

MEETING THE STATE'S NEEDS

Public and Community Service	117
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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.

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 and select "Community Resource Directory."

EXAMPLES OF PUBLIC / COMMUNITY SERVICE ACTIVITIES

ALLIED DENTAL SERVICE (SHRP)

The allied dental program provides dental preventive services to about 400 New Jersey Veterans through affiliation with the Veteran's Administration Hospital. The program also provides community service presentations to well over 1,000 participants at over 30 locations.

ANNUAL ALZHEIMER'S CAREGIVERS CONFERENCE (SOM)

Each year the New Jersey Institute for Successful Aging (NJISA) and the New Jersey Geriatric Education Center, in collaboration with the Delaware Valley Chapter of the Alzheimer's Association, provides faculty support for this large seven-county program for caregivers of those with Alzheimer's disease in Camden, Burlington, Gloucester, Cumberland, Salem, Atlantic, and Cape May counties. The program is attended by more than 250 caregivers and family members of those with Alzheimer's disease or a related dementia. In 2006, Dr. Steven Dinsmore and Dr. Robert Nagele were the keynote speakers at the conference, which was hosted on the Stratford campus of UMDNJ-School of Osteopathic Medicine. The New Jersey Institute for Successful Aging will host the Caregivers' Conference on the Stratford campus of SOM in November 2007.

ASIAN RISK ASSESSMENT COURSE (SPH)

In collaboration with New Jersey Institute of Technology, the UMDNJ-School of Public Health 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, two studies have been initiated in Southern Thailand looking at lead and arsenic contamination in children in two villages working with the Prince of Songkla University faculty. For more information on this project contact Dr. Mark Robson at robsonma@umdnj.edu.

BRAIN AND MEMORY PROGRAM (SOM)

Funded by the Wallerstein Foundation, Shop-Rite LPGA and the New Jersey Foundation on Aging, SOM New Jersey Institute for Successful Aging continues to provide programs for community residents in Burlington County, Camden County, Essex County, East Orange, Morris County, and Jamesburg. Sessions are publicly advertised and promoted through local service groups, such as the Rotary, JCC, Lions Clubs, Eldermed (Kennedy Health System), and senior centers and church groups.

The program includes brain health, activities to improve memory, and nutrition and exercise. 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, launched in September 2004, targets the 55+ age group and also serves a large church-affiliated minority population in Camden County.

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 SPH's 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 "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 a community health assessment. With the support of the Institute for the Elimination of Health Disparities, students this year completed focus groups with key constituent groups in the city to learn about health issues. Students also completed key informant interviews with city representatives and analyzed Behavioral Risk Factor Surveillance data for the city. All data are being compiled and shared with the Committee. For more information on this project contact Dr. Bernadette West at westbm@umdnj.edu, Dr. Marcia Sass at sassmm@umdnj.edu or Dr. Sherry Pomerantz at pomerash@umdnj.edu.

CAMDEN CITY SENIOR HEALTH NEEDS ASSESSMENT PROJECT (SPH)

With funding from the Institute for the Elimination of Health Disparities, faculty and students have initiated a senior health needs assessment in the city of Camden. Students are conducting 100 in-person interviews with at-risk seniors to explore health concerns, barriers to care and ways in which seniors tackle these barriers. Interviews are being conducted in four senior buildings in the city.

CAMDEN COMMUNITY HEALTH CENTER (SN)

In 1999, the UMDNJ-School of Nursing established a Community Health Center (CHC) in Camden, New Jersey. The CHC was developed as an integral clinical component of the School, complete with faculty-endorsed vision, mission and value statements. The CHC receives financial support from an endowment awarded by the William Randolph Hearst Foundation and from the School of Nursing directly.

The 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 or Medicaid unemployed residents.

Collaboration provides the sustaining foundation of the CHC. The primary relationship with CCCOEO is the mainstay partnership that feeds the Center with employee referrals and indirect funding. Clinical collaborations include the following: 1) CamCare, a local

ambulatory practice center; 2) Camden Department of Health Immunization Programs; 3) Planned Parenthood of Southern New Jersey; 4) UMDNJ-School of Osteopathic Medicine three-hour Saturday clinic providing services to both children and adults; and 5) the Hispanic Family Center.

CHC provides clinical and screening efforts at the following sites on a regular basis: 1) CCCOEO headquarters; 2) Head Start Program; 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 nursing students and students of osteopathic medicine, the CHC provides essential learning regarding the delivery of community services at a very local level.

CAMDEN COUNTY HEALTH SERVICES CENTER AT LAKELAND (SOM)

A SOM New Jersey Institute for Successful Aging geriatrician, Ira Cuttler, M.D., continues to provide primary care medical services to more than 260 residents at the county long-term care facility at Lakeland, with a total of 2,404 visits logged in 2005-2006. This facility is 99% Medicaid supported.

THE CAMDEN SATURDAY HEALTH CLINIC (SOM)

This initiative was funded in June 2004 by a "Caring for Community" 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.

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 SOM students in collaboration with practitioners from an array of health care disciplines. Patients are seen by appointment or on a walk-in basis by a team of two medical students, who perform the initial exam/assessment of the patient. 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 grants and donations.

CANCER INSTITUTE OF NEW JERSEY (RWJMS)

The Cancer Institute of New Jersey (CINJ) is committed to expanding its capacity to provide exceptional and innovative outreach to New Jersey's medically underserved populations. The CINJ Office of Community Outreach works in conjunction with the Gallo Prostate Cancer Center, the Middlesex Country Cancer Coalition, the Healthier New Brunswick 2010 Community Health Advisory Group, and the New Jersey Cancer Education and Early Detection Coalition to meet the cancer education and outreach needs of its community constituents. Outreach activities include breast, prostate, cervical, lung, and skin cancer screenings; cancer prevention programs; and informative treatment-related lectures to community organizations.

The Novartis Outreach and Education Project

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 to cancer education and outreach programs already working with various communities throughout the State. This innovative program provides technical and grant support to help communities 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. Current grantees are serving the medically underserved, advanced stage cancer patients, African Americans, and Hispanics throughout the entire state of New Jersey.

The Dean and Betty Gallo Prostate Cancer Center

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

Continuing Umbrella for Research Education

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

Health Disparity Tumor Study Group

Comprised of physicians, researchers, nurses, and experts in public health, healthcare administration and tumor registry, the charter of this group was to complement our community outreach efforts with focused research on healthcare disparities issues, with the express purpose of using outcomes data to direct and monitor our community outreach efforts. During the past six months, we have concentrated our efforts on identifying reliable data sources to ask specific questions regarding the extent of our outreach programs and cancer care delivery within multiple populations and

strengthened collaborations with our colleagues at the New Jersey Medical School and School of Public Health who are national experts in health disparities research.

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, a CDC sponsored program that provides cancer screenings in all 21 New Jersey counties for uninsured individuals.
- 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.
- In collaboration with the New Jersey Health Disparities Institute, CINJ sponsored a statewide symposium entitled "Tackling Cancer Disparities in New Jersey."
- Drs. Ronald Morton and Diane Brown received a grant funded by NIH to develop a "Center of Excellence in Health Disparities in New Jersey" through the National Center on Minority Health Disparities.
- 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.
- CINJ Office of Community Outreach is active in the development of an educational DVD to increase awareness and knowledge of colorectal cancer screening.
- CINJ Office of Community Outreach is active in the development of clinician-friendly screening guideline pocket guides for breast, prostate, cervical, and colorectal cancer.

CARES INSTITUTE (SOM)

In addition to providing state-of-the-art medical and mental health services to children and families who have experienced child abuse and neglect, the Child Abuse Research Education and Service (CARES) Institute at SOM provides a wide variety of training and educational services to the community. These opportunities are directed towards children, parents, teachers, social workers, law enforcement, mental health clinicians and medical professionals.

Below is a list of training and educational activities for fiscal year 2007:

July 2006

- Communicating with Children

August 2006

- Introduction to Trauma Focused Cognitive Behavioral Therapy
- Combined Parent-Child Cognitive Behavioral Therapy

September 2006

- Expert Lecture Series: Challenges in Differentiating SIDS, Positional Sleep and Suffocation Deaths in Infants
- Body Safety for Kids

- “Okay” and “Not Okay” Touches for Kids
- October 2006
- Understanding & Addressing the Needs of Children who have Suffered Abuse
 - Mental Health Needs of Children in Foster Care
- November 2006
- Law Enforcement Overview of Regional Diagnostic and Treatment Services
 - Body Safety & Preventing Child Sexual Abuse for Parents
- December 2006
- Expert Lecture Series: Investigating and Prosecuting Serious Physical Abuse and Child Homicide
 - Body Safety & Preventing Child Sexual Abuse for Parents
 - Child Abuse Awareness
- January 2007
- Overview of Burn Injuries for Law Enforcement
 - Overview of Sexually Transmitted Infections for Law Enforcement
- February 2007
- Medical Indicators of Child Physical and Sexual Abuse
 - Sexual Harassment Awareness
- March 2007
- Trauma and Delinquency
 - 3rd Annual Best Practice Symposium: Meeting the Medical and Mental Health Needs of Children in Foster Care
 - Date Rape Awareness
 - Overview of Failure to Thrive for Law Enforcement
- April 2007
- Physician’s Role in Substantiating Child Sexual Abuse
 - Overview of Shaken Baby Syndrome for Child Protection
 - Overview of Bruising for Child Protection
 - Overview of Medical Diagnosis of Child Sexual Abuse for Child Protection
 - Skeletal Injuries in Child Abuse for Child Protection
 - Overview of Burns in Child Abuse for Child Protection
- June 2007
- Panel Discussion: Response of the Social Systems and the Legal Systems Concerning Children Exposed to Domestic Violence
 - Expert Lecture Series: The Nature of Nurture: Biology, Environment, and the Drug Exposed Child
 - Expert Lecture Series: Cognitive Behavioral Therapy for Traumatic Grief

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 the Center’s close relationship with State efforts to increase New Jersey’s state of preparedness. In addition, New Jersey’s Congressional support to the Center guarantees that the citizens, residents and visitors

to this State will be able to react and respond to terrorism and other disasters. In a short period of time, 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.

CENTER FOR HEALTH ECONOMICS AND HEALTH POLICY (SPH)

The School of Public Health's Center for Health Economics and Health Policy collaborates with the Rutgers University-Institute for Health, Health Care Policy and Aging Research to present the Wednesday Noon Health Economics Seminar Series. Presentation topics for this past year included:

- *Does Dual Medicare/VHA Use Improve Outcomes of Diabetes Care?*
- *The Health Care Safety Net and Crowd-Out of Private Health Insurance*
- *Medicaid Physician Fees and the Quality of Care of Medicaid Patients*
- *Crime and Circumstance: The Effect of Infant Health Shocks on Fathers' Criminal Activity*
- *Risk Preference Formation and Risky Behaviors in Adolescence and Adulthood: The Importance of Neighborhood and Family Background*

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 Environmental 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. The thirteenth annual Summer Institute, held in summer 2006, welcomed 116 educators representing 49 districts in the public and private sectors, who participated in five one- and multi-day workshops. Workshop topics included toxicology, risk assessment, epidemiology, infectious diseases, real-life science and safe work practices for teenagers.

District-Specific Teacher Workshops: With support from the National Institute of Environmental Health Sciences (NIEHS), CSCHE has conducted the seven-year SUC₂ES₂ (Students Understanding Critical Connections between the Environment, Society and Self) program since 2000. SUC₂ES₂ represents 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 is 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 is the implementation of a comprehensive evaluation of the ToxRAP materials and additional activities. This evaluation will determine 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 second and fifth grades continue to show 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 is developing the ToxRAP Breast Cancer module. The module will enable 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 will primarily target science classrooms. Following the ToxRAP model, students will be given

a case study involving a family where one person has breast cancer based on a composite of real cases. Students will help the family work through all of the associated scientific and psychological issues as the family moves through diagnosis, treatment and prevention.

Safe Schools

Safe Schools is a project supported by the New Jersey Department of Education, Office of Vocational-Technical, Career and Innovative Programs, 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 through a Safe Schools Program Task Force for the New Jersey Department of Education and the New Jersey Department of Labor and Workforce Development regarding prohibited and restricted hazardous healthcare work activities for minors (youth under the age of 18) involved in school-sponsored structured learning experiences. These recommendations will guide revisions to New Jersey child labor laws. In addition, 1,254 teachers and administrators in New Jersey were trained during 68 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, represents 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 are developing, implementing and evaluating 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. The educational materials for Lead Poisoning Prevention Week (nationally observed the third week of October) were reviewed by target audiences and implemented in fall 2006; materials for Cancer Control Month are under development. 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 University of Wisconsin-Madison.

For more information on CSCHE programs and services, contact Laura Hemminger at hemminlb@umdnj.edu.

CHARLES E. BRIMM MEDICAL ARTS HIGH SCHOOL (SOM)

SOM Family Medicine third year students and residents participate in a program for the 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 five years, the SOM Family Medicine Department has also participated in Camden's Summer Medical Youth Program, which promotes careers in the health sciences.

COMMITMENT TO DIVERSITY (RWJMS)

The UMDNJ-Robert Wood Johnson Medical School 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 three summer programs that increase the diversity of biomedical researchers, physicians and other health care professionals:

- The Biomedical Careers Program is an eight-week joint RWJMS – Rutgers University program for educationally and financially disadvantaged undergraduate students interested in careers in medicine or other health professions.
- The RISE program, a collaboration involving RWJMS, Rutgers University Graduate School of Education and the UMDNJ-Graduate School of Biomedical Sciences, is aimed at minority and disadvantaged students interested in careers in biomedical research.
- 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 had an average of 20% underrepresented minority student enrollment during the past five years. 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 two subcommittees, one for community health and the other for promoting diversity. Each committee has representation from faculty and administration. The community health subcommittee has community representatives as well.

COMMUNITY HEALTH WORKER INSTITUTE (SOM)

The Community Health Worker Institute (CHWI) was initially established by the Camden Area Health Education Center (AHEC) in 2000. In 2004, CHWI obtained federal funding through SOM from the U.S. Department of Health and Human Services-Health Resources and Services Administration for a Model State-Supported Area Health Education Center. It is one of only three statewide initiatives in the country aimed at developing the emerging profession of Community Health Worker (CHW).

Based at SOM, the CHWI is administered through the Camden AHEC. Its goal is to enable medical and other health professions students in UMDNJ to gain knowledge about the potential of CHW's 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 Institute has been working to facilitate identification of competencies/standards and training resources for community health workers that can be applied statewide, which will ultimately lead to clear identification of this important new occupation. On March 30, 2007, the CHWI hosted a statewide conference on the Stratford campus that was attended by 132 community health workers.

COMMUNITY NUTRITION INITIATIVES (SHRP)

Each year, the SHRP-Dietetic Internship Program has been involved in several community nutrition initiatives, and in 2007 these were targeted primarily to children and adolescents. Supermarket tours emphasizing shopping for a healthy heart were conducted with approximately 100 Trenton Central High School girls in conjunction with the Teen Esteem Program sponsored by the Women's Heart Foundation. In addition, culinary presentations and nutrition exhibits were presented to 120 high school freshman and sophomores from the Union County Academy of Health Sciences to celebrate National Nutrition Month. Finally "You R What U Eat" workshops were conducted for 180 Girl Scouts from the Delaware-Raritan Valley Girl Scout Council.

COMMUNITY ORAL HEALTH AWARENESS DAY (NJDS)

The New Jersey Dental School partnered with Essex County Dental Society and held its first Oral Health Community Awareness Day Fair at the Turtle Back Zoo on April 28, 2007. Fifty-five dental students and faculty volunteered for this community event. The goal of the event was to educate the public about effective dental care, oral cancer education and smoking cessation. Over 1,000 toothbrushes, toothpaste and floss were given away to encourage continued, or in many instances to begin, proper dental care. Volunteers also provided tooth brushing instruction and trivia questions about dental care along with a PowerPoint presentation on oral cancer prevention education. A tobacco dependence treatment specialist provided information on smoking cessation. Carnival games, arts and crafts and raffles that included many prizes made community oral health awareness day an educational and enjoyable day for all individuals.

THE COMMUNITY- ORIENTED DENTAL EDUCATION PROGRAM (NJDS)

The Community-Oriented Dental Education Program (CODE) is in its twelfth year of having fourth-year pre-doctoral dental students deliver care under faculty supervision in NJDS's 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.

DEPARTMENT OF COMMUNITY HEALTH (NJDS)

The Department of Community Health provided oral health education programs for over 800 students, nursing home and community center participants at the following sites:

- Ridgewood Montessori School
- Congregation Israel Nursery School
- Kinnelon Public School
- Woodland School
- Integrity House
- Boys and Girls Club
- 13th Ave. School
- 14th Ave. School
- Newton Street School
- Miller Street School
- Camden Middle School
- Martin Luther King School
- Public School #48
- Fellowship Farm School
- Beachwood Elementary School
- Ridgewood Montessori School
- Play & Grow, Somerset

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). Bateyes are extremely poor communities of sugar cane workers and their families who live in primitive palm frond and tin shacks with limited access to potable water and sanitary facilities and no access to health, social service or educational programs.

Since that first visit, the Project has been expanded to represent the field work component of a new course, "Public Health Applications in Developing Countries." In July of 2005, seven students traveled to the Dominican Republic with one faculty member; in January 2006, another 22 students and two faculty members traveled again to the DR.

The Dominican Republic Project is undertaken in collaboration with Crossroads, a non-denominational outreach mission that provides housing and nutritional programs to persons living in the bateyes of the North Coast of the Dominican Republic.

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:

- Purchase a cow to provide milk and a solar oven for bateye communities
- Build a water system in one bateye
- Construct a primary care center in a new village built by Crossroad
- Support an emergency medical fund
- Provide tuition for Haitian children to attend schools in the DR

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

DEVELOPMENTAL DISABILITIES FAMILY EDUCATION AND INFORMATION PROJECT (SPH)

The Developmental Disabilities Family Education 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 to Transitioning from Developmental Center to Community Living.
- The project website, <http://www.umdnj.edu/linkweb>.
- A family HELPLINE (1-800-500-0448) for family questions and concerns on transition to community living.

For more information on the Developmental Disabilities Family Education Project, contact Dr. Susan Hammerman at hammersr@umdnj.edu.

THE DIVISION FOR ADOLESCENT AND YOUNG ADULT MEDICINE (NJMS)

The Division for 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. Several projects focus on adolescent male development. The latter include Young Fathers Program, Male Student Support Program (MSSP) and the Waiting Room Parents Program.

In addition, DAYAM has developed a coordinated approach that includes youth-specific HIV prevention, community-based youth-specific HIV counseling and testing, youth-specific HIV outreach, youth-specific HIV primary care and case management and adolescent HIV treatment systems research and evaluation. These include Peer Outreach Workers Educating Risk-takers (POWER), Spend Time on Prevention (STOP), Juveniles Understanding Methods of Prevention (JUMP), Screening, Treatment and Risk Reduction for Teens (START), Direct Service Outreach Initiative (DSOI), Services Targeting Adolescents Needing Direct Outreach (STAND), and DAYAM HIV/AIDS Mental Health Services.

ENVIRONMENTAL PUBLIC HEALTH TRACKING (SPH)

SPH faculty members from the Department of Epidemiology serve on the Environmental Public Health Tracking (EPHT) Advisory Group. EPHT tracks the ongoing collection, integration, analysis, interpretation, and dissemination of data on environmental hazards, exposures to those hazards, and health effects that may be related to the exposures. The goal of tracking is to provide information that can be used to plan, apply, and evaluate actions to prevent and control environmentally related diseases.

This Advisory Group has been convened by the New Jersey Department of Health and Senior Services to provide input and guidance on technical aspects of demonstration projects and communication of project findings to interested stakeholders and the public.

The Centers for Disease Control and Prevention (CDC)-funded Environmental Public Health Tracking Program is led by the New Jersey Department of Health and Senior Services in partnership with the New Jersey Department of Environmental Protection.

THE ERIC B. CHANDLER HEALTH CENTER (RWJMS)

The Eric B. Chandler Health Center is the cornerstone of UMDNJ-Robert Wood Johnson Medical School community-based programs. Founded in 1987 in memory of Eric B. Chandler, Ed.D., it is owned and operated by the Medical School in collaboration with a Community Advisory Board. The Center is a comprehensive, family-oriented community facility dedicated to the provision of high quality ambulatory health care services to low-income, uninsured and underinsured residents of the Greater New Brunswick community. The Center is also a training facility for residents and medical students at RWJMS. Chandler received Federally Qualified Health Center status in 1991, and in 1993 was awarded PHS Section 330 community health center grant funding for the first time. Its mission 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.

The Center provides on-site primary care, internal medicine, pediatrics, and perinatal and gynecologic care, family planning, and preventive and restorative dental services to adults and children. Dental services for children in grades K through 5 are also provided at the Lord Stirling School in New Brunswick. In addition, the Center offers podiatry services, HIV counseling and testing services, laboratory services, and specialized care for people with HIV/AIDS. Social work staff, health educators, nutritionists, community outreach workers, and case managers contribute significantly to the Center's programs.

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 underinsured 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. Medical students from the Homeless and Indigent Population Health Outreach Project (HIPHOP) rotate at the Center every eight to ten weeks. These students also participate in home visits with outreach workers.

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.

EVALUATION OF PRACTICING SAFETY, 2003 TO PRESENT (SPH)

The Practicing Safety project—a collaborative effort of UMDNJ and the American Academy of Pediatrics (AAP), with funding by the Doris Duke Charitable Foundation—completed its work with area pediatric practices to decrease child abuse and neglect by increasing anticipatory guidance given to parents of children under the age of four. SPH faculty and staff from the Health Systems and Policy Department were part of the Central Evaluation Team, which collected and analyzed quantitative and qualitative process and outcome data for the project.

During this past year, the project completed its data collection efforts with the participating NJ and PA sites. This included gathering surveys from physicians and staff on their use of the tools, gathering surveys from parents on their satisfaction with the materials, and reviewing medical records to determine if discussions are being documented during regular well child visits. For more information on this project contact Dr. Diane Abatemarco at dja17+@pitt.edu.

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 CENTER (SN AND NJMS)

Established in 1990, the François-Xavier Bagnoud (FXB) Center at UMDNJ is a leader in addressing global health concerns, including HIV and AIDS. FXB has a well-established history of bringing together academic and research expertise to build the partnerships needed to address complex and changing family health issues worldwide. The FXB Center is an initiative of the UMDNJ-School of Nursing in collaboration with UMDNJ-New Jersey Medical School. FXB also works closely with other UMDNJ Schools and Centers, preparing future researchers and professionals for vital roles in addressing family global health issues. The Center approaches the multiple factors affecting health and disease using a multidisciplinary model incorporating nursing, medicine, psychology, sociology, epidemiology, and health services research.

The FXB Center attracts funding from both global and U.S.-based public and private organizations, with \$13.5 million in external funding from the US Centers for Disease Control and Prevention (CDC), Health Resources and Services Administration (HRSA), New Jersey Department of Health and Senior Services (NJDHSS), New Jersey Department of Human Services (NJHHS), World Health Organization (WHO), Elizabeth Glaser Pediatric AIDS Foundation, Johnson and Johnson, and the François-Xavier Bagnoud Foundation USA. The Center includes the Executive Director, Linda S. Podhurst, Ph.D., and senior staff/faculty Virginia Allread, MPH, Carolyn Burr, EdD, RN, Nina Colabelli, MSN, CPNP, Mary Jo Hoyt, MSN, RN, Andrea Norberg, MS, RN, Pamela Rothpletz-Puglia, EdD, RD, Monica Reiss, DrPH, and Deborah Storm, Ph.D., RN. James Oleske, M.D., MPH, co-the founder of the FXB Center, is the Medical Director; Sally Hodder, M.D., is the Adult HIV Care and Treatment Medical Advisor.

Health Services

The Health Services Program provides multidisciplinary, family-centered care to over 300 families infected with and affected by HIV by providing medical and community-based care at University Hospital in Newark.

The Child Health Program, a collaboration with the New Jersey State Division of Youth and Family Services (DYFS), Department of Health and Human Services (DHHS), works to ensure that the healthcare needs of vulnerable, at-risk children throughout New Jersey are met. The program collaborates with DYFS to develop a coordinated response to specific regional and statewide health needs by providing case management, consultation and continuing education to DYFS staff and caregivers for children in out-of-home placement.

Pediatric AIDS Services

The FXB Center is the largest and oldest pediatric HIV research and clinical care program in the U.S., having served over 1,000 families predominantly from the Newark metropolitan area. The FXB Center is dedicated to improving the lives of vulnerable families, including those infected and affected by HIV.

The FXB Center provides ongoing comprehensive, multidisciplinary, family-focused care and also offers access to new medications and investigational treatments to children through the Pediatric AIDS Clinical Trials Group (PACTG) program. The diverse care, outreach and education programs include two websites focused on healthcare providers (WomenChildrenHIV.org and aidsetc.org) and two programs that implement effective strategies to engage HIV-positive women and HIV-exposed and infected children into care: The Family Place and Healthcare Connections. These activities, funded through multiple national and state government programs and private foundations, allow the FXB Center to address the social services, nursing, nutritional and emergency care needs of children and families in the Newark community, as well as to support national and international health education programs.

Research

Current projects include a Centers for Disease Control and Prevention (CDC) training grant to disseminate and increase rapid HIV testing in labor and delivery. Several Health Resources and Services Administration (HRSA)-funded initiatives focus on women's perspectives about approaches to HIV testing in pregnancy and understanding strategies to support implementation of recommendations for cervical cancer screening for women living with HIV infection. A recent National Institute of Nursing Research (NINR)-funded investigation examined quality of life of children and youth with perinatally-acquired HIV infection and resulted in a publication in *Pediatrics* in 2005.

Education

The primary domestic education project is the HIV/AIDS National Resource Center (NRC) that serves the Ryan White Treatment Modernization Act-funded programs, the AIDS Education and Training Centers (AETCs) and the Title IV program. The NRC provides education, training and quality management resources to health professionals caring for people living with HIV infection. It offers an online library of training resources, technical assistance, and materials on new and emerging clinical topics.

Global Initiatives

The FXB Center was the lead developer of the Prevention of Mother-to-Child Transmission of HIV Infection (PMTCT) Generic Training Package, in collaboration with the World Health Organization and the CDC. This Package is a comprehensive, evidence-based, capacity-building training program on PMTCT in resource-constrained settings designed to link and strengthen PMTCT services and training efforts. It is intended to be adapted by national PMTCT program staff to include country-specific policies, guidelines, and recommendations. The Generic Training Package is funded by the CDC Global AIDS Program (GAP) University Technical Assistance Project, which supports global education on HIV/AIDS. This project offers training and technical assistance to support capacity building and infrastructure development for direct care to families living with infectious and chronic diseases in resource-constrained settings. This includes training on PMTCT, family-centered care for individuals co-infected with TB and HIV, and palliative care and symptom management for individuals with chronic infectious diseases and life-limiting conditions. The Center has developed curricula and supportive materials for PMTCT and pediatric HIV management that have been adapted and implemented in diverse settings across the globe. Activities are ongoing in Africa, Asia, and the Caribbean.

The 23 in-country staff at the FXB Center UTAP project initiative in Guyana provide HIV care and treatment at all the public sites throughout the country. The FXB-Guyana

program also provides technical assistance to support the care of TB/HIV co-infected patients and the country's laboratory infrastructure. In Botswana, the FXB Center has developed a multi-system approach to healthcare provider staff retention to address the severe human capacity shortage. In addition to PMTCT healthcare provider education in Zanzibar and Tanzania, the Center is implementing several large-scale HIV/AIDS service delivery evaluation projects. In Kenya, the FXB Center is providing support to clinicians to facilitate the delivery of PMTCT services in line with the national guidelines. In Haiti, the FXB Center technical assistance team supports the development and implementation of pediatric HIV infection guidelines and education for pediatric healthcare providers.

Since 2003, the FXB Center has been funded by PACTG to provide training at clinical research sites in resource-limited settings to support the conduct of clinical trials related to pediatric and perinatal HIV infection. The Center has continued this role as the clinical trials program transitioned to the International Maternal Pediatric and Adolescents AIDS Clinical Trials Program (IMPAACT) network. This initiative includes the development and implementation of HIV clinical and research training for physicians, nurses, pharmacists, counselors, peer educators and Community Advisory Board members. Curricula and supportive materials for community HIV education and HIV nursing care have been developed and implemented in Thailand and several countries in sub-Saharan Africa.

FREE ORAL CANCER SCREENING AT UMDNJ (NJDS)

For the ninth 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 in two locations in Somerdale and at the Dental School on April 26, 2007. The Newark screenings were performed in conjunction with the Essex County Cancer Fair, where all major cancer organizations had information booths.

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

The New Jersey Dental School (NJDS), 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 300 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 new 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/gtbiweb>, 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, we are required to provide training, technical assistance and medical consultation to healthcare professionals throughout the Northeastern U.S. Our 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.

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.

HEALTH ENHANCEMENT AND LEARNING PROJECT (HELP) (SOM)

The New Jersey Geriatric Education Center and the New Jersey Institute for Successful Aging initiated a comprehensive health enhancement and learning program (HELP) through a grant from the New Jersey State Department of the Treasury and in collaboration with the Camden Area Health Education Center. The HELP program addresses chronic diseases/common geriatric syndromes, medications, and health management strategies for residents of selected senior citizen subsidized housing facilities in Camden.

Built on the evidence-based Enhance Wellness Program and the Stanford Chronic Disease Self-Management Program, the project provided health assessments for residents, helped them identify health risk factors, and provided a behavioral health action plan. The project provided a nurse practitioner and community health worker to assist with cultural and health literacy issues and offered peer leadership training and support to assist the elderly participants in adhering to their identified health plan. The

goal of the program was to improve health and prevent further disability in minority and underserved individuals with multiple chronic conditions, permitting them to age in place.

The program also provided support and education to primary care physicians and health care professionals from multiple disciplines in the community, thus enhancing their knowledge of aging and appropriate assessment, intervention, and health promotion strategies, all directed at improving the quality of life and quality of care for aging New Jersey residents.

HEALTH SCIENCE CAREERS PIPELINE (SHRP)

The Health Science Careers Pipeline, formerly Tech Prep, began in the 1993-94 academic year with three high schools and 12 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 has a website www.healthcareers.umdj.edu to educate students about various health careers. Approximately two-thirds of the students received college credit ranging from one to a maximum of 14 credits. These credits are accepted by every college in New Jersey and by a number of out-of-state colleges and universities such as Georgetown University.

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 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.

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 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.

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, and seeks to identify strategies to address and eliminate them.

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. IEHD has also provided pilot funding to UMDNJ faculty conducting health disparities research. In working with the Congressional Black Caucus (CBC) Health Braintrust, IEHD hosted the conference: "Bursting Out of Our Seams: Confronting the Challenge of Obesity in our Communities." The forum brought together more than 260 people including healthcare professionals, community leaders and members of the US House of Representatives' Congressional Black Caucus. In addition, the Institute continues to sponsor its health disparities seminar series in which nationally renowned speakers have shared findings and strategies pertaining to various health disparities. For more information on IEHD, contact Dr. Diane Brown at 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 practice 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 POISONED CHILDREN (NJMS)

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.

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 during Academic Year 2006-2007 (project names and locations):

- *Building the Capacity for Local Public Health Coalitions to Reach the Unmet Needs of Underrepresented Populations in New Jersey - HIV/AIDS in the Caribbean English-speaking Population in the Newark Eligible Metropolitan Area,*

- Newark EMA (Eligible Metropolitan Area) HIV Health Services Planning Council, Newark, NJ
- *Implementation and Assessment of the PACNJ Asthma Action Plan*, Pediatric/Adult Asthma Coalition of NJ, Union, NJ
 - *GED Performance Measurement Project*, 1199 Training and Employment Funds, NY, NY
 - *Assessment of Substance Abuse Intervention and Treatment Retention in Juveniles: A Study of Adolescent Portable Therapy*, Vera Institute of Justice, NY, NY
 - *Distribution of Brain Weights in Autistic Individuals*, National Alliance for Autism Research, Princeton, NJ
 - *Addressing Community Health Needs at a Community-Based Organization: Challenges and Lessons Learned*, Brooklyn Perinatal Network Inc., Brooklyn, NY
 - *New Jersey Cancer Prevalence Estimates by Major Cancer Site*, Cancer Epidemiology Services, New Jersey Department of Health and Senior Services, Trenton, NJ
 - *Prevalence of Complimentary and Alternative Medicine Use Among Breast and Prostate Cancer Patients*, The Cancer Institute of New Jersey, New Brunswick, NJ
 - *Perceptions of Contracting the HIV Virus*, Graham Center for Policy Studies in Family Practice & Primary Care, Washington, DC
 - *A Survey of Parents of Inner-city Children Presenting to the Emergency Room with Asthma*, Lincoln Medical and Mental Health Center, Bronx, NY
 - *The Association Between CNS Medication and Motor Vehicle Accidents in the Elderly*” Center for the Study of Health Beliefs and Behaviors, New Brunswick, NJ
 - *Assessment of New Jersey Local Health Department Diabetes-related Services/Guidelines*, NJ Department of Health and Senior Services, Trenton, NJ
 - *Major Determinants of Mortality in NJ: A Longitudinal Study*, NJ Council of Teaching Hospitals, Trenton, NJ
 - *Healthy Camden City 2010 Update 2005*” Camden County Cancer Coalition, Camden, NJ
 - *Analysis of Camden City Focus Groups*, Community Planning and Advocacy Council, Camden, NJ
 - *Escalating Cesarean Section Rates: A Health Policy Analysis*, Rutgers-Center for State Health Policy, New Brunswick, NJ
 - *Assessing Cultural Dietary Beliefs and Practices Among Pregnant Latina Women* Plainfield Health Center, Plainfield, NJ
 - *Association Between Public Knowledge of Prevention & Susceptibly Dental Disease and Unattained Objectives of Health People 2000*, William Megill Dental Office, Rocky Hill, NJ
 - *Toxicological Assessment of Water Contaminants*, Medarex, Pre-Clinical Development, Bloomsbury, NJ

THE MARION P. THOMAS CHARTER SCHOOL PARTNERSHIP (SN)

The UMDNJ-School of Nursing and Ramapo College joint nursing program has partnered with the Marion P. Thomas Charter School in Newark since 1999. The goal of the partnership is to develop and implement a health education curriculum for students, families and staff. At the beginning of the partnership in 1999, the school delivered a K-2

curriculum to 60 students. Each year the school adds a grade, so at present the school is a K-8 program enrolling 320 students.

In partnership with the UMDNJ-School of Nursing, students enrolled in the Community Health nursing class under the tutelage of Frances Francabandera, Ed.D., R.N., have developed, implemented and evaluated a healthcare curriculum for students at all levels. This curriculum meets State standards and is individualized to include the specific needs for the groups of students, families and staff of the Charter School.

For the last academic year, the content continued to focus on the areas of nutrition and sexuality in addition to the required content. The nursing students created course content dealing with healthy eating, healthy eating with "fast food", exercise and other topics dealing with nutrition. As the age range of the students has advanced, the topic of sexuality has become more important. Issues of importance for the staff have included stress management as well as healthy eating. All of this content is then shared with families through "Health Notes," an in-home mailing for all students, staff and families. The nursing students also provided health screening for members of the Marion P. Thomas Charter School community.

MAYOR'S WELLNESS CAMPAIGN (SN)

The Mayor's Wellness Campaign (MWC) is a public-private partnership of civic, academic, and health-care policy advocates seeking to foster active living and healthy lifestyles with a long-term goal of reducing health care and other costs secondary to inactivity by providing communities with the structure and resources to implement health community initiatives.

The MWC Team is a partnership between the NJ Health Care Quality Institute, the Alan M. Voorhees Transportation Center at Rutgers University, with assistance from the NJ Department of Transportation and the joint nursing programs at Ramapo, and in association with the NJ State League of Municipalities.

MWC Round One

As part of the campaign, an MWC toolbox was distributed to all 566 of the State's municipalities at the NJ League of Municipalities' Conference in November 2005. The RN to BSN students of the joint nursing programs completed community assessments for nine Bergen and Passaic county municipalities, and these results were presented to the Mayors of the selected towns. Based on the results of these community assessments, the towns along with RNs from the joint nursing programs are identifying community specific interventions focusing on wellness. Results of these specific assessments were reported by the Mayors of Garfield and River Vale during the Conference on Municipalities.

Round Two

Community assessments are being completed for additional municipalities in Bergen and Passaic counties, and individual "toolboxes" will be created for involved towns. As a result, the Town of Garfield has initiated The Childhood Obesity Intervention Taskforce. This Taskforce is a collaboration between The joint nursing programs at Ramapo, Ramapo College, the Meadowlands Commission, the Town of Garfield, and the Community Health Education Program of William Paterson University. The RN to BSN students of the joint nursing programs at Ramapo, in collaboration with the school

nurses of the Garfield middle schools, have assessed the physical activity levels and BMIs of all middle school students in the Garfield School District.

As an outcome, the Town of Garfield, through the Garfield Health Department and Town Council, applied for funding to address the identified childhood obesity issue. The original partners, including The Meadowlands Environmental Center, Ramapo College, and the joint nursing programs, were reconvened and initiated a pilot program that will combine nutrition and physical activity education. The Ramapo and Meadowlands Survival Camp (RAMS) for Middle School Students was held on August 7-11, 2006. The program focused on "survival skills" from "the Marsh-to-School-to-Home". Twenty students and 20 faculty from community middle schools participated in the pilot, funded by the Leaders Academy for Health Community Development, Ramapo College, the Meadowlands Commission, and the Mayors' Wellness Project.

Grant support will be sought following the pilot project to support the creation of curricula in schools and wellness projects for adults.

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

UMDNJ-Robert Wood Johnson Medical School 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 or publication, and a presentation of the completed project to the sponsoring community organization and the RWJMS community. The DISC program adds a rigorous, scholarly component to existing community service projects, generates experience in population health scholarship, responds to health needs as defined by the community, generates partnerships with community groups, and recognizes students who distinguish themselves by independent, strong, long-term commitments to community health programs.

MEDICAL SCIENCE ACADEMY (SOM)

The Medical Science Academy (formerly the High School Scholars Program) is a 28-week medical orientation program for twelfth-grade honor students from Camden, Burlington and Gloucester Counties in South Jersey. Students meet every Tuesday and Thursday afternoons from 2:00 PM to 3:30 PM on the Stratford Campus.

The Medical Science Academy offers integrated and thematically organized presentations by 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, and provide current information relevant to their work. Students are able to participate in an optional research project sponsored by SOM in collaboration with UMDNJ-School of Health Related Professions.

Approximately 500 students have participated in the Medical Science Academy and have either completed training in a health-related profession or are attending undergraduate programs or medical schools.

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 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 three major components of HIPHOP - the Clinic Project, the Homeless Project, and the Health Workshops Project - are designed to link specific learning objectives for students with the health-related needs of the community. The Clinic and Homeless Projects offer community members increased access to care by shadowing and assisting at St. John's Clinic and Trinity Health Center. These clinics are funded by Catholic Charities for the homeless and underserved of downtown New Brunswick and Perth Amboy. Working in teams of two first-year medical students and one clinically experienced medical student, HIPHOP students take patient histories and perform physical examinations. They present their findings to a supervising physician, and together they develop and implement a plan of care. Several faculty members serve as preceptors.

Students also work with Chandler's outreach workers to visit the homes of patients who have missed appointments or who need extra help. The teams provide information (for example, about immunizations, lead poisoning, nutrition and home safety), install safety devices (such as smoke detectors), and contact social service providers on behalf of their patients.

The Health Workshops Project consists of two distinct educational programs: SHARRP (the Student Health Awareness and Risk Reduction Project) and STATS (Students Teaching AIDS To Students). Medical students in SHARRP develop mentoring relationships and provide health education through a series of interactive workshops with New Brunswick junior high school students to address issues of HIV prevention, sexual health and responsibility, self-esteem, environmental influences on health and behavior and substance abuse. In the STATS program, teams of medical students and physician assistant students visit high schools and other community sites to present one-time interactive workshops about HIV disease, sexual health and responsibility. In January 2005, a group of HIPHOP students started the HIPHOP Promise Clinic to provide increased access to health care for homeless people who receive their meals and social services at Elijah's Promise Soup Kitchen. Volunteer faculty physicians serve as preceptors for this weekly student-run clinic.

The Urban Health Initiative (UHI), RWJMS at Camden, provides a broad range of services to the Camden community and is critically important for 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 at 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 MED 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. Our 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 Med School program provides an education that is meaningful and enjoyable for each of its participants.

THE NATIONAL BORICUA LATINO HEALTH ORGANIZATION (SOM)

The National Boricua Latino Health Organization (NBLHO) recently picked the student chapter at SOM as the winner of its "Dr. Helen Rodriguez-Trias Chapter of the Year Award." This 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.

During the past year, the SOM chapter sponsored a series of medical, cultural and social events for Hispanic Heritage Month, co-sponsored the Juvenile Diabetes Walk-a-thon, co-sponsored a Christmas party at a local nursing home and re-launched a mentoring program for high school students at LEAP Academy in Camden.

SOM students are active in NBLHO leadership. The Co-Chair of the National Executive Board is SOM student Ms. Raquel S. Murphy. NBLHO is a proud member of the National Network of Latin American Medical Students. This is a national partnership between other regional Latino medical student groups to create one strong voice for Latino medical students throughout the entire United States.

NATIONAL YOUTH LEADERSHIP FORUM ON MEDICINE (SOM)

The National Youth Leadership Forum on Medicine (NYLF) is designed to provide high school students from across the U.S. with exposure to the medical and health-related professions. Students from the NYLF visit the campus of SOM each summer during the months of June and July. During their visit, students are exposed to opportunities in osteopathic medicine and osteopathic manipulative medicine. The highlight of the visit is the Mini-Medical School that enables the students to interact with medical educators to learn about the admissions process, the rigorous academic expectations and other challenges that the road to medicine presents to aspiring physicians.

SOM has sponsored visits by the NYLF since 1998. Each year approximately 265 high school students visit the campus.

NEW BRUNSWICK COMMUNITY INTERPRETER PROJECT (RWJMS)

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

goals are to make an impact on the quality of care received by Limited English Proficient patients in New Brunswick, and to give bilingual Rutgers students the opportunity to participate in a structured way in the local Hispanic community. Founded in 1999, the program has provided a student interpreter for more than 64,000 patient-provider encounters, and has translated over 100 vital medical documents into Spanish, including the recently published website for the Eric B. Chandler Health Center. The NBCIP has conducted basic interpreter training for bilingual staff at both the Cancer Institute of New Jersey and the Woman's Ambulatory Care Clinic at St. Peter's University Hospital, as well as for bilingual medical students in the RWJMS Department of Family Medicine. Additionally, 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.

NJ AREA HEALTH EDUCATION CENTERS (SOM)

In collaboration with the NJ Area Health Education Centers (AHEC), the SOM Department of Family Medicine has expanded clinical experiences in underserved communities for students during their first and second year by designing Community Oriented Primary Care (COPC) projects. In addition, all third-year students 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.

Each year over 16 COPC teams, each consisting of ten students, assess health needs and implement projects for helping underserved communities. With an emphasis on children and the elderly, projects this year included helping elementary school children with obesity; providing prenatal and well baby care for teenaged mothers; and helping seniors with Alzheimer's disease in the Camden Housing Authority program.

NJ AHEC also facilitates many Kids into Health Careers programs, such as three Medical Explorer posts 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 four Cumberland County schools. SOM students and faculty have participated in these activities that aim to increase the number of area minority and disadvantaged youth 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), which is located at the UMDNJ-School of Public Health, is one of thirty-six Centers for Public Health Preparedness funded by the federal Centers for Disease Control & Prevention. 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.

Service accomplishments for NJCPHP in the 2006-2007 academic year include the distribution of the newsletter, *New Jersey Prepared Together*, and the online newsletter,

PHlash, to inform and to help coordinate preparedness education and training activities for the workforce of New Jersey.

Several education and training activities were conducted specifically targeting nurses, practicing physicians, medical students, hospital emergency room staff, Port Authority security officers, and senior managers and their staffs in local, county and the state health department, among others.

Two of the Center's faculty members were selected 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. Center members also participated in nation-wide groups of Centers working on pandemic influenza, chemical and radiological preparedness, state and local partnerships, vulnerable populations, and evaluation tools.

THE NEW JERSEY GERIATRIC EDUCATION CENTER (SOM)

Federally funded by the Bureau of Health Professions of the U.S. Department of Health and Human Services/Health Resources and Services Administration (DHHS-HRSA), 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.

Administered through the SOM-New Jersey Institute for Successful Aging, the NJGEC has trained over 17,000 health care professionals of multiple disciplines since its inception in 1990. With the elimination of federal funding for geriatrics in FY 2006, the NJGEC continued its interdisciplinary training efforts beyond its first year of a new 5-year funding cycle. SOM supported NJGEC efforts on a limited basis through "bridging funds." In February of 2007, full funding for geriatrics was restored for HRSA geriatric programs. The NJGEC has applied for federal funding for the 2007-2010 period and is pending grant review.

NEW JERSEY POISON INFORMATION AND EDUCATION SYSTEM (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, 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.

NURSE MIDWIFERY SERVICE (SN)

The School of Nursing offers nurse-midwifery services at Newark Beth Israel Medical Center (NBIMC); St. Mary's Hospital in Passaic; and Jersey City Medical Center (JCMC). Services include prenatal care, in hospital labor management, and post partum/newborn care.

At NBIMC there were a total of 800 prenatal visits and 704 births by the midwife. At St. Mary's Hospital there were 1,335 prenatal visits and 121 births by the midwife. The program at JCMC began mid-2006 with part time coverage of women during the labor process.

NUTRITION MANAGEMENT OF INDIVIDUALS WITH HIV / AIDS (SHRP)

This initiative, funded by Ryan White Title I, 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. The nutrition status of individuals in the Infectious Disease Practice unit has been tracked and the positive impact of nutrition intervention documented on an annual basis. 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 R.D. in 1999, the equivalent of 1.5 R.D.'s in 2000, and then to two R.D.'s in 2002. 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, and education of staff and patients have helped to provide a valuable service to the New Jersey community.

OEO SUMMER EXPLORATION PROGRAM (SOM)

The Summer Exploration Program is a six-week summer youth employment program that provides employment for high school students in the careers of their choice. The objective of the program is to train and mentor student interns to develop positive employee characteristics and skills while allowing them to receive experience in a

vocational field of their choice. Each summer four high school students are selected to work in the Department of Academic and Student Affairs assisting with various projects.

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.

Bioterrorism Preparedness

The OPHP collaborated with Rutgers University, Cook College Office of Continuing Professional Education, to present a bioterrorism 40-hour training program. The program, designed for professionals in local health departments, was developed and presented through the OPHP.

The OPHP participates in the training activities of the New Jersey Center for Public Health Preparedness at UMDNJ (NJCPHP). The NJCPHP is funded through a cooperative agreement with the Centers for Disease Control and Prevention (CDC). The OPHP has provided training to public health professionals in the area of mental health preparedness in the event of a public health emergency. Additionally, the OPHP provides preparedness training to employees of the Port Authority of New York and New Jersey.

Public Health: Impacting Lives Everyday

The SPH has provided outreach to high school students and teachers to provide an understanding of public health and to create an interest in public health as a career opportunity. The goals of the program are:

- To provide high school students with public health career information.
- To provide teachers with resources to teach public health in high schools.
- To provide high school students with information on public health and how it impacts them every day.

The OPHP has worked with the SPH Volunteer Opportunities In Community-Engaged Service (V.O.I.C.E.S.) organization to conduct the outreach program.

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. *Patient-Centered Medicine* fosters the value of community involvement and enhances opportunities for students to engage in community health programs.

PHYSICAL AND OCCUPATIONAL THERAPY (SHRP)

The Department of Developmental and Rehabilitative Sciences offers full physical therapy and occupational therapy evaluation services to public school children in Newark, and partial services in Paterson. 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 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 offers a six-week full-time program in the summer.

PREVENTIVE MEDICINE AND COMMUNITY HEALTH (NJMS)

Since September 11, 2001, the Department forged collaboration with the Newark City Health Department. Initially, sessions consisted of case scenarios for preparedness for Bioterrorism. Subsequently, this led to an expanded work group consisting of a coalition of the New Jersey Medical School, the Newark City Health Department, the Emergency Medical System, and local hospitals to establish a surveillance system and a field for capacity for investigations.

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

H. Timothy Dombrowski, D.O., chair of the 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 Department of Medicine's federally funded Primary Care Internal Medicine Residency Program and its Inner City Medicine rotation.

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.

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

The Student National Medical Association (SNMA) chapter at SOM was named the Northeast region's "Chapter of the Year" by SNMA's national board at the 2007 Annual meeting.

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 SOM Interim 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's leadership of the Steering Committee that formed the Stratford Business and Civic Association 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.

SPECIAL OLYMPICS – SPECIAL SMILES NJ (NJDS AND SHRP)

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 sponsor a health and wellness center for the Health Athletes Initiative of New Jersey Special Olympics, providing education and community service to New Jersey residents who join in Special Olympics activities.

For the 11th 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. These data are 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.

SPH / CROATIA PARTNERSHIP (SPH)

A Cooperative Agreement between the U.S. Agency for International Development and American International Health Alliance, Inc., enabled the formation of a partnership between the UMDNJ-School of Public Health in Piscataway, New Jersey and city of Split, Croatia, Healthy Cities Program, in November of 2001. Members of the SPH team from the Department of Health Systems and Policy and the Department of Health Education and Behavioral Science conducted in-person meetings for five years and now continue the collaboration long-distance. Faculty members provide technical assistance with the planning and implementation of a public health intervention focusing on the prevention of adolescent alcohol use. Faculty members have provided training in the Project Northland curriculum—a school-based, three-year adolescent alcohol prevention intervention being implemented in 13 schools in the city of Split. In addition to SPH faculty, the Partnership team consists of the director of the city of Split Social and Non-Governmental Organizational Programs, the director of Domestic Violence Services, and the chief of the Department of Addictions. For more information contact Dr. Bernadette West at westbm@umdnj.edu.

ST. LUKE'S CATHOLIC MEDICAL SERVICES (SOM)

Lesley A. D'Ambola, D.O., of the General Internal Medicine Division, 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. St. Luke's was founded in 1983 as a joint venture of the Diocese of Camden and the Jesuit Urban Service Team (J.U.S.T.).

Since it 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 2005, there were over 5,500 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 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 provide the knowledge and skills needed for culturally competent medical care. In addition, St. Luke's serves as the keystone training site for a Primary Care Internal Medicine Residency Program funded by the U.S. Department of Health and Human Services/Health Resources and Services Administration to train general internists to provide primary care to medically underserved populations.

A related program is Dayton Manor, an assisted living facility in Camden. It formerly served as a retirement home that provided meals, laundry, and basic housekeeping services to its residents, many of whom came from State institutions for the mentally ill, boarding homes, or other residences. The population was medically complex with many physical and mental challenges. Many of these residents remained when the facility converted to assisted living in 2004.

Like St. Luke's Catholic Medical Services, Dayton Manor is a training site for the SOM Department of Medicine's federally funded primary care internal medicine residency program. Along with St. Luke's and Project H.O.P.E., Dayton Manor is also a training site for SOM fourth-year medical students. Dr. D'Ambola of the General Internal Medicine Division serves as Medical Director and provides clinical services along with Mr. Myers, a nurse practitioner.

STANDARDIZED PATIENT LABS (SOM)

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 in September 2006 included a commendation for the school's inclusion of cultural competency in the Standardized Patient Lab. In recognition of SOM's leadership, former Acting Governor Richard Codey came to the school's Stratford campus on March 23, 2005 to tour the Standardized Patient Labs and sign legislation requiring cultural competency education as a requirement for medical licensure in the State.

STATE PARTNERSHIPS FOR TRAINING IN GERIATRICS AND GERONTOLOGY (SOM)

The SOM New Jersey Institute for Successful Aging and the New Jersey Geriatric Education Center (NJGEC) continue to work collaboratively with other institutions and organizations to provide training on a variety of aging-related topics. During 2006, the

New Jersey Institute for Successful Aging (NJISA) and the NJGEC participated in program planning and delivering content for University Behavioral HealthCare-Technical Assistance Center. A series of three forums were conducted with members from state agencies, community-based organizations, the aging services network, long term care providers, and mental health screeners. The content focused on mental health and state screening laws, pre-admission screening for Medicaid nursing home placement, and development of assessment and intervention algorithms for managing behavioral health problems. This is part of a larger state-supported initiative in “transformational change” in the mental health system.

The Blueprint on Aging for the State of New Jersey is currently under development through the NJ Department of Health and Senior Services and the NJ Commission on Aging Subcommittee on Health Promotion. The NJISA co-chairs the subcommittee and provided content, images and critique for the report.

NJISA provided consultation services for planning and development for Meridian Health System in Brick, New Jersey in the late summer and fall of 2006, to assist with development of an academic geriatrics program and initiation of an Acute Care of the Elderly Unit.

The NJISA is working closely with the UMDNJ-School of Nursing and the UMDNJ-School of Public Health to increase training opportunities in aging for students and health care professionals.

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 Stockton State College.

NJISA also provides clinical rotations across the geriatric care continuum for medical students from Virginia College of Osteopathic Medicine and Kansas City School of Osteopathic Medicine.

NJISA and the UMDNJ-School of Health Related Professions have collaborated on a proposal to the UMDNJ Foundation to support a research focus on weight loss and chronic disease self-management. If approved, this one-year project will begin in July 2007 and will use nutrition evaluation and intervention strategies within the ambulatory practice of the NJISA.

NJISA is offering an all-day Symposium on Geriatric Oncology on Friday, October 19, 2007, in collaboration with the Cancer Institute at Cooper Medical Center. Physicians from NJISA and Cooper will be featured speakers.

STATEWIDE NETWORK FOR COMMUNITY ORAL HEALTH EXTRAMURAL DENTAL CENTERS (NJDS)

The New Jersey Dental School has shown its commitment to Newark and 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 HIV/AIDS patients. 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 had over 100,000 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 oral health care providers.

STATEWIDE TEEN HEALTH SEMINAR (SOM)

The Stratford campus of SOM hosted for the fourth year a special Health Teen Seminar for over 150 high school seniors from over 70 high schools across the State. Sponsored by the Medical Society of New Jersey Alliance, the April program provides information on substance abuse, nutrition, conflict resolution and other health care issues. SOM faculty serve as presenters on sports medicine (steroids), date rape and other topics requested by the students.

STUDENT HEALTH ADVOCATES FOR RESOURCES & EDUCATION CENTER (NJMS)

In 1996, students at the UMDNJ-New Jersey Medical School created the Student Health Advocates for Resources and Education (SHARE) 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 our 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.

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.

Student Family Health Care Center (SFHCC)

The SFHCC provides free, quality medical care to the Newark community. Under NJMS faculty, teams of medical students treat individuals of all ages who often have no insurance coverage. Throughout their four years of medical school, SFHCC is an opportunity for students to enhance their clinical skills and "bedside manner."

Community 2000 (C2000)

C2000 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. C2000 also holds after-school workshops for Newark's youth to promote healthy

lifestyles. Participation in C2000 allows medical students to gain valuable skills in clinical medicine and patient education. C2000 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 students.

Unite For Sight

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 Unite for Sight is involved in the following activities:

- *Preliminary vision screenings* for children and adults in soup kitchens, homeless shelters, schools and at C2000 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.

SUMMER MEDICAL AND DENTAL EDUCATION PROGRAM (NJMS)

The Summer Medical and Dental Education Program (SMDEP) serves to advance the institution's core mission to meet society's current and future healthcare needs by preparing individuals underrepresented in medicine and dentistry while championing cultural competency and humanism in all aspects of education. SMDEP reaffirms continued involvement in pipeline initiatives that will foster even greater diversity. SMDEP provides the opportunity to strengthen the academic portfolios of individuals underrepresented so that they are competitive candidates for medicine and dentistry. Specifically, the goal is to increase the diversity in medicine and dentistry recognizing that disparities in healthcare do exist.

To accomplish this goal, SMDEP has implemented a myriad of programs in collaboration with partners at the pre-college, undergraduate, professional school, and community levels. Collectively, these partnerships continue to embrace and recognize the impact that diversity has on the educational experience of all students and on the delivery of culturally competent quality healthcare.

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 the treatment of 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 with a problem relating to tobacco dependence. By June 2007, the Clinic has seen over 3,000 patients, approximately 30% of whom remain abstinent six months following their original quit date. The clinic opened a second site in Newark in January 2007 and also serves as a tertiary referral and consultancy center for health professionals throughout New Jersey who may need assistance. For more information visit: 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 40 New Jersey high schools to implement the "Youth Quit2Win" smoking cessation program.
- Training of staff members at over 20 New Jersey addiction treatment centers to treat tobacco dependence in their clients.
- Training (in collaboration with the Department of Psychiatry at the UMDNJ-Robert Wood Johnson Medical School) of staff members at six New Jersey psychiatric facilities to implement a smoking intervention with their patients.
- Training of over 500 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. "Proyecto Vida: Latino Deja de Fumar" aims to stimulate smoking cessation in New Jersey's Latino community, (www.proyectovidanofume.org) and the TDP also organizes the Middlesex Partnership Against Tobacco.

Research

The TDP is active in tobacco research and has published over 70 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.

TOBACCO SURVEILLANCE AND EVALUATION RESEARCH PROGRAM (SPH)

The Tobacco Surveillance and Evaluation Research Program (TSERP) was 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. TSERP also conducts research using statewide and nationally representative datasets to advance the field of tobacco control.

A key priority of TSERP is the dissemination of its findings. Since 2000, TSERP has produced 14 reports for NJ CTCP, delivered over 70 conference presentations, and published over 30 journal articles. The program is currently in the process of establishing itself as a Center for Tobacco Surveillance & Evaluation Research. For more information on this project, contact Dr. Cristine Delnevo at delnevo@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 the SPH in Piscataway. For more information on this project contact Dr. Jane Lewis at lewismj@umdnj.edu.

UMDNJ-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 volunteer at The Promise Clinic in New Brunswick to 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 the 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.

The Department of Family Medicine involves students in community-based activities beginning in the first year of medical school and throughout the residency program in family medicine. The goals of the Department's community-based initiatives are:

- To instill an ethic of community service and social responsibility in medical students/residents by training them in the context of community service.
- To foster partnerships between community organizations and the Medical School to promote the health of underserved/vulnerable populations.

- To equip the next generation of health professionals with the community oriented/ culturally sensitive competencies needed to make a difference in the lives of their patients/clients and the communities they serve.

The Department has developed a number of community-based initiatives to help meet these goals.

In Medical School, during the first-year *Introduction to the Patient* course, medical students are assigned to one of over twenty community-based organizations that host the students twice a month for a year. Students are exposed to services provided by the organization and are given the opportunity to interact with patients/clients to learn more about cultural, community, and familial factors influencing health. During the third-year family medicine clerkship, 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 RWJ-UH, Family Medicine at Monument Square, St. John's Clinic, soup kitchens and 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 included: personal hygiene, nutrition, and respiratory illnesses. Residents also participate in community-based activities such as school physicals, health fairs,

pap/mammogram screenings, prostate cancer screenings, and community presentations, as part of their longitudinal community medicine experience.

All residents (first through 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>
Middlesex County Department of Public Health and the American Cancer Society	Free health fairs for uninsured citizens.
Chandler Health Center, New Brunswick	Women's health services for the community's underinsured population.
Edison Township Health Department	Screenings for breast and uterine cancer and for prostate cancer.
Elijah's Promise Soup Kitchen, New Brunswick	"Triage" health assessments for clients of the soup kitchen and if necessary arrange appointments for clients at St. John's Health Center, New Brunswick.
Geriatric home visits	Medical care for home-bound patients in the local New Brunswick area.
Jewish Renaissance Medical Center, Perth Amboy	Screenings for breast and uterine cancer and for prostate cancer.
Naomi's Way, Catholic Charities, New Brunswick	Presentations on preventive health care.
OldBridge Township Elementary, Middle, and High Schools	School physicals and sports physicals.
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.

Piscataway Health Advisory Commission	Free health screenings and presentations on preventive health care.
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.
St. John's Health Center, New Brunswick	Clinical care for indigent populations.
American Academy of Family Physicians	Tar Wars -- Antismoking 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.
Woodbridge Township Health Department	Screenings for breast and uterine cancer and for prostate cancer.

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.

The Department of Obstetrics, Gynecology and Reproductive Sciences collaborates with the federally funded Chandler Health Center located in New Brunswick, NJ and Plainfield Health Center, located in Plainfield, NJ. Both health centers provide obstetrical and gynecological services and high-risk pregnancy consultations to women in New Brunswick and Plainfield, New Jersey. The Department also serves the community with patient educational workshops on important women's health issues, such as:

- New Contraceptive Options
- A Paradigm Shift of the Infertility Workup
- Your Diet and Your Pregnancy

- Mercury Levels in Fish and Your Health
- The Effects of Supersize Meal Portions
- Innovative Medications from the Rainforest

In addition, walking seminars that stress physical activity were offered as a community service. The Department also participates in an annual health fair, The Biggest Baby Shower in Central New Jersey, providing information to women and their families regarding a healthy pregnancy; National Stroke Day; National Care Giver Day; and Day of Dance for Women's Heart Health. 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 also oversaw two medical student-run programs, one in the spring and the other in the fall, entitled, "Student Doctor Day." The fall program was held in conjunction with national Make a Difference Day. The Department offers education and alternatives to women with menstrual hemorrhage, pelvic pain and uterine fibroids, and helped coordinate the 6th Annual Women's Health Symposium in September 2006. The Department also assisted in presenting the following conferences: Roundtable Discussion on Vitamin D with Robert Heaney, M.D., in conjunction with Women in Medicine; Garden State Women's Annual Statewide Health Conference; and a World Menopause Day Program. In addition, a program for teens entitled "Foot Prints to Success" was offered with the Women's Wellness and Health Care Connection.

The Elizabeth M. Boggs Center on Developmental Disabilities, a division of 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 service on state and national boards and committees includes:

- 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 clinical genetic services. The Division provides internships for genetic counseling students. 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 participates in the New York Mid-Atlantic Consortium for Genetics and Newborn Screening Services. As part of this effort the Division hosted a family focus meeting on April 28, 2007. About 50 consumers and advocates from throughout New Jersey and New York attended this all day round table discussion. The Division 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 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. Over this past academic year, the team hosted lectures on the following topics:

- How Neuropsychological Testing can help your Child with SCD
- SCD and Asthma
- How does SCD Affect Growth and Puberty?
- Managing SC Pain at Home

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 population in underserved communities such as Trenton.

The Institute for the Study of Child Development gives 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; the International Society of Early Intervention; and the Montgomery Township School Board.

The Mini-Medical School program has become an integral part of RWJMS' commitment to community service and education. For the past five years the Mini-Medical School for High School Students--*Achieving Excellence in the Sciences*--has served a class of 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 seven sessions of the course, students attend lectures and discussion groups with faculty members who are national and international leaders in their fields – in areas as diverse as pain management, glucose homeostasis and diabetes, bone metabolism and osteoporosis, stem cell research, pediatric AIDS and drug development, and culturally competent patient-centered care.

UMDNJ-SN MOBILE HEALTH CARE PROJECT (SN)

Overview: The UMDNJ-School of Nursing, in a collaborative joint partnership with the Children's Health Fund, has implemented a nurse-faculty managed Mobile Healthcare Project that is designed to reduce the morbidity and mortality of medically underserved residents of the greater Newark area. This grant-funded project uses an interdisciplinary collaborative approach and an outcomes oriented focus for a nurse-faculty managed, university-based mobile healthcare project, in collaboration with UMDNJ-University Hospital. The project uses faculty-supervised student nurses and an interdisciplinary mobile health team staff, in association with the clinical affiliates of UMDNJ, community-based organizations (CBOs) and faith-based healthcare initiatives.

Situated within the UMDNJ-School of Nursing, this initiative uniquely creates public-private partnerships in the mutual goal of improving access to care for urban at-risk populations. The broad objectives of the 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. The project staff provides primary care and screening services using a mobile healthcare facility on wheels designed to reduce the traditional barriers to health care access.

A \$250,000 grant from the Healthcare Foundation of New Jersey, with matching funds from the UMDNJ-School of Nursing, covered the cost of start-up operations in April 2006. An HRSA grant for \$1.7 million over five years was awarded to the project at the start of fiscal year 2008. In partnership with the Children's Health Fund, the project has joined with a national network of mobile healthcare programs to leverage support for addressing the healthcare needs of the underserved. Following a year of planning and in anticipation of the arrival of the mobile van, the project initiated the delivery of primary care services in early March 2007 at five clinical sites in the greater Newark area.

Preliminary data findings indicate a current caseload of 173 patients, with encounters ranging from 5 to 14 visits daily. The project serves a predominantly minority population of 81% Black, 19% Hispanic, and 2% White. The male to female ratio is 1:1. While the project services patients in all age groups, the largest percentage of patients are those in the 0-5 age category (70%). To date, the majority of visits (36%) are made to perform physical examinations for health clearance to permit attendance at elementary and pre-school. Dental screening and referral comprise the second most frequent reason (15%) for patient encounters. Treatment for disorders associated with genitourinary conditions account for 11% of the visits; for respiratory, 9%; cardiovascular, 7%; gastrointestinal, 6%; integumentary, 6%; psychiatric, 6%; musculoskeletal, 3%; and neurological, 1%.

UMDNJ-SOM DEPARTMENT OF FAMILY MEDICINE (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. The Area Health Education Centers support this course by providing a two-week service-learning experience for these

medical students at host sites in a medically underserved community. 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.

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

The ShaD.O.w program was established by Lindsay Tjiattas, OMS-IV, D.O./M.B.A. Candidate. The purpose of the program is 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 medical 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 SOM.
- Increase local high school students' awareness of osteopathic medicine.
- Increase high school students' awareness of SOM.

The 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 in the program. For FY 2008, a total of four students per month will shadow a medical student at SOM during the academic year.

UMDNJ-SOM MINI-MEDICAL SCHOOL (SOM)

The SOM Mini-Medical School began on the Stratford campus in mid-March of 2007 and ran through early May. For those eight weeks, nationally and internationally-known faculty from the medical school led the 62 students on in-depth discussions of specific health topics. Class sessions took place in the same place where SOM 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 UNIVERSITY DOCTORS COMMUNITY PROGRAMS 2006 (SOM)

The following is a listing of community lectures, programs, screenings, and health fairs facilitated by the SOM Marketing Department in which University Doctors participated in 2006. These programs were held throughout southern New Jersey:

January

- Maintaining a Healthy Heart
- Tips for Keeping Your New Year's Resolutions

February

- Grand Opening of Hainesport Family Medicine Office
- Free Blood Pressure & Diabetes Screenings for Black History Month

- The Metabolic Syndrome: A Public Health Epidemic You Should Know About
- Pediatric Health Fair at Lindenwold High School

March

- Your Child's Development
- Women's History Month Symposium
- The Secret to Successful Aging
- Exercise: Getting Fit for Life
- Healthy Choices Make Healthy Bodies
- When to Worry About Forgetfulness
- Haddonfield High School Community Health Fair

April

- Atlantic Regional Osteopathic Convention
- Camden County Women's Health Conference
- Current Trends in Menopause Management
- Patient/Doctor Relationships
- Strong Women, Strong Bones, Diagnosis, Treatment and Prevention of Osteoporosis
- Maintaining Your Sexual Health as You Age
- BAM – Brain and Memory
- Non-Surgical Options for Back Pain Treatment
- Cherry Hill Chamber Health Expo

May

- L3 Communications Health Fair
- Senior Health and Fitness Day
- Examine Your Health
- Healthy Body Healthy Mind
- The Health Benefit of a Positive Attitude
- Baby Fest – Babies R Us

June

- Burlington County Office on Aging Health Fair
- Free Blood Pressure and Diabetes Screening
- Brain and Memory Program
- Burlington County Farm Fair

July

- Low Back Pain: Finding the Treatment That's Right for You
- Burlington County Farm Fair
- Chronic Disease/Health Management Strategies – 4 programs

August

- Short and Long Term Benefits of Breastfeeding
- Community Health Fair Komfort and Kare
- Getting the Most From Your Doctor Visit
- Rancocas Health Fair

September

- Katz JCC Community Wellness Day
- Grace Temple Baptist Church Health Fair
- The University Doctors Annual Blood Drive
- Examine Your Health
- Avian Flu Conference

- Gastric Bypass: Is it Right for You?
- Red Cross Basic First Aid
- SOM Community Open House

October

- Gloucester County Women's Health Summit
- Doctor/Patient Relationships
- Obesity in Children
- Emerging Treatment for Cancer Pain

November

- Annual Alzheimers Caregivers Conference
- Aging Symposium
- 7th Annual Diabetes Update
- Blood Glucose and Diabetes – Control Your Diabetes for Life
- Circulation Problems and Diabetes
- New Jersey Institute for Successful Aging Grand Opening
- Grand Opening University Doctors Mullica Hill Office

December

- Diagnosis and Treatment of Migraine Headache
- New Jersey Partners Program

VASCULAR TECHNOLOGY (SHRP)

Over the last seven years, vascular technology faculty have provided consultative management services to the vascular laboratories of Saint Clare's Hospital. Under Saint Clare's sponsorship, faculty and students of the program are also participating in over seven health fairs and stroke awareness events each year throughout Morris County. The program's involvement has become an important 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 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 its 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.

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 fall of 2006 and spring of 2007, students and faculty worked together on a number of projects including:

- Charity softball games (funds given to Project Turtlepods, a project of NJ Heroes.
- Serving meals for families staying at the Ronald McDonald House in New Brunswick.
- Collecting holiday gifts for children of the families of HomeFront and Heart of Camden.
- Decorating for the holidays at a nursing home in Morristown, NJ.
- Samosa sale to raise funds for the Dominican Republic Outreach Project as well as collection of personal hygiene items.
- Habitat for Humanity home-building day.
- Workshop on maternal nutrition at the Eric B. Chandler Clinic in New Brunswick
- Second Saturday with the Heart of Camden.

In summer of 2007, a steering committee consisting of six students began planning activities for the 2007-2008 academic year. For more information on V.O.I.C.E.S., go to www.umdnyvoices.org or contact Dr. Bernadette West at westbm@umdnj.edu.

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. 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 2006

UNIT	TOTAL AWARDS*	RESEARCH AWARDS
New Jersey Medical School	\$108,720,956	\$81,811,252
Robert Wood Johnson Medical School-P**	\$113,410,579	\$98,227,228
Robert Wood Johnson Medical School-C	\$1,275,363	\$623,093
School of Osteopathic Medicine	\$14,422,542	\$7,747,595
New Jersey Dental School	\$5,882,516	\$3,661,091
Graduate School of Biomedical Sciences***	\$698,167	\$34,407
School of Health Related Professions	\$4,350,019	\$678,019
School of Nursing	\$12,713,117	\$6,248,640
School of Public Health	\$11,367,781	\$5,617,960
University Hospital	\$7,132,564	\$140,300
University Behavioral Healthcare-P	\$15,209,439	-
University Behavioral Healthcare-N	\$5,400,392	-
Central Administration and Physical Plant	\$12,374,776	\$0
University Academic Affairs (Including Continuing Education)	\$5,471,517	\$1,510,362
GRAND TOTAL	\$318,429,728	\$206,299,947

* Research, educational and service awards, including indirect costs from all external sources

** Includes Child Health Institute, CABM, EOHSI and Cancer Institute.

*** 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 2006

EXPENDITURES	AMOUNT
Total Academic R&D Expenditures	\$245,771,000
Federally Financed	\$140,923,000
Institutionally Financed	\$51,476,000

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, 2006 - June 30, 2007**

Inventor(s)	Title
David J. Foran	<i>Systems for Analyzing Microtissue Arrays</i>
Khew-Voon Chin	<i>Phospholipid Transfer Protein and Cholesterol Metabolism</i>
Alexey Ryazanov	<i>Mammalian alpha-kinase Proteins, Nucleic Acids and Diagnostic and Therapeutic Uses Thereof</i>
Charles Spillert and Marcelle Khalil	<i>Hemostatic Compositions, Devices and Methods</i>
David B. Seifer	<i>Method of Utilizing Neurotrophins to Manipulate Reproductive Capacity</i>
Timothy Chang and Peter Toliás	<i>Delivery of Metered Amounts of Liquid Materials</i>
Jeffrey Laskin and Ned Heindel	<i>Flourescent fused-ring Triazoles that inhibit cell Proliferation and Uses Thereof</i>
Pranela Rameshwar	<i>Amino Terminal Substance P Compositions and Methods for Using the Same</i>
Kiron M. Das	<i>Therapeutic and Diagnostic Methods for Ulcerative Colitis and Associated Disorders</i>
Fred R. Kramer	<i>Oligonucleotide-facilitated Coalescence</i>
Hartmut M. Hanauske-Abel	<i>Methods of Inhibiting Formation of Vascular Channels and Methods of Inhibiting Proliferation</i>
Jeffrey Laskin, Ned Heindel	<i>Fluorescent Tags for Amino Acid and Nucleic Acid Analysis</i>

Inventor(s)	Title
Stephen F. Vatner	<i>Mst1 Modulation of Apoptosis in Cardiac Tissue and Modulators of Mst1 for Treatment and Prevention of Cardiac Disease</i>
David J. Foran and Wenjin Chen	<i>Systems for Analyzing Microtissue Arrays</i>
Ron Yacov and Joseph P. Dougherty	<i>Myeloid Precursor Cell Useful for Gene Therapy and for Modulation of Immune Responses</i>
Leroy F. Liu	<i>Topoisomerase-targeting Agents</i>
Khew-Voon Chin	<i>Nucleic Acid and Protein Expression Thereby and their Involvement in Stress</i>

License and Option Agreements were executed with the following companies:

AstraZeneca Pharm. LP	New England Biolabs
AstraZeneca UK Limited	New York University
bioSoftmosis	PBL Biomedical Laboratories
Cepheid Corporation	PercipEnz Technologies
Donaldson Company	Pfizer
DuPont Pharmaceuticals	Smith's Detection
Fred Hutchinson Cancer Research Center	Snowdon
GE Healthcare	SonoMedica
GenChemics	Telemolecular Corporation
GenWay Biotech	TRIM-edicine
Genzyme Corporation	University of Iowa
Integragen	VasadeBiosciences
Kane Biotech	Virium Pharmaceuticals
Myconostica Limited	Wellgen

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

RESEARCH HIGHLIGHTS: 2006-2007

BASIC SCIENCES

- Reported on the use of minimally invasive antral membrane balloon elevation, followed by maxillary bone augmentation and implant fixation
- Evaluated the benefits and safety of external counter-pulsation in the treatment of symptomatic heart failure patients
- Studied the clinical and hemodynamic effects of Bosentan dose optimization in symptomatic heart failure patients with severe systolic dysfunction, which is associated with secondary pulmonary hypertension
- Investigated real-time, quantitative automatic assessment of left ventricular ejection fraction and regional wall motion by speckle imaging
- Studied a novel, magnetically levitated centrifugal flow-pump device for patients with decompensated heart failure
- Described the long-term clinical and angiographic follow-up of percutaneous coronary intervention of unprotected left main coronary artery in the emergent/urgent setting
- Described the clinical characteristics and optimal timing for revascularization in acute myocardial infarction with spontaneous reperfusion.
- Discovered that inhibition of p38alpha MAPK rescues cardiomyopathy induced by overexpressed beta(2)-adrenergic receptor, but not beta(1)-adrenergic receptor
- Demonstrated the utility of a new mesh covered coronary stent in a porcine model
- Described severe chronic aortic insufficiency requiring valve replacement as an infrequent complication of Takayasu's disease
- Described right ventricular failure secondary to diastolic dysfunction with preserved left ventricular ejection fraction as an increasingly prevalent clinical entity
- Reported on masked inferior infarction by anterior myocardial injury
- Discovered that activation of the cardiac proteasome during pressure overload promotes ventricular hypertrophy
- Reported on the buried wire technique as an enhanced support method for complex percutaneous interventions and stenting
- Discovered a functional coagulation assay to monitor hirudin dosage
- Described right ventricular failure in patients with preserved ejection fraction and diastolic dysfunction as an under-recognized clinical entity
- Described an unusual cause of cardiac constriction secondary to metastatic signet ring adenocarcinoma
- Described the association between brain natriuretic peptide and pulmonary disease

- Demonstrated that the helminthic parasite *H. Polygyrus* prevented type 1 diabetes in NOD mice
- Demonstrated that *H. Polygyrus* caused re-routing of mononuclear cells away from the pancreatic islets in NOD mice
- Discovered a method for implantation of adult human mesenchymal stem cells and their derived neuronal cells for tissue regeneration
- Described dysfunctions in mesenchymal stem cells as an underlying mechanism in hematological disorders
- Evaluated neurokinin-1 receptor as potential drug target for breast cancer
- Discovered that the *HGFIN* gene is a tumor suppressor gene
- Evaluated the role of microRNAs in neurogenesis from adult human mesenchymal stem cells
- Determined whole genomic sequences of *Borrelia burgdorferi*
- Filed a US Patent on new neuroimmunologic bio markers
- Isolated best regions of the bacterial 16S rRNA gene for identifying all medically relevant pathogens
- Developed a six-multiplex assay for detecting multiple potential bacterial pathogens in a single PCR well
- Discovered the principles underlying sloppy molecular beacon design to aid in assay development
- Discovered a novel method for extracting bacterial DNA directly from blood for PCR assays
- Described cell fusion/giant cell formation as a possible mechanism for the pathogenesis observed in monocytes infected with *B. mallei*, the causative agent of glanders disease
- Showed that dyslipidemia in an urban cohort of HIV-infected persons in Newark, NJ is primarily due to low levels of High Density Lipoprotein
- Demonstrated (using a multivariate model) that predictors of successful virologic suppression in HIV-infected persons included $\geq 80\%$ appointment adherence, being on an initial highly active antiretroviral therapy regimen, and a baseline CD4 count <200 cells/mm³, and found that active substance use did not predict virologic suppression, but tended to predict immunologic recovery
- Enrolled subjects in a multicenter trial that compared responses in HIV-infected women to a protease-containing antiretroviral regimen compared with HIV-infected men
- Participated in a Phase IV multicenter study to evaluate resistance among HIV-infected subjects experiencing virologic failure to highly active antiretroviral regimens containing the protease inhibitor, atazanavir
- Observed impaired CD4 cell count responses to effective antiretroviral therapy in patients coinfecting with HIV and hepatitis C as compared to those with HIV mono-infection

- Found an association and co-infection of isolated Hepatitis B core antibodies in patients with HIV and Hepatitis C
- Reported a case of concomitant disseminated infection with histoplasma and cytotococcus neoformans in a patient with AIDS
- Observed that older HIV-infected patients have better responses than younger patients to highly active antiretroviral therapy
- Published a case report of disseminated tuberculosis presenting as acute respiratory distress syndrome
- Participated in a multicenter trial of a new antiretroviral agent, raltegravir, that is the first agent to target integrase inhibition to treat HIV infection
- Showed that Lsr2 is a novel histone-like protein that controls a broad range of cell wall functions in *M. tuberculosis*
- Showed that the iniC gene is involved in antibiotic tolerance in *Mycobacterium tuberculosis*
- Identified and verified the Holiday junction resolvase protein in *M. tuberculosis*
- Described intact *M. tuberculosis*-specific TH1 immune responses in lung cells from patients with tuberculosis
- Showed that triple fusions of *M. tuberculosis* RDI proteins CFP10, ESAT-6 and MPT64 induce greater diagnostic T cell responses in tuberculin skin test positive subjects than their single, or double fusion components alone
- Showed altered *in vitro* *M. tuberculosis*-specific cytokine responses and reduced growth control of *M. tuberculosis* in human blood cells after exposure to diesel exhaust particles
- Identified a series of genes in *M. smegmatis* that contribute to antibiotic resistance through non-classical mechanisms
- Determined that mutations in the *M. tuberculosis* embB gene confer low level resistance to the antibiotic ethambutol and are also essential for the development of high level resistance
- Identified mycobacterial genes that contribute to survival in aerosols
- Identified mycobacterial genes that contribute to survival upon exposure to UV light
- Identified mycobacterial genes that contribute to survival upon exposure to drying
- Created a new rapid test for quinolone resistance in *M. tuberculosis*
- Created a new rapid test for rifampin resistance in *M. tuberculosis*
- Developed diagnostic testing to dramatically improve the sensitivity of a combined sample-processing and *M. tuberculosis* identification test and conducted early clinical testing of the above-mentioned test
- Demonstrated that the disparity in Interleukin-12 release from dendritic cells and macrophages in response to *M. tuberculosis* is due to utilization of distinct Toll-like receptors

- Demonstrated that the pattern recognition receptors Toll-like receptor 2 and Toll-like receptor 9 differ in their ability to initiate chromatin remodeling at the Interleukin-12p40 promoter
- Demonstrated a spatial and temporal requirement for B7 costimulatory molecules in host resistance against *M. tuberculosis* infection
- Demonstrated that helminth coinfection modulates *M. tuberculosis*-induced Th1 development of naïve T cells
- Showed by gene expression analysis that the innate immune responses of dendritic cells and macrophages to *M. tuberculosis* infection are distinct
- Demonstrated that the *gabP* gene in *M. tuberculosis* plays a role both in L-arginine transport and macrophage survival
- Demonstrated that increased glutathione levels in the macrophage correlate with decreased survival of intracellular *M. tuberculosis*
- Showed that arginine availability transcriptionally regulates expression of arginine transporters during liquid culture
- Showed that angiotensin II infusion in rats induces apoptosis of glomerular visceral epithelial cells (podocytes)
- Showed that HIV-1 expression in human podocytes increases reactive oxygen species production promoting oxidant-induced apoptosis
- Showed that overexpression of Gs alpha in cardiac muscle cells compensates for myocyte loss in diabetic cardiomyopathy
- Showed that cis-trans proline isomerization controlled the binding affinity of an SH3 domain
- Showed that a non-NPXY-mediated motif in the beta5 integrin regulates apoptotic cell phagocytosis
- Demonstrated that human cytomegalovirus infects bone marrow-derived mesenchymal stem cells and affects their self-renewal and differentiation potential
- Discovered that *Yaba like disease virus* encodes a soluble antagonist for both type I and type III IFNs
- Established that growth-inhibitory and differentiating effects on cancer cells can be observed with both anthocyanin and non-anthocyanin containing fractions from extracts of anthocyanin-enriched fruits
- Discovered modulation of topoisomerase IIa function by RNA binding and established an in-organelle assay system to study mitochondrial DNA replication *in vitro*
- Discovered abnormal protein expression and post-translational modification in animal models for Multiple Sclerosis
- Demonstrated that several important splicing factors contribute to regulation of alternative polyadenylation in the human cyclooxygenase-2 (COX-2) gene

- Demonstrated that a newly discovered gene family is restricted to the hominids—the great apes, including humans and chimpanzees—and is evolving rapidly
- Characterized the snaRs as a family of previously undescribed RNA species that are expressed at high levels in human testis and many human cell lines
- Showed that two drugs that target the hypusination of the cellular factor eIF5A and that block the cell cycle inhibit HIV-1 transcription
- Identified cellular proteins whose expression is modulated by two drugs that increase apoptosis in HIV-infected cells
- Discovered that anti-HIV-1 polyamide nucleic acids conjugated with membrane-penetrating peptides are strongly virucidal and inactivate HIV-1 virions upon brief exposure
- Discovered that the c-myc transcription activator, fused to a binding protein (FBP), is essential for hepatitis C virus replication
- Demonstrated that the growth factor granulin inhibits expression from the promoters of the cellular genes *cad* and *myc*, both of which are highly dependent on the transcription elongation factor P-TEFb
- Discovered that I-mfa and HIC (human I-mfa containing protein), P-TEFb interacting proteins that function in the Wnt signaling pathway, are RNA binding proteins
- Showed that an ultra-conserved regulatory sequence controlling *Bone Morphogenetic Protein 2 (BMP2)* functions as a repressor *in vivo*
- Identified proteins that bind an ultra-conserved regulatory sequence controlling *Bone Morphogenetic Protein 2 (BMP2)* RNA function
- Discovered that nucleolin and HuR have different affinities for two polymorphic forms of the human *Bone Morphogenetic Protein 2 (BMP2)* mRNA
- Demonstrated that nucleolin repressed *Bone Morphogenetic Protein 2 (BMP2)* synthesis
- Discovered that a potential chemotherapeutic drug (AGRO100) induced *Bone Morphogenetic Protein 2 (BMP2)* synthesis
- Demonstrated the regulated depletion of the mitochondrial ATP-dependent Lon protease in cultured cells using a stably integrated doxycycline inducible short-hairpin RNA
- Demonstrated that Lon-depleted cells are more resistant to oxidative damage of mitochondrial DNA (mtDNA)
- Demonstrated that the oxidative modification (i.e. carbonylation) of Lon blocks ATPase and protease activity, but has no effect on DNA binding *in vitro*
- Demonstrated that the triterpenoid CDDO and its derivatives block the protease and DNA binding function of the mitochondrial ATP-dependent Lon protease *in vitro*. Inhibition of the Lon protease was also demonstrated in cultured cells
- Demonstrated that the triterpenoid CDDO forms adducts with Lon *in vitro* and in cultured cells

- Demonstrated that DNA binding and subunit assembly determine whether the mitochondrial Transcription Factor A (mtTFA) and the mitochondrial DNA polymerase γ A subunit (pol γ A) are degraded by the mitochondrial Lon protease
- Demonstrated that the presence of mtDNA binding by TFAM is required for its processing to the mature mitochondrial form
- Demonstrated that the cellular level of the mitochondrial DnaJ-like chaperone Tid1—a human homolog of the *Drosophila* tumor suppressor Tid56—determines the stability of serine phosphorylated signal transducer and activator of transcription 1 (STAT1)
- Discovered that a large fraction of human genes have transcript variants generated by mRNA polyadenylation in introns
- Demonstrated that the proteasome is a novel target through which changes associated with posterior capsular opacification, a complication of cataract surgery, are blocked
- Determined the structure of the DNA-binding domain of PhoP, a response regulator from *M. tuberculosis* that plays an important role in its virulence
- Obtained low diffraction quality crystals of the C-terminal domain of a transcription factor IIB (TFIIB)-like protein from *Trypanosoma brucei*
- Showed that the C-terminal domain of the TFIIB-like protein from *Trypanosoma brucei* has a dominant negative effect on *in vitro* transcription in the presence of the full-length protein
- Discovered mesencephalic astrocyte-derived neurotrophic factor enhances transmitter release
- Demonstrated that mefloquine enhances nigral γ -aminobutyric acid release via inhibition of cholinesterase
- Discovered a simple new method for obtaining viable neurons in rat brain slices: glycerol replacement of NaCl protects CNS neurons
- Demonstrated that presynaptic GABAA receptors facilitate GABAergic transmission to dopamine neurons in the ventral tegmental area of young rats
- Showed that extracellular proton modulates GABAergic synaptic transmission in rat hippocampal CA3 neurons
- Demonstrated effects of ethanol on midbrain neurons and the role of opioid receptors
- Showed cocaine inhibition of GABAA and the role of dephosphorylation
- Discovered that ethanol enhances glutamatergic transmission in rat ventral tegmental area
- Showed that glycine receptor blockade antagonizes the sedative action of propofol but not ketamine in a dose-related manner
- Demonstrated that ethanol enhances glutamate transmission via retrograde dopamine signaling in a single cell isolated from the ventral tegmental area
- Showed that blockade of brain γ -aminobutyric acid A receptor (GABA_AR) antagonizes sedative action of isoflurane

- Discovered that propofol stimulates glutamate transmission to dopamine neurons, suggesting a possible mechanism of addiction
- Showed behavior and cellular evidence for propofol-induced sedation involving brain glycine receptors
- Established that ovarian hormone fluctuations manipulate how traumatic stress causes changes in startle reactivity (i.e. startle sensitivity and startle responsivity) in female rats
- Determined that both traumatic stress (shock) and interleukin-1-beta can cause a suppression of startle responsivity without affecting the sensitivity to the stimuli
- Observed that the suppression of the startle response following both tailshock stress and interleukin-1-beta treatment is sensitive to the balance of estradiol and progesterone levels at the time of the treatment
- Discovered a role of the Variable Major Protein Family of Relapsing Fever Spirochetes as adhesins/invasins. Using *B. burgorferi* recombinant for Vsp1 or Vsp2, discovered a role for VMP in adhesion to brain endothelial cells
- Discovered two novel mechanisms for interleukin 10 that protect the integrity of the blood-brain barrier during spirochetal infection: reduction of the pathogen load in circulation, and prevention of brain endothelial cell apoptosis by spirochetal lipoproteins
- Discovered that lipoproteins from spirochetes can move across the blood-brain barrier and enter the brain. An important role for the lipid modification in this process was also revealed
- Induced anti-LM1 IgG antibodies by immunization of guinea pigs with purified LM1 ganglioside
- Developed an *in vitro* culture system to grow enriched populations of stem and progenitor mouse mammary epithelial cells
- Discovered a new biomarker for early stem and progenitor lineage mammary epithelial cells
- Developed an exon level microarray analysis to study gene expression changes in mouse mammary epithelial cells from transgenic mouse models of insulin-like growth factor I
- Demonstrated that alterations in brain glucokinase activity modulated the counter-regulatory responses to insulin-induced hypoglycemia
- Demonstrated the effects of fatty acids on CNS neurons of obese rats *in vivo* and *in vitro*
- Studied the early life determinants of metabolic syndrome: interaction of perinatal environment and genetic predisposition
- Established that there is active neuronal regeneration from the resident neural stem cells of the subventricular zone during recovery from neonatal brain damage, and that these resident stem cells produce new neurons in both the cerebral cortex and striatum
- Established that the neurotrophic cytokine, CNTF, stimulates astrocytes to promote proliferation and survival of the myelin-forming cells of the brain

- Found apoptosis is increased in Engrail2 mutant mice when they were exposed to neurotoxins
- Found enhanced sensitization to neurotoxicants when mice were exposed prenatally to toxicants
- Demonstrated that chronic infections of the central nervous system (Theiler's virus, *B. burgdorferi*) result in persistent production of antibodies within the central nervous system, i.e. intrathecal antibody production (ITAbP)
- Showed that ITAbP is associated with marked CNS demyelination and disability
- Found that analysis of ITAbP using standard measures in the cerebrospinal fluid was poorly correlated with direct measures of ITAbP in the CNS
- Demonstrated that three genes induced by interferon-beta are suppressed in parallel by the development of neutralizing anti-IFNbeta antibodies during the treatment of Multiple Sclerosis with IFNbeta
- Established that expression of large groups of genes in IFNbeta-treated humans varied considerably from individual to individual
- Demonstrated that a motor unit nerve estimate technique is more accurate in the estimation of axonal loss in an animal model of diabetic neuropathy than classic electrodiagnostic techniques
- Demonstrated (using a motor unit estimate technique) a strong correlation between the number of motor units in calcium ATPase 2 (PMCA2)-null mice and motor neurons counting from the spinal cord, when more classic electrodiagnostic testing failed to establish this correlation. This behavioral technique demonstrated a significant difference in the number of motor units between the above mice and asymptomatic wild and heterozygote mice
- Determined that insulin-like growth factor I has a distinct function in epithelial versus stromal cells in the developing mammary gland
- Discovered a new marker of stem and progenitor cell lineages in the mammary epithelium
- Determined expression levels of the insulin receptor isoforms and insulin-like growth factor receptor in mammary epithelial cells
- Performed array analysis on murine mammary epithelial cells carrying a genetic deletion of the insulin-like growth factor type I receptor and discovered alterations in specific genes and pathways
- Discovered that both complexes of the mammalian target of the rapamycin (mTOR) pathway regulate differentiation and myelin gene expression in the oligodendrocyte lineage
- Determined that detergent-insoluble membrane domains are important for the insulin-like growth factor type I receptor to sustain survival signaling through the PI3-Kinase/Akt pathway in oligodendroglia
- Determined that *in vivo* administration of the insulin-like growth factor I rescues loss of oligodendrocyte progenitors in the white matter of the perinatal rat brain following a hypoxic-ischemic insult

- Initiated a collaboration with industry for the use of the GP-VI platelet inhibitor for prevention of stroke
- Invented a new device for intubating patients
- Established a new preclinical arterial injury model to be used for antiplatelet drug therapy
- Developed several new drug/therapy strategies for cancer and autoimmune disease, and tested them in an animal model of human diseases (4 patents have been filed through VA and UMDNJ)
- Developed a rabbit model of aerosol *M. tuberculosis* infection that mimics human active TB or latency
- Defined novel epitopes in the HIV-1 Env that are extremely sensitive to neutralization and provide new targets for vaccine development
- Determined the crystal structure of the DNA-binding domain of PhoP, a response regulator in *M. tuberculosis* that plays an important role in virulence
- Demonstrated that the quinolone antimicrobials kill bacteria by two pathways that break bacterial chromosomes
- Identified a bacterial gene that promotes killing of bacteria by a wide variety of antimicrobial agents
- Demonstrated in a clinical trial that antibiotic resistance arises even when susceptible bacteria (*Staphylococcus aureus*) are eradicated
- Determined that nearly all of the community-acquired *Staphylococcus* infections in the New York and New Jersey metropolitan area are due to spread of a single strain of methicillin-resistant *S. aureus*
- Discovered a novel inhibition of response to interferon gamma by *M. tuberculosis*, which limits expression of a critical host defense gene at the co/post-transcriptional level
- Described a multimeric complex containing the pilin-like protein ComGC, which is critical to genetic competence in *Bacillus*
- Provided functional evidence for the involvement of PhoPR 2-CS in pathogenesis of *M. tuberculosis*
- Described the application of molecular beacons to image mRNA in real-time in the cytoplasm of live cultured cells
- Succeeded in providing a direct visualization of the transport of mRNA-protein (mRNP) complexes from transcription sites to nuclear pores
- Described the principal mechanism for clinical resistance to echinocandin class antifungal drugs
- Developed a highly robust RNA-based detection assay for bacterial and fungal bloodstream infections in high risk patients

- Demonstrated an important role for the sigma region 3.2 in the binding of initiating substrates in the RNA polymerase active center and in the process of promoter clearance
- Developed novel micro- and nanoarray platform technologies for genomic analysis
- Investigated the voltage-dependent modulation of L-type calcium currents by intracellular magnesium in rat ventricular myocytes
- Demonstrated the effects of new modes of sodium/calcium exchanger regulation and their physiological implications
- Demonstrated up-regulation of venous eNOS in response to the creation of arteriovenous fistulas
- Demonstrated that endothelial nitric oxide synthase is a molecular vascular target for the Chinese herb danshen in hypertension
- Investigated the molecular and conventional responses of large rainbow trout to dietary phosphorus restriction
- Demonstrated that Ca^{2+} -dependent inactivation of $\text{CaV}1.2$ channels prevents Gd^{3+} block, and investigated whether Ca^{2+} blocks the pore of inactivated channels
- Described connexin channel permeability to cytoplasmic molecules
- Demonstrated the nature of Cx30-containing channels in the adult mouse mammary gland
- Demonstrated that 2-APB directly inhibits channels composed of connexin26 and/or connexin32
- Demonstrated that brain derived neurotrophic factor regulates the expression of D1 dopamine receptors
- Demonstrated that extracellular cAMP inhibits D1 dopamine receptor expression in CAD catecholaminergic cells via A2a adenosine receptors
- Determined the motor unit number estimate in an animal model of diabetes
- Demonstrated that 2,3-butanedione monoxime (BDM) restores neurotransmission of botulinum neurotoxin serotype A poisoned nerve terminals in mouse skeletal muscle
- Demonstrated that diabetic neuropathy alters expression of acetylcholine receptor (AChR) subunits in a muscle type-dependent manner
- Demonstrated that the amyloid precursor protein is phosphorylated via distinct pathways during differentiation, mitosis, stress, and degeneration
- Described the regulation of transient receptor potential (TRP) channels by phosphoinositides
- Demonstrated the regulation of TRP channels by PIP_2
- Demonstrated the dual regulation of TRPV1 by phosphoinositides
- Demonstrated that protein kinase A modulates PLC-dependent regulation and PIP_2 sensitivity of K^+ channels

- Demonstrated that hyperglycemia impairs glucose and insulin regulation of nitric oxide production in glucose-inhibited neurons in the ventromedial hypothalamus
- Characterized glucosensing neuron subpopulations in the arcuate nucleus and how these are integrated with neuropeptide Y and pro-opio melanocortin networks
- Demonstrated that glucose, insulin, and leptin signaling pathways modulate nitric oxide synthesis in glucose-inhibited neurons in the ventromedial hypothalamus
- Determined the role of gap-junction communication in the cellular responses to high and low dose gamma-rays
- Demonstrated that aminosulfonate inhibition of connexin26 requires the carboxyl-terminal domain
- Demonstrated that deafness-associated heteromeric connexin channels have altered permeability to cytoplasmic molecules
- Discovered the effect of galectin-1 and other GM1 cross-linking agents that stimulate calcium influx and induce morphological change and enhance survival in neural cell lines and primary neurons
- Demonstrated that experimental autoimmune encephalitis induced in mice with MOG(35-55) peptide is blocked by cholera toxin B subunit, a GM1 cross-linking agent
- Demonstrated that Jurkat and primary mouse splenic T cells respond to GM1 cross-linking agents with a signaling cascade that leads to calcium influx through TRPC5 channels. This is seen as a means of restoring T cell homeostasis following autoimmune perturbation
- Demonstrated that cross-linking of GM1 on the surface of oligodendrocyte precursor cells promotes calcium influx through TRPC5 channels and stimulates formation of myelin-like membrane extension
- Determined that the average length of effectiveness of EMG-guided BOTOX injections for spastic dysphonia was approximately 4 months
- Demonstrated that 40% of ventilator users in NJ nursing homes have the capability to return home with rehabilitation and community support
- Demonstrated that inhalation anesthetic sevoflurane reduces the time from the end of off-pump cardiac surgery until endotracheal extubation
- Described the successful intraoperative resuscitation of a patient with acute intracardiac/intravascular thrombosis during an orthotopic liver transplantation using thrombolytic therapy
- Demonstrated that orthopedic trauma patients with increased preoperative and postoperative glucose levels have an increased incidence of postoperative morbidity in non-diabetics undergoing orthopedic trauma surgery
- Established for the first time in a class I clinical study that the two main FDA-approved medications for treatment of relapsing forms of Multiple Sclerosis have similar efficacy in preventing the development of new/active brain lesions

- Discovered that the vast majority of new brain lesions in Multiple Sclerosis heal over time without leaving black holes
- Established that internet-based cognitive testing is a valid alternative to formal neurocognitive testing to detect cognitive impairment in Multiple Sclerosis
- Reported the efficacy of Cladribine for treatment of refractory forms of relapsing Multiple Sclerosis
- Discovered a new genetic polymorphism of an antioxidant in autism
- Demonstrated prevalent motor deficits in children with autism spectrum disorder
- Discovered that over 20% of patients with chronic fatigue syndrome (CFS) hyperventilate when they stand
- Discovered that all the sleep abnormalities in patients with CFS come from a subgroup who report more sleepiness following sleep than preceding it
- Reported the first open label study of low doses of cyclosporine in the treatment of refractory myasthenia
- Reported the first case of severe botulism after injection of botulinum toxin for cosmetic reasons with unique electrodiagnostic findings
- Reported a rare case of Guillain-Barre Syndrome in a T-cell depleted patient
- Reported a new paraneoplastic syndrome in a patient with thymoma with cerebellar degeneration, myasthenia gravis and dementia
- Demonstrated that apoptosis inhibitor Bfl-1/A1 functions as a specific tBid and Bak antagonist
- Uncovered that repression of B-cell receptor signaling components BLNK and BCAP is critical for Rel/NF- κ B's oncogenic activity in lymphocytes
- Demonstrated that NPC1 and NPC2 cholesterol trafficking proteins are not involved in intestinal cholesterol absorption in mice, distinguishing the NPC pathway in mammals from that in flies
- Demonstrated that OmpR/PhoB transcription factors form heterodimers *in vitro*, establishing a basis for integration of signaling pathways within bacterial cells
- Discovered that the general transcription factor TFIIB mediates DNA loops between promoter-terminator regions of eukaryotic class II genes
- Demonstrated that the Ssu72 phosphatase catalyzes the RNA polymerase II initiation-elongation transition
- Discovered that turnover of the plasma membrane low-affinity phosphate transporters is initiated by Rsp5-mediated ubiquitination
- Discovered the role for the protein GDF1 in the nodal signaling pathway during development
- Demonstrated the *in vivo* role for the actin binding protein Profilin during embryogenesis

- Discovered an induction of an mRNA interferase from *E. coli* in human cells causes programmed cell death (apoptosis), implying its use for cancer therapy
- Deciphered the toxin-antitoxin network in bacteria regulating bacterial cell growth and death
- Organized a Center to develop drugs that can be used against threats of chemical terrorism
- Developed a redox-cycling chemistry laboratory
- Identified a major site of action for paraquat, an important agricultural chemical
- Developed a gestational model for Parkinson's disease and provided evidence for neurodevelopmental origins of a neurodegenerative disorder
- Examined the role of DRD4 polymorphisms, lead, and gender on executive functions in children
- Examined the implications of gender differences for human health risk assessment and toxicology
- Evaluated alterations in the estrogen response element by polyamines using fluorescence resonance energy transfer studies
- Identified mechanistic differences in DNA nanoparticle formation in the presence of oligolysines and poly-L-lysine
- Determined the effects of 2-methoxyestradiol and bis(ethyl)nospermine on apoptosis of MCF-7 breast cancer cells
- Identified the obligatory role for complex I inhibition in the dopaminergic neurotoxicity of 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP)
- Determined if developmental exposure to the pesticide dieldrin alters the dopamine system and increases neurotoxicity in an animal model of Parkinson's disease
- Characterized the effects of ultraviolet light on antioxidant expression and on growing and differentiating keratinocytes
- Examined the role of hydroxyl radicals in the mechanism of action of nitrofurantoin
- Determined if the lipid peroxidation product 4-hydroxynonenal induced the MAP kinase signaling pathway in skin-derived cells
- Characterized the persistence of paraquat in an animal model of Parkinson's disease
- Performed transcriptional profiling of C57 and DBA strains of mice in the absence and presence of morphine
- Demonstrated for the first time in a cohort the association of occupational exposure to hydrocarbons and end-stage renal disease (ESRD)
- Demonstrated best practices for spatial analysis and mapping of health statistics to inform policymakers and the public

- Characterized the space-time distribution of childhood cancers in Washington state, suggesting the validity of and need for active rather than passive surveillance
- Showed that use of primary androgen deprivation therapy for localized prostate cancer does not improve overall survival
- Showed that use of androgen deprivation therapy improved survival among men with distant stage prostate cancer
- Showed that there are wide variations in the use of androgen deprivation in the U.S.
- Showed that obesity is associated with lower prostate-specific antigen (PSA), lower biopsy rates, and lower cancer detection
- Showed that population-based prostate cancer mortality declined in similar pace among men living in areas with high intensity of screening and treatment compared with men living in low intensity of screening and treatment
- Developed the young adult paraquat and maneb model which was used to show the significance of gene-environment interactions in enhancing the impact of pesticides
- Developed models showing that oral administration of caffeine to SKH-1 mice twice a week for several months inhibited UVB-induced skin cancer
- Completed recommendations for Homeland Security Preparedness and post-event recovery, culminating in two manuscripts
- Demonstrated the use of exposure characterization in defining principal sources of cumulative risks in a hot spot using Camden, N.J. as an example location
- Demonstrated the importance of near source exposure to emergency responder activities and defined the number of victims that required medical attention for both chemical and biological events
- Completed a framework for reconstruction of the root of exposure to a toxic chemical through biological markers obtained from urine and blood samples
- Implemented a program to examine exposure to pesticides in commercial aircraft
- Discovered a novel biomarker, TC22, that may identify patients with ulcerative colitis at high risk for colon cancer
- Examined the natural history of HIV infection in patients over the age of 50
- Undertook a comprehensive evaluation of the microbiology, epidemiology, and outcome of bloodstream infections in adults
- Examined the clinical importance of polymicrobial bloodstream infections in adults
- Evaluated the optimal number of blood samples for detection of bloodstream infections in adults
- Assessed treatment of bacteremia caused by multi-drug resistant gram-negative bacteria

- Evaluated the BD Phoenix Automated Microbiology System and MicroScan Walkaway System for use in antimicrobial susceptibility testing of staphylococci and enterococci
- Examined the evolution of antimicrobial susceptibility in methicillin-susceptible and methicillin-resistant *S. aureus* bloodstream isolates
- Studied risk factors for microbiologic data influencing treatment of fungemia
- Received wide press coverage for a published paper on weekend versus weekday admission and mortality rates from myocardial infarction.
- Developed nanotechnology methods to produce macrophage-targeted bioconjugates with optimized pharmacokinetic properties for drug delivery to these cells, which represent a major reservoir of HIV-1 in infected patients
- Identified a site on the Sindbis virus non-structural protein nsP4 which binds to the promoter for the synthesis of genomic RNA. This finding, along with earlier work, indicates that there are distinct sites on nsP4 for the recognition of these two promoters
- Developed a first-generation yeast Single Protein Production (SPP) system for expression of soluble, properly folded recombinant human proteins
- Determined the intracellular target and mechanism of action of bacterial toxins Doc and YafQ
- Determined the role of granzyme B in activation-induced cell death (AICD) in type 2 helper T cells
- Revealed the mechanisms of mesenchymal stem cell mediated immunosuppression
- Identified the critical role of CD4+ T cells in antigen-induced asthma
- Revealed a role of non-classical MHC class I molecules in the development of autoimmunity
- Studied the role of Mac-1 in oral tolerance
- Found the protective effect of Vitamin C on thymocytes during stress
- Studied the mechanisms of RNA stability in the regulation of the expression of RANKL
- Found a critical effect of mesenchymal stem cells in promoting cell survival
- Discovered (using live-cell FRET) that activation of monocytes alters the architecture of a protein complex responsible for cytokine/chemokine mRNA degradation
- Discovered (using live-cell FRET) that AUF1 phosphorylation state affects its dimerization in monocytes
- Generated noncoding RNA libraries from murine mesenchymal stem cells and adipocytes derived from them for microRNA discovery
- Discovered that a secondary structure within the 3' untranslated region of MYC mRNA controls its translation

- Discovered subsets of gene candidates co-regulated by AUF1 and microRNAs using combined ribonomic and bioinformatic approaches
- Identified two cis regulatory elements in the conserved 3' UTR of mouse and human BMP2 mRNAs that control species-specific, alternate polyadenylation site selection
- Discovered a new ribosomal element that is required for translation fidelity
- Determined the molecular and structural basis for SBP2's role in promoting selenocysteine (Sec) incorporation via its RNA-binding domain
- Determined the essential components of a novel motif within SBP2 required for Sec incorporation
- Discovered that Sec codon context plays an active role in determining the efficiency of Sec incorporation
- Identified a role of the organization of the actin cytoskeleton in the initiation of protein synthesis
- Demonstrated that a novel non-hormonal male contraceptive drug that binds a translation elongation factor has minimal effects on protein synthesis and affects a non-canonical function
- Studied the relationship between G-protein and guanine nucleotide exchange binding and regulation of G proteins
- Solved the X-ray crystal structure of the fungal-specific translation elongation factor 3
- Identified a new site for receptor binding to Type I interferons
- Developed the first inhibitors of Type I interferons based on genetically engineered changes in the structure of interferon
- Developed an immunological treatment for Experimental Autoimmune Encephalomyelitis, an animal model for human Multiple Sclerosis
- Discovered a possible connection between autoimmune IgA deficiency and consumption of certain foods
- Demonstrated how preassembly and ligand-induced restructuring of the chains of the IFN- γ receptor complex occurs, and the roles of JAK kinases, STAT1 and the receptor chains
- Demonstrated how activation of STAT1 by the interferon- γ receptor complex is modulated
- Discovered another new protein arginine methyltransferase, PRMT9, that symmetrically dimethylates arginine residues
- Provided the first analysis of the evolution of protein arginine methyltransferases, and assessment of their pharmacological and therapeutic potential
- Discovered human IFN- γ and its activities

- Identified a previously unknown interaction between the autism-associated gene, Engrailed 2, with the insulin-like growth factor signaling system in the developing cerebellum
- Identified a critical period during postnatal development of the hippocampus when a single exposure to methyl mercury acutely inhibits cell proliferation and leads to long deficits in neuronal cell numbers and hippocampal-dependent learning and memory
- Defined the epigenetic mechanisms regulating neural progenitor differentiation into oligodendrocytes during development
- Characterized the transcriptional networks regulating myelin gene expression
- Identified intrinsic molecular changes of chromatin components occurring in oligodendrocytes in the aging brain and in the brain of patients with Multiple Sclerosis
- Defined a population of neural stem cells responsible for generating brain tumors
- Developed a new behavioral assessment scale for the analysis of spinal cord injury in mice
- Demonstrated enhanced proliferation following spinal cord injury in mice lacking p27Kip1
- Found that enhanced proliferation in oligodendrocyte precursors does not lead to enhanced-functional recovery in mice lacking p27Kip1
- Demonstrated developmental retardation of locomotor skills in mice lacking p75 NTR
- Defined a novel role for neuropeptide VGF in depression paradigms
- Demonstrated altered synapse formation in hippocampal neurons following opiate-like peptide treatment
- Identified a novel interaction between the Hedgehog and Wnt signaling pathways
- Demonstrated that neural differentiation can proceed in the absence of CIP/KIP cyclin-kinase inhibitors
- Discovered a novel action of soluble beta amyloid molecules on mitochondrial trafficking and neuronal functions associated with Alzheimer's disease
- Elucidated an essential role of spatially regulated local synthesis of cytoskeletal proteins in axonal growth and guidance
- Determined the structure of the junction between two tropomyosin molecules, and the implications for actin binding and regulation
- Defined a dual requirement for flexibility and sequence for tropomyosin to bind to actin
- Showed that tropomodulin binds two tropomyosins, and proposed a model for actin filament capping
- Identified genetic loci that contribute to neurogenesis in the dentate gyrus
- Established new methods to investigate cell proliferation in the developing retina of albino mice

- Discovered cell cycle differences in subdivisions of the developing hippocampus
- Continued mRNA and microRNA analysis of neurostem cell development
- Used genome-wide methods to locate genetic loci that contribute to dentate gyrus development
- Analyzed cell proliferation in the brain and brainstem following spinal cord injury
- Developed a new method of assessing student performance in gross anatomy
- Developed a new video-conferencing system for distance learning in the anatomy dissection lab
- Demonstrated that a specific cell organelle acts as a gravity sensor and regulates the variability of gene expression levels
- Discovered that a naturally occurring hallucinogen acts through the kappa opioid receptor
- Discovered that it is necessary to produce knock-out mouse strains lacking at least three insulin-like binding proteins before growth and metabolic consequences of the mutations are apparent
- Identified a risk allele for autism
- Established a multi-genic mouse model for neural tube and congenital heart defects
- Identified BDNF as a molecule that can reverse the deficits of demyelination in a model of Multiple Sclerosis
- Discovered the roles of astrocytes as providers of trophic factors in response to neural stimulation
- Discovered that Apoptosis Signal Regulating Kinase 1 mediates dopaminergic neuronal death in models of Parkinson's disease
- Showed that a glutathione S-transferase P1 haplotype, acting in mothers during pregnancy, increases the risk of autistic disorder in the fetus
- Determined the characteristics of the cohort enrolled for PHAROS (Prospective Huntington At Risk Observational Study), a prelude to drug trials for Huntington disease
- Showed that glutathione S-transferase polymorphisms contribute to onset age in α -synuclein A53T mutant Parkinson's disease (the Contursi kindred)
- Showed that the GSTM1 deletion, a contributor to detoxification of environmental chemicals, is associated with autism, and developed a new method allowing use of deletion alleles in the analysis of case-parent trios
- Confirmed the linkage of restless legs syndrome to chromosome 12q and documented genetic heterogeneity and the evidence of complexity
- Discovered a role for the sodium hydrogen exchanger 1 in modulating dopamine release in the striatum under normal physiological conditions and under conditions of metabolic stress

- Developed a chronic model of Parkinson's disease in rats
- Showed that elevation of brain levels of glutathione could protect dopamine neurons in a chronic model of Parkinson's disease
- Investigated the mechanisms of neuronal toxicity of the environmental fungicide mancozeb
- Delineated the downstream mitochondrial targets for interaction with dopamine quinines
- Screened 8 small molecule neuroprotectants *in vitro* as potential therapeutic agents in the treatment of Parkinson's disease; the two most promising agents are now being tested *in vivo*
- Defined the Role of TNF-alpha in the expression of CD44
- Determined the MAP kinase pathways responsible for TNF-induced CD44 expression
- Determined that CD44 is involved in P-gp ubiquitination through phosphorylation
- Discovered that Tumor Necrosis Factor differentially modulates CD44 expression in ovarian cancer cells
- Found that over-expression of Ephrin B2 promotes tumor-associated blood vessel formation in a carcinomatosis mouse model, resulting in increased blood vessel density in tumors. Studies have been initiated to elucidate the ultrastructure of these vessels
- Found that over-expression of Ephrin B2 protein, or upregulation of its gene, does not affect VEGF mRNA levels
- Demonstrated that fetal growth restriction in term fetuses is associated with alterations in gene expression for collagen subtypes and decorin within the fetal vasculature
- Initiated an animal model of fetal growth restriction to study alterations of collagen and proteoglycan subtypes within the fetal cardiovascular system
- Discovered (using electronmicroscopy) that collagen fibril structure is altered in the umbilical arteries of growth-restricted fetuses
- Began a collaboration with the New Jersey Child Health Institute to build an animal embryology laboratory for studying mouse and zebrafish developmental biology
- Demonstrated that progesterone enhances IL-8 production by endocervical cells stimulated with *Ureaplasma urealyticum*
- Demonstrated that progesterone inhibits proliferation of endocervical and vaginal epithelial cells and monocytes
- Demonstrated that progesterone enhances IL-1 and IL-8 production but inhibits TNF production by monocytes stimulated with pathogens associated with preterm birth
- Developed a novel animal model for preterm birth that is characterized by preterm labor followed by birth of live-born pups that have reduced birth weight
- Began *in vitro* studies on the effects of sulfasalazine on innate immune responses to pathogens that cause preterm birth

- Completed an *in vivo* study demonstrating that sulfasalazine can reduce infection-mediated preterm birth and improve pregnancy outcomes
- Completed studies on the ability of progesterone to modulate gene expression of Toll-like receptor-2 and TOLLIP on monocytes, endocervical cells and vaginal epithelial cells
- Initiated studies to determine if maternal saliva contains biomarkers associated with adverse pregnancy outcomes
- Initiated studies to determine if maternal urine contains biomarkers associated with preterm birth
- Began a research program to develop vaccines against genital mycoplasmas
- Demonstrated increased production of mRNA and protein for matrix-metalloproteinases in the membranes and amniotic fluid of animals infected with *Mycoplasma pulmonis*
- Characterized the macrophage-activating factors from *Ureaplasma urealyticum* and their interactions with Toll-like Receptors 2 and 4
- Purified a natural Toll-like receptor-4 antagonist and began studies to evaluate its ability to alter immune responses against bacteria associated with preterm birth
- Designed a series of study proposals to explore novel immunomodulatory treatments for preventing preterm labor
- Submitted a series of study proposals to explore the potential for amniotic and mesenchymal stem cells to improve pregnancy outcomes in fetal surgery
- Continued a collaboration with New Jersey Stem Cell Institute to characterize amniotic fluid stem cells
- Initiated a series of studies to explore the effects of bacteria on collagen expression and cytokine production by fetal endothelial cells *in vitro*
- Described the regulation of monocyte chemokines by pro-inflammatory cytokines in decidual cells in relation to preeclampsia
- Described how thrombin regulates monocyte chemoattractant protein-1 expression in human decidual cells
- Described telomere shortening in T-lymphocytes of older individuals with Down syndrome and dementia
- Determined the accuracy and precision of microarray-based aneuploidy assessment in single cells from each of 3 whole-genome amplification methods
- Determined the diagnostic value of single-cell aneuploidy assessment from both single nucleotide polymorphism and bacterial artificial chromosome-based whole-genome microarrays
- Developed a reliable and robust microarray-based, single blastomere, genetic-fingerprinting method capable of discriminating sibling IVF embryos

- Developed a genetic fingerprinting method for human IVF embryo identification using only the 1st polar body and parental genomic DNA
- Developed an accurate, microarray-based, single blastomere, 23-chromosome, aneuploidy screening method
- Characterized the aneuploidy state of pairs of human polar bodies and polar-body biopsied MII oocytes
- Determined the human oocyte and blastomere transcriptome using single cell RNA amplification and genome-wide high density oligonucleotide microarrays
- Developed a method for quantitative real-time whole-genome amplification
- Initiated the development of an IVF patient DNA bank with greater than 500 patient samples currently processed and available for research
- Continued to develop an IVF embryo-conditioned media bank with over 30,000 samples electronically logged and available for research
- Characterized the genomic and mitochondrial identity, and imprinted gene expression patterns, of somatic cell nuclear transfer (SCNT)-derived mice to support the development of a method that significantly increases SCNT efficiency
- Developed and tested models of mammalian lutropin receptors and modeled others that are found in several vertebrates
- Developed models of follitropin receptors from several vertebrates
- Developed models of thyrotropin receptors from several vertebrates
- Discovered a cryptic lutropin ligand binding site in mammalian follitropin receptors
- Demonstrated that Slit and Robo receptors are required for lumen formation during *Drosophila* heart tube assembly
- Mapped a mutation from a genetic screen for defects in muscle attachment site selection to the RacGap50C locus on chromosome II
- Discovered that Slit and Robo receptors are important for establishing appropriate cell-cell contacts during *Drosophila* hindgut formation
- Documented the comparative viscoelastic properties of skin
- Modeled the energy storage and the dissipative properties of the extracellular matrix
- Described the putative mechanism of collagen mineralization
- Completed a textbook on mechanotransduction in the extracellular matrix
- Documented the relationship between the structure and physical properties of tendons, ligaments and joint capsules
- Discovered upstream activators of the WAVE/SCAR actin nucleation complex

- Demonstrated that a *C. elegans* WD40 and FYVE domain protein is involved in the early steps of endocytosis
- Completed studies of conformational specificity of SNARE interactions by Sec1p in vesicle fusion regulation
- Discovered conserved sites for both universal and membrane-selective functions of the four ancient Sec1/Munc-18 families using a phylogenetic analysis of protein structure
- Identified a unique conformation for collagens in type XV using electron microscopy rotary shadowing
- Developing a web-based virtual autopsy resource to increase the level of medical student exposure to autopsy in the pre-clinical years of their medical student education
- Received additional competitive funding from the Radiological Society of North America (RSNA) to develop a web-based, dynamic authoring tool for synthesizing interactive education materials for training radiologists
- Found a direct relation between prenatal exposure to cocaine, especially in boys, and problems of inhibitory control, attention and memory at ages 6 through 10 years
- Found that high-risk boys exposed prenatally to cocaine make more omission and commission errors than do unexposed boys and all girls, while controlling for IQ at 9 and 11 years
- Found (using functional magnetic resonance imaging) gender differences in brain regions active during an attention task at ages 10 to 12 years
- Found (using functional magnetic resonance imaging) that children exposed prenatally to cocaine show less activation of brain regions than unexposed children during an attention task at ages 10 through 12 years
- Found (using structural magnetic resonance imaging and behavioral testing) that the emergence of self-representation in infants and young children was associated with white matter maturation of the left superior temporal cortex for both typically developing children as well as those with MRI abnormalities
- Found (using behavioral testing) that children with autism spectrum disorders, including autistic disorder as well as pervasive developmental delay, had poorer self-representation than typically developing infants and children
- Found (using structural MRI) that children with autism spectrum disorder at age 5 years have frontal cortex maturation that is similar to the maturation of typically developing children at ages 10 to 12 years
- Found (using structural MRI) that children with autism spectrum disorder at age 5 years have superior temporal cortex maturation that is similar to the maturation of typically developing children at ages 1 to 3 years
- Determined that 4-year-old neglected children are less able to recognize emotional expressions than SES- and age-matched non-maltreated children, and determined that this deficit is more pronounced in neglected boys than neglected girls—independent of the children's IQ

- Found that, with respect to infant emotional response to different goal blockages, greater sadness was related to higher internalizing behavior by maternal report at age 3, whereas anger was not
- Found that individual differences in anger and sadness expressions occur when infants' goals are blocked at 5 months, and that sadness and blended expressions, but not anger, are related to differences in temperament
- 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 three scales used to screen for child maltreatment among parents of 4- to 6-year-olds were similarly able to identify neglectful parents
- Found that shame mediates the relation between physical abuse and internalizing symptoms among 7-year-olds
- Discovered that tobacco-exposed children exhibited less activation in visual processing regions of the brain and in the precuneus while viewing emotion-eliciting pictures
- Found that guilt-proneness, but not shame-proneness, predicted increased treatment readiness among women entering an outpatient drug rehabilitation program
- Found that children's shame about their nighttime enuresis is related to their general anxiety
- Found that the relation between parents' response to their children's enuresis and children's general anxiety are moderated by children's attributions and shame about their enuresis
- Demonstrated the suitability of an electrospun nanofibrillar scaffold derivatized with neuroactive molecules for the repair of spinal cord injuries in rats
- Demonstrated that the NFK8 Relish produces a sleep phenotype in *Drosophila*
- Discovered that the nucleosome presents a highly polar barrier to transcribing RNA polymerase II
- Discovered that chromatin structure supports efficient communication between distantly spaced DNA regions and greatly facilitates enhancer action over a distance
- Discovered that nucleolin is a histone chaperone with FACT-like activity and assists the remodelling of nucleosomes during transcription
- Characterized sterol-dependent effects on transcription in *Caenorhabditis elegans*
- Demonstrated, in cultured adipocytes, that JNK1 and JNK2 have both shared and independent roles in mediating insulin and TNF- α actions in adipocytes
- Identified, in cultured muscle cells, the specific involvement of JNK1 and JNK2 in mediating free fatty acid-induced insulin resistance

- Discovered that epidermal growth factor receptor signaling increases bone marrow stromal stem cell proliferation but delays their differentiation into osteoblasts and adipocytes
- Found that epidermal growth factor receptor signaling strongly inhibits osteoblastogenesis of preosteoblasts through regulating two master transcription factors: Runx2 and osterix
- Found that EGF-like ligands stimulate bone resorption by modifying expression of osteoclast regulatory factors in osteoblasts
- Showed that pulsed electromagnetic fields stimulate growth and differentiation of osteoblastic cells
- Discovered that the parathyroid hormone stimulates expression and production of a chemokine by osteoblastic cells
- Demonstrated that the effect of cyclic GMP in reducing calcium release and function is reduced in hypertrophic cardiac myocytes
- Showed that the negative functional and metabolic effects of natriuretic peptides on the heart and cardiac myocytes are reduced by hypertrophy
- Demonstrated that chronic nitric oxide synthase blockade reduces the metabolic effects of nitric oxide on the heart
- Showed that 17beta-estradiol reduced blood-brain barrier disruption after cerebral ischemia in young, but not old rats
- Discovered that part of the reason that the effects of natriuretic peptide were reduced after cardiac hypertrophy was reduced particulate guanylyl cyclase activity
- Showed that the disruption of the blood-brain barrier in stroke was related, in part, to both VEGF and HIF
- Discovered that, in a rat autism model, there was increased cerebral oxygen consumption not related to excitatory amino acids
- Demonstrated that chronic nitrates blunted the effect of natriuretic peptides on cardiac myocytes
- Discovered uncoupling store-operated calcium entry and altered calcium release from the sarcoplasmic reticulum through silencing of the junctophilin genes in muscle cells
- Discovered SIN1 as a new component of the rapamycin-insensitive mTOR Complex 2
- Demonstrated that SIN1, as part of mTORC2, regulates phosphorylation of Akt and its substrate specificity
- Discovered that the mTORC2 function in the regulation of Akt specifically involves cell survival
- Unravelling the mystery of how mTORC2 controls folding and stability of Akt and conventional PKC by constitutive phosphorylation

- Showed for the first time that mTORC2 could play a co-translational role in the proper folding of Akt and PKC
- Discovered a new inhibitor for sexually transmitted chlamydial and gonococcal infections
- Discovered a new mechanism for regulatory specificity of protein ectodomain shedding by the TNF- α converting enzyme
- Demonstrated that TGF-beta stimulates Runx2 phosphorylation, and that it may be required for repression of osteocalcin gene expression
- Showed that TGF-beta stimulated sustained and prolonged expression of ATF-3 in breast cancer cells
- Identified the ATF-3 potential target genes which may participate in breast cancer progression
- Identified an arrhythmia susceptibility gene in the nematode *C. elegans*
- Discovered a new mode of modulation of N type inactivation in potassium channels
- Elucidated the mechanism determining K⁺ channel complex formation
- Discovered that Dantrolene, the only FDA-approved drug for the treatment of Malignant Hyperthermia, inhibits the extracellular calcium entry process via the store-operated calcium entry mechanism, a novel pathway for this compound
- Demonstrated that intracellular calcium signaling mechanisms are compromised in aged skeletal muscle, which may account for muscle weakness during aging
- Showed that the protein MG29 (Mitsugumin 29) may be used as a marker for muscle aging in mice, a finding which may extend to humans
- Demonstrated that Brain-Derived Neurotrophic Factor and Insulin-Like Growth Factor-1 cumulatively activate the neuroprotective Akt pathway and inhibit apoptosis in cultured hippocampal neurons
- Demonstrated that the neurotrophic actions of FGF-2 in cultured hippocampal neurons can be dissociated from acute activation of Akt and ERK
- Studied differential immune cell gene expression in endotoxemic normal subjects and critically ill patients using microarray and advanced bioinformatics technologies
- Investigated the effect of enteral versus parenteral feeding on gene expression in purified immune cells in humans using microarray and advanced bioinformatics technologies
- Initiated studies investigating the effect of epinephrine pretreatment on monocyte, T-lymphocyte and neutrophil gene expression profiles in volunteers administered endotoxin *in vivo*
- Investigated the relationship between polymorphisms in toll-like receptor 4, MDM2, and MIF on the response to *in vivo* endotoxin challenge in normal human volunteers

- Studied time-related changes in heart rate variability in human volunteers challenged with intravenous endotoxin
- Studied the association between mutations and polymorphisms in specific genes and the increased susceptibility to infection and/or sepsis
- Studied the differential regulation of monocyte and neutrophil cell-surface receptors associated with the inflammatory response in human volunteers administered endotoxin
- Investigated gene expression by microarray analyses in purified subsets of blood leukocytes after LPS administration to human volunteers who were pretreated with counter-regulatory endocrine hormones including cortisol and epinephrine
- Initiated the use of more advanced bioinformatics approaches for analysis of microarray data
- Demonstrated that mEMAP II interferes with *in-vivo* tumor fibronectin disposition of host origin, resulting in a decrease in tumor cell proliferation
- Mapped murine fetal lung vascular blood flow in relationship to vessel formation in the developing lung and arterial/venous origin
- Developed a new model of lung development termed pulmonary bodies
- Determined that fibronectin is important in lung self-assembly
- Identified that mEMAP II alters pulmonary body self-assembly and cohesivity
- Determined that mEMAP II alters VEGF signaling in microvascular endothelial cells
- Demonstrated that MLL cells transfected to express FAK upregulate fibronectin matrix assembly
- Showed that the upregulation of matrix assembly results in higher intercellular cohesion
- Showed that intercellular cohesion resulted in phase separation of the parent and transfected cell lines
- Showed that, in histological sections of human prostate cancer, the degree of intermixing between tumor and stromal cells correlates with Gleason grade
- Found that tissue surface tensions guide *in vitro* self-assembly of rodent pancreatic islets
- Constructed plasmids expressing GFP fusion proteins for FRNK non-kinase region of FAK
- Generated FAK wild-type cell lines expressing FRNK-GFP fusion protein
- Generated FAK null cells that express high levels of FAK
- Showed that siRNA knockdown of E-cadherin expression in ectoderm results in decreased cohesion
- Demonstrated that reduced cohesion resulted in phase between ectoderm and mesoderm

- Developed an image analysis method to quantify equilibrium configurations generated by sorting assays
- Manuscript currently under review in PLoS Biology: “The role of differential adhesion in zebrafish germ layer positioning”
- Performed sorting assays between CHO cells expressing different chimeric ~5 integrin molecules
- Showed that cells expressing ~5 integrin extracellular domain and cytoplasmic domain segregate from the parent cell line
- Showed that cells expressing ~5 integrin extracellular domain and ~2 integrin cytoplasmic domain intermix with the parent cell line
- Demonstrated that fibronectin matrix correlates with sorting behavior
- Showed that MAPK—particularly ERK—is activated in mouse melanoma cells by a Grm1 agonist, and that Riluzole, a glutamate antagonist, was able to suppress cell growth *in vitro* and *in vivo*
- Conducted studies on the prevention of UVB-induced skin carcinogenesis model in SKH-1 hairless mice that has translated into human studies
- Demonstrated that skin carcinogenesis was inhibited by voluntary running-wheel exercise
- Demonstrated that voluntary exercise or fat removal (partial lipectomy) stimulates apoptosis in the skin of UVB light-induced mice
- Demonstrated that the inhibition of 7,12-dimethylbenz(a) anthracene-induced skin tumorigenesis in C57BL/6 mice by sulforaphane is mediated by Nrf-2
- Showed the activation of bone morphogenetic protein signaling in MCF10 breast epithelial cells by a novel vitamin D derivative
- Showed that phenobarbital treatment inhibits the formation of estradiol-dependent mammary tumors in the August Copenhagen Irish rat
- Explored the catalytic functions of CYP2S1 and CYP2A13, two cytochrome P450 enzymes, that are predominantly expressed in human lung and other respiratory tissues
- Created a very specific antibody against CYP2A13 and used it to study the tissue distribution of this enzyme with immunohistochemistry
- Identified several functional natural variants of cytochrome P450 reductase (POR); POR-mediated metabolism is critical for the cytotoxicity of paraquat and an anticancer drug mitomycin C
- Elucidated the signal transduction mechanisms behind the cancer chemopreventive actions of phenolic compounds BHA/tBHQ, tea polyphenols, curcumin, sulforaphane, and PEITC

- Uncovered the critical roles of MAPK, IKK-NF κ B, AP1, and Nrf2 in apoptosis and in induction of Nrf2-ARE-mediated cellular defense mechanisms by further elucidating potential chemopreventive signaling mechanisms in human prostate PC-3 and colon HT-29 cells, as well as cells in intact mice
- Studied the redox-sensitive NES in the Neh 5 transactivation domain of Nrf2 and the mechanisms of regulation of Nrf2 by nuclear co-activators and p38 MAPK
- Discovered that oral administration of either Polyphenon E in a 0.5% solution or caffeine in a 0.044% solution for a duration of 35 weeks inhibited the progression of lung adenomas to adenocarcinomas
- Demonstrated that vitamin D inhibited the formation of prostate intraepithelial neoplasia in NRx3 1; Pten mutant mice
- Showed that the combination of 12-tetradecanoylphorbol-13-acetate and paclitaxel inhibited the growth of prostate cancer LNCap cell growth in culture and in xenograft tumors in nude mice
- Demonstrated the inhibition of growth of human PC-3 prostate xenograft in nude mice by combined treatment with curcumin and phenethyl isothiocyanate is associated with the inhibition of EGFR signaling
- Demonstrated the chemo-preventive effects of the antioxidants α -tocopherol and N-acetylcysteine (NAC) in experimental diets enriched with either one of with both in combination; in particular, α -tocopherol at 778ppm significantly inhibited carcinogenesis
- Demonstrated that the antiacid therapeutic agent Omeprazole (1400ppm) showed a slight but not statistically significant chemopreventive effect at the given dose
- Showed that exposure to acid and/or bile acids may activate Cdx2 expression in human esophageal epithelial cells through promoter demethylation, and that ectopic Cdx2 expression in esophageal squamous epithelial cells may contribute to intestinal metaplasia of the esophagus
- Discovered that Nkx3 1; Pten mutant mice develop androgen-independent PIN and cancer phenotypes, which are dependent on wild-type androgen receptor (AR), as is the case for most human prostate cancers
- Showed that the Akt and B-Raf/Erk kinase signaling pathways are robustly activated in androgen-independent lesions in Nkx3 1; Pten mutant mice as well as in advanced human prostate cancer, and are well-correlated with AR expression
- Discovered that Nkx3 1 mutants express genes that are usually restricted to seminal vesicles, suggesting that the loss of function of Nkx3 1 leads to defects in prostatic epithelial specification
- Demonstrated that selenoproteins and selenium metabolism are regulated at multiple levels in prostate cells
- Observed significant differences in selenium utilization as a function of cell type
- Completed a comprehensive study of selenium toxicity in cultured prostate cells as well as characterization of selenoprotein expression as a function of cell type

- Showed that the breast cancer susceptibility gene, BRCA1, plays a major role in X-chromosome inactivation
- Discovered 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
- Discovered that Gax expression resulted in changes in global gene expression consistent with a quiescent, nonangiogenic phenotype, with increased expression of cyclin kinase inhibitors and decreased expression of genes implicated in endothelial cell activation and angiogenesis
- Discovered that Gax down-regulated numerous nuclear factor-kappaB (NF-kappaB) target genes and decreased the binding of NF-kappaB to its target sequence in electrophoretic mobility shift assays
- Contributed to studies which have identified that the chemotherapeutic agent Bryostatin-1 (Bryo-1) is a potent ligand and modulator of protein kinase C that exerts antineoplastic and immunomodulatory activities both *in vitro* and *in vivo*
- Investigated the effects of Bryo-1 on the expression and regulation of IFN- γ R chains in monocytic cells
- Contributed to studies of the IFN-stimulatory gene factor 15 (ISG15—a ubiquitin-like protein conjugated to many cellular proteins) showing that ISG15 is highly elevated and extensively conjugated to cellular proteins in many tumors and tumor cell lines
- Completed studies that provide the first evidence of linkage between the nonsense- and ARE-mediated mRNA decay pathways, which may constitute a new mechanism regulating the expression of ARE-containing mRNAs
- Discovered that oxidative stress plays an important role in acetaminophen (APAP)-induced hepatotoxicity
- Investigated the role of APAP-induced oxidative stress and NF-kappaB in inflammatory mediator production
- Demonstrated that APAP-induced cytokine expression in the liver is influenced by oxidative stress and that this is dependent, in part, on NF-kappaB; however, NF-kappaB p50-dependent responses do not appear to play a major role in the pathogenesis of toxicity in this model
- Reported that in apoptosis-deficient cells, inhibition of autophagy by AKT activation or by allelic disruption of beclin1, confers sensitivity to metabolic stress by inhibiting an autophagy-dependent survival pathway
- Discovered that autophagy may function in tumor suppression by mitigating metabolic stress and, in concert with apoptosis, by preventing death by necrosis
- Discovered that defects in apoptosis allow long-term cellular survival of immortal baby mouse kidney epithelial (iBMK) cells or mouse mammary epithelial cells (iMMECs) through autophagy

- Discovered that autophagy localizes in tumors to regions of metabolic stress, and that deficient autophagy compromises the survival to metabolic stress while promoting necrotic cell death, inflammation and tumor progression
- Uncovered the mechanism of apoptosis regulation in response to inhibition of protein synthesis
- Determined that shut-off of protein synthesis, triggered by inhibition of protein translation or degradation of mRNA, requires the BH3-only protein Nbk/Bik which disrupts Bak-Mcl-1 and Bak-Bcl-xL interaction, leading to release of proapoptotic Bak and, thereby, Bak-mediated apoptosis
- Developed a novel mouse model to study prostate cancer progression and treatment response, as well as the roles of apoptosis and autophagy in prostate cancer
- Demonstrated that labeled hematopoietic cells localize to the tumor microenvironment
- Demonstrated that molecular signals elicited by tumor cells induce MSC chemotaxis and that SDF-1 expression by MSCs is required for this response
- Investigated the role of macrophages in blood vessel growth and repair in the tumor microenvironment
- Developed new technologies to probe the fundamental structure and dynamics of transcription
- Discovered that when RNA polymerase begins to transcribe, it pulls downstream DNA into itself; this “scrunched” DNA then provides an unstable intermediate that is a source of energy for loosening upstream polymerase-promoter contacts
- Discovered that polycomb group repressor complexes including Suz12 are involved in the maintenance of stem cell self-renewal through their recruitment to differentiation-associated promoters
- Discovered that the enzyme Suz12 is critical for chromatin condensation during cell cycle progression
- Showed that phosphatase plays a critical role in the transition from initiation to elongation of transcription subsequent to mRNA cap addition through the dephosphorylation of serine 5 of the CTD
- Showed that chromatin assembly dramatically increases the effects of enhancers in activating transcription and facilitates strong interactions between the enhancer and the promoter
- Showed that BRCA1-deficient tumors are characterized by loss of X chromosome inactivation, potentially leading to altered effective gene dosage and therefore expression levels of genes on the X chromosome
- Identified the Nkx3 1 homeodomain gene as a critical tumor suppressor for prostate cancer
- Demonstrated that loss of the Nkx3 1 homeodomain gene led to prostatic intraepithelial neoplasia that progressed to full-blown and metastatic prostate cancer when coupled with the disruption of other tumor suppressors

- Showed (using a new mouse model) that androgen-independent neoplastic prostate cells emerge very early, even before the development of florid PIN or cancer and androgen independence was associated with activation of the Akt and Erk pathways
- Showed that the Hes5 transcription factor represses myelin gene expression through effects on Mash1 and through inhibition of the Sox10 transcriptional activator
- Discovered that ID4, an inhibitor of helix-loop-helix proteins, is also a key regulator of oligodendrocyte differentiation
- Showed that the loss of p53 in cells leads to focally increased cell density (pre-tumors), which develop into glioblastomas in the presence of mutagenic DNA damage
- Showed that complex and intricate interactions between the shh-gli pathway and the Wnt/Tcf pathways play critical roles in controlling the fate of neurons in the developing neural tube, with Tcf4 repression serving to limit the effects of the gli signals
- Identified critical roles of the different Cip/Kip cyclin-dependent kinase inhibitors in the regulation of neuronal cell cycle during spinal cord development, with a critical role for p57 in inducing the exit from cell cycle and the promotion of differentiation
- Showed that Aurora-A, a centrosome kinase, is amplified in cancers and is a new important target for therapy that is down-regulated by specific TRAP/Mediator complexes recruited to its promoter by the GABP transcription factor
- Identified a novel class of nuclear receptor corepressors, represented by Atrophin, which recruits histone deacetylases to promoters bound by a subset of nuclear receptors
- Showed that Gax induces expression of the p21WAF1/CIP1 promoter through a far upstream Gax binding site, and suggested that Gax regulation of p21 may alter cell cycle and tumor-associated angiogenesis
- Showed that truncated forms of NF- κ B2 associated with lymphoid malignancies are constitutively processed to the mature p52 NF- κ B2 proteins in association with DNA binding in the nucleus
- Uncovered a new association of NF- κ B regulation with autophagy
- Described a new mechanism of resistance to 5-fluorouracil in the form of decreased levels of UMP kinase
- Defined the role of TNF-alpha in the expression of CD44
- Determined the MAP kinase pathways responsible for TNF-induced CD44 expression
- Determined that CD44 is involved in P-gp ubiquitination through phosphorylation
- Showed that Tumor Necrosis Factor, differentially modulates CD44 expression in ovarian cancer cells
- Demonstrated that overexpression of Ephrin B2 promotes tumor-associated blood vessel formation in a carcinomatosis mouse model, which results in increased blood vessel density in tumors

- Demonstrated that overexpression of Ephrin B2 protein or upregulation of its gene does not affect VEGF mRNA levels
- Demonstrated that caffeine, the most highly consumed psychoactive drug in the United States, induces the alternative splicing of a number of genes associated with the cancer phenotype
- Showed that the methyltransferase MLL1, a target for chromosomal translocation in human leukemias, regulates transcription of the multidrug resistance gene MDR1
- Discovered that PARP1 expression is associated with cellular resistance to the novel chemotherapeutic agent Yondelis
- Discovered increased activity against cancer cells, including renal cell carcinoma and prostate cancer in macrophages, which are genetically engineered to be resistant to an immune suppressing factor TGF-beta
- Discovered a genetic expression system that will permit stem cells to be resistant to TGF-beta but allow elimination after the completion of treatment has been established
- Showed that the signaling mechanism governing migration of bone marrow-derived human mesenchymal stem cells to tumor sites involves activation of Jak2 pathway
- Showed that long term exposure of mesenchymal stem cells to a tumor-conditioned medium induces a phenotype similar to tumor-associated fibroblasts
- Showed that resistance of human colorectal cancer cells to bolus 5Fluorouracil can be reversed by using 5-azadeoxycytidine, an epigenetic modulator
- Reported that BCCIP, a BRCA2 and p21 interaction protein, is required for the completion of mitosis
- Reported that BCCIP is required to maintain the trans-activation activity of wild type p53
- Demonstrated that dihydrofolate reductase levels could be regulated through mTOR pathway
- Showed that methotrexate inhibits mTOR pathway
- Showed that NAD analogues downregulate dihydrofolate reductase protein levels
- Identified a putative dihydrofolate reductase peptide that binds to dihydrofolate reductase mRNA
- Developed improved enzymatic assays for diagnosis of neurodegenerative diseases resulting from lysosomal storage disorders
- Solved the structure of the catalytic domain of hepatitis C virus NS 2-3 protease, a key enzyme required for virus replication and a drug target for preventing liver cancer
- Developed a new model of bladder cancer that provides novel insights into the molecular bases of human bladder cancer
- Identified a novel population of progenitor cells with stem cell properties in the prostate epithelium

- Designed new pre-clinical trials for hormone-refractory prostate cancer that can lead to human clinical trials
- Investigated the role of vitamin D in the prevention of prostate cancer in a mouse model
- Identified disease alleles for ENGRAILED 2 genetic susceptibility to Autism Spectrum Disorder
- Identified the previously unsuspected POU domain factor Brn3b as a commitment factor for retinal ganglion cells whose degeneration can lead to glaucoma
- Showed that the NF- κ B Relish produces a sleep phenotype in *Drosophila* and that sleep deprivation alters the immune response
- Identified novel synthetic amino acids that can be used to thermostabilize proteins
- Showed that the *Spotch* mouse mutant is a multi-genic model for congenital heart defects
- Documented that the NPC1 and NPC2 cholesterol-trafficking proteins are not involved in intestinal cholesterol absorption in mice, distinguishing the NPC pathway in mammals from that in *Drosophila*
- Showed that OmpR/PhoB transcription factors form heterodimers *in vitro*, establishing a basis for integration of signaling pathways within bacterial cells
- Defined two cis-regulatory elements that direct alternative polyadenylation of bone morphogenetic protein 2 (BMP2) mRNA in human and mouse cells
- Demonstrated that siRNA knockdown of mRNA capping enzymes induces apoptosis in mammalian cells but autophagy if pro-apoptotic Bak and Bax proteins are missing
- Demonstrated that apoptosis inhibitor Bfl-1/A1 functions as a specific tBid and Bak antagonist
- Discovered that repression of B-cell receptor signaling components BLNK and BCAP is critical for Rel/NF- κ B's oncogenic activity in lymphocytes
- Identified targets of the "non-canonical" NF- κ B transcription pathway that contribute to lymphoma development
- Demonstrated that prostate cancer cell lines are susceptible to either cell death or cell growth arrest under metabolic stress conditions induced by AG2034
- Demonstrated that AG2034 is cytotoxic to prostate cancer cells in the following order of magnitude: LNCaP > PC-3 > DU145
- Demonstrated that the rate of depletion of ATP by AG2034-induced inhibition of de novo purine synthesis is faster in the presence of hypoxanthine than in its absence
- Demonstrated that AG2034 affects cell cycle distribution and DNA synthesis in a different manner depending on the prostate cancer cell type
- Demonstrated that prostate cancer cells utilize both de novo and salvage pathways for purine synthesis but are more largely dependent on the former

- Demonstrated that AG2034 is an activator of the AMP-activated protein kinase (AMPK) especially when cells are maintained in the absence of hypoxanthine
- Demonstrated that AG2034 mediates cell death or cytostasis in a hypoxanthine-dependent fashion, independent of the residual level of total ATP found in these cells
- Demonstrated that numerous genes are expressed differently when cells are maintained with or without hypoxanthine in the absence of the drug
- Selected cells for resistance to AG2034 and demonstrated that the level of ATP in these cells is similar to that found in untreated cells even though [¹⁴C]-glycine incorporation into ATP remains inhibited
- Demonstrated left ventricular dilation with decreased ejection fraction in a subset of animals in a murine model of sepsis, and documented that such dilation is associated with preserved stroke volume and improved mortality
- Established a rapid and feasible method to measure heart rate volatility in a murine model, and demonstrated that decreased heart rate and blood pressure variability are predictive of outcome
- Demonstrated that mesenchymal stem cells from human umbilical cord blood modulated angiogenic and metalloproteinase genes in cardiac myocytes, suggesting a possible role in remodeling
- Showed that active surveillance cultures identified many more colonized subjects, especially subjects colonized with vancomycin resistant enterococcus (VRE)
- Demonstrated that universal gloving had no effect on the incidence density of colonization or infection with methicillin resistant staphylococcus (MRSA)/vancomycin-resistant enterococcus (VRE), MRSA alone, or VRE alone
- Showed that the RNA binding protein increases estrogen receptor alpha mRNA stability in human breast cancer cells
- Showed that inhibition of DNA methyltransferase and histone deacetylase results in decreased estrogen receptor mRNA stability
- Developed a new, modified, extra peritoneal, heterotopic femoral heart transplantation model in the rat
- Demonstrated the use of pulse doppler and m-mode to assess viability of a heterotopic heart transplant in the rat
- Demonstrated that heart rates of allogeneic heterotopic transplanted hearts may grossly indicate development of immunotolerance induced by an isolated vascularized bone marrow transplant in rats
- Demonstrated a substantially higher population of CD4+CD8+ double-positive lymphocytes in rats receiving an isolated vascularized bone marrow transplant
- Quantified the increased concentration of hemosiderin-laden macrophages in spleens of rats receiving a cellular bone marrow transplant (BMT) compared to isolated vascularized BMT, which may represent sub-clinical GVHD

- Quantified, via an enzyme-mediated assay, the inoculation volume delivered by suture needle stick injury and proved that two gloves provide better protection than one
- Completed research showing immunogenicity of certain cochleate formulations and adjuvants for subunit HIV vaccines, funded through a subcontract from an NIH SBIR grant
- Established ICAM Research Laboratory and began basic and clinical research programs
- Discovered a novel mechanism that causes errors in the transmission of genetic information during transcription due to frame shifting by RNA polymerase
- Demonstrated that the conformational changes that occur in T7 RNA polymerase during the transition from an unstable initiation complex to a stable elongation complex involve a multistep pathway
- Demonstrated that lizard adrenal cells respond to ACTH in a polyphasic manner, with up to 4 components that are influenced by gonadal functional status and stress
- Demonstrated that inhibition of p53 by pifithrin-alpha reduces myocardial infarct area and attenuates inflammatory response in aged rats following myocardial ischemia-reperfusion
- Completed the total synthesis of Resolvin D6 and its deuterated analog
- Completed the total synthesis of the major urinary isoprostane metabolite and its deuterated analog
- Completed the total synthesis of epimeric Resolvin E1
- Completed the total synthesis of epimeric Resolvin D6
- Demonstrated that macrophage depression in sepsis was mediated by High Mobility Group Box – 1 (HMGB1) transmigration from nucleus to cytoplasm, and that the HMGB1 transmigration and cellular depression could be reversed by inhibition of IFN-gamma
- Discovered a novel mechanism of errors generation during transcription by cellular RNA polymerases
- Demonstrated that elongation complexes of the bacterial RNA polymerases possess distinct translocation conformations
- Completed crystallization of the *T. thermophilus* RNAP transcription elongation complex
- Conducted genetic and biochemical studies of a conserved structural element in the largest subunit of *E. coli* RNA polymerase, a major docking site for transcription elongation factors, and demonstrated its involvement in the mechanism of RNA synthesis and translocation
- Characterized the mechanism of transcription activation by transcript cleavage factor GreA during RNA polymerase promoter escape using four selected *E. coli* transcription units representing part of GreA-regulon
- Developed a step-by-step structural model for intrinsic transcription termination that can be directly tested experimentally
- Developed methods for the detection of microRNAs in tissues at single-cell resolution

- Characterized a mouse knockout of microRNA cluster miR-290-295
- Discovered a major difference in the function of two calcium sensor proteins – neurocalcin and hippocalcin
- Identified a new component in circadian rhythms involving cyclic GMP
- Demonstrated that toxic amyloid peptides can cross a defective blood-brain barrier and accumulate in the same neuronal subtypes that are vulnerable to Alzheimer’s disease pathology
- Identified three putative neuronal protein targets of human autoantibodies that may play a role in mediating Alzheimer’s disease pathology
- Demonstrated that chronic diabetes and hyperlipidemia can reproducibly lead to blood-brain barrier breakdown in a porcine animal model
- Demonstrated the presence of neuron- and glia-binding autoantibodies in the sera of autistic children
- Demonstrated the presence of neuron-binding autoantibodies in the serum of Down syndrome patients
- Continued to collect data on the prevalence of anti-neuronal antibodies in human serum
- Discovered that the production of the amyloid precursor protein (the source of the toxic amyloid peptide in Alzheimer’s disease) is much lower in the brain than in a number of other peripheral organs
- Discovered a novel method for eradicating bacterial biofilms by treating biofilms with a matrix-dependent enzyme and detergent
- Developed a method to purify large quantities of leukotoxin, and showed that this toxin is active in whole blood against white blood cells
- Developed a rapid quantitative assay to screen thousands of potential anti-leukemia drugs at a time or multiple concentrations of drug in a 96- or 384-well format
- Developed a fusion peptide consisting of lactoferrin and statherin, two salivary proteins that inhibit the growth of organisms that cause dental plaque and caries
- Implemented a prostate cancer outreach program for African-American men using barbershops
- Focused on the relationship between alcohol use during the first year following alcohol use disorders (AUD) treatment and longer-term functioning (i.e., 3 and 10 years later)
- Found that minorities have higher rates of mobility device use than whites, largely because minorities are more likely to adopt mobility devices, but are no different than whites in the likelihood of discontinuing use
- Found that controlling for need and enabling factors accounts for racial differences in the use of wheelchairs and walkers, but not differences in the use of canes

- Found that since minority elders seem to procure devices in relation to their need, efforts to address racial disparities in mobility disability may need to focus more on racial differences in the causes of mobility disability rather than the accommodation of disability
- Found that the chances of an older adult developing difficulty with activities of daily living over a 6-year period is higher for those who are obese at baseline compared to those of normal weight, and that the chances of developing lower body limitations increase with increasing body mass
- Discovered that older adults spend about 5 hours per day on activities of daily living and other instrumental activities of daily living
- Discovered that the single question used in the National Health Interview Survey to identify assistive technology use may underestimate such use by as much as 50% among adults ages 50 and older
- Analyzed the 2005 Pilot Study on Technology and Aging and found that one in four adults ages 50 and older might be targeted for an environmental modification in their home, and that approximately 27% of adults ages 50 and older currently are able to fully accommodate to limitations in personal care activities with assistive devices
- Identified several contributing factors in a comprehensive review of reasons for declines in late-life disability since the 1980s
- Found that late-life disability trends for the 1995-2004 period are, in part, the result of shifts of factors present earlier in life
- Developed a general variable selection method for model building in medical studies
- Developed a field evaluation (now being used in a large longitudinal exposure characterization study for the US Environmental Protection Agency) that showed anticipated method performance for measuring formaldehyde, acetaldehyde, and acrolein (air toxics).
- Found that walking for two hours in a city street filled with diesel-powered vehicles leads to a reduction in lung function, acidification of the airway, and inflammation of the lung in patients with mild or moderate asthma
- Found that concentrations of amino-PAHs (urinary metabolites of diesel-specific emissions) increased after a one-hour exposure to diluted diesel exhaust, and that these metabolites may serve as biomarkers of diesel exhaust exposure
- Received a supplement from the National Cancer Institute to expand the current scope of work to include smokeless tobacco
- Produced 4 tobacco surveillance data briefs for the New Jersey Department of Health and Senior Services on the following topics: secondhand smoke, school tobacco policies, adult cigarette smoking prevalence, and sales of cigars and smokeless tobacco
- Produced 2006 New Jersey Smoke-Free Air Act Policy Survey Report
- Produced 2006 New Jersey Youth Tobacco Survey Report
- Found that Snus (Swedish smokeless tobacco) reduces users' risks of starting to smoke and increases smokers' chances of quitting in Sweden

- Found that people who wake up at night to smoke have a significantly lower success rate when they try to quit smoking, and that gathering this information is an important and easy way to measure nicotine dependence
- Found that African-American and Hispanic smokers are more likely to smoke mentholated cigarettes than white smokers, and that they have a significantly lower quit rate than African-American, Hispanic, and white smokers of non-mentholated cigarettes, suggesting that mentholated cigarettes are more addictive
- Found that the tobacco industry in the United States has sold over 20 trillion cigarettes, causing over 13 million premature deaths in the United States since the 1964 US Surgeon General's Report
- Found that labeling on nicotine replacement products is overly cautious and discourages smokers from using these medicines in the most effective manner
- Developed and applied an ongoing content analysis methodology to tobacco industry direct mail marketing
- Completed the collection of qualitative and quantitative data from focus groups and individual surveys about barriers and incentives to participation in cancer clinical trials in New Jersey
- Completed pilot study of in-store advertising of tobacco in New Jersey retail stores, and continued ongoing surveillance of tobacco marketing in general
- Examined if racial differences exist in the treatment of early breast cancer between African-American and white women
- Investigated the role of patient, care-process and physician level factors in explaining racial disparities in the treatment of breast cancer
- Examined the age- and race-specific rates of use of initial adjuvant hormonal and/or chemotherapy for New Jersey patients with localized breast cancer
- Identified physician reasons for not providing consensus-recommended adjuvant systemic therapy
- Conducted needs assessment and evaluation of the "Roadmap to Banishing Childhood Overweight among Hispanic WIC Participants Intervention Program"
- Linked the New Jersey Cancer Registry with the New Jersey Medical files to examine racial differences in the treatment of breast cancer among Medicaid patients in New Jersey
- Completed the review of birth certificates from all 50 states and identified a number of data fields that are collected in only one or a few states

CLINICAL SCIENCES

- Demonstrated that increases in left ventricular mass are more pronounced in low ejection fraction heart failure as compared to normal ejection fraction heart failure
- Reported on sudden cardiac death in a young man with takotsubo cardiomyopathy

- Demonstrated visualization of left ventricular non-Hodgkin lymphoma with contrast echocardiography
- Reported the incidence of 'true' obstructive coronary artery disease in ICU patients admitted with cardiac and noncardiac diagnoses and modest troponin elevations
- Studied the efficacy and safety of aliskiren in preventing left ventricular remodeling in high risk patients with recent myocardial infarction
- Assessed the efficacy and safety of darbepoetin alfa treatment on mortality and morbidity in heart failure patients
- Examined the safety and efficacy of ambrisentan in patients with pulmonary hypertension
- Evaluated warfarin vs. aspirin to prevent complications in patients with reduced cardiac ejection fraction
- Evaluated the effectiveness of nesiritide in patients with acutely decompensated heart failure
- Studied the effects of KW-3902 on heart failure signs and symptoms and on renal function in patients with acute heart failure syndrome and renal impairment
- Described a rare case of unrepaired Tetralogy of Fallot with right hemitruncus in an adult
- Investigated the correlation between heart rate variability (frequency domain) and heart rate recovery in patients undergoing stress testing
- Examined the correlation between the daily incidence of acute heart failure and low minimal night temperature
- Described the clinical implications of non-invasive measurement of cardiac output by whole-body bio-impedance during dobutamine stress echocardiography in patients with left ventricular dysfunction and ischemia
- Studied Osteopontin levels pre- and post-spirolactone administration in hemodialysis patients with low ejection fraction heart failure
- Compared patent foramen ovale closure to the established current standard of care treatment for recurrent stroke
- Studied the efficacy and safety of AZD6140 compared to clopidogrel in preventing vascular events in patients with acute coronary syndromes
- Compared three imaging modalities in diagnosing aortic rupture
- Reported the first retrospective study on the occurrence of Guillain Barre Syndrome in 2004 after vaccination in the USA
- Reported a novel use of magnetic stimulation in lumbar plexopathy complicated by hematoma
- Reported the first series of patients with celiac disease neuropathy, in whom small fibers neuropathy responded to IV treatment with immunoglobulin

- Reported a new electrodiagnostic technique for studying the posterior antebrachial cutaneous nerve
- Demonstrated that dietary-resistant starch improves bone mineral density during weight cycling in experimental animals
- Discovered that the summertime increase in blood lead in young Newark children is associated with an increase in serum levels of 25-hydroxy-vitamin D, influenced by both age and race
- Demonstrated that there are substantial inter-individual differences in renal and gastrointestinal excretion of potassium
- Examined Tramadol dependence/abuse in pain management practices in the United States
- Demonstrated the efficacy of a sutured epidural catheter for epidural block in obstetric patients
- Demonstrated the benefits of "TSE Mask": A technically simple and effective method to improve oxygenation in moderately sedated patients during upper endoscopy
- Demonstrated that a stylet reinsertion, upon reaching ligamentum with an epidural needle, reduces the incidence of accidental dural puncture
- Demonstrated that the addition of epinephrine to ropivacaine reduces the incidence of epidural blood vessel puncture in regard to epidural block for cesarean section
- Demonstrated a new use for the glidescope
- Demonstrated the effects of Anti-VEGF antibody on blood-brain barrier disruption in focal cerebral ischemia
- Demonstrated the effects of deferoxamine on blood-brain barrier disruption and VEGF in focal cerebral ischemia
- Showed the enhancement of organ donation by means of Internet education
- Showed how a sudden cardiac arrest during cesarean section in a healthy parturient was successfully managed by a rapid response team
- Demonstrated the addition of ondansetron to IV-patient controlled naloxone further improves post C/S epidural-fentanyl-induced pruritus treatment
- Showed that the epidural-PCA analgesia requirement for labor pain is reduced during the night
- Demonstrated the negative inotropic effects of natriuretic peptides are attenuated in isolated myocytes from thyroxine-induced hypertrophic hearts in rabbits
- Finalized protocols for a study of controlled exposure of asthmatics to diesel exhaust
- Published findings on Gulf War I veterans demonstrating that deployment was an independent risk factor for psychiatric illness 10 years later

- Published findings that symptoms among Gulf War I registry veterans did not significantly improve between 1995-2000, ten years after the war
- Expanded evaluation of the practice improvement interventions utilized in participating practices nationwide that target four behaviors: risky drinking, smoking, unhealthy diet and lack of physical activity
- Identified factors in an evidence-based early warning system to identify and remediate at-risk practitioners who are at a high probability of causing harm to the public
- Outlined organizational features of family medicine practices which include complementary alternative medicine techniques
- Examined hyperlipidemia guideline adherence and the effect of patient gender
- Enhanced the primary care research network features including convocations, practice manager focus groups and website support to participating members
- Developed a website as a broad resource for qualitative research
- Enhanced a conceptual model for social capital for examining work relationships in primary care practices
- Studied the variation in electronic prescribing implementation among twelve ambulatory practices
- Demonstrated the impact of a quality improvement intervention in primary care practices on staff turnover
- Compared results of electronic medical record systems and adherence to diabetes guidelines in primary care practices
- Studied colorectal cancer screening among obese vs. non-obese patients in primary care practices
- Described a new role for the plasmacytoid dendritic cell in the pathogenesis of Multiple Sclerosis
- Developed a laboratory assay that distinguishes responders from non-responders to treatment with Glatiramer acetate in Multiple Sclerosis
- Identified a potential biomarker (Interleukin-10) of treatment response to Interferon-beta in Multiple Sclerosis
- Demonstrated in a mouse model of Multiple Sclerosis the feasibility and efficacy of using adult bone marrow stem cells as a vehicle to deliver Interferon-beta to the brain
- Completed a longitudinal analysis of a decade's worth of clinical observations of patients with progressive supranuclear palsy
- Collaborated on a study that led to the discovery of a new genetic risk locus for progressive supranuclear palsy on chromosome 11

- Found that a genetic variant of a detoxification gene, glutathione S-transferase, is associated with younger onset of Parkinson's disease
- Confirmed the relevance of the above glutathione S-transferase genetic effect on Parkinson's disease onset age in a large cohort of dually-affected sibling pairs
- Participated in a collaborative study that identified two novel mutations in the CLCN1 gene of myotonia congenital
- Demonstrated the benefit of long-term video EEG in the evaluation of intractable headache and anxiety
- Continued research on the causes of recurrent pregnancy loss, as well as second trimester pregnancy loss
- Reviewed the literature on fibrocystic breast disease and preterm labor diagnosis and management
- Published a description of how mirror syndrome develops in association with a fetal sacrococcygeal teratoma
- Published a comprehensive review of placental abruption for a clinical expert opinion series and for a text on high risk pregnancy
- Described the successful management of a pregnancy associated with hereditary telangectasia
- Demonstrated that the risk of thromboembolic disease is increased in siblings and parents of women with placental abruption
- Described how placental abruption may be mediated in part by acute and chronic inflammation
- Demonstrated that placental abruption and low birth weight is at least partially mediated by thrombophilia status
- Completed a study evaluating rates and causes of morbidity in women receiving both antepartum and postpartum anticoagulation
- 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
- Developed and presented a predictive model for the identification of organ system-specific fetal structural abnormalities based on the identification of an index abnormality
- Prepared a comprehensive review of postpartum hemorrhage for publication
- Reported a series of vasa previa cases and how 3-dimensional ultrasound can be used for diagnosis and management
- Continued research using a new method for creating nomograms of fetal biometry to describe normal fetal size and development throughout gestation

- Completed a study examining the accuracy of fetal transcerebellar diameter for the prediction of gestational age in growth-restricted and large-for-gestational-age fetuses
- Demonstrated that the “protective” effect against preeclampsia of smoking during pregnancy is dependent upon reduced fetal growth
- Described the relationship of several polymorphisms in the folate metabolism pathway to placental abruption
- Reported that first-degree female (but not male) relatives of women with placental abruption are at increased risk for thromboembolic disease
- Continued enrolling subjects in a study examining the relationship of fetal growth restriction and inherited thrombophilias
- Continued collaboration with Rutgers University to look at the possible correlation between transcerebellar diameter and other cranial anatomy with autism
- Continued research on various phthalates and pesticides and the relationship between the maternal and fetal compartment at the time of delivery
- Demonstrated that sleep apnea is linked to adverse obstetric outcomes
- Continued research on critical care in the obstetrical patient
- Initiated a study evaluating minimally invasive *in utero* treatment for fetal twin-reverse arterial perfusion syndrome
- Described a mega-analysis of delayed interval delivery in twin pregnancies in the United States
- Reported the unusual features of a splenic ectopic pregnancy
- 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
- Initiated participation in a multicenter study of a new tocolytic medication for the treatment of preterm birth
- Initiated a study of sonographic evaluation of the endocervical glands for the prediction of preterm birth
- Initiated an outcome evaluation for first trimester aneuploidy screening
- Demonstrated that the reduced risk of pregnancy-induced hypertension due to smoking is mediated through birthweight
- Described the contribution of race to recurrence of stillbirths
- Described variations in infant mortality rates by Hispanic ethnicity
- Evaluated if maternal race is a contributor to stillbirth recurrence

- Identified that missing paternal characteristics is significantly associated with increased risk of uteroplacental bleeding disorders, suggesting differential reporting
- Described how the etiology of placental abruption varies significantly between preterm and term gestations
- Evaluated the recurrence of spontaneous and medically indicated preterm births
- Discovered the associations between acute and chronic respiratory diseases in pregnancy and risk of placental abruption
- Distinguished between the physiologic and pathologic contributions to black-white disparities in fetal growth in the United States
- Examined the influence of cesarean delivery on temporal trends in triplet stillbirth rates in the United States
- Identified maternal and fetal conditions necessitating a medical intervention resulting in preterm birth
- Described the epidemiology of preterm birth and its clinical subtypes
- Discovered that the high rates of preterm and postterm birth in the United States are being driven by an artifact of gestational dating
- Evaluated the associations between polymorphisms in Methionine Synthase Reductase and Betaine-Homocysteine S-Methyl-transferase genes and the risk of placental abruption
- Initiated a study to evaluate serum Anti-Mullerian Hormone and Inhibin B levels as early predictors of a successful *in vitro* fertilization cycle in women over 38 years
- Initiated a longitudinal prospective study of ovum donors after donation
- Continued a prospective randomized trial evaluating the efficacy of needle acupuncture and laser acupuncture on implantation and pregnancy rates in women undergoing *in vitro* fertilization cycles
- Continued an evaluation of donated human embryos for study of normal and abnormal differentiation and development following *in vitro* fertilization
- Continued a laboratory evaluation of *in vitro* fertilization culture media and follicular fluid for optimization of techniques for assisted reproduction
- Initiated a study of implantation rates following chemical- or thermal-assisted hatching of the zona pellucida
- Completed a clinical trial to investigate the efficacy and safety of a single injection of ORG 36286 to induce multifollicular development for controlled ovarian stimulation using daily recombinant FSH as a reference
- Initiated a pregnancy and neonatal follow-up of ongoing pregnancies established after controlled ovarian stimulation in clinical trial 38819 for ORG 36286 (Corifollitropin Alpha)

- Initiated a follow-up protocol to collect the outcome of frozen thawed embryo transfer cycles after cryopreservation of embryos in clinical trial 38819
- Continued an evaluation of human sperm parameters as predictors of pregnancy outcome following assisted reproductive techniques
- Continued a cross-over study evaluating the use of recombinant LH in the late follicular phase for controlled ovarian hyperstimulation in donor oocyte patients previously treated with recombinant FSH in a long luteal downregulated cycle with GnRH agonist
- Initiated an evaluation of oocytes and embryos by the oosight imaging system to examine, assess and determine oocyte and embryo viability and competency
- Initiated an evaluation of genes and gene polymorphisms associated with infertility to better understand reproductive competence
- Analyzed prospectively the changes in ovarian morphology during hormonal pituitary suppression before *in vitro* fertilization
- Studied how basal and cycle androgen levels correlate with *in vitro* fertilization stimulation parameters but do not predict pregnancy outcome
- Evaluated the enhancement of adjuvant therapy on endometrial receptivity in patients undergoing assisted reproduction
- Evaluated basal ovarian cysts and clomiphene citrate ovulation cycles
- Studied the prognostics of human blastomere transcriptome and candidate noninvasive molecular preimplantation of embryo for reproductive competence
- Completed an evaluation of low dose aspirin therapy in poor-responder patients undergoing *in vitro* fertilization
- Completed a paired analysis of a luteal estradiol protocol in patients undergoing *in vitro* fertilization
- Completed an evaluation of pregnancy outcomes in patients with elevated follicle stimulation hormone levels undergoing *in vitro* fertilization
- Contributed to the efficacy, safety and patient acceptance of extended cycle combination hormonal contraception
- Reviewed studies from 1986 to 2006 assessing the impact of additive sugar on cardiovascular disease in adults and children
- Studied the safety and efficacy of Bazedoxifene/conjugated estrogens combinations in post-menopausal women with vaginal dryness
- Evaluated the effects of the progesterone intrauterine device in the treatment of menorrhagia
- Compared the efficacy of hormonal oral contraceptives vs. placebo in the treatment of menorrhagia

- Explored the safety, efficacy and side effects of a low dose combination of oral contraceptive pill for 21 days followed by seven days of the hormone ethinyl estradiol, instead of seven days of a placebo as in a standard birth control pill
- Examined a new technique for evaluating cervical dysplasia in women with abnormal Pap screenings
- Explored the safety profile and the efficacy of flibanserin in the treatment of pre-menopausal women with hypoactive sexual desire disorder
- Examined the effects of Tolterodine ER on urgency and frequency of urinary incontinence, sexual quality of life, and sexual function in women with overactive bladder
- Completed a two-year follow-up study on the effects of pelvic floor exercises on bladder dysfunction
- Assessed the impact of an educational video and written materials on patient knowledge of osteoporosis and patient compliance with bone-sparing pharmacologic interventions
- Evaluated the efficacy and safety of 2 low-dose regimens of vaginal conjugated estrogen cream in post-menopausal women with atrophic vaginitis
- Determined the physiological pattern of the bone reabsorption marker serum CTX (sCTX) in relation to the menstrual cycle of healthy pre-menopausal women
- Assessed the efficacy, safety, tolerability and dose range of PD-0299685 in the treatment of moderate to severe menopausal vasomotor symptoms
- Evaluated the efficacy and safety of ospemifene in the treatment of post-menopausal vulvar and vaginal atrophy
- Studied compliance and adherence to weekly vs. monthly bisphosphonate drug use in menopausal women
- Investigated a new intravenous medication for the treatment of osteoporosis
- Investigated the use of the hormonal intrauterine device for the control of abnormal uterine bleeding
- Investigated a new technique to detect abnormal cervical cells of women with abnormal PAP smears
- Investigated the efficacy of a newly formulated oral contraceptive for women
- Published a state-of-the-art consensus article on diagnosis, treatment and management of vulvodynia
- Collaborated with the Division of Hematology regarding the incidence of bleeding disorders in women and female adolescents
- Collaborated with the Department of Neurology on hormonal treatment for patients with Multiple Sclerosis
- Described the availability of over-the-counter emergency contraception

- Studied the implementation of quick-start contraception in postpartum patients to improve access
- Developed a continuing education module on the gynecological annual visit
- Initiated a collaborative study to determine if obstetrical group teen visits improve outcomes
- Published a review of the diagnosis and management of women with chronic pelvic pain
- Published a review of the diagnosis and management of spontaneous abortion
- Demonstrated that rapid HIV testing can be implemented successfully in Emergency Medicine departments
- Demonstrated the ability of state-funded rapid HIV testing to meet new CDC guidelines for HIV testing
- Received a U.S. patent for developing a robotic system for performing automated imaging, analysis and archiving of cancer tissue microarrays
- Collaborated on a project using IBM's World Community Grid to establish a library of expression patterns of immunostained pathology specimens for improved prognostic accuracy for cancers of the breast, colon and head and neck
- Collaborated with scientists from Siemens Corporate Research, Inc. to begin developing a non-invasive approach to colorectal screening using CT colonography and epigenomic markers
- Received competitive extramural funding to design, develop and evaluate a database of genomic profiles to investigate the underlying mechanism of disease progression in colorectal cancer
- Demonstrated that Intralipid errors in the NICU occur mostly in the administration phase of the medication usage process
- Filed a provisional patent for an 'event annotator' showing utility of SPC Algorithm to identify respiratory pauses in neonates
- Devised a technology for assessing endotracheal tube position in the intubated neonate non-invasively, without serial x-rays
- Demonstrated that phthalate plasticizers exert inflammatory effects in neutrophils, possibly contributing to chronic diseases in neonates
- Showed that the process of labor imposes inflammatory stress on compromised neonates
- Demonstrated that responses to lipoxin A4 are reduced in neonatal leukocytes, leading to impaired resolution of the inflammatory response
- Identified defects in the production and responsiveness to anti-inflammatory eicosanoids in neonatal neutrophils relative to adult cells
- Identified unbound bilirubin concentrations using a novel method

- Measured unbound fatty acid levels in the placenta
- Examined the impact of the revised hyperbilirubinemia guidelines on hospitals and practitioners
- Determined the presence of a drift in the diagnosis of Sudden Infant Death Syndrome (SIDS) by race
- Identified the roles of nursery personnel in educating parents about SIDS
- Demonstrated the efficacy of tin-mesoporphyrin in the treatment of neonatal jaundice
- Demonstrated an electrocardiogram belt tension device in premature infants for assessment of respiratory function
- Studied the relationship between prenatal betamethasone and apnea in infants
- Identified lipid peroxidation products in the umbilical cord as indicators of outcome
- Examined early risk, attention and brain activation in adolescents born preterm
- Led a national mentoring conference for young researchers on Latino Mental Health
- Described a pilot program of Cognitive Behavioral Therapy for depression in patients with Parkinson's disease
- Demonstrated the positive effect of the SSRI, escitalopram, on hot flashes in menopausal women
- Investigated the effect of ACRIN on whole body MRI in the evaluation of pediatric malignancies
- Conducted a follow-up of patients given polyvinyl alcohol particles and a catheter for a uterine artery embolization procedure and a myomectomy procedure in order to determine product labeling for these procedures and to gain FDA approval
- Continued investigation with ACRIN of follow-up subjects receiving contemporary screening for the detection of lung cancer
- Completed a randomized, double-blind study to evaluate the efficacy and safety of Alfimeprase in subjects with occluded central venous access devices
- Studied pre-operative and post-operative Tri-phasic computer tomography of the liver
- Investigated hemodynamic assessment of renal artery disease
- Collaborated with CINJ on NIH grant submission, U01NIH
- Conducted a pilot study of the efficacy of dual-phase computed tomographic angiography in patients with suspected peripheral arterial occlusive disease
- Collaborated with the Department of Surgery on performing MRIs at baseline, 6 months and 12 months for a Duragen Study

- Investigated the relationship between polymorphisms of MDM2 and MIF on outcome variables in critically ill patients
- Initiated studies to assess 10,000 to 500,000 single nucleotide polymorphisms (SNPs) in critically ill patients and to apply statistical algorithms to such data in order to determine associations with outcome variables
- Continued to evaluate the differential regulation of immune cell receptors and their relationship to polymorphisms in human volunteers administered standard reference endotoxin *in vivo* and in critically ill patients
- Demonstrated that Calcitriol slowed the rise of PSA in patients with prostate cancer and appeared to enhance the anti-tumor effect of platinum compounds and taxanes
- Generated data on molecular and genetic markers as prognostic factors related to outcome in patients with prostate cancer treated with radiation therapy
- Conducted a Phase I study to evaluate the safety and immunogenicity of a novel vaccinia and fowlpox vaccine incorporating the PSA gene sequence and TRICOM
- Concluded that vaccination with PROSTVAC-V and PROSTVAC-F combined with TRICOM is well tolerated and generates an immune response to vaccinia
- Showed that transfer of drug resistance genes to marrow progenitors via retroviral constructs can protect marrow from the toxic effects of certain drugs
- Discovered that Aplidin, a drug from a sea organism, potentiates the anti-tumor effects of cytarabine in leukemia and lymphoma tumors
- Discovered that Rapamycin, an mTOR inhibitor, potentiates the action of methotrexate
- Demonstrated an increased risk of endometrial cancer associated with high red meat consumption and a decreased risk with vegetable intake, particularly cruciferous vegetables
- Found that a microRNA (miR-130a) is responsible for the downregulation of the antiangiogenic homeobox gene GAX/MEOX2, suggesting it may be a potential target for the antiangiogenic therapy of cancer
- Detected the presence of metabotropic glutamate receptors in breast cancer and found that inhibiting them may inhibit breast cancer growth
- Demonstrated outcome-volume relationships in pancreatic surgery in the State of New Jersey
- Discovered that the BCCIP status may predict the outcomes of radiation therapy in certain types of cancer
- Discovered the presence of metabotropic glutamate receptors in melanoma and other cancers and found a role for these receptors in cancer progression
- Demonstrated the effect of soy on testosterone levels in men
- Demonstrated that autophagy is a potentially important mechanism of resistance in prostate cancer

- Demonstrated the safety of a prostate cancer vaccine in men with prostate cancer
- Demonstrated that calcitriol, a vitamin D derivative, can prevent prostate cancer in a mouse model
- Showed that microcirculation flow velocity and heterogeneity of flow during early goal-directed resuscitation of patients with septic shock are more impaired in non-survivors than in survivors
- Demonstrated that an increase in microcirculatory flow with early resuscitation of septic patients was associated with improved organ function, as assessed by SOFA (Sequential Organ Failure Assessment) scores
- Demonstrated that, compared to community-based estimates, many more smokers who are treated in the Emergency Medicine department achieved 7-day abstinence during a 1-month period
- Showed that smokers who attributed their Emergency Medicine department visit to a smoking-related health problem and who were admitted to the hospital were much more likely to quit
- Investigated a five-day moderate dose in-patient infusion of ketamine for the treatment of complex regional pain syndrome in a population with severe chronic pain
- Investigated a novel in-hospital automated blood glucose monitor (optimustm) in healthy volunteers with venous access
- Demonstrated new methodological aspects on the quantitation of humalog insulin by reversed-phase HPLC
- Provided a new perspective on the future of diabetes technology in the critically ill and perioperative patient
- Compared the accuracy of hospital blood glucose point-of-care analyzers to the hemocue 201 system using a gold standard reference
- Demonstrated that availability of more advanced point-of-care blood glucose meters does not yield acceptable glycemic control in the diabetic surgical patient
- Investigated the effectiveness of intensive insulin therapy in ICU patients over a 12-month period following implementation of an intensive insulin therapy protocol
- Investigated how surgical delays affect daily operating room throughput, and their potential economic impact for hospitals
- Assessed the clinical performance of first-responders during a simulated respiratory arrest with focus on interns' and senior residents' performance
- Found that the relationship of stroke volume per unit ejection interval is a non-invasively measurable proxy to dp/dt max for measurement of myocardial contractility
- Investigated the safety and efficacy of a fentanyl transdermal PCA system for postoperative analgesia after abdominal or pelvic surgery

- Investigated the effectiveness of a deep cervical plexus block for the treatment of atypical headache in a chronic pain patient population
- Showed the safety and efficacy (reduced pain and increased function) of Massage Therapy for osteoarthritis of the knee
- Conducted a collaborative pilot study of external Qigong Therapy for osteoarthritis of the knee that suggested Qigong provides improvement in function and pain relief
- Demonstrated a trend toward improvement in pain in a National Institutes of Health-funded pilot study of IV Micronutrient Therapy for Fibromyalgia Syndrome
- Demonstrated that a brief educational intervention delivered to high school students by faculty and by persons in recovery from serious mental illness can result in a significant reduction in stigmatizing attitudes towards persons with mental illness
- Found that pity, traditionally considered to be a component of positive attitudes towards mental illness, is actually positively correlated with stigmatizing attitudes towards persons with mental illness
- Found that the extent of psychiatric rehabilitation education is related to the extent to which students adopt the principles, goals, and practices of psychiatric rehabilitation
- Showed that psychiatric rehabilitation education can impact the performance of staff and outcomes at traditional inpatient psychiatric hospitals
- Found that relevant academic preparation and training was positively associated with psychiatric rehabilitation certification performance, while length of field experience was unrelated to performance
- Showed that teams with peer case managers (persons with severe and persistent mental illness themselves) are as effective as teams that do not have these individuals on staff
- Determined that, for persons with severe and persistent mental illness, readiness for employment can be objectively measured
- Found the perceived key barriers to producing significant employment outcomes from New Jersey PACT staff
- Conducted a survey-based study of patient confidentiality vs. disclosure of inheritable risk
- Developed a web-based headache assessment tool as part of a grant from the National Headache Foundation
- Demonstrated that initiation of Advanced Directives conversations is lacking among physicians who believe it is their primary responsibility to discuss the topic
- Demonstrated that diabetes educational programs and dietary programs are beneficial in helping patients manage their diabetes, and that the medical community needs to do a better job at educating at-risk populations
- Found shifts (among third-year medical students at SOM) in the three predominant Myers Briggs types, one from the Thinking to Feeling (56%) dimension, and one from the Perceiving to Judging (58%) dimension, which are consistent with previous research studies (Feeling types are more likely to choose primary care)

- Identified a relationship between the use of a cerebral oximetry monitoring system and adverse neurological events in cardiac surgery patients
- Collected data regarding the health care barriers for inner-city Camden elderly
- Demonstrated support for the disablement model among the elderly, and found that psychological factors such as loneliness and locus of control were related to level of disability
- Participated in a clinical trial assessing pulmonary outcomes in diabetics who were treated with a new drug therapy compared to the usual antidiabetic treatment
- Completed a clinical trial on the use of a new drug therapy in maintaining remission for patients with lupus nephritis
- Completed three clinical trials on the use of innovative drug therapies in the management of rheumatoid arthritis
- Completed three clinical trials on the use of innovative drug therapies in the treatment of fibromyalgia
- Confirmed the existence of specific relationships between MRI-vascular disease and patterns of impairment on neuropsychological tests that assess memory and executive control
- Presented new evidence linking specific patterns of neuropsychological impairment and specific pathological biomarkers in patients with Frontotemporal Dementia
- Developed and tested a new model designed to understand the cognitive basis of Everyday Action Impairment in patients with mild dementia
- Discovered that the major effect on cognition in patients with mild dementia of the medication Donepezil (Aricept) is to improve executive functions rather than memory
- Evaluated the effectiveness of once-weekly osteopathic manipulative therapy (OMT) delivered to continuing care retirement community residents in reducing their level of perceived pain and depression
- Demonstrated that, of five factors, only increased physician vigilance and higher patient compliance with medication regimens are associated with lower HgbA1c levels among older diabetic patients
- Demonstrated that physician counseling for cardiovascular disease risk factors was related to improved eating behaviors (i.e., increased consumption of fruits and vegetables), but not to exercise
- Demonstrated that women are more likely to use preventative medical services and dental services than men, and that men who did not utilize dental services are less likely to utilize preventative services
- Discovered that older residents of economically distressed areas performed poorer on 6 of 14 health indicators (i.e., obesity, smoking, colon cancer screening, physical activity, dental visits and immunizations) when compared to older residents in non-economically distressed areas
- Discovered that men with urinary incontinence often have more than one strategy to protect against the incontinence, are not being asked by physicians about symptoms, and may experience a significant decrease in quality of life

- Continued to collect demographic, medical, and psychosocial data on a relatively large, non-hospitalized, non-urban population of elderly HIV patients (i.e., 50 years of age and older) in Southern New Jersey
- Participated in two clinical trials on the effectiveness of innovative drug therapies for the treatment of dementia
- Assessed the relationship between risk factors for vascular dementia and neuropsychological test results for patients with mild-to-moderate Alzheimer's, vascular, and mixed dementias
- Found that dietary polyunsaturated fat intake correlated with increased isoprostane excretion during pregnancy
- Found that higher levels of total antioxidant production in urine decreased the risk of maternal preeclampsia
- Showed that circulating levels of Vitamin E in serum decreased the risk of small-for-gestation births and increased infant birth weight for gestation
- Showed that serum levels of Vitamin E were related to diet and to use of prenatal supplements
- Found that higher levels of isoprostane excretion, an indicator of oxidative damage to lipids, increased the risk of maternal preeclampsia in early pregnancy
- Developed a self-report instrument to measure self-reported cognitions differentiating patients with and without mania
- Determined that the severity of a patient's hopelessness about the future is related to his or her ability to resolve life's problems
- Ascertained that a patient's self-reported cognitive insights about his or her psychiatric problems discriminates among inpatients diagnosed with psychotic, bipolar, and major depressive disorders
- Confirmed that the therapeutic gains attributable to trauma-focused cognitive therapy for child sexual abuse continue for at least one year following treatment
- Surveyed NJ family practice physicians and found that they believed that patient confidentiality laws should be modified to address varying risks of inheritable disease
- Ascertained that the severity of self-reported depression not only differentiated bipolar patients diagnosed with manic, mixed, and depressed episodes, but also schizoaffective disorders with similar episodes
- Determined that a 7-item self-report measure of depression was able to screen for a major depression disorder in detoxifying inpatients with substance-related disorders
- Found that the daily hazard rate for committing suicide stabilizes in psychiatric outpatients approximately two years after seeking treatment
- Effected a significant change in weight, percent body fat and other chronic disease risk factors with a 12-week weight and exercise management lifestyle intervention program among overweight and obese individuals

- Identified differences in proteins of human papillomavirus (HPV)-induced oral papillomas of HIV-positive and HIV-negative individuals by conducting proteomic studies on archival-formalin-fixed paraffin-embedded tissue
- Found quicker healing time (by approximately half) in extraction sockets of dogs treated with autologous platelet-rich fibrin matrix (PRFM) alone, compared to traditional bone-regeneration procedures
- Discovered that anti-inflammatory cytokines can influence neuropathic pain, which has potential for treatment strategies
- Showed that burning mouth syndrome is induced by hypofunction of the corda tympani nerve (taste nerve)
- Discovered that the lactoferrin portion of the salivary fusion peptide exists in the mouths of children who have an aggressive form of periodontal disease, but have minimal to no dental caries
- Discovered that *Aggregatibacter actinomycetemcomitans* is highly associated with the initiation of localized periodontal disease in adolescents
- Demonstrated that gender moderates the relationship between sleep-disordered breathing and excessive daytime sleepiness in people with heart failure
- Demonstrated that sleep-disordered breathing was not associated with more fatigue, sleepiness, or depression in people with heart failure
- Showed that women with heart failure have better sleep efficiency and less sleep-disordered breathing than men, but no different self-reported sleep quality
- Showed that women reported significantly more fatigue and had objectively longer time onset of sleep and less sleep efficiency
- Found that African-American children's objective data indicates later bed time, more awakenings, and lower sleep efficiency
- Showed that napping is prevalent in cultural groups composed of both African-American and Hispanic families
- Demonstrated that self-reported depression, pain, sleep quality, excessive daytime sleepiness, and number of comorbid conditions were not significantly different for men and women with long-standing type 2 diabetes
- Demonstrated that pain explained 42% of the variance in sleep quality reported by people with long-standing type 2 diabetes
- Found that smoking behavior variables, theoretical variables, attitudes, and family social norms are predictors of Korean-American men's intention to quit and actual quit attempt
- Demonstrated that, in the U.S., identification and reporting of intimate partner violence to the national surveillance system needs tremendous improvement
- Showed that, in Jordanian society, wife abuse is viewed as a family rather than a societal problem and is usually blamed on the victim

- Determined that the incidence of intracranial hemorrhage was unexpectedly high following external ventricular drainage of cerebrospinal fluid
- Demonstrated that breast cancer survivors that engaged in routine exercise increased their self-perception of physical esteem
- Demonstrated that participation in a 12-week exercise program led to significant increases in physical strength and physical self-esteem

EDUCATIONAL RESEARCH

- Reported ongoing efforts in NJ to improve physician and health professional awareness of Fetal Alcohol Syndrome as part of national CDC-funded FAS-related educational efforts
- Conducted a major national study on perceptions about the future that shows great personal optimism and great pessimism about the future of America
- Created community outreach programs for youngsters that encourage careers in medicine and health
- Supervised two programs run by medical students entitled, "Student Doctor Day" that were held in conjunction with national Make a Difference Day and received an honorable mention
- Offered education and alternatives to women with menstrual hemorrhage, pelvic pain and uterine fibroids
- Produced four issues of the WHI Newsletter for community distribution
- Conducted a seminar educating the community on the Rainforests of Dominica and tropical medicine
- Coordinated WHI Educational Seminars entitled "Food for Thought", "Supersize Seminar I" and "Supersize Seminar II"
- Initiated a summer health program with the New Brunswick Free Public Library for community youth
- Contributed to a round table expert panel on the clinical importance of nonvertebral fractures in a primary care setting
- Participated as an expert member of the North American Menopause Society's Professional Education Committee
- Presented "The Pelvic Examination: An Instructional Video" at the Annual ACOG meeting
- Created "Nurture Your Nature: Inspiring Women's Sexual Wellness Educational Slide Kit" with the Association of Reproductive Health Professionals, National Women's Health Resource Center
- Coordinated the 6th Annual Women's Health Symposium, September 2006
- Contributed to the North American Menopause Society's Expert Panel Position Statement on Menopausal Hormone Therapy

- Participated as a gynecologic member of the New Jersey Governor's Task Force on Women with Bleeding Disorders
- Organized, in collaboration with Women in Medicine, a roundtable discussion on Vitamin D
- Organized and presented at the Garden State Women's Annual Statewide Conference
- Organized and presented at the World Menopause Day Program
- Participated as an invited member on the Women's Health Steering Committee for *Garden State Woman Magazine*
- Served as a committee member on the Distinction in Service to Community Program
- Participated as a member of the Independent Advisory Committee on Androgens in Women
- Presented findings on low oxalate diet and sexual function in women with vulvodynia at the Annual ACOG meeting
- Completed the first assessment of national incidence data on vulvodynia symptoms
- Sponsored a Rutgers University work-study student as a nominee for "Student Employee of the Year"
- Presented vulvodynia findings in a poster entitled "A National Survey to Assess the Prevalence and Characteristics of Chronic Genital Pain, which was a winner of the ACOOG-Berlex Poster Competition at the ACOOG Annual Meeting
- Described the principles involved in determining the optimal timing for the implementation of educational interventions
- Described the tools needed to enhance the implementation of educational objectives in medical education
- Described how the hospital affiliations of OB/GYN medical-student clerkship sites determine the career choices of medical students
- Developed a training module to assist in educational interventions for medical training
- Collaborated with a medical resident to complete work on an RSNA web-based grant for developing the "Radiology Clerkship Companion for Medical Students"
- Conducted research with medical students on the hemodynamic assessment of renal artery disease
- Conducted research with a graduate student on the analysis of computed tomographic angiography of abdominal aortic aneurysms
- Conducted research with a graduate student on the registration of pre-operative and post-operative triphasic computed angiography of the liver
- Investigated fluid collections associated with dermal mesh with a medical resident and a medical student

- Studied the results of a uterine artery embolization procedure in women with pedunculated fibroids and uterine size > 20 weeks with a medical resident
- Conducted a study with a medical resident on visceral and renal artery aneurysms and endovascular therapy
- Discovered that family physicians' computer experience and use is significantly correlated with their attitudes about Evidence Based Medicine (EBM) and EBM skills, and that their attitudes about EBM are significantly correlated with EBM skills and experience, with females (and younger physicians) having significantly more positive attitudes about EBM than males (and older physicians)
- Demonstrated that within the UMDNJ-SOM Family Medicine residency program, a proximate clinical encounter does enhance knowledge gained at a traditional lecture on post-partum depression, as well as enhancing confidence in that knowledge
- Demonstrated that students who choose a primary care specialty career value service above prestige and scholarly activities
- Authored a criticism of the meaning of professionalism for medical education
- Surveyed Family Practitioners about using advance directives
- Developed questions and theories about the meaning and role of empathy
- Implemented curricular innovations to increase predoctoral medical students' knowledge, skills, and attitudes in the areas of public health, cultural competency, health disparities, and barriers to care, particularly among the Latino community
- Sponsored Free Prostate Cancer Screening to 60 people in Newark
- Conducted eight focus groups with African-American and Latino men and women to determine community perspectives on the availability and awareness of screening, education and treatment programs for breast, lung, colorectal and prostate cancers
- Enrolled 30 participants in a 17-week Worker Health and Safety-Minority Worker Training Program (26 graduated from the program; 17 graduates are currently employed)
- Identified job opportunities for the participants of the Worker Health and Safety-Brownfield Minority Worker Training Program
- Trained a total of 365 workers and presented 29 courses in hazard disaster preparedness (a total of 6,550 contact hours of training)
- Trained a total of 9,971 workers and provided 574 courses in hazardous wastes (a total of 32,570 contact hours of training)
- Developed a pandemic influenza tabletop exercise to help school officials in Middlesex County identify critical issues that need to be addressed in preparedness plans
- Developed a CD-based training presentation for health care providers about their role in the Laboratory Response Network

- Conducted a total of sixteen focus groups for middle- and high-school teachers and students and the general public to help guide the development of educational materials on public health issues
- Completed educational materials for Lead Poisoning Prevention Week (held every third week in October)
- Observed Asthma and Allergy Awareness Month and Lead Poisoning Prevention Week by using education materials on these topics with middle- and high-school teachers and students and the general public (impacting more than 500 people)
- Demonstrated definite improvement, following analysis of pre- and post-test evaluation data, in the knowledge and skills of 2nd-, 5th- and 7th-grade students who received instruction from the SUC2ES2 (Students Understanding Critical Connections Between the Environment, Society and Self) integrated, cross-curricular environmental health curriculum guides
- Trained 44 middle- and high-school teachers in the use of MedMyst, a web-based curriculum that teaches students about infectious diseases using interactive, problem-based and multi-disciplinary activities
- Trained 116 K-12th-grade educators, representing forty-nine school districts in the public and private sectors, at the 13th annual summer workshop series where teachers participated in five workshops on public health science issues
- Developed a case study and lesson outline for a new high school ToxRAP™ module using breast cancer as the theme, which was reviewed by teachers and students
- Provided over 250 courses, reaching over 3,000 occupational safety and health professionals
- Provided training in hazardous waste operations and scholarships for public employees to attend training
- Developed safety and health podcasts
- Created and presented “Historical Perspectives of Occupational Safety” and Health Bus Tour
- Provided mental-health preparedness training for public health professionals
- Implemented a psychological first-aid training program
- Provided public health training designed for local health officials
- Participated in the development of online training courses
- Implemented a public-health nursing summit to increase the academia/practice connection
- Developed Risk Communication training for providers on how to conduct an exposure assessment for deployment health risks, and also developed supporting educational materials
- Developed free, on-line, high school environmental health-science lessons that focused on science news articles published in recent issues of the NIEHS Environmental Health Perspectives Journal

- Trained over 1,000 school teachers and administrators on school-to-work occupational safety and health risks aimed at raising the level of awareness of occupational safety and health risks to youth throughout the state through training, newsletters, task-force meetings and publications
- Developing multimedia training lessons for skilled support personnel to be delivered over mobile telephones as they respond to incidents involving weapons of mass destruction
- Prepared approximately twenty-four briefs on nuclear power, transportation and weapons to be used by reporters covering issues
- Performed extended interviews with 100 senior citizens in Camden, New Jersey to identify barriers to healthcare and strategies for dealing with them
- Modified PBL program to meet the needs of UMDNJ-SOM

OTHER RESEARCH

- Completed enrollment and follow-up of 15 subjects in a clinical drug trial entitled “An Evaluation of the Activity and Tolerability of Moxifloxacin during the First Two Months of Treatment for Pulmonary Tuberculosis”
- Completed enrollment and follow-up in a multi-site epidemiologic study entitled “Prospective Evaluation of Risk Factors for Transmission of *M. tuberculosis* from Case-Patients to Contacts”
- Showed a preponderance of family-related psychiatric, developmental and psychological difficulties in families with autism
- Initiated research support through the creation of the NJMS Biostatistics Core Facility as part of the research core facilities of UMDNJ-NJMS
- Investigated technical-assistance providers’ experiences implementing universal behavioral interventions with public schools, and found five common barrier conditions and sets of complementary strategy sets used to remediate an encountered barrier
- 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
- Generated data suggesting that varenicline could be an important advance in the treatment of nicotine dependence
- Identified predictors of smoking cessation outcome in a large cohort of patients receiving intensive treatment for tobacco dependence
- Discovered that patients who smoke at night have worse outcomes, patients who use more than one pharmacotherapy have better outcomes, and patients who participate in group treatment have better outcomes

- Identified that compliance with evidence-based treatment was associated with improved treatment outcome, as was older age and having more than two children
- Determined that clinicians should encourage smokers who relapse after an initial treatment episode to return for treatment, and repeat treatment should focus on addressing high nicotine dependence and potentially co-occurring mental health problems in order to improve cessation outcomes
- Identified that the odds of initiating daily smoking were significantly lower for men who had started using snus than for those who had not (i.e, use of snus is associated with a reduced risk of becoming a daily smoker and an increased likelihood of stopping smoking)
- Showed that obese patients had 25% decreased odds of being screened for colorectal cancer compared to non-obese patients
- Determined that pulmonologists, cardiologists, and family physicians had the highest levels of familiarity and referral with regards to physicians' utilization of tobacco treatment services
- Determined that psychiatrists, neurologists, ophthalmologists, and surgeons had the lowest levels of familiarity and referral with regards to physicians' utilization of tobacco treatment
- Determined that physicians who were younger, female, who had more teaching hours and who accepted fewer new patients all had higher rates of referral with regards to physicians' utilization of tobacco treatment services
- Studied nicotine-dependence treatment in psychiatric comorbidity
- Characterized the functional significance of all the reported missense CYP2A13 genetic polymorphisms, and identified a "null" allele which will help in the selection of appropriate CYP2A13 polymorphisms in human cancers related to NNK and aflatoxin exposure
- Showed that prostate-specific 10-year survival for low-grade cancers was similar after prostatectomy, radiotherapy and conservative management, but survival of patients with high-grade cancers was significantly better after prostatectomy
- Discovered, by examining the rates of radical prostatectomy in Medicare beneficiaries before and after the introduction of PSA testing, a rapid increase in radical prostatectomies following the introduction of PSA testing, followed by a sharp decline particularly in older and white men
- Examined the interval after PSA screening and subsequent risk of incurable prostate cancer and found that, among those diagnosed with prostate cancer, the risk of non-localized cancer did not differ between those tested two or three years prior to diagnosis and those tested one year prior to diagnosis
- Discovered that the rate of PSA screening among men aged 75 or older was 32.5%, which was greater than that of fecal occult blood screening among men, despite lack of evidence suggesting a benefit of PSA screening in this elderly population
- Demonstrated for the first time in a cohort the association of occupational exposure to hydrocarbons and end-stage renal disease (ESRD)
- Demonstrated best practices for spatial analysis and mapping of health statistics to inform policymakers and the public

- Created a community health database with health information on all Camden City residents from three local hospitals
- Implemented a program to increase primary care research campus-wide through an individualized intensive research training program that includes the enrollment of primary care clinicians in the Masters of Public Health program
- Demonstrated that strength training and aerobic exercise offer similar benefits in enhancing both fitness and psychological well-being in elderly obese women
- Demonstrated that caregiver burden and satisfaction are significantly associated with spouses' depression, and that burden has a cross-partner effect on patient's depression
- Discovered that caregiving dyads coping with ESRD show high levels of stability in depressive symptoms over time, yet variability within dyads is greater than between dyads
- Found that Black and white spouses, but not Black and white patients, expressed significantly different preferences regarding dialysis continuation, as explained by caregiver burden and, to a lesser degree, spouse's report of patient health
- Demonstrated that there is more stability than change in patient preferences regarding continuation of dialysis over the course of one year, indicating that it is possible to maintain the voice of the patient in end-of-life decisions when patients themselves are unable to do so
- Showed that a spouse's positive and negative affect is associated with the other spouse's positive and negative affect over time within serious illness contexts such as ESRD
- Showed that changes in marital satisfaction are associated with changes in feelings of burden and benefit, and marital cohesion predicts decreases in care-related benefits in the context of ESRD
- Demonstrated that the patient and spouse's characteristics are related to the quality of life of ESRD patients, their spouses, and the spouse's ratings of patient's quality of life
- Found evidence that caregivers recruited using volunteer sampling are significantly more burdened, less satisfied, more depressed, and provide more help to care-recipients than those recruited by random digit-dialing methods and age-targeted listed households, which raises questions about the extent to which data gathered from volunteer samples can be generalized
- Ascertained that listed-household sampling methods produce samples of older adult populations similar to those achieved by random digit-dial methods, and at a considerable savings
- Opened the NJISA Research Call Center, a 19-stationed computer-assisted telephone interviewing facility
- Launched ORANJ BOWL, a longitudinal health study of New Jersey residents who are between 50 and 74 years of age, and recruited 1680 respondents
- Participated in the Boston Consensus Conference on Biomonitoring to consider the ethical, legal, social and scientific issues related to biomonitoring

RESEARCH PROJECTS: 2006-2007

FEDERAL FUNDING

Mechanisms of RasGAP in Cardiac Cell Growth and Survival; M. Abdellatif, NJMS; *National Heart, Lung and Blood Institute*

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

Diagnostic Viability of Umbilical Cord Specimens; S. Ali, NJMS; *United States Drug Testing Laboratories, Inc.*

Detection of Select Agents in Single-Well Assays; D. Alland, NJMS; *National Institute of Allergy and Infectious Diseases*

Sample Processing Cartridges for Rapid PCR B Detection; D. Alland, NJMS; *National Institute of Allergy and Infectious Diseases*

Towards Drugs that Prevent Resistance to the HIV OI, TB; D. Alland, NJMS; *National Institute of Allergy and Infectious Diseases*

Tuberculosis Genotyping and Evolutionary Consortium; D. Alland, NJMS; *National Institute of Allergy and Infectious Diseases*

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

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

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

Telomeres and Vascular Aging; A. Aviv, NJMS; *National Institute on Aging*

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

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

Cell-Targeting Peptide Nucleic Acids for Hormone Refractory Prostate Cancer; B. Barton, NJMS; *National Cancer Institute*

Analysis of Trypanosome mRNA Synthesis by Gene Transfer; V. Bellofatto, NJMS; *National Institute of Allergy and Infectious Diseases*

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

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*

SCORE (Standard Care versus Corticosteroid for Retinal Vein Occlusion) Study; N. Bhagat, NJMS; *National Eye Institute*

Age-Related Eye Disease Study 2 (AREDS2); 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*

Interaction of Borrelia Lipoproteins with the Cerebral Microcirculation; D. Cadavid, NJMS; *National Institute of Neurological Disorders and Stroke*

Genetic Components of Autism Spectrum Disorders-Consortium; C. Cartwright, NJMS; *National Institute of Mental Health*

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

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

Host Response and Aerosolization - UMDNJ Center for Biodefense; N. Connell, NJMS; *Department of Defense*

Task Order 1 - Tuberculosis Epidemiologic Studies Consortium; A. Davidow, NJMS; *Centers for Disease Control and Prevention*

Task Order 8 - A National Genotyping Registry for a Molecular Epidemiological Analysis of Multi Drug Resistant M. Tuberculosis; A. Davidow, NJMS; *Centers for Disease Control and Prevention*

Task Order 9 - TB Epidemiologic Studies Consortium - Enhanced Surveillance to Identify Missed Opportunities for TB Prevention in Foreign Born; A. Davidow, NJMS; *Centers for Disease Control and Prevention*

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

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

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

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

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

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

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

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

Molecular Mechanism in Spinal Cord Neurodegeneration; 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*

Expression of Tuberculosis in the Lung; J. Ellner, NJMS; *National Heart, Lung and Blood Institute*

US-Brazil Research Collaboration on Strain Variation in TB; J. Ellner, NJMS; *National Institute of Allergy and Infectious Diseases*

Progesterone and the Sexual Differentiation of Brain and Behavior; B. Fadem-Chenal, NJMS; *National Science Foundation*

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

Effect of Phosphate Metabolism on Phosphorus Levels in Aqua Culture Effluent; R. Ferraris, NJMS; *Department of Agriculture*

Using Genetic Approaches to Determine Dietary P Requirements of Large Rainbow Trout; R. Ferraris, NJMS; *Department of Agriculture*

Amnis ImageStream Cell Analysis System - Shared Instrumentation Grant; P. Fitzgerald-Bocarsly, NJMS; *National Center for Research Resources*

Plasmacytoid Dendritic Cells in HIV Pathogenesis; P. Fitzgerald-Bocarsly, NJMS; *National Institute of Allergy and Infectious Diseases*

Mechanisms of Cell Growth Arrest in Latent Tuberculosis; P. Fontan, NJMS; *National Institute of General Medical Sciences*

Alzheimer Disease Mechanisms in Lens Aging and Disease; P. Frederikse, NJMS; *National Eye Institute*

Cytokine Gene Expression During in Vivo Immune Response - TRANSFER; W. Gause, NJMS; *National Institute of Allergy and Infectious Diseases*

Gr-1 + Cells and the Response to Nematode Parasites; W. Gause, NJMS; *National Institute of Allergy and Infectious Diseases*

Proteome Screening for Tuberculosis Outcome Marker; M. Gennaro, NJMS; *National Institute of Allergy and Infectious Diseases*

Activation and Protection of Dendritic Cells in the Prostate Cancer Environment; G. Guruli, NJMS; *Department of Defense*

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*

Carotid Revascularization Endarterectomy vs Stenting Trial; R. Hobson, NJMS; *National Institute of Neurological Disorders and Stroke*

CPCRA - SMART Study; S. Hodder, NJMS; *National Institute of Allergy and Infectious Diseases*

Integrated Testing and Primary Care of Persons Living with HIV in Newark, NJ; S. Hodder, NJMS; *Health Resources and Services Administration*

Effects of Nonuniform Distribution of Radioactivity; R. Howells, NJMS; *National Cancer Institute*

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*

Coordination of Fetal Growth by Nutrient Availability; N. Illsley, NJMS; *National Institute of Child Health and Human Development*

Feline Model of Neuropathy with Anti-MAG/SGPG Antibodies; A. Ilyas, NJMS; *National Institute of Neurological Disorders and Stroke*

Catalytic Activation of Adenylyl Cyclase Type V; Y. Ishikawa, NJMS; *National Institute of General Medical Sciences*

Effectors and Inhibitors of SARS Virus Polymerase; N. Kaushik-Basu, 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*

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

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 Diseases*

Translating Research into Action for Diabetes (TRIAD II); N. Lasser, NJMS; *Centers for Disease Control and Prevention*

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

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

Exercise and the Brain: The Fight Against Juvenile Obesity; B. Levin, NJMS; *Ruth L. Kirschstein National Research Service Award*

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

3' End Formation of Human Type I and II Collagen mRNAs; C. Lutz, NJMS; *National Institute of Arthritis and Musculoskeletal and Skin Diseases*

Mechanisms of Post-Transcriptional Regulation; C. Lutz, NJMS; *National Science Foundation*

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

A Bioactive Type I Collagen-Based Nerve Guide for PNS Regeneration; A. Maniker, NJMS; *National Institute of Child Health and Human Development*

NJ Poison Information and Education System - Stabilization and Enhancement; S. Marcus, NJMS; *Health Resources and Services Administration*

Functions of Double-Stranded RNA Binding Proteins; M. Mathews, NJMS; *National Institute of Allergy and Infectious Diseases*

Ion Channels and Chemicals Controlling Synapse Stability; J. McArdle, NJMS; *National Institute of Neurological Disorders and Stroke*

Therapeutic Efficacy of Botulinum Metalloendoprotease Inhibitors: Protection and Recovery of Neurotransmitter Release and Neuromuscular Function; J. McArdle, NJMS; *United States Army*

Packaging of the Segmented Genome of Bacteriophage Phi6; L. Mindich, NJMS; *National Institute of General Medical Sciences*

Studies of DNA Pol I and Pol E2 of M. Tuberculosis; M. Modak, NJMS; *National Institute of Allergy and Infectious Diseases*

Neuroendocrine Regulation of Erythropoiesis Following Trauma; A. Mohr, NJMS; *National Institute of General Medical Sciences*

The Role of ICER in Ovarian Function; C. Molina, NJMS; *Ruth L. Kirschstein National Research Service Award*

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

Internet Disclosure for Multi-Symptom Illness; B. Natelson, NJMS; *Agency for Healthcare Research and Quality*

Sleep and Cytokines Chronic Fatigue Syndrome; B. Natelson, NJMS; *National Institute of Allergy and Infectious Diseases*

DNA Replication in Saccharomyces Cerevisiae; C. Newlon, NJMS; *National Institute of General Medical Sciences*

Modeling Interventions of Lung Cancer Mortality; C. Oh, NJMS; *National Cancer Institute*

NJMS Clinical Trials Unit: Targeting Pediatric, Adolescent, and Maternal HIV Infection; J. Oleske, NJMS; *National Institute of Allergy and Infectious Diseases*

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

Genome Targeted Inhibitors of Retroviruses; V. Pandey, NJMS; *National Institute of Allergy and Infectious Diseases*

Compensating Tat/TAR Mutations in Drug-Resistant HIV-1; T. Pe'ery, NJMS; *National Institute of Allergy and Infectious Diseases*

Mechanism of Arginine Transport in Cardiac Myocytes; R. Peluffo, NJMS; *National Heart, Lung and Blood Institute*

Mechanism of Clinical Resistance to Echinocandin: Antifungal Drugs; D. Perlin, NJMS; *National Institute of Allergy and Infectious Diseases*

Preventing Morbidity in First Episode Schizophrenia; G. Petrides, NJMS; *National Institute of Mental Health*

Antigenic Properties of the V1/V2 Domain of HIV-1 gp120; A. Pinter, NJMS; *National Institute of Allergy and Infectious Diseases*

Novel HIV Neutralizing Human MAbs from Transgenic Mice; A. Pinter, NJMS; *National Institute of Allergy and Infectious Diseases*

WARCEF Research Study - Warfarin vs. Aspirin in Reduced Ejection Fraction; P. Pullicino, NJMS; *National Institute of Neurological Disorders and Stroke*

Familial Intracranial Aneurysm Study; A. Qureshi, NJMS; *National Institute of Allergy and Infectious Diseases*

Antihypertensive Treatment in Acute Cerebral Hemorrhage; A. Qureshi, NJMS; *National Institute of Neurological Disorders and Stroke*

Gap Junctions Between Breast Cancer Cells and Bone Marrow Stroma Accounts for Cancer Cell Quiescence and their Evasion from Current Therapies; P. Rameshwar, NJMS; *United States Army*

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

Studies of Ocular Complications of AIDS (SOCA); R. Rescigno, NJMS; *National Eye Institute*

Repeat and Followup Tests (RAFTs) after Colonoscopy; R. Richards, NJMS; *Agency for Healthcare Research and Quality*

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

Glucosensing Neurons in Euglycemia, Hypoglycemia and HAAE; V. Routh, NJMS; *National Institute of Diabetes and Digestive and Kidney Diseases*

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

AT1 Signaling in Cardiac Hypertrophy and Apoptosis; J. Sadoshima, NJMS; *Ruth L. Kirschstein National Research Service Award*

Anti-Aging and Stress Resistance by Sir2; J. Sadoshima, NJMS; *National Institute on Aging*

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

The Role of Thioredoxin in the Aging Heart; J. Sadoshima, NJMS; *National Institute on Aging*

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

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*

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

Cardiovascular Regulation and Endogenous Opioid Peptides; 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*

Suppression: Effects of Advanced Energy Technologies; R. Servatius, NJMS; *United States Department of Defense*

Mouse Model of HIV-1 Infection and Drug Addition; L. Sharer, NJMS; *National Institute on Drug Abuse*

Molecular Mechanisms in HIV-1 Mediated Encephalopathy: Core B Neuropathology Core; L. Sharer, NJMS; *National Institute of Neurological Disorders and Stroke*

Prevention of Neointimal Thickening by Mst1; Y. Shen, NJMS; *National Institutes of Health*

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

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*

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*

PARS and Peroxynitrite Induced Cell Death; C. Szabo, NJMS; *National Institute of General Medical Sciences*

Effects of Ethanol on Contraction-Coupling on Cardiac Muscle Cells; A. Thomas, NJMS; *National Institute on Alcohol Abuse and Alcoholism*

Plasticity and Regeneration of Retinal Synapses; E. Townes-Anderson, NJMS; *National Eye Institute*

Visualizing the Movement of mRNAs in Living Cells; S. Tyagi, NJMS; *National Institute of General Medical Sciences*

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*

Oxidative Stress and ERK Signaling in AC-5 KO Longevity; D. Vatner, NJMS; *National Institute on Aging*

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

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Myocardial Hypertrophy and Heart Failure; S. Vatner, NJMS; *National Heart, Lung and Blood Institute*

Proteolytic Enzymes and Cataractogenesis; B. Wagner, NJMS; *National Eye Institute*

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

A Role of Ubiquitin Binding in Bcr-Abl Transformation; I. Whitehead, NJMS; *United States Army*

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

Nestin: A Putative Marker of a Mammary Stem and Progenitor Cell Lineage; T. Wood, NJMS; *National Cancer Institute*

Oligodendrocyte Generation-A Multifactorial Approach - TRANSFER; T. Wood, NJMS; *National Institute of Neurological Disorders and Stroke*

Tumor Suppressor and Oncogenic Pathways in the Placenta - TRANSFER; L. Wu, NJMS; *National Cancer Institute*

Novel Approaches for Burn Injury Cardiac Dysfunction; A. Yatani, NJMS; *National Heart, Lung and Blood Institute*

Ethanol and Mesolimbic GABAergic Neurons; J. Ye, NJMS; *National Institute on Alcohol Abuse and Alcoholism*

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

Psychoneuroimmunology of T Cell Activation; S. Zalcman, NJMS; *National Institute of Mental Health*

Altitude-Induced Hypoxia, IUGR and Placental Function; S. Zamudio, NJMS; *National Institute of Child Health and Human Development*

Enhancing Cell Survival of Aged Bruch's Membrane; M. Zarbin, NJMS; *National Eye Institute*

Identification of Human Cytomegalovirus Pathogenic Genes; H. Zhu, NJMS; *National Institute of Allergy and Infectious Diseases*

A Mouse Model for Prostate Cancer; C. Abate-Shen, RWJMS; *National Cancer Institute*

Chemoprevention of Prostate Cancer in Mutant Mice: Targeting the Androgen Receptor Signaling Pathway; C. Abate-Shen, RWJMS; *United States Department of Defense*

Mouse Model of Ovarian Cancer; C. Abate-Shen, RWJMS; *National Cancer Institute*

Roles of Msx1 in Vertebrate Embryogenesis; C. Abate-Shen, RWJMS; *National Institute of Child Health and Human Development*

Roles of Nkx3.1 in Prostate Development and Cancer; C. Abate-Shen, RWJMS; *National Cancer Institute*

Cognitive-affective Behavior Therapy for Somatization; L. Allen, RWJMS; *National Institute of Mental Health*

Epidemiologic Study of Placental Abruption; C. Ananth, RWJMS; *National Institute of Child Health and Human Development*

Phytoestrogens, Alcohol, and Endometrial Cancer Risk; E. Bandera, RWJMS; *National Cancer Institute*

Thymectomy Trial in Non-thymomatous Myasthenia Gravis Patients Receiving Prednisone Therapy; J. Belsh, RWJMS; *National Institute of Neurological Disorders and Stroke*

Mechanism of Action of Folate Antagonist; J. Bertino, RWJMS; *National Cancer Institute*

Regulated c-Myc Destabilization During Differentiation; G. Brewer, RWJMS; *National Cancer Institute*

Defining the Effect of Mutations on Collagen Folding; B. Brodsky, RWJMS; *National Institute of General Medical Sciences*

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Molecular Mechanism of SEC-1 P-Regulated Membrane Fusion; C. Carr, RWJMS; *National Institute of General Medical Sciences*

Focus (Detection of Myocardial Infarction); J. Carson, RWJMS; *National Heart, Lung and Blood Institute*

Histone Deacetylation in Oligodendrocyte Differentiation; P. Casaccia-Bonnel, RWJMS; *National Institute of Neurological Disorders and Stroke*

Functional Analysis of SBP-2 and Selenocysteine Incorporation; P. Copeland, RWJMS; *National Institute of General Medical Sciences*

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

The Regulation of Fibronectin Matrix Assembly in Wound Healing; S. Corbett, RWJMS; *National Institute of General Medical Sciences*

Pb-Environmental Stress Interactions: Re-Evaluating Risk; D. Cory-Slechta, RWJMS; *National Institute of Environmental Health Sciences*

Coupling of 5-HT Receptors to Neuroprotective Pathways; D. Cowen, RWJMS; *National Institute of Mental Health*

Enhancing Colorectal Ca Screening Through Learning Teams; B. Crabtree, RWJMS; *National Cancer Institute*

Trial to Enhance Adherence to Multiple Guidelines; B. Crabtree, RWJMS; *National Heart, Lung and Blood Institute*

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

Molecular Analysis of Prostate Organogenesis; M. De Julio, RWJMS; *United States Department of Defense*

Genetic Components of Autism Spectrum Disorders; E. DiCicco-Bloom, RWJMS; *National Institutes of Health*

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The Effect of Glycolytic Modulation on Prostate Cancer; R. DiPaola, RWJMS; *United States Department of Defense*

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Complex Involved in mRNA Decay in Yeast; J. Dougherty, RWJMS; *National Institute of General Medical Sciences*

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Growth and Development of the Nervous System: Molecular Mechanism; C. Dreyfus, RWJMS; *National Institute of Child Health and Human Development*

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

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

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

The Effects of Diesel Exhaust and Stress on the Acute Phase Response and Symptoms in the Chemically Intolerant; N. Fiedler, RWJMS; *United States Department of Defense*

Transcription Cofactors of the Thyroid Hormone Receptor; J. Fondell, RWJMS; *National Institute of Diabetes and Digestive and Kidney Diseases*

Collaborative Systems for Analyzing Tissue Microarrays; D. Foran, RWJMS; *National Institute of Biomedical Imaging and Bioengineering*

BRCAl and X Chromosome Inactivation; S. Ganesan, RWJMS; *National Cancer Institute*

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Health Observances and Public Education Partnership; A. Gotsch, RWJMS; *National Center for Research Resources*

Trial of Riluzole with Resectable Stage III or IV Melanoma; J. Goydos, RWJMS; *National Cancer Institute*

Development of a Clinically Encoded Melanoma Tissue Microarray; J. Goydos, RWJMS; *National Cancer Institute*

Non-Canonical Wnt Signaling and Cell Motility; R. Habas, RWJMS; *National Institutes of Health*

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

The Importance of Autophagy in Breast Cancer Development and Treatment; W. Hait, RWJMS; *United States Department of Defense*

The Role of Co-Morbid Mental Disorders in Lyme Disease; A. Hassett, RWJMS; *National Institute of Mental Health*

Dynamics of Cell Proliferation in Adult Dentate Gyrus; N. Hayes, RWJMS; *National Institute of Mental Health*

Regulation of Contraction in Muscle and Nonmuscle Cells; S. Hitchcock-DeGregori, RWJMS; *National Institute of General Medical Sciences*

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

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

Propeptide-mediated Protein Folding; M. Inouye, RWJMS; *National Institute of General Medical Sciences*

Signal Transduction By Histidine Kinases and Their Response Regulators; M. Inouye, RWJMS; *National Institute of General Medical Sciences*

Antidepressant Adherence Among Hispanics; A. Interian, RWJMS; *National Institute of Mental Health*

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

Development of Selenomethionine Resistant Yeast; T. Kinzy, RWJMS; *National Institute of General Medical Sciences*

Regulation of Translation Elongation By a Guanine Exchange Factor, eEF1H Alpha; T. Kinzy, RWJMS; *National Research Service Award*

Regulators of Translation Elongation Factor 1 Alpha; T. Kinzy, RWJMS; *National Institute of General Medical Sciences*

Regulatory Mechanisms in Oxidative Stress via the Guanine Nucleotide Exchange Complex Translation Elongation Factor eEF1B Alpha Gamma; T. Kinzy, RWJMS; *National Science Foundation*

Response to Fresh Aerosols in Susceptible Subjects; H. Kipen, RWJMS; *United States Environmental Protection Agency*

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

Treatment of Preserved Cardiac Function Heart Failure with an Aldosterone Antagonist (TOPCAT); J. Kostis, RWJMS; *New England Research Institute*

Myotube Guidance in Drosophila Melanogaster; S. Kramer, RWJMS; *National Institute of Arthritis and Musculoskeletal and Skin Diseases*

Study of Drosophila Heart Tube Assembly; S. Kramer, RWJMS; *National Institute of General Medical Sciences*

Molecular Target for Nutrients in the Prostate; J. Laskin, RWJMS; *National Cancer Institute*

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

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

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

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

Sterols and Aging in C. Elegans; J. Lenard, RWJMS; *National Institute on Aging*

Center for the Study of Health Beliefs and Behavior an Expert System for Information Sharing By Doctors and Patients, Stage 1; E. Leventhal, RWJMS; *National Institutes of Health*

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

Emotions and Behavioral Outcomes in Neglected Children; M. Lewis, RWJMS; *National Institute of Mental Health*

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

Novel IRES-Specific Trans Acting Factors That Modulate EV71 Translation; M. Li, RWJMS; *National Institute of Allergy and Infectious Diseases*

Chromium Exposure and Health Effects in Hudson County; P. Lioy, RWJMS; *US Department of Health and Human Services*

Human Exposure Modeling - An Integrated Probabilistic Modeling Environment for Reducing Uncertainty in Human Health Risk Assessment: Characterizing Multipathway Human Exposure and Source-to-Dose Relationships; P. Lioy, RWJMS; *Environmental Protection Agency*

Proposal for a Study of the Contribution of Particulate Emissions from St. Lawrence Cement to Outdoor Dust in Camden, NJ; P. Lioy, RWJMS; *US Environmental Protection Agency*

Mechanism of Action of TOP2-Directed Anticancer Drugs; L. Liu, RWJMS; *National Cancer Institute*

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

Novel Lysosomal Enzyme Deficient in Batten Disease; P. Lobel, RWJMS; *National Institute of Neurological Disorders and Stroke*

School Wide Positive Behavior Support - Behavioral Success for Students; S. Lohrmann, RWJMS; *University of British Columbia*

Transforming Coersive Relationships in Family Routines; S. Lohrmann, RWJMS; *National Institute of Child Health and Human Development*

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

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

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

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

Role of MG29 in E-C Coupling of Striated Muscles; J. Ma, RWJMS; *National Institute on Aging*

Store-Operated Calcium Entry and Apoptosis; J. Ma, RWJMS; *National Cancer Institute*

Functional Analysis of Rad23 Protein; K. Madura, RWJMS; *National Cancer Institute*

A Longitudinal Observational Follow-Up of the Percept Study Cohort, Postcept; M. Mark, RWJMS; *National Institutes of Health*

Molecular Control of SHH/GLI Signaling in the Vertebrate Cns; M. Matisse, RWJMS; *National Science Foundation*

Molecular Regulation of Neurogenesis and Cell Fate; M. Matisse, RWJMS; *National Institute of Mental Health*

Treatment of Depression in Parkinson's Disease; M. Menza, RWJMS; *National Institute of Neurological Disorders and Stroke*

Identification and Functional Assessment of Autism Susceptibility Genes; J. Millonig, RWJMS; *National Institute of Mental Health*

The Effects of Microgravity on Gene Expression in Live Zebrafish Embryos; S. Moorman, RWJMS; *National Aeronautics and Space Administration*

Development of a Rapid, Inexpensive Biosensor for Psa; R. Morton, RWJMS; *National Institute of Neurological Disorders and Stroke*

Anti-Apoptotic Function of DJ-1 in Parkinson's Disease; M. Mouradian, RWJMS; *National Institutes of Health*

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

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

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

Phenomic Analysis of the Murine Hippocampus; R. Nowakowski, RWJMS; *National Institute of Neurological Disorders and Stroke*

Capacity Building in Organizational Research; A. Orzano, RWJMS; *Agency for Healthcare Research and Quality*

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

Mechanism and Regulation of Transcription Initiation; S. Patel, RWJMS; *National Institute of General Medical Sciences*

Mechanistic Studies of Hexameric Helicases; S. Patel, RWJMS; *National Institute of General Medical Sciences*

Complex Involved in mRNA Decay in Yeast; S. Peltz, RWJMS; *National Institute of General Medical Sciences*

Receptor-signaling Protein Interactions in Real Time; S. Pestka, RWJMS; *National Institute of Allergy and Infectious Diseases*

Role of mRNA Decay in the Immune System; 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*

An Integrated Approach to Identifying and Screening Adolescents, Reproductive Age, and Perimenopausal Age Women for Bleeding Disorders; C.

Philipp, RWJMS; *Centers for Disease Control and Prevention*

Integrating Prevention Services for Bleeding and Clotting Disorders; C.

Philipp, RWJMS; *Centers for Disease Control and Prevention*

DNA Minor Groove-targeting Anticancer Agents; D. Pilch, RWJMS; *National Cancer Institute*

Molecular Basis for Antibiotic Specificity;

D. Pilch, RWJMS; *National Institute of Allergy and Infectious Diseases*

Molecular and Developmental Basis of Mental Illness; J. Pintar, RWJMS;

National Institute of Mental Health

NM23/NDP Kinases: A New Family of DNA Repair Enzymes; E. Postel,

RWJMS; *National Cancer Institute*

Mouse Model of Ovarian Cancer; A.

Puzio, RWJMS; *National Cancer Institute*

The Role of Amphiregulin in PTH's Action on Bone; L. Qin, RWJMS;

National Institute of Diabetes and Digestive and Kidney Diseases

Architectural Microfibrils in Bone Physiology; F. Ramirez, RWJMS;

National Institute of Arthritis and Musculoskeletal and Skin Diseases

Skyscam 1172 Ex-Vivo Microcomputed Tomography System; F. Ramirez,

RWJMS; *National Center for Research Resources*

Effects of Child Health on Family Resources; N. Reichman, RWJMS;

National Institute of Child Health and Human Development

Fragile Families and Child Health; N.

Reichman, RWJMS; *National Institute of Child Health and Human Development*

An Epigenetic Link to Prostate Cancer;

D. Reinberg, RWJMS; *United States Army*

Growth Control of Normal and Malignant Keratinocytes; M. Reiss, RWJMS;

National Cancer Institute

Development of Biomarkers of Dopaminergic Neurodegeneration for Parkinson's Disease and Military Neurotoxin Exposure; J. Richardson,

RWJMS; *United States Department of Defense*

Developmental Pyrethroid Exposure and ADHD; J. Richardson, RWJMS;

National Institute of Environmental Health Sciences

Regulation of P-Glycoprotein Expression and Function By CD44 in Breast Cancer;

L. Rodriguez-Rust, RWJMS; *United States Department of Defense*

Neighborhoods and the Health of Elderly Americans; J. Rogowski, RWJMS;

National Institute on Aging

A Gene Therapy Approach for the Treatment of Eae; Y. Ron, RWJMS;

National Institute of Neurological Disorders and Stroke

Sexual Dysfunction and Diabetes: Look Ahead Sub-Study; R. Rosen, RWJMS;

National Institute of Diabetes and Digestive and Kidney Diseases

Wnt Regulation of Cell Cycle in Cortical Neurogenesis; I. Rossman, RWJMS;

National Institutes of Health

Envelope Gene Products of Feline Leukemia Virus; M. Roth, RWJMS;

National Cancer Institute

Integration of Murine Retroviral Vectors;

M. Roth, RWJMS; *National Institute of General Medical Sciences*

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Regulation of Metal Ion Homeostasis By Channel Kinases; A. Ryazanov, RWJMS; *National Institute of General Medical Sciences*

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

Study of Drosophila Heart Tube Assembly; E. Santiago-Martinez, RWJMS; *National Institute of General Medical Sciences*

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Vasculature is a Determinant of Epithelial Morphogenesis; M. Schwarz, RWJMS; *National Heart, Lung and Blood Institute*

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Role of KVS and MPS Subunits in Basic Neuronal Function; F. Sesti, RWJMS; *National Institute of General Medical Sciences*

Functional Analysis of Cripto in Mouse Embryogenesis; M. Shen, RWJMS; *National Institute of Child Health and Human Development*

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

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

Cue-Elicited Craving and Genetics in Relapse in Cocaine; D. Smelson, RWJMS; *National Institute on Drug Abuse*

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

Qigong Therapy for Treating Cocaine Addiction; D. Smelson, RWJMS; *National Center for Complementary and Alternative Medicine*

Adenosine, Glutamate and Neurodegeneration; P. Sonsalla, RWJMS; *National Institute of Neurological Disorders and Stroke*

Regulation of the Cytoskeleton During Neuronal Morphogenesis; M. Soto, RWJMS; *National Science Foundation*

Treatment Issues in Smokers with Schizophrenia; M. Steinberg, RWJMS; *National Institute on Drug Abuse*

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

Regulation of 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 Responses to Goal Blockage in Infants and Children; M. Sullivan, RWJMS; *National Institute of Mental Health*

Academic Administration Units in Primary Care; A. Tallia, RWJMS; *Health Resources and Services Administration*

Novel Oligonucleotide Delivery Vehicles for Gene Therapy; T. Thomas, RWJMS; *National Cancer Institute*

Role of Polyamines in Estrogen Function in Breast Cancer; T. Thomas, RWJMS; *National Cancer Institute*

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Mechanisms of Activation of Response Regulator Proteins; A. Toro, RWJMS; *National Institute of General Medical Sciences*

Ethnicity and the Diagnosis of Affective Illness; W. Vega, RWJMS; *National Institute of Mental Health*

Extracellular Matrix and Axonal Guidance in C. Elegans; W. Wadsworth, RWJMS; *National Institute of Neurological Disorders and Stroke*

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

Molecular Studies of Cancer Specific Fragiles Sites; Y. Wang, RWJMS; *National Cancer Institute*

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Next-Generation QSAR Tools to Predict Toxicity of CWAS; W. Welsh, RWJMS; *Defense Threat Reduction Agency*

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

Molecular Probes of Myosin Structure and Interactions; D. Winkelmann, RWJMS; *National Institute of Arthritis and Musculoskeletal and Skin Diseases*

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Role of the FOXN4 Gene During Retinogenesis; M. Xiang, RWJMS; *National Eye Institute*

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

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Basement Membrane Self-assembly and Structure; P. Yurchenco, RWJMS; *National Institute of Diabetes and Digestive and Kidney Diseases*

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Energy Metabolism, Dopamine Neurons and Neurotoxicity; G. Zeevalk, RWJMS; *National Institute of Neurological Disorders and Stroke*

Mechanisms of Growth Cone Turning in Diffusible Gradient; J. Zheng, RWJMS; *National Institute of Neurological Disorders and Stroke*

Genetic and Molecular Basis of Rapamycin Sensitivity; X. Zheng, RWJMS; *National Cancer Institute*

Growth Control and Anti-cancer Mechanisms; X. Zheng, RWJMS; *National Cancer Institute*

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Trial of Selegiline Transdermal System; D. Ziedonis, RWJMS; *National Institute on Drug Abuse*

Treatment of Addiction to Nicotine in Schizophrenia; D. Ziedonis, RWJMS; *National Institute on Drug Abuse*

Prevalence of Complementary and Alternative Medicine Use and Disclosure to Healthcare Providers in a Complementary Cancer Center; A. Perlman, SHRP; *National Cancer Institute*

Study of Vagus Nerve Stimulation Using the Neurocybernetic Prosthesis System in Patients with Refractory Fibromyalgia with and without Concurrent Major Depression; A. Perlman, SHRP; *The National Institute of Arthritis and Musculoskeletal and Skin Diseases*

Comparison of Retention Strategies in Supported Employment among persons with severe and persistent mental illness; K. Gill, SHRP; *National Institute of Disability Rehabilitation Research*

Comparison of Illness Self-Management Strategies using Peers and Non-Peers: A random assignment study; C. Pratt, SHRP; *National Institute of Disability Rehabilitation Research & The Foundation of UMDNJ*

Virtual Reality Augmented Cycling for Post Stroke Mobility Rehabilitation; J. Deutsch, SHRP; *National Institute of Health*

Transcription Regulation Through RNAP Secondary Channel; M. Anikin, SOM; *National Institutes of Health*

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

Structure and Function of Prokaryotic Transcript Cleavage Factors; S. Borukhov, SOM; *National Institutes of Health*

Evaluation & Dissemination of Evidence Based Services Statewide; E. Deblinger, SOM; *Substance Abuse & Mental Health Services Administration*

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

ATP Regulation of Membrane Guanylate Cyclase; T. Duda, SOM; *National Institutes of Health*

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

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

Transfer of Metabolites through Lens Gap Junctions; G. Goldberg, SOM; *National Institutes of Health*

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Neuropeptides Processing Enzymes and Drug Abuse; J. Pintar, RWJMS; *Albert Einstein College of Medicine*

A Trial to Determine Whether Natural Huperzine a Improves Cognitive Function; W. Reichman, RWJMS; *Georgetown University*

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Worksite Wellness: A Lifestyle Approach; R. Touger-Decker, SHRP; *American Heart Association*

The Impact of Medical Nutrition Therapy by a Registered Dietitian on Outcome in Cancer Patients; M. Huhmann, SHRP; *Dietitians in Nutrition Support Dietetic Practice Group*

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Medical Mysteries; L. Hemminger, SPH; *Rice University*

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Flu, Chemicals, and Dirty-Bomb Training for Medical Society of New Jersey Physicians (in collaboration with New Jersey Medical School); G. Paulson, SPH; *Institute of Medicine and Public Health of New Jersey*

Evaluation of Trenton Spirit Walk Initiative for Isles, Inc; B. West, SPH; *Isles*

An Experimental Study of Exercise and Self-Esteem in Breast Cancer Survivors; R. Musanti, SN; *The Greater New York Chapter of the Susan G. Komen Foundation*

PRIVATE INDUSTRY

Detection of Mycobacterium Tuberculosis; D. Alland, NJMS; *Cepheid*

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An Epidemiologic Study of Solair (Omalizumab): Evaluating Clinical Effectiveness and Long-Term Safety; L. Bielory, NJMS; *Genentech*

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Metabolic Complications in an Urban HIV-Infected Population; D. Cennimo, NJMS; *Bristol-Myers Squibb Company*

Early Access of TMC125 in Combination with Other Antiretrovirals (ARVs) in Treatment Experienced HIV-1 Infected Subjects with L; D. Chew, NJMS; *Tibotec Pharmaceuticals*

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Trial of Maraviroc; S. Hodder, NJMS; *Pfizer*

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Study of Intravenous Methylxanthone Bromide (MNTX); P. Rice, NJMS; *Progenics Pharmaceuticals*

Study of Proyphylactically Administered Pegylated; A. Samanta, NJMS; *Roche Laboratories, Inc.*

Pilot Study of Blood Collection in Patients with Average and High Risk Factors undergoing Screening by Colonoscopy for Colorectal Cancer; M. Sterling, NJMS; *Ortho-Clinical Diagnostics*

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Study of the Effects of Losartan on Proteinuria in Pediatric Patients; C. Uy, NJMS; *Merck*

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Study Comparing the Effects of 250 mg of Betaseron with 20 mg of Copaxone; L. Wolansky, NJMS; *Berlex Laboratories*

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Merck Undergraduate Research Scholar; P. Copeland, RWJMS; *Merck*

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MTA with Ethicon, Inc., a Subsidiary of Johnson and Johnson; C. Dreyfus, RWJMS; *Ethicon*

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A Study of AP23573 an Mtor Inhibitor in Patients with Advanced Sarcoma; F. Germino, RWJMS; *Ariad Pharmaceuticals*

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A Study of MDX-060 in Patients with Relapsed or Refractory Classic Systemic or Primary Cutaneous Anaplastic Large Cell Lymphoma; M. Gharibo, RWJMS; *Medarex*

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A Study to Evaluate the Safety of Sitaxsentan Sodium Treatment in Patients with Pulmonary Arterial Hypertension; V. Hsu, RWJMS; *Encysive Pharmaceuticals*

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Novel Oral Trogan-horse Agents for Osteolytic Cancer; B. Kamen, RWJMS; *Syntex Laboratories (Roche)*

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A Study to Evaluate the Efficacy of Dovobet Ointment Compared to Dovonex 0.005% in the Treatment of Psoriasis Vulgaris; M. Magliocco, RWJMS; *Warner Chilcott*

A Study to Evaluate Efficacy and Safety of 0.65 G and 1.3 G Oral Bases of XP12B-MR TID Administered During Menstruation for the Treatment of Menorrhagia; M. Magliocco, RWJMS; *Xanodyne Pharmaceuticals*

A Study to Evaluate Etanercept in Pediatric Subjects with Plaque Psoriasis; M. Magliocco, RWJMS; *Amgen*

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In-Vitro Studies of Apidin in Multiple Myeloma; D. Medina, RWJMS; *PharmaMar, S.A.*

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The Efficacy of Eszopiclone 3 Mg As Adjunctive Therapy in Subjects with Insomnnia Related to Generalized Anxiety Disorder; M. Menza, RWJMS; *Quintiles Transnational Corporation*

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A Study to Evalute the Effiacy and Safety of Alfimeprase in Subjects with Occluded Central Venous Access Devices; J. Noshier, RWJMS; *Nuvelo*

A Trial of Duragen Plus Adhesion Barrier Matrix to Minimize Adhesions Following Lumbar Disectomy; M. Nosko, RWJMS; *Integra Life Sciences*

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A Study, Comparing a High Loading Dose Regimen of Clopidogrel versus Standard Dose in Patients with Unstable Angina or Non-ST Segment Elevation Myocardial Infarction Managed with an Early Invasive Strategy; S. Palmeri, RWJMS; *Sanofi-Aventis*

A Study of Escitalopram in Pediatric Patients with Major Depressive Disorder; T. Petti, RWJMS; *Forest Laboratories*

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A Study Evaluating the Safety and Efficacy of Campral in Maintaining Abstinence in Adolescent Patients with Alcohol Dependence; T. Petti, RWJMS; *Forest Laboratories*

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A Study of the Efficacy Safety and Tolerability of Memantine in Pediatric Patients with Autism; T. Petti, RWJMS; *Forest Laboratories*

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Feeding in Opioid Receptor KO Mice; J. Pintar, RWJMS; *Eli Lilly and Company*

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A Study of Gemcitabine Docetaxel and Imatinib Mesylate in Patients with Refractory Solid Tumor Malignancy; E. Poplin, RWJMS; *Novartis AG*

A Study of Intraperitoneal Pemetrexed in Advanced Malignancies; E. Poplin, RWJMS; *Eli Lilly and Company*

A Study of Imatinib Mesylate and Gemcitabine for First Line Treatment of Metastatic Pancreatic Cancer; E. Poplin, RWJMS; *Novartis AG*

A Study to Evaluate the Efficacy and Safety of an Extended Cycle Low Dose Combination Oral Contraceptive Regimen During the Seven Day Interval Between Each 84 Day Cycle of Combination; A. Pradhan, RWJMS; *Duramed Research*

A Trial to Compare the Effects of 12 Weeks Treatment with Dr-2041 Vaginal Cream versus Placebo Vaginal Cream on Vulvovaginal Atrophy in Healthy Postmenopausal Women; A. Pradhan, RWJMS; *Duramed Research*

A Study of the Safety and Efficacy of GC1008: a Human Anti-Transforming Growth Factor Beta (TGFb) Monoclonal Antibody in Patients with Advanced Renal Cell Carcinoma; M. Reiss, RWJMS; *Genzyme Corporation*

A Study of the Effects of Bosentan on Morbidity and Mortality in Patients with Idiopathic Pulmonary Fibrosis; D. Riley, RWJMS; *Actelion Limited*

A Study of R00282425 to Evaluate the Efficacy and Safety in Patients with Male Erectile Dysfunction; R. Rosen, RWJMS; *Hoffman La Roche*

A Study to Evaluate the Time to Onset of Pharmacologic Activity with Dapoxetine Using Video and Vibrotactile Stimulation In men with Premature Ejaculation; R. Rosen, RWJMS; *Johnson and Johnson Pharmaceuticals*

Molecular Mechanism of Obesity-Induced Inflammation in Adipose Tissue; H. Ruan, RWJMS; *Pfizer*

A Study of E7974 Administered on Day 1 of a 21 Day cycle in Patients with Advanced Solid Tumors; E. Rubin, RWJMS; *Eisai*

A Study Using Alemtuzumab Combined with Fludarabine for the Treatment of Relapsed/refractory B-Cell Chronic Lymphocytic Leukemia; E. Rubin, RWJMS; *Berlex Laboratories*

A Study to Evaluate the Safety Tolerability and Pharmacokinetics of XAN-03 in Patients with Advanced Cancer; E. Rubin, RWJMS; *Xanthus Life Sciences*

A Study Comparing Exubera (Registered Inhaled Human Insulin) versus Humalog (Registered Insulin Lispro) Both in Combination with Insulin Glargine in Subjects with Type 1 Diabetes Mellitus; S. Schneider, RWJMS; *Pfizer*

A Study to Compare the Long Term Effect of Treatment with LAF237 50 Mg Bid to Glimepiride Up to 8 Mg Daily As Add-on Therapy in Patients with Type 2 Diabetes; S. Schneider, RWJMS; *Novartis*

A Study to Demonstrate the Effect of 24 Weeks Treatment with Vildagliptin 100 Mg QD as Add-On to Metformin 500 Mg Aid Compared to Metformin 100 Mg BID in Patients with Type 2 Diabetes; S. Schneider, RWJMS; *Novartis*

A Study to Evaluate the Efficacy and Safety of Three Doses of TAK-128 in Subjects with Mild to Moderate Diabetic Peripheral Neuropathy; S. Schneider, RWJMS; *Takeda Pharmaceuticals*

A Trial to Compare Rosiglitazone versus Glipizide on the Progression of Atherosclerosis in Subjects with Type 2 Diabetes Mellitus and Cardiovascular Disease; S. Schneider, RWJMS; *GlaxoSmithKline*

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The Role of Parp in Toxicity and Anti Tumor Activity of Travectidin; K. Scotto, RWJMS; *PharmaMar, S.A.*

Zalypsis and Parp Activity - a Sensitivity Mechanism Linking Dna Damage with Transcription; K. Scotto, RWJMS; *PharmaMar, S.A.*

The Efficacy of Risperdal Consta for Improving Ability to Benefit from Skills Training Interventions in Schizophrenia; S. Silverstein, RWJMS; *Janssen*

Integrating Decision Sciences with Evidence-based Medicine; F. Sonnenberg, RWJMS; *Pfizer*

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A Study of the Safety and Pharmacokinetics of the Kit Inhibitor XI820-20 Administered Orally Daily to Subjects with Solid Tumors; M. Stein, RWJMS; *Exelixis*

A Trial of 2 Deoxglucose (2dg) Along and in Combination with Docetaxel in Subjects with Advanced Solid Malignancies; M. Stein, RWJMS; *Threshold Pharmaceuticals.*

A Trial to Evaluate the Safety and Tolerability of CP-675-206 Administered in Combination with SUO11248 to Patients with Treatment Naïve Metastatic Renal Cell Carcinoma; M. Stein, RWJMS; *Pfizer*

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A Study of the C-mat Rtk Inhibitor XI880 in Subjects with Papillary Renal - Cell Carcinoma; M. Stein, RWJMS; *Exelixis*

A Trial of Gemzar and Gleevec Imatinib in Patients with Metastatic Renal Cell Carcinoma; M. Stein, RWJMS; *Novartis*

A Study Comparing Mdx-010 Monotherapy Mdx-01 in Combination with a Melanomapeptide Vaccine and Melanoma Vaccine Monotherapy in Hla-a-0201 Positive Patients with Previously Treated Unresectable Stage III Melanoma; M. Stein, RWJMS; *Medarex*

A Trial of a KSP Inhibitor Given As a Constant 24 Hour Infusion in Patients with Advanced Solid Tumors; M. Stein, RWJMS; *Merck and Company*

A Study to Evaluate the Safety and Efficacy of Single Agent Lenalidomide in Subjects with Androgen Independent Prostate Cancer; M. Stein, RWJMS; *Celgene Corporation*

A Study of Patupilone and RAD001 in Patients with Refractory Solid Tumor Malignancy; M. Stein, RWJMS; *Novartis*

Tobacco Dependence Treatment for Hospitalized Smokers; M. Steinberg, RWJMS; *Pfizer*

A Study of Galliximab in Combination with Rituximab Compared with Rituximab in Combination with Placebo; R. Strair, RWJMS; *Biogen*

A Trial to Evaluate Palifermin in the Reduction of Acute Graft versus Host Disease in Subjects with Malignancies Undergoing Allogenic Marrow; R. Strair, RWJMS; *Amgen*

A Study of BMS-354825 Administered Orally at a Dose of 50 Mg Or 70 Mg Twice Daily or 100 Mg Or 140mg Once Daily in Subjects with Chornic Phase Philadelphia Chromosome; R. Strair, RWJMS; *Bristol-Myers Squibb Company*

A Study to Assess The Long Term Safety and the Pk/pd Relationship of GRT6001 in Patients with Relapsed and Refractory multiple Mylenoma; R. Strair, RWJMS; *Grunenthal GmbH*

A Study to Assess Dosing Intervals of Ascending Doses of GRT6001; R. Strair, RWJMS; *Grunenthal GmbH*

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A Study of the CDK Inhibitor R04584820 Administered As an Intravenous Infusion on a Weekly Schedule in Patients with Advanced Solid Tumors; A. Tan, RWJMS; *Hoffman La Roche*

A Study of Ixabepilone as a 24 Hour Infusion in Patients with Advanced Solid Malignancies; A. Tan, RWJMS; *Bristol-Myers Squibb*

A Study of HKI-272 in Subjects with Advanced Breast Cancer; A. Tan, RWJMS; *Wyeth-Ayerst Pharmaceuticals*

A Study of GW786034 (Pazopanib), A Vascular Endothelial Growth Factor Receptor Tyrosine Kinase Inhibitor, in Patients with Operable Breast Cancer; A. Tan, RWJMS; *SAIC-Frederick*.

A Trial of Gemcitabine and Imatinib Mesylate Versus Gemcitabine Alone in Patients with Previously Treated Locally Advanced and Metastatic Breast Cancer; A. Tan, RWJMS; *Novartis AG*

A Trial to Assess the Efficacy and Safety of Mycophenolate Mofetil in Inducing Response and Maintaining Remission in Subjects with Lupus Nephritis; M. Tiku, RWJMS; *Asperva Pharmaceuticals*

A Study of the Safety and Efficacy of MRA Monotherapy versus Methotrexate in Patients with Active Rheumatoid Arthritis; M. Tiku, RWJMS; *Hoffman La Roche*

A Study of the Safety and Reduction of Signs and Symptoms During Treatment with MRA versus Placebo in Combination with Traditional DMARD Therapy in Patients with Moderate to Severe Active Rheumatoid Arthritis; M. Tiku, RWJMS; *Hoffman La Roche*

A Study of the Safety and Reduction of Signs and Symptoms During Treatment with MRA versus Placebo in Combination with Traditional DMARD Therapy in Patients with Moderate to Severe Active Rheumatoid Arthritis; M. Tiku, RWJMS; *Hoffman La Roche*

A Study of Safety During Treatment With tocilizumab in Patients Completing Treatment in MRA Core Studies; M. Tiku, RWJMS; *Hoffman La Roche*

A Trial of Taxotere and Herceptin in Locally Advanced or Inflammatory Breast Cancer; D. Toppmeyer, RWJMS; *Aventis*

A Study of Lapatinib in Combination with Trastuzumab versus Lapatinib Monotherapy in Subjects with Metastatic Breast Cancer; D. Toppmeyer, RWJMS; *GlaxoSmithKline*

A Study to Evaluate the Use of Zoledronic Acid in the Prevention of Cancer Treatment Related Bone Loss in Post-Menopausal Women with ER+ Breast Cancer Receiving Letrozole as Adjuvant Therapy; D. Toppmeyer, RWJMS; *Novartis AG*

A Safety Assessor Trial in Adult Surgical Subjects Under General Anesthesia at Increased Risk For Pulmonary Complications; J. Tse, RWJMS; *Organon*

Reliant Randomized of the Novacor Left Ventricular Assist System in Transplant Population; B. Vasseur, RWJMS; *World Heart Corporation*

Comprehensive Evaluation of Antimicrobial Resistance Patterns for 2007: A Phased Investigation of Bacterial Pathogens and Testing Methods; M. Weinstein, RWJMS; *JMI Laboratories*

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Evaluation of the Microscan synergies Plus Gram-positive Testing Panel C; M. Weinstein, RWJMS; *Dade Microscan*

Evolution of in Vitro Susceptibility of Staphylococcus Aureus Bloodstream Isolates; M. Weinstein, RWJMS; *Cubist Pharmaceuticals*

Modeling Synthesis and Preclinical Formulation of Single and Multiple Component Biguanide-based Microbicides; W. Welsh, RWJMS; *Novaflux Technologies*

Tyrosinase Inhibitor Project; W. Welsh, RWJMS; *Avon Products*

Hemodynamic Assessment of Renal Artery Disease; P. Yim, RWJMS; *Creare, Incorporated*

Plaque Calibration Study; C. Breen, SHRP; *Colgate-Palmolive*

Trial to Evaluate the Safety of Propranolol in Combination with Etodolac in Subjects Diagnosed with Metastatic Cancer and Secondary Outcomes of Weight, Inflammatory Markers and Quality of Life; S. Gould Fogerite, SHRP; *Vicus Therapeutics*

A Retrospective Study on Accumulated Data Files to Identify and Compare the Interactions and Differences between the Diagnoses of Cachexia as Compared to Anorexia; S. Gould Fogerite, SHRP; *Vicus Therapeutics*

The Effects of Almond Consumption on Pre-diabetes; S. Gould Fogerite, SHRP; *Almond Board of California*

Study of Tramadol ER for the Management of Moderate to Moderately Severe Chronic Pain of OA of the Hip and Knee in Adults; S. Burnstein, SOM; *Cipher Pharmaceutical*

Rheumatoid Arthritis Disease Modifying Anti-Rheumatic Drug (DMARD) Intervention and Utilization Study; S. Burnstein, SOM; *Immunex*

Extension Study of Milnacipran for Treatment of Fibromyalgia; S. Burnstein, SOM; *Cypress Biosciences*

Study to evaluate Abatacept in Subjects with Active Rheumatoid Arthritis on Background Non-Biologic DMARDs Who Have an Inadequate Response to Anti-TNF Therapy and Have Limited Therapeutic Options; S. Burnstein, SOM; *Bristol-Myers Squibb*

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Trial to Assess the Efficacy and Safety of Mycophenolate Mofetil (MMF) in Inducing Response and Maintaining Remission in Subjects with Lupus Nephritis; S. Burnstein, SOM; *Aspreva*

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Review of Management Strategies in Dementia; A. Chopra, SOM; *Janssen Pharmaceutical Products*

Comparison of Nefiracetam with Placebo in the Treatment of Patients with Post-Stroke Apathy; A. Chopra, SOM; *Hamilton Pharmaceuticals*

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Trial of Factive versus Biaxin XL for the Treatment of Community-Acquired Pneumonia vs. Amoxicillin/ Clavulanate for the Treatment of Acute Bacterial Exacerbations of Chronic Bronchitis; J. Coren, A. Gupta, R. Hudrick, and B. McGann SOM; *Oscient*

VNUS Vessel and Tissue Coagulation Device Study; C. Dietzek, SOM; *VNUS Medical Technologies*

Study of EN3267 in the Treatment of Breakthrough Pain in Cancer Patients; K. Gupta, SOM; *Endo*

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Study to Compare Two Dosing Algorithms for Preprandial Human Insulin Inhalation Powder (HIIP) in Insulin-Naive Patients with Type 2 Diabetes Mellitus; A. Gupta, SOM; *Eli Lilly*

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.*

Study of Milnacipran for Treatment of Fibromyalgia; R. Hudrick, SOM; *Forest Research*

Study of Telithromycin versus Azithromycin in Outpatients with Community-Acquired Lower Respiratory Tract Infections; R. Hudrick, SOM; *Aventis*

Study of Human Insulin Inhalation Powder (HIIP) in Patients with Type 2 Diabetes Treated with Once-Daily Insulin Glargine; R. Hudrick, SOM; *Eli Lilly*

Study Comparing the Long Term Safety of SYMBICORT® to Budesonide in Adult and Adolescent (≤12 years) African American Subjects with Asthma; R. Hudrick, SOM; *AstraZeneca*

Study of Seroquel SR™ in Combination with an Antidepressant in the Treatment of Patients with Major Depressive Disorder with Inadequate Response to an Antidepressant Treatment; R. Hudrick, SOM; *AstraZeneca*

Study to Compare Insulin Use and its Effect on Glycemic Control in Patients with Type 2 Diabetes Mellitus: Two Populations with Different Insulin Treatment Options; R. Hudrick, SOM; *Eli Lilly*

Study of Intramuscular Peramivir in Subjects with Uncomplicated Acute Influenza; R. Hudrick, SOM; *BioCryst Pharmaceuticals*

Duloxetine versus Placebo in the Treatment of Osteoarthritis Knee Pain; R. Jermyn, SOM; *Eli Lilly*

Study of NGX-4010 for the Treatment of Postherpetic Neuralgia; R. Jermyn, SOM; *NeurogesX*

Study of NGX-4010 for the Treatment of Painful HIV Associated Neuropathy; R. Jermyn, SOM; *NeurogesX*

Study to Evaluate the Efficacy and Replacement Surgery for End-Stage Joint Disease; R. Jermyn, SOM; *Johnson & Johnson*

Treating Patients with Alzheimer's Disease with Significant Leukoaraiosis with Donepezil; D. Libon, SOM; *Eisai*

Study of Ceftobiprole Monotherapy versus Linezolid Plus Ceftazidime in the Treatment of Nosocomial Pneumonia; T. Morley, SOM; *J & J Pharmaceuticals*

Study Oral Frovatriptan in the Prevention of Menstrually-Related Migraine (MRM) Headaches in a "Difficult to Treat" Population; L. Mueller, SOM; *Vernalis*

Study of Divalproex Sodium Extended-Release Tablets for Migraine Prophylaxis in Adolescents; L. Mueller, SOM; *Abbott Laboratories*

Study of Rizatriptan 10 mg Tablet for the Treatment of Menstrual Migraine; L. Mueller, SOM; *Merck*

A Study of Combination Product (Sumatriptan Succinate and Naproxen Sodium) in Migraine Subjects Who Report Poor Response or Intolerance to Eletriptan; L. Mueller, SOM; *GlaxoSmithKline*

Study to Determine the Consistency of Response for Trexima Administered During the Mild Pain Phase for Acute Treatment of Multiple Migraine Attacks; L. Mueller, SOM; *GlaxoSmithKline*

Study of Trexima TM v. Placebo When Administered During the Mild Pain Phase of Menstrual Migraine in Women with Dysmenorrhea; L. Mueller, SOM; *GlaxoSmithKline*

Study to Evaluate the Long-Term Safety and tolerability of Bifeprunox in the Treatment of Outpatients with Schizophrenia; D. Rissmiller, SOM; *Wyeth*

Study of Agomelatine 25 mg and 50 mg in the Treatment of Major Depressive Disorder; D. Rissmiller, SOM; *Novartis*

Study of the Effect on Weight of Bifeprunox versus Olanzapine in the Treatment of Outpatients with Schizophrenia; D. Rissmiller, SOM; *Wyeth*

Quetiapine Treatment for Symptoms Associated with Borderline Personality Disorder; D. Rissmiller, SOM; *AstraZeneca*

Evaluation of the Cataractogenic Potential Fumarate (SEROQUEL) and Risperidone (RISPERDAL) in the Long-Term Treatment of Patients with Schizophrenia or Schizoaffective Disorder; D. Rissmiller, SOM; *AstraZeneca*

Study of Seroquel SRR as Monotherapy in the Maintenance Treatment of Patients with Major Depressive Disorder Following an Open-Label Stabilization Period; D. Rissmiller, SOM; *AstraZeneca*

Study of Aripiprazole in Combination with Lamotrigine in the Long-Term Maintenance Treatment of Patients with Bipolar I Disorder with a Recent Manic or Mixed Episode; D. Rissmiller, SOM; *Bristol-Myers Squibb*

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 8 Week Treatment of RozeremTM 8 mg (QHS) in Sleep Disturbed, Community Dwelling, Mild to Moderately Severe Alzheimer's Disease Subjects; S. Scheinthal, SOM; *Takeda*

Study of Rosiglitazone as Adjunctive Therapy to Donepezil on Cognition and Overall Clinical Response to APOE 4-Stratified Subjects with Moderate Alzheimer's Disease; S. Scheinthal, SOM; *GlaxoSmithKline*

Leukotriene D-4; B. Spur, SOM; *Laboratorios Menarini, S.A.*

15-epi-Lipoxin A-4 Free Fatty Acid, Lipoxin A-4 Methyl Ester and Lipoxin A-4 Sodium Salt; B. Spur, SOM; *EMD Biosciences*

PCR Based Assays in the Precancerous Gastric Lesions Study in Linqu, China; J. Hong, SPH; *Weststat and Various Companies*

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Genetic Analysis of the cGMP Dependent Protein Kinase of the Malaria Parasite, Plasmodium; P. Bhanot, NJMS; *Foundation of UMDNJ*

Role of the Vsp/OspC Family of Borrelia Proteins in Tissue Tropism; D. Cadavid, NJMS; *Foundation of UMDNJ*

Virtual Reality Based Neurosurgery: The Use of the Dextroscope in Neurosurgical Planning and Training; J. Catrambone, NJMS; *AcITAC Educational Technology Grant*

Regulation of Rac1 GTPase Function by p300; R. Eckner, NJMS; *Foundation of UMDNJ*

The Role of Glucocorticoids in Development of the Rat Intestinal Fructose Transporter GLUT5; R. Ferraris, NJMS; *Foundation of UMDNJ*

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Adenosine In Trauma and Sepsis; G. Hasko, NJMS; *Foundation of UMDNJ*

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Quantitative Self-Reporting Arrays for miRNA Profiling; P. Soteropoulos, NJMS; *Foundation of UMDNJ*

Mathematical Modeling of mRNA Polyadenylation - NJIT Research Service Agreement; B. Tian, NJMS; *Internal Project*

Phylogenetic Analysis of mRNA Polyadenylation in Vertebrates; B. Tian, NJMS; *Foundation of UMDNJ*

Plasmacytoid Dendritic Cells in Multiple Sclerosis; K. Balashov, RWJMS; *Foundation of UMDNJ*

Customized Monitoring of Neonatal Respiration; J. Chuo, RWJMS; *Foundation of UMDNJ*

Animal Modeling of Antifolate - Induced Neurotoxicity; P. Cole, RWJMS; *Cancer Institute of New Jersey*

Functional Analysis of BF1-A1 in Apoptosis and Oncogenesis; C. Gelinas, RWJMS; *Foundation of UMDNJ*

Mechanisms Regulating the Recruitment of Bone Marrow-Derived Stromal Cells to Tumor Stroma; J. Glod, RWJMS; *Foundation of UMDNJ*

The Impact of Posterior Urethral Preservation on Post-Prostatectomy Urinary Incontinence in the Era of Robotic Assisted Radical Prostatectomy; J. Hwang, RWJMS; *Foundation of UMDNJ*

Tolerance Induction by Transplantation of Hematopoietic Stem Cell Engineered to Express Myelin Protein Gene; K. Ito, RWJMS; *Foundation of UMDNJ*

Transglutamination of Alpha-Synuclein in the Pathogenesis of Parkinson's Disease; E. Junn, RWJMS; *Foundation of UMDNJ*

Role of Bone Morphogenetic Protein Receptor Type II in Prostate Cancer Cells; I. Kim, RWJMS; *Foundation of UMDNJ*

Umbilical Vessel Extracellular Matrix Remodeling in Response to Fetal Growth Restriction and Intrauterine Hypoxia; W. Kinzler, RWJMS; *Foundation of UMDNJ*

Unique Aspects of Eukaryotic Translation Elongation Factors; T. Kinzy, RWJMS; *Foundation of UMDNJ*

Formation of Tropomodulin/Tropomyosin/Actin Complex at the Pointed End of the Actin Filament; A. Kostyukova, RWJMS; *Foundation of UMDNJ*

The Mechanism By Which EMP-2 Promotes Tumor Growth; J. Langenfeld, RWJMS; *Foundation of UMDNJ*

Huntington's Disease; H. Marin, RWJMS; *UMDNJ-Robert Wood Johnson Medical School*

Effect of Progesterone and Selective COX-2 Inhibitors on Preterm Placental Cytokines and Prostaglandin; R. Mehta, RWJMS; *Foundation of UMDNJ*

Informatics Approach to Student Assessment; S. Moorman, RWJMS; *AcITAC Educational Technology Grant*

Bioinformatic Tools for Identifying Regions of Mutational Susceptibility in Pathogenic Genomes; V. Nanda, RWJMS; *Foundation of UMDNJ*

Design of an Online Set of Modules on Nutritional Genomics; V. Nanda, RWJMS; *AcITAC Educational Technology Grant*

Oxcarbazepine versus Placebo in Childhood Autism; S. Novotny, RWJMS; *Foundation of UMDNJ*

Regulation of Innate Immunity at the Maternal-Fetal Interface By Progesterone; M. Peltier, RWJMS; *Foundation of UMDNJ*

Screening for Elongation Factor 2 Kinase Inhibitors: Potential Chemoprotective, Radioprotective and Anti Aging Agents; A. Ryazanov, RWJMS; *UMDNJ*

The Role of Micrnas in Human Leukemia Cell Differentiation and Survival; D. Schaar, RWJMS; *Foundation of UMDNJ*

Molecular Genetic Analysis of Prostate Cancer Stem Cells; M. Shen, RWJMS; *Dean and Betty Gallo Prostate Cancer Center*

Caffeine Regulates Alternative Splicing: Dissecting the Molecular Mechanism; J. Shi, RWJMS; *Foundation of UMDNJ*

Physiology and Pathophysiology of NF- κ B Related Pathways in Lymphoma and Leukemia; R. Strair, RWJMS; *Cancer Institute of New Jersey*

Regulation of Innate Immunity at the Maternal-Fetal Interface By Progesterone; J. Williams, RWJMS; *Foundation of UMDNJ*

Prediction of Recurrence and Therapeutic Responses in Lung Cancer Patients; E. Zachariah, RWJMS; *Foundation of UMDNJ*

Mechanisms of Hemodynamic Decompensation in Shock; S. Zanotti Cavazonni, RWJMS; *Foundation of UMDNJ*

The Effect of Supervised Exercise on Immune Physical and Psychological Status in patients with Breast Cancer Undergoing Chemotherapy; J. Deutsch, SHRP; *Foundation of UMDNJ*

The effect of supervised exercise training on immune, physical, and psychological status in breast cancer patients during their initial cycle of chemotherapy; B. Gladson, SHRP; *Foundation of UMDNJ*

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Role of Protein Arginine Methylation in RNA Maturation; M. Henry, SOM; *Foundation of UMDNJ*

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Usability of a Handheld Computer Device for Osteopathic Assessment at the Point of Care; C. Mogil, SOM; *AcITAC*

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Engaging Overweight and Obese Elderly People in Exercise Programs: Strength Training vs. Cardiovascular; R. Pruchno, SOM; *Foundation of UMDNJ*

Structure and Function of E. coli RNA Polymerase Elongation Complex; D. Temiakov, SOM; *Foundation of UMDNJ*

Alzheimer's Disease and ROS-GC Signaling; V. Venkataraman, SOM; *Foundation of UMDNJ*

Biological Clocks and ROS-GC Signaling; V. Venkataraman, SOM; *Foundation of UMDNJ*

IFN-gamma and HMGB1 in Sepsis; K. Yin, SOM; *Foundation of UMDNJ*

The Prevalence of Comorbidities in HIV Infected Patients; B. Greenberg, NJDS; *Foundation of UMDNJ*

Precarious lesions on the occlusal surfaces of human posterior teeth; K. Markowitz, NJDS; *Foundation of UMDNJ*

In vivo role of beta-defensin 1 in immunity to HSV; L. Ryan, NJDS; *Foundation of UMDNJ*

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Ambient Air Pollution and the Risk of Fetal Growth Restriction; D. Rich, SPH; *Foundation of UMDNJ*

Consumers/Patients, Information Technology, and Improved Health Outcomes for Patients with Pre-Diabetes and Diabetes; M. Sass, SPH; *Foundation of UMDNJ*

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Culturally Competent Care from the Perspective of the Hispanic Elders in the Community; D. Pacquiao, SN; *Foundation of UMDNJ*