Translational Research: TEAMED for RESULTS
“We believe our first responsibility is to the doctors, nurses and patients, to mothers and fathers and all others who use our products and services.”

Our Credo

Johnson & Johnson
Welcome to the Summer/Fall issue of Robert Wood Johnson Medicine. This issue will bring you a new appreciation of the people and endeavors that are transforming Robert Wood Johnson Medical School.

Our cover article, “Translational Research,” spotlights the special projects under way at The Cancer Institute of New Jersey (CINJ). As a National Cancer Institute-designated Comprehensive Cancer Center, CINJ is ideally positioned to assemble physician-scientist teams drawn from different laboratories to pursue a single research goal. In “Translational Research” some of the CINJ faculty members using this form of collaboration explain their extraordinary work, connecting bench to bedside through basic and clinical research.

A trio of our leading scientists is involved in another type of collaborative research, which brings different points of view to bear on a single group of diseases. “Neurological Research: Parallel Paths to Discovery” describes the cross-fertilization of ideas between Dr. Ira B. Black, Dr. Deborah A. Cory-Slechta, and Dr. M. Maral Mouradian, all of whom study the complex diseases of the basic nervous system. By considering the many possible causes for these diseases and their progression, these scientists have expanded the likelihood of finding novel solutions and effective treatments.

In the past year, our campus has been transformed by the completion of the Robert Wood Johnson Medical School Research Building. This state-of-the-art, 90,000-square-foot structure houses 27 laboratories in an environment designed to facilitate collaborative science. Please visit the building and enjoy the excitement surrounding its dedication in our special report, “Building for Tomorrow.”

RWJMS graduates who serve on our faculty are the focus of a third feature, “Go to the Head of the Class.” As an entity, these faculty members represent the finest qualities of those who come here to learn and to teach. A fondly painted portrait emerges from their reflections, which also show deep pride in their role in the growth of the medical school.

In the Last Page, one of these alumni-faculty, Alfred F. Tallia, MD ’78, writes compellingly of changing directions in his career — from student to clinician-educator — a challenging and satisfying journey that has paralleled the evolution of RWJMS.

We thank you, our readers, for your interest and gratefully acknowledge the work of the people you will read about in these pages. Their intelligence, curiosity, and dedication are the essence of this school, and they take us to new levels of excellence every day.

Sincerely,

Harold L. Paz, MD
Dean
Michael Ramos
Monroe, NJ
Bariatric Surgery Patient
University Medical Center at Princeton

I was morbidly obese for years – reaching over 500 pounds. I couldn’t even get on the floor with my children. Dieting didn’t work, so I decided on Bariatric surgery. After a year of research, I chose a pioneer in the field at University Medical Center at Princeton. He’d been doing this kind of surgery for 26 years.

The nursing staff could sense how nervous I was. They made me laugh and feel comfortable, and were always checking on me to make sure I was getting what I needed. They were there because they wanted to be. The entire team showed concern for my health and comfort. Simply put, they were terrific.

In the Operating Room, I was impressed with how the team worked together with the surgeon. The constant communication was comforting. They introduced themselves and thoroughly explained what was going to happen. Hands down, this was the best experience I ever had at a hospital.

Now I’ve lost almost 200 pounds, and counting. Thanks to the expert, caring staff at University Medical Center at Princeton, I’m now able to play with my 8-month-old and 3-year-old – at their level.

We’ve found that great clinical care works best when mixed with the warmth of a smile and comfort of a caring, skilled team. This unique approach produces amazing results. Our outstanding staff combines expertise with genuine compassion and respect. That’s how we’re Redefining Care – one patient at a time.

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FEATURES

Neurological Research: Parallel Paths to Discovery
Patience and perseverance lead to milestones in research targeting neurological disorders.
By Rita M. Rooney

Translational Research: Teamed for Results
Bench-to-bedside studies benefit from a collaborative culture in which independent thinking and interdependent activity thrive.
By Rita M. Rooney

Go to the Head of the Class: Alumni-Faculty Reflect on RWJMS
Alumni who serve on the faculty offer their valuable — and enthusiastic — perspective on growth and change at RWJMS.
By Kate O’Neill

2003 Alumni Reunion Weekend
During Reunion Weekend, alumni saw an evolving campus. They learned, reminisced, socialized, dined, danced, and, above all, celebrated the medical school that brought them together.
By Kate O’Neill

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“BUILDING FOR TOMORROW”
A Celebration of Excellence in Research and Education

Building for Tomorrow celebrated excellence in research and education with several events in October 2003, highlighted by the dedication of the RWJMS Research Building. The program opened with the Fifth Annual UMDNJ-Robert Wood Johnson Medical School Research Day, which set a high mark for scientific discussion over the ensuing days. The ribbon-cutting ceremony for the Research Building went far beyond a dedication of bricks and mortar, to reflect the RWJMS commitment to its research faculty. The next day, during Reunion Weekend, a panel of prominent alumni discussed their work at a Continuing Medical Education program (see page 55).

Research Day: Nobel Laureate Serves as Keynote
Serving as Research Day keynote speaker was Nobel laureate Eric F. Wieschaus, PhD, adjunct professor of biochemistry, RWJMS; Squibb Professor in Molecular Biology at Princeton University; and Investigator, Howard Hughes Medical Institute. In the auditorium of the Research Tower in Piscataway, a capacity crowd heard Dr. Wieschaus speak about Wnt genes, a large family of glycoproteins that are involved in critical aspects of early embryonic development. In his talk, “Rethinking Wnt Signaling,” Dr. Wieschaus not only explained his discoveries about cell signaling pathways, he also drew a wider lesson about the scientific process. Initially, he said, molecular models did not support his assumptions about cell signaling. Yet, subsequently, he was able to use these results to form a second set of hypotheses, which ultimately led to his understanding of the role of Wnt in cell signaling.

Dr. Wieschaus’s talk was moderated by Aaron J. Shatkin, PhD, professor of molecular genetics, microbiology, and immunology and director, Center for Advanced Biotechnology and Medicine. “Dr. Wieschaus is at the fore-
front of his field,” said Dr. Shatkin afterward. “But his talk was not limited to his own basic science research. It was about the challenging questions a scientist must ask when a model doesn’t work. The implications of that kind of thinking were exciting for everyone in the room.”

180 Present Scientific Posters

In the adjacent Great Hall, television reporters and visitors viewed two sessions of scientific posters, presented by researchers ranging from medical students to faculty. As she gave Research Day Awards to the top presenters, Judith A. Neubauer, PhD, professor of medicine and acting senior associate dean for research, said, “The posters and the presentations were outstanding. Research Day has set a high standard for this celebration of research excellence.”

Dean’s Awards were presented to:

- Kristina Sutphen (Basic Sciences); mentor: Gary A. Brewer, PhD, associate professor of molecular genetics, microbiology, and immunology
- Jill Schak ’06 (Clinical Sciences); mentor: Nazeeh N. Hanna, MD, assistant professor of pediatrics

Awards of Excellence in the following categories were presented to:

- Medical student: Hilary Vernon, MD, PhD ’04;

Nobel laureate Eric F. Wieschaus, PhD, adjunct professor of biochemistry, RWJMS; Squibb Professor in Molecular Biology at Princeton University, and Investigator, Howard Hughes Medical Institute, delivers the Research Day keynote speech.

Guests at the 2003 Research Day review some of the 180 scientific posters presented by students, graduate students, and faculty in the Great Hall of the Research Tower.

mentor: Jay A. Tischfield, PhD, MPH, professor of pediatrics, RWJMS, and professor of genetics, Rutgers, The State University of New Jersey
- Clinical resident/clinical fellow: Murali Manne, MD; mentor: Randell S. Burd, MD, PhD, assistant professor of surgery
- Post-doctoral fellow: Ling Qin, PhD; mentor: Nicola C. Partridge, PhD, professor and chair, Department of Physiology and Biophysics
- Graduate student: Sandra Chesoni; mentor: Dr. Brewer

— Continued on page 6
The Building Dedication

Dignitaries, faculty, friends, reporters, cameras, and microphones — all were part of the dedication of a new structure housing the RWJMS Research Building and UMDNJ-School of Public Health (SPH). Prior to the ribbon-cutting ceremony, Harold L. Paz, MD, dean, welcomed a panel of speakers, including representatives from the UMDNJ leadership along with local and state officials.

Dr. Paz lauded those who had recognized the fast-growing need for state-of-the-art basic science research facilities at RWJMS. He and several other speakers praised the building’s potential not only for education and but also for regional economic development.

“The new Research Building houses some of the medical school’s most innovative and exciting scientists, conducting research in areas such as molecular therapeutics, proteomics, genomics, and bioinformatics,” said the dean.

“Last year, the school’s faculty received over $110 million in research dollars, double what it was just five years ago. Our space and resource requirements continue to increase at an equally phenomenal rate.”

Among the morning’s speakers was Clifton R. Lacy, MD ’79, commissioner, New Jersey Department of Health and Senior Services, who brought greetings and congratulations from Governor James E. McGreevey. Dr. Lacy declared himself “a proud RWJMS graduate, who had served 20 years on the faculty before...
accepting his current appointment in state government.” The Research Building will attract national and international researchers to the medical school and bring “the greatest benefits of health to the community,” said Dr. Lacy.

Establishing a Collaborative Environment

In form and function, the RWJMS Research Building reflects the goal of the National Institutes of Health to redirect grant support to three main areas: new pathways to discovery, research teams of the future, and re-engineering clinical research. The building’s collaborative environment, including linked laboratories and inviting common areas, will hasten basic science discoveries from bench to bedside, says Dr. Paz.

The building’s soaring central atrium features sculptor Ray King’s Double Helix, a dazzling 42-foot-high, 12-foot-wide glass sculpture composed of reflective steel cables that suspend thousands of crystalline squares and cubes. Along with this work, Mr. King created The Pod, a second light-inspired glass sculpture, which is displayed in the west atrium.

The $45 million, 120,000-square-foot building is part of UMDNJ’s statewide, five-year, $535 million capital campaign to support research, education, and clinical care. The building houses 27 state-of-the-art scientific laboratories for scientists from five RWJMS departments, which occupy 90,000 square feet of the building. The SPH wing provides 30,000 square feet of classrooms, laboratories, and offices. Many laboratories are linked to promote collaborative research. A core imaging suite, housing interdepartmental instruments and a state-of-the-art, core nuclear magnetic resonance facility, is also sited within the RWJ Research Building.

Symposium Features Leading Scientists

During the afternoon, a capacity crowd filled the auditorium of the Waksman Institute to hear six leading RWJMS faculty scientists describe the groundbreaking research they will pursue in the new Research Building.

— Continued on page 8
The symposium, “Building Molecular Pathways to the Future,” was chaired by Sidney Pestka, MD, professor and chair, Department of Molecular Genetics, Microbiology, and Immunology, and recipient of the 2001 National Medal of Technology.

Presenters were: Ira B. Black, MD, professor and chair, Department of Neuroscience and Cell Biology; Marc R. Gartenberg, PhD, associate professor and graduate director, Department of Pharmacology; Jun-Yan Hong, PhD, professor of environmental and occupational health at the Environmental and Occupational Health Sciences Institute and UMDNJ-School of Public Health; Jianjie Ma, PhD, University Professor of Physiology and Biophysics; M. Maral Mouradian, MD, William Dow Lovett Professor of Neurology; and Danny F. Reinberg, PhD, Distinguished University Professor of Biochemistry and Investigator, Howard Hughes Medical Institute.

The Reception: Making Connections:

Following the symposium, guests enjoyed a reception in the central atrium of the RWJMS Research Building, where they joined alumni returning for Reunion Weekend. The air hummed with excitement as the group informally discussed the countless ideas presented that afternoon and the preceding day. Dr. Lacy, who had spoken at the ribbon-cutting ceremony, was the evening’s invited speaker. Throughout the reception, students served as tour guides, leading guests behind the scenes into the new building’s laboratories and meeting spaces.

Looking back over the first two days of “Building for Tomorrow,” Dr. Paz noted the seamless connections between the achievements of the Research Day participants, the Research Building designers and scientists, the Scientific Symposium panelists, and the alumni who would speak at the following day’s Continuing Medical Education program. “The events of this week highlight the important research programs on this campus,” said Dr. Paz. “This new Research Building houses some of the medical school’s most innovative and exciting scientists.” He added his congratulations to “all who had worked patiently and tirelessly to bring this enormous undertaking from dream to reality.”

— K.O’N.
Central New Jersey will soon have its first pediatric cardiac surgery program, and it will be in New Brunswick.

A four-way agreement, signed in April, develops an outstanding regional pediatric cardiology program from the medical school’s existing partnership with the Bristol-Myers Squibb Children’s Hospital at Robert Wood Johnson University Hospital. In collaboration with Children’s Hospital of New York-Presbyterian Hospital, physicians based at UMDNJ-Robert Wood Johnson Medical School and Columbia University College of Physicians and Surgeons will provide pediatric and surgical care to children at the Bristol Myers-Squibb Children’s Hospital.

Joseph W. Gaffney, MD, associate professor of pediatrics, recently was appointed chief of the division of pediatric cardiology and the new program’s first director. Dr. Gaffney, a pediatric cardiologist, graduated from New York Medical College and practiced at New York-Presbyterian Hospital before joining the full-time RWJMS faculty in May. Dr. Gaffney recruited two additional physicians to the program and a team that is widely experienced in pediatric cardiology and postsurgical care. They are establishing an extensive educational program that will introduce surgical and invasive pediatric cardiology to New Brunswick in 2005. In addition to congenital cardiac defects, the division will evaluate and treat acquired cardiac pathology, and it looks forward to collaborative efforts with other divisions and departments.

“Partnering with one of the nation’s largest and most respected pediatric cardiology and cardiac surgery programs advances the exceptional specialty education already offered to our medical students, residents, and fellows,” said Harold L. Paz, MD, dean, in his April 12 announcement of the agreement.

“Robert Wood Johnson Medical School and Robert Wood Johnson University Hospital share more than just a name,” observed Dr. Paz. “With an ever-increasing number of new programs in cardiology, neurology, cancer care, and pediatrics, the campus we share has become the premier academic health center in New Jersey.”

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By Kate O’Neill

NIH Funding:
Jeffrey L. Carson, MD, Richard C. Reynolds Professor of Medicine, received $5.8 million from the National Heart, Lung, and Blood Institute for a “Transfusion therapy trial for functional outcomes in cardiovascular patients undergoing surgical hip fracture repair.” The National Institutes of Health (NIH) also awarded $1.2 million to Dr. Carson for “Functional outcomes for cardiovascular patients undergoing surgical repair (FOCUS): A randomized trial comparing transfusion thresholds in hip fracture patients.” The NIH awarded Kiron M. Das, MD, PhD, professor of medicine, $58,600 as a supplement for underrepresented minorities, for “Studies of esophageal metaplasia using a novel antibody.” The National Institute of Neurological Disorders and Stroke (NINDS) awarded a five-year, $1.6 million grant to Emanuel M. DiCicco-Bloom, MD, professor of neuroscience and cell biology, for “PACAP regulation of neurogenesis and survival.” A $332,555 NIH collaborative grant was awarded to Michael Hampsey, PhD, professor of biochemistry, and Claire L. Moore, PhD, professor of molecular biology and microbiology, Tufts.

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Continued on page 10

Robert Wood Johnson ■ MEDICINE
Before an enthusiastic crowd of patient and family advocates, renowned researchers, and the New Jersey medical community, Governor James E. McGreevey signed a pivotal agreement with the University of Medicine and Dentistry of New Jersey and Rutgers, The State University of New Jersey, formally establishing the Stem Cell Institute of New Jersey. The signing took place in the closing moments of the Governor’s Forum on New Jersey’s Stem Cell Research Initiative, held at Robert Wood Johnson University Hospital (RWJUH) in New Brunswick on May 12.

“Stem cell research possesses the potential to lead to new treatments and cures for the more than 150 million people nationwide who suffer from conditions such as cancer, Parkinson’s disease, Alzheimer’s disease, diabetes, and spinal cord injury,” noted Clifton R. Lacy, MD ’79, commissioner, New Jersey Department of Health and Senior Services, during his opening remarks at the forum. “Recent research also suggests stem cells may be used for understanding, treating, and preventing birth defects and developmental abnormalities. Today’s research will lead to tomorrow’s treatments and cures, which will directly affect the lives of many and indirectly influence the lives of all.”

New Jersey is the second state in the country, following California, to legalize adult and embryonic stem cell research. The Stem Cell Institute of New Jersey will be funded by the state, UMDNJ, and Rutgers, for a total of $11.5 million.

“This appropriation proudly makes New Jersey the first state in the nation to devote public funds to stem cell research,” Governor McGreevey said. “As I have long contended, our state provides an optimum environment for this enterprise to succeed — and to succeed well. We have a unique combination of pharmaceutical infrastructure, biomedical research, university expertise, and political will necessary to advance stem cell research to benefit patients and families throughout our state, the nation, and the world.”

The state’s seed money will help recruit world-class researchers to the institute and provide equipment for preliminary projects while the permanent facility is under construction in New Jersey.
Brunswick. Public and private endowments will provide additional funding to support the institute’s initiatives.

Ira B. Black, MD, professor and chair, Department of Neuroscience and Cell Biology, RWJMS, and founding director of the institute, will work closely with Wise Young, PhD, MD, chair, Department of Cell Biology and Neuroscience at Rutgers University.

“Dr. Ira Black has made headlines by proving for the first time that mature stem cells taken from adult bone marrow can be implanted in a developing brain, eventually changing into healthy brain cells,” the governor said. “Dr. Black’s work — undertaken right here in New Jersey — may well lead to new, more effective approaches to birth defects, challenging and addressing developmental disabilities within children. Clearly, recognizing this scope and promise, we are poised on the edge of a new scientific era.”

“Stem cell research is an overarching new approach to medicine,” added Dr. Black. “The mission of the institute integrates basic stem cell biology and implements it immediately into patient care. That philosophy will guide our work.”

— C.C.

The Association of American Medical Colleges (AAMC) presented its 2003 Award for Distinguished Research in Biomedical Sciences to Aaron J. Shatkin, PhD, professor of molecular genetics, microbiology, and immunology and director, Center for Advanced Biotechnology and Medicine (CABM). This prestigious award recognizes medical school faculty members who conduct outstanding clinical or laboratory research that has contributed to the substance of medicine.

Dr. Shatkin was a pioneer in bringing molecular biology and biochemistry to the field of animal virology. While at the National Institutes of Health (NIH), he studied the genome of the reovirus and gained insight into fundamental life processes and diseases such as AIDS and cancer. His findings about the interactions between viruses and cells led him to refocus on cellular metabolism and gene expression, he says, “using viruses as the tools to get into cells.”

“Under Dr. Shatkin’s leadership,” said Dr. Paz, “the CABM, an entirely new research institution, was created, and under his direction [it] has had a major impact on academic scientific research and higher education nationwide.”

— K. O’N.

NIH FUNDING:
Center for Advanced Biotechnology and Medicine (CABM), for the purchase of a nanospray liquid chromatography tandem mass spectrometry (LC/MS/MS) system. The NINDS awarded $238,270 to Matthew A. Menza, MD, professor and acting chair, Department of Psychiatry, as a minority supplement to his study, “Treatment of depression in Parkinson’s disease.” The supplement will support Humberto Marin, MD, assistant professor of psychiatry, for two years. Abel E. Moreyra, MD, professor of medicine, received $71,632 from the NIH through Vicor Technologies for a study to analyze R-R intervals in high-risk emergency room patients. The National Eye Institute awarded Richard S. Nowakowski, PhD, associate professor of neuroscience and cell biology, a five-year, $1.6 million grant to study “Neurogenesis in the non-pigmented retina.” In addition, the NINDS awarded Dr. Nowakowski a four-year, $1.4 million grant for “Phenomic analysis of the murine hippocampus.” The National Institute of Allergy and Infectious Disease awarded $1.4 million to Sidney Pestka, MD, professor and chair, Department of Molecular Genetics, Microbiology, and Immunology, for a study titled “Receptor-signaling...”
Robert Wood Johnson Medicine News

CHINJ Celebration Tops Off a New Building

As the 1,600-pound I beam swung upward across a blue November sky, it carried hope for the future of New Jersey’s children. A crowd of visitors and passersby watched in awe as the beam settled in atop the Child Health Institute of New Jersey (CHINJ) of UMDNJ-Robert Wood Johnson Medical School.

Then, with the new building neatly topped off, guests spoke about the mission of CHINJ: to discover the causes of childhood diseases and learn how disordered development leads to illness that can continue into adulthood.

Roland Machold, vice chair of the CHINJ Board of Directors, commented that the institute will be “a magnet for the brightest minds of science.” Daniel A. Notterman, MD, University Professor and chair, Department of Pediatrics, said the $72 million, 150,000-square-foot building will be the research linchpin of the growing children’s health complex in New Brunswick.

“The Child Health Institute will bring economic opportunities as well as child health breakthroughs,” said Harold L. Paz, MD, dean. “When construction is done, the institute becomes a research engine that creates jobs. Some estimates put the return at five dollars in economic impact for each research dollar spent.” Others adding to the celebration included John J. Petillo, PhD, then chair, UMDNJ Board of Trustees; and Stuart D. Cook, MD, then president, UMDNJ.

The building’s exterior and interior grew quickly through the winter, and by late spring, the brick framing was complete. Inside, a laboratory mock-up was ready for installation, providing a life-size model of the cutting-edge technology that will be available to CHINJ researchers.

CHINJ will house a transgenic and gene-targeting facility and two 25,000-square-foot floors for basic research, as well as a pediatric clinical research center and outpatient, academic, and clinical space for the Department of Pediatrics. Programmatically, and in some cases physically, CHINJ will be linked with the clinical services at the Bristol-Myers Squibb Children’s Hospital of New Jersey at Robert Wood Johnson University Hospital (RWJUH), the Cardiovascular Institute...
Motolinsky Foundation Honors Dr. Lavizzo-Mourey

Following its theme, “A Quest for Change,” the Melvyn H. Motolinsky Research Foundation honored Risa Lavizzo-Mourey, MD, MBA, president and CEO of the Robert Wood Johnson Foundation (RWJF), with its 30th Distinguished Service Award. In her remarks, Dr. Lavizzo-Mourey commented on how well the theme fit with her foundation’s goal: boldly seek and support improvement in the delivery of health care.

A member of the Institute of Medicine, Dr. Lavizzo-Mourey has had a remarkable career in government, academia, and health care administration. She graduated from Harvard Medical School and trained in internal medicine at Brigham and Women’s Hospital. She earned her master’s degree in business administration at the University of Pennsylvania, where she later was a Robert Wood Johnson Foundation Scholar of Pennsylvania, received her geriatrics training, and was the Sylvan Eisman Professor of Medicine and Health Care Systems.

“We were very pleased to present this award to the new leader of the Robert Wood Johnson Foundation, an organization that has done so much for so many people,” says Jack Borras, treasurer of the Motolinsky Foundation and a member of the Board of Directors of Child Health Institute of New Jersey at RWJMS.

In 1971, the family and friends of Melvyn H. Motolinsky created the Motolinsky Foundation as a living tribute to this promising young attorney, who died from leukemia at age 25. The foundation’s primary goal is to conquer blood-borne diseases such as leukemia through research. Since Mr. Motolinsky was dedicated to improving life for the people of New Brunswick, the foundation concentrates its support in the city he loved.

Since the Motolinsky Foundation’s first gift to RWJMS nearly 30 years ago, it has developed a growing partnership with the medical school’s hematology research program. It has endowed the Motolinsky Fellowship Program and, more recently, the Melvyn H. and Ab Motolinsky Chair in Hematology. The chair is held by Parvin Saidi, MD, professor of medicine, chief, division of hematology, and director of the Melvyn H. Motolinsky Laboratory for Hematology Research.

— K.O’N.
A major expansion of The Cancer Institute of New Jersey (CINJ) at UMDNJ-Robert Wood Johnson Medical School — the state’s only National Cancer Institute–designated Comprehensive Cancer Center — is a vital step in the dream of making first-rate cancer care available to anyone in the state who needs it.

At a ceremony May 11 that featured remarks by health care and government officials, including Governor James E. McGreevey, the institute’s five-floor, 150,000-square-foot addition was dedicated. The expansion triples CINJ’s size, meaning more space for research and patient care.

“We all know someone who’s been inside,” said William N. Hait, MD, PhD, professor of medicine and pharmacology, associate dean for oncology programs, and director of CINJ, at the ceremony. “We honor those it serves. The torrent of new patients is not a cause to celebrate,” he added, but it is a powerful motivator for the community of doctors, nurses, and researchers at CINJ.

Governor McGreevey praised Dr. Hait’s leadership in building CINJ from the ground up, from no patients in 1993 to nearly 70,000 patient visits just ten years later. The expanded facility will allow an additional 30,000 patient visits a year.

“There is perhaps nothing more important than what we do here today,” the governor added. “With this facility, we’re saying it’s not necessary to travel out of New Jersey to get world-class treatment.”

“The Cancer Institute of New Jersey’s expanded facility will allow an additional 30,000 patient visits a year.

The $71 million project was financed with about $50 million in state bonds and the rest in private donations. The new facility houses six new treatments areas, more than 30 additional treatment bays and exam rooms, and several large reception and nursing areas. The expansion includes a Resource and Learning Center, where patients and their families can find information about diagnoses, treatment procedures, clinical trials, and symptom management. Also new is a Good Manufacturing Practices
(GMP) laboratory, a suite of six clean rooms that allows researchers to produce sterile, pharmaceutical-grade anti-cancer treatments, which can then be administered to patients in CINJ’s clinic.

Even though the expansion has vastly increased the institute’s size, great care has been taken to ensure that treatment areas are intimate and maintain a friendly feeling for patients and their families.

The institute is now also home to the Dean and Betty Gallo Prostate Cancer Center. At the dedication ceremony, Betty Gallo presented the inaugural Betty Gallo Advocacy Award to Representative Rodney Frelinghuysen for his support of cancer research and awareness.

Additional renovations are being completed in the original CINJ building, which will house the Fannie E. Rippel Foundation Center for Women’s Reproductive Cancers, the LIFE Center for Breast Cancer Awareness, and the New Jersey Comprehensive Breast Cancer Program.

The Cancer Institute of New Jersey is one of only 39 National Cancer Institute–designated Comprehensive Cancer Centers in the nation.

— A.V.
HHMI Investigator Delivers Boxer Lecture

Robert J. Lefkowitz, MD, James B. Duke Professor of Medicine, Duke University Medical Center, and Investigator, Howard Hughes Medical Institute, delivered the 2003 George J. Annas, JD, MPH, HHMI Investigator Boxer Lecture. Dr. Lefkowitz presented seven membrane spanning receptors, an area in which his research has been honored with the Institut de France’s Scientific Grand Prize. The lecture was hosted by the Department of Physiology and Biophysics.

Estenes Lecture Features Eminent Physician/Scientist

On February 6, the Regina Estenes MD ’76 Memorial Lecture was delivered by Andrew R. Marks, MD, professor and chair, Department of Physiology and Cellular Biophysics, at Columbia University College of Physicians and Surgeons. Dr. Marks spoke on “Molecular Therapeutics for Heart Failure and Sudden Cardiac Death: One Pill Cures Both.” The Estenes Lecture is presented by the Department of Physiology and Biophysics.

Leading Bioethicist Delivers Stahl Lecture

On March 29, the annual Mates David and Hinna Stahl Lecture in Bioethics was presented by Edward R. Utley, professor and chair, Department of Health Law, Bioethics, and Human Rights, of Boston University School of Public Health. Dr. Utley also is a professor in the Boston University School of Medicine and School of Law. His topic was “Patient Safety, Quality Improvement, and Patient Rights.”

CINJ Lecturer Speaks on Genomic Tumor Analysis

On April 21, The Cancer Institute of New Jersey’s Distinguished Lecture Series presented Mark A. Israel, MD, professor of pediatrics and genetics and director, Norris Cotton Cancer Center at the Dartmouth-Hitchcock Medical Center. Dr. Israel spoke on “Genomic Analysis of Brain Tumors: Clinical Advances and Research Opportunities.”

CHINJ Presents Prominent Psychiatrist/Neuroscientist

On April 29, Joseph T. Coyle, MD, Eben S. Draper Professor of Psychiatry and Neuroscience at Harvard Medical School, gave the latest address in the Dr. Kenneth S. and Audrey S. Gould Lecture Series in Molecular and Cellular Medicine. Dr. Coyle’s topic was “Glutamate, Glia & Psychosis.” This annual series takes place under the auspices of the Child Health Institute of New Jersey.

Nobel Laureate Delivers First Ronald Morris, MD, Lecture

Honoring N. Ronald Morris, PhD, professor of pharmacology (retired), for 40 years of faculty service, his friends and colleagues have endowed an RWJMS lecture series in his name. The first lecture, “Controlling the Cell Cycle,” was delivered on April 27 by Sir Paul M. Nurse, PhD, president of The Rockefeller University and a co-recipient of the 2001 Nobel Prize in physiology for his work on “Key Regulators of the Cell Cycle.”

HOLLANDER PHOTOGRAPHIC SERVICES

Thanks to a $10,000 grant from Pfizer, the UMDNJ-Robert Wood Johnson Medical School Mini Medical School took on a new look this spring. Pfizer underwrote “Achieving Excellence in the Sciences,” a program designed for high school students contemplating a career in clinical medicine. The program was “an outstanding example of how seriously we take our community service mission,” says Harold L. Paz, MD, dean.

Chosen from an applicant pool of more than 400, the program’s 165 participants came from 15 counties in New Jersey. “We are encouraged that there is such a high level of interest among high school students in learning about science and medicine,” says Carol A. Terregino, MD ’86, clinical associate professor of medicine and assistant dean for admissions. Dr. Terregino initiated and organized this year’s Mini Medical School, recruiting eight members of the RWJMS faculty as lecturers, as well as a medical student panel. Most lectures were split into two parts, principles and applications. The first presenter would lecture on the working principles of the subject, and the second
The presenter would lecture on its clinical aspects (see box).

The faculty “authenticated the sense of being in medical school,” says Robert Ford, a junior at Montgomery High School, who gives top marks to the program. In addition, he adds, small-group discussions “concentrated and reinforced the learning experience while allowing us to peer into the life of a real medical student.”

Both of Robert’s parents are physicians and RWJMS alumni: Robert R. Ford, MD ’83, clinical instructor of radiology, who served on the Mini Medical School faculty, and Barbara A. Marroccoli, MD ’82, clinical associate professor of medicine. “Learning how the body works is amazing,” says Robert. “I can only imagine the fascination that is derived from learning every detail. Mini Medical School opened my eyes to the vast knowledge that is required to pursue a career as a medical doctor, but it also showed how interesting the required knowledge can be.”

— K.O’N.
Success Marks 2004 Match Day

A s the Class of 2004 went through the annual rite of passage known as Match Day, the Clinical Academic Building Conference Room was afloat with balloons and optimism. Clutching the envelopes that would announce where and how they would spend the next years of their lives, students waited anxiously as Euton M. Laing, MD ’90, president, Alumni Association, proposed a champagne toast to the class. Then, exactly at noon, they ripped open their envelopes and broke out the cheers, hugs, and high fives.

Between the Piscataway and Camden campuses, the students achieved a 97 percent match rate, 4 percent higher than the national average. Moreover, they matched with extremely competitive residencies at some of the nation’s most prestigious institutions. Some 40 percent will enter residencies at academic health centers in New Jersey, with 15 percent at RWJMS and other UMDNJ schools. Internal medicine remains the favorite residency, with 26 percent of the class matched in that area.

“Our students, their advisors, and the entire faculty deserve congratulations on the highly successful results of the residency match,” says David Seiden, PhD, professor of neuroscience and cell biology and associate dean for admissions and student affairs.

— K.O’N.
**Research**

(Continued from Page 19)

**INDUSTRY FUNDING:**
UMDNJ, Alice B. Gottlieb, MD, PhD, William H. Conzen
Professor of Clinical Pharmacology, professor of medicine, and director, Clinical Research Center, received a $75,000 research grant from Beiersdorf.

**PUBLISHED RESEARCH:**

Jonathan J. Hwang, MD '95, assistant professor of surgery, was first author of "Western Blotting as the Confirmatory Test for Syphilis in a Patient with Systemic Lupus Erythematosus," published in Archives of Dermatology 2004:140:490–491. Notterman, MD, University Professor and chair, Department of Pediatrics, is located in the DNA core, on the Piscataway campus. Soon, a satellite of the Microarray Core's Affymetrix Chip System will be added to the DNA core, on the Piscataway campus, expanding both the technology of the Microarray core and the expertise of its staff. The RWJMS Microarray Core Facility, also serve outside investigators. The extended user base not only helps contain costs for the school's scientists, it also provides additional funds for reinvestment in technology upgrades.

**Expanded Cores And Shared Equipment Grants Support Strategic Planning Goals**

First-rate core facilities and shared equipment are vital to faculty research programs," says Terri Goss Kinzy, PhD, professor of molecular genetics, microbiology, and immunology and chair, Research Committee. "They are a key component in the prestigious center and program project grants that help establish and support pre-eminence in biomedical science." At UMDNJ-Robert Wood Johnson Medical School, she adds, core facilities and shared equipment can provide a critical link between clinical and basic research.

In 2002, the vital role of core facilities and shared equipment was a recurring theme at the RWJMS strategic planning retreat. These discussions led to the establishment of the Subcommittee on Core Facilities, which promptly began an ongoing review of the school's core facilities. In addition, the Office of Research and Sponsored Programs piloted a method to support investigators who submit proposals for shared equipment grants to the National Institutes of Health (NIH). The 15 core facilities at RWJMS increase the availability of state-of-the-art equipment and on-site technical expertise available for each of the school's research scientists.

"They are a key component in the prestige center and program project grants that help establish and support pre-eminence in biomedical science." At UMDNJ-Robert Wood Johnson Medical School, she adds, core facilities and shared equipment can provide a critical link between clinical and basic research. The school's core facilities promise to enhance existing services. The RWJMS Microarray Core Facility, directed by Daniel A. Notterman, MD, University Professor and chair, Department of Pediatrics, is located in the DNA core, on the Piscataway campus. Soon, a satellite of the Microarray Core's Affymetrix Chip System will be added to the DNA core, on the Piscataway campus, expanding both the technology of the Microarray core and the expertise of its staff. Shared equipment works somewhat differently from core facilities, explains Dr. Kinzy. In contrast to the cores, shared equipment proposals to the NIH must specify the equipment's availability, particularly with respect to the grant applicants. To increase school-wide access to state-of-the-art technology, the RWJMS Subcommittee on Core Facilities has favored those proposals that will make shared equipment available on a cross-departmental basis, or further increase access by siting it within the school's core facilities.

Harold L. Paz, MD, dean, recently approved the subcommittee's recommendation to support three shared equipment grant proposals to the NIH, for an 800 MHz nuclear magnetic resonator, a Zeiss confocal microscope, and an ABI 4700 TOF/TOF MS (time-of-flight mass spectrometer). The dean's approval brought significant long-term commitment to these projects — ensuring laboratory space for the first and underwritten costs for the others.

“The expansion of our research cores and the dean's support for shared equipment grants support our strategic goal to sustain research excellence at RWJMS," says Alice Lustig, chief operating officer, RWJMS.

— K.O'N.

**Detailed descriptions of the RWJMS core facilities are online at http://revue2.umdnj.edu/orspweb/corefacilities.htm.**
Raising Juggling to a Healing Art

Ian Rossman has raised juggling to an art.

At 14, Ian inherited a Juggling for Klutzes set from his father and challenged himself to juggle a growing variety of objects. By 2002, he had converted the art of juggling to the art of healing. During the summer before his second year at RWJMS, Ian learned that The Arnold P. Gold Foundation for Humanism in Medicine would sponsor a student on a clown tour in Russia, to entertain children in orphanages and pediatric wards. Eager to add physical comedy to his juggling routines, Ian volunteered, was accepted, and soon found himself at Newark Airport in full clown regalia.

The medical student and his clown persona would be inseparable throughout the two-week journey. With puppets, balloons, pratfalls, and joyful noise, the clown troupe broke down the children’s psychological shells along with barriers of language and culture.

According to Human Rights Watch, 95 percent of the “orphans” in Russia have a living parent but have been abandoned to the state for domestic or financial reasons. Ian learned that once in the system, most of these children are institutionalized and permanently classified as debil, or defective. Very few receive meaningful education or training. Ultimately, when they are discharged, they can hold little hope of economic or social re-assimilation.

The Clown Tour is run by physician/clown Patch Adams, MD, who is a board member of Maria’s Children, a Moscow-based children’s rehabilitation center that was established by Maria Yeliseyeva. She continues as director of the center, which promotes art education as a means of heightening society’s appreciation of children and reversing child abuse.

Mrs. Yeliseyeva has rescued many orphans from institutional life, and several accompanied the tour. Because they well understood the plight of institutionalized children, observes Ian, these orphans were among the best and brightest clowns. Among them was Sasha, a 16-year-old orphan who had been classified as debil. After many years in an orphanage, he was rescued by Mrs. Yeliseyeva, who provided love, a family, and exposure to the arts. “Somewhere along the way, Sasha had picked up English,” says Ian. “He served as our translator wherever he went.”

A future pediatric neurologist, Ian finished his second year of medical school after returning from Russia. An MD/PhD candidate, he will complete a doctorate in neurocell biology with Emanuel M. DiCicco-Bloom, MD, professor of neuroscience and cell biology, before returning to his clinical rotations and the completion of his medical degree.

— K.O’N.

The Web site of Maria’s Children provides extensive information about its programs in the arts and the children served by the organization. Visit http://www.papaink.org/gallery/home/artist/display/154.html.
Faculty

Appointments through June 16, 2004

Department of Medicine
- Ruhit R. Arora, MD Clinical Professor MD, Topiwalla National Medical College, 1976
- Tamir Ben-Menachem, MD Associate Professor MD, Ben-Gurion University of the Negev, Israel, 1989
- Justin J. Green, MD Assistant Professor MD, UMDNJ-Robert Wood Johnson Medical School, 1998
- C. Gregory Hagerty, PhD Assistant Professor PhD, Rutgers University, 2002
- Thomas A. Judge, MD Associate Professor MD, Temple University School of Medicine, 1987
- Richard K. Kasama, MD Associate Professor, Camden campus MD, Hahnemann University, 1985
- Irina L. Konchneva, PhD Instructor PhD, Moscow University, Russia, 1990
- Anand Kumar, MD Associate Professor MD, Faculty of Medicine, University of Toronto, Canada, 1986
- Neil A. Lachant, MD Professor MD, University of Vermont School of Medicine, 1974
- Christopher B. McFadden, MD Assistant Professor MD, Medical College of Virginia, 1996
- Barbara A. Porter, MD, MPH Assistant Professor MPH, University of California at Berkeley, 1991
- Naomi Schlesinger, MD Assistant Professor MD, Technion-Israel Institute of Technology, 1988
- Joseph C. Shanahan, MD Assistant Professor MD, UMDNJ-Robert Wood Johnson Medical School, 1997
- Robert A. Somer, MD Assistant Professor MD, State University of New York at Stony Brook School of Medicine, 1997

Department of Obstetrics, Gynecology, and Reproductive Sciences
- Nishi Bakshi, MD Clinical Assistant Professor MD, Nagpur Medical College, India, 1961
- Dilip I. Bharucha, MD Clinical Assistant Professor MD, Gujarat University, India, 1977

Department of Obstetrics, Gynecology, and Reproductive Sciences
- Prasanna Sugathan, MD Assistant Professor MD, University of Tennessee College of Medicine, 1990
- Stephen W. Trzecki, MD Assistant Professor MD, University of Wisconsin School of Medicine, 1996
- Melvin C. White, MD Assistant Professor MD, Hahnemann Medical College, 1976
- Sergio L. Zanotti Cavazzoni, MD Assistant Professor MD, Facultad de Ciencias Medicas, Universidad Oxford de Asuncion, Paraguay, 1995

Department of Molecular Genetics, Microbiology, and Immunology
- Philip Furmanski, PhD Professor PhD, Temple University, 1970

Department of Neurology
- Kouchi Ito, PhD Assistant Professor PhD, Tokyo Jikei University School of Medicine, Japan, 1991
- Eumsung Jun, PhD Instructor PhD, Korea Advanced Institute of Science and Technology, 1996
- Brenda Y. Wu, MD, PhD Assistant Professor MD, Sun Yat-Sen University, Guangdong, China, 1990
- Anna K. Yuzefovich, MD Assistant Professor MD, Ross University School of Medicine, 1998

Department of Neuroscience and Cell Biology
- Joseph DeBlasio, MD Adjunct Assistant Professor MD, St. George’s University, Grenada, 1983

Department of Anesthesiology
- Monty H. S. Wang, MD, MPH Assistant Professor MD, Taipei Medical School, Taiwan, 1978
- Brian A. Lewis, PhD Adjunct Assistant Professor PhD, Princeton University, 1993
- Anton V. Persikov, PhD Adjunct Assistant Professor PhD, Russian Academy of Sciences, 1998

Department of Emergency Medicine
- Michael A. Kirchhoff, MD Assistant Professor MD, UMDNJ-Robert Wood Johnson Medical School, 1997
- Grace L. Lu-Yao, PhD, MPH Associate Professor MPH, Yale University School of Medicine, 1988
- Sheng-Wei Wang, PhD Assistant Professor PhD, Rutgers University, 1998
- Bruce I. Brodkin, MD Clinical Instructor MD, George Washington University School of Medicine, 1967
- Nicole E. Isaacson, PhD Adjunct Assistant Professor PhD, Rutgers University, 2001

Department of Environmental and Occupational Medicine
- Mark Angelo, MD Assistant Professor MD, Temple University School of Medicine, 1998

Department of Pediatrics
- Lakshmi N. Moorthy, MD Assistant Professor MD, Maulana Azad Medical College, New Delhi, India, 1995
- Tarek A. Nakhla, MD Assistant Professor MD, University of Alexandria, Egypt, 1987
- Ifeyinwa N. Osunkwo, MD, MPH Assistant Professor MD, University of Nigeria School of Medical Sciences and Dentistry, 1994

Department of Pathology and Laboratory Medicine
- Eric K. Richfield, MD, PhD Associate Professor MD, Medical College of Wisconsin, 1980
- Silvia S. Verde De Peralta, MD Instructor MD, National University of Cordoba School of Medicine, Spain, 1980

Department of Pharmacology
- Daniel J. Baker, PhD Assistant Professor PhD, University of Minnesota, 1993
- Mantu Bhaumik, PhD Assistant Professor PhD, Indian Institute of Chemical Biology/Jadavpur University, Calcutta, India, 1992
- John A. Sesta, MD Clinical Assistant Professor MD, Jefferson Medical College, 1998

Department of Physiology
- Dennis P. Carmody, PhD Adjunct Professor PhD, Temple University, 1980
- Ian Marshall, MD Assistant Professor MD, University of Cape Town Medical School, South Africa, 1991
- Lakshmi N. Moorthy, MD Assistant Professor MD, Maulana Azad Medical College, New Delhi, India, 1995
- Tarek A. Nakhla, MD Assistant Professor MD, University of Alexandria, Egypt, 1987
- Ifeyinwa N. Osunkwo, MD, MPH Assistant Professor MD, University of Nigeria School of Medical Sciences and Dentistry, 1994
- Rohit R. Arora, MD Clinical Assistant Professor MD, Magpur Medical College, India, 1961
At Convocation, Arnold P. Gold Foundation Humanism Awards were awarded to Cheryl A. Dickson, MD, clinical associate professor of pediatrics, and William E. Scorza, MD, professor of obstetrics, gynecology, and reproductive sciences. Lawrence I. Golbe, MD, professor of neurology, received the Fred Springer Award from the American Parkinson’s Disease Association (APDA) for accomplishment in research in the disease. In addition, the APDA awarded one of three 2003 Roger C. Duvoisin, MD, Fellowships to M. Maral Mouradian, MD, William Dow Lovett Professor of Neurology. Dr. Duvoisin, professor emeritus and former chair, Department of Neurology, held the first Lovett Professorship and is a former chair of the APDA Scientific Advisory Board. And in April, Anette V. Nieves, MD, assistant professor of neurology, received the Excellence in Service Award from the New Jersey chapter of the APDA.

The American Chemical Society recognized Alice B. Gottlieb, MD, PhD, William H. Conzen Professor of Clinical Pharmacology, professor of medicine, and director, Clinical Research Center, for mentoring high school students in the Project SEED Program. The American Jewish Congress, New Jersey Region, honored William N. Hait, MD, PhD, professor of medicine and pharmacology, associate dean for oncology programs, and director, The Cancer Institute of New Jersey (CINJ), with its inaugural Maimonides Award.
William A. Zehring, PhD, associate professor of biochemistry, has been appointed assistant dean for curriculum, a newly created post at UMDNJ-Robert Wood Johnson Medical School. “Creation of this new position clearly demonstrates the dean’s commitment to curriculum development,” says Marie C. Trontell, MD ’76, professor of medicine and senior associate dean for education.

In 2001, as chair of the first-year course directors, Dr. Zehring was appointed to the Curriculum Committee and was elected chair in 2003. “Dr. Zehring’s strong interest in curriculum development and his service to the Curriculum Committee supremely qualify him for this important new position,” says Harold L. Paz, MD, dean.

Teaching and curriculum development have always been among his top career goals, says Dr. Zehring, who is a UMDNJ Master Educator. As a member of the 2002 Education Task Force, he visited other medical schools to research integrated, cross-departmental programs and identify strengths that would “promote interdepartmental synergy” in the first- and second-year RWJMS curriculum. Dr. Zehring’s expertise and diplomacy became important factors in encouraging faculty feedback on the proposed revisions and developing the support required for their adoption.

The following spring, the Liaison Committee on Medical Education (LCME) granted a full, eight-year accreditation for RWJMS, citing the flexible curriculum among the school’s leading strengths. “The LCME findings have strengthened the mandate of the [Curriculum] Committee,” says Dr. Zehring, “increasing our ability to review and improve the quality of the curriculum.”

Along with first-year course directors, Frank J. Wilson, PhD, professor of neuroscience and cell biology, and Michael C. Newlon, PhD, assistant professor of molecular genetics, microbiology, and immunology, Dr. Zehring continues to work with the task force that is assessing the third- and fourth-year curriculum. In addition, he is working on revisions to the first-year curriculum, while establishing an in-house workshop on team-learning.

He looks forward to working with Cheryl A. Dickson, MD, clinical associate professor of pediatrics, the new Curriculum Committee chair.
Three Selected for Master Educators Guild

Master Educators Guild medallions were awarded at University Day to Michael E. Chansky, MD, associate professor and chair, Department of Emergency Medicine; John A. Walker, MD, professor of medicine; and Donald A. Winkelmann, PhD, associate professor of pathology and laboratory medicine.

Dr. Chansky, who has more than 20 years of experience teaching emergency medicine, particularly enjoys faculty mentoring and development. He believes that the Department of Emergency Medicine offers the ideal teaching environment. “Dr. Chansky mentors many of our graduates throughout their own faculty careers,” says Paul R. Mehne, PhD, associate professor of family medicine and associate dean for student affairs, Camden campus, adding, “He is the standard against which other gifted educators are judged.”

Dr. Walker often meets with students applying to graduate programs, and he writes countless departmental letters of recommendation. A nephrologist, he directed the second-year clinical pathophysiology course and oversaw its adaptation to the new second-year curriculum. He also coordinates the summer preceptorship in medicine and chairs both the Clerkship Directors Committee and the Library Committee. Since 1994, Dr. Walker has directed the third-year junior clerkship faculty in 1986 and developed the structural biology program by recruiting and supporting graduate students in this area.

His approach brought immediate success, and under his leadership the program has continued to grow. Dr. Winkelmann serves as both course director and lecturer in the molecular sciences core curriculum. He has facilitated the adaptation of his department’s successful small-group format into the revised undergraduate curriculum. “Dr. Winkelmann is a leader in the use of Web-based resources for the curriculum and a much appreciated adviser and mentor to students,” says Henry Brezenoff, PhD, acting dean, UMDNJ-Graduate School of Biomedical Sciences.

AAMC Awards Special Honor to Dr. Brenner

A top nominee for the Association of American Medical Colleges’ 2003 Humanism in Medicine Award, Jeffrey C. Brenner, MD ’95, instructor of family medicine, was singled out by the association for his “exemplary leadership in humanism and community service.” In lieu of a reception, Dr. Brenner requested that the Pfizer Medical Humanities Initiative, a co-sponsor of the award, donate $500 to Hopeworks ’N Camden. The non-profit organization seeks to reduce the city’s 70 percent dropout rate and expand youth employment training and opportunities.

Jeffrey C. Brenner, MD ’95, instructor of family medicine (center), receives a special award from the Association of American Colleges for “leadership in humanism and community service.” Here, he is congratulated by Paul R. Mehne, PhD, associate professor of family medicine and associate dean for student affairs, Camden campus, and Julian DeLehman, MBA, institutional healthcare representative, Pfizer Medical Humanities Initiative, which supported the award.
Robert Wood Johnson University Hospital (RWJUH) recently presented an Award of Honor to William Hamilton, manager of audiovisual service. Mr. Hamilton was the first non-physician from RWJMS to receive this recognition. In addition, an Award of Honor was presented to Patricia N. Whitley-Williams, MD, associate professor of pediatrics and vice chair, Outreach Education, Department of Pediatrics. Dr. Whitley-Williams also serves as chief, division of immunology, allergy, and infectious disease at Bristol-Myers Squibb Children’s Hospital at RWJUH.

Points of Pride

Barton A. Kamen, MD, PhD, professor of pediatrics and pharmacology, and chief, pediatric oncology/hematology, was honored on February 20 as “Man of the Year” by the Open Your Heart to Children Battling Cancer Foundation and the Institute for Children with Cancer and Blood Disorders.

The Hedwig van Ameringen Executive Leadership in Academic Medicine (ELAM) Program for Women selected Terri Goss Kinzy, PhD, professor of molecular genetics, microbiology, and immunology, as a 2003–2004 fellow. She is the first RWJMS faculty member selected for this honor. Dr. Kinzy also was recently honored for her community service by the Somerset County Commission on the Status of Women.

The federal Environmental Protection Agency (EPA) has appointed Paul J. Lioy, PhD, professor of environmental and occupational medicine, to serve as vice chair of an expert technical review panel studying the environmental aftermath of the World Trade Center attacks.

The RWJMS Department of Faculty Affairs awarded its 2004 Faculty Mentoring Awards to Stephen F. Lowry, MD, professor and chair, Department of Surgery (in the clinical sciences), and Donald A. Winkelmann, PhD, associate professor of pathology and laboratory medicine (in the basic sciences).

Judith A. Neubauer, PhD, professor of medicine and acting senior associate dean for research, was selected by the president of the American Thoracic Society (ATS) to be profiled in the society’s newsletter, Who’s Who in ATS.

Daniel A. Notterman, MD, University Professor and chair, Department of Pediatrics, has been elected to membership in the American Pediatric Society. Earlier this year, the Middlesex County Publishing News
Regional Chamber of Commerce honored Dr. Notterman as a Community Leader of Distinction. The Society of Hospital Medicine presented its 2004 Award for Excellence in Teaching to Vijay K. Rajput, MD, assistant professor of medicine, Camden campus, for his role as an outstanding teacher, academician, mentor, and role model. In May, at its Salute to Policy Makers Awards dinner, the Executive Women of New Jersey honored Denise V. Rodgers, MD, professor of family medicine and environmental and occupational medicine and associate dean for community health.

David B. Seifer, MD, professor of obstetrics, gynecology, and reproductive sciences and director of reproductive endocrinology and infertility, has been invited to serve on the National Institute of Child Health and Human Development study section, "Reproduction, Andrology and Gynecology." His four-year term started in July.

At its annual meeting, in May, the American Society for Microbiology awarded the prestigious Becton-Dickinson Award for Research in Clinical Microbiology to Melvin P. Weinstein, MD, professor of medicine and pathology. The society cited Dr. Weinstein for his "career of outstanding research in infectious diseases that has profoundly shaped the practice of clinical microbiology."

**Professionally Speaking**

Masayori Inouye, PhD, professor and chair, Department of Biochemistry, presented a paper, "mRNA interferases and cell death," in March at the 154th Meeting of the Society for General Microbiology, at the University of Bath. Dr. Inouye described the recent discovery of the possible role of messenger RNA interferase in causing bacterial cells to self-destruct under stress. David S. Kountz, MD, associate professor of medicine, Camden campus, for his role as an outstanding teacher, academician, mentor, and role model. In May, at its Salute to Policy Makers Awards dinner, the Executive Women of New Jersey honored Denise V. Rodgers, MD, professor of family medicine and environmental and occupational medicine and associate dean for community health. David B. Seifer, MD, professor of obstetrics, gynecology, and reproductive sciences and director of reproductive endocrinology and infertility, has been invited to serve on the National Institute of Child Health and Human Development study section, "Reproduction, Andrology and Gynecology." His four-year term started in July.

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In January, David A. Laskow, MD ’81, associate professor of surgery and chief, Kidney and Pancreas Transplantation Services, RWJUH, chaired the Scientific Review Committee at the Fourth Annual Transplant Symposium, in Scottsdale, Arizona.

Stephen F. Lowry, MD, professor and chair, Department of Surgery, delivered the 2004 Jonathan E. Rhoads Lecture at the 28th clinical congress of the American Society for Parenteral and Enteral Nutrition, held in Las Vegas in February.

At a National Institutes of Health (NIH) symposium in February, M. Maral Mouradian, MD, William Dow Lovett Professor of Neurology, spoke on “Pathogenic proteins in Parkinson’s disease and emerging therapeutic targets.”

James R. Seibold, MD, professor of medicine, has been named International Health Professional of the Year by the Biographical Center at Cambridge University.

RWJMS students awarded the 2004 AOA Alumni Award to Alfred F. Tallia, MD ’78, MPH, associate professor and vice chair, Department of Family Medicine.

Daniel E. Wartenberg, PhD, professor of environmental and occupational medicine, is president-elect of the International Society for Environmental Epidemiology.

Peter J. Yim, PhD, assistant professor of radiology, won a Summa Cum Laude Award for a poster co-presented at the 2004 annual meeting of the International Society for Optical Engineering. Dr. Yim’s poster was titled “Multimodality image-based models of carotid artery hemodynamics.”

Robert Wood Johnson Medicine
Neurological Research:

Parallel Paths to Discovery

Science is not only a collaborative endeavor, it is one that demands intellectual flexibility. Perseverance may be the yardstick that measures the success of a single milestone, but beyond resolve is the curiosity of researchers unwilling to settle for a solo approach to their investigations. First, there is recognition that no one approach is likely to hold all the answers to complex and devastating diseases. Second, there is an understanding that one direction may well shed light on a different approach being studied in the same laboratory.

“In studying memory loss, it may well turn out that a combination of gene therapy and stem cell replacement will be the most effective combatant,” reports Ira B. Black, MD, professor and chair, Department of Neuroscience and Cell Biology, and director, Stem Cell Research Center.

“We may be able to insert a normal gene into the stem cells for use in curbing a memory deficit that’s due to a specific gene,” Dr. Black adds. “The opportunity to develop combination solutions to neurological problems underscores the importance of multifaceted approaches.”

by rita m. rooney • portraits by steve hockstein •
It is that goal, among others, that drives the pursuits of UMDNJ-Robert Wood Johnson Medical School scientists tracking neurological diseases that include Parkinson’s disease and Alzheimer’s disease.

In the Piscataway laboratory of M. Maral Mouradian, MD, William Dow Lovett Professor of Neurology, researchers are determining what it is in the dopamine nerve cells that end up causing their demise, resulting in Parkinson’s disease. By doing so, the scientists hope to identify specific targets that can be manipulated for therapeutic purposes. One approach being employed is the use of computer-generated molecules, a project in collaboration with William J. Welsh, PhD, professor of pharmacology, Norman Edelman Professor in Bioinformatics, and director of the UMDNJ Informatics Institute.

In other cases, Dr. Mouradian and her team use molecules that can be tested in genetically engineered mouse models of Parkinson’s disease. Her goal is a dual one — to attack Parkinson’s at multiple ends of a devastating spectrum.

“Except in rare incidents, there is no available biomarker that can be used for pre-symptomatic testing for Parkinson’s,” Dr. Mouradian reports. “So ideally we need therapies that are neuro-protective against future damage, as well as being neuro-restorative of already lost function.”

From another perspective on Parkinson’s disease, Deborah A. Cory-Slechta, PhD, professor and chair, Department of Environmental and Occupational Medicine, and director, Environmental and Occupational Health Sciences Institute (EOHSI), is studying how the combination of two pesticides affects the onset of Parkinson’s.

“By combining doses of the pesticide paraquat and the fungicide manab, we built what is essentially a Parkinson’s disease phenotype in mice,” Dr. Cory-Slechta says. “We took that model in young mice and started asking questions about risk factors, beginning with the known — that Parkinson’s is a neurodegenerative disease that is manifested in old age.”

Studies in Dr. Black’s laboratory are focused on defining genes in the brain that appear to regulate learning and memory — and which, when deranged, probably result in memory loss and dementia. Companion studies involve transplanting neurons derived from stem cells to animal models of memory loss.

“Except in rare incidents, there is no available bio-marker that can be used for pre-symptomatic testing for Parkinson’s,” Dr. Mouradian reports. “So ideally we need therapies that are neuro-protective against future damage, as well as being neuro-restorative of already lost function.”
not only do their individual laboratories engage in diverse approaches to specific neurological research, but the issue of Parkinson’s disease is shared, from different positions, by each of the scientists. In addition to memory loss, and Alzheimer’s and Parkinson’s diseases, Dr. Black’s work extends to stroke, spinal cord injuries, and general dementia.

“Our method is not to rely on a single line of attack but rather to implement multiple strategies, which then converge and hopefully lead us not only to the causes of disease but to effective therapies as well,” he says.

These distinct approaches to Alzheimer’s, Parkinson’s, and other neurological diseases typify the interactive and multi-faceted mind-set of investigators unwilling to limit the imagination in their pursuit of discovery.

Dr. Mouradian, whose study of Parkinson’s disease began when she was chief of the Genetic Pharmacology Unit at the National Institute of Neurological Disorders and Stroke, National Institutes of Health (NIH), explains the progress made by her laboratory.

“We look for critical changes that occur during the course of events that lead to cell death,” she says. “The goal then is to use drugs or certain molecules that block those events and result in protection of nerve cells. We have a number of leads along those lines that we are currently testing in rodent models of the disease. At the same time, we are looking at modifying genes that can alter the course of genetic causes of Parkinson’s.”

The genetic causes to which she refers are mutations in alpha synuclein, Parkin, and DJ-1. People who have those gene mutations are certain candidates for the disease. One of the tricks in designing a protective therapy is to find a way to postpone the onset of the disease. Dr. Mouradian points out that for an individual who might develop Parkinson’s at age 60, being able to postpone the onset for two decades would be a huge gain in fighting the devastating effects on one’s mobility and lifestyle. Right now, she and her team are trying to determine what other genes may modify the rate of disease development.

“We all have genetic polymorphisms, or minor variations from one person to another,” she explains. “In most cases, these have no consequence and don’t necessarily result in disease. However, in some critical genes, polymorphisms can have an impact on the function of yet another gene. That’s what we’re trying to identify and hopefully use in the design of effective therapies.”

One of the main problems in Parkinson’s and other neurological disorders is aggregation of the key pathogenic protein — in the case of Parkinson’s, alpha synuclein. Its aggregation is a consistent abnormality in the brains of people with the disease. Dr. Mouradian’s work has led to a pharmacological means with high potential for preventing this aggregation at an early stage. Her findings recently were published in the Proceedings of the National Academy of Science and now are being tested in genetically engineered mice.

With the exception of families with known specific gene mutations, there is no pre-symptomatic test to reveal who will and who will not develop Parkinson’s. So while preventing cell death is important, so too is halting the progression of the disease in those who develop it. Even after the onset of symptoms, only about 50 percent of neurons have degenerated, leaving the potential for preserving the remaining 50 percent. Dr. Mouradian reports that if this can be accomplished in the early stages of the disease, it would be an unqualified success in that patients could then function well with only mild impairment.

“Dopaminergic medications have improved the life span of Parkinson’s patients,” she says. “However, for many, it is a terribly disabling disorder. We hope to halt that disability through the validity of our hypothesis and efficacy of the therapies we’re testing. Ultimately, I believe combination therapy will prove more effective than targeting one site at a time, because of the complexity of the disease process.”

Dr. Cory-Slechta, who approaches Parkinson’s research from the perspective of environmental hazards, reports that her colleague Eric K. Richardson, MD, PhD, associate professor, Department of Pathology and Laboratory Medicine, has created a transgenic animal model, the alpha synuclein mouse, and works with her on both genetic and pesticide models.
There are many different risk factors, from genetic background to pesticide exposure and age, that contribute to whether or not a person will get this disease,” she says. “They all interact over the course of a lifetime.”

While the variety of risk factors may seem overwhelming, Dr. Cory-Slechta believes they are clues to unraveling the unknown about Parkinson’s disease. “The reason there are so many variants of the disease itself is that there are as many risk factors,” she points out. “Each patient brings a different profile to the table. But the ultimate connecting factor is that they all have a loss of dopamine cells. The trick is to figure out where the risk factors converge, where they come together to produce this cell loss. If we can figure that out, I think we’ll have targeted the place to intervene.”

In search of the unknown, her laboratory began with some well-known facts. Epidemiological studies indicate that Parkinson’s disease has a higher incidence in men than in women. It was assumed this was because men have a greater exposure to pesticides. However, laboratory experiments show a predominance in male mice as well, even though their exposure to pesticides is the same as the female mice. This leads Dr. Cory-Slechta to speculate that there may be something in estrogen that protects women.

Another line of inquiry for the laboratory team centered on a hypothesis that there may be some kind of insult occurring early in prenatal development that causes the disease, and that it isn’t manifested until late in life because that is when the dopamine system begins to deteriorate.

“This caused us to pursue a few developmental studies,” Dr. Cory-Slechta says. “We wanted to learn whether animals exposed in early development would get the progressive Parkinson’s phenotype as they age. The answer was a resounding yes. The other possibility we questioned was that, given developmental exposure plus pesticide exposure later in life, an animal might be more vulnerable as the result of a kind of cumulative effect over a lifetime. Again, that proved to be true. So our conclusion is that pesticides that are risk factors will interact with genetic background.”

Dr. Cory-Slechta warns there may be cause for concern attendant to the way risk assessment is conducted in studies by the Environmental Protection Agency (EPA). “We look to the EPA for establishing safe levels of exposure,” she says. “But the way in which risk assessment is performed is problematic. The agency doesn’t do studies that ask the same kinds of questions we ask in the lab. For instance, it never performs studies in which the parameters of developmental exposure are challenged with additional questions — such as what happens when another chemical exposure is added later in life.”

She adds that another problem is that, almost invariably, when the EPA determines the risk level for a chemical in the environment, it is done on the basis of exposure to a single chemical, rarely to a mixture. Such policy standards leave mountains of inquiry to be investigated in laboratories, such as Dr. Cory-Slechta’s at EOHSI.

“Each patient brings a different profile to the table. But the ultimate connecting factor is that they all have a loss of dopamine cells. The trick is to figure out where the risk factors come together to produce this cell loss. If we can figure that out, I think we’ll have targeted the place to intervene,” Dr. Cory-Slechta points out.
In Dr. Black’s laboratory, researchers are transplanting bone marrow cells and nerve cells derived from bone marrow cells to rats with experimental Parkinson’s. Their question is whether replacing dead and dying nerve cells with neurons derived from stem cells will improve the rats’ behavior and motor function.

“We actually cause the dysfunction, inducing the death of cells that are known to degenerate in Parkinson’s disease,” Dr. Black says. “Then, after replacing those cells with the bone marrow or nerve cells derived from them, we examine the brain to see whether or not those cells grow into nerve cells that replace the dead and dying cells.”

If successful, his strategy would be applicable to patients. The experiment, which is currently at its midpoint, will conclude in a few months when the rats are tested for motor function and their brains can then be examined at autopsy, correlating changes in the brain with the behavioral changes. The next step will be to verify findings in different models of Parkinson’s.

“Then comes the big decision,” Dr. Black says. “When do we move to patients? And there are many steps that have to be taken before that can happen. Right now, we’re transplanting rat cells to rat brain, but we’ll also want to use human cells transplanted to rats. All of this is based on the supposition there will be an improvement in rats. Research is always a long shot, but that is what makes success all the sweeter.”

A similar approach is being employed by Dr. Black’s laboratory in research surrounding spinal cord injuries. Stem cells are being transplanted to normal and injured spinal cord in rats, with an objective of determining whether the cells survive in the normal cord and in the injured cord, and whether the behavior of the rats improves with transplantation.

Dr. Black’s studies on learning and memory loss began by removing neurons from the brains of living rats and growing them in culture, then questioning which genes become active as they would normally in memory. After identifying those genes, the next step, which he admits was a gamble, was an experiment proving that the genes in awake, behaving animals who remember a task are the same genes activated in culture.

“This was exciting for us because it meant we could move from single nerve cells in culture to the alive remembering animal, and the same genes would be important,” says Dr. Black. “We don’t yet know if super-activation of the genes will improve and enhance memory. But our studies point the way to asking whether the same genes are involved in human memory. If so, that may provide a hint about the genetic contribution to dementia in general and Alzheimer’s disease in particular.

“We hope this will pave the way for new treatment— either through gene therapy or by activating the products of genes, the molecules made by them. These molecules may become new therapeutic agents.” Dr. Black says.
Translational Research:

TEAMED for RESULTS
ANY CLAIM THAT translational research is a new concept is put to rest by the words of Louis Pasteur, who said more than 100 years ago, “There are not two sciences. There is science and the application of science, and these two are linked as the fruit is to the tree.”

Not only did Pasteur date-stamp what today is recognized as the definitive approach to cancer studies, he defined it as well. His was a good starting point to what appear to be as many definitions of translational research as there are practitioners. To the National Institutes of Health (NIH), translational work in cancer is any research that uses fundamental biological discovery in human disease and applies it to diagnosis, treatment, or prevention of cancer. Some have a shorter definition — they call it bench-to-bedside research. However it is defined, scientists at The Cancer Institute of New Jersey (CINJ) at UMDNJ-Robert Wood Johnson Medical School understand that it refers to collaboration in its broadest sense, plus a culture and environment that are the underpinnings of discovery.

BY RITA M. ROONEY

PHOTOS BY JOHN EMERSON
WILLIAM N. HAIT, MD, PHD, professor of medicine and pharmacology, associate dean for oncology programs, and director, CINJ, reports that translational studies are best undertaken in a center such as CINJ, New Jersey’s only Comprehensive Cancer Center, so designated by the National Cancer Institute (NCI) — and one designed to accommodate complete interaction among scientists.

“The essence of translational work is the ability of basic and clinical researchers to work together,” Dr. Hait says. “Here, they are in the same building, where they interact on a daily basis. They are given every opportunity to share interests and ideas during brainstorming meetings, and they are encouraged to explore common experiences.”

Dr. Hait’s use of the word “opportunity” is key. He doesn’t refer to translational “assignments,” but talks instead of putting people with similar interests together and giving them a chance to develop their shared expertise in translational projects. It has been said of scientific exploration that clinicians know all the problems but none of the solutions, and researchers know all the solutions but none of the problems. The translational philosophy at CINJ sidesteps this frustration in that all clinicians at the center do research. It only remains to pair these clinical scientists with the appropriate people doing basic research so that the results of their investigations are more effective and reach the patient faster.

One example is a project targeting bladder cancer and melanoma, headed by Edmund C. Lattime, PhD, professor of surgery and molecular genetics, microbiology, and immunology, and CINJ associate director of education and training; Robert E. Weiss, MD, associate professor of surgery; and Margaret E. Wojtowicz, MD, assistant professor of medicine. Dr. Weiss spent a number of years performing basic research on bladder cancer prior to his appointment at RWJMS. Dr. Lattime began his basic research at Memorial Sloan-Kettering Cancer Center, developed initial clinical studies at Thomas Jefferson University in Philadelphia, and knew that to be successful, he would need to move to an institution with established excellence in urology and a real commitment to urological investigations. He knew of and respected Dr. Weiss’s work, and so the two began their scientific partnership. Then Dr. Wojtowicz, a medical oncologist at the NCI with an interest in immunotherapy and vaccines, joined the faculty, and the three became a logical team.

“That’s what is so outstanding about the way Dr. Hait has developed this center,” Dr. Lattime says. “We have physician scientists, like Drs. Weiss and Wojtowicz, who are doing clinical trials, and there are those, like myself, who spend about 80 percent of our time in the laboratory. However, we’re all involved in both the clinical and basic aspects of study.”

The research team has paired bladder cancer and melanoma because the same scientific principles apply to both. Their study probes why it is that tumors aren’t being killed by the body’s immune response.

“An increasing amount is being discovered about basic immune regulation,” Dr. Lattime says. “We’re looking at how a vaccine works, what are the regulatory steps from no immune response to a response, and how that is controlled.”

From biopsies performed on patients with bladder cancer or melanoma, the team found that in both diseases, there is one specific immune inhibiting factor — interleukin 10. Returning to the laboratory, the researchers found an appropriate pre-clinical animal model, discovering that it too made the interleukin 10 factor, and that there was no immune response to a tumor grown in the mouse.

“We did find that, by manipulating the animal system, we could inhibit the interleukin 10, so that half the mice rejected the tumor,” Dr. Lattime says. “We went on to find out what cells it inhibited and used that information to design the trial Dr. Weiss is now conducting.”

The patient trial to which he refers is a Phase I study of a novel gene therapy approach to enhancing anti-tumor of surgery and molecular genetics, microbiology, and immunology, and CINJ associate director of education and training; Robert E. Weiss, MD, associate professor of surgery; and Margaret E. Wojtowicz, MD, assistant professor of medicine. Dr. Weiss spent a number of years performing basic research on bladder cancer prior to his appointment at RWJMS. Dr. Lattime began his basic research at Memorial Sloan-Kettering Cancer Center, developed initial clinical studies at Thomas Jefferson University in Philadelphia, and knew that to be successful, he would need to move to an institution with established excellence in urology and a real commitment to urological investiga-
Robert E. Weiss, MD, associate professor of surgery (left), and Edmund C. Lattime, PhD, professor of surgery and molecular genetics, microbiology, and immunology, and CINJ associate director of education and training.
immunity, initially focused on toxicity. Earlier studies suggest there will be no negative impact on the tissue. When completed, this trial will lead to a next-generation study involving considerably more analysis of the immune response and clinical outcome of treatment. While some groups at other institutions are using this family of viruses for different kinds of cancer research, the CINJ team is alone in focusing on bladder cancer.

Dr. Weiss explains the need to develop therapies beyond surgery to combat the disease.

“If the cancer has not spread to the muscle, there are less invasive means of treating it,” he says. “But for those patients whose malignancy has spread and who undergo removal of the bladder, we offer the option of participating in the study. Dr. Wojtowicz and I both explain the trial to the patient, who is injected with the vaccine prior to surgery. Following surgery, tissue is routinely sent to pathology and to our laboratory as well, so that it can be analyzed for immune responses. We’re very optimistic about the trials, which have special relevance in New Jersey, where there are pockets of the population with a higher-than-average risk for bladder cancer.”

Collaborative participation in bench-to-bedside research involves more than the primary researchers. For example, the bladder trial includes the assistance of the Center for Therapeutic Evaluation at the NCI, which provides CINJ with the actual virus used in the studies. Availability of the trial is publicized on the NCI Web site.

No research can be divorced from the funding that supports it, and because CINJ is an NCI-designated Comprehensive Cancer Center, it receives core facilities support that includes funding for many of the tissue studies, as well as for tissue procurement and immunohistochemistry.

A GREAT DEAL of communication and interaction with the NCI, including valuable comparison of information to optimize the design of the trial, has energized the team’s work.

No research can be divorced from the funding that supports it, and because CINJ is an NCI-designated Comprehensive Cancer Center, it receives core facilities support that includes funding for many of the tissue studies, as well as for tissue procurement and immunohistochemistry. CINJ has a technician present during surgery who takes the tissue to the hospital pathology department, where a pathologist keeps material for diagnosis and identifies tissue that can be brought back to CINJ. It is this CINJ core facility that prepares the tissue for special stains and other tests that allow the team to carry out its research.

“This kind of core facility support is incredibly important in terms of carrying out the specialized studies required of this project,” Dr. Lattime says. “In this study, we stain the tissue for about a dozen specialized markers of immune function, which would not be feasible without this CINJ resource. This is one reason that being an NCI-designated Comprehensive Cancer Center is so essential.”

Partnership within CINJ assists as well, specifically from the Corporate Relations Committee, which maintains high-level representation among leading pharmaceutical companies from New York to Delaware. Researchers have an opportunity to meet regularly with the committee to discuss ongoing studies and enhance possibilities for collaboration with industry.

An additional component is assistance provided by CINJ’s Office of Human Research Services, which handles the increasing regulatory requirements of agencies such as the Food and Drug Administration and DNA Advisory Committee, and assumes the burden of submitting protocols and maintaining regulatory documents.

Dr. Lattime cites collaboration with Eric H. Rubin, MD, professor of medicine and pharmacology, and CINJ director of investigational therapeutics, as another strength within translational research.

Dr. Rubin heads the Phase I trials and developmental therapeutics group. Because these trials require a broad base of nursing and data-managing personnel, Dr. Rubin’s involvement as director, including his role in interacting with the pharmaceutical industry, is critical to success. The sophistication of today’s clinical trials demands such leadership.

Reporting on the scope of translational work undertaken at CINJ, Dr. Rubin says it is impressive, even when viewed from a national perspective. He cites one project, conducted by Lorna Rodriguez-Rodriguez, MD, PhD, associate professor of obstetrics, gynecology, and reproductive sciences, and chief, division of gynecologic oncology, CINJ.

“Dr. Rodriguez is investigating a concept that resistance to certain anti-cancer drugs used to treat ovarian cancer can be reversed with selenium,” Dr. Rubin reports. “Her team has developed a Phase I trial with sophisticated endpoints, including pharmacokinetic and gene array assays. This work includes collaboration with Brian T. Buckley, PhD, associate professor of environmental and community medicine at the Environmental and Occupational
Health Sciences Institute. Dr. Buckley is an expert in measuring exposure to metals such as selenium.”

He adds that it’s an extremely promising trial in that the first patients studied have shown significant decreases in tumor, and have not had any hair loss, which normally is associated with the drug carboplatin — and CINJ is the only place in the country where this is being studied.

Michael Reiss, MD, professor of medicine and CINJ associate director for translational research, reflects that it was about ten years ago when the NIH realized that while advances in basic science were rapidly expanding, there was a need to get this explosion of knowledge to the clinical level much faster.

“It’s difficult for clinicians to be steeped in this kind of progress when they are not part of it,” Dr. Reiss says. “It became important to develop a mechanism for collaboration and a sharing of knowledge. In addition, I believe basic scientists have come to understand the necessity for relating what they learn in the laboratory to actual human disease.”

Dr. Reiss, whose own research covers a translational research project on breast cancer, reports CINJ has instituted a collaborative grant award that encourages academic clinicians and basic scientists to come up with new translational ideas. He adds that the manner in which clinical trials were conducted 20 years ago was far less complex than it is today.

“We took the latest drug and applied it to kill cancer cells,” he says. “If it was effective, we didn’t much question how it was working. Today, we want to know more about what drives the cancer process. A clinical trial today is much more multifaceted because we have to figure out, for each patient, what particular constellation of genes in that particular breast cancer is present and driving the disease, then match it with special drugs. It demands a great deal more know-how and more collaborative involvement.”

As co-director of CINJ’s breast cancer research program, with Deborah L. Toppmeyer, MD, associate professor of medicine, Dr. Reiss reports that formalizing programs around specific diseases is one way in which CINJ approaches bench-to-bedside studies.
“We are in fact creating mini-centers of excellence within a center of excellence,” he says.

In the breast cancer program, for instance, approximately 20 basic and clinical researchers have undertaken several wide-ranging projects. Some of the projects have already paid dividends in earning NIH grants. One of them is headed by Dr. Toppmeyer and Dr. Hait, in which Dr. Hait provides laboratory studies predicting which patients will best respond to a particular chemotherapy drug. The team has completed a series of clinical studies to test drugs, returning to the laboratory to redesign trials as they proceed. The hope is that, over time, it will be possible to come up with ways of determining which drug is appropriate for which patients.

Targeting Transforming Growth Factor-ß (TGFß) in mammary cancer:

Under condition in which TGFß inhibits the movement of NMuMG normal mammary epithelial cells in vitro, it strongly stimulates in vitro migration of R3T highly metastatic mammary carcinoma cells isolated in the laboratory of Susan Ritting, PhD, associate research professor, Department of Genetics, Rutgers, The State University of New Jersey (Figure 1). In addition, blocking TGFß signaling with a selective inhibitor of the type I TGFß receptor kinase (SD-093) strongly inhibits migration of R3T cancer cells, indicating that their ability to move is dependent on TGFß signaling. Metastatic R3T cells implanted in the mammary fatpad of mice (Figure 2) formed rapidly growing poorly differentiated cancers (blue squares). In contrast, tumor growth was almost completely suppressed in animals treated with a high dose of the drug (yellow triangles). In the low-dose group (red circles), there was some delay in tumor growth, but they eventually caught up with controls. However, even in this low-dose group the number and sizes of lung metastases were significantly reduced, while there were almost none in the high-dose group (Figure 3). Dr. Reiss reports, “We are preparing to conduct the early clinical trials of this entirely new class of compound at CINJ within the next few years.”
DR. REISS SAYS that unearthing new predispositions for breast cancer has high potential for success, due to the familial gene P53, co-discovered by Arnold J. Levine, PhD, professor of pediatrics and biochemistry. Dr. Levine has found that genes that are not defective can have a number of variations, some of which may predict the likelihood of a person’s getting breast cancer. He recently discovered a variant of another gene that, when combined with a P53 mutation, suggests breast cancer may occur at an earlier age.

Another project investigates the potential for Vitamin D analogues as a preventive against breast cancer. This new knowledge will be applied by Dr. Toppmeyer, who directs a genetic counseling and high-risk clinic where, among other services, women who suspect they may be high risk can avail themselves of specific trials.

A large group of CINJ researchers is working on the fundamental aspects of breast cancer — how it behaves and spreads. For example, Dr. Reiss has discovered that breast cancer metastasis can be caused by activation of the TGFβ signaling pathway. He has been developing a new class of small molecules that effectively and selectively inhibit TGFβ signaling in cells in the laboratory, and inhibit the development of lung metastasis in animal models of breast cancer.

“If we are able to show that this approach also works in women with breast cancer, this will be a perfect example of translational research,” Dr. Reiss says.

Robert S. DiPaola, MD, associate professor of medicine and executive director of CINJ’s Dean and Betty Gallo Prostate Cancer Center, was one of the first researchers to investigate a prostate cancer vaccine in a study that subsequently became an advanced-stage clinical trial. Along with Cory T. Abate-Shen, PhD, professor of medicine and neuroscience and cell biology, and resident member, CABM, he heads the genitourinary translational research program.

In addition, Dr. DiPaola headed a national trial in the Eastern Cooperative Oncology Group that combined biological agents including retinoid, interferon, and taxol chemotherapy. Results of the trial were presented at the June 2004 meeting of the American Society of Clinical Oncology in New Orleans.

“We learned in the laboratory that by using modulators such as retinoid and interferon, we could make tumor cells more sensitive to chemotherapy,” Dr. DiPaola says.

Commenting on other work in the program, Dr. DiPaola reports, “We have initiated a pilot project program by setting up additional laboratories and funding them with small grants to encourage research leading to clinical trials for prostate cancer.”

The genitourinary program has approximately 12 trials ongoing at any one time, under the direction of Dr. Abate-Shen as basic scientist, and Dr. DiPaola as clinical researcher. The two scientists recently activated a new prevention study using a Vitamin D derivative for men with prostatic intraepithelial neoplasia (a prostate abnormality with increased risk for prostate cancer). Another study, in collaboration with Merck, is scheduled to open before the end of the year.

It seems clear from the translational activity at CINJ that this is not a new directive but one long in the making, created from the start by the collaborative mind-set throughout the institution. Last year, Dr. Lattime co-chaired the first Governor’s Conference on Effective Partnering in Cancer Research, conducted in conjunction with CINJ and the New Jersey Commission on Cancer Research. The meeting, hosted by Dr. Hait and Governor James E. McGreevey, set priorities for translational science.

One result of the conference is CINJ’s development of an official training program in translational research for MD and PhD students at the conclusion of their residencies or fellowship training. The program has been awarded a $1 million, five-year NIH grant — support that vigorously underlines CINJ’s contribution to the future of cancer research.

Figure 1: TGFβ Drives Cell Motility

Figure 2: Inhibition of Primary Tumor Growth

Figure 3: Suppression of Lung Metastases
Go to the Head of the Class

Alumni-Faculty Reflect on RWJMS

No one better appreciates the development of a school than its alumni, who first knew it as students, then moved to the other side of the desk to teach.

Nearly 80 alumni serve on the faculty at UMDNJ-Robert Wood Johnson Medical School, holding appointments in 11 different departments. Remarkably, they are not nostalgic for their student years. Rather, they speak with pride of the greatly expanded opportunities afforded by the transformation of RWJMS into a nationally ranked institution.

“Alumni who serve on our faculty contribute an extremely important perspective,” says Harold L. Paz, MD, dean. “Their deep respect for the values of their own medical education helps lead us to an even higher level of excellence.”

“A HIDDEN GEM”

RWJMS has a growth curve so dramatic that it impresses even its most recent graduates. Jonathan J. Hwang, MD ’95, assistant professor of surgery, joined the faculty in the fall of 2003, having completed a urology residency at Boston University School of Medicine and a fellowship in urological oncology at the National Institutes of Health (NIH), which launched his research into molecular treatments for cancer. Returning to RWJMS eight years after graduation, he found that opportunities had grown far beyond his expectations. “I tell my colleagues in Boston and Washington that this school is a hidden gem,” he says.

Left to right: James S. Goydos, MD ’88, associate professor of surgery; Jonathan J. Hwang, MD ’95, assistant professor of surgery; and Alfred F. Tallia, MD ’78, MPH, associate professor and vice chair, Department of Family Medicine, in the newly expanded Cancer Institute of New Jersey.
“Phenomenal” New Opportunities

Construction of The Cancer Institute of New Jersey (CINJ) had just begun when Dr. Hwang graduated. One of the first to join the CINJ faculty was James S. Goydos, MD ’88, associate professor of surgery and director of melanoma and soft tissue research. Dr. Goydos returned to RWJMS in 1995 and became the third surgeon appointed to the CINJ faculty. In less than a decade later, Dr Goydos has seen CINJ triple in size and become a National Cancer Institute–designated Comprehensive Cancer Center. Supported in part by the proceeds from tobacco settlements, the CINJ expansion accommodates the state’s cancer patients and provides laboratory space for a growing corps of cancer researchers.

The medical school’s early graduates recall Middlesex General, the school’s principal teaching affiliate, as a community hospital. In 1986, Middlesex General became Robert Wood Johnson University Hospital (RWJUH). Now a leading academic health care center, it is one of the medical school’s two core teaching affiliates, along with Cooper Hospital/University Medical Center.

The medical school and the hospital have grown together, complementing each other, says Geza Kiss, MD ’95, assistant professor of anesthesiology. For instance, says Dr. Kiss, CINJ has increased the number of cancer patients in the care of the medical school faculty, expanding the opportunities for firsthand teaching and learning. In addition, the Department of Anesthesiology has appointed specialized new faculty to care for patients at the Bristol-Myers Squibb Children’s Hospital. “This is one of the few academic medical centers in a growth phase,” says Lauri A. Goodell, MD ’91, associate professor of...
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pathology and laboratory medicine and director, division of hematopathology. Dr. Goodell cites “phenomenal” new opportunities, such as the recently dedicated RWJMS Research Building in Piscataway and the Child Health Institute of New Jersey at RWJMS, which will soon move into its permanent home on Albany Street, in New Brunswick.

“An Exciting Place to Be”

Joseph G. Barone, MD ’87, associate professor of surgery and director, Pediatric Incontinence Center, also serves as surgeon-in-chief, pediatric urology, at Bristol-Myers Squibb Children’s Hospital and director of urodynamics at Children’s Specialized Hospital, a RWJMS clinical affiliate. Recently, Dr. Barone was the first to use the hospital’s state-of-the-art da Vinci robot system in a pediatric procedure. “Growth, students, and visionary leadership make RWJMS an exciting place to be,” he says.

David A. Laskow, MD ’81, associate professor of surgery and chief, Kidney and Pancreas Transplantation Services, has led in developing the multidisciplinary transplantation partnership between RWJMS and RWJUH. Dr. Laskow points out that the medical school’s involvement sets this partnership apart from other transplantation programs in New Jersey, by allowing participation in national and international studies and clinical trials.

Gloria A. Bachmann, MMS ’72, MD, professor of obstetrics, gynecology, and reproductive sciences, and medicine, and associate dean for women’s health, joined the faculty in 1978. Today, as director of the interdepartmental Women’s Health Institute (WHI), Dr. Bachmann encourages students and residents to share in WHI investigations; she emphasizes that as good clinicians, they should stay involved in current research. Supported by NIH funding, Dr. Bachmann is the principal investigator on a long-term national study of vulvodynia, for which RWJMS is one of only six research sites nationwide.

Camden Grows by Leaps and Bounds

Like their colleagues in Piscataway and New Brunswick, alumni-faculty at the Camden campus find the school is on the rise in all areas, with dramatic upturns in basic science and clinical research.

“Cooper [Hospital/University Medical Center] is growing by leaps and bounds,” says Adam B. Elfant, MD ’89, associate professor of medicine, Camden campus. A specialist in therapeutic endoscopic retrograde cholangiopancreatography (ERCP), Dr. Elfant was recruited to the RWJMS faculty to introduce an ERCP therapeutics program. The technology added an important new dimension to the division of gastroenterology, which now includes five full-time specialists and offers two three-year fellowships annually.
THE IMPORTANCE OF COMMUNITY CONNECTIONS

The Department of Family Medicine has defined the school’s mission in community health, says Alfred F. Tallia, MD ’78, MPH, associate professor and vice chair, Department of Family Medicine. “It is our department’s job to remind people of the importance of community connections,” says Dr. Tallia. The department’s Practice Based Research Network, jointly sponsored with CINJ and the New Jersey Academy of Family Physicians, has become the state’s largest family practice network. It serves as a statewide “laboratory,” says Dr. Tallia, where myriad bench-to-bedside connections can happen — “where we can translate and test lab discoveries in the real-world settings of community practices.”

Eric G. Jahn, MD ’88, associate professor of environmental and occupational medicine and medical director, Eric B. Chandler Health Center, recalls that Chandler originally provided primary care to New Brunswick’s medically underserved from a cluster of trailers. Today, it is a full-spectrum primary care center, providing for more than 40,000 patient visits annually. “We strive to make Chandler the kind of place where anyone would bring their family for first-rate care,” says Dr. Jahn.

Civic commitment extends school-wide. Jeffrey C. Brenner, MD ’95, instructor of family medicine, returned to the RWJMS Camden campus in 1998, bringing his extraordinary dedication to community health, civic action, and volunteerism. As a second-year student, Dr. Brenner co-founded the student service group known as HIPHOP; he later started a similar organization on the Camden campus. As a faculty member and mentor, he has helped inspire the Camden students’ full participation in community service. The Robert Wood Johnson Foundation recently awarded Dr. Brenner a $450,000 grant, which launched an RWJMS student initiative: a family-centered health center at a local charter school.

RESEARCH ON A POSITIVE TRAJECTORY

In New Brunswick, Stephen F. Lowry, MD, professor and chair, Department of Surgery, has expanded his department’s research core, which includes several young alumni. “We don’t target RWJMS graduates,” says Dr. Lowry. “However, they are attractive candidates, because they immediately identify this school as an institution whose positive trajectory defies national trends.”

An Intellectual Atmosphere

Dr. Lowry’s recruits include Siobhan A. Corbett, MD ’87, associate professor of surgery. Dr. Corbett previously did research in the Department of Molecular Biology at Princeton University. Seeking an opportunity to “teach and do research full-time in an intellectual atmosphere,” Dr. Corbett accepted Dr. Lowry’s offer of a position at RWJMS.

Dr. Corbett brought with her $250,000 in grant support in the form of a Clinician Scientist Award from the American Heart Association. The NIH has since awarded Dr. Corbett R01 funding for her study of wound contraction and healing. She also earned the Chairman’s Faculty Research Award from the Department of Surgery.

Like Dr. Corbett, Perry J. Weinstock, MD ’85, associate professor of medicine and director, clinical cardiology, Cooper Hospital/University Medical Center, returned to RWJMS with specific goals in research. Dr. Weinstock was recruited from Thomas Jefferson University to the Camden campus, where, he says, “clinical and basic science research are primary goals of the cardiovascular division. The advancements we have made in our clinical services and research have established our program as second to none in the Delaware Valley.” The development of the division, which comprises an 18-member faculty, has some of the nation’s leading physicians, clinicians, and researchers to Cooper, he adds.

The Collaborative Environment

After looking at top residencies nationwide, I found that what was here fit me best,” says Robert J. Laumbach, MD ’97, MPH, assistant professor of environmental and occupational medicine. Dr. Laumbach, who studies indoor and outdoor air pollution and its inflammatory effect on the respiratory system, sought the kind of vibrant research environment that springs from collaborations and shared resources. In addition to the “region’s high level of public interest in and public advocacy for environmental issues,” Dr. Laumbach says he was influenced by the small size of the department at the school’s Environmental and Occupational Health Sciences Institute (EOHSI), which would allow him to work closely with senior faculty.

EOHSI offered a wealth of on-site opportunities to collaborate with the National Institute of Environmental and Health Sciences Center of Excellence and the Center for Childhood Neurotoxicology and Exposure Assessment.

For many alumni, New Brunswick’s economic ren-
The increased concentration of biotechnical firms in central New Jersey has helped fuel the growth of RWJMS. Dr. Gatt says that the recent establishment by RWJMS of a Department of Orthopaedic Surgery reflects the medical school’s valuable connection to industry. “The biotech boom creates advances in bioengineering and tissue engineering that make a huge difference in orthopaedics,” he adds.

“THE REASON WE EXIST”

Being a school is the reason we exist,” says Marie C. Trontell, MD ’76, professor of medicine and senior associate dean for education.

In 2001, UMDNJ created the Master Educators Guild, which annually honors its schools’ most gifted teachers. “Since the medical school’s founding, the success of our educational mission has been strong,” says Dr. Tallia, a 2003 Master Educator. “The guild brings that mission back into relief and renews the status of teaching.”

“Teaching Is Paramount”

Carol A. Terregino, MD ’86, clinical associate professor of medicine and assistant dean for admissions, joined the faculty in 1991. “The school has always produced excellent clinicians,” says Dr. Terregino, “and its reputation continues to grow. Many of our students go on to become chief residents at leading schools. In addition, strong departments here offer strong residencies that attract top medical school graduates.”

Dr. Terregino says her role in the Admissions Department is to attract the best and brightest students. “I tell our accepted students what I believe: they can get a good medical education anywhere, but this school is unique — we go the extra mile to help every student develop as an individual.” As examples of ways the school individualizes medical education, Dr. Terregino mentions the flexible curriculum, the six dual degree programs, and the Student Scholar program, an elective year during which a student may pursue a substantial project in research or community service. Students now may also earn their medical degree with distinction in research.

Andrew H. Boyarsky, MD ’80, associate professor of surgery, specializes in advanced laparoscopic surgery and serves as surgical director of the Center for Innovations in Bloodless Surgery and Medicine at RWJUH. “Students and residents are my first love, and teaching is paramount to me,” he says, adding, “The department has matured and developed enormously in the past 20 years, giving me as challenging
a clinical career as I would have had anywhere.”

Along with six other alumni-faculty, Dr. Boyarsky was a longtime member of the RWJMS Admissions Committee. Continuing as a member is Thomas A. Rebbecci, MD ’92, associate professor of emergency medicine, a Camden campus graduate, who joined the faculty in 1998. Dr. Rebbecci served his residency at Drexel University College of Medicine, and he says, “Working with residents from the ‘big name schools,’ I soon realized that the clinical skills I had gained [at RWJMS] gave me the edge.” He chose emergency medicine in part because of the opportunities it offers for teaching. “Students never forget what they see in the Emergency Room,” he says. “The range of cases each student or resident sees in a day makes the ER the ideal place to teach medicine.”

**The Evolving Curriculum**

In 2002, the faculty accepted curriculum revisions that reversed the traditional priorities of medical education. The new goals of the curriculum are summed up in the acronym ASK: first, attitude, then skills and knowledge. “Attitude was always assumed to be part of the package,” says Dr. Trontell. “But we realized we needed to change that.”

“Today we know more about how adults learn,” she says. “The intense, basic science focus of the first two years of medical school used to make it more like graduate school. Now we include more clinical education in years one and two. It makes much more sense to teach about hemoglobin, for example, as part of teaching about sickle cell anemia.”

“Norman,” a computerized, human patient simulator, is the inspiration of Mordechai Bermann, MD ’87, associate professor of anesthesiology and director, Human Patient Simulation Laboratory. The life-like interactive simulator is a significant teaching tool, used cross-departmentally for risk-free instruction to students and residents; Norman is also a “model patient” for attending physicians practicing new procedures.

Dalya L. Chefitz, MD ’90, associate professor of pediatrics and director, Pediatric Residency Program, is now in her tenth year on the faculty. “This is where I’ve sown my seeds,” says Dr. Chefitz, who left a part-time position with a growing private practice to devote herself to teaching and inpatient care as chief of the division of general pediatrics. “On Dr. Notterman’s watch, the growth of the department has been amazing,” she says, referring to the leadership of Daniel A. Notterman, MD, University Professor and chair, Department of Pediatrics. The expansion of facilities and sub-specialty faculty “has a tremendous effect on patient care as well as education.”

**Teaching Humanism: The Physician-Patient Connection**

“Educating a patient is like planting a seed,” says Karen Wei-Ru Lin, MD ’89, assistant professor of family medicine and assistant program director, Family Medicine Residency. Since medical school, Dr. Lin has served as a link between RWJMS and the local Chinese-American community. She encourages her colleagues to understand and respect their Chinese-American patients’ traditional beliefs about healing. She has helped integrate acupuncture into the Department of Family Practice and serves as medical director of the Integrative Healing Program at RWJUH.

Dr. Lin serves as medical adviser to the Piscataway Health Advisory Commission of Health and is president of the New Jersey chapter, Middlesex region, of the American Cancer Society.

Teaching medical students to focus on the needs of the patient is vital in the eyes of Susan Rosenthal, MMS ’75, MD, clinical associate professor of pediatrics and assistant dean for student affairs. A faculty member since 1987, Dr. Rosenthal has nurtured a ten-year affiliation with The Arnold P. Gold Foundation for Humanism in Medicine, developing the White Coat Ceremony for incoming medical students, the Student Clinician Ceremony at the end of the second year, and the Gold Humanism Honor Society, Alpha Upsilon, honoring fourth-year students.

**HIPPOCRATES: A CHANGING PERSPECTIVE**

With 80 different perspectives, alumni serving on the faculty reflect the history of RWJMS and mark its growth. They eagerly look ahead, while embracing the best of the past.

“You could almost trace the development of the school by following Hippocrates’ trail around the RWJMS campus,” says Dr. Trontell. The statue, erected in 1975 amid a setting of farm fields and windmills, first looked out over the school parking lot. After several subsequent moves, the peripatetic Hippocrates stands in the courtyard of the Research Tower, welcoming all from a new vantage point, connected to new buildings, new people, and new discoveries.
Dear Alumni and Friends:

This is an exciting time for the Alumni Association as we continue to develop events and programs for both RWJMS alumni and students.

The biennial Alumni Association Reunion Weekend last October was a great success. Please see the article and terrific photos on page 55. Plans are already under way for the next Alumni Reunion Weekend, in the fall of 2005. We will honor the anniversary classes of ’69, ’70, ’74, ’75, ’79, ’80, ’84, ’85, ’89, ’90, ’94, ’95, ’99, and ’00. If you would like to join the Reunion Committee or get an early start on contacting your classmates to encourage a great turnout, please contact Roberta Ribner, coordinator, alumni affairs, at ribnerrs@umdnj.edu or 732-235-6310.

I know you will especially enjoy the article entitled “Go to the Head of the Class: Alumni-Faculty Reflect on RWJMS,” on page 43. We are all very proud of our alumni who serve as faculty members at RWJMS. It is fascinating to read about the evolution of our medical school from their perspective.

Thank you for your generous contributions to the Alumni Association Annual Fund. Please join us again this year to help provide much-needed scholarships and loans for our medical students. Contributions to the Annual Fund can be made online. Please check out our Web site at http:/rwjms.umdnj.edu/alumni for instructions.

The Alumni Association Board of Trustees continues to welcome new class delegates. If you are interested in becoming involved, please contact Roberta Ribner.

RWJMS has hosted several alumni receptions in New York City, Philadelphia, San Francisco, Los Angeles, and Washington, D.C. We hope to see our Boston area alumni at the RWJMS Reception at the AAMC meeting on Monday, November 8, 2004, at 6 P.M. at the Boston Marriott Copley Place.

I look forward to seeing you at alumni events throughout the year.

Sincerely,

Euton M. Laing, MD ’90
President, RWJMS Alumni Association
Barbara A. Marroccoli, MD ’82, clinical associate professor of medicine, and Robert R. Ford, MD ’83, clinical instructor of radiology, planned to make a serious gift to the RWJMS scholarship program later in their lives. However, after reading a story in the Fall/Winter 2003 issue of Robert Wood Johnson Medicine, they reconsidered the timing of their gift.

“Inspired by Paul Bergh, a friend and classmate of Bob’s, we realized this was the right time to give something back,” says Dr. Marroccoli, referring to the scholarship endowment created by Paul A. Bergh, MD ’83, and his wife, Catherine.

Dr. Ford, an attending physician at the University Medical Center at Princeton (UMCP), is a partner in Princeton Radiology Associates. A recognized expert in the application of radiology end points, Dr. Ford is co-founder, president, and chief medical officer of RadPharm, an imaging core laboratory that has made significant contributions in support of recently approved oncology compounds.

Dr. Marroccoli has served as medical director for several departments at UMCP, where she is an attending physician. For 15 years, she has been an integral part of the UMCP education program and has received several awards for excellence in teaching. She particularly enjoys counseling students and residents on career choices and helping them balance family and career.

Rather than wait until next summer, when earnings from their $25,000 endowment fund will be available for a scholarship award, Dr. Ford and Dr. Marroccoli recently made a supplemental gift. Through their generosity, the first Marroccoli-Ford Scholarship will be awarded this year to a third- or fourth-year student who has demonstrated academic excellence and compassion in patient care.

Dr. Ford and Dr. Marroccoli put themselves through college and medical school with scholarships and loans. “We ended up with a debt that was the equivalent of a mortgage without the house,” says Dr. Marroccoli. “Today, we can’t believe how fortunate we are. We hope that this scholarship will benefit current RWJMS students.”

— K.O’N.

Students enjoyed the opportunity to talk to practicing physicians representing 25 different medical specialties and sub-specialties. Career Night also serves as a “mini reunion” for alumni participants.

The ongoing commitment of alumni to this annual event and the enthusiasm of medical students resulted in another successful evening.

For information about Career Night 2005, please contact Roberta Ribner, coordinator, alumni affairs, at 732-235-6310 or ribnerrs@umdnj.edu.
During his lifetime, Fred J. Brotherton generously supported a wide variety of causes: education, the arts, libraries, religious institutions, historic preservation, medicine, and medical research. Following his retirement as president of the Brotherton Construction Company, one of the largest in northern New Jersey, Mr. Brotherton created the Fred J. Brotherton Charitable Foundation as a means of sustaining these causes beyond his lifetime.

Before Mr. Brotherton died in 2002, he had carefully planned for the future by naming his nephew Wayne A. Brotherton and grandnephew William P. Brotherton, MD '76 stand by a portrait of their uncle, Fred J. Brotherton.
’76, as co-trustees. As a result, they maintain support for the types of organizations in which Mr. Brotherton believed and bring their own ideas to the table as well.

“When one of us suggests a cause, the other listens,” says Wayne Brotherton, a financial planner and former teacher. “Because our uncle trusted us with the future of his foundation, we discuss every suggestion, and in the end we have to agree on the organizations we support.”

The cousins enjoy learning from one another’s ideas and try to achieve a balance among the interests on the agenda. “We try never to say no to any cause we think is valid and good,” he added.

Last summer, Dr. Brotherton told his cousin about an article he had read in Robert Wood Johnson Medicine describing four scholarships at RWJMS recently endowed by alumni. “We’re always looking for good causes to support with the foundation’s money,” he says. “Medical school today is a huge investment, and I thought this would be a good match for us.”

Dr. Brotherton spoke persuasively for this cause, and the cousins agreed that the RWJMS scholarship fund was a good match for their uncle’s interests in education and medical research. It also corresponded with new areas of philanthropy that they have initiated, including a greater emphasis on charities based in New Jersey, where they work and live.

Last fall, with a $25,000 gift, the Brotherton Foundation established the Fred J. Brotherton Charitable Foundation Scholarship Fund at RWJMS. The scholarship will be an important component of the medical school’s effort to recruit the highest-caliber students by expanding its scholarship program.

— K.O’N.

And We Would Like to Communicate More Effectively with Our Alumni Via Email.

Email is a fast and efficient way to invite you to alumni reunions, receptions, Career Night, and other RWJMS events.

Please take a minute to fill out the form below and send your Email address to:
Roberta Ribner
Coordinator, Alumni Affairs
335 George Street • Liberty Plaza • Suite 2250
New Brunswick, NJ 08903 or Email: ribnerrs@umdnj.edu

Thank you for your cooperation.

Name: ___________________________
Class: □ Piscataway □ Camden
Email Address: ___________________________
Home Address: ___________________________________________________________________________
City: ___________________________
County: ___________________________ State: ___________ Zip: ___________
A mammogram is the best way to detect early breast cancer, but due to anxiety, inconvenience or impersonal care received at a previous exam, many women delay having one.

The Aventis Breast Care Program at Somerset Medical Center understands. We’re focused on breast health and we’re focused on you.

We’ll make your mammogram convenient and comfortable. Add in our staff’s experience and our comprehensive screening, diagnostic and treatment options, and it’s no wonder that 12,000 women chose us for their mammograms last year.

You can too. And if you do, you’ll never delay having one again.

**The Aventis Breast Care Program at Somerset Medical Center—our experience makes your experience better.**

To schedule a mammogram please call **908-704-3740.**

Or visit [somersetmedicalcenter.com](http://somersetmedicalcenter.com) for more information about breast care.

Somerset Medical Center is an affiliate of The Cancer Institute of New Jersey, the state’s first and only National Cancer Institute-designated comprehensive cancer center.
Welcome Back to a Changing Campus

Among the first to arrive for Reunion Weekend 2003 was Thomas J. Nordstrom, MD ’78. Dr. Nordstrom and Alan I. Schwartzstein, MD ’78, had spent the year rallying their classmates to celebrate their 25th reunion together and were rewarded by one of the Reunion Weekend’s largest turnouts. Both alumni were impressed by the many changes on the Piscataway campus.

On his way to the Opening Reception, Dr. Nordstrom found a personal guide in Harold L. Paz, MD, dean, who escorted him to the just-dedicated Robert Wood Johnson Medical School Research Building, one of several facilities that are transforming the medical school (see page 4).

Dr. Schwartzstein, a family practitioner in Wisconsin, had not visited the campus since graduation, and, along with Dr. Nordstrom, he started Reunion Weekend in the central atrium of the impressive new RWJMS Research Building. In these new surroundings, both alumni

“Classmates are the secret to a reunion’s success,” says Miriam H. Labbok, MMS ’73, MD, MPH. Returning alumni echo her comment: they like seeing the evolution of UMDNJ-Robert Wood Johnson Medical School, but their greatest joy is in making new connections with old friends and former teachers.

BY Kate O’Neill
were pleased to find familiar faces in the crowd. They especially enjoyed talking with former classmate Clifton R. Lacy, MD ’79, commissioner, New Jersey Department of Health and Senior Services, the evening’s invited speaker, who presented a chilling talk on his department’s campaign against bioterrorism.

\[ \text{PHOTOS BY A.J. SUNDSTROM} \]

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All-Alumni Panel Leads CME

Continuing Medical Education (CME) has become an important part of reunion weekends. The 2003 CME program, “Breakthroughs in Science and Medicine: New Discoveries and Applications,” featured three alumni speakers with diverse specialties. “Each is a leader in his or her field, and each is committed to the health not just of individuals, but of whole populations,” says David S. Kountz, MD, associate professor of medicine and associate dean for postgraduate education, who coordinated the program and moderated the panel.

“The speakers were extremely enthusiastic about participating and felt particularly honored to speak to an audience of fellow graduates,” says Dr. Kountz. “Speakers as well as audience always enjoy the high quality of our CME, along with its collegial atmosphere and interactive format.”

“The event was extremely well done,” says Dr. Labbok, who spoke about her research on breastfeeding and its potential role for improving not only maternal and child health, but also the health of entire communities. Also on the panel was Richard J. Jackson, MMS ’71, MD, MPH, then director of the National Center for Environmental Health, Centers for Disease Control and Prevention, in Atlanta. Dr. Jackson’s topic was “There Are No Healthy People in an Unhealthy World.” He emphasized the importance of address-
ing across-the-board environmental factors, such as lead poisoning and noise pollution, in advancing world health. Dr. Jackson recently accepted a new position as state public health officer in the California Department of Health Services.

Closing the event with a discussion of “Current Issues in Kidney Transplantation” was David A. Laskow, MD ’81, associate professor of surgery and chief, Kidney and Pancreas Transplantation Services, at RWJMS and Robert Wood Johnson University Hospital. Dr. Laskow focused on the imbalance between the number of patients awaiting organ transplantation and the number of donated organs. “Wider public education is the only way to balance the equation,” he said.

Afterward, Dr. Laskow said he enjoyed being in the audience as much as he enjoyed making his presentation. “It was fabulous!” he said. “These were very topical issues, and I learned as much as anyone listening to the other presenters.”

**Lunch and Tours**

Like Dr. Schwartzstein, Thomas Collier, MMS ’73, had not visited the campus since graduation. However, when he learned that Dr. Labbok, his longtime friend and former lab partner, would be on the CME panel, he found a good reason to return. Dr. Collier and his wife drove up from Maryland’s Eastern Shore to hear Dr. Labbok speak and to visit with her over lunch. He could not have been
Robert Wood Johnson ■ MEDICINE

more delighted to attend his first RWJMS reunion and see firsthand the 30 years of changes at the medical school.

After lunch, Dr. Schwartzstein, Prudence P. Kline, MD ’78, and others followed the student guides through the new RWJMS Research Building. They were especially struck by its collaborative, interdepartmental design. Other alumni joined student-led campus tours to explore old haunts in the Research Tower, where 26 classrooms have been renovated with up-to-the-minute technology. “The tours were well done, and some areas in the new facilities are breathtaking,” says Dr. Labbok, who especially enjoyed hearing the student guides’ perspective on RWJMS. “It was good to see who’s coming after us,” she adds.

The Dinner Dance

To rally their class for its 25th reunion, Brenda E. O’Brien, MD ’77, Susan Peet Rowley, MD ’77, and Ernest S. Rickzak, MD ’77, had phoned everyone in their class. Dr. O’Brien, a retired pediatrician now living in Park City, Utah, traveled the farthest to reunions and was delighted to see so many classmates. Along with several medical school friends, she spent Friday evening in New York City, taking in dinner and the opera. “These people are like family to me,” she says, “and seeing them all together again was just wonderful.”

“When we were in school, Brenda had three young children,” recalls reunion guest and classmate Susan Rosenthal, MMS ’75, MD, clinical associate professor of pediatrics and assistant dean for student affairs. “She was an inspiring role model for our entire class.”

Serving on the RWJMS faculty, Barbara A. Marroccoli, MD ’82, clinical associate professor of medicine, stays in touch with the school academically, but she loves reunions as a chance to catch up with classmates she rarely sees. At
the Dinner Dance, Dr. Marroccoli and Lois DeRitter, MD ’82, who had not been together since graduation, shared memories, including many laughs recalling how they helped one another survive their rotation in surgery. Dr. Marroccoli’s husband, Robert R. Ford, MD ’83, clinical instructor of radiology, also took the opportunity to catch up with an old friend, Neal Collins, MD ’83, past president, Alumni Association, whom he had not seen in years.

Dr. Labbok jokes that “receiving an award that evening may have biased” her, but she found the dinner dance “phenomenal.” Moreover, she loves dancing, and everyone at her table took at least one turn around the dance floor.

Alumni Association Presents Awards

A highlight of every Reunion gala is the presentation of the Alumni Association awards. Reunion Committee co-chair Francine E. Sinofsky, MD ’81, presented this year’s Distinquished Alumni Award to Dr. Labbok. The award honored an achievement-marked career in public health that led to her current position as senior adviser, Infant and Young Child Feeding and Care, Program Division, UNICEF. Dr. Labbok’s focus has always been the crucial role of women and children’s health in building healthier communities worldwide. “Miriam is one of the brightest, most focused people I’ve ever met,” says Charles B. Simone, MD ’75, a close friend since medical school. “She has always put the world first, long before herself.”

The Alumni Association also selected two faculty members for Honorary Alumni Awards: Bruce D. Fisher, MD, clinical professor of medicine and medical director, QualCare, and Vijay K. Rajput, MD, assistant professor of medicine and co-director, Internal Medicine Residency Program, RWJMS, Camden campus. Dr. Fisher received his award from Hank Lubin, MD ’83, one of his 59 advisees, past and present. Dr. Fisher is a 25-year RWJMS faculty member, who teaches first- through fourth-year medical students. Dr. Lubin said, “Bruce taught us more than just physical diagnosis. . . . He taught us the fun and joy that is really medicine. Caring for your patients, not just their diseases. Tackling the intellectual challenge of undiagnosed illness . . . [and] searching behind the physical facade of many complaints to uncover the emotional reasons that caused them. And through it all, enjoying every min-
As a teacher, clinician, and advocate for humanism, Dr. Fisher has received many honors. “Each is to be remembered,” he said, “but somehow this one is unique.”

Dr. Rajput was introduced to the Dinner Dance audience by his colleague Eric E. Kupersmith, MD ’95, assistant professor of medicine, Camden campus. After initially training in orthopaedic surgery and cardiology, says Dr. Kupersmith, Dr. Rajput realized he was a “big-picture person.” He came to the Camden campus to complete an internship and fellowship in internal medicine and has become a respected and well-recognized academic figure.

A recipient of the 2003 Foundation of UMDNJ’s Excellence in Teaching Award and an Arnold P. Gold Foundation grant for Teaching Humanism in Medicine, Dr. Rajput co-directs the Internal Medicine Residency Program on the Camden campus. This spring, the Society of Hospital Medicine, where he serves on the Ethics Committee, will award him its prestigious 2004 Award for Excellence in Teaching, for his role as an outstanding teacher, academician, and mentor. In recognition of his superb teaching skills and altruistic ways, he has received Three Golden Apple Teaching Awards from his students, three medical residents’ teaching awards, and the 2002–2003 Attending of the Year Award across all departments.

Sunday Brunch

Sunday Brunch gives everyone a chance to finish catching up and to say good-bye. Other alumni who are not celebrating reunion years stop by as well. Tasneem Shamim, MD ’81, had a wonderful time visiting with friends, and Eric J. Jackson, MD ’76, drove down from northern New Jersey especially to see his classmates. Dr. Collins and his wife, Maraya, spent the weekend “on a mini-family vacation” at the Hilton and brought along their two young children to the brunch to introduce them to his classmates. “Alumni never get to see each other’s families, and the brunch is a great place to make it happen,” he says.

Euton M. Laing, MD ’90, Alumni Association president, thanked the reunion co-chairs, Dr. Sinofsky and Geza Kiss, MD ’95, assistant professor of anesthesiology, for planning such an excellent event. “Each reunion seems to be the best ever,” says Dr. Laing. “It’s always a pleasure to meet alumni I hadn’t known before,” he adds. “I particularly enjoyed meeting Miriam Labbok at the brunch. Here’s someone who hasn’t been involved with the school, and now she’s getting caught up. It’s so rewarding.”
The Foundation of UMDNJ is proud to support the University of Medicine and Dentistry of New Jersey, its fine academic leaders, outstanding researchers, excellent patient care providers and promising students.

Over the past five years, our work to advance programs at the University has grown significantly.

Total assets grew from $88 million to $175 million, an increase of 100 percent; Investments grew from $82 million to $150 million, an increase of 83 percent; Number of gifts dramatically increased each year from 1,400 to almost 10,000.

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And, because our operating expenses are covered by unrestricted funds, we are proud that we can assure our donors that 100 percent of their contributions are used exactly as they designate.

If you or somebody you know would like to endow excellence by providing support for research, patient care, education or scholarships, call us toll-free at (866) 44 UMDNJ.
CLASS NOTES

NINeteen Seventy-One

Richard Jackson returned to California to accept a new position as the state public health officer at the California Department of Health Services in Sacramento.

Nineteen Seventy-Six

Robin Winter was president of the Association of Family Practice Residency Directors from June 2003 to June 2004.

Nineteen Seventy-Eight

Robert Perkel is a professor of family medicine at Thomas Jefferson University in Philadelphia. He was the recipient of the 2001 Lane Adams Award, the American Cancer Society’s highest award for caring.

Nineteen Seventy-Nine

Stephen Grybowski was appointed medical director of Samaritan Keep Nursing Home in Clayton, N.Y.

Nineteen Eighty

Cheryl Harth Johnson writes: “I continue to practice medical oncology in Dallas with Texas Oncology, PA. My husband and I have two daughters, 13 and 15. The oldest is interested in a career in medicine.”

Michael Rosenthal is vice chair of academic programs at the Department of Family Medicine at Thomas Jefferson University in Philadelphia.

Nineteen Eighty-One

William Johnston is in private practice in internal medicine in Cherry Hill. He is the president of the South Jersey Medical Association.

Nineteen Eighty-Three

Roberta Schwartzman completed her psychiatry residency. She is also board certified in internal medicine.

Nineteen Eighty-Five

Edward Niewiadomski has been appointed chief medical officer for Burdette Tomlin Health System, Inc. in Cape May Court House.

Amy Shute has a private practice in family medicine in Hillsborough. She and her husband have two children, Michael (13) and Claire (10).

Nineteen Eighty-Eight

James Dalzell is a radiation oncologist at Atlantic City Medical Center in Pomona.

Nineteen Eighty-Nine

Susanne Zimmermann reports: “I placed first for my age group in the Avon-Run-Swim-Run biathlon.”

Nineteen Ninety

Dalya Leviant Chefitz reports: “I left part-time private practice and will be working full time at RWJMS. I have been promoted to associate professor of pediatrics and will continue to direct the pediatric residency program. I am also the newly appointed division chief for general pediatrics. My husband, Harry, and I are the parents of Leora (14), Ezra (10), and Nava Tethila (2).”

Kristina Kloss Ciccotelli writes: “I am working three days a week doing outpatient anesthesia. My husband, Aldo Ciccotelli, MD, and I have four children: Maria, Cynthia, Eric, and Carlo.”

Nineteen Ninety-One

Joe Canterino is associate professor of obstetrics, gynecology, and reproductive sciences at RWJMS. He and his wife, Paula, have a son, Peter Robert, born on October 22, 2003.

Don Ganim was appointed chief of anesthesia at Beverly Hospital in Beverly, Mass.

Sabine Hack writes: “Big brother Aidan (3) is getting used to his twin sisters, Calliope and Elodie. I continue to work as an attending at the NYU Child Study Center.”

Nineteen Ninety-Two

David Dean, a cardiothoracic surgeon with expertise in heart transplantation and cardiac assist technology, has joined the Department of Cardiovascular and Thoracic Surgery at Allegheny General Hospital in Pittsburgh.

Pranav Shab is an interventional radiologist at Red Bank Radiologists. He and his wife have three children.

Nineteen Ninety-Five

Srihari Gopal reports: “After working for Johnson & Johnson for the last two years, I left and started a position at Forest Laboratorizes in Jersey City. I currently work on Phase III trials for various neuropsychiatric drugs in development for Food and Drug Administration approval. If any other alumni work in the pharmaceutical industry and would like to network, please contact me.”

Kevin Shaw has joined Reconstructive Orthopaedics & Sports Medicine Inc. in Cincinnati. He completed his orthopaedic surgery residency at University Hospital in Cincinnati.

Nicole Stassen writes: “Aaron and I have relocated to Rochester, N.Y. I am working for the University of Rochester as an assistant professor of surgery.”
requirements for physicians through the National Board of Medical Examiners, or doing NIH-funded health services research to improve clinician and patient adherence to practice clinical guidelines.

The journey has been exciting, too, watching our school evolve from a small, intimate, bi-riparian affair on the Raritan to a full-fledged academic medical center with programs serving every part of the state. And it has been fun, traveling a lot as I do these days, to see the expressions of recognition and respect on people’s faces when I say where I’m from. Almost all the professional people I’ve encountered in this career have been stimulating and, for the most part, dedicated individuals who have their hearts in the right place and their heads, with a few exceptions, properly connected.

And I never cease to learn from the most important part of what we do: taking care of patients. Our success as faculty, ultimately, will be measured by how well we serve them, be it in preparing the next generation of clinicians and researchers, in discovering new life-saving or enhancing treatments, or in providing the quality day-to-day care that has sometimes become more difficult to accomplish in our troubled health care system. So, although those Saturday nights of frustration do occur more frequently than I would like, it’s still a great privilege to be here contributing in some small way to the growth and development of a noble profession in service to the public. And with this, I am sure, my many esteemed colleagues would readily concur.

— Alfred F. Tallia, MD ’78, MPH
Associate Professor and Vice Chair, Department of Family Medicine

What’s New?

We love to hear from you!
Please send your professional and personal news for Class Notes to:
Roberta Ribner, Editor,
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Suite 1400
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New Jersey 08901
Phone: 732-235-6310
Fax: 732-235-9570
Email: ribnerrs@umdnj.edu
Or, log onto our Web site:
http://rwjms.umdnj.edu/alumni

— Erik Boatman reports: “I entered active military service and completed my residency training at the U.S. Air Force Wilford Hall Medical Center (WHMC) in the SAUSHEC anesthesia program in San Antonio, Texas. I am now on the academic teaching staff within the residency program at WHMC, chief of obstetric anesthesia, and chief of a critical care air transport team, which medically evacuates wounded soldiers while providing ‘flying ICU’ care in support of military operations around the globe.”

John Lee is a resident in neurological surgery at the University of Pittsburgh Medical Center. He and Hannah Bae, MD, a radiology resident, were married in October 2003.

Bruno Molino, Jr., completed his general surgery residency at RWJMS and began a two-year trauma surgery fellowship at the University of Pennsylvania.

Megan DiFurio moved to San Antonio, Texas, to do a cytopathology fellowship at Brooke Army Medical Center.

Elizabeth and Nicholas DiProspero are pleased to announce the birth of their son, Peter Anthony, on May 11, 2003.

Anthony Rimicci and his wife, Sarah, welcomed their first son, William, last May.
Life as a Faculty Member

“He who can, does. He who cannot, teaches.”
— George Bernard Shaw, Man and Superman

It’s 11 p.m. on a Saturday night, and I know where my children are. They are out having fun like the rest of the world. Meanwhile, I am on my 15th iteration of a budget for a National Institutes of Health (NIH) grant due in a few days, and my museum-quality laptop is barely surviving, wheezing through this exercise of trying to stay within the budget limits proscribed, akin to trying to get blood out of a rock. I can’t help but recall a hospital encounter earlier in the day with a patient’s family member. “And just what do you do when you’re not taking care of my mother?” the woman asked, peering suspiciously at me down her nose through her half-glasses when I told her I was a faculty member at UMDNJ-Robert Wood Johnson Medical School. An interesting question indeed.

Life as an academic has turned out to be challenging, sometimes peripatetic, and always interesting in unexpected ways. Of course, at the beginning of my medical education, this is not where I thought I’d wind up. I had the romantic idea that I would be a small-town family physician somewhere on the East Coast. However, the possibility of an alternative path surfaced somewhere early in the first years of medical school, and it just never seemed to go away.

I suppose I could blame Dr. Walter Schlesinger, chair, Department of Microbiology, who had the distinct misfortune of getting stuck with me as a student advisee. And what an alternative he presented. He was a modern-day Arrowsmith: brilliant, world-famous, and with the gentility, civility, and breadth of knowledge of a renaissance courtier. Then there was Dr. Frank Snope, my adviser later on, the first chair, Department of Family Medicine, who really was Marcus Welby cum Osler, but with an office in the Kessler teaching labs. Well, residency and fellowship in Philadelphia, marriage, and a few other developments failed to quell the itch, and by an interesting series of circumstances, here I am.

George Bernard Shaw aside, academic life turns out very doable and a traditional mix of one part teaching, one part research, one part patient care, one part community service, and a hundred parts out of the ordinary. Working with learners at all levels, and learning and discovering new things, is the long and short of academic life. Academic life has opened all sorts of rewarding opportunities for me to serve the profession, whether it’s work establishing competency assessment...
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