Robert Wood Johnson Medicine

Technology Transfer

Creating Jobs While Moving Research from the Laboratory to the Bedside
LETTER FROM THE DEAN

May 2002

Dear Colleague,

The Spring/Summer 2002 issue of Robert Wood Johnson Medicine brings with it a new look and feel. We have made the transition from black and white to color throughout the publication, and I hope you like the results as much as we do. This new design gives us an opportunity to share more fully the accomplishments of our faculty, students, and staff.

This issue highlights the growth and accomplishments of UMDNJ-Robert Wood Johnson Medical School in all four of its missions: education, research, patient care, and community service. The impact of technology on the research mission is evident throughout the school. The faculty has made enormous strides in technology transfer, and these efforts continue to grow exponentially. We have also made tremendous progress in bioinformatics, a rapidly growing field that is critical to the academic and research engine of the future.

While technology and research are exploding, our recruiting efforts have been well rewarded. We have recruited five University Professors into our basic science and clinical departments, and we have dedicated two endowed chairs in the Department of Surgery. These efforts will continue to enhance our research activities for many years to come.

In the aftermath of September 11, the RWJMS family extended itself to assist both on-site at Ground Zero and in the subsequent events in New Jersey. These were difficult and sad times, but the members of our community were courageous and caring in their responses. Our Alumni Reunion Weekend in October seemed timely in creating warmth and comfort as graduates from across America came home to the Medical School. Despite the sad events that directly preceded it, they gathered with a sense of appreciation for their families and friends.

As always, we thank our alumni, colleagues, and faculty for support of our programs. Their collaboration is essential as we strive to meet our goals in education, research, patient care, and community service. I look forward to another outstanding year.

Sincerely,

Harold L. Paz, MD
Dean

P.S.

Take the time.
Talk to your kids.
Any subject will do.
They need your wisdom. They need your time. They need to know you care.
We’re in the business of making products that make kids feel better.
But after more than 100 years, we’ve learned that nothing can beat the simple act of one parent talking to one child.

Johnson & Johnson
Just like you, we care about how your kids feel.
Right now, they're not thinking about their retirement portfolios.

Fortunately, we are.

At TIAA-CREF, we understand that medical professionals have a lot on their minds besides retirement investing. Maybe that's why so many of them turn to us to help prepare for a more secure financial future.

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Which is why you should call us for knowledgeable, step-by-step guidance on creating a portfolio targeted to your unique goals.

Because for something as important as your financial future, it pays to turn to a specialist.

Log on for ideas, advice, and results. TIAA-CREF.org or call (800) 842-2776.
Governor McGreevey Appoints Dr. Lacy to Cabinet Post

New Jersey’s new commissioner of health and senior services is Clifton B. Lacy, MD ’79, associate professor of medicine and chief, division of cardiovascular diseases and hypertension, UMDNJ-Robert Wood Johnson Medical School, and senior vice president for medical affairs and chief of staff, Robert Wood Johnson University Hospital (RWJUH).

“Dr. Lacy is a first-rate teacher, physician, and researcher,” says Harold L. Paz, MD, dean. “He is a leader in the field of medicine in New Jersey, an ideal choice to guide the Department of Health and Senior Services. His experiences as a student, resident, fellow, and faculty member at UMDNJ-Robert Wood Johnson Medical School will be invaluable in his new role as commissioner.”

In announcing Dr. Lacy’s appointment, Governor James E. McGreevey charged his new commissioner with making health care more affordable and accessible, especially for New Jersey’s elderly.

At the governor’s side for the announcement was Kris Emerson, whose daughter Samantha was diagnosed with Burkitt’s lymphoma in August 1999. After ... results: “They said the results were ‘unremarkable.’ I can tell you it was nothing short of remarkable. There is no reason for anyone in this state to travel beyond our borders for care.”

Support from the tobacco settlement funds increases CINJ’s ability to treat cancer patients who, ten years ago, might have sought state-of-the-art treatment outside New Jersey. CINJ was founded in 1990 and opened its building in 1996, designed to accommodate 16,000 patient visits annually. The National Cancer Institute has since designated CINJ as a clinical cancer center, the only such center in New Jersey. An addition is under construction that will triple the size of CINJ by next year.

— K.O.N.

CINJ Receives $28 Million from Tobacco Settlement

The Cancer Institute of New Jersey (CINJ) at UMDNJ-Robert Wood Johnson Medical School will receive an additional $28 million, thanks to a recent pledge by Governor James E. McGreevey. In a March 20 press conference at CINJ, the governor announced the allocation from New Jersey’s share of the 1998 multi-state settlement with the tobacco industry.

“New Jersey will no longer accept second best,” said the governor. He added that New Jersey feels the effects of cancer more than any other state: each year, 40,000 New Jerseyans develop the disease, and 18,000 lose their lives to it.

More than half of the $28 million will support professional salaries for increased research, including an intensification of studies into potential links between environmental pollution and cancer. The funds will also advance current research at CINJ that focuses on the role of nutrition in cancer. Further research will now be possible on the causative role of infections in certain cancers, said CINJ Director William N. Hart, MD, PhD, professor of medicine and pharmacology and associate dean for oncology programs at RWJMS.

At the governor’s side for the announcement was Kris Emerson, whose daughter Samantha was diagnosed with Burkitt’s lymphoma in August 1999. After undergoing chemotherapy at CINJ, Samantha had a CT scan. Emerson said, and ducts increased “a surprising word” to describe the results. “They said the results were ‘unremarkable.’ I can tell you it was nothing short of remarkable. There is no reason for anyone in this state to travel beyond our borders for care.”

With strong leadership skills, Dr. Lacy has strengths that are well matched to one of New Jersey’s most challenging jobs. The Department of Health and Senior Services employs more than 2,200 people and has a budget of more than $2.2 million. It oversees the inspection of hospitals and health care facilities, as well as state and federal financial assistance to hospitals, local health departments, and community health clinics. In addition, the department runs programs in health education, senior services, and the prevention and control of communicable diseases.

Even my husband, who is not into medicine, read it from cover to cover. — K.O’N.
New Center Will Research Environmental Causes of Autism

The symptoms of autism are more familiar than its causes. While they remain elusive, the causes are the focus of new research seeking to identify an interaction between known genetic links and as-yet-undiscovered environmental factors that may contribute to the lifelong developmental disorder. Autism follows a predictable, devastating pattern. At first, a child appears to be developing normally. Then the first signs of the disorder appear, marked by learning disabilities that disrupt development. Many of these children begin experiencing regression, or loss of achieved development, between one and three years of age. Children with autism lose language and social skills and develop profound difficulties with behavior, communication, and social interaction.

Better understanding of the onset and progression of autism may come from an intensive, five-year study now under way at the Center for Childhood Neurotoxicology and Exposure Assessment (CCNEA): Located at the Environmental and Occupational Health Sciences Institute (EOHSI) in Piscataway, CCNEA opened in December. It is one of four new centers funded by five-year, $5 million grants from the U.S. Environmental Protection Agency (EPA) and the National Institute of Environmental Health Sciences (NIEHS). CCNEA Director George H. Lambert, MD, associate professor of pediatrics, believes the center's strength stems from its interdisciplinary, intermural, community-based approach to research. Its 17-person research team is made up of scientists from UMDNJ-Robert Wood Johnson Medical School, Rutgers University, and the UMDNJ School of Public Health. Their specialties include pediatric environmental health, developmental pediatrics, neuroscience, neurodevelopment, neurogenetics, epidemiology, biometrics, psychology, and geographic information systems.

In addition, CCNEA has formed an integrated partnership with three groups that support autistic children in the New Jersey community. The New Jersey Center for Outreach and Services for the Autism Community (COSAC), the Douglass Developmental Disabilities Center, and the Eden Family of Services.

Fortunately, says Dr. Lambert, parent groups from Eden and COSAC are scientifically oriented and understand the need for medical research to better understand, evaluate, prevent, and treat autism. Their support for CCNEA is critical not only because of their daily involvement with children with autism, but also because they provide access to families for study.

The center's work comprises three major areas: the Basic Sciences Program, the Clinical Sciences Program (CSP), and the Exposure Assessment and Intervention Project, directed by Paul J. Lioy, PhD, professor of environmental and community medicine and associate director, EOHSI. Dr. Lioy's group will characterize the personal, residential, and general community exposure of children selected by CSP for the program. "Clearly, to understand the potential for exposures, we must focus specifically on the daily personal environment of these children," he says. The cooperative approach chosen by CCNEA reflects the integrated mission of EOHSI. A joint program of Robert Wood Johnson Medical School and Rutgers University, EOHSI encourages research, education, and service programs in an interactive, multidisciplinary setting. It houses a select group of scientists, physicians, educators, and policy researchers whose work targets the serious health effects of environmental pollutants.

At each of the four centers designated by the National Institutes of Health and NIEHS, researchers are studying a different aspect of possible environmental threats to children's health. At CCNEA, the focus is on the influence of environmental neurotoxins on a child's neurodevelopment, neurohealth, and development. Among the suspected culprits are mercury, lead, pesticides, and some drugs. Narrowing the field and pinpointing preventable causes could vastly improve the quality of life for people with autism and their families. Moreover, the outcomes of the current research could have vest consequences for much of the world's population. With an incidence as high as one in 150, the loss of any child's abilities can be hard not only on the child and his or her family, but for society as well. "There is a strong need for the center in New Jersey," says project co-director Kenneth R. Reuhl, PhD, professor of pharmacology and toxicology at Rutgers, citing the state's Именно educational concerns.

"New Jersey's 8.5 million residents make it the most densely populated state," he says, "with industrial and residential contamination on a scale not duplicated elsewhere in the country." Fortunately, the state's highly educated citizens have a history of addressing environmental issues, adds Dr. Lambert. Their concerns are reflected in strong support for EOHSI's childhood research from officials at the congressional, state, and local levels. "At the end of the study," says Dr. Lambert, "we should be able to say to children with autism, 'We have done well by you.'"

— A.O.N. 

Research

NIH Funding: The RWJMS faculty continue to excel in research. In fiscal year 2001, for the second consecutive year, funding from the National Institutes of Health (NIH) increased by 25 percent. NIH grants included the following:

- Michael A. Gallo, PhD, professor of virology and oncology; received $249,000 from the National Cancer Institute for HIV infection and cancer research.
- William G. Johnson, MD, associate professor of medicine and acting chair, Department of Neurology; received funding from the National Institute of Environmental Health Sciences (NIEHS) and the U.S. Environmental Protection Agency for $1.2 million to study cell cycle regulation of neurotransmitter gene expression.
- Bondy, associate professor of psychology and neuroscience, received $100,000 from the National Institute of Dental and Craniofacial Research and $24,000 from the National Institute of Child Health and Human Development for work in orthodontics.
- Emanuel Emanuel, associate professor of pediatrics, Division of Hematology Oncology, received $110,000 from the National Institute of Allergy and Infectious Diseases for research on the pathogenesis of sepsis.
- DiCicco-Bloom, MD, associate professor of dermatology and neurology; received a $1 million multiyear grant from the National Institute of Environmental Health Sciences (NIEHS) and the Environmental Protection Agency for work in autism.
- The cooperative approach

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- The cooperative approach studied autism, which serves the academic and research communities of the pharmaceutical and biotechnical industries. In addition, CCNEA has received a $10,000 grant from the National Institute of Child Health and Human Development for study of the potential for exposures, we must focus specifically on the daily personal environment of these children," he says. The cooperative approach chosen by CCNEA reflects the integrated mission of EOHSI. A joint program of Robert Wood Johnson Medical School and Rutgers University, EOHSI encourages research, education, and service programs in an interactive, multidisciplinary setting. It houses a select group of scientists, physicians, educators, and policy researchers whose work targets the serious health effects of environmental pollutants.

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Building Excitement: Ground Breakings and Construction Mark Growth

Everywhere on the UMDNJ—Robert Wood Johnson Medical School campus, there is concrete evidence of growth and change. New construction and renovation facilities are taking shape, answering the school’s need for expanded space in which to conduct research, teach, and care for patients. “The major expansion and new construction of educational, research, and clinical space represent an enormous step forward for our medical school,” says Harold L. Pax, MD, dean. “Our faculty and staff have worked tirelessly to advance these important projects.” The dean commended the hard work of the school’s faculty in making this dream a reality, adding, “This collaborative effort draws on the strengths of the university, the medical school, and our affiliated institutions.”

Staged Research Building

On Tuesday, October 1, the new Staged Research Building, located adjacent to the Robert Wood Johnson Medical School, was dedicated. Built at a cost of $7 million, the 20,000-square-foot building creates immediate space for research expansion. It provides a staging area for researchers to temporarily displace by laboratory renovations, as well as permanent research and administrative space for the Child Health Institute of New Jersey.

Among the initial occupants of the building is William J. Welch, PhD, professor of pharmacology and director, UMDNJ—Robert Wood Johnson Medical School.

“Research [N O T E S]

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Science. The multi-institutional “Glass” grants are aimed to invigorate research throughout the United States in an effort to bring together large groups of scientists with broad expertise in a focused area of biological significance. Dr. Lowry and Calvano will undertake initial development and evaluation of appropriate methodologies for microarray analysis of human immune cells following infection and/or injury. NIH awarded two grants to Harold J. Lowry, MD, PhD, professor of pathology and director, Center for Advanced Biostatistics, Molecular Genetics, Microbiology, and Immunology. The first, for $1.2 million, is titled “Calcium signaling and cytochrome c release in apoptosis.” The second, for $234,271, funds “Ryanodine receptor of c/c coupling in stimulated muscle.”

Associated professor of biochemistry and Howard Hughes Investigator, was awarded a $700,000 grant by NIH for “Transcription regulation by NF2.”

NIH awarded Michael W. Shan, PhD, associate professor of pediatrics and resident member, Center for Advanced Biostatistics, Molecular Genetics, Microbiology, and Immunology, a three-year, $887,274 grant from NIH for “Myeloid leukocyte development.”

Building excitement.

A recent grant to CHINJ from the Hyde & Watson Foundation funded the purchase of equipment for the RWJMS gene chip project, a collaboration among CHINJ, CHINJ, and the Departments of Surgery and Molecular Genetics, Microbiology, and Immunology.

“Education and research, we’ve already moved to the front of the world of developmental biology,” says Robert L. Trelstad, MD, professor of pathology and laboratory medicine, Harold L. Pax Chair of Developmental Biology, and acting director, CHINJ.

— Continued on Page 11

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Institute 2001: A Virtual Classroom Spans the Globe

The RWJMS partnership in Institute 2001 began in February 2006, at a planning conference sponsored by the ECFMG. Among conference delegates shaping the new program, were Harold L. Paz, MD, dean, and John B. Kostis, MD, professor and chair, Department of Medicine. Dr. Kostis, a member of the ECFMG and FAIMER boards, served on the selection committee of Institute 2001. “It was a pleasure to be on the ground floor of this exciting new program,” says Dr. Paz. “From the initial planning sessions to this inaugural session, RWJMS faculty have had a unique opportunity to contribute to and learn from an international community of medical educators.”

An Active Partnership

Robert Wood Johnson Medical School (RWJMS) hosted the RWJMS residents’ Institute 2001 program, which was based at Sugarloaf Conference Center, in Philadelphia. Midway through the program, another Institute 2001 session was held at St. Peter’s University Hospital in New Brunswick, with 10 of the medical school’s faculty leading workshops. They included Nayan K. Kothari, MBBS, clinical professor of medicine and director, Internal Medicine Residency Program, who also helped facilitate Institute 2001 discussions on-site at Sugarloaf.

Ranjit Sharma, MD, assistant professor of medicine, served as coordinator for the Institute 2001 visit to RWJMS. She arranged for RWJMS faculty to work one-on-one with participants and lead group discussions on topics such as strategic planning, Objective Structured Clinical Examinations (OSCEs), and Web-based learning. During the off-site session, institutes fellows also observed state-of-the-art teaching techniques, Robert Wood Johnson University Hospital and St. Peter’s University Hospital.

Asking the goals of the program, says Dr. Morahan, “It was a pleasure to be on the ground floor of this exciting new program, from the initial planning sessions to this inaugural session, RWJMS faculty have had a unique opportunity to contribute to and learn from an international community of medical educators.”

The Charter Class

The selection committee looked at the candidates’ individual qualities, the quality and creativity of their proposed intersession projects, and their ability to play a key role in improving medical education at their medical schools. The committee also weighed the capacity of each home institution to support development and implementation of the candidates’ proposed project.

Of the charter class’s 11 projects, three seeks to improve the integration of OSCEs into the curriculum. Two proposed developments in information technology, and two focus on reviews to the curriculum. Other institutes fellows are working on student-centered issues: more flexible study plans, improved performance assessment tools, and new means of evaluating academic portfolios. One project centers on community health, seeking better treatment of infectious diseases by linking medical schools to remote, secondary care hospitals.

The intersection projects provide a shared educational vehicle, says Dr. Morahan. “They are important not just for their content, but for the refinements they will require. Participants are not alone in this work, she adds. An interactive Web-based program keeps them in touch with one another and with the Institute 2001 faculty. Evaluating the program, institute fellow Vanesa Burch, MD, senior specialist, Department of Medicine, Faculty of Health Sciences, University of Cape Town, wrote, ‘This ongoing support is vital to our sustained endeavors. And the links we have formed among ourselves serve as an important support system as well.’

Pery and community of purpose are the real pluses of Institute 2001, says participant Rosa Otomo-Nynya, MD, lecturer in obstetrics and gynecology and chair, Clinical Division and Clinical Skills Training, at Kenya’s Moi University. The charter class came together from a wide range of academic, professional, cultural, and economic backgrounds. Since leaving Philadelphia, they have found themselves in a virtual classroom, widely separated but with the common goal of improving medical education. Unity of purpose makes Institute 2001 “a model to be emulated and uploaded” throughout the world, adds Otomo-Nynya.

Dr. Rodgers Recognized for Leadership

UMDNJ-Robert Wood Johnson Medical School embraces community service as one of its prime missions, on a par with teaching, research, and patient care. This strong engagement in the community is evident throughout the medical school—its educational program, clinical services, and running, and in the diversity of the student body and workforce.

Denise V. Rodgers, MD, professor of family medicine and environmental and community medicine and associate dean for community health, leads the school in fulfilling this mission. She has overall administrative responsibility for the Eric B. Chandler Health Center, which provides health care to the medically underserved and is a major teaching site for RWJMS. She also chairs the Health Task Force of New Brunswick Tomorrow and serves on the Latino Health Advisory Committee of the New Jersey Department of Health and Senior Services. Well known for her publications and lectures on high mortality among minorities, cultural competence, and racism in medicine, she also serves as president of the Society of Teachers of Family Medicine.

“An exceptional clinician and teacher, Dr. Rodgers has enlarged and strengthened the school’s programs to help meet the medical needs of the community,” says Harold L. Patz, MD, dean. “Throughout the school and the community, her accomplishments are highly respected and deeply appreciated.”

This appreciation was recently expressed in the form of a number of noteworthy awards. In November, the Friends’ Health Connection, a support network that connects people with similar health problems for the purpose of mutual support, selected her to receive its Frances Black Humanitarian Award. It recognizes “her commitment to health care and her extraordinary service to patients.”

On January 31, she was one of six recipients of the annual Community Leaders of Distinction Award from the Middlesex County Regional Chamber of Commerce. Dr. Rodgers is a 1999 graduate of Leadership New Jersey (LNJ), a statewide program that identifies, honors, and informs civic leaders.

Race Relations.” Presenting the award, Judith K. Show, former chair, LNJ Graduate Organization, noted “Dr. Rodgers’ energetic advocacy for the underserved and for developing clinical and educational initiatives focused on improving the health status of individuals, families, and communities.”

Dr. Rodgers was recently named to the advisory board of the newly established Health Leadership New Jersey, which will create a statewide network of leaders from all health disciplines.

Dr. Kountz Makes TV Debut

A t the 2001 Annual Meeting of the Association of American Medical Colleges (AAMC), Harold L. Patz, MD, dean, hosted a first-time reception for alumni and friends of UMDNJ-Robert Wood Johnson Medical School. Alumni and their guests appreciated the opportunity to catch up with fellow graduates while visiting with their teachers and mentors. On hand, in addition to Dr. Patz, were RWJMS deans including Marie C. Trommel, MD ’76, senior associate dean for education; Pat R. Melone, PhD, associate dean for academic and student affairs; RWJMS, Camden campus; David Seiden, PhD, associate dean for admissions and student affairs; and Geoffrey H. Young, PhD, assistant dean for student affairs.

Elisabeth DiProspero, MD ’90, reports, “I had a wonderful time. Being there reminded me of my strong medical roots. I appreciated seeing the drama, who have always been an inspiration to me and a guiding light in my medical career.”

Prudence Kline, MD ’78, was particularly glad to see Dr. Trommel. In 1976, when Dr. Kline began rotations at Ramatan Valley Hospital, Dr. Trommel was chief resident in internal medicine. “Smart, professional, and kind, she became my role model,” says Dr. Kline. Now an intern in private practice in Washington, D.C., Dr. Kline finally had a chance to tell Dr. Trommel how influential that early experience had been.

Fresh from her 20th reunion in October, Marcia L. Fennell, MD ’91, stopped by the reception with her husband, Alex Marnoyan. A resident of Arlington, Virginia, Dr. Fennell is a physician with Kaiser Permanente in nearby Springfield. Even the most recent graduates were eager for news of the school. Tamun Kapose, MD ’90, was intrigued to hear how quickly his alma mater is growing. He got a personal report from Dr. Patz on the rapid progress of the Bristol-Myers Squibb Children’s Hospital. Dr. Kapose, a second-year resident in internal medicine at George Washington University (GWU), says his “extraordinarily good preparation in basic science” has put him and his RWJMS classmates at the top of the GWU residency program. “In medical school, we were always eager for additional clinical experience, in a wider range of situations. It will be a major boost for students to work with children in a hospital with full pediatric services.”

Moving on to talk with Dr. Trommel, Dr. Kapose learned about the revised second-year curriculum. “It’s great to know the students are getting more small-group time with experienced docs like Bruce Fishel. Their teaching was pertinent and unforgettable,” he says. Dr. Kapose describes a recent case at GWU in which he successfully diagnosed a bony infection, based on a memorable case lead by Bruce D. Fisher, MD, clinical professor of medicine. “I wish I’d been at the reception,” adds Dr. Kapose. “I’ve got to tell him about that!” — K.O’N.
Betty Gallo, director of public outreach and government affairs, the Dean and Betty Gallo Prostate Cancer Center at The Cancer Institute of New Jersey (CINJ) at UMDNJ—Robert Wood Johnson Medical School, is one of two winners of the WCBS 2002 Dream Fulfillment Awards. Selected from hundreds of nominees from the tri-state area, she and the other winners were filmed immersed in their work. The vignettes can individually unfold for six weeks on the New York City television station, then were consolidated into a half-hour, prime-time program.

Betty Gallo’s “fulfills dream” is the Prostate Cancer Center, which she established in 1991, a year after losing her husband, Dean, aged 58. For the last ten years of his life, Dean Gallo represented New Jersey’s 11th Congressional District. Admired as a municipal and state legislator, his congressional service made him one of the state’s best-loved and most respected public figures.

The Prostate Cancer Center performs clinical research and offers an expanding education program on prevention, early detection, and treatment. "It wasn’t hard," she says. "It was a passion for this comes from my love for my husband," says Betty Gallo. "To me this is not a job, it’s a gift to this community, this state, and in people. Dean’s spirit keeps me going. If I ever start to slow down, I hear a little voice saying, ‘Keep going. You need to continue doing something for people with prostate cancer.’"

Dr. Caryl J. Heaton, DO, professor of medicine and executive director, the Dean and Betty Gallo Center for Cancer Research, at Case Western Reserve University. Joseph R. Bertino, MD, professor of medicine, and pharmacology, associate director, The Cancer Institute of New Jersey (CINJ) at RWJMS, and University Professor, keynoteed the afternoon session, Dr. Stange’s topic was “Toward a Basic Science of General Practice.” Funding from the National Cancer Institute supports his research into the cancer structures and processes of primary care practice and their effect on preventive service delivery and patient outcomes.

Dr. Bertino, who spoke on “New Directions in Cancer Research,” previously served as program chairman of molecular pharmacology and therapeutics at Memorial Sloan-Kettering Cancer Center, in New York City. His research targets the relationship between tumor suppression gene abnormalities and drug resistance, as well as the use of drug-resistant genes to protect bone marrow from chemotherapy toxicity.

Research Day ended with the presentation of awards by Judith A. Neubauer, PhD, professor of medicine and acting senior associate dean for research. The event was supported by contributions from 13 RWJMS departments and 30 vendors, who purchased exhibit tables.

Research Day took place on March 22. Chaired by Benjamin F. Crabtree, PhD, professor of family medicine, and biostatistics, and associate director, Center for Research in Family Practice and Primary Care, at Case Western Reserve University. Joseph R. Bertino, MD, professor of medicine and pharmacology, associate director, The Cancer Institute of New Jersey (CINJ) at RWJMS, and University Professor, keynoteed the afternoon session, Dr. Stange’s topic was “Toward a Basic Science of General Practice.”

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Betty Gallo Receives Martin Luther King Dream Fulfillment Award from WCBS

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— K.O.N.
Class of 2002 Excels in Residency Match

In the closing minutes before noon, March 21, suspense reached the boiling point. Joining a nationwide cohort of more than 14,000 collegians, the RWJMS Class of 2002 gathered with friends and family for Match Day, the annual rite of passage in which fourth-year medical students learn their residency assignments. Awaiting the go-ahead signal, students nervously clutched their sealed envelopes, though a few unpredictably opened theirs, perhaps — tried to "X-ray" their letters against the ceiling lights.

Led in by Alumni Association President Eduardo Fernandez, MD ’89, and in New Brunswick by Vice President-elect Eron M. Losh, MD ’90, the newly minted doctors raced toward the back of the room, students taped open their envelopes and quickly absorbed their news before joining us for an excited celebration with classmates.

"The quality of our match today is the best ever," says David Seiden, PhD, professor of neurogenetics and cell biology and associate dean for admissions and student affairs. This year, 128 RWJMS students participated in the National Residency Match Program, and 97.7 percent matched.” This figure compares with this year’s nationwide rate of 94.1 percent.

"They were matched to outstanding residencies," adds Dr. Seiden. “A large number will enter programs at the nation’s leading health centers, including Baylor, Columbia, Cornell, Harvard, Johns Hopkins, NYU, UCLA, UCSF, Verona, and Yale.”

"Class of 2002 graduates from the Camden campus will be in extraordinary residencies nationwide," says Paul E. Mobo, PhD, associate professor of family medicine and associate dean for academic and student affairs, Camden campus. "And like our price gradates, as a society of learners, they will carry that teaching ethic to their residencies.”

Robert Wood Johnson Medical School, Piscataway Campus

THE CLASS OF 2002 CAREER CHOICES

Anesthesiology

Anil Agarwal: St. Jude Medical, South Beach, FL
Srinivas Bagusamudre: New York Presbyterian Hospital, Cornell, NY
Cynthia Feng: New York Presbyterian Hospital, Cornell, NY
Vijay Jha: New York Presbyterian Hospital, Cornell, NY

Cardiovascular Medicine

Michael K. Healy: Imperial College, London, UK
Jennifer Lee: Emory University School of Medicine, Atlanta, GA
Nicole Nienaber: New York Presbyterian Hospital, Cornell, NY

Critical Care Medicine

Marc Novack: New York University School of Medicine, NY
Marilyn Willard: New York Presbyterian Hospital, Cornell, NY

Endocrinology, Diabetes & Metabolism

Sheree Nainuma: New York Presbyterian Hospital, Cornell, NY
David W. Alpert: Stanford University School of Medicine, CA
Paul Southall: New York Presbyterian Hospital, Cornell, NY

Medical Genetics: Child Health, Frontier, OH

Surgical Oncology: North Shore University Hospital, Manhasset, NY
Andrew Gruber: New York Presbyterian Hospital, Cornell, NY
Krisitina Tennison: New York Presbyterian Hospital, Cornell, NY
Albright Lamor: Long Island University Brooklyn, NY

Neurology

Bruno-schutz: New York Presbyterian Hospital, Cornell, NY
John C. van de Lagemaat: New York Presbyterian Hospital, Cornell, NY

Neurosurgical Medicine

Carolyn Smith: Rush Presbyterian-St Luke’s Medical Center, Chicago, IL
Jenine Evers: New York Presbyterian Hospital, Cornell, NY

Obstetrics & Gynecology

Rashean Hodge: Morehouse School of Medicine, Atlanta, GA
Marsha Naydich: Saint Barnabas, NY; UMDNJ-Robert Wood Johnson Medical School, Piscataway, NJ

Ophthalmology

Lisa Maxwell: Crozer-Chester Medical Center, PA

Pathology

Kathryn Lamb: Rhode Island Hospital, RI
John Wang: Mount Sinai School of Medicine, NY

Pediatrics

Eric Albrecht: Atlantic Health System, Morristown, NJ
Nada Ovchinsky: New York Presbyterian Hospital, Cornell, NY

Physician-Scientist Fellowship Program

Shefali Mavani: New York Presbyterian Hospital, New York, NY

Surgery

Rice: University of California, San Francisco, CA
Eric Chang: UMDNJ-Robert Wood Johnson Medical School, Camden, NJ

Urology

Neal Moskowitz: UMDNJ-Robert Wood Johnson Medical School, Camden, NJ
Seth Cohen: New York Presbyterian Hospital, Cornell, NY

Anatolios Kanno: New York Presbyterian Hospital, Cornell, NY

Robert Wu: New York Presbyterian Hospital, Cornell, NY

Anisha S. Shroff: New York Presbyterian Hospital, Cornell, NY

Scott Ceresnak: New York Presbyterian Hospital, Cornell, NY

Hedy S. Logsdon: New York Presbyterian Hospital, Cornell, NY

Alicia E. Tse: UMDNJ-Robert Wood Johnson Medical School, Camden, NJ

Pratik Doshi: New York Presbyterian Hospital, Cornell, NY

Weidong Xu: Emory University School of Medicine, GA

Noiraj Shah: New York Presbyterian Hospital, Cornell, NY

Anurag Jain: New York Presbyterian Hospital, Cornell, NY

Raymond Tsao: Brown University School of Medicine, Providence, RI

Tayra Zavala: Georgetown University, DC, New York Presbyterian Hospital, Cornell, NY

Jeffrey Shander: New York Presbyterian Hospital, Cornell, NY

Oscar Goya: New York Presbyterian Hospital, Cornell, NY

Eric Albrecht: Atlantic Health System, Morristown, NJ

Nadine Hoffman: New York Presbyterian Hospital, Cornell, NY

Ann Marie Caruso: UMDNJ-Robert Wood Johnson Medical School, Camden, NJ

Sahil Shah: New York Presbyterian Hospital, Cornell, NY

Rasean Hodge: Morehouse School of Medicine, Atlanta, GA

Sathya Sembugamoorthy: UMDNJ-Robert Wood Johnson Medical School, Camden, NJ

Vivek Jhangiani: University of California, San Francisco, CA

MICHAEL J. FUCHS, R. M. W. J. M. S. MEDICAL SCHOOL FACULTY

Robert M. Johnson Medical School, Piscataway, NJ

Medical Center, NY

Aaron Grotas: Beth Israel Medical Center, NY

Mark Saks: Temple University School of Medicine, Philadelphia, PA

Karen Grimes-Dennis: Jefferson University, PA

Aladego: Morehouse School of Medicine, Atlanta, GA

Anna Bush: Morehouse School of Medicine, Atlanta, GA

Joel Wolpert: New York Presbyterian Hospital, Cornell, NY

Philip Galasso: New York Presbyterian Hospital, Cornell, NY

Kathleen Desimone: Hospital of the University of Pennsylvania, Philadelphia, PA

Albright Lamor: Long Island University Brooklyn, NY

Steven Stanger: New York Presbyterian Hospital, Cornell, NY

Anatolios Kanno: New York Presbyterian Hospital, Cornell, NY

Christina Giordano Diventi: Thomas Jefferson University, PA

Shefali Mavani: New York Presbyterian Hospital, New York, NY

Shefali Mavani: New York Presbyterian Hospital, New York, NY

Outstanding residencies,” adds Dr. Seiden. “A large number will enter programs at the nation’s leading health centers, including Baylor, Columbia, Cornell, Harvard, Johns Hopkins, NYU, UCLA, UCSF, Verona, and Yale.”

“Class of 2002 graduates from the Camden campus will be in extraordinary residencies nationwide,” says Paul E. Mobo, PhD, associate professor of family medicine and associate dean for academic and student affairs, Camden campus. “And like our price gradates, as a society of learners, they will carry that teaching ethic to their residencies.”

— K.O.N.
John D. Baxter, MD, Leads Studies of HIV Therapy Resistance

There is new hope for a special group of HIV-infected patients, thanks to the research of John D. Baxter, MD, professor of medicine, RWJMS, and a member of the attending medical staff at Cooper Health System. Dr. Baxter earned his medical degree from the University of Pennsylvania School of Medicine in 1990 and completed his medical residency at the University of Pennsylvania Hospital/University of Pennsylvania Medical Center in 1993. Following a fellowship at Cooper Hospital/University Medical Center, he joined the division of infectious diseases, RWJMS, Camden campus.

Baxter and his research team are investigating the use of reverse transcriptase inhibitors in patients infected with HIV. A study investigating “HAART failure,” a syndrome in which highly active antiretroviral therapy (HAART) fails after initial success, is sponsored by the National Institutes of Health. In 1997, as an investigator in the Community Programs for Clinical Research on AIDS (CPCRA), sponsored by the National Institutes of Health, Dr. Baxter sponsored a clinical trial to assess the use of antiretroviral therapy in patients who are resistant to antiretroviral drugs. The goal is to see if patients who stop therapy revert their predominant population of HIV to a more susceptible “wild-type” strain. Baxter explains: “Potentially, they will have improved responses when therapy is reintroduced.”

In 1996, as an investigator in the Cooperative Studies of Antiretroviral Therapy (CART) in patients infected with HIV, Dr. Baxter and his team are investigating the use of antiretroviral therapy for patients infected with HIV. The significant benefit of CART therapy is that it can prevent the development of antiretroviral resistance. Baxter and his research team are also involved in laboratory research that provides support for CART protocols. The Southern New Jersey AIDS Clinical Trials Unit, located in Camden, serves as the CART coordinator. The unit provides CART to patients infected with HIV who are at risk for the development of antiretroviral resistance. Based on the model that antiretroviral susceptibility testing helps select antiretroviral therapy, the team investigates the utility of rapid viral susceptibility testing in patients enrolled in these clinical trials. The model is used in clinical trials to determine the best treatment for HIV-infected patients. Baxter and his team have been performing ground-breaking surgery that pumps 90 billion copies of a healthy gene into the brains of children with Canavan disease. The disease is usually administered using genes carried by viral vectors. Baxter is refining this technique, using stem cell therapy.

Dr. Leone brings to her $2.4 million grant from the National Institutes of Health. She held additional grants from the Hunter’s Hope Foundation, the Canavan Research Foundation, Canavan Research Illinois (CRI), and the Jacob’s Care Foundation. Dr. Leone’s work on neurosurgical procedures complements work in other departments of our hospital.

John D. Baxter, MD, leads studies of HIV therapy resistance. Dr. Leone’s work on neurosurgery will examine intermittent versus continuous antiretroviral therapy in approximately 6,000 patients with chronic HIV infection.
In December 2001, Harold L. Paz, MD, dean, announced the appointment of Daniel A. Notterman, MD, as professor and chair, Department of Pediatrics. “Dr. Notterman has accepted this position at an important time for the Department of Pediatrics and the medical school,” says Dr. Paz. “As chair, he will oversee a growing department with diverse educational, research, and clinical programs, and more than 200 paid and unpaid faculty in 17 divisions. In addition, he joins our faculty as we break ground for the Child Health Institute of New Jersey (CHINJ), double the space at The Cancer Institute of New Jersey (CINJ), and as the Bristol-Myers Squibb Children’s Hospital at Robert Wood Johnson University Hospital opens its doors.”

Dr. Notterman is a physician-scientist and teacher, a national leader in pediatric critical care medicine and the molecular biology of cancer. A member of the American Board of Pediatrics, he chaired its sub-board of pediatric critical care medicine. Widely published, he has served on numerous editorial boards. He also chairs the U.S. Pharmacopeia Advisory Committee for Critical Care and Emergency Medicine and serves on state and local research review panels.

Dr. Notterman earned his medical degree from the New York University School of Medicine and completed his internship and residency at NYU-Bellevue Medical Center, where he was chief resident in pediatrics. He was a research fellow in clinical pharmacology at Cornell Medical Center. He established the division of pediatric critical care medicine at New York Hospital-Cornell Medical Center and, as its first director, built the division to national prominence.

Dr. Notterman later moved to Princeton University “to savor the revolution in molecular biology” as a post-doctoral fellow in the laboratory of Arnold Levine, PhD. After completing his fellowship, he taught in the Department of Molecular Biology and developed a well-funded laboratory in tumor biology, using colorectal cancer as a model system. He was in the group that pioneered the use of “gene chips” to study this form of cancer. His current laboratory also receives federal support to investigate the role of a novel technique, dielectric spectroscopy, in analyzing cellular constituents such as DNA, RNA, and protein.

At Princeton, Dr. Notterman served as a faculty advisor and chaired the Committee on Health Professions, which is responsible for the premedical program. Now, as a visiting professor at Princeton, he will continue to teach his popular course, “Diseases of Children: Causes, Costs and Choice,” in which RWJMS faculty members have been guest lecturers.

As a teacher, clinician, and researcher, he met and worked with these and many other members of the RWJMS Department of Pediatrics, says Dr. Notterman, describing factors involved in his move to RWJMS. He looks forward to working with these colleagues and expanding the staff of pediatric specialists at RWJMS, adding several subspecialty divisions. He will also work with the Departments of Surgery and Anesthesiology to attract additional pediatric expertise in these areas. CINJ and CHINJ will provide an ideal opportunity to continue his research on cancer, he says.

“This is an exciting time for pediatric care and research in New Jersey,” he adds. “A wonderful new children’s hospital, a developing Child Health Institute for pediatric research, and a supportive intellectual environment have convinced me that this is the time, and UMNJ-Robert Wood Johnson Medical School is the place, for pediatric medicine to come of age in New Jersey.”

— Harold L. Paz, MD, dean

When my folks talk about retirement, I listen.

“My parents locked in a guaranteed lifetime income by opening a Charitable Gift Annuity to support the UMNJ-Robert Wood Johnson Medical School. Not only does it give them peace of mind, but they designated their gift to fund scholarships for deserving students at RWJMS.

They suggested that I plan now for my financial future and find a way to help the medical school, too. So I’m considering a variety of charitable gift annuity programs offered through the Foundation of UMNJ, like a Deferred Payment Gift Annuity. They all would provide me with tax advantages now, a solid retirement income later and the ability to leave a legacy to my medical school.

For more information about how to provide for a secure future in these changing economic times, contact Jeffrey Kraft, director of planned giving or Melinda Davis, vice president for development, toll-free at (866) 44-UMNJ (866-448-6365).

Charitable Gift Annuity fixed rates are determined by the annuitants’ ages when the gift is made. Here are sample rates:

<table>
<thead>
<tr>
<th>Your Parents’ Ages</th>
<th>Annuity Payout</th>
</tr>
</thead>
<tbody>
<tr>
<td>70/68</td>
<td>6.5%</td>
</tr>
<tr>
<td>75/73</td>
<td>6.9%</td>
</tr>
<tr>
<td>76/73</td>
<td>7.0%</td>
</tr>
<tr>
<td>80/75</td>
<td>7.3%</td>
</tr>
<tr>
<td>84/80</td>
<td>8.0%</td>
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</tbody>
</table>

One popular option is to defer the onset of payments until a future date with a Deferred Payment Gift Annuity. Your rate, which is determined by your age at the time you make your gift, never changes. Here are sample rates:

<table>
<thead>
<tr>
<th>Your Age Now</th>
<th>Rate when payments begin</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>17.1%</td>
</tr>
<tr>
<td>50</td>
<td>15.3%</td>
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<td>52</td>
<td>13.7%</td>
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<tr>
<td>54</td>
<td>12.2%</td>
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<tr>
<td>55</td>
<td>11.6%</td>
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</tbody>
</table>

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Executive Women of New Jersey’s 2001 Student News

In Memoriam

Department of Pediatrics

Chair Faculty

Robert S. DiPaola, MD
Clinical Assistant Professor
MSS, University of Pennsylvania Graduate School of Medicine, 1986

Elisabeth O. Maniscal, PhD
Adjunct Associate Professor
PhD, University of North Carolina, Chapel Hill, 1986

Joelle J. McCoy, MD
Assistant Professor
PhD, University of Minnesota College of Medicine, 1993

Rajiv A. Bhattaran, MD
Professor
MD, New York University School of Medicine, 1974

Department of Physical Therapy

Faculty appointments through February 28, 2002

High Visibility

Professional Speaking

Student News

Points of Pride

Peter S. Amato, MD, PhD
professor and chief, Department of Pathology and Laboratory Medicine, has been named interim senior vice president for medical affairs and chief of staff at Robert Wood Johnson University Hospital. In this position, he replaces Cliff R. Lane, MD, PhD, vice president and chief, division of cardiovascular diseases and hypertension, who is serving as commissio...
Two endowed chairs, the James W. Mackenzie Chair in Surgery and the Norman and Ruth H. Rosenberg Chair in Vascular Surgery, will advance basic and clinical studies in both vascular and cardiac surgery. These two chairs honor the achievements of those for whom they are named as well as the faculty members who hold them.

UMDNJ-Robert Wood Johnson Medical School is proud of these extraordinary physicians and the honor their combined talents have brought to the medical school.

BY RITA M. ROONEY

The finest health care anywhere, right here at home.
James W. Mackenzie Chair in Surgery

He was always pushing the boundaries of discovery, driving faculty members to build on basic research with clinical studies,” reports Peter M. Scholz, MD, professor of surgery and chief, section of cardiac surgery. “It’s a fitting accolade to the groundwork laid by Dr. Mackenzie that the medical school has recognized his contributions.”

Dr. Scholz, who holds the James W. Mackenzie Chair in Surgery, says the establishment of the first endowed chair in surgery at the UMDNJ-Robert Wood Johnson Medical School underscores the vision and tenacity of the man for whom the chair is named and who made it possible.

A former dean of the medical school and former chair of the Department of Surgery, Dr. Mackenzie launched the RWJMS cardiac surgery program in the early 1970s at Raritan Valley Hospital, then directed its transition in 1980 to what is now Robert Wood Johnson University Hospital. He has been an inspiration for progress ever since, from the time he was dean of the two-year medical school until he headed its conversion to a four-year program, and beyond.

Expressing his appreciation to Dr. Mackenzie for the new chair, Harold L. Paz, MD, dean, says it honors a physician who has played a critical role in the evolution of the medical school and who is held in the highest esteem by his peers.

“He is a truly amazing individual,” he says. “It seems incredible to me that, considering all he has already done on behalf of the medical school, he has added to it by endowing this chair, which will serve so many future achievements.”

Stephen F. Lowry, MD, professor and chair, Department of Surgery, summarizes the contributions of Dr. Mackenzie with an unequivocal statement on his importance to RWJMS.

“Jim Mackenzie’s vision and dedication to the medical school are the reasons we are here,” Dr. Lowry says. “His leadership has guided us throughout our history, and he is at the heart of the success we enjoy today.”

Dr. Scholz, who has worked with him for 19 years, recalls that, as department chair, Dr. Mackenzie was exceptionally supportive of new ideas. “He’s a person who carefully considers all the implications of a proposed idea before rushing in,” Dr. Scholz says. “When he gets behind a project, he is unstoppable.”

According to Dr. Mackenzie, the new endowed chair, which was dedicated during an April ceremony, reflects the maturity of research endeavors, both basic and clinical, in the department, especially in cardiac surgery. He believes it helps position the division of thoracic surgery for future momentum as a national contender in leading research.

“We are just reaching the horizon in clinical studies,” he says. “With the leadership of Dr. Scholz, I feel confident we’re going to see great strides in the near future. Here is a man who, in addition to being a superb teacher and clinician, has been almost continuously supported by the National Institutes of Health (NIH) since 1988. That certainly sets him apart from most academic cardiac surgeons in the country.”

The work to which Dr. Mackenzie refers includes basic research aimed at heart failure, a condition affecting 55,000 people annually in the United States. Dr. Scholz explains that his laboratory is studying a risk factor that causes the heart to decompensate and develop a thick muscle.

“We’re looking at what makes a heart have to work overtime like an athlete’s, and beyond that, what causes it either to compensate or decompensate, leading to heart failure,” he says.

Using several laboratory models, Dr. Scholz’s team has created a valvular obstruction leading to significant hypertension and then paced the model with a rapid heartbeat, with the result that a number of abnormalities occur. He and his colleagues are now looking at various pathways to determine how they affect function.

“If we can come up with a novel abnormal pathway, and then fix that pathway, we may be able to prevent heart failure,” he reports. “Currently, there are only 2,000 heart transplant donors available each year and approximately 250,000 who die from the disease. We’re aiming at interrupting the process that leads to heart failure, and hopefully saving many of those lives.”

Heart failure was also a focus of a recent study that Dr. Scholz conducted to determine whether bypassing blood vessels in patients with heart failure will help them to live longer. Another facet of the research will look at abnormal heart shape among heart attack patients to see if surgical remodeling of the heart will correct the abnormality.

“So far, no ideal replacement valve has been found. This discovery may well revolutionize valvular surgery.”

Dr. Lowry says Dr. Scholz represents the epitome of the academic cardiac surgeon. “He is internationally renowned in both basic and clinical research, and an exceptionally skilled surgeon,” reports Peter M. Scholz, MD, professor of surgery and chief, section of cardiac surgery, holds the James W. Mackenzie Chair in Surgery.

“We are just reaching the horizon in clinical studies. With the leadership of Dr. Scholz, I feel confident we’re going to see great strides in the near future.”— James W. Mackenzie, MD, former dean of the Department of Surgery

Dr. Paz says that when he first learned of Dr. Mackenzie’s gift, he committed his own energies to raising additional funds to bring the chair to fruition. “I can’t overemphasize how pleased I am that we have been able to do that over the past few years,” he says. “This is a tribute to a remarkable man.”

Cardiac Studies Advanced

Significant clinical studies under way in cardiac surgery have been encouraged by Dr. Mackenzie’s leadership. The endowed chair that bears his name will enhance important research to improve the valve substitute used in surgically replace impaired human valves. Dr. Scholz explains that current replacement valves are supported by bulky frames that create unfavorable conditions for blood flow. Recent efforts are focused on a new stainless steel pig valve. RWJMS will be the lead investigator among five institutions nationally during Phase 3 trials of the new valve.

“This is very exciting research,” he says. “So far, no ideal replacement valve has been found. This discovery may well revolutionize valvular surgery.”

Dr. Lowry says Dr. Scholz represents the epitome of the academic cardiac surgeon. “He is internationally renowned in both basic and clinical research, and an exceptionally skilled surgeon.” Dr. Lowry reports, “Added to that, he is a wonderfully supportive mentor of young physicians.”

Another clinical work undertaken by the division includes a multi-national study involving a drug that may protect the heart from the sudden circulation to the heart is interrupted and then resumed during bypass surgery. Another study is the Safety Trial in Ischemic Coronary Heart Disease. (STICH), a multi-center endeavor to include 50 institutions, and it will be the only NIH-funded project in coronary bypass surgery among heart failure patients in this decade. It is aimed at determining whether bypassing blood vessels in patients with heart failure will help them to live longer.

Another facet of the research will look at abnormal heart shape among heart attack patients to see if surgical remodeling of the heart will correct the abnormality.
The question is one that is frequently asked of donors whose generosity exceeds customary dimensions: why? What motivates the kind of selflessness that ben-efits science or, be that matter, any cause? It’s one to which Norman Rosenberg, MD, emeritus pro-fessor of vascular surgery, gives a moment’s thought before answering. When he does, it is clear the brief pause is due not to any hesitation on his part, but to a mental summation of what the gift in question—endowment of the Norman and Ruth H. Rosenberg Chair in Vascular Surgery—means to him personally.

“It is the culmination of all my work,” says the physi-cian, who is recognized as a pioneer in vascular surgery.

“I feel it represents the culmination of a dream through the talents of a gifted clinician and researcher.”

He refers to Alan M. Graham, MD, professor of surgery and chair, division of vascular surgery, who will hold the chair and who succeeds Dr. Rosenberg as chief of the division. According to Dr. Rosenberg, Dr. Graham’s commitment to the UMDNJS Robert Wood Johnson Medical School ensures the continuity needed to expand significant research and strengthen the already prominent reputation earned by the division.

Dr. Rosenberg is the author of 63 surgical papers and two editions of the Handbook of Carotid Artery Surgery. He has contributed to 13 additional books and is a frequent consultant to study groups and post-graduate courses.

Stephen F. Lowry, MD, professor and chair, Depart-ment of Surgery, says the endowed chair marks a signifi-cant milestone for RWJMS, in that it honors a man known for breaking new ground in what has become an important surgical discipline.

“The success of vascular surgery at the medical school can in large part be attributed to the innovative work spearheaded by Dr. Rosenberg,” he says. “We owe a great deal to his vigorous pursuit of this relatively new science.”

Steve Lowry refers to Dr. Graham as one of the most talented vascular surgeons in the country. “He has expanded on the foundation set by Dr. Rosenberg and has directed in three major arenas—education, research, and the development of partnerships that will benefit the medical school.”

In research, he points to studies under-taken by Gary Nackman, MD, assistant pro-fessor of vascular surgery and director, vas-cular research, which are aimed at finding ways to prevent the narrowing of vessels by aneurysms. He says, “In addition to bringing honor to the medical school through his work, Dr. Rosenberg has been a constant and generous friend. The Rosenberg Lecture Series attracts celebrated national speakers. We remain enormously grateful for his support.”

“When I first came here in 1992, we were doing 312 cases a year. This year, we will do more than 2,000. Norman Rosenberg has been the impetus for this kind of growth.”

— Alan M. Graham, MD, professor of surgery and chief, division of vascular surgery, holds the Norman and Ruth H. Rosenberg Chair in Vascular Surgery.

After being asked recently about the motivating factors for the creation of the chair, Dr. Rosenberg was questioned why he chose to have it named for both himself and his wife, Ruth. This time, there wasn’t even the slightest pause.

“Ruth’s support has been integral to everything I have accomplished,” he says. “She has read and critiqued my journal articles and encouraged me for 61 years. It’s inconceivable to think of her not sharing in this project, as she has shared in so many others.”

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Dr. Paz refers to Dr. Graham as one of the most talented vascular surgeons in the country. He has expanded on the foundation set by Dr. Rosenberg and has built a scientifically sound and clinically vital division that is at the forefront of work in his field,” Dr. Lowry says. Dr. Graham expects that his division is directed in three major arenas—education, research, and the development of partnerships with industry.

Our division has an exceptionally strong teaching base teaching both resident and medical students,” he says. “As clinicians working to advance a relatively new surgical discipline, this is our most important responsibility.”

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and Licensing, the medical school generated almost $400,000 through tech transfer agreements last year — income that Harold L. Paz, MD, dean, says allows RWJMS to invest in research and technology.

Enhanced stature and revenues for the medical school plus profit and prestige for investigators are dwarfed by the implications for getting new therapies and diagnostic innovations to those who need them. Although the road through licensing and patent acquisition to approval by the U.S. Food and Drug Administration (FDA) can be a frustrating one where driven by inventors or those outside an institution, the cycle can considerably hastened through tech transfer partnerships in which participants are guided by an urgency to get a product to market.

Researchers who spend years perfecting a diagnostic tool to pinpoint an early malignancy have an investment — well beyond financial — in seeing their work applied at the bedside.

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In an earlier time, the role of an academic researcher was confined to the laboratory and perhaps the authorship of papers, which with ample visibility might be recognized by others who translated the work into tangible products. In the process, potentially thousands of life-saving resolutions to medical problems died an untimely death because they never got past the publication stage. All that has changed as academia seeks technology transfer options by establishing formal processes for identifying intellectual properties headed for the marketplace.

At the UMDNJ-Robert Wood Johnson Medical School, 13 new patents were issued to faculty members during 2001 and it is probable that number will grow this year. Working closely with the UMDNJ Department of Patents and Licensing, the medical school generated almost $400,000 through tech transfer agreements last year — income that Harold L. Paz, MD, dean, says allows RWJMS to expand research activities and increase its edge in recruiting top faculty and attracting superior medical students. Meanwhile, dozens of new agreements, which include the establishment of start-up companies or negotiations with biotechnology and pharmaceutical firms, are in some phase of development.

“We received more than $105 million in grants last year, supporting significant research endeavors,” Dr. Paz reports. “I believe the medical school has a responsibility to work with faculty at an early stage to develop properties, investigate various technology transfer options, and accelerate the process of bringing critical medical interventions to the community.”

Enhanced stature and revenues for the medical school plus profit and prestige for investigators are dwarfed by the implications for getting new therapies and diagnostic innovations to those who need them. Although the road through licensing and patent acquisition to approval by the U.S. Food and Drug Administration (FDA) can be a frustrating one where driven by inventors or those outside an institution, the cycle can considerably hastened through tech transfer partnerships in which participants are guided by an urgency to get a product to market.

Researchers who spend years perfecting a diagnostic tool to pinpoint an early malignancy have an investment — well beyond financial — in seeing their work applied at the bedside.

Gastroenterologist

Kiron M. Das, MD, PhD, professor of medicine, talks with a patient in his care. Dr. Das has obtained a patent for a molecular antibody to block a protein involved in chronic ulcerative colitis.

Gastrointestinal Study

Kiron M. Das, MD, PhD, professor of medicine, is a typical example. A gastroenterologist who has been studying ulcerative colitis for more than 20 years, Dr. Das and his colleagues have followed more than 700 patients with the chronic disease.
Targeting RNA to Treat Disease

S

“we received more than $105 million in grants last year, supporting significant research endeavors. The medical school has a responsibility to work with faculty at an early stage to bring critical medical interventions to the community.”

—Harold L. Paz, MD, dean

“There is presently no cure for this form of colitis,” he says. “The greatest award I can imagine receiving for my work would be to see the fulfillment of research that helps patients with this disease.”

Dr. Das’s laboratory identified a specific target molecule present only in the lining cells of the colon. Releasing this protein to be involved in eliciting the immune response, he developed an antibody to block the protein and disable it from stimulating the immune system and causing inflammation.

Through the RWJMS Internal Review Board (IRB), the molecular antibody developed in Dr. Das’s laboratory was used for a limited number of patients during flare-ups of their disease. All patients reported a significant reduction of symptoms during clinical follow-up and were given guidelines suggesting considerable objective improvement as well.

After this initial success, meetings began with Margaret Mary Krakl Richardson, attorney and director of the UMDNJ Office of Patents and Licensing. Ms. Richardson’s office prepared a patent application, followed by negotiations to find an appropriate biotech company to develop the antibody for clinical use.

“Researchers from throughout the university system approach us when they feel they have created something with commercial value,” Ms. Richardson says. “They approach us when they feel they have created something with commercial value,” Ms. Richardson says. “They submit it to an intellectual property committee, which is a peer review body. It is that group that decides whether or not we will seek legal protection, usually in the form of a patent, for the invention.”

Cost for the patent application is assumed by a special university fund. While the patent is issued to the investigator and the intellectual property is owned by the investigator, revenue is shared by the researchers, the medical school, and, depending on contractual agreements, partners in the tech transfer.

In the meantime, Dr. Das pursued and obtained a second patent for development of a biomarker to diagnose a pre-cancerous condition called Barrett’s esophagus that leads to esophageal cancer — a disease noted for its high incidence and one that is now detected only through pathology at an advanced stage. The test is a simple one that involves staining a biopsy sample with the antibody to determine whether abnormal cells are present.

“We have shown that the test can detect the pre-cancerous condition at an early stage,” he says. “We also believe we can piggyback a cytotoxic drug with the marker so that, in addition to detecting abnormal cells, it can be used to destroy them as well. It’s exciting work, and although we have not yet entered into a technology transfer agreement, we are very encouraged about the research.”

“Many disease states result as a consequence of mutations in the DNA,” Dr. Peltz reports. “A common type of mutation leads to the synthesis of a messenger RNA (mRNA) that contains an inappropriate stop codon (nonsense coded) within its coding region.”

His investigations already have generated considerable interest within the medical community. The biomarker, which was offered by Dr. Das and RWJMS to any group requesting it, has been given to 20 investigators throughout the world, including those at the Harvard Medical School, the Mayo Clinic, and Temple University Medical School, all of which have published papers on its positive results.
Mantle cell lymphoma (MCL), first identified in 1992, is an aggressive form of cancer that exhibits subtle visible cues giving rise to false negatives during routine screening of specimens. David J. Foran, PhD, assistant professor of pathology and laboratory medicine and radiology, set out to find a better method of pinpointing the malignancy.

"With funding from the Whitaker Foundation, a ground-truth database of benign cells and a group of commonly confused malignancies including MCL was created, with independent confirmation of disease provided through immunophenotyping and molecular studies," he says. "Using a combination of statistical pattern recognition and multivariate data fusion, software was developed to systematically examine the digitized specimens within the ground-truth database to see if the computer could identify signatures not obvious to the eye."

Performance studies using a mixed set of 2,000 cells showed that the Image Guided Decision Support (IGDS) system provided correct classification in more than 93 percent of the cases studied, while reducing the number of false negatives. Dr. Foran's funding increased with grants from the federal Defense Advanced Research Projects Agency (DARPA), and the project soon gained the notice of Johns Hopkins University Medical School, the University of Pennsylvania Medical School, and the Pittsburgh Super Computer Center. Teleradiology provides Virtual Private Network (VPN) connectivity among Dr. Foran's lab and these strategic sites. To accommodate network-based collaborations, a Distributed Tele microscopy (DT) system was developed at RWJMS.

"The hybrid system enables individuals located at any number of disparate clinical and research sites to remotely control each other's microscopes, engage in interactive consultation, and obtain computer-assisted decision support," Dr. Foran says.

He adds that control of the robotics can be passed as a software token among session participants. Search engines for the database allow one to automatically identify and retrieve images, diagnoses, and correlated clinical data of cases from a ground-truth database that exhibits spectral and spatial signatures similar to a given query image. The system suggests the most likely diagnosis based on majority logic of the retrieved cases.

Possibly like many others, this technology was not initiated with any plans for commercialization. Dr. Foran says the DT capability came to the attention of Apollo Telemedicine, a commercial company with patents in the field. Although it already had a similar patent, the company recognized that the RWJMS system was superior.

"They offered us patent protection if they could license the technology," Dr. Foran says. "What they were offering us was shelter, and what we could offer them was a new model for conducting remote consultations and inter-institutional, collaborative studies."

While a patent is currently being pursued, Dr. Foran believes the process may be accelerated by the fact that the Apollo system already has FDA approval. Adding that both Apollo and the University of Pennsylvania are making capital investments in the project, he says the research possibly could become a pathology database similar to the National Institute of Health's (NIH) Genbank.

"We are striving to do for biomedical imaging what Genbank has done for genetic sequencing," he says. Ms. Richardson points out that the ways in which intellectual properties are marketed are as creative as they are varied. In Dr. Foran's case, opportunity came knocking on the RWJMS door often, it is the reverse. Sometimes, the Office of Patents and Licensing pursues patented biotech companies known to have a comparable product line. Potential business investors may be approached, or a decision may be made to work with the inventor in a spin-off or start-up company.

"We make each determination based on what seems most appropriate for the individual technology," Ms. Richardson reports. "It may depend on the field of endeavor, the urgency of the product, whether it is platform or incremental technology, and other factors. Many of the inventors with whom we work are not interested in forming a start-up company, in which case we would not consider that option."

David J. Riley, MD, professor of medicine, has long been interested in the development of agents to prevent pulmonary scarring. Progressive idiopathic pulmonary fibrosis, to some extent an orphan disease, has occupied much of his concern. He and members of the Department of Biochemistry began focusing on the protein collagen involved in scarring. They were successful in preventing scarring in animal models. What they needed was a specific drug, one that would go directly to the lung rather than be distributed throughout the body. With the help of NIH funding, studies continued, developing techniques to deliver drugs with liposomes. Through collaborations with George J. Poiris, Jr., MD '81, associate professor of medicine, and Joseph Kohn, PhD, a member of the Rutgers University Department of Chemistry, Dr. Riley pursued the concept of developing a drug that would be longer acting, safer, and more specific. He came up with a sustained-release product and, on that basis, obtained a patent for two preventive agents. He has since extended the application to include long vessels undergoing scarring.

"The business of actually marketing the research began five years ago," Dr. Riley says. "We started with several rounds of funding from the Small Business Innovation Research (SBIR) program, supported by the NIH, and then gained some small private investors. About a year ago, we were fortunate in receiving an infusion of $10 million from a major pharmaceutical, Elan."

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He says he learned through overtures to investors that they considered his original research too narrow in that it was restricted to the development of anti-fibrotic agents. However, they saw potential in the delivery system itself and in the concept of attaching other agents to the molecule, perhaps benefiting the treatment of cancer and inflammatory infectious diseases. Elan especially liked the idea. It created another company, VectraMed, with Drs. Riley, Poiris, and Kohn serving as members of its scientific advisory board. Dr. Riley's drug, polyPEG-lamin, is now being tested in ani-
Combating Lyme Disease

New Jersey physicians are all too familiar with the scourge Lyme disease — a rapidly spreading medical dilemma for which current testing has an accuracy range of only 50 percent. In fact, the test used to detect Lyme is so flawed that, in an unprecedented action, the FDA recently ordered all manufacturers to reevaluate the products and revise them to meet new standards. Understandably, research facilities across the country engaged in competitive efforts to come up with a new and better diagnostic tool for the disease. However, one laboratory, that of Stanley Stein, PhD, adjunct professor of molecular genetics, microbiology, and immunology, has developed an improved test to detect Lyme disease. The test is currently pending U.S. Food and Drug Administration approval.

Stanley Stein, PhD, adjunct professor of molecular genetics, microbiology, and immunology, has developed an improved test to detect Lyme disease. The test is currently pending U.S. Food and Drug Administration approval.

Originally, Dr. Stein’s research was performed as a technology transfer grant from the N.J. Commission of Science and Technology — funding that stipulates the inventor must find matching money for marketing the product. The biotech company, Cenogenics, provided the matching funds, but the licensing remains Dr. Stein’s. FDA approval is pending.

Dr. Stein is enthusiastic about the possibilities for bringing his research to the marketplace. “In research, what you learn from one project often can be applied to another,” he says. “Right now, I’m completing a grant application to the NIH for one of 12 grants being offered to develop a test for botulism. This is, of course, a particular concern right now because of bioterrorism threats. What is needed is a test that gives fast results, because the serum must be given early. Current tests aren’t sensitive enough — even a lethal dose could conceivably avoid detection.”

He reports that much of what he discovered in developing the Lyme disease product can be applied to the botulism research, which, though unrelated, shares some of the same scientific principles. Technology transfer adds a new and motivating dimension to research, he concludes.

Dr. Paz agrees, adding that it becomes especially expedient for a medical school that sits squarely in the middle of the pharmaceutical heartland.

“With more than 200 pharmaceutical and biotech firms in New Jersey, it seems logical that we become partners with industry in developing new tools of diagnosis and treatment,” he says.

He points to a few of the early RWJMS tech transfer luminaries, including Stuart W. Peltz, PhD, professor of molecular genetics, microbiology, and immunology, whose work on mRNA led to his own licensing company, PTC Therapeutics; and to Ira B. Black, MD, professor and chair, Department of Neuroscience and Cell Biology, who has his own start-up company as well.

“They were among the first to become involved in forming start-up companies,” Dr. Paz says. “I predict our involvement will grow considerably in the near future. Last year, we enjoyed a 27 percent increase in NIH funding. It follows that with more discovery taking place at the medical school, much of it inevitably will translate into the marketing and commercialization of products.”

If anything good came out of the devastating terrorist attacks of September 11, it has been the strengthening of communities all across America and a renewed sense of the importance of helping out those in need. That has certainly been the case with the UMDNJ-Robert Wood Johnson Medical School community, which has reached out in innumerable ways in the months since the attacks. From responding to the immediate need for emergency medical care the day of the attacks, to keeping the public informed about the risks of bioterrorism, to assessing the health risks that area residents could face in the future because of the World Trade Center collapse, students, faculty, and staff are offering hope and help to those affected by the tragedy.

“I am extremely proud of the response to this tragedy by our faculty, students, and staff,” says Harold L. Paz, MD, dean. “At every stage of the disaster, our employees have reached out to those in need of medical, psychological, and technical assistance.”

TAKING ACTION

As crew chief of a rescue squad from Plainsboro responding to the September 11 attacks, Danielle Jones tried to prepare her fellow emergency medical technicians for what they were likely to see and experience if they were sent to Liberty State Park to treat victims of terror.
burns, breaks, cuts, bruises. Everyone was covered in soot; sometimes you couldn’t tell at first if it was a man or a woman. Many people were barely injured, just confused.” The crew treated people until early the next morning, when it was safe to go home. Jones ended up missing only one class the next day. “Mainly, we just read to listen. It was very difficult to deal with the stories of how people got out and of people jumping from the buildings.” The story that has haunted her the most was one man’s recounting of his own escape from one of the towers while seeing disabled people unable to get down the stairs.

Etched in her mind, Jones says, is the image of lower Manhattan ablaze as the sky darkened. Despite the stress of the horrific day, Jones, who has served on the Plainsboro Rescue Squad for three years, says she is glad she was able to help out.

BIOTERRORISM

HITS CLOSE TO HOME

What once seemed to be merely a hypothetical danger — bioterrorism — became a very real one not long after the terrorist attacks. As anthrax hit first in Florida, people became understandably frightened and confused about the deadly disease and how to protect themselves. Bioterrorism becomes a very real one not long after the terrorist attacks. As anthrax hit first in Florida, people became understandably frightened and confused about the deadly disease and how to protect themselves. Bioterrorism became a very real one not long after the terrorist attacks. As anthrax hit first in Florida, people became understandably frightened and confused about the deadly disease and how to protect themselves.

Also providing a quick response after the attacks was Sandra Kelly, RN, program administrator for Robert Wood Johnson University Medical Group. Just two hours after the attacks took place, her office coordinated emergency counseling for employees of RWJMS and Robert Wood Johnson University Hospital. Faculty from the Department of Psychiatry and the Department of Neurology provided counseling as needed for the next two weeks. That quick turn-around and comprehensive service garnered the program an award from the Friends Health Connection.

Less than a week after the attacks, a team from the Environmental and Occupational Health Sciences Institute (EOHSI), a joint program of RWJMS and Rutgers University, visited Ground Zero at the request of the Port Authority of New York and New Jersey to review environmental and occupational safety issues, as well as to provide support and information.

“One of our biggest initial concerns was that although respirators were provided to those working at the site, many people were not wearing them,” says Paul J. Lioy, PhD, professor of environmental and community medicine and acting associate director of EOHSI. The researchers found visiting the site difficult. “It was visually daunting,” says team member Howard M. Kipen, MD, professor and acting chair, Department of Environmental and Community Medicine, and acting deputy director of EOHSI. “The odor and 臟rotten were potent. And it was tremendously sad.”

During the visit, Dr. Lioy also took samples of re-sus-pendable dust, which have been analyzed using supplemental funds provided by the National Institute of Environmental Health Sciences. He is now getting results back from the tests on those materials and has found that a majority of particles released into the air from the buildings’ collapse are between 10 and 30 micrometers in diameter, larger than most air pollution particulates we eventually breathe. Much of the material is glass and cement fibers, cellulose, smoke produced by the burning of 90,000 liters of jet fuel, and such chemicals as phthalates, which are produced by burning plastic.

About a month later, Drs. Kipen and Lioy and Laura Hemmerling, director of EOHSI’s Resource Center, participated in a public information session sponsored by New York University in lower Manhattan about the known hazards present in the air. “We couldn’t answer a lot of questions, and people seemed to understand that,” says Dr. Lioy. “We gave them some basic information on what we had learned about the dust, and we talked about the asbestos and lead.” As Dr. Lioy continues to learn more about the makeup of the air after the attacks, that information will help doctors understand what kinds of health problems are likely to surface.

Hamilton has a contract with the post office to treat workers through its Department of Occupational Medicine, township Mayor Glen D. Gilmore asked the hospital what could be done to ensure the workers’ health, according to Janusz J.Y. Godyn, MD, associate professor of pathology and laboratory medicine at RWJMS and director of the laboratory at the hospital.

After conferring with Dr. Godyn and other physicians at the hospital, Chester Stephenson, chief administrative officer, decided that the hospital should screen and treat workers at the facility and anyone else who felt he or she might have been exposed to anthrax there. For a lab that normally processes about 150 cultures a day, collecting cultures from more than a thousand postal workers in just a few days would be a massive undertaking, says Dr. Godyn. “It was a tough time logistically,” he adds. But in the course of only about 72 hours, about 1,500 people were screened and given Cipro.

“My lab people were heroic,” Dr. Godyn says proudly. “They did great work; they stayed all night processing the cultures. The atmosphere was one of such determination and patriotism. It was just fantastic.” Dr. Godyn believes that the quick decision to carry out the screening and prophylaxis may be why no one from New Jersey who contracted anthrax died from the disease.

To thank those at the hospital who performed the screening during those hectic days, the hospital recently held a brunch, which was attended by about 300 people. “I feel very proud that at the time of a crisis, we had this ability,” notes Dr. Godyn. “I’m very proud of my lab and my people. The experience will always stay with us.”

In a related effort to take action on anthrax, faculty members at the medical school volunteered to answer calls from physicians and New Jersey residents about the disease. The hot
It is tempting to think that the dangers posed by the September 11 attacks are behind us. The long-smoldering fires have been quelled, cleanup at the site is proceeding faster than expected, and, gradually, New Yorkers and the rest of the nation are feeling some sense of normalcy. But no one knows the long-range effects that the destruction of the World Trade Center may create. How many people breathed in smoke and debris caused by the towers’ collapse, and what are the health implications of that?

Looking Ahead

No one knows the long-range effects that the destruction of the World Trade Center may create. How many people breathed in smoke and debris caused by the towers’ collapse, and what are the health implications of that?
Informatics: New Approach to Drug Discovery

BY RITA M. ROONEY

IT may never generate the media frenzy attributed to solving the genome, but informatics is quietly changing the course of medical research by using the computer to design new drug therapies and pinpoint environmental pollutants. In virtual academic hibernation since its introduction in the 1980s, the technology—the inherent follow-up to gene research—has become a sudden hot property for universities and medical schools.

Focus on bioinformatics accelerated when information about nucleic acids emerged as a result of gene mapping. That in turn led to the identification of additional proteins or large molecules, the substance of investigation. A cousin of bioinformatics is cheminformatics, a rapidly evolving field in which information can be extracted from small molecules for the purpose of correlating that information to the molecular properties being investigated. While there are still relatively few academic laboratories performing this kind of study, a new generation of researchers has become increasingly excited by its potential.

The recent appointment of William J. Welsh, PhD, as professor of pharmacology at UMDNJ-Robert Wood Johnson Medical School places RWJMS on the cutting edge of an exploding technology. Dr. Welsh, who also serves as director of the UMDNJ Informatics Institute, is the only investigator in the UMDNJ system doing computer-based drug discovery. He will coordinate university-wide initiatives in bio- and cheminformatics, health clinical informatics, and computer-aided molecular modeling and drug design. Formerly a distinguished professor of chemistry and biochemistry at the University of Missouri, St. Louis, he will drive UMDNJ’s initiative to become a center of excellence in bioinformatics and cheminformatics.

With the appointment of William J. Welsh, PhD, as professor of pharmacology, RWJMS conducts one of only a few academic laboratories in the country performing studies in informatics and bioinformatics, a relatively new science generating excitement among researchers.
“As a member of the Board of Directors of the Child Health Institute, Audrey Gould has been a leader in support of this important cause,” notes Harold L. Paz, MD, dm. “By endowing this lecture series, the Goulds have shown the depth of their commitment to the health and well-being of children in New Jersey and throughout the nation. For this we are extremely grateful.”

Dr. Kenneth Gould links to RWJMS include the birth of their two daughters at Middlesex General Hospital, which later became Robert Wood Johnson University Hospital, a principal teaching hospital of the medical school. For 26 years, Audrey Gould served as director of the Orthopedic Clinic at the hospital before becoming an investment counselor, first for Merrill Lynch, then for Prudential Financial in Princeton. Her extensive volunteer service includes terms on the boards of directors of the Children’s Home Society and the Girl Scouts of America, Delaware Valley Chapter, in addition to her membership on the board of CHINJ. Like Mrs. Gould, Dr. Gould has enjoyed a career that evolved along with his interests. Initially, he was a pediatrician. Later, he completed a fellowship in child and adolescent psychiatry, became a member of the Board of Directors of the American Psychiatric Association, and was president of both the New Jersey Society for Child and Adolescent Psychiatry and the New Jersey Psychoanalytic Society.

Tracing the lineage of his relatively new science from his undergraduate years at Princeton, Dr. Welsh explains that bioinformatics is the use of information technology to understand the structure and function of large biological molecules, such as DNA, RNA, and proteins.

“Excessive or under-production of these molecules can lead to conditions from heart disease to hair loss,” he reports. “Studies in our lab involve the use of computer-based tools to understand the shape of the proteins. We know that shape is related to function, and so this gives us a critical starting point in our research.”

The process he describes must stand as an ultimate tribute to medical discovery—a marriage of scientific inquiry and computer-based tools aimed at finding cures for cancer, cardiovascular disease, and other medical problems. It’s done by modifying the shape of the molecule and then using the computer to design a drug therapy.

“Let’s say we’ve pre-selected a protein involved in lowering cholesterol,” Dr. Welsh says. “We probably don’t know its structure, but we can look at it on a monitor and use computer technology to convert the sequence of proteins into a hypothetical three-dimensional shape. We’ve nailed the target protein. The next step is to design a drug that enhances or impacts the target. The molecular structure is important because once we understand that, we know more about its function, good or bad. And since most drugs work by blocking the function of the proteins, we need to understand the structure so we can determine where to apply the drug.”

The impact of genome mapping on the evolution of information was underscored by another event—scientific understanding of robotic applications. The technique of parallel computing can be employed to make thousands of variations on a core structure, thereby speeding up the laboratory process of trial and error.

Cheminformatics is applied within the context of a specific research project. Chemoinformatics enables an individual molecule on the computer, then proceeds to relate these properties to the molecule’s intended use.

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Dr. Kenneth Gould and his wife Audrey have pledged $250,000 to endow the newest lecture series at UMDNJ-Robert Wood Johnson Medical School. It will take place under the auspices of the Child Health Institute of New Jersey (CHINJ), bringing world-class researchers to the medical school to lecture on advances in molecular and cellular medicine.
On The CIRCUIT

The 2002 Mates David and Himna Stahl Memorial Lecture in Bioethics

The Regina Estenes, MD ’76, Lecture Series:
“Gene Mutations That Remodel the Human Heart”

Christine E. Seidman, MD, professor of genetics and medicine, Harvard Medical School, Howard Hughes Investigator, and director, Cardiovascular Genetics Service at Brigham and Women’s Hospital, Boston, was the 2002 invited speaker in the Regina Estenes, MD ’76, Lecture Series. Her topic, “Gene Mutations That Remodel the Human Heart,” was timed to coincide with the end of the cardiovascular section in the first-year medical physiology course. Dr. Seidman stayed after the lecture to talk with students over lunch. The first Estenes Lecture took place in 2001, featuring Michael J. Welsh, MD, professor of internal medicine and Howard Hughes Investigator, University of Iowa College of Medicine. The lecture series will continue to be devoted at first-year students by coordinating with completed sections of the medical physiology course, says Nicola C. Patridge, PhD, professor and chair, Department of Physiology and Biophysics. And it will continue to attract outside physician-scientists of stature, she adds. “We don’t have enough physician-scientists. I hope the series will convey excitement about research. We want to inspire students about the value of research and help them understand how it translates to clinical medicine.”

Memorial gifts from alumni, faculty, and the family of Regina Estenes, MD ’76, fund the lecture series named in her honor.

C:

The George Boxer Memorial Lecture

Every year, a different department hosts the George Boxer Memorial Lecture. In October 2001, it was the Department of Pathology and Laboratory Medicine’s turn. The speaker was immunologist and cell biologist Eva Engvall, PhD, associate professor of pathology, University of California, San Diego, and associate scientific director for research and training, the Burnham Institute, La Jolla, California. "In her address, “The Cell and Molecular Biology of Muscular Dystrophy,” Dr. Engvall discussed her current work, which is focused on identifying and characterizing the proteins constituting extracellular matrices and understanding how proteins influence cell behavior. Dr. Engvall and her colleagues have identified and characterized one specific protein that, when mutated, results in muscular dystrophy. In 1969, RWJMS (then Rutgers Medical School) established the George Boxer Memorial Lecture as a tribute to the late George E. Boxer, MD. In Dr. Boxer’s honor, the lecture series is devoted to the advancement of biomedical research. He was an internationally known researcher who contributed significantly to scientific literature on antibiotics, cancer, hormones, proteins, and vitamins. He also served as executive director of the Merck Institute and associate editor of the journal Cancer Research. The Boxer Fund has been supported by many of Dr. Boxer’s professional colleagues and friends and by matching funds from the Merck Company Foundation. His widow, Lily, and her sons, Peter and Steven, are also long-standing supporters of the lecture series.

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Christine E. Seidman, MD, professor of genetics and medicine, Harvard Medical School, Howard Hughes Investigator, and director, Cardiovascular Genetics Service at Brigham and Women’s Hospital, Boston, was the 2002 invited speaker in the Regina Estenes, MD ’76, Lecture Series. Her topic, “Gene Mutations That Remodel the Human Heart,” was timed to coincide with the end of the cardiovascular section in the first-year medical physiology course. Dr. Seidman stayed after the lecture to talk with students over lunch. The first Estenes Lecture took place in 2001, featuring Michael J. Welsh, MD, professor of internal medicine and Howard Hughes Investigator, University of Iowa College of Medicine. The lecture series will continue to be devoted at first-year students by coordinating with completed sections of the medical physiology course, says Nicola C. Patridge, PhD, professor and chair, Department of Physiology and Biophysics. And it will continue to attract outside physician-scientists of stature, she adds. “We don’t have enough physician-scientists. I hope the series will convey excitement about research. We want to inspire students about the value of research and help them understand how it translates to clinical medicine.”

Memorial gifts from alumni, faculty, and the family of Regina Estenes, MD ’76, fund the lecture series named in her honor.

C:

The George Boxer Memorial Lecture

Every year, a different department hosts the George Boxer Memorial Lecture. In October 2001, it was the Department of Pathology and Laboratory Medicine’s turn. The speaker was immunologist and cell biologist Eva Engvall, PhD, associate professor of pathology, University of California, San Diego, and associate scientific director for research and training, the Burnham Institute, La Jolla, California. "In her address, “The Cell and Molecular Biology of Muscular Dystrophy,” Dr. Engvall discussed her current work, which is focused on identifying and characterizing the proteins constituting extracellular matrices and understanding how proteins influence cell behavior. Dr. Engvall and her colleagues have identified and characterized one specific protein that, when mutated, results in muscular dystrophy. In 1969, RWJMS (then Rutgers Medical School) established the George Boxer Memorial Lecture as a tribute to the late George E. Boxer, MD. In Dr. Boxer’s honor, the lecture series is devoted to the advancement of biomedical research. He was an internationally known researcher who contributed significantly to scientific literature on antibiotics, cancer, hormones, proteins, and vitamins. He also served as executive director of the Merck Institute and associate editor of the journal Cancer Research. The Boxer Fund has been supported by many of Dr. Boxer’s professional colleagues and friends and by matching funds from the Merck Company Foundation. His widow, Lily, and her sons, Peter and Steven, are also long-standing supporters of the lecture series.
A quintet of University Professors has joined the faculty of UMDNJ-Robert Wood Johnson Medical School, following an initiative proposed by Stuart D. Cook, president, UMDNJ. Two years ago, in his inaugural address, Dr. Cook introduced the University Professorship program.

As envisioned by Dr. Cook, the mini program is bringing “some of the best and brightest research scientists in the nation to UMDNJ, expanding the nucleus of world-class faculty on all of our campuses and in all of our schools.”

Starting in 2000, and for the next five years, said Dr. Cook, the UMDNJ schools would begin recruiting five new faculty members annually, “leaders in their fields, working on the cutting edge of science.” The university would sustain each University Professor for five years at the rate of $225,000 per year. Subsequent support is the responsibility of the scholar in which the professor holds an appointment. Balancing the equation, each candidate must bring at least $500,000 in direct research income from the National Institutes of Health (NIH) or an equivalent federal funding source, with evidence that this funding pattern will continue or increase.

BY KATE O’NEILL
PORTRAITS BY STEVE HOCKSTEIN
In September 2001, soon after accepting a University Professorship at RWJMS, Yufang Shi, DVM, PhD, associate professor of molecular genetics, microbiology, and immunology, was able to advertise: “NIH-funded post-doctoral positions to investigate the role of TNF family proteins in the regulation of immune responses and the effect of stress on the immune system.

The laboratory is in a state-of-the-art new research facility with new equipment and an excellent collaborative environment.” Clearly, the combination of additional funding and new facilities at RWJMS is making a difference to Dr. Shi and his department, while advancing the research goals of the medical school.

Dr. Shi was drawn to the school by the highly developed interaction of faculty investigators in the department, at RWJMS, and at neighboring schools, says Sidney Pestka, MD, professor and chair, Department of Molecular Genetics, Microbiology, and Immunology. But, adds Dr. Pestka, without the offer of a University Professorship, he could not have recruited Dr. Shi from an excellent position in the Department of Immunology at the American Red Cross’s Jerome H. Holland Laboratory for Biomedical Sciences, in Rockville, Maryland.

For more than a decade Dr. Shi has been studying apoptosis, which he describes as “a process of cell suicide.” He is a pioneer in activation-induced cell death in lymphocytes. His recent research on the interaction of the nervous and immune systems via the opioid system in lymphocytes should make a major contribution to understanding the deleterious effects of pain therapy and stress on immunity.

Dr. Pestka says that Dr. Shi’s research program on apoptosis dovetails perfectly with the work of his colleagues at RWJMS and adds strength to several other centers, including The Cancer Institute of New Jersey and the Environmental, Occupational and Health Sciences Institute.

Jeffrey C. Merrill, MPH, professor of psychiatry and University Professor, is collaborating with Latin American colleagues to improve health services research as it relates to substance abuse policy in the Western Hemisphere.

Immediately prior to his appointment, Merrill served as co-scientific director and director for economic and policy research at the Treatment Research Institute, University of Pennsylvania School of Medicine. A former Peace Corps worker in Colombia, Merrill has retained a deep interest in Latin America. He has provided technical assistance in the areas of substance abuse prevention and health care policy in the United States and other countries in the Western Hemisphere.

As a University Professor, he will bring his Latin American colleagues to the United States to collaborate on creating and implementing policy on drug prevention. They will work with Latin American countries and international organizations to improve health services research as it relates to substance abuse policy in this hemisphere.

In addition, Dr. Merrill is developing a center at RWJMS that will improve services for children at risk of substance abuse and related behaviors. The center is already working with three communities around the country. “Our work could have a major impact that wouldn’t have been possible without the resources of the University Professorship,” he says.

University Professors

Yufang Shi, DVM, PhD

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University Professors
The Department of Medicine has recruited two University Professors. First to arrive was Sunil J. Wimalawansa, MD, PhD, professor of medicine and chief, division of endocrinology, metabolism, and nutrition. Prior to accepting the University Professorship, he was a tenured professor and a clinician-researcher at the University of Texas.

With principal funding by the NIH, the U.S. Drug Enforcement Administration, and the pharmaceutical industry, Dr. Wimalawansa pursues complementary research interests and translational research. He has earned worldwide recognition for his work on calcium metabolism in osteoporosis and other metabolic bone diseases. He is currently focusing on new drug development and on the use of nitric oxide donor therapy in the prevention and treatment of osteoporosis.

In addition, he has conducted internationally acclaimed research on biochemical and molecular treatments for basic cardiovascular disease, as well as gene therapy for coronary artery disease. He is further noted for his work on calcitonin gene-related peptide receptor research and on pre-eclamptic toxemia and premature delivery.

Dr. Wimalawansa is not just a respected researcher. His skills also include administration, teaching, and patient care. He has established two independent university osteoporosis centers and directs the newly established Osteoporosis Center at RWJMS. As a physician, he has proven adept in the diagnosis and management of patients with general endocrine disorders. He has an outstanding record in mentoring students at all levels: MDs and PhDs as well as high school and college students.

One of the first researchers to open a laboratory in the new RWJMS Staged Research Building was University Professor Jianjie Ma, PhD, professor of physiology and biophysics. "The University Professorships allow us to create a bigger package and recruit a rising star," says Nicola C. Partridge, PhD, professor and chair, Department of Physiology and Biophysics. "Dr. Ma is an energetic, outstanding, innovative scientist, whose work has a broad scope that complements the core of the department."

Dr. Ma came to RWJMS from the faculty of Case Western Reserve University, bringing with him an experienced research team. He also brought funding from the National Institute on Aging, the National Cancer Institute, and the NIH for his research on cardiovascular diseases, cystic fibrosis, and cancer biology.

A major attraction at RWJMS, says Dr. Ma, was the "huge potential of collaborating with researchers at the Cardiovascular Institute, the Child Health Institute of New Jersey, and The Cancer Institute of New Jersey." He emphasizes, "You don't do research in isolation anymore. Everything is a team effort and a team decision. Here I have the opportunity to work with other departments, as well as with Rutgers University and other schools, nationally and internationally."
Dear Alumni and Friends:

There is always something new and exciting happening at Robert Wood Johnson Medical School and the Alumni Association. We are very enthusiastic about our new Web site, to be launched soon! It will be the place to go to find out about alumni events, look at photographs of past events, and communicate with fellow alumni.

As we continue to strive to make students' experiences more meaningful at RWJMS, the Alumni Association is considering a greater involvement in student-run initiatives such as the Homeless and Indigent Population Health and the responsibility of participating in community action programs as students and would like to continue supporting them.

I recently attended a scholarship committee meeting with the dean, the Foundation of UMDNJ, and several students. It was inspirational listening to how these students were so positively affected by the scholarships and loans that RWJMS and the Alumni Association provided.

You might be surprised to learn that the average student debt at graduation is now a whopping $90,000, and it is increasing every year. Even though RWJMS is a state school, scholarship funding is not sufficient, and the school strives to attract and keep the best students in New Jersey.

Spring is here, and summer will be too before we know it. Enjoy your vacations; relax and re-energize. Here at the Alumni Association, we will continue our efforts to make Robert Wood Johnson Medical School a school to be proud of and a place to make new friendships and maintain old ones.

Sincerely,

Eduardo Fernandez, MD ‘89
President, RWJMS Alumni Association
The RWJMS Alumni Association sponsored its 14th annual Career Night on January 15, 2002, in the Great Hall on the Piscataway campus. Students had the opportunity to interact with numer-ous practicing physicians representing 25 different specialties and subspecialties. The ongoing commit-ment of alumni to this pro-gram and the enthusiasm of medical students resulted in another successful evening.

1. Neurosurgeon Jamie Ullman, MD ’89 (right), shares her experiences.
2. Students check out the Career Night program.
3. James Daley, MD ’95, discusses careers in physical medicine and rehabilitation.
4. Paul Weber, MD ’87, shares his experiences in the pharmaceutical industry.
5. Alumni counsel students about career choices.
7. Anesthesiologist Geza Kiss, MD ’95, offers advice to students.
8. Alan Zaccaria, MD ’86, is an annual participant. His slide presentation on plastic and reconstructive surgery is always a highlight of the evening.
9. Edred Shen, MD ’94, discusses careers in internal medicine with students.

In November 2001, the RWJMS Alumni Association treated stu-dents to a Happy Hour reception at Nova Terra, New Brunswick’s “hip” new restaurant. “It was a fabu-lous setting and everyone had a great time,” says Danielle Jones ’04, who joined 75 fellow students, along with alumni and facult-y, for the event. “We appreciate the opportunity to meet people who can relate to where we are — who can remind us there’s a light at the end of this tunnel!”

Marie C. Trontell, MD ’76, senior associate dean for education, attended the party wearing her alumni hat. “Happy Hour is a great idea,” she says. “It’s a won-derful opportunity for me to meet students informally and for them to see me in a differ-ent context.” Alumni hope Happy Hour will con-tinue to pro-vide an enjoy-able but con-structive break from the aca-demic routine, says Alumni Association President Eduardo Fernandez, MD ’89. “Happy Hour gives stu-dents a chance to get to know alumni and build a useful resource network,” he says. “At the same time, we hope students are building a sense of commitment to the Alumni Association.” — K.O’N.
Robert Wood Johnson

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MEDICINE

Robert Wood Johnson

By Kate O'Neill • Photos by A. J. Sundstrom

Friday Evening: The Reception

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Friday evening, Diane Gabe (Forney), MD ’80, attending her first RWJMS reunion, eagerly headed to the Student Lounge for the opening reception. She promptly ran into classmates and teachers she had last seen 20 years ago and began to catch up on their diverse lives and careers. Later in the evening, she, Michael Meora, MD ’80, and Michael Rosenblatt, MD ’80, joined a tour of the building led by Paul C. Stein, director of the teaching labs.

Only during a talk by invited speaker U.S. Representative Rush Holt of New Jersey did conversations stop. With the recent wave of terrorism vivid in everyone’s mind, guests were eager for insights from Holt, one of only two physicists in the House of Representatives.

In their impressions of Reunion Weekend 2001, alumni depict an astonishing setting with interesting information that put the crisis in perspective. It was a good way to start the weekend.

Saturday Morning:

CME Lectures

“The Most Fun Ever”

October 19 • 21, 2001

to hear her colleague Nancy L. Fiedler, PhD, adjunct associate professor of environmental and community medicine, but he also enjoyed presentations by Eric H. Rubin, MD, associate professor of medicine; Benjamin F. Czarnetz, PhD, professor of family medicine; and Emanuel DiCicco-Bloom, MD, associate professor of neuroscience and cell biology.

At future reunions, says Dr. Kountz, alumni will continue to hear about the school’s role in current research, while receiving updates on work discussed in past CME programs. “It builds a legacy for RWJMS, a biennial research update that will attract and inform graduates and build school pride,” he says.

Saturday Afternoon: Campus Tours

“A quantum leap from the ’80s”

At Reunion Weekend “first,” student-led tours of the New Brunswick campus were hugely successful. “We saw the quantum leap the school has taken since the ’80s,” says Dr. Gill. He was also impressed by the student guides. “I describe myself as a ‘missionary’ in south-central L.A. I cater to disadvantaged citizens, so I am delighted when I see the school’s cultural sensitivity to the needs of all students.”

RWJMS Alumni Association President Eduardo Fernandez, MD ’89, who is regularly on campus for meetings, appreciated the opportunity to see the broad scope of the school’s new construction and technology: the Clinical Academic Building, the Medical Education Building, The Cancer Institute of New Jersey, and the Rutgers-Meyer Squibb Children’s Hospital at Robert Wood Johnson University Hospital.

Saturday Evening: The Dinner Dance

“People make Reunion Weekend”

The Dinner Dance encapsulates Dr. Gill’s observation that “people make Reunion Weekend.” As the weekend’s major gathering, it is “the best place to see people — to dine and dance, but above all, to talk with everyone.” says Francine E. Sinofsky, MD ’81, chair, Reunion Committee. “Good food, good music, and a whole weekend of the-
Alumni Journal: Reunion Weekend

October 19 • 21, 2001

The longtime reunion chair, Dr. Sinofsky is also an Alumni Association past president. Her kinship with the school and passion for organizing people is familiar to many, especially her lifelong friend and classmate Mark Menegus, MD ’81. “When she gets enthusiastic about a project, watch out!” he says. “She gets everyone involved and is tireless.” Without knowing she was among those receiving a Distinguished Service Award, Dr. Sinofsky worked hard to get her classmates back for their 20th reunion. “She was especially moved and delighted,” says Dr. Menegus, “to be honored with so many of her friends present.”

Sunday Morning: The Brunch

“To be continued!”

Now ending his first year as Alumni Association president, Dr. Fernandez anticipated that “Reunion Weekend would be tough. But as MC of every event, I had the most fun ever!” he says. “I got lots of positive feedback and met alumni from every class. I really love it!” At the brunch he met Dahila Blake, MD ’96, who was attending her first Reunion Weekend, and invited her to join the board. “I thought about it and said yes,” she says. “I hope to have a positive impact on the association and bring in new energy.”

After the brunch, the incoming wave of alumni returned to home and careers, newly appreciative of RWJMS. Looking ahead to future Reunion Weekends, they would join Dr. Gill in his enthusiastic summation, “To be continued?”


2. If you have any suggestions or would like to get in touch with your classmates, please contact Roberta Ribner, Coordinator, Alumni Affairs at 732-235-1610, or email: ribnerrs@umdnj.edu.

3. Plans for the fall 2003 Alumni Reunion Weekend are under way. The Alumni Association will honor the following anniversary classes:

35th: 1968
30th: 1972, 1973
20th: 1982, 1983
15th: 1987, 1988
10th: 1992, 1993
5th: 1997, 1998

4. To see more photos from 2001 Reunion Weekend, go to the new Alumni Association Web site: http://www.rwjms.umdnj.edu/alumni.

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When Robert F. Kennedy spoke of a generation working for change, he must have imagined the leadership of someone like Jeffrey C. Brenner, MD ’95, instructor of family medicine, UMDNJ-Robert Wood Johnson Medical School, Camden campus.

During medical school, Dr. Brenner was a partner in establishing the Homeless and Indigent Population Health Outreach Project (HIPHOP), a student-run service organization at RWJMS. Within six years of graduation, he joined Cooper Family Health, in Camden, and opened a small, inner-city family practice. He also helped create Urban Health Initiatives (UHI), the RWJMS student outreach program run by students on the Camden campus. Dr. Brenner’s office originally doubled as the site of UHI’s student-run clinic for the city’s uninsured. Three years ago, when the clinic outgrew that space, he designed and opened a second family practice office, at Camden’s LEAP Academy charter school, where UHI volunteers regularly teach classes on sexual health, cardiopulmonary resuscitation (CPR), and first aid. By providing full-
spectrum primary care to LEAP’s students, family members, and staff, the clinic has helped the school achieve one of the highest attendance rates in the state.

In 2001, he helped the LEAP Health Center win a one-year $450,000 expansion grant from The Robert Wood Johnson Foundation. The grant will provide funds for a wellness program, a staff midwife, and a “mommybaby” support program for family members of the students. It will also help fund a new outcomes research program at LEAP, focused on family health.

Jamie L. Reedy, MPH, MD ’95, clinical assistant professor of family medicine, co-founded HIPHOP with Dr. Brenner. “He is truly a special, gifted individual, whose career has only recently begun, and yet he has accomplished more in a few short years than most physicians do in a lifetime.”

“Few will have the greatness to bend history itself; but each of us can work to change a small portion of events, and in the total of all those acts will be written the history of this generation.”

— Robert F. Kennedy

By

Kate O’Neill

Step by Step

“A Small Portion of Events”

Robert F. Kennedy coined the phrase “A Small Portion of Events” to describe the impact of individual actions in the larger context of change. In the case of Jeffrey C. Brenner, his work with HIPHOP and LEAP exemplifies this philosophy, as he has made a significant impact on the health and well-being of his community through his dedication to providing primary care and supporting educational initiatives.
to share experiences and discuss the policy issues of public health. His other innovation, the Camden City Save a Life program, stemmed from an incident in February 2001. Late one night, a Camden neighbor called Dr. Brenner to alert him to a shooting close by. In the streets, he found a small group of police officers and the shooting victim, who was in critical condition with eight bullet wounds.

Dr. Brenner’s examination of the victim revealed a pulse, but no breathing. He pulled a pocket mask from his bag and began assisted breathing, “but until the ambulance arrived, we had nothing to work with,” he says, “just my mask and whatev-er was in my bag.”

Hiram Rosa, the 22-year-old victim, a Rutgers University finance major, died the night of the shooting, two months short of his graduation.

Bending History

Police training includes 50 hours of CPR training as first responders,” says Dr. Brenner, “but it requires no re-training or re-certification. The police were left as unequipped as the bystanders to respond to a medical emergency.

“How is that the Save a Life program began,” he adds. “You can’t just be fra-strated with a situation. You have to figure out the problem and do what you can to solve it.” Rallying support from students at RWJMS and Rutgers, Dr. Brenner orga-nized a peaceful march to the Police Department, where they presented a dona-tion of CPR equipment in Rosa’s memory.

“Citywide, they will form a core of informed citizens who understand the appropriate actions that should follow an emergency. I hope there will never again be an unprepared police officer or a helpless bystander.”

Save a Life is making steady gains while spinning off unexpected successes. In August, the Camden City Police Depart-ment began retraining its 450 officers in CPR and first aid. They also began to equip police vehicles with life-saving equipment such as the eight automatic defibrillators recently purchased by the department. In January, the Police Department invited Dr. Brenner to serve as medical director of the defibrillator project. “We’re in the process of developing a partnership that should benefit the entire city,” he says.

The city council recently passed legisla-tion establishing the Camden City Com-mittee on Emergency Preparedness and Public Health, which Dr. Brenner will chair. This 20-member committee will include

Dr. Brenner believes RWJMS students are ready, in Kennedy’s words, to help bend history. They donate thousands of hours annually to HIPHOP and UHI, linking patient care to community needs.

Al Tallia writes: “I am an orthopedic cardiologist in South Jersey with the Nemours Cardiac Center of Wilmington. Del. He is a professor of pediatrics at Thomas Jefferson University.

Ira Warshaw reports: “In November 2001 I received a special citation award from the Food and Drug Administration’s Center for Drug Evaluation and Research. This award, to me and two colleagues at Janssen Pharmaceutica and the Janssen Research Foundation, was in recognition of our efforts on the proposal limited-access program.”

Gary Meash is a member of the board of directors of the American Association for Geriatric Psychiatry.

Jack Ostroff reports: “I’m still at Pfizer, but recently shifted departments to clinical technology. I was promoted to head of the Computational Medicinal Laboratory."

Stephen Elgert writes: “I am currently a faculty member at the Dartmouth Family Practice Residency Program in Concord, N.H. I am medical director and director of quality improvement.”

Robert Perkel, a medical ethicist, in a clinical professor in the Department of Family Medicine at Jefferson Medical College of Thomas Jefferson University in Philadelphia.

NOTES

1972 '77

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chronic conditions, including HIV infection. These provisions were heavily influ-
enced by a five-year public process to obtain the input and review of the disabili-
ty advocacy community at every stage of development of the contract.

Individuals with similar needs who have commercial insurance lack these targeted benefits. The payers for commercial insur-
ance are employers for whom people with disabilities or chronic conditions are not a consti-
tuency, and who do not have the com-
mitment to public health and valuable bene-
ciaries that is captured in the spirit and letter of the Medicaid contract. In addi-
tion to state law, individuals insured through Medicaid have federal protections through the Medicare Fair Hearing Process.

A health maintenance organization (HMO), in accepting these public insurance dollars, also accepts responsibility for pro-
viding these services to people with disabili-
ties. Under Medicaid managed care, this includes dental services, which have been especially difficult for people with disabili-
ties, those with chronic illnesses, and the elderly to find under fee-for-service. For All beneficiaries with develop-
mental disabilities who receive services from the state Division of Developmental Disabil-
ties, the Medicaid contract also requires HMOs to provide all necessary mental health services, which have been almost nonexistent under fee-for-service. If services are not available, the HMO is responsible for creating the service.

External threats may compromise the ability of Medicaid managed care to ful-
fill its commitments and potential to address the needs of these individuals. Many governors are concerned that Medicaid expenses are one of the fastest-
growing components of state budgets. There are also policy proposals at the national level to weaken vital entitlement provisions for all poor children, especially those with disabilities or other chronic conditions. Federal proposals to block-
grant Medicaid funds to the states would further put at risk all such individuals.

New Jersey, despite its low rates of Medicaid fee-for-service reimbursement, not only has provided federally mandated services, but also has instituted “optional” services, which are in fact essential for peo-
ple with disabilities or chronic conditions, including some long-term-care options. As federal proposals to block-grant Medicaid funds to the states would further put at risk all such individuals, New Jersey’s implementation of mandatory Medicaid managed care has been both proactive and delayed. State government has just enacted a bill this year in only one county for automatic assignment to a health plan if individuals have not volun-
tarily enrolled or been made exempt. Enrollment is still voluntary for people with disabilities or chronic illnesses in the rest of the state. Any retrenching from this mandate requiring that the bulk of SSI bene-
cipients (those without dual insurance through Medicare) enroll in managed care will weaken the ability of managed care organizations to serve people with disabili-
ties. Only by spreading the risk across a larger group, not all of whom have exten-
sive medical needs, does it become viable for HMOs to serve the population.

As with any new social program, the implementation of Medicaid managed care will require that for physically and finan-
cially vulnerable individuals, Medicaid managed care holds the only meaningful hope for health care in the foreseeable future. Tremendous vigilance will be required by health care providers, advocacy groups, and especially individuals and their families to ensure that Medicaid managed care fulfills the contract constructed by the advocacy community and the state. If that happens, then this move to manda-
tory Medicaid managed care will be a move toward greater social justice.
Medicaid Managed Care for People with Disabilities: Change Prompts Concerns but Holds Great Promise

Medicaid programs are increasingly moving to managed health care as a way of controlling costs while enhancing access to care for people who are poor. New Jersey has paralleled the rest of the nation in moving toward managed care, first for Medicaid recipients who receive Temporary Assistance to Needy Families (TANF) and more recently for those who are disabled, have chronic conditions, or are elderly and frail. Many TANF beneficiaries who have been in managed care have expressed positive feelings about their health care. Advocates and health care providers for individuals with disabilities or other chronic conditions, however, view the move with concern.

Most negative managed care experiences that have been reported by patients and the media involve commercial managed care, purchased privately by employers or individuals, and often criticized as forcing individual practitioners and hospitals to accept inadequate reimbursement, limiting physician decision making, and leading to undesirable changes in the supply of and access to both primary care providers and specialists.

Yet managed care is also intended to be a delivery mechanism for health care predicated on access to primary care, coordination of care, and an emphasis on patient choice in selecting health care providers. For people with developmental or other disabilities who depend on fee-for-service Medicaid, however, this choice is often illusory. The limited universe of providers accepting any such patients is further constrained by the scarcity of health care providers willing or able to serve people with disabilities. Under fee-for-service Medicaid, the burden to find appropriate care rests with the consumer—those with disabilities, their families, or other caregivers. It is not unusual to hear of families calling every dentist or physician in the phone book, trying without success to find someone.

Under Medicaid managed care, on the other hand, the burden to find appropriate care rests with the managed care organization. In New Jersey, the Medicaid contract between the Division of Medical Assistance and Health Services and the managed care organizations contains benefits and protections necessary to maintain and improve the health of people with disabilities or other chronic conditions. Poverty and disability or chronic illness, are dependent on publicly funded health insurance through Medicaid. The inadequacies of reimbursement in the Medicaid fee-for-service program are magnified for people whose chronic conditions, on top of their poverty status, are also a disincentive to care. For some of these individuals, the disability or associated secondary conditions may require more services, including extensive prescription medications, or pose challenges in the health care encounter itself as a result of physical or emotional factors or difficulty in communicating or understanding.

Fee-for-service health insurance is often seen as more desirable than managed care because it is described as offering the patient choice in selecting health care providers. For people with developmental or other disabilities who depend on fee-for-service Medicaid, however, this choice is often illusory. The limited universe of providers accepting any such patients is further constrained by the scarcity of health care providers willing or able to serve people with disabilities. Under fee-for-service Medicaid, the burden to find appropriate care rests with the consumer—those with disabilities, their families, or other caregivers. It is not unusual to hear of families calling every dentist or physician in the phone book, trying without success to find someone.

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