

Age-Related Eye Disease Study 2 (AREDS2) [Emmes Corp]; N. Bhagat, NJMS; *National Eye Institute*

Targeting FKBP52 and Copper Transport in Alzheimer's Disease; R. Birge, NJMS; *National Institute on Aging*

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 [University of Texas]; 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*

Triazole Hypersensitivity in Candida Albicans (TRANSFER); N. Chauhan, NJMS; *National Institutes of Health*

Vitamin D Hormone: Function and Mechanism of Action; S. Christakos, NJMS; *National Institute of Diabetes and Digestive and Kidney Diseases*

Role of TRPV6 in Gender and Age Dependent Alterations in Calcium Homeostasis (Benn. Bryan); S. Christakos, NJMS; *Ruth L. Kirschstein National Research Service Award*

Organizational Self-Assessment to Improve Diabetes Care in Primary Care Practices; J. Crosson, NJMS; *National Institute of Diabetes and Digestive and Kidney Diseases*

Building an Implementation Toolset for E-Prescribing [RAND Corporation]; J. Crosson, NJMS; *Agency for Healthcare Research and Quality*

Task Order 23 - National Study of Determinants of Early Diagnosis, Prevention and Treatment of TB in African-American Community; A. Davidow, NJMS; *Centers for Disease Control and Prevention*

Tuberculosis Mortality in the U.S.: Epidemiology and Prevention Opportunities - Task Order 25; A. Davidow, NJMS; *Centers for Disease Control and Prevention*

Training in Trauma and Critical Care Research; E. Deitch, NJMS; *National Institute of General Medical Sciences*

Mesenteric Lymph Linking Gut and Distant Organ Injury; E. Deitch, NJMS; *National Institute of General Medical Sciences*

Shock, Trauma, and Gut Origin of Sepsis; E. Deitch, NJMS; *National Institute of General Medical Sciences*

CD134-Based Fusion Polypeptides as Novel FIV Immuno-Therapeutics; A. DeParseval, NJMS; *National Institute of Allergy and Infectious Diseases*

Pre-Emptive Conditioning of the Ischemic Heart; C. DePre, NJMS; *National Heart, Lung and Blood Institute*

Lethal Action of Fluoroquinolones with Non-Growing Mycobacterium Tuberculosis; K. Drlica, NJMS; *National Institute of Allergy and Infectious Diseases*

Quinolone Action During Mycobacterial Growth Arrest; K. Drlica, NJMS; *National Institute of Allergy and Infectious Diseases*

Regulation of Genetic Competence in Bacillus Subtillis; D. Dubnau, NJMS; *National Institute of General Medical Sciences*

Control of Microcirculatory Exchange Function; W. Duran, NJMS; *National Heart, Lung and Blood Institute*

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*

Molecular Mechanism in Spinal Cord Neurodegeneration (Kurnellas, Michael); S. Elkabes, NJMS; *Ruth L. Kirschstein National Research Service Award*

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 Diseases*

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 - TRANSFER; 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*

T-Cell Intrinsic IL-10 Signaling and Immunopathology [VA Medical Center]; W. Gause, NJMS; *Veterans Administration*

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 Stroke*

Adenosine in Trauma and Sepsis; G. Hasko, NJMS; *National Institute of General Medical Sciences*

Integrated Testing and Primary Care of Persons Living with HIV in Newark, NJ - Ryan White Part C (Title III); S. Hodder, NJMS; *Health Resources and Services Administration*

Driving Improved Patient Outcomes through Development of Electronic Infrastructure - Ryan White Title III; S. Hodder, NJMS; *United States Department of Health and Human Services*

Protection Against Radiation-Induced Damage to Intestinal Nutrient Transport; R. Howell, NJMS; *National Institute of Allergy and Infectious Diseases*

Purification and Mass Spectrometry of Opioid Receptors; R. Howells, NJMS; *National Institute on Drug Abuse*

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*

Preventing Morbidity in First Episode Schizophrenia [Feinstein Institute for Medical Research]; R. Istafanous, NJMS; *National Institute of Mental Health*

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*

Molecular Modulators of HCV Replication; N. Kaushik-Basu, NJMS; *National Institute of Diabetes and Digestive and Kidney Diseases*

Assessment of Meridian Theory in the Vascular System; D. Kim, NJMS; *National Center for Complementary and Alternative Medicine*

Role of Interferon-Lambda in Antiviral Response; S. Kotenko, NJMS; *National Institute of Allergy and Infectious Diseases*

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 [Fudan University, China]; B. Kreiswirth, NJMS; *National Institute of Allergy and Infectious Diseases*

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; 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*

Role of Nuclear Gangliosides in Neuronal Function; R. Ledeen, NJMS; *National Institute of Neurological Disorders and Stroke*

Adenosine, Toll-Like Receptors and Angiogenesis; S. Leibovich, NJMS; *National Institute of General Medical Sciences*

Neural Stem Cell Responses to Perinatal Brain Damage; S. Levison, NJMS; *National Institute of Mental Health*

The Role of VEGF in Neonatal Rat Brain After Perinatal Hypoxic Ischemic Brain Damage (Woodbury, Jennifer); S. Levison, NJMS; *Ruth L. Kirschstein National Research Service Award*

IGF2 and Neural Stem Cell Homeostasis (Ziegler, Amber); S. Levison, NJMS; *Ruth L. Kirschstein National Research Service Award*

Mechanisms of MeCP2 Gene Expression Regulation; C. Lutz, NJMS; *National Institute of Child Health and Human Development*

High Glucose Promotes Myocyte Apoptosis by PKC Pathways; A. Malhotra, NJMS; *National Heart, Lung and Blood Institute*

Ribosome-Based Single Molecule Method to Acquire Sequence Data from Genomes; W. Mandrecki, 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*

Pediatric HIV/AIDS Cohort Study - NJMS: Adolescent Master Protocol (AMP): Subcontract Agreement [Harvard]; G. McSherry, NJMS; *National Institute of Child Health and Human Development*

p66/Insulin Like Growth Factor - 1 Reno-Protein in Diabetes; L. Meggs, NJMS; *National Institute of Diabetes and Digestive and Kidney Diseases*

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 - R21 Transfer from Temple University; E. Moran, NJMS; *National Cancer Institute*

Molecular Motors in Transport and Signaling by APP; V. Muresan, NJMS; *National Institute of General Medical Sciences*

Addressing Disparities in Cancer Care for Latino Medicare Beneficiaries; A. Natale-Pereira, NJMS; *Centers for Medicare and Medicaid Services*

NJMS Clinical Trials Unit: Targeting Pediatric, Adolescent, and Maternal HIV Infection; J. Oleske, 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*



Immortalization of SV40-Transformed Human Cells; H. Ozer, NJMS; *National Institute on Aging*

Mitochondrial Aconitase: Fe-S Cluster Biogenesis and Interaction with mtDNA; D. Pain, NJMS; *National Institute on Aging*

Constituents of HCV Replication Complex; 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*

Triazole Hypersensitivity in *Cardida Albicans* - TRANSFER; 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*

Novel Epitopes that Mediate Broad Neutralization of Clade B and C HIV-1 Isolates; A. Pinter, NJMS; *National Institute of Allergy and Infectious Diseases*

Regulation of the Cardiac Na/Ca Exchanger; J. Reeves, NJMS; *National Heart, Lung and Blood Institute*

Study of the Ocular Complications of Aids Research Group [Johns Hopkins Univ]; R. Rescigno, NJMS; *National Eye Institute*

Lipid Regulation of Transient Receptor Potential Channels; T. Rohacs, NJMS; *National Institute of Neurological Disorders and Stroke*

Glucosensing Neurons in Health, Obesity and Diabetes; V. Routh, NJMS; *National Institute of Diabetes and Digestive and Kidney Diseases*

Hormonal Control of Arcuate Nutrient Sensing Neurons (Cotero, Victoria); V. Routh, NJMS; *Ruth L. Kirschstein National Research Service Award*

Hypoglycemia-Induced NO in Glucose Sensing Neurons and Counterregulation; V. Routh, NJMS; *National Institute of Diabetes and Digestive and Kidney Diseases*

Retinal Vascular Changes in Type 1 Diabetic African-Americans; M. Roy, NJMS; *National Eye Institute*

Human Beta-Defensin-1 in HSV-1 Innate Immunity - Transfer from NJDS; 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*

Regulation of Myocardial Growth and Death By Akt/GSK3; J. Sadoshima, NJMS; *National Heart, Lung and Blood Institute*

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*

Induction of Th1 Immunity in Tuberculosis; P. Salgame, NJMS; *National Institute of Allergy and Infectious Diseases*

Th1 Cell Apoptosis in Tuberculosis - (TRANSFER); P. Salgame, NJMS; *John E. Fogarty International Center*

Helminth Modulation of Mtb; P. Salgame, NJMS; *National Institute of Allergy and Infectious Diseases*

Helminth Modulation of the Protective Immune Response to Tuberculosis (Potian, Julius A); P. Salgame, NJMS; Ruth L. Kirschstein National Research Service Award

B-D Facsaria for use in BSL-3 - Shared Instrumentation Grant; P. Salgame, NJMS; National Center for Research Resources

Immunosuppressive Role of TLR2 in Host Immunity to Mycobacterium Tuberculosis (McBride, Amanda); P. Salgame, NJMS; Ruth L. Kirschstein National Research Service Award

Molecular Mechanism of hTERT Function in Mitochondria; J. Santos, NJMS; United States Army

Cardiovascular Actions of Melanocortins; H. Sapru, NJMS; National Heart, Lung and Blood Institute

Central Cardiovascular Regulation: Role of Urocortin III; H. Sapru, NJMS; National Heart, Lung and Blood Institute

Complete Proteome of Cerebrospinal Fluid; S. Schutzer, NJMS; National Institute on Drug Abuse

Assessment of Human Electro-Muscular Interference (HEMI) Devices in Trainees; R. Servatius, NJMS; National Institute of Justice

Dissection of Mycobacterium Tuberculosis Metabolic and Regulatory Pathways to Persistence; L. Shi, NJMS; National Institute of Allergy and Infectious Diseases

Gating/Permeation Coupling in Ca<sup>2+</sup> Channels; R. Shirokov, NJMS; National Institute of Mental Health

Mitochondria and Calcium Signaling in Skeletal Muscle; N. Shirokova, NJMS; National Institute of Arthritis and Musculoskeletal and Skin

Role of Limbic-Midbrain Axis in Aggressive Behavior; A. Siegel, NJMS; National Institute of Neurological Disorders and Stroke

Economics and Utility-Weighted Health Outcomes in Understanding Health Care Quality, Effectiveness and Efficiency; A. Sinha, NJMS; United States Department of Veterans Affairs

Molecular Determinants of M. Tuberculosis Virulence; I. Smith, NJMS; National Institute of Allergy and Infectious Diseases

Erythrocytes, Immuno-Modulation and G6PD Deficiency; Z. Spolarics, NJMS; National Institute of General Medical Sciences

X-Chromosome, Injury and Infection; Z. Spolarics, NJMS; National Institute of General Medical Sciences

Vitamin D Plant Antioxidant Silibinin in Leukemia Translational Study; G. Studzinski, NJMS; National Cancer Institute

Vitamin D Analogs as Adjuvants in Chemotherapy; G. Studzinski, NJMS; National Cancer Institute

Signaling Network of Mec1 in DNA Damage Response; K. Sugimoto, NJMS; National Institute of General Medical Sciences

Insecticide Interactions with Acetylcholinesterase; L. Sultatos, NJMS; National Institute of Environmental Health Sciences

Importance of Human Tid1 in Cellular Response to Environment Stress; C. Suzuki, NJMS; United States Army

The Role of cAMP Signaling Changes in Alcoholic Liver Disease (Prince, Victoria); A. Thomas, NJMS; Ruth L. Kirschstein National Research Service Award

Ethanol on Excitation-Contraction in Cardiac 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

Designer Retinal Circuits: Interfacing Optical Tweezers with an Electronic Device; E. Townes-Anderson, NJMS; National Eye Institute

Imaging the Transport of Individual mRNA Molecules to the Active Synapses; S. Tyagi, NJMS; National Institute of Mental Health

High Throughput PCR Assays for Diagnosing Tuberculosis; S. Tyagi, NJMS; *National Institute of Allergy and Infectious Diseases*

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*

Integrative Mechanisms in Cardiovascular Disease; S. Vatner, NJMS; *National Heart, Lung and Blood Institute*

Longevity and Stress Resistance; S. Vatner, NJMS; *National Institute on Aging*

Cardiovascular Control in Normal and Disease States; S. Vatner, NJMS; *National Heart, Lung and Blood Institute*

Beta-Adrenergic Signaling in Hypertrophy and Heart Failure; S. Vatner, NJMS; *National Heart, Lung and Blood Institute*

Aging Effects on Cardiovascular Function; S. Vatner, NJMS; *National Institute on Aging*

Reduction of Disparities in Childhood Immunization Rates: Essex County, New Jersey; P. Wenger, NJMS; *Centers for Disease Control and Prevention*

Novel Pathways for Bcr-Abl Transformation; I. Whitehead, NJMS; *National Cancer Institute*

Mechanisms of Death and Survival in Oligodendroglia; T. Wood, NJMS; *National Institute of Neurological Disorders and Stroke*

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 Momax; L. Yan, NJMS; *National Heart, Lung and Blood Institute*

Anthropagic 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*

Alcohol and Mesolimbic Glutamatergic Transmission; J. Ye, NJMS; *National Institute on Alcohol Abuse and Alcoholism*

Enhancing Current Capacity for Surveillance of Autism Spectrum Disorders in New Jersey; W. Zahorodny, NJMS; *Centers for Disease Control and Prevention*

IL-2 Neuroimmunology and Behavior; S. Zalcman, NJMS; *National Institute of Mental Health*

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*

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*

Posttranscriptional Regulation of Oncogene Messenger RNA (RESUB); G. Brewer, RWJMS; *National Institutes of Health*

Expressed Bacterial Triple-Helical Products as Tissue Engineering Scaffolds; B. Brodsky, RWJMS; *National Institute of General Medical Sciences*

Structural Studies of Triple-Helical Proteins (Competing); B. Brodsky, 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*

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

Investigation of the SBP2 Ribosome Interaction in Sec Incorporation; P. Copeland, RWJMS; *National Institutes of Health*

The Translational Control of Selenoprotein Synthesis; P. Copeland, RWJMS; *National Institute of General Medical Sciences*

Studies of Esophageal Metaplasia Using a Novel Antibody; K. Das, RWJMS; *National Institute of Diabetes and Digestive and Kidney Disease*

Developmental Ah Receptor Activity in the CNS: Neurogenesis and Neurotoxicity (Consortium Agreement, Univ. of Rochester - Lisa A. Opanashuk, Ph.D.); E. DiCicco-Bloom, RWJMS; *National Institute of Environmental Health Sciences*

Treating Depression in Parkinson's Disease: A New Method (RESUB); 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*

High Throughput Screening to Identify Antagonists of HIV-1 Latency; J. Dougherty, RWJMS; *National Institute of Allergy and Infectious Diseases*

The Role of Neurotrophins in Oligodendrocyte Function; C. Dreyfus, RWJMS; *National Institutes of Health*

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

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

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*

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

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

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

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

A Molecular Target for Nutrients in the Prostate; A. Gottlieb, RWJMS; *National Cancer Institute*

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*

Induction of Autophagy in Human Macrophages by Lipopolysaccharide; B. Haimovich, RWJMS; *National Institute of General Medical Sciences*

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

Adenosine, Glutamate and Neurodegeneration; S. Harris, 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 (RESUB); S. Hudson, RWJMS; *National Cancer Institute*

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

Gene Therapy for Prostate Cancer Using Bacterial MazF Suicide System; M. Inouye, RWJMS; *United States Department of Defense*

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*

Regulatory Cells Involved in the Suppression of Active EAE; K. Ito, RWJMS; *National Institute of Neurological Disorders and Stroke*

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

The Role of Autophagy in Breast Cancer Chemotherapy; S. Jin, RWJMS; *United States Department of Defense*

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

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*

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

Florescence Activate Cell Sorter; E. Lattime, RWJMS; *National Institutes of Health*

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

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

Maltreated Children's Emotions and Self-Cognitions (Supplement to MH059391); M. Lewis, RWJMS; *National Institute of Mental 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*

Interpretation of Prospective Exposure Studies for Emergency Event Preparedness via NJ Office of Homeland Security; P. Liroy, RWJMS; *United States Environmental Protection Agency*

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

Mechanisms of Action in Antitumor Drugs; L. Liu, RWJMS; *National Cancer Institute*

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 (RESUB); G. Lu-Yao, RWJMS; *National Institutes of Health*

Metabolic Syndrome and Cancer Mortality: Mechanisms and Potential Interventions; G. Lu-Yao, RWJMS; *National Institutes of Health*

Topoisomerase II $\beta$  Mediated Doxorubicin Cardiotoxicity; Y. Lyu, RWJMS; *United States Department of Defense*

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

Ca Sparks in Muscle Aging and Dystrophy Gafa 060561 denied; J. Ma, RWJMS; *National Institutes of Health*

Development of an Objective Assessment Tool for Evaluating Flight Tasks Under Simulated Conditions; J. Ma, RWJMS; *Federal Aviation Administration*

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*

A Mouse Knock-In Model for ENGRAILED 2 (EN2) Susceptibility; J. Millonig, RWJMS; *National Institutes of Health*

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

Gonadotropin Action; W. Moyle, RWJMS; *National Institute of Child Health and Human Development*

MARC Predoctoral Fellowship Program Nixon, Jenel fellow Gartenberg, Marc mentor; J. Nixon, RWJMS; *Ruth L. Kirschstein National Research Service Award*

Omega 3 Fatty Acids in the Treatment of Children with Autism Spectrum Disorders (RESUB); S. Novotny, RWJMS; *National Center for Complementary and Alternative Medicine*

Neurogenesis in the Non-Pigmented Retina; R. Nowakowski, RWJMS; *National Eye Institute*

Nuclear Events in PTH Action on Bone Cells; N. Partridge, RWJMS; *National Institute of Diabetes and Digestive and Kidney Disease*

Mechanism and Regulation of Transcription Initiation (Competing); 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 Institutes of Health*

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

Virus-Host Interactions in Eukaryotic Cells; S. Pestka, RWJMS; *National Institute of Allergy and Infectious Diseases*

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

Investigation of Asymmetric Signaling Complexes in Axon Guidance; C. Quinn, RWJMS; *National Institutes of Health*

BRCA1 and X Chromosome Inactivation (TRANSFER); N. Reichman, RWJMS; *National Cancer Institute*

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

Regulation of P-Glycoprotein Expression and Function by CD44 in Breast Cancer; L. Rodriguez-Rust, RWJMS; *United States Department of Defense*

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

Functional Analysis of the Bifunctional ION Channel and Kinase TRPM7; L. Runnels, RWJMS; *National Institutes of Health*

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

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

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

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

Protection of Genomic Integrity by BCCIP (TRANSFER YEARS 2-5); Z. Shen, RWJMS; *National Cancer Institute*

3/5 Cognitive Neuroscience Task Reliability & Clinical Applications Consortium; S. Silverstein, RWJMS; *National Institutes of Health*

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

Maintaining Independence and Sobriety Through Systems Integration; D. Smelson, RWJMS; *Substance Abuse and Mental Health Services Administration*

Regulation Sindbis Virus Subgenomic RNA Synthesis; V. Stollar, RWJMS; *National Institute of Allergy and Infectious Diseases*

Mechanism of Bacterial Enhancer-Dependent Transcription; V. Studitsky, RWJMS; *National Science Foundation*

Emotional and Physiological Response to Goal Blockage in Infants and Children (RESUB) (COMPETING); M. Sullivan, RWJMS; *National Institute of Mental Health*

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

Growth Control of Normal and Malignant Keratinocytes (Competitive Renewal years 17-21); 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 (Competitive Renewal 9-12); 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 (COMPETING, RESUB); N. Walworth, RWJMS; *National Institute of General Medical Sciences*

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

Shape Signatures, An Open Resource for Drug Discovery; W. Welsh, RWJMS; *National Institute of General Medical Sciences*

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

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

Transcriptional Regulation of Retinal Development; M. Xiang, RWJMS; *National Eye Institute*

Role of Foxn4 Gene During Retinogenesis; M. Xiang, RWJMS; *National Institutes of Health*

The Impact of a Common MDM2 SNP on the Sensitivity of Breast Cancer to Treatment; J. Yang, RWJMS; *United States Department of Defense*

Basement Membrane Self-Assembly and Structure; P. Yurchenco, RWJMS; *National Institutes of Health*

Growth Control and Anti-Cancer Mechanisms; X. Zheng, RWJMS; *National Institutes of Health*

Coupling of 5-HT Receptors to Neuroprotective Pathways (RESUBMISSION); D. Ziedonis, RWJMS; *National Institute of Mental Health*

Sexual Dysfunction and Diabetes: Look AHEAD Sub-Study; D. Ziedonis, RWJMS; *National Institutes of Health*

DNA Helicase and Primase Inhibitors for Biodefense; S. Biswas, SOM; *National Institutes of Health*

Impaired Glucose Challenge Test & Maternal Fetal Outcomes; X. Chen, SOM; *National Institutes of Health*

Geriatric Infusion: Preparing Physicians of the 21st Century to Care for Our Elderly; A. Chopra, SOM; *Reynolds Foundation*

Young Sexually Abused Children: Optimal CBT Strategies; E. Deblinger, SOM; *National Institutes of Health*

Evolution of Hermaphroditism in Nematodes; R. Ellis, SOM; *National Science Foundation*

Evolution of Developmental Regulatory Pathways; R. Ellis, SOM; *National Institutes of Health*

Behavior Health and Transformational Change; M. Forsberg, SOM; *Health Resources and Services Administration*

Clinical Pathways in Acute Care Geriatrics; T. Ginsberg, SOM; *Health Resources and Services Administration*

The Src Kinase, Cell Communication and Growth Control; G. Goldberg, SOM; *National Institutes of Health*

Transcription Factor Acetylation in Yeast; M. Law, SOM; *National Institutes of Health*

Analysis of Stem Cell Therapy in the Tremor Rat Model of Canavan Disease; P. Leone, SOM; *National Institutes of Health*

RNA Polymerase Structure and Function; W. McAllister, SOM; *National Institutes of Health*

Mechanisms in Developmental Timing; E. Moss, SOM; *National Science Foundation*

Effects of Ethanol on TNF Cytotoxicity; J. Pastorino, SOM; *National Institutes of Health*

Targeting Hexokinase II in Chemotherapy; J. Pastorino, SOM; *National Institutes of Health*

Monitoring Mechanisms in Mammalian Ribosome Biogenesis; D. Pestov, SOM; *National Institutes of Health*

Work-Family Conflicts of Older Women; R. Pruchno, SOM; *National Institutes of Health*

Trauma Informed Disaster and Evidenced Based Services (TIDES); M. Runyon, SOM; *Substance Abuse and Mental Health Services Administration*

Oxidative Stress, Antioxidant Status and Pregnancy Outcome; T. Scholl, SOM; *National Institutes of Health*

Vitamin D Status in Pregnant Women; T. Scholl, SOM; *National Institutes of Health*

Oxidative Stress, Antioxidant Status & Pregnancy Outcome; P. Stein, SOM; *National Institutes of Health*

Phthalate Exposure and Pregnancy Outcome; P. Stein, SOM; *National Institutes of Health*

Coordination of Fetal Growth by Nutrient Availability; 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*

Role of the Oxidative Stress Pathway in Drug Resistance; R. Strich, SOM; *National Institutes of Health*

The use of predatory prokaryotes to control drug resistant bacteria and microbial- biofilms associated with burn and wound infections; D. Kadouri, *Department of the Army, USAMRA*

Diabetes-enhanced Experimental Periodontitis; D.T. Graves, NJDS, *National Institutes of Health*

Recognition of Commensal and Pathogenic Bacteria By Oral Epithelium; D.T. Graves, NJDS, *National Institutes of Health*

Genetic Epidemiology and Pharmacogenetics of Dental Fluorosis; S. Diehl, NJDS; *National Institute of Dental and Craniofacial Research*

Anti-staphylococcal Activities of *A. actinomycetemcomitans* dispersin B; J. B. Kaplan, NJDS, *National Institute of Allergies and Infectious Diseases*

Interaction Between Leukotoxin and Red Blood Cells; S. Kachlany, NJDS, *National Institutes of Health*



Salivary Amylase: Role in Dental Caries Pathogenesis; N. Ramasubbu, NJDS; *National Institutes of Health*

Structure/Function Studies of Biofilm Agents from Aa; N. Ramasubbu, NJDS; *National Institutes of Health*

Characterization of Kingella Kingae Leukotoxin; N. Balashova, NJDS, *National Institute of Allergy and Infectious Diseases*

Attachment of Oral Actinobacillus to Epithelium; D. Fine, NJDS, *National Institutes of Health*

Localized Aggressive Periodontitis: Microbial Host Markers Susceptibility; D. Fine, NJDS, *National Institutes of Health*

Vitamin D Induction of Antibacterial Activity in Gingival Cells; G. Diamond, NJDS. *National Institute of Dental Craniofacial Research*

A Novel Antimicrobial Peptide-Mimetic for Oral Candidiasis; R. Scott, Polymedix / G. Diamond, NJDS *National Institute of Dental Craniofacial Research*

Prevalence of Complementary and Alternative Medicine (CAM) 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 (VNS) Using the Neurocybernetic Prosthesis (NCP) System in Patients with Refractory Fibromyalgia with and without Concurrent Major Depression; A. Perlman, SHRP; *National Institute of Arthritis and Musculoskeletal and Skin Diseases*

Increasing New Jersey Quitline Use by Pregnant/Postpartum Smokers: Knowledge and Barriers (through Association of Schools of Public Health); N. Boyd, SPH; *Centers for Disease Control*

An Exploratory Study to Integrate Cell Phones into Random Digit Dialing Health Surveys; C. Delnevo, SPH; *National Cancer Institute*

Improving Surveillance and Monitoring of Cigars; C. Delnevo, SPH; *National Cancer Institute*

National Study of Disability Trends and Dynamics (through John Hopkins Bloomberg School of Public Health); V. Freedman, SPH; *National Institute on Aging*

Reconciling Divergent Evidence on Trends in Old Age Disability; V. Freedman, SPH; *National Institute on Aging*

Prospective Modeling of Functional Pathways: Supplement to End of Life Trajectories-A Prospective Model; V. Freedman, SPH; *National Institute on Aging*

Refined Exposure Surrogates for Ambient PM in Epidemiology Studies Accounting for Temporal/Spatial Variations in Infiltration (through Rutgers); D. Rich, SPH; *United States Environmental Protection Agency*

National Children's Study (NY/NJ Study Center & Manhattan-through Mt. Sinai); G. Rhoads, SPH; *National Institute of Child Health Development*

The Effects of Nursing on NICU Patient Outcomes; J. Rogowski, SPH; *National Institute of Nursing Research*

Safety and Health Management Systems for Small and Medium Sized Businesses; M. Rosen, SPH; *Occupational Safety and Health Administration*

Diesel Exhaust Particle Effects on Human Immunity to Mycobacterium Tuberculosis; S. Schwander, SPH; *National Institute of Environmental Health Sciences*

Effect of Caffeine on UVB-Induced Skin Cancer (through Rutgers, the State University of New Jersey); W. Shih, SPH; *National Institutes of Health*

Response to Drastic Changes in Air Pollution: Reversibility and Susceptibility; J. Zhang, SPH; *National Institute of Environmental Health Sciences*

Molecular and Physiological Responses to Drastic Changes in Particulate Matter Concentration and Composition (through Health Effects Institute); J. Zhang, SPH; *United States Environmental Protection Agency and Auto Industry*

Enlisting Hospitals to Offer Rapid HIV Testing in L&D. Implementing Routine HIV Testing in Emergency Departments: Follow-up of Strategic Planning Workshops; C. Burr, FXB-SN; *U.S Centers for Disease Control and Prevention Cooperative Agreement for Training and Technical Assistance to Support Elimination of Perinatal HIV Infection and Implementation of Routine HIV Testing in Healthcare Settings*

Health Training Institutions (HTI) HIV and AIDS Training Needs Assessment. D. Storm; FXB-SN; *U.S Centers for Disease Control and Prevention Cooperative Agreement*

Development and Pilot Test of Generic Tools to Evaluate the Impact of the Testing and Counselling for PMTCT Support Tool; D. Storm, FXB-SN; *U.S Centers for Disease Control and Prevention Cooperative Agreement*

The Development and Tracking of Health Promotion in the Community; P. Rothpletz-Puglia, FXB-SN; *Health Resources and Services Administration HIV/AIDS Bureau, Part D Training and Technical Assistance Cooperative Agreement*

## **OTHER GOVERNMENTAL FUNDING**

Targeting IRF-5 Signaling for Cancer Chemotherapy (Spencer, Daniel S); B. Barnes, NJMS; *NJ Commission on Cancer Research*

Development of a FRET-Based Diagnostic Assay for CML(Tunceroglu, Ahmet S); R. Birge, NJMS; *NJ Commission on Cancer Research*

Novel Targets for Neuroprotection in the Spinal Cord; S. Elkabes, NJMS; *NJ Commission on Spinal Cord Research*

Persuading PDC to Cross-Present Tumor Antigen to CTL (Pierog, Piotr); P. Fitzgerald-Bocarsly, NJMS; *NJ Commission on Cancer Research*

Stem Cell-Based Therapy in Mst1 Transgenic Mice, A Mouse Model of Cardiomyopathy; D. Fraidenraich, NJMS; *NJ Commission on Science and Technology*

In Vivo Thermal Sensitization of Intraperitoneal Chemotherapy; L. Harrison, NJMS; *NJ Commission on Cancer Research*

Multiple Myeloma Cell Growth Inhibition By an Opioid - Pre-Doctoral Fellowship (Terskiy, Alexandra); R. Howells, NJMS; *NJ Commission on Cancer Research*

Stimulating CNS Regeneration after Traumatic Brain Injury - Multi-Investigator Project Grant; S. Levison, NJMS; *NJ Commission on Brain Injury Research*

Mesenchymal Stem Cell as Cancer Target in Bone Marrow; P. Rameshwar, NJMS; *NJ Commission on Cancer Research*

The Role of miRNAs and Cancer Stem Cells in CLL(Salerno, Erica); 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*

Mitochondrial Telomerase and Its Impact in Prostate Cancer; J. Santos, NJMS; *NJ Commission on Cancer Research*

Regulation of GTPase Signaling by Sec14p Domains - Predoctoral Fellowship(Fitzpatrick, Ethan); I. Whitehead, NJMS; *NJ Commission on Cancer Research*

Opioids and Cell Proliferation Following Spinal Cord Injury; T. Cominski, RWJMS; *NJ Commission on Spinal Cord Research*

Determination of Airborne Hexavalent Chromium in Meadowland District; Z. Fan, RWJMS; *NJ Meadowlands Commission*

The Effect of Poly (ADP-Ribose) Polymerase (PARP) Inhibitors on Cancer Stem Cells; S. Ganesan, RWJMS; *NJ Commission on Cancer Research*

Health Care Coordination for women of Color with HIV/AIDS; S. Gaur, RWJMS; *Middlesex County Department of Human Services*

Faith Community Leadership: Integrating Issues & Perspectives into Clergy Training; W. Gaventa, RWJMS; *Pennsylvania Developmental Disabilities Council*

Reducing Direct Support Professional Turnover in New Jersey: Creating a Career Path (Year 2); W. Gaventa, RWJMS; *NJ Council of Developmental Disabilities*

The Role of Bone Marrow Cells in Repair of the Blood Brain Barrier After Injury; J. Glod, RWJMS; *NJ Commission on Brain Injury Research*

YY1 in Schwann Cell Proliferation and Myelination; Y. He, RWJMS; *NJ Commission on Spinal Cord Research*

Identification and Characterization of Mantle Cell Lymphoma Stem Cells; D. Medina, RWJMS; *NJ Commission on Science and Technology*

Use of Stem Cells for Delivery of Biotherapeutics for the Treatment of Cancers; S. Pestka, RWJMS; *NJ Commission on Science and Technology*

Mechanisms of Mesenchymal Stem Cell-Induced Immunosuppression; Y. Shi, RWJMS; *NJ Commission on Science and Technology*

Plasticity of Amnion Derived Stem Cells (ADSCs) In Vitro and In Vivo; D. Woodbury, RWJMS; *NJ Commission on Science and Technology*

Controlled Differentiation of Inner Retinal Cell Types from Stem Cells; M. Xiang, RWJMS; *NJ Commission on Science and Technology*

MicroRNAs MiR-290-295 in Blastocyst-Derived Stem Cells & the Early Mouse Embryo; H. Houbaviy, 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*

Autoantibodies and the Pathogenesis of Autism; R. Nagele, SOM; *NJ Governor's Council on Autism*

Use of BMH as a Diagnostic Marker; R. Nagele, SOM; *NJ Commission on Science and Technology*

Enhanced Accessibility to Specialized Services for Children Who Are Crime Victims; F. Neubauer, SOM; *NJ Division of Criminal Justice*

Oxidative Stress and Brain Metabolism in Autism; P. Stein, SOM; *NJ Governor's Council on Autism*

Psychiatric Services for Dually Diagnosed Persons; M. Tracey, SOM; *NJ Department of Human Services*

Psychological Services for Abused and Neglected Children; M. Tracey, SOM; *NJ Department of Human Services*

Overall Evaluation of the New Jersey Comprehensive Tobacco Control Program; C. Delnevo, SPH; *NJ Department of Health and Senior Services*

Evaluation of a Demonstration on Sterile Syringe Access Program in New Jersey; K. Demissie, SPH; *NJ Department of Health and Senior Services*

Perchlorate in Breast Milk Pilot Project; S. Marcella, SPH; *NJ Department of Environmental Protection*

Development of Indicators of Gestational Exposure of Infants to Endocrine Disruptor Substances in the New Jersey Population; M. Robson, SPH; *NJ Department of Environmental Protection*

Investigation of Endocrine Disruption Effects of Atrazine on New Jersey Frogs; M. Robson, SPH; *NJ Department of Environmental Protection*

Lead States in Public Health Quality Improvement, MLC-3; M. Rosen, SPH; *NJ Health Officers Association*

Emergency Response and Crisis Management; M. Sass, SPH; *Middlesex County Vocational and Technical School*

Evaluation and Technical Assistance in Support of County Coalition Activities and the Comprehensive Cancer Control Plan; M. Sass, SPH; *NJ Department of Health and Senior Services*

Collaboration Among Stakeholders and Education of Providers to Update and Support Best Practices for Routine Prenatal HIV Testing in New Jersey; E. Gross, FXB-SN; *NJ Department of Health*.

## **NON-GOVERNMENTAL NON-PROFIT SPONSORS**

Telomere Attrition and Cardiovascular Disease; A. Aviv, NJMS; *Washington University*

Role of IRF-5 as a Tumor Suppressor in Non-Small Lung Cancer; B. Barnes, NJMS; *Flight Attendant Medical Research Institute*

Biological Function of IRF-5 SNPs in Lupus; B. Barnes, NJMS; *Arthritis Foundation*

Cell-Targeted Anti-StAT3 Inhibitors for Pancreatic Cancer; B. Barton, NJMS; *Elsa U. Pardee 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*

Musculoskeletal Oncology at NJMS; J. Benevenia, NJMS; *Musculoskeletal Transplant Foundation*

Synaptic Interactions: Formation and Plasticity; A. Beuve, E. Kuzhikandathil, J. McArdle, P. Rameshwar, and E. Townes-Anderson, NJMS; *F. M. Kirby Foundation*

Study of a Potential Drug-Target in the Malaria Parasite, Plasmodium Casein Kinase I; P. Bhanot, NJMS; *American Heart Association*

Regulatory Mechanisms of the Crk Adapter Protein; R. Birge, NJMS; *Rutgers, The State University of New Jersey*

Comparing Docetaxel in Combination with Doxorubicin and Cyclophosphamide (TAC) vs Doxorubicin and Cyclophosphamide Followed by Docetaxel; M. Bryan, NJMS; *Breast Cancer International Research Group*

Regulatory Mechanisms Involved in Active Intestinal Calcium Absorption (Ajibade, Dare); S. Christakos, NJMS; *United Negro College Fund*

Inhibitors of Bacterial RNA Polymerase: "Switch Region"; N. Connell, NJMS; *Rutgers, The State University of New Jersey*

Trypanosome Gene Expression as a Drug Target for Chagas Related Cardiomyopathy; A. Das, NJMS; *American Heart Association, Heritage Affiliate*

Program of Cardiac Cell Survival in Ischemic Heart; C. Depre, NJMS; *American Heart Association*

Role of the Toxin- Antitoxin of Mycobacterium Tuberculosis in the Development of Persistence; P. Fontan, NJMS; *Stony Wold-Herbert Fund*

Correction of Vascular Defects in Id Knockout Hearts by Wnt5a-Induced Compensatory Mechanisms; D. Fraidenraich, NJMS; *American Heart Association*

Embryonic Stem Cells Prevent Duchenne Muscular Dystrophy in MDX Mice; D. Fraidenraich, NJMS; *Muscular Dystrophy Association*

Immunity and Inflammation Responses in Bone-Osteolysis Research - Joint Research Project; W. Gause, NJMS; *Buechel Endowment*

Pan-European Network for the Study and Clinical Management of Drug Resistant Tuberculosis [Fondazione Centro]; M. Gennaro, NJMS; *Fondazione Centro San Raffaele Del Monte Tabor*

Novel Immunoassays for Mycobacteria Detection in Non-Human Primates; M. Gennaro, NJMS; *University of California, Davis*

Study of Multiple Drug-Resistant Strains of Tuberculosis (Bibi, Nazia); M. Gennaro, NJMS; *Civilian Research and Development Foundation*

FDG-PET/CT as a Predictive Marker of Tumor Response and Patient Outcome: Prospective Validation in Non-Small Lung Cancer; N. Ghesani, NJMS; *American College of Radiology Imaging Network*

Telomere Dysfunction Induced Senescence in Aging Primates; U. Herbig, NJMS; *Ellison Medical Foundation*

The Role of Homocysteine Thiolactone in Atherosclerosis; H. Jakubowski, NJMS; *American Heart Association*

Waiting Room Parents-Strengthening the Lives of Vulnerable Youth; R. Johnson, NJMS; *Victoria Foundation*

T Cell Polarization and Candida Reactivity in Autistic Children with Food Allergy; H. Jyonouchi, NJMS; *Autism Research Institute*

Mitochondrial Calcium Signaling and its Influence on Neural Activation-Induced Cerebral Response; S. Kannurpatti, NJMS; *American Heart Association*

A Multicenter Study to Estimate the Safety and Efficacy of Ceftazidime vs. Imipenem Cilastatin in Treatment of Complicated Urinary Tract Infections; R. Kapila, NJMS; *Premier Research International, LLC*

Development of the Rat Model of TB Disease for Rapid Evaluation of Antimycobacterial Compounds [Institute of Public Health Brussels, Belgium]; G. Kaplan, NJMS; *Bill and Melinda Gates Foundation*

Protective Immunity Induced by Newborn BCG Vaccination; G. Kaplan, NJMS; *University of Cape Town*

Mycobacterium Tuberculosis Infection of Human Lung; G. Kaplan, NJMS; *Cornell University*

Role of Immune Pressure in Effectiveness of TB Chemotherapy; G. Kaplan, NJMS; *Bill and Melinda Gates Foundation*

Ginkgo Biloba for ECT-Induced Memory Deficits; C. Kellner, NJMS; *Medical University of South Carolina*

Inhibition of Type I and Type III IFNs by Poxvirus-Encoded Soluble Proteins; S. Kotenko, NJMS; *The Alliance for Lupus Research*

Correlation Between MRSA Distribution and Nosocomial; B. Kreiswirth, NJMS; *New York Community Trust*

Impact of Wide-Spread Isoniazid Therapy on the Molecular Epidemiology of Tuberculosis; B. Kreiswirth, NJMS; *New York Community Trust*

Identifying Molecular Mechanisms that Regulate Expression of the D1 Dopamine Receptor Gene in the Kidney; E. Kuzhikandathil, NJMS; *American Heart Association, Heritage Affiliate*

Adolescent Diet, Hormones and Breast Cancer Susceptibility; N. Lasser, NJMS; *Fox Chase Cancer Center*

The Role of IL-17 in Parasite Induced Immune Modulation of Asthma; Z. Liu, NJMS; *American Lung Association*

Safety for Child Pedestrians- A Community Quality of Life Initiative; D. Livingston, NJMS; *Independence Community Foundation*

Surveillance of the RADARS 7 by Poison Control Center: A Pilot Study; S. Marcus, NJMS; *Denver Health and Hospital Authority*

The Functions of Affect in Treatment Decisions of Rising PSA Patients; A. Natale-Pereira, NJMS; *Mount Sinai School of Medicine*

Structural Analysis of RAP-Mediated Signal Transduction (Baker, Melinda); M. Neiditch, NJMS; *United Negro College Fund*

Functional Characterization of Yeast Mgm1p, a Dynamin-Related GTPase, Involved in Mitochondrial Fusion; D. Pain, NJMS; *American Heart Association, Heritage Affiliate*

Cellular Basis for the Antifungal Activity of Amiodarone; D. Perlin, NJMS; *Johns Hopkins University*

Development of Fungal Diagnostics; D. Perlin, NJMS; *The University of Manchester*

PHRI-DNA Fingerprinting and TB Control; D. Perlin, NJMS; *Healthcare Foundation of New Jersey*

The V3 Loop: A Conserved Structure of the GP/20 that can Induce Broadly Neutralizing Antibodies Against HIV-1 [New York Univ]; A. Pinter, NJMS; *Bill and Melinda Gates Foundation*

Trophic Factor Secretion by Cultured Retal RPE Cells (Kolomeyer, Anton); K. Pokorny, NJMS; Midwest Eye-Banks

Influence of Material Cytokines Produced During Pregnancy on Development of Effector and Regulatory T Helper Lymphocytes/Etiological Factors in Autism; N. Ponzio, NJMS; Autism Speaks

Influence of the Maternal Immune Response on Development of Autism; N. Ponzio, NJMS; Autism Speaks

Role of Cell Cycle Related Kinasse in Cardiac Cell Growth and Survival; H. Qiu, NJMS; American Heart Association, Founder Affiliate

Retinoids and Bmp2 Expression in Embryos; M. Rogers, NJMS; American Heart Association, Heritage Affiliate

The Role of Phospholipase C Activation in the Desensitization of TRPV1 Channels; T. Rohacs, NJMS; Alexandrine and Alexander L. Sinsheimer Fund

NO Effect in the Impairment of Counter Regulatory Response to Hypoglycemia (Fioramonti, Zavier); V. Routh, NJMS; Juvenile Diabetes Research Foundation International

Discovery of Protein Biomarkers Predicative of Early Onset Dilated Cardiomyopathy in African Americans; M. Schwalb, NJMS; Healthcare Foundation of New Jersey

Cardiac Dystrophy: Cellular Mechanisms; N. Shirokova, NJMS; American Heart Association, Founder Affiliate

Post-Transcriptional Regulation of Endothelial Nitric Oxide Synthase Expression; J. Sun, NJMS; American Heart Association

Role of HVPS34/mTOR Complex in Amino Acid-Induced Obesity and Insulin Resistance; A. Thomas, NJMS; University of Cincinnati

Search for Anti Ganglioside and GD3S Antibodies in Patients with MS and Controlls using Sensitive Captive/Spectroscopy Technology; P. Toliias, NJMS; Segal Family MS Research Fund

Exploring the Origins of Random Bursts of RNA [NJIT]; S. Tyagi, NJMS; Public Health Research Institute

Mechanism of the Nicotinic Anti-Inflammatory Effects in Sepsis; L. Ulloa, NJMS; American Heart Association

Elimination of Dormant Breast Cancer Cells by Targeting Survival Signaling; R. Weider, NJMS; Ruth Estrin Goldberg Memorial for Cancer Research

IL-2 Induced Behavioral Changes: Role of Sex Differences and Development; S. Zalcman, NJMS; Society for Women's Health Research

Module II: Enhancing Cell Survival in Aged Human Eyes - Bruch Membrane; M. Zarbin, NJMS; The Foundation Fighting Blindness

Characterization of Trophic Factor Secretion Profile by Adult and Fetal RPE (Kolomeyer, Anton); M. Zarbin, NJMS; Research to Prevent Blindness

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

Identification of the lysophosphatidic Acid Receptor(s) Responsible for Phenotypic Modulation of VSMC; C. Zhang, NJMS; American Heart Association

Anaerobic Shock as a Novel Treatment for Tuberculosis; X. Zhao, NJMS; Bill and Melinda Gates Foundation

Plasmacytoid Dendritic Cells in Multiple Sclerosis; K. Balashov, RWJMS; National Multiple Sclerosis Society

Peptide Based Antimetastatic Therapy of Prostate Cancer; D. Banerjee, RWJMS; New York Medical College

Role of HDAC in Remyelination; P. Casaccia-Bonofil, RWJMS; National Multiple Sclerosis Society

BDNF-Engineered Stem Cell Mediated Neuroprotection in EAE; S. Dhib-Jalbut, RWJMS; National Multiple Sclerosis Society

The Role of BDNF on Oligodendrocyte Lineage Cells in a Cuprizone Model of MS; C. Dreyfus, RWJMS; *National Multiple Sclerosis Society*

Role of (HSP)-32 in Glomerular Microvasculature (RESUB); P. Duann, RWJMS; *American Heart Association*

Heterochromatin and the Cohesion of Sister Chromatide; M. Gartenberg, RWJMS; *March of Dimes Birth Defects Foundation*

Bfl-1 as a Therapeutic Target and Prognostic Indicator in B-CLL and AML; C. Gelinias, RWJMS; *The Leukemia and Lymphoma Society*

Non-Canonical Wnt Signaling and Cell Motility; R. Habas, RWJMS; *March of Dimes Birth Defects Foundation*

Using Illness visits to Address Health Behavior Advice; W. Hait, RWJMS; *Case Western Reserve University*

The Coupling of mRNA transcription and 3' End Formation; M. Hampsey, RWJMS; *Tufts University*

Single Nucleotide Polymorphisms in the p53 Pathway; K. Hirshfield, RWJMS; *The Breast Cancer Research Foundation*

Tropomyosin in Health and Disease: Bioinformatics and Biophysical Approaches; S. Hitchcock, RWJMS; *Muscular Dystrophy Association*

Drug Abuse Prevention During Development Transitions; A. Interian, RWJMS; *Rutgers, The State University of New Jersey*

Treatment of Preserved Cardiac Function Heart Failure with an Aldosterone Antagonist (TOPCAT); J. Kostis, RWJMS; *New England Research Institutes*

Expert Systems Progress report disclosure; E. Leventhal, RWJMS; *Rutgers, The State University of New Jersey*

Roles and regulation of p53; A. Levine, RWJMS; *Columbia University*

The Regulation and Interconnections Between the IGF-1-AKT-rmTor and p53 Signal Transduction Pathways; A. Levine, RWJMS; *The Breast Cancer Research Foundation*

Multicenter Trial of Gemcitabine, Carboplatin, & Sorafenib in Chemotherapy-naive Patients w/Advanced/Metastatic Bladder Carcinoma; J. Mehnert, RWJMS; *Yale University*

Redesign of Aminoglycosides to Treat Human Genetic Diseases Caused by Nonsense Mutations; D. Pilch, RWJMS; *United States-Israel Binational Science Foundation*

Neural and Behavioral Impact of T Cell Activation; J. Pintar, RWJMS; *Rutgers, The State University of New Jersey*

Osteoblastic EGFR Signaling in Breast Cancer Bone Metastasis; L. Qin, RWJMS; *Susan G. Komen Breast Cancer Foundation*

BARDA/NIAD Medical Countermeasures to Mitigate and/or Treat Ionizing Radiation Induced Pulmonary Injury: Project Bioshield (NCI); Y. Shi, RWJMS; *Rutgers, The State University of New Jersey*

Lower Extremity Angioplasty: Impact of Obesity, Gender and Ethnicity on Utilization and Outcomes; T. Vogel, RWJMS; *American Heart Association*

Relating DNA Adducts and Toxicogenomics (Subcontracts from Northeastern University); H. Zarbl, RWJMS; *Northeastern University*

Mechanisms Regulating Meiotic Checkpoints; K. Cooper, SOM; *American Cancer Society*

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*

Neural Stem Cell as Regenerative Therapy for Canavan Disease; P. Leone, SOM; *Jacob's Cure Foundation*

Cognitive Behavior Therapy as Adjunct to Second-Generation Antipsychotics in Treatment of Schizophrenia; N. Pinninti, SOM; *National Alliance for Research on Schizophrenia & Depression*

Engineering Surfaces for Bioconjugation: Platelet Aggregation Inhibitors; B. Spur, SOM; *Groff Foundation*

Does Membrane Guanylate Cyclase Contribute to Onset of Alzheimer's Disease?; V. Venkataraman, SOM; *Lindback Foundation*

Role of IFN-gamma in Immunosuppression in Sepsis; K. Yin, SOM; *Groff Foundation*

Characterization of Kingella Kingae Lukotoxin; N. Balashova, NJDS, *American Heart Association, Founders Affiliate*

Moist Snuff Taxation Policy Impact on Revenue Consumption and Tobacco Control; C. Delnevo, SPH; *Robert Wood Johnson Foundation*

Non-Clinical Factors in Disparate Treatment for Early Breast Cancer Among Blacks and Whites; K. Demissie, SPH; *The Susan G. Komen Breast Cancer Foundation*

Factors of Racially Disparate Breast Cancer Treatment; K. Demissie, SPH; *American Cancer Society*

Effects of Air Pollution Control on Mortality and Hospital Admissions in Ireland (through Harvard SPH); D. Rich, SPH; *Health Effects Institute*

Triggering of Myocardial Infraction by Ambient Fine Particles and Fine Particle Components; D. Rich, SPH; *American Heart Association*

Public Health in Action: Conference and Introductory Practice Experience Among Undergraduate Students in New Jersey; M. Rosen, SPH; *Association of Schools of Public Health*

Evaluation of Trenton Spirit Walk Initiative for Isles, Inc; B. West, SPH; *Isles*

A Systematic Review of Relocation Stress Following In-house Transfer out of Critical/Intensive Care Units; S. Salmond, SN; *Joanna Briggs Institute of Evidence Based Nursing and Midwifery*

A Systematic Review on Determining the Impact of Magnet Designation on Nursing and Patient Outcomes; S. Salmond, SN; *Joanna Briggs Institute of Evidence Based Nursing and Midwifery*

A Systematic Review of Nurses' Inter-shift Handoff Reports in Acute Care Hospitals; C. Holly, SN; *Joanna Briggs Institute of Evidence Based Nursing and Midwifery*

## PRIVATE INDUSTRY

Early Surgical Treatment of Displaced Intraarticular Calcaneus Fractures through a Combined Medial and Lateral Approach; W. Berberian, NJMS; *American Orthopaedic Foot and Ankle Society*

An Epidemiologic Study of Xolair (Omalizumab): Evaluating Clinical Effectiveness and Long-Term Safety; L. Bielory, NJMS; *Genentech*

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*

Orthopaedic Upper Extremity Research; J. Capo, NJMS; *Synthes*

Multicenter Study to Evaluate the Safety and Efficacy of Tifacogin; S. Chang, NJMS; *Novartis Pharmaceuticals*

Study to Assess Effects of ART-123 on Subjects with Sepsis and Disseminated Intravascular Coagulation; S. Chang, NJMS; *Artisan Pharma*

A Porcine Model of Acute Pulmonary Arterial Hypertension; L. Chen, NJMS; *CV Dynamics*

30 Min Ischemia-24 Hr Reperfusion Injury Study Protocol in SD Rats; L. Chen, NJMS; *CV Dynamics*

Evaluation of the Ocular Surface Health in Subjects Using Travatan Z Ophthalmic Solution Versus Xalatan Ophthalmic Solution; A. Cohen, NJMS; *Alcon Laboratories*

Study to Evaluate the Safety of Oral Cladribine in Subjectd with Relapsing-Remitting MS (RRMS); S. Cook, NJMS; *Serono Laboratories*



Patient Education to Increase Access to Chronic Viral Hepatitis and Liver Cancer Screening in Low Income Urban Communities Subject to Health Disparities; A. DeLa Torre, NJMS; *Roche Pharmaceuticals*

Study to Assess the Safety and Antiviral Activity of PEG-rIL-29 Administered as a Single Agent and in Combination with Ribavirin in Subjects with Chronic Hepatitis C; A. DeLa Torre, NJMS; *Zymogenetics*

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*

Multi-Center Study to Compare the IOP Lowering Efficacy of Combigan with Timolol When Each is Used as Adjunctive Therapy to Xalatan; R. Fechtner, NJMS; *Allergan*

Evaluation of Specimen Handling in BD Vacutainer PPT on the Stability of HIV-1 Viral Load Using Abbott RealTIME HIV-1 Assay; H. Fernandes, NJMS; *Becton Dickinson*

Multi-Center Prospective Study for Clinical and Radiographic Outcomes of Spine Deformity Comparing Neurologically Compromised Unstable TL Injuries; I. Goldstein, NJMS; *K2M*

Merck Pharmaco-Epidemiology and Outcomes Research; W. Halperin, NJMS; *Merck and Company*

In Vitro Assessment of the Effect of Annular Resection on the FSU Explusion Force, Range of Motion and Wear Properties for the Charite Artificial Disc; R. Heary, NJMS; *DePuy*

A Comprehensive Review of Dorsal Spinal Fusion Surgery Procedures using Selective Cell Retention Technique; R. Heary, NJMS; *DePuy*

Bengal Stackable Graft Volume Study; R. Heary, NJMS; *DePuy*

An Assessment of P-15 Bone Putty in Anterior Cervical Fusion with Instrumentation; R. Heary, NJMS; *Cerapedics*

In Vitro Biomechanical Assessment of Solitaire Anterior Fixation Device Effect of Loading on FSU Stiffness and Range of Motion; R. Heary, NJMS; *Biomet*

Trial of TMC278 25 mg q.d. Versus Efavirenz 600mg q.d. in Antiretroviral-Naive HIV-1 Infected Subjects; S. Hodder, NJMS; *Tibotec Therapeutics*

The Prevalence of Anal Dysplasia in a High Risk Population of HIV-Infected Women (Makinde, Helen); S. Hodder, NJMS; *Bristol-Myers Squibb Company*

TAC 4-Week Study Protocol in SD Rats; C. Hong, NJMS; *CV Dynamics*

Comparison of Prasugrel and Clopidogrel in Acute Coronary Syndrome with Unstable Angina/Non-ST Elevation Infarction; E. Kaluski, NJMS; *Eli Lilly and Company*

Study to Evaluate the Effects of R04607381 on Cardiovascular Risk in CHD Patients; E. Kaluski, NJMS; *Hoffman La Roche*

Study of the Safety of Cubicin [Daptomycin for Injection] With and Without Initial Gentamicin Therapy in Treatment of S. Aureus Endocarditis; R. Kapila, NJMS; *Cubist Pharmaceuticals*

Stenting vs. Aggressive Medical Management for Preventing Recurrent Stroke in Intracranial Stenosis – [Medical University of South Carolina]; J. Kirmani, NJMS; *Boston Scientific Corporation*

Study of Treatment of Hyponatremia Based on Lixivaptan in NYHA Class III - IV Cardiac Patient Evaluation; M. Klapholz, NJMS; *Cardiokine Biopharma*

The IGNITE Trial - Multicenter Study of the Safety and Efficacy of Istaroxime over 24 Hours at Three Doses in Acute Decompensated Heart Failure; M. Klapholz, NJMS; *Parexel*

Evaluation of HepaGam B in Combination with Antiviral Treatment in Hepatitis B Liver Transplant Patients; B. Koneru, NJMS; *Cangene Corporation*

IMPROVE IT – 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*

The Role of RHPDGF with Rat DBM or Human DBM on Osseous Regeneration in BB Wistar rats; S. Lin, NJMS; *Biomimetic Therapeutics*

Salto Talaris Anatomic Ankle Arthroplasty Outcomes Study; S. Lin, NJMS; *Tornier Incorporated*

Surgical Neck Fractures in the Proximal Humerus: A Biomechanical Study Evaluating Modern Fixation Techniques; F. Liporace, NJMS; *Synthes*

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*

Study of AMG 223 in Subjects with Chronic Kidney Disease on Hemodialysis; L. Meggs, NJMS; *Amgen*

FTY720 in the Theiler's Model of MS; A. Pachner, NJMS; *Novartis Pharmaceuticals*

Drug Targets for Tuberculosis; D. Perlin, NJMS; *Merck and Company*

Multicenter Trial of the Continued Efficacy and Safety of Zometa Ever; L. Pliner, NJMS; *Novartis Pharmaceuticals*

Multinational Study of AVE8062, Administered Every 3 Weeks, in Patients with Advanced-Stage Soft Tissue; L. Pliner, NJMS; *Ingenix*

The Genetics and Neuroendocrinology of Short Stature International GeNeSIS; C. Singer-Granick, NJMS; *Eli Lilly and Company*

Gene Expression Studies of Lovaxin C Treated Cervical Carcinoma; P. Soteropoulos, NJMS; *Advaxis*

Study of the Epi Rad90 Ophthalmic System for the Treatment of Subfoveal Choroidal Neovascularization; M. Zarbin, NJMS; *Neo Vista*

Multicenter Study to Establish Clinical Benefit and Safety of Vytorin (Ezetimibe/Simvastatin Tablet) vs Simvastatin; J. Agarwal, RWJMS; *Schering-Plough Research Institute*

Trial Comparing Bevacizumab Therapy with or without Eriotinib after Completion of Chemotherapy; J. Aisner, RWJMS; *Genentech*

Multicenter Study to Assess the Safety and Contraceptive Efficacy of 2 Doses (In Vitro 12 mg/24 h and 16mg/24h) of the Ultra Low; C. Ayers, RWJMS; *Bayer Healthcare Pharmaceuticals*

Multicenter Trial to Evaluate the Efficacy and Safety of a Fesoterodine Flexible Dose; G. Bachmann, RWJMS; *Pfizer*

Study of the Effects of Bazedoxipene/Conjugated Estrogens Combinations on Endometrial Hyperplasia; G. Bachmann, RWJMS; *Wyeth-Ayerst Pharmaceuticals*

Multicenter study to assess the efficacy and safety of the beta 3 agonist YM178; G. Bachmann, RWJMS; *Astellas Pharma US*

Clinical Trial to Assess Osteoporotic Postmenopausal Women Treated with Vitamin D and Calcium; G. Bachmann, RWJMS; *Merck and Company*

Evaluation of Changes in Mammographic Breast Density Associated with Bazedoxifene Acetate/Conjugated Estrogens and Placebo in Postmenopausal Women; G. Bachmann, RWJMS; *Wyeth-Ayerst Pharmaceuticals*

RNA Expression Analysis of Endometrial Biopsies Comparing Placebo, Bazedoxifene/CE, and Raloxifene; G. Bachmann, RWJMS; *Wyeth-Ayerst 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*

Investigation of Pathways Involved in Anti-Carcinogenic Activity of 5-ASA; M. Bajpai, RWJMS; *Proctor and Gamble Pharmaceuticals*

A 5 Year Registry Study of Humira (Adelimumab) in Patients with Moderate to Severely Active Crohn's Disease (CD); A. Balani, RWJMS; *Abbott Laboratories*

Study to Determine the Long Term Safety and Efficacy of MLN0002 in Patients with Ulcerative Colitis and Crohn's Disease; A. Balani, RWJMS; *Millennium Pharmaceuticals*

Induction and Maintenance of Clinical Response and Remission with MLN0002 in Patients with Moderate to Severe Crohn's; A. Balani, RWJMS; *Millennium Pharmaceuticals*

Induction and Maintenance of Clinical Response and Remission with MLN0002 in Patients w/Moderate to Severe Ulcer; A. Balani, RWJMS; *Millennium Pharmaceuticals*

Aptidin and PM02734 Combination Studies Using in Vitro and In Vivo Models; D. Banerjee, RWJMS; *PharmaMar, S.A.*

Abiocr Replacement Heart Post-Approval Study; K. Bienfait, RWJMS; *Abiomed*

Interferon-Beta 1a Modulation of B Cells in Multiple Sclerosis; S. Dhib-Jalbut, RWJMS; *EMD Serono*

Study of Efficacy and Safety of Donepezil Hydrochloride in Preadolescent and Adolescent Children; R. Drachtman, RWJMS; *Eisai*

Mesalamine Selectively Causes Apoptosis and Necrosis of LPLs; E. Ebert, RWJMS; *Proctor and Gamble Pharmaceuticals*

Trial to Evaluate the Safety and Antiviral Activity of TMC125 in Antiretroviral Experienced HIV-1 Infected Children and Adolescents; S. Gaur, RWJMS; *Tibotec Pharmaceuticals, Ltd.*

Study to Evaluate the Single-Dose Pharmacokinetics and Safety of Ceftiofur in Pediatric Subjects; S. Gaur, RWJMS; *Johnson and Johnson Pharmaceuticals*

Plitidepsin (Aplidin) in Combination with Cytarabine in Patients with Relapse Refractory Leukemia (CTA); M. Gharibo, RWJMS; *PharmaMar, S.A.*

Multicenter Trial of Patupilone (EPO906) versus Pegylated Liposomal Doxorubicin; D. Gibbon, RWJMS; *Novartis Pharmaceuticals*

Development and Validation of a Short Form Valued Life Activity Disability and Task Modification Instrument (VLA-SF); A. Hassett, RWJMS; *Bristol-Myers Squibb Company*

Study of V950 Formulated on Aluminum Containing the Adjuvant with or without ISCOMAT; J. Heath, RWJMS; *Merck and Company*

Multicenter study Evaluating De Novo Weekly and Once Every 2 Weeks Darbepoetin Alpha Dosing for Correction of Anemia; H. Hotchkiss, RWJMS; *Amgen*

Study to Assess the Effects of ACT-064992 on Morbidity and Mortality in Patients; V. Hsu, RWJMS; *Actelion Clinical Research*

Study of Monotherapy Sitaxsentan Sodium vs Combination Therapy w/Sitaxsentan Sodium and Sildenafil Citrate; V. Hsu, RWJMS; *Pfizer*

Study of ACT-064992 in Patients with Symptomatic Pulmonary Arterial Hypertension; V. Hsu, RWJMS; *Actelion Clinical Research*

Aminotrexate: A Novel Strategy to Replace Methotrexate Psoriasis; B. Kamen, RWJMS; *Syntrix Biosystems Inc.*

Study of ART-263 in Combination with Carboplatin (Carboplatin/Paclitaxel) in the Treatment of Subjects with Solid Tumors; V. Karantza-Wadsworth, RWJMS; *Abbott Laboratories*

Histidine Tagged eEF2 Protein; T. Kinzy, RWJMS; *Merck and Company*

Evaluation of the Fixed Combination of torcetrapib/Atorvastatin Administered Orally Once Daily Compared with Atorvastatin Alone; J. Kostis, RWJMS; *PharmaNet*

Case-Crossover Study of PDE5 Inhibitor Exposure as a Potential "Trigger Factor" for Acute NAION; F. Lepore, RWJMS; *Pfizer*

Continuation Study in Moderate to Severe Chronic Plaque Psoriasis Subjects who Completed a Preceding Psoriasis Study; M. Magliocco, RWJMS; *Abbott Laboratories*

Study Comparing the Efficacy & Safety of ABT-874 to Etanercept & Placebo in Subj w/Moderate to severe Psoriasis; M. Magliocco, RWJMS; *Abbott Laboratories*

Study of Apremilast (CC-10004) in Subjects w/Moderate to Severe Plaque Type Psoriasis (Core Study); M. Magliocco, RWJMS; *Celgene Corporation*

Study of Intralesional Fluphenazine Hydrochloride for Psoriasis; M. Magliocco, RWJMS; *Immune Control*

Study of RhuMAb IGFR in Patients w/Advanced Solid Tumors; J. Mehnert, RWJMS; *Genentech*

Study of PD0332334 in Subjects w/Generalized Anxiety Disorder; M. Menza, RWJMS; *Pfizer*

Study to Evaluate the Efficacy and Safety of Xyntha in Children Less than 6 Years of Age in Usual Care Settings; L. Michaels, RWJMS; *Wyeth-Ayerst Pharmaceuticals*

Comparison Study of the CYPHER ELITE to the CYPHER Ex VELOCITY Sirolimus Eluting Stent Systems; A. Moreyra, RWJMS; *Cordis Corporation*

Study of Coronary Atheroma by Intravascular Ultrasound Effect of Rosuvastatin Versus Atorvastatin (SATURN); A. Moreyra, RWJMS; *AstraZeneca Pharmaceuticals*

Study of Brivanib Alaninate vs. Placebo in Combination w/ Erbitux & Irinotecan in Subjects w/ Metastatic Colorectal Cancer; R. Moss, RWJMS; *Bristol-Myers Squibb Company*

A Postauthorization Safety Surveillance Study of Moroctocog Alfa (AF-CC) in Usual Care Settings; C. Philipp, RWJMS; *Wyeth-Ayerst Pharmaceuticals*

Feeding in Opioid Receptor KO Mice; J. Pintar, RWJMS; *Eli Lilly and Company*

Multi Center Study of Single Agent Larotaxel (XRP9881) Compared to Continous Administration of 5-FU; E. Poplin, RWJMS; *Sanofi-Aventis*

Extension Trial of Deforolimus (AP23573; MK-8669), an mTOR Inhibitor for Patients with Advanced Cancer; E. Poplin, RWJMS; *Ariad Pharmaceuticals*

Due Dilligence Studies of a Transgenic Mouse Line Expressing Doubly-Mutated Human SYN: A Potentially Predictive Model of PD; E. Richfield, RWJMS; *Elan Pharmaceuticals*

Study Comparing Two Dose Schedules of Ezatiostat Hydrochloride (Telintra, TLK199 Tablets) in Low to Intermediate-1 Risk Myelodysplastic Syndrome (MDS); D. Schaar, RWJMS; *Telik*

Multicenter Study to Compare the Efficacy of 24 Weeks Treatment with Fixed Combination Therapy of Vilaglipitin and Metformin; S. Schneider, RWJMS; *Novartis Pharmaceuticals*

Study of QR-333 for the Treatment of Symptomatic Diabetic Peripheral Neuropathy; S. Schneider, RWJMS; *Quigley Pharma*

Multicenter Study to Determine the Efficacy and Safety of Albiglutied when used in Combination w/ Metformin; S. Schneider, RWJMS; *GlaxoSmithKline*

Multicenter Study of Albiglutide Compared w/ Insulin in Subjects with Type 2 Diabetes Melitus; S. Schneider, RWJMS; *GlaxoSmithKline*

Comparative Study of the Matrics and Integneuro Cognitive Assessment Batteries; S. Silverstein, RWJMS; *AstraZeneca Pharmaceuticals*

Study of E7389 in Combination with Carboplatin in Subjects with Solid Tumors; M. Sovak, RWJMS; *Eisai*

Testing of Novel Polymeric Tri Leaflet Heart Valve Prosthesis in Sheep; A. Spotnitz, RWJMS; *Abiomed*

Study of the Safety and Pharmacokinetics of the KIT Inhibitor XL820-20 Administered Orally Daily to Subjects with Solid Tumors; M. Stein, RWJMS; *Exelixis*

Deforolimus (MK-8669) and MK-0646 in Patients with Advanced Cancer; M. Stein, RWJMS; *Merck and Company*

Plitidepson in Combination w/Sorafenib or Gemcitabine in Patients w/advanced Solid Tumors or Lymphomas; M. Stein, RWJMS; *PharmaMar*

Study of Patupilone and RAD001 in Patients with Refractory Solid Tumor Malignancy; M. Stein, RWJMS; *Novartis Pharmaceuticals*

Tobacco Dependence Treatment for Hospitalized Smokers; M. Steinberg, RWJMS; *Pfizer Pharmaceuticals*

Multi-Center Study of Single Agent R05045337 (RT112) in Patients with Acute Myelogenous Leukemia; R. Strair, RWJMS; *Hoffman La Roche*

Multi-Center Study of Single Agent R7112 in Patients with Acute Myelogenous Leukia; R. Strair, RWJMS; *Hoffman La Roche*

Hemodynamic Assessment of Renal Artery Disease; A. Tan, RWJMS; *Creare*

Study of Ixabepilone in Combination with Cisplatin in Subjects with Advanced Solid Tumors; A. Tan, RWJMS; *Bristol-Myers Squibb*

International Study to Evaluate the Safety and Efficacy of Ocrelizumab Compared to Placebo; M. Tiku, RWJMS; *Genentech*

Trial of Doxil, Carboplatin and Bevacizumab in Triple Negative Previously Untreated Metastatic Breast Cancer; D. Toppmeyer, RWJMS; *Ortho Biotech Products*

Study of Weekly Abraxane and RAD001 in Women with Locally Advanced or Metastatic Breast Cancer; D. Toppmeyer, RWJMS; *Novartis Pharmaceuticals*

Trial of LBH589 in Combination with Trastuzumab in Adult Female Patients with HER2 Positive Metastatic Breast Cancer; D. Toppmeyer, RWJMS; *Novartis Pharmaceuticals*

Evaluation of Antimicrobial Resistance Patterns for 2007: a Phased Investigation of Bacterial Pathogens and Testing Methods; M. Weinstein, RWJMS; *JMI Laboratories*

Evaluation of the Xpert Sepsis Identification Assay for the Detection of Infectious Pathogens Linked to Sepsis; M. Weinstein, RWJMS; *Biomerieux Vitek*

Prostate Mechanical Imaging; R. Weiss, RWJMS; *Artann Laboratories*

Multi-Center Conversion to Monotherapy Study with Keppra XR for Treatment of Partial Onset Seizures; B. Wu, RWJMS; *United Collection Bureau*

Quantification of Calcification of carotid Artery Plaque with Dual Energy CT; P. Yim, RWJMS; *SIEMENS Corporation*

Study to Evaluate the Effect of Regularly Scheduled Neutralizing Antibody Testing on Treatment Patterns versus Usual Care in High-Dose Interferon Treated Subjects; D. Barone, SOM; *Allergan Sales; Takeda*

Multicenter Efficacy and Safety Trial of Bapineuzumab in Patients with Mild to Moderate Alzheimer's Disease who are Apolipoprotein E 4 Non-Carriers; A. Chopra, SOM; *Elan Pharmaceuticals*

Study of MAP0004 in Adult Migraineurs for a Single Migraine Followed by Open-Label Extension to 26/52 Weeks; J. Coren, SOM; *MAP Pharmaceuticals*

Multicenter Study of 100 mg Enteric-Coated Acetylsalicylic Acid in Patients at Moderate Risk of Cardiovascular Disease; J. Coren, SOM; *Bayer Healthcare AG*

Outcome Trial Evaluating Norditropin in Adult Patients on Chronic Haemodialysis; H. Dombrowski, SOM; *Novo Nordisk*

Multicenter Study of Albiglutide in Combination with Metformin Compared with Metformin Plus Sitagliptin, Plus Glimepiride, and Plus Placebo in Subjects with Type 2 Diabetes Mellitus; K. Garnier, SOM; *GlaxoSmithKline*

Multicenter Study to Determine the Efficacy and Safety of Two Dose Levels of Albiglutide Compared with Placebo in Subjects with Type 2 Diabetes Mellitus; K. Garnier, SOM; *GlaxoSmithKline*

Multicenter Study to Determine the Efficacy and Safety of Albiglutide When Used in Combination with Pioglitazone with or without Metformin in Subjects with Type 2 Diabetes Mellitus; K. Garnier, SOM; *GlaxoSmithKline*

Study of Albiglutide Administered 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; K. Garnier, SOM; *GlaxoSmithKline*

Multicenter Study to Assess the Efficacy and Safety of 100 mg Enteric-Coated Acetylsalicylic Acid in Patients at Moderate Risk of Cardiovascular Disease; A. Gupta, SOM; *Bayer Healthcare AG*

Multicenter Trial to Evaluate Dapagliflozin in Combination with Thiazolidinedione Therapy in Subjects with Type 2 Diabetes; E. Helfer, SOM; *Bristol-Myers Squibb*

Study to Evaluate the Effects of R04607381 on Cardiovascular Risk in Stable CHD Patients with a Documented Recent Acute Coronary Syndrome; E. Helfer, SOM; *Roche Pharmaceuticals*

Study to Assess RO5073031 Compared to Exenatide BID in Patients with Type 2 Diabetes Mellitus Inadequately Controlled with Metformin; E. Helfer, SOM; *Roche Pharmaceuticals*

Pulmonary Outcomes Within a 2 Year Period in Subjects with Diabetes Mellitus Treated with Technosphere/Insulin or Usual Antidiabetic Treatment and in Subjects Without Abnormalities in Glucose Control; E. Helfer, SOM; *MannKind Corp.*

Multicenter Trial to Evaluate the Glycemic Efficacy, Renal Safety, Pharmacokinetics, and Pharmacodynamics of Depagliflozin in Subjects with Type 2 Diabetes Mellitus; E. Helfer, SOM; *Bristol-Myers Squibb*

Two-Month Safety Follow-up Trial of Subjects from Mankind Protocols MKC-TI-009, MKC-TI-102, MKC-TI-103 and MKC-TI-030; E. Helfer, SOM; *MannKind Corp.*

Multicenter Study of RX-1741 in the Treatment of Adult Patients with Mild to Moderate Severity of Community-Acquired Pneumonia (CAP); R. Hudrick, SOM; *Rib-X Pharmaceutical*

Multi-Centre Study Comparing the Long Term Safety of SYMBICORT® Actuations Twice Daily to Budesonide HFA Actuations Twice Daily in Adult and Adolescent ( $\leq 12$  years) African American Subjects with Asthma; R. Hudrick, SOM; *AstraZeneca*

Multi-Center 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*

Multicenter Study of 100 mg Enteric-Coated Acetylsalicylic Acid in Patients at Moderate Risk of Cardiovascular Disease; R. Hudrick, SOM; *Bayer Healthcare AG*

Multicenter Study in Subjects With Type 2 Diabetes Mellitus to Evaluate SGL TS Inhibitor and Sitagliptin as a Reference Arm; R. Hudrick, SOM; *Johnson & Johnson*

Study to evaluate TREXIMA versus Butalbital-Containing Combination Medications for the Acute Treatment of Migraine when Administered During the Moderate-Severe Pain Phase of the Migraine; R. Hudrick, SOM; *GlaxoSmithKline*

Clinical Trial to Study MK-0431A in Patients with Type 2 Diabetes Mellitus; R. Hudrick, SOM; *Merck and Co.*

Study of Extended Release Niacin/ Laropiprant in Patients with Type 2 Diabetes Mellitus; R. Hudrick, SOM; *Merck and Co.*

Multi-Center Study of Milnacipran for the Treatment of Fibromyalgia; R. Hudrick, SOM; *Forest Research*

Multicenter Study of the Efficacy and Safety of lubiprostone in Patients with Opioid-Induced Bowel Dysfunction; R. Jermyn, SOM; *Sucampo Pharmaceuticals*

Phase III Variable Dose Titration Followed by a Study of Controlled-Release OROS Hydromorphone Compared to Placebo in Patients with Osteoarthritis Pain; R. Jermyn, SOM; *Neuromed Pharmaceuticals*

Multicenter Study to Evaluate the Efficacy of Replacement Surgery for End-Stage Joint Disease; R. Jermyn, SOM; *Biovail Technologies*

Multicenter Study to Evaluate the Long-Term Safety and Effectiveness of EN3267 in the Treatment of Breakthrough Pain in Cancer Patients; R. Jermyn, SOM; *ProStrakan Pharmaceuticals Limited*

Multicenter Proof of Concept Trial to Assess 2 Different Transdermal Doses of Rotigotine in Subjects with Signs and Symptoms Associated with Fibromyalgia Syndrome; R. Jermyn, SOM; *Schwarz Biosciences*

The Evolution and Management of Migraine Recurrence Beyond 24 Hours: A Prospective Study of Tertiary Care Center Patients; L. Mueller, SOM; *Endo*

Multi-Center Multiple Attacks Study to Oral MK-0974 with Placebo for the Acute Treatment of Migraine With or Without Aura; L. Mueller, SOM; *Merck and Co.*

Study of TREXIMA Versus Butalbital-Containing Combination Medications for the Acute Treatment of Migraine When Administered During the Moderate-Severe Pain Phase of the Migraine; L. Mueller, SOM; *GlaxoSmithKline*

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*

Multi-Center Study with 3 Oral Dose Groups of AZD3480 During 12 Weeks Treatment of Cognitive Deficits in Patients with Schizophrenia; D. Rissmiller, SOM; *AstraZeneca*

Quetiapine Treatment for Symptoms Associated with Borderline Personality Disorder; D. Rissmiller, SOM; *AstraZeneca*

Extension Study of Rosiglitazone Extended-Release as Adjunctive Therapy to Acetylcholinesterase Inhibitors in Subjects with Mild-to-Moderate Alzheimer's Disease; S. Scheinthal, SOM; *GlaxoSmithKline*

Multi-Center Study of the Effect of Daily Treatment with MPC-7869 on Measures of Cognitive and Global Function in Subjects with Mild to Moderate Dementia of the Alzheimer's Type; S. Scheinthal, SOM; *Myriad Pharmaceuticals*

Study of the Effect of Daily Treatment with MPC-7869 in Subjects with Dementia of the Alzheimer's Type; S. Scheinthal, SOM; *Myriad Pharmaceuticals*  
The Effects of Almond Consumption on Pre-diabetes; S. Gould Fogerite, SHRP; *Almond Board of California*

## **INTERNAL UMDNJ FUNDING**

Role of Threonine 5 Phosphorylation in Sarcolipin Function; G. Babu, NJMS; *Foundation of UMDNJ*

Role of IRFs in the Pathogenesis of Ductal Carcinoma; B. Barnes, NJMS; *Foundation of UMDNJ*

Analysis of Trypanosome mRNA Synthesis by Gene Transfer; V. Bellofatto, NJMS; *Foundation of UMDNJ*

Costimulation and Induction of Memory Response; K. Bhatt, NJMS; *Foundation of UMDNJ*

Regulation of the Intestinal Ca<sup>2+</sup> Channel TRPV6 by Calcium Binding Proteins; S. Christakos, NJMS; *Foundation of UMDNJ*

Development of Cell Wall Anti-Tuberculosis Drugs; R. Colangeli, NJMS; *Foundation of UMDNJ*

Survival Signaling Pathway Activated by H11 Kinase in the Heart; C. DePre, NJMS; *Foundation of UMDNJ*

Acquisition and Presentation of Cell-Associated Antigens by PDC; P. Fitzgerald-Bocarsly, NJMS; *Foundation of UMDNJ; Dean's Biomedical Research Support*

Derivation of Mutant Induced Pluripotent Stem Cells from Mice Predisposed to Develop Muscular Dystrophy; D. Fraidenraich, 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*

Induced Oxidative Stress with Hyperthermic Intraperitoneal Chemotherapy (HIPEC); L. Harrison, NJMS; *Foundation of UMDNJ*

The Ubiquitin/Proteasome Pathway and Opioid Receptor Down-Regulation; R. Howells, NJMS; *Foundation of UMDNJ*

Perspectives of Culturally Competent Smoking Cessation Counseling Practices - A View From College/University; N. Hymowitz, NJMS; *Foundation of UMDNJ*

Mitochondrial DNA Fragmentation and Nuclear Genomic Instability; A. Ivessa, NJMS; *Foundation of UMDNJ*

Validation of an Improved Method to Study Mycobacterium Tuberculosis Transmission in Humans; E. Jones, NJMS; *Foundation of UMDNJ*

Molecular Organization of Yeast Chromosomes I: Control of Meiotic Pairing and Recombination; D. Kaback, NJMS; *Dean's Biomedical Research Support*

Role of Autotaxin in HCV-Associated Hepatocellular Carcinoma; N. Kaushik-Basu, NJMS; *Foundation of UMDNJ*

ST-Elevation Analysis Using Wireless Technology: Achieving the Golden Hour in Acute Myocardial Infraction (STAT-MI Trial); M. Klapholz, NJMS; *Foundation of UMDNJ*

Evaluating the In Vivo Efficacy of a Novel Antidyskinetic Drug in a Rat Parkinson's Disease Model; E. Kuzhikandathil, 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*

Proteomic Analysis of Trx1 Mediated Redox Signal Transduction Mechanism; H. Li, NJMS; *Foundation of UMDNJ*

Mechanism of Post-Transcriptional Regulation of COX-2; C. Lutz, NJMS; *Foundation of UMDNJ*

Selective Ablation of HIV-Infected Cells; M. Mathews, NJMS; *Foundation of UMDNJ*

Structural Biology of Multifunctional Bacterial Phosphatases; M. Neiditch, NJMS; *Foundation of UMDNJ*

Characterization of Conserved Functional Domains of Non-Coding ROX RNA; Y. Park, NJMS; *Foundation of UMDNJ*

Post-Initiation Regulation of Gene Expression in the Host Response to M. Tuberculosis; R. Pine, NJMS; *Foundation of UMDNJ*

Regulation of the Intestinal Ca<sup>2+</sup> Channel TRPV6 by Calcium Binding Proteins; T. Rohacs, NJMS; *Foundation of UMDNJ*

X Chromosome Mosaicism and Inflammation; Z. Spolarics, NJMS; *Foundation of UMDNJ*

Regulatory Networks in DNA Damage Checkpoint Response; K. Sugimoto, NJMS; *Foundation of UMDNJ*

Development of High Throughput Screening Assays for Modulators of Mitochondrial ATP-Dependent Proteolysis; C. Suzuki, NJMS; *Foundation of UMDNJ*

Reactivation of Breast Cancer Micrometastases by Senescent Bone Marrow Stroma; R. Weider, NJMS; *Foundation of UMDNJ*

Altitude-Induced Hypoxia IUGR and Placental Function; S. Zamudio, NJMS; *Foundation of UMDNJ*

RPE Derived from Human Embryonic Stem Cells (hES-RPE): Integrin Expressions and Behaviour on Aged Bruch's Membrane; M. Zarbin, NJMS; *Foundation of UMDNJ*

Integration of Web-Based and Hands-On Teaching to Facilitate Resident Education; J. Barone, RWJMS; *University Academic Information Technology Advisory Committee*

Enhancing the Theory and Practice of CQI Through a Better Understanding of Organizational Capacities; D. Cohen, RWJMS; *Robert Wood Johnson Foundation*



Translational Control of Selenoprotein Synthesis; P. Copeland, 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*

Understanding the Nature of the Immune Infiltrate in a Subset of HER2+ Breast Cancers; S. Ganesan, RWJMS; *Cancer Institute of New Jersey*

DAXX/ASK1 Pathway in Parkinson's Disease; E. Junn, RWJMS; *Foundation of UMDNJ*

Computerized Visual Approach to Data Analysis and Interpretation for Hematologic Malignancies by Flow Cytometry Immunophenotyping; Y. Qian, RWJMS; *Foundation of UMDNJ*

Preserving Empathy in Third Year Medical students Through Curricular Initiative; S. Rosenthal, RWJMS; *UMDNJ-Robert Wood Johnson Medical School (Sponsor)*

Role of Adult Stem Cells in Neuronal Repair. disclosure; H. Sabaawy, RWJMS; *Foundation of UMDNJ*

Blended Learning Teaching Module Using an Virtual Reality Simulator for Performing Knee Injecion: A Pilot Study; N. Schlesinger, RWJMS; *Foundation of UMDNJ*

Molecular Organization of Yeast Mitochondrial Transcription Complexes; M. Anikin, SOM; *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*

Are the Tob Proteins Conserved Regulators of Germ Cell Fates?; R. Ellis, 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*

The Role of Cadherins in Contact Normalization; G. Goldberg, SOM; *Foundation of UMDNJ*

Src, Cas, Cxu3 and Gap Junctional Communication; G. Goldberg, 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*

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*

Phenotypic Analysis of Lin28 Mutant Mice; E. Moss, 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*

Engaging Overweight and Obese Elderly People in Exercise Programs: Strength Training vs. Cardiovascular; R. Pruchno, SOM; *Foundation of UMDNJ*

Phthalate Exposure and Pregnancy Outcome: Supporting Data; P. Stein, SOM; *Foundation of UMDNJ*

Transcription by a Novel Single Subunit Human Nuclear RNA Polymerase; D. Temiakov, SOM; *Foundation of UMDNJ*

Development of an Experimental System for High Throughput Screening (HTS) of Inhibitors of Human Mitochondrial RNA Polymerase; D. Temiakov, SOM; *UMDNJ Council of Research Deans*

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*

Isolating novel antimicrobial compounds from *Bdellovibrio* and enhancing *Bdellovibrio* predatory ability to reduce oral biofilms; D. Kadouri, NJDS; *UMDNJ Foundation*

Staphylococcal biofilm matrix polymers; J. B. Kaplan, NJDS; *Foundation of UMDNJ*

Probing mechanisms of bone resorption in periodontal disease; V.K. Tsiagbe, NJDS; *Foundation of UMDNJ*

Yoga for Multiple Sclerosis – Developmental Project; 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*

The effect of supervised exercise training on immune, physical, and psychological status in breast cancer patients during chemotherapy; 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*

Promoting Computer-Generated Tailored Print Communications and Interactive Voice Response Interventions in New Jersey; N. Boyd, SPH; *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*

Relation Between Airborne Pollen Concentrations and Daily Cardiovascular Hospital Admissions; P. Ohman-Strickland, 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)*

Reducing Health Disparities: Smoking Prevention for African American Children in an Urban Low Income Community; H. Chen, SN; *Foundation of UMDNJ*

Measuring the Subjective Experience of Anxiety Associated with Mild to Moderate Alzheimer's Disease; W. Puentes, SN; *Foundation of UMDNJ*

**APPENDICES**

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## **CAPITAL PLAN**

There are currently no Board-approved capital projects.

## **BOARD OF TRUSTEES MEMBER PROFILES**



**ROBERT J. DEL TUFO, Esq.**  
(Chairperson)

Robert J. Del Tufo, Esq., of counsel to Skadden, Arps, Slate, Meagher & Flom LLP, is chairperson of the UMDNJ Board of Trustees. He 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.



**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.



**ANITA V. SPIVEY, Esq.**  
(Secretary)

Anita V. Spivey, Esq., is an attorney with experience in corporate finance, securities law, environmental and energy matters, as well as public affairs counseling. She has served as in-house counsel for Allied-Signal Inc., in Morristown; General Motors Corporation in Detroit; and Union Texas Petroleum Corporation in Houston. She also was an associate with the law firm of Sutherland, Asbill and Brennan in Washington, DC.

Ms. Spivey is a member of the Brown University Corporation, where she was re-elected in May 2007 to a six-year term. She is vice chair of Brown University's Campaign for Academic Enrichment; member of the Pembroke Center Associates Council; trustee of the E. J. Grassmann Trust and director of the Hyde and Watson Foundation. She has served on the board of directors of the Morris Museum, New Jersey SEEDS, the Newark Literacy Campaign, and the Peck School. Her board work has focused on budget and finance, fundraising, governance, and strategic planning.

Ms. Spivey received an A.B. in political science from Brown University and a J.D. from Georgetown University Law Center. She is admitted to practice law in the District of Columbia, Michigan, New Jersey, and Texas.

Ms. Spivey was appointed to the UMDNJ Board of Trustees in July 2006.



**KEVIN M. BARRY, MD, MBA**

Kevin M. Barry, MD, MBA, is an attending anesthesiologist at Morristown Memorial Hospital. He has served as president of Anesthesia Associates of Morristown since 1994.

Dr. Barry was a Henry Rutgers Scholar and graduated Phi Beta Kappa with a BA in Biochemistry from Rutgers College in 1983. He received his medical degree in 1987 from UMDNJ-New Jersey Medical School. He interned at Memorial Sloan Kettering Cancer Center and then completed an anesthesia residency at The New York Hospital and Hospital for Special Surgery, Cornell Medical Center, where he served as the chief resident from 1990 to 1991. In 1995 he received an MBA from New York University's Stern School of Business.

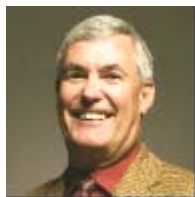
Dr. Barry is a Diplomat of The American Board of Anesthesiology, The American Board of Pain Medicine, and The American Board of Medical Acupuncture and is a Certified Physician Executive of The Certifying Commission in Medical Management.

He is a member of the American Medical Association, New Jersey Medical Society, Morris County Medical Society, American Society of Anesthesiologists, New Jersey State Society of Anesthesiologists, American Academy of Pain Medicine, American Academy of Medical Acupuncture, and American College of Physician Executives. He has served as a consultant in anesthesia to the State Board of Medical Examiners 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.



**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 by Governor John S. Corzine 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 & Vazquez, L.L.C., a Roseland 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.



**MARY SUE HENIFIN, JD, MPH**

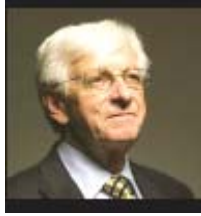
Mary Sue Henifin, JD, MPH, is an attorney with expertise in litigation and investigation matters involving a wide array of legal issues including environmental, technology, health care and white collar defense. She is a shareholder in Buchanan Ingersoll & Rooney PC, a law firm with offices throughout 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.



**JOHN A. HOFFMAN, Esq.**

John A. Hoffman, Esq., has been active in business, legal, and community affairs for forty years. He joined the firm of Wilentz Goldman & Spitzer P.A. in 1963, and has served as its Managing Shareholder since 1997.

Mr. Hoffman has served as counsel to Middlesex County College since its formation in 1964, and is a board member of its Foundation. He has also served as Special Counsel to the Middlesex County Utilities Authority since 1982. He was appointed Redevelopment Counsel to the Housing Authority of the City of New Brunswick and in that role was involved in developing major projects, such as the Hyatt Regency Hotel and The Cancer Institute of New Jersey. Mr. Hoffman also represents the Middlesex

County Improvement Authority and was involved in its acquisition of open space property for the county. He also specializes in utility law and represents clients such as Public Service Electric and Gas, Verizon New Jersey, Inc., and New Jersey-American Water Company.

He is Chairman of the Board of Robert Wood Johnson University Hospital and a member and past Chairman of the Board of Trustees of the Robert Wood Johnson University Hospital Foundation.

Mr. Hoffman was appointed to the UMDNJ Board of Trustees in May 2003.



**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.



**OLIVER B. QUINN, Esq.**

Oliver B. Quinn, Esq., retired from Prudential Financial as Vice President, Enterprise Business Ethics Officer in January 2009. He also managed the company's employee dispute resolution program. Previously, he was Vice President, Compliance for Prudential HealthCare, where he developed and directed regulatory compliance programs.

Prior to joining Prudential Financial in November 1995, Mr. Quinn held various state and federal positions. These included Deputy Solicitor of Labor for the U.S. Department of Labor in Washington and Deputy Commissioner of Labor for the State of New Jersey. Mr. Quinn also served as an Administrative Law Judge in New Jersey. His experience also includes service as Counsel/Chief of Staff for the New Jersey Department of Public Advocate, Assistant Counsel for the Judiciary Committee of the U.S. House of Representatives, and Assistant Dean at Rutgers University School of Law in Newark. He began his career as a civil rights enforcement attorney with the U.S. Department of Health, Education and Welfare.

Mr. Quinn received his B.A. in political science from Syracuse University and his J.D. from Rutgers Law School. He is a member of the Bar in New Jersey and Pennsylvania. He serves on the boards of WBGO-Newark Public Radio and the New Jersey Public Policy Research Institute. He is a member of the National Advisory Board of the Heldrich Center for Workforce Development at Rutgers and a member of the Board of Visitors of Syracuse University's College of Arts and Sciences.

Mr. Quinn was appointed to the UMDNJ Board of Trustees in March 2004.



**HAROLD T. SHAPIRO, MA, PhD**

Harold T. Shapiro, MA, PhD, President Emeritus and Professor of Economics and Public Affairs at Princeton University, served as that institution's eighteenth president, from 1988 until June 2001. He came to Princeton after 24 years at the University of Michigan, where he served on the faculty and as president from 1980 to 1988.

Dr. Shapiro received a Bachelor's Degree from McGill University in Montreal and, after five years in business, he enrolled in the Graduate School at Princeton, where he earned a Ph.D. in three years. His fields of special interest included econometrics, mathematical economics, science policy and, more recently, bioethics.

A trustee of the Board of the Alfred P. Sloan Foundation, he also serves as the chair of the Board of Directors of DeVry, Inc, and is a director of The Hastings Center, Reading is Fundamental; Knight Foundation Commission on Intercollegiate Athletics; Merck Vaccine Advisory Board; the University of Medicine and Dentistry of New Jersey, Princeton HealthCare Systems; and the National Advisory Council for Human Genome Research, and is a member of the Board of Overseers of the Robert Wood Johnson Medical School. He is also a member of Johnson & Johnson's Advisory Committee on Stem Cell Initiatives, the National Academy of Science's Committee on America's Energy Future, the National Institute of Health's Council of Councils, the New Jersey Commission on Science and Technology, the Stem Cell Institute of New Jersey Joint Board of Managers, and is a member of the National Research Council's Embryonic Stem Cell Research Advisory Committee. He is a Trustee of the American Jewish Committee and Technion-Israel Institute of Technology. He served as chair of the National Academies of Sciences Committee on the Organizational Structure of the National Institutes of Health from July 2002 to July 2003.

From 1996 to 2001, Dr. Shapiro served as chair of the National Bioethics Advisory Commission, which issued six major reports in the period 1996-2001. From 1990 to 1992, Dr. Shapiro served as a member and vice chair of President Bush's Council of Advisors on Science and Technology. Along with William G Bowen, his predecessor as president of Princeton, he edited *Universities and Their Leadership*, a compilation of papers presented at Princeton's 250<sup>th</sup> Anniversary Conference on Higher Education in March 1996. His latest book, *A Larger Sense of Purpose*, is based on the 2003 Clark Kerr lectures.

He is an elected member of the Institute of Medicine and the American Philosophical Society, a Fellow of the American Academy of Arts and Sciences, a member of the European Academy of Sciences, the College of Physicians of Philadelphia, and The American Association for the Advancement of Science. Dr. Shapiro received the Council of Scientific Society Presidents 2000 Citation for Outstanding Leadership, the William D. Carey Lectureship Award for Leadership in Science Policy in 2006, and the



Clark Kerr Award for Lifetime Achievement in Higher Education from the University of California Berkeley in 2009.

Dr. Shapiro was appointed to the UMDNJ Board of Trustees in June 2006.



**HEATHER HOWARD**  
(*Ex-Officio*)

On November 29, 2007, Governor Jon S. Corzine nominated Heather Howard to be the 14th Commissioner of the Department of Health and Senior Services. She was confirmed as Commissioner by the Senate on January 8, 2008.

As Health and Senior Services Commissioner, Howard has been a strong advocate for maternal and child health, with a particular focus on prenatal care. Shortly after becoming Commissioner, she appointed a task force to examine ways to improve the delivery of prenatal care in New Jersey. One key finding was the need to raise public awareness about the importance of early prenatal care, and of women maintaining their health before, during and between pregnancies. The Commissioner has traveled the state speaking on these issues, and collaborates with the provider community to improve birth outcomes.

Commissioner Howard, who is an attorney, has also worked to strengthen the state's hospital system and to improve quality of care. She has expanded health care access by expanding New Jersey's network of community health centers that serve the uninsured and underserved. She has received a number of awards for her leadership and advocacy, including the F.D.R Visionary Award from the March of Dimes New Jersey Chapter. She has been honored for health advocacy for women by the New Jersey Primary Care Association, and honored by New Jersey Citizen Action at its annual awards ceremony. Commissioner Howard came to the post with 15 years of policy experience at the state and federal levels. She served as Governor's Corzine's Policy Counsel, advising on all policy issues – including NJ FamilyCare, the state's health insurance program for low-income children and families – and directing the policy staff.

From 2001 to 2006, Howard worked in Washington, D.C., for then-Senator Corzine. She served as Legislative Counsel, Deputy Chief of Staff for Policy and Planning, and finally as Chief of Staff. Howard advised the Senator on policy development, legislative strategy, constituent services, communications and personnel. Before joining the Corzine staff, Howard worked in the White House where she served as Associate Director of President Bill Clinton's Domestic Policy Council, and Senior Policy Adviser to First Lady Hillary Clinton.

Howard earned her J.D. *cum laude* from New York University School of Law. She served a judicial clerkship with Judge Martha Craig Daughtrey of the U.S. Court of Appeals for the Sixth Circuit. Howard was then accepted into the U.S. Department of Justice's Honors Program, where she worked as a trial attorney in the Antitrust Division's Health Care Task Force. From 1990 to 1994, she was legislative assistant and policy adviser to Congresswoman Nita Lowey of New York.

Howard earned a B.A. *cum laude* in History and Spanish from Duke University. She lives in Princeton with her husband and son.

Ms. Howard was sworn in as an *ex officio* member of the Board on February 19, 2008. Her board term coincides with her tenure as Commissioner of Health and Senior Services.

**UMDNJ GOVERNING BOARD CHARACTERISTICS**

**Race/Ethnicity and Gender of Governing Board**

	<i>Male</i>	<i>Female</i>	<i>Total</i>
<i>White</i>	10	3	13
<i>Black</i>	3	1	4
<i>Hispanic</i>	0	0	0
<i>Asian</i>	0	0	0
<i>Native American</i>	0	0	0
<i>Non-Resident Alien</i>	0	0	0
<b>Total</b>	<b>13</b>	<b>4</b>	<b>17</b>

Source: UMDNJ Office of Workplace Diversity, June 23, 2009