



ROBERT WOOD JOHNSON MEDICAL SCHOOL

University of Medicine & Dentistry of New Jersey



Redefining Academic Medicine

New Paradigms in Education, Research, Patient Care, and Community Health

Annual Report ■ 2007



New Paradigms Drive Change in Academic Medicine



New paradigms in academic medicine are transforming the way we educate physicians at UMDNJ-Robert Wood Johnson Medical School. Evidence-based medicine combined with humanism provides the foundation for cultural competency. The collaborative model frames our philosophy, from small-group classes, to bench and translational research providing access to clinical trials, to community and corporate partnerships, to our relationship with Robert Wood Johnson University Hospital.

Our commitment to community health extends our finest resources — academic, clinical, scientific, and human — to colleagues and patients beyond central New Jersey, allowing our students and faculty to impact the global community.

Message from the President



In my first months as University President, I have focused on our institutional goal of accelerating success. My belief that we will meet this goal in a timely manner has been strengthened by the pace of change at our schools.

I applaud the efforts of the UMDNJ-Robert Wood Johnson Medical School community to confront change and work together to redefine academic excellence and service by developing new paradigms in education, research, patient care, and community health. The quest for improvement is the foundation of true excellence.

The year's notable achievements included the following:

- Educational excellence was confirmed once again when the school was included in *U.S. News & World Report's* annual list of America's top graduate schools. This excellence was underscored by the remarkable 99 percent match rate achieved by the RWJMS Class of 2007.
- Research recognition of faculty members ranged from a Thomas Alva Edison award, presented in New Jersey, to a cancer care award, presented by the Medical Knowledge Institute in Amsterdam.
- Cutting-edge discovery will be forthcoming in the area of stem cell research.

Patients will find exceptional service at the Robert Wood Johnson Autism Center, the school's collaboration with The Bristol-Myers Squibb Children's Hospital at Robert Wood Johnson University Hospital, the PSE&G Children's Specialized Hospital, and Rutgers, The State University of New

Jersey. The center will address the unmet needs of children with autism and their families.

Community in the broadest sense is being targeted with the development of the new Office of Global Health at RWJMS. The office reflects faculty interest in, and student eagerness to participate in, international activities. Special congratulations are in order for first-year medical student Wan-Ju Wu '11, selected by the American Medical Student Association as one of only eight Global Health Scholars from a national pool of 364 applicants.

This has also been a year of milestones for the medical school. The Center for Advanced Biotechnology and Medicine celebrated its 20th anniversary and continues its important research focused on molecular genetics and structural, cell, and developmental biology. And The Cancer Institute of New Jersey marked the tenth anniversary of its status as the state's only National Cancer Institute-designated Cancer Center.

Congratulations to all of the dedicated people at RWJMS in New Brunswick, Piscataway, and Camden for their contributions to the success of the school and the university. They have committed to the core values of this university to help shape a better future for all they touch.

A handwritten signature in red ink that reads "William F. Owen, Jr.".

William F. Owen, Jr., MD

President

Message from the Dean



The year 2007 was one of exciting growth at UMDNJ-Robert Wood Johnson Medical School. In this report, we explore the ways in which a new paradigm in academic medicine advances the pursuit of excellence in our four mission areas: education, research, patient care, and community health. In the past year, we established initiatives that reflect our support for this new model – a fresh perspective that frames our approach to educating and training students as culturally competent caregivers, with the skills to be career-long learners, well into the 21st century.

The new academic paradigm shaped real achievements. We further strengthened our ties to Robert Wood Johnson University Hospital (RWJUH), our principal affiliate hospital, with the collaborative goal of developing the premier academic health care center in New Jersey. We are revising our curriculum to better reflect a team-based, patient-centered approach to clinical care. We broadened our already-diverse research enterprise, encompassing the nationally recognized division of research in our Department of Family Medicine, as well as our new Center for Clinical and Translational Sciences and our exceptional cohort of basic science researchers. In every department, students and residents gained experience with up-to-the-minute technologies for patient care that were literally at their fingertips. We expanded our collaborations in the neighboring community, and we estab-

lished an Office of Global Health that will provide channels for our faculty members' and students' enthusiasm for serving patients and communities worldwide.

In this report, we explore the ways in which a new paradigm in academic medicine advances the pursuit of excellence in our four mission areas: education, research, patient care, and community health.

In 2007, our established institutes celebrated milestones. The Cancer Institute of New Jersey marked its tenth anniversary as a National Cancer Institute (NCI)-designated Cancer Center with a thought-provoking forum that looked to the future of cancer research and care, a time when we will more efficiently translate drug discoveries to patient care, when we can better predict, diagnose, and treat cancer. The Center for Advanced Biotechnology and Medicine – a collaboration with Rutgers, The State University of New Jersey – entered its third decade, building on a remarkable history of success in research and graduate education with extraordinary support, predominantly from the National Institutes of Health.



The new academic paradigm shaped real achievements. We strengthened our ties to Robert Wood Johnson University Hospital, our principal teaching hospital, with the collaborative goal of developing the premier academic health care center in New Jersey. Clockwise from left: UMDNJ-Robert Wood Johnson Medical School's (RWJMS) Clinical Academic Building, located in New Brunswick; Peter S. Amenta, MD, PhD, Interim Dean, RWJMS (left), and Stephen K. Jones, FACHE, President and CEO, Robert Wood Johnson University Hospital and Robert Wood Johnson Health System; Robert Wood Johnson University Hospital, New Brunswick. Inset: The AbioCor artificial heart replicates all the functions of the heart by circulating blood through the lungs and body.

These well-established institutions were joined in 2007 by new centers of excellence, including The Bristol-Myers Squibb Pediatric Infectious Disease and Immunology Center at RWJUH, the Center for Clinical and Translational Sciences, and the Robert Wood Johnson Autism Center. Here, as in our other centers, our missions meet and reinforce one another — scientific discoveries promote clinical care, research and clinical care support community health, and all advance our mission in education. First- and second-year students pioneered “Patient Centered Medicine,” while third- and fourth-year students piloted our new “Longitudinal Continuity Clinic.” These courses epitomize the new paradigm in academic medicine. They emphasize the mechanisms of disease as they relate to clinical problems. They take a holistic approach by incorporating elements of previous courses, including medical ethics and medicine and the law. They use a variety of settings to teach evidence-based medicine. And patients — both standard and real-life — become the students’ partners in education and clinical care.

The UMDNJ-Graduate School of Biomedical Sciences (GSBS) decentralized in 2007, gaining greater autonomy. Graduate students and faculty will benefit from the closer affiliation with RWJMS, the strengthened ties with Rutgers, and the abundant opportunities offered by the two schools.

Community health is where our missions truly intersect. In 2007, faculty members created or expanded initiatives that respond to the special health care problems of people in need. Student-run clinics in Camden and New Brunswick continued to expand in 2007, while providing essential, culturally sensitive primary care services to those who are uninsured. Through scores of electives and volunteer programs, students reach out to teach preventive medicine, encourage healthy lifestyles, and care for a community without borders.

I thank all who contributed to our successful shift to the new academic paradigm. I salute your ongoing efforts, your achievements, and your continuing vision.

Sincerely,

Peter S. Amenta, MD, PhD
Interim Dean



*Left to right:
Nicole Montgomery and
Peter Harris, both
second-year medical students,
participate in the "Patient*

*Centered Medicine" course as
Carol A. Terregino, MD '86, associate
professor of medicine, associate dean for
admissions, and interim dean for student
and academic affairs, Camden campus
(right), demonstrates the art of
case presentation.*



Education

New Paradigms and New Initiatives: Course Redesign Shifts Focus of Curriculum

UMDNJ-Robert Wood Johnson Medical School introduced two new courses in 2007, Patient Centered Medicine (PCM) and the Longitudinal Continuity Clinic (LCC).

These courses advance the school's core academic mission and are emblematic of the new paradigm for academic medicine.



In 2007, the Class of 2010 completed the first full year of PCM. This two-year course develops an understanding of medicine from a patient's perspective and cultivates in medical students an appreciation of the importance of collaboration and accountability. Designed by a multi-disciplinary team, PCM covers material formerly taught in physical diagnosis and incorporates humanistic, multi-cultural, legal, and ethical concerns. It has absorbed elements of clinical interviewing in psychiatry, human sexuality, medical ethics, medicine, and the law, as well as some co-curricular activities such as business in medicine.

The evaluation process for PCM mirrors the residency competencies established by

the Accreditation Council on Graduate Medical Education. "PCM not only trains our students to be more astute learners and contributors during clinical rotations," says Carol A. Terregino, MD '86, associate professor of medicine, associate dean for admissions, and interim dean for student and academic affairs, Camden campus. "The course also will prepare a more highly competent group of MDs.

"As the Class of 2010 completed its third semester of PCM, the perception was that this class is the best prepared clinically in the history of the school," adds Dr. Terregino, who is co-course director with Norma S. Saks, EdD, associate professor of psychiatry and assistant dean for educational programs.

Patient Centered Medicine emphasizes that the best treatment comes from understanding the whole patient, not only from the individual health history but also from standpoints of family, culture, and environment.

In PCM, first- and second-year medical students explore not just disease, but the experience of being ill. That empathy comes from experience with a broad spectrum of patients and the development of skills such as interviewing and observation. PCM emphasizes that the best treatment comes from understanding the whole patient, not only from the individual health history but also from standpoints of family, culture, and environment. The course emphasizes the importance of establishing and maintaining a physician-patient relationship that will assist in finding common ground regarding management, in making a proper diagnosis, and in setting treatment goals.

PCM meets in a variety of scenarios, including large-group conferences, and Objective Structured Clinical Exercises that use standardized patients. Students are assigned to a single small group for two years, where they hone their clinical reasoning skills under the same faculty member, who mentors them and monitors and evaluates their progress. To gain cultural competency and learn about the challenges of accessing

social services, students regularly observe firsthand – and participate in – the physician-patient relationship in clinical settings ranging from private offices to community clinics. They also work in end-of-life treatment settings and with people who have disabilities, and they participate in a universal service learning requirement.

On the Camden campus, third- and fourth-year students helped launch the Longitudinal Continuity Clinic. The course includes lectures and community service, along with 25 hours of patient care. For one year, each student follows a patient with a chronic disease such as diabetes or heart disease, accompanying the patient to appointments, helping him or her through the health care system, and explaining topics that may remain unclear after the appointment. Most of the patients who are followed in LCC use the student-run Adult Health Outreach Project Clinic. "The students see issues from 'their' patient's point of view and come to share those concerns and frustrations," says **Robert Risimini, MD**, assistant professor of family medicine and assistant dean for student affairs, Camden campus.

Class of 2007 Matched with Top-Tier Schools and Programs

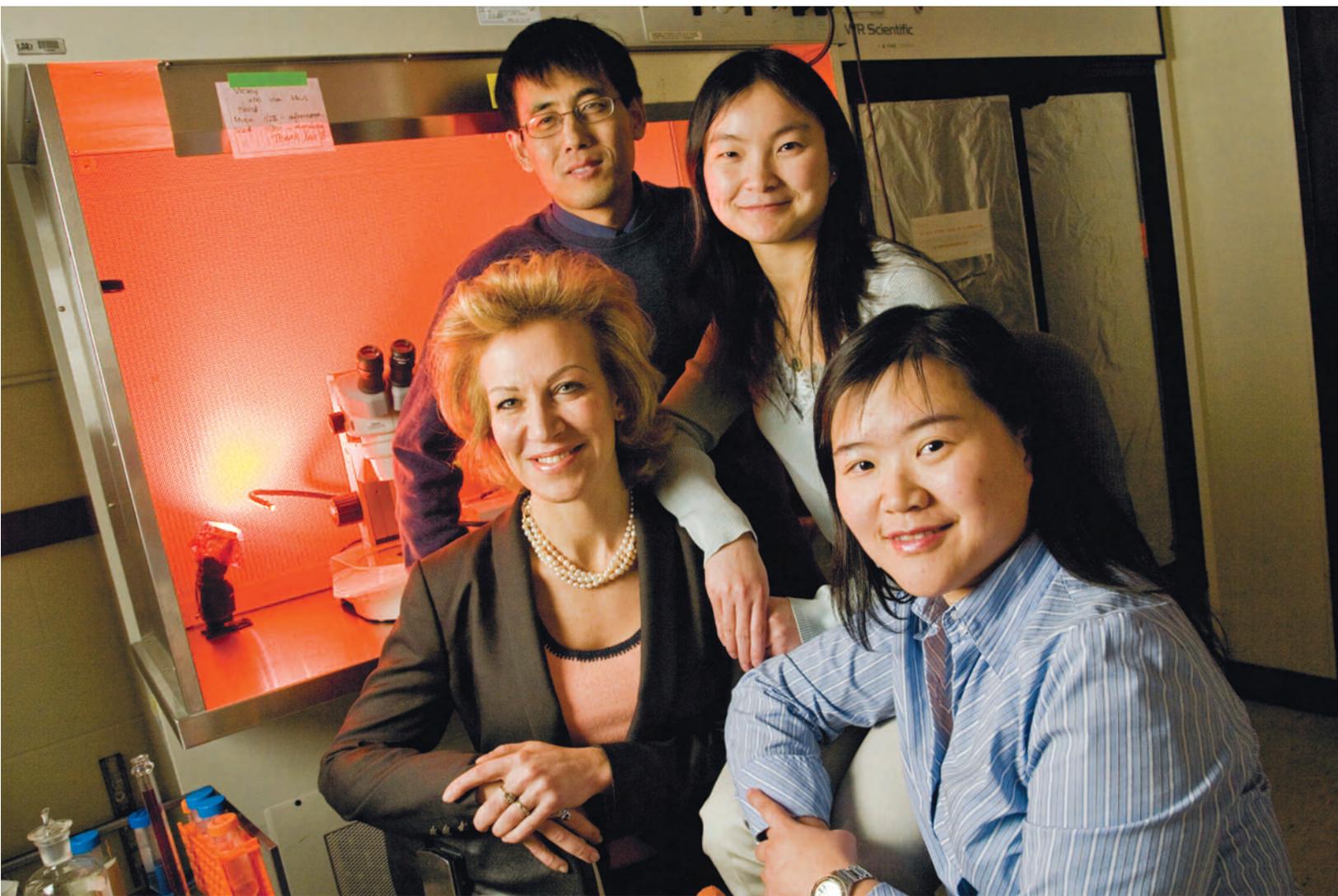
The 2007 Match Day results spoke to the academic excellence and clear professional focus of the graduating class. The 99 percent match rate made 2007 the second consecutive year in which RWJMS students achieved the highest match rate in the history of the medical school.

"Our Match Day success is a tribute to the talent and dedication of our students as well as to the commitment of our faculty," says **Peter S. Amenta, MD, PhD**, interim dean.

The 149 participants matched with top programs in highly competitive fields, and they matched with many of the nation's top-tier institutions, including RWJMS. As graduates, the Class of



2007 entered programs such as anesthesiology, emergency medicine, internal medicine, OB/GYN, orthopaedic surgery, pediatrics, psychiatry, radiology, and urology.



Above: Patrizia Casaccia-Bonnofil, MD, PhD, associate professor of neuroscience and cell biology, with (left to right) Aixiao Liu, PhD, instructor, Department of Neuroscience; Ye He, graduate student, Program in Molecular Genetics, Microbiology, and Immunology, UMDNJ-Graduate School of Biomedical Sciences at RWJMS; Siming Shen, PhD, post-doctoral fellow, Department of Neuroscience.

Decentralization Creates New Strengths and Opportunities in Graduate Programs

Through the distinctive partnership between the UMDNJ-Graduate School of Biomedical Sciences at Robert Wood Johnson Medical School and Rutgers, nine training programs and a wealth of scientific and educational resources and facilities are available.

The UMDNJ-Graduate School of Biomedical Sciences (GSBS) decentralized in 2007 and is now more closely affiliated with RWJMS. Decentralization created greater autonomy for the GSBS at RWJMS and strengthened its interaction with the

medical school. In addition, it enhanced the long-standing affiliation in graduate education between RWJMS, GSBS, and Rutgers, The State University of New Jersey.

"An even stronger graduate school with access to excellent graduate students is as

attractive to faculty being recruited as it is to potential applicants," says **Terri Goss Kinzy, PhD**, professor of molecular genetics, microbiology, and immunology and pediatrics and associate dean,



GSBS at RWJMS (shown above with graduate student Anthony Esposito).

Dr. Kinzy says that decentralization offers the opportunity for additional collaboration and initiatives and new courses and programs, such as a master's degree in clinical and translational sciences.

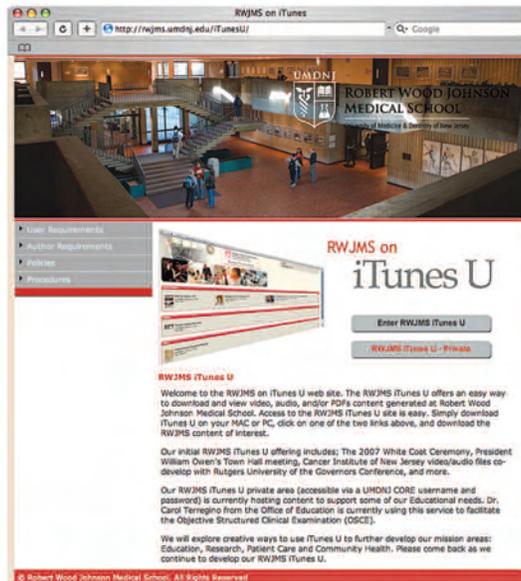
Through the distinctive partnership between the GSBS at RWJMS and Rutgers, nine training programs and a wealth of scientific and educational resources and facilities are available. In 2007, more than 500 faculty members at RWJMS and Rutgers were available to teach, mentor, and supervise thesis research. Overall, 500 graduate students participated in the joint GSBS at RWJMS programs, and 225 graduate students were working in laboratories at RWJMS.

iTunes U Expands Access to Medical School Resources

Early in 2007, RWJMS joined iTunes U, a new Web service from Apple.

The technology expanded the medical school's teaching potential by providing 24-hour-a-day access to lectures and discussions, supplemental course materials, visiting lectures, and conferences — anything that can be uploaded and stored as a media file.

In a reserved area of the site, faculty can review videos of the objective clinical skills examinations. But overall, anyone with a computer or portable



media player with iTunes gained access to the extraordinary resources of the medical school.

Among the first files uploaded to the RWJMS iTunes U site were presentations from the 2007 Governor's Conference on Effective Partnering in Cancer Research, a multi-institutional,



“For the first time we have an opportunity to regularly share content from our educational programs with the greater research and patient community worldwide.”

— Edmund C. Lattime, PhD

all-day program on genomics. “For the first time we have an opportunity to regularly share content from our educational programs with the greater research and patient community worldwide,” says **Edmund C. Lattime, PhD**, professor of surgery and associate director for education and training, The Cancer Institute of New Jersey.



Additional Highlights in Education

Nicola C. Partridge, PhD, professor and chair, Department of Physiology and Biophysics, was named president of the Association of Chairs of Departments of Physiology. Dr. Partridge is the association's first woman president.

Carolyn Bekes, MD, professor of medicine, was one of three recipients of the Courage to Lead Award from the Accreditation Council for Graduate Medical Education.

The Liaison Committee on Medical Education selected Margit Kaufman '08 to serve a one-year term as a full voting member. One of only two students chosen for this national position, she was nominated by the Association of American Medical Colleges and is the first RWJMS student chosen for this honor.

The American Medical Student Association selected Wan-Ju Wu '11 as one of eight Global Health Scholars nationwide. She was one of 364 applicants for this honor.

The Alumni Association Board of Trustees supported four Hippocrates Scholars in the 2007–2008 academic year, for a total of \$80,000. The association awards the four-year Hippocrates Scholarship to one student in each incoming class based on academic excellence.

The Department of Radiation Oncology has six positions in a four-year clinical training program that is New Jersey's only residency program in this specialty.

RWJMS introduced the Distinction in Medical Education (DIME) program during the 2007–2008 academic year. The goals of the DIME program are to recognize students who have demonstrated exceptional and sustained commitment to scholarship in medical education and to train students in teaching and educational scholarship. More than 50 first- and second-year students enrolled in the DIME non-credit elective, a prerequisite for the DIME program. Students in the Class of 2011 will be the first eligible to graduate with this distinction.

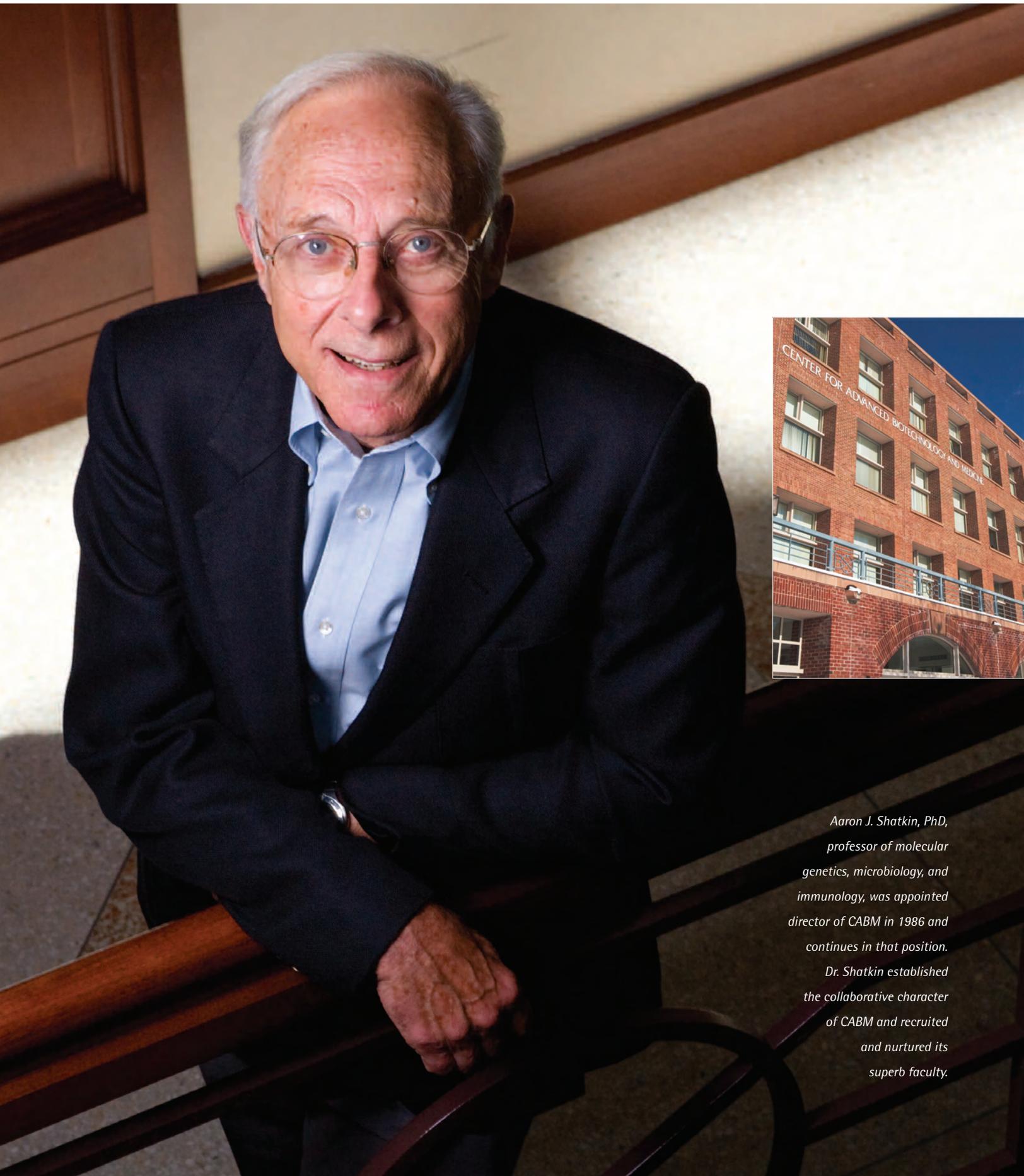
Education Office Refines Strategic Goals

Comprehensive strategic planning is continuous, using the reaccreditation process as an opportunity to advance the missions of the medical school. In 2002, RWJMS received full eight-year reaccreditation from the Liaison Committee on Medical Education (LCME). In addition to strongly endorsing the medical school's standing, the LCME granted RWJMS an additional year over and above the standard seven-year reaccreditation cycle.

By constantly reexamining and refining its strategic goals for education, the medical school has modified and improved the educational infrastructure. Evidence of new scholarly activity is clear school-wide — in the growth of programs offering graduation with distinction in research and community health, in the fostering of physician-

scientists through the MD/PhD Program, in the design and implementation of the new two-year course, "Patient Centered Medicine," and in national and international recognition of the faculty's contributions in their fields.

In 2007, as part of the ongoing process of self-review, improvement, and growth, the medical school approved several initiatives that advanced its academic mission, including the adoption of a pass/fail grading system for years one and two. "More than 50 percent of medical schools use pass/fail grading in the first two years," says Stephen F. Lowry, MD, professor and chair, Department of Surgery, and senior associate dean for education. "It is a trend that is gaining momentum, and we believe it will benefit students."



Aaron J. Shatkin, PhD, professor of molecular genetics, microbiology, and immunology, was appointed director of CABM in 1986 and continues in that position.

Dr. Shatkin established the collaborative character of CABM and recruited and nurtured its superb faculty.

Research

CABM Celebrates Two Decades of Discovery

In 2007, the Center for Advanced Biotechnology and Medicine (CABM) entered its third decade as a respected leader in research and teaching. Chartered by the New Jersey Commission on Science and Technology, CABM is jointly administered by UMDNJ-Robert Wood Johnson Medical School and Rutgers, The State University of New Jersey.



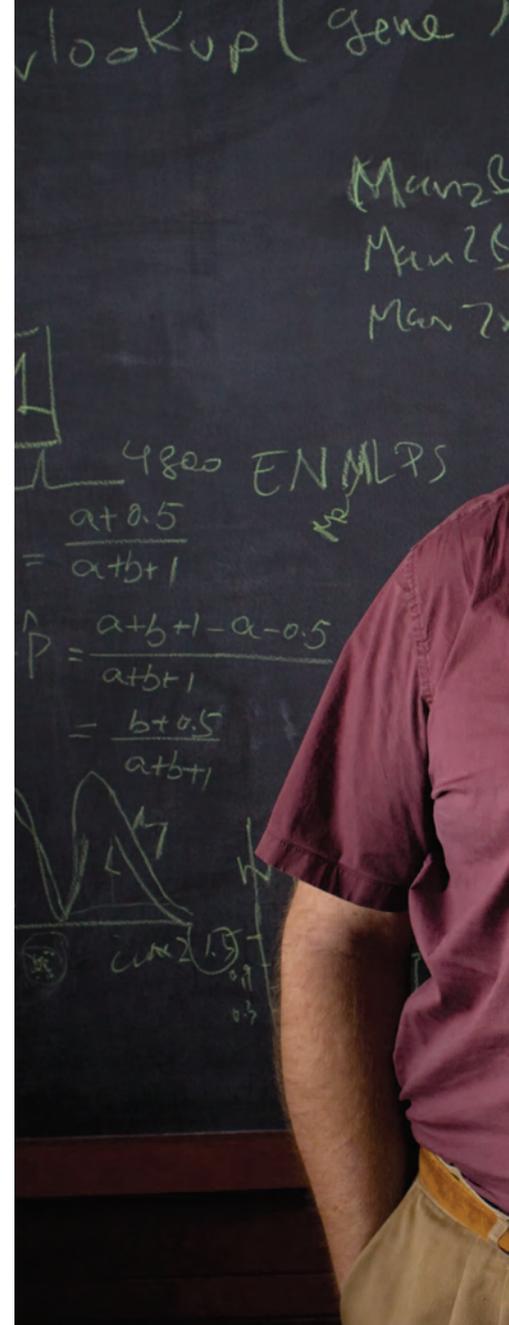
The commission, which provided the initial funding for CABM, envisioned an interdisciplinary collaboration dedicated to advancing health-related biotechnology by enhancing research and teaching in the life sciences at the two universities and building scientific relationships with the private sector. CABM has fulfilled that vision with its distinctive melding of eminent research and life sciences education. And surpassing its original charter, CABM has become a stronghold of scientific innovation, widely respected for its collaborative mind-set and its significant successes in research and training at the frontiers of biomedicine.

Aaron J. Shatkin, PhD, professor of molecular genetics, microbiology, and im-

munology, was appointed director of CABM in 1986 and continues in that position. Dr. Shatkin established the collaborative character of CABM and recruited and nurtured its superb faculty. Meanwhile, he pursued his own research on cellular and viral gene expression mechanisms and messenger RNA (mRNA) capping, a key element for gaining a better understanding of how information in the genome is translated into biological functions.

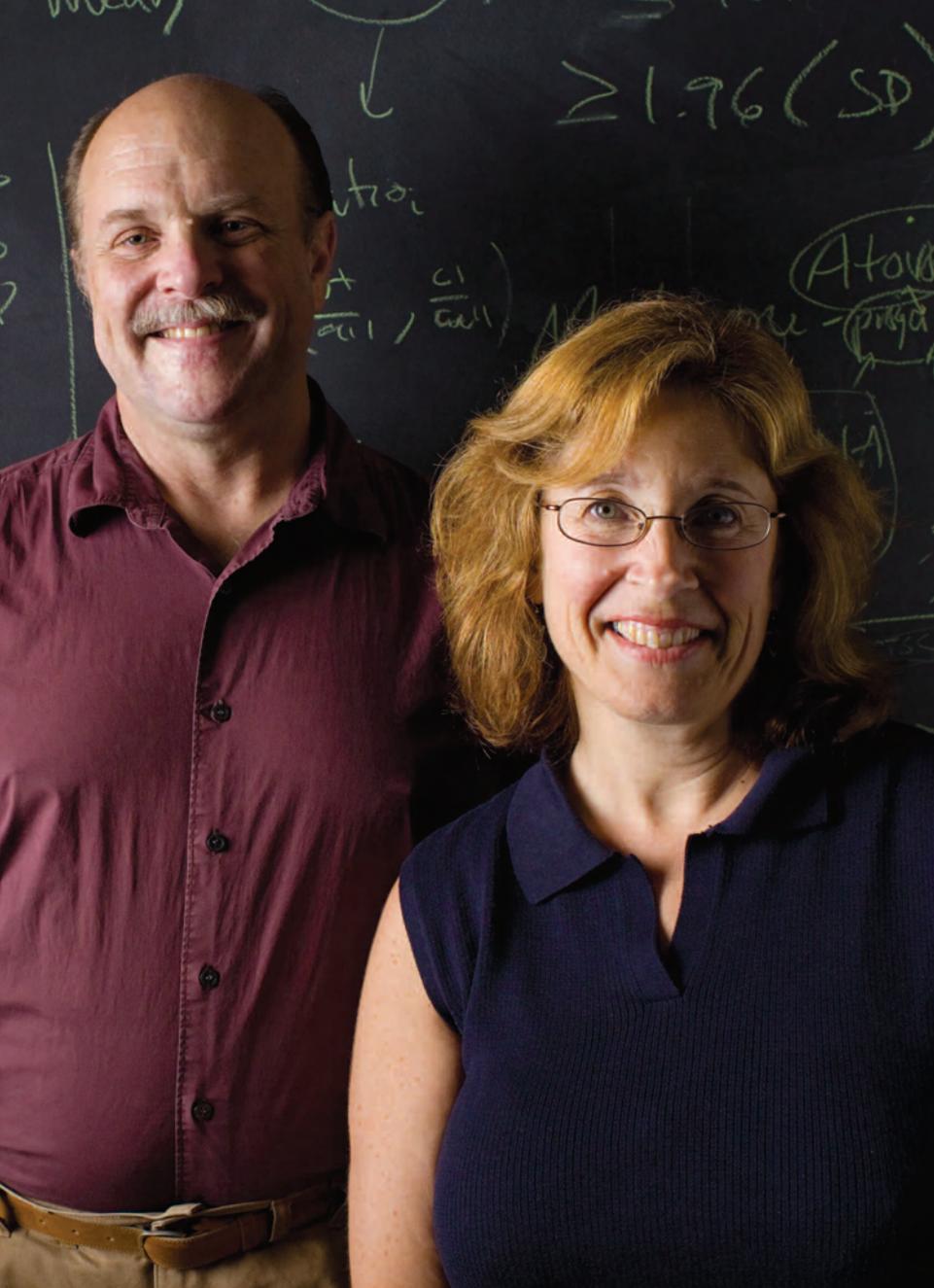
In its first 20 years, CABM earned more than \$240 million in grants from the National Institutes of Health (NIH) and other public and private agencies and foundations. More than 1,000 graduate students and post-doctoral scientists have

In its first 20 years, CABM exceeded the vision of its founders, achieving an extraordinary record of discoveries in the life sciences, many of which were translated into therapies to benefit human health.



Above: Eddy Arnold, PhD, adjunct professor of molecular genetics, microbiology, and immunology; resident member, CABM; and professor of chemistry and chemical biology at Rutgers University, and Gail Ferstandig Arnold, PhD, principal investigator, CABM, and research professor, Department of Chemistry and Chemical Biology, Rutgers University.

Left: Ann M. Stock, PhD, professor of biochemistry, Investigator, Howard Hughes Medical Institute, and associate director, CABM, and Peter Lobel, PhD, professor of pharmacology.



been trained in the laboratories of the nationally and internationally recognized CABM faculty members.

CABM has served the public interest by enhancing economic development through corporate collaborations in research, workforce training and educational outreach, intellectual property development and technology transfers, and various consultation activities. It is designated by the New Jersey Commission on Science and Technology as a New Jersey Advanced Technology Center.

"In industry, you solve a problem and go on to the next," says Dr. Shatkin.

"Science, on the other hand, is built on a continuum. You solve one problem, and in doing so, you raise more questions that must be answered."

Dr. Shatkin's first recruit was **Eddy Arnold, PhD**, adjunct professor of molecular genetics, microbiology, and immunology; resident member, CABM; and professor of chemistry and chemical biology at Rutgers University. Dr. Arnold was joined by **Gail Ferstendig Arnold, PhD**, principal investigator, CABM, and research

professor, Department of Chemistry and Chemical Biology, Rutgers University. Among the Arnolds' most significant collaborations has been their work using X-ray crystallography to study the AIDS virus and its key constituents, including the reverse transcriptase molecule.

Other longtime members include **Ann M. Stock, PhD**, professor of biochemistry, Investigator, Howard Hughes Medical Institute, and associate director, CABM, and **Peter Lobel, PhD**, professor of pharmacology. Dr. Stock's laboratory focuses on the molecular mechanisms of receptor-mediated signal transduction. Using a combination of molecular genetic, biochemical, and X-ray crystallographic methods, her team seeks to elucidate structure/function relationships in proteins involved in information processing. Dr. Lobel's laboratory has developed new methods for disease discovery and identified the molecular bases for three fatal neurodegenerative disorders. As collaborators, Dr. Lobel and Dr. Stock have made strides in their research on hereditary neurodegenerative diseases.

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Milestone achievements for CABM include:

- Identified the structure of reverse transcriptase, an enzyme essential to the replication of the human immunodeficiency/AIDS virus, HIV-1

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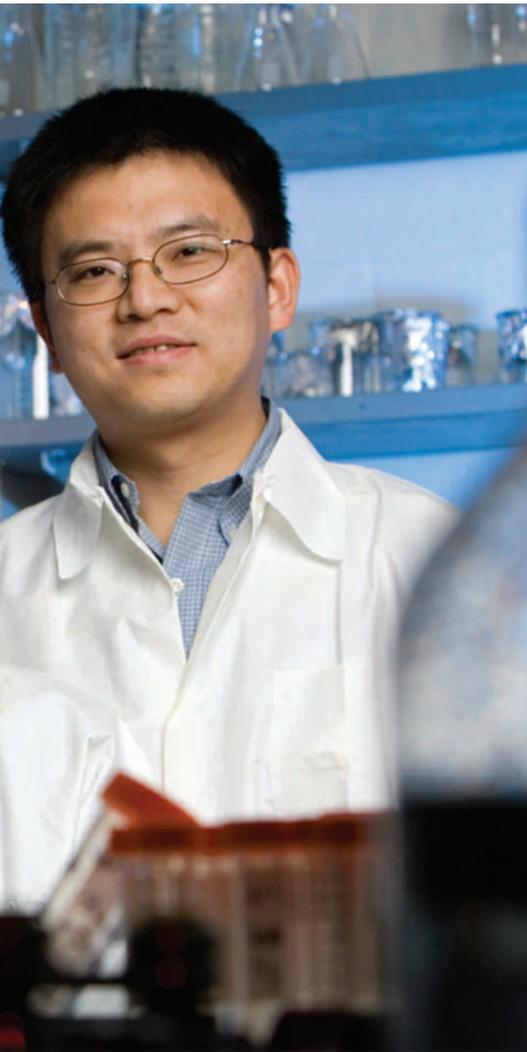
- Made key contributions to the development of two anti-virals in clinical AIDS trials, plus a third used in trials aimed at the prevention of HIV transmission
- Developed an animal model that closely duplicates human prostate cancer, which is being used to improve cancer prevention and treatment
- Established the NIH-sponsored Northeast Structural Genomics Consortium, a think tank for top scientists defining protein structures and developing potential drug targets
- Elucidated the molecular mechanisms of programmed cell death, leading to important new treatments for cancer
- Discovered the genetic basis of two fatal neurodegenerative diseases in children: Batten disease and Niemann-Pick C2 disease
- Identified major signaling pathways in bacteria, paving the way for more effective new drugs to fight infections
- Developed methods for protein structure analysis, followed by the identification of novel targets for designing drugs against influenza, hepatitis, and other viruses
- Identified an autism susceptibility gene in children
- Defined the mechanism of mRNA capping, a critical step in gene expression for both normal and cancerous cells



Scientists Earn More Than \$4.9 Million in Stem Cell Research Grants

The New Jersey Commission on Science and Technology (NJCST) awarded RWJMS scientists \$4,917,236 for stem cell research. The grants support a wide variety of projects, including a core facility for bioengineering human embryonic stem cells. In addition, NJCST grants are funding projects aimed at bioengineering human stem cells for brain repair and developing new therapies for heart disease and lung cancer, as well as developing techniques that use stem cells to deliver biotherapeutics to attack cancerous tumors.

"The size and scope of these research grants underscore the quality of the research conducted at UMDNJ," says Kathleen W. Scotto, PhD, vice president for research, UMDNJ, and senior associate dean for research, RWJMS. "We are exceedingly proud of the work under way in the stem cell arena and look forward to working collaboratively with our colleagues throughout the state to gain new insights and develop new treatments for a number of devastating diseases."



Stem Cell Scientists Collaborate on International Workshop

RWJMS scientists played a major role in an international workshop that will promote important cooperative research between stem cell scientists in the United States and Canada. At the invitation of the Quebec provincial government, researchers in New Jersey who hold stem cell research grants helped lay the groundwork for the meeting, which took place in the city of Quebec.

Fourteen of the state's stem cell scientists, including eight from RWJMS, joined their colleagues for discussions, both formal and informal, and presentations of their work. Future meetings of the group will expand to include researchers from

and international collaboration can facilitate advances in the field," says **Richard S. Nowakowski, PhD**, professor of neuroscience and cell biology, one of the workshop's organizers.

\$2.5 Million MERIT Award Will Advance Understanding of Gene Transcription



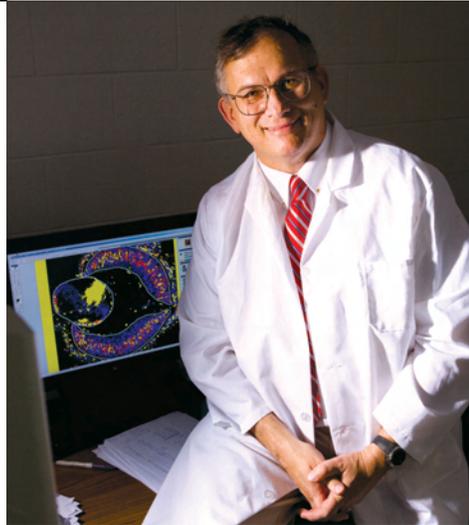
Smita Patel, PhD, professor of biochemistry, who is an expert in the metabolic processes of DNA, received a \$2.5 million MERIT (Method to Extend Research in Time) Award

from the NIH. Dr. Patel's award provides five to ten years of funding in support of her research into gene transcription, or how genetic information is transferred from mitochondrial DNA to RNA.

"The financial support from the NIH through the MERIT Award allows me to pursue new avenues of research, one of which is to understand how mitochondrial DNA is transcribed. We are planning to use multiple biophysical approaches to investigate this problem, leading to a predictive and quantitative model," says Dr. Patel. "The research can then be used to manage diseases related to mitochondrial defects in humans." Mitochondrial defects are seen in neuromuscular

Above (left to right): Rebecca Baerga, graduate student in pharmacology and doctoral candidate in the UMDNJ-Graduate School in Biomedical Sciences at RWJMS program in cellular and molecular biology; Kathleen W. Scotto, PhD, vice president for research, UMDNJ, senior associate dean for research, RWJMS; and Victor Jin, PhD, assistant professor of pharmacology.

Right: Richard S. Nowakowski, PhD, professor of neuroscience and cell biology, was one of the organizers of an international workshop that will promote important cooperative research between stem cell scientists in the United States and Canada.



other states and provinces with stem cell programs in place.

"Because United States federal law restricts the use of federal funds to a limited set of embryonic stem lines, this discipline is in a unique situation,



and skeletal disorders such as Parkinson's, Alzheimer's, and Huntington's diseases; the defects also appear in human aging.

The research also has implications for treating infectious diseases, adds Dr. Patel, and may be used to develop anti-parasitic therapies for malaria and leishmaniasis, an infectious disease transmitted by sand flies.

Above: Members of the RWJMS Center for Clinical and Translational Sciences team include (left to right) Diane Ambrose, PhD, director, special projects, Office of Research and Sponsored Programs; Galina Solodkin, MS, laboratory supervisor; and Sherri Gzemski, financial analyst.

NIH Grant Supports the Center for Clinical and Translational Sciences

In the first round of Clinical and Translational Science Awards, the NIH awarded a planning grant to RWJMS for the New Jersey Clinical and Translational Sciences Initiative (CTSI), a multi-institutional, multi-disciplinary consortium. The grant supports the initial development of the project's team-based research, infrastructure, and training mechanisms.

The NIH commented that the CTSI is an excellent model for connecting industry to other groups in academia and in the community, and that New Jersey is the ideal "laboratory" in which to test this model.

"Translational science is the scientific method applied to treating human disease, and it is the core mission of academic medicine," says Dr. Scotto. "One of our most difficult challenges is translating bench research to clinical applications and vice versa. In this new model, ideas, insights, and discoveries generated through basic scientific inquiry will be delivered more rapidly and effectively to improve the treatment and prevention of human disease."

Key to the initiative is the Center for Clinical and Translational Sciences (CCTS) at RWJMS. The center is the hub of a broad-based partnership that includes basic and clinical researchers in academia and industry, hospitals, citizen-based advocacy groups, and state agencies seeking both economic growth and the

development of health care technology. The CCTS will provide project management for translational and clinical studies to help researchers and clinicians effectively navigate the development maze. The CCTS also includes a Scientific Review Committee, charged with setting priorities for translational research projects. Finally, support in the areas of patents and licensing will ensure the efficient transition of projects from research partner to commercial partner.

\$9 Million Award Advances Understanding of Magnesium's Role in Disease

Alexey G. Ryazanov, PhD, professor of pharmacology, is the principal investigator in a multi-disciplinary, collaborative research project that is funded by a five-year, \$9 million grant from the NIH.



"We are focusing on the previously overlooked role that magnesium – the second most abundant metal ion in living cells – plays in the development of disease," says Dr. Ryazanov. "We recently discovered a novel type of the signaling proteins that play a key role in the regulation of magnesium homeostasis in the cells. Understanding how those proteins function could lead us to new treatments for a wide range of conditions, including heart, kidney, and neurological diseases."



Vaccine May Prevent Recurrence of Prostate Cancer

Robert DiPaola, MD, professor of medicine and chief of medical oncology, is leading a team of researchers at The Cancer Institute of New Jersey in a national study testing the effectiveness of an investigational vaccine that could help prevent the recurrence of prostate cancer. The vaccine is an injection of a carrier virus modified to produce prostate specific antigen (PSA), a protein that is produced in excess by prostate cancer cells. The modified carrier virus contains the gene necessary to produce PSA as well as the genes needed to produce three other proteins, called TRICOM, that are known to further enhance the immune system.

Above: Robert DiPaola, MD, professor of medicine and chief of medical oncology (left), is leading a team of researchers at The Cancer Institute of New Jersey in a national study testing the effectiveness of an investigational vaccine that could help prevent the recurrence of prostate cancer.

Dr. DiPaola's clinical study will test a new way of treating prostate cancer using this new vaccine, which may help the patient's immune system to kill the prostate cancer cells. This new approach involves a series of several vaccinations using two different vaccines and treatment with a growth factor, GM-CSF, that may enhance the vaccine's effect on the immune system.



"We have a sense of being the best ever," says Mark Anderson, MD, associate professor of surgery, chief of cardiac surgery, and director of cardiopulmonary transplantation, RWJUH (left), with Juan F. Plate, MD '96, assistant professor of surgery, division of cardiothoracic surgery.

Patient Care

Mechanical Heart Promises Quality of Life for Cardiac Patients; AbioCor Team Trains for Clinical Implant

As a large, multi-disciplinary team trained for the first clinical implant of the totally mechanical AbioCor heart, excitement and pride spread to every corner of UMDNJ-Robert Wood Johnson Medical School and Robert Wood Johnson University Hospital.



Based on the excellent outcomes of cardiac patients treated at Robert Wood Johnson University Hospital (RWJUH), a principal teaching hospital of RWJMS, Abiomed selected the hospital as one of four sites for the AbioCor trials. "We have a sense of being the best ever," says **Mark Anderson, MD**, associate professor of surgery, chief of cardiac surgery, and director of cardiopulmonary transplantation, RWJUH.

"This is a big project," he adds, "and the new technology makes it a challenge to learn. But the feeling of pride in this project spreads beyond the departments directly involved in the procedure to everyone in the medical school and at the hospital."

The device, the size of a grapefruit, is designed to replace the dysfunctional heart of patients with end-stage heart disease, who are not eligible for a heart transplant because of their age or co-existing conditions. AbioCor replicates all the functions of the heart by circulating blood through the lungs and body. With no external wires, the device recharges through the patient's skin, using an external battery pack. Patients with end-stage heart disease, who might otherwise have spent the rest of their lives in an intensive care unit, can then return home, enjoy their families, travel, return to work, and regain control of their lives.



Pediatric Center for Infectious Disease Opens; Gift from Bristol-Myers Squibb Supports New Center of Excellence

The Bristol-Myers Squibb Children's Hospital at Robert Wood Johnson University Hospital (BMSCH) dedicated the last of three planned centers of excellence in the treatment of childhood diseases, The Bristol-Myers Squibb Pediatric Infectious Disease and Immunology Center. The center will

CINJ Celebrates Tenth Anniversary of NCI Designation

In 2007, The Cancer Institute of New Jersey (CINJ) celebrated its tenth year as a National Cancer Institute (NCI)-designated Cancer Center. It was the first one in New Jersey to hold this designation from the NCI and remains the only such facility in the state. Five years after the original designation, CINJ earned additional distinction when it was named an NCI-designated Comprehensive Cancer Center (NCI-CCC) – a center that provides patient services, conducts basic population sciences and clinical research, and engages in outreach and education activities.

At an October symposium celebrating this milestone, CINJ featured its strengths in each of the areas singled out by the NCI. Concluding the program, a panel of CINJ researchers and clinicians presented their work in cancer treatment and prevention – advances

that more efficiently move to the patient's bedside, because CINJ researchers and clinicians work side by side, ensuring the rapid translation of laboratory results into new cancer therapies and prevention techniques.

"The future of cancer treatment will be about less toxic and more targeted therapies," says **Joseph R. Bertino, MD**, university professor of medicine and pharmacology and interim director, CINJ and the Stem Cell Institute of New Jersey. "The future will bring better ways of predicting who will get cancer, finding cancer sooner, and personalizing treatment."



provide research and treatment for children's infectious diseases and immune system disorders, including HIV/AIDS, tuberculosis, and respiratory infections.

"This center of excellence allows us to expand our infectious disease and immunology services, and we couldn't do it without the support of Bristol-



Myers Squibb," says **Patricia N. Whitley-Williams, MD**, professor and interim chair, Department of Pediatrics, RWJMS, and physician-in-chief, BMSCH. "Children and families in our state and region will truly benefit from the treatments and research available here."

The new center adds another specialty to the children's health campus consisting of the BMSCH, the Child Health Institute of New Jersey at RWJMS, and the PSE&G Children's Specialized Hospital (CSH).

The Bristol-Myers Squibb Foundation awarded a \$5 million gift to BMSCH to create three new clinical centers, including this one. In addition to the newest center, the pediatric academic campus includes the Bristol-Myers Squibb Pediatric Metabolism Center and the Bristol-Myers Squibb Pediatric Rheumatology Center.

Above, left: L. Nandini Moorthy, MD, MS, assistant professor of pediatrics and chief of pediatric rheumatology, RWJUH, explains the inner workings of joint disease to a patient and Elliott Sigal, MD, PhD, executive vice president, Bristol-Myers Squibb, and president, Pharmaceutical Research Institute.

Above, right: The dedication of the Bristol-Myers Squibb Pediatric Infectious Disease and Immunology Center on November 11, 2007, drew a crowd.

Autism Center Links Clinical and Research Partners

The newly opened Robert Wood Johnson Autism Center is a collaboration of BMSCH, CSH, and Rutgers, The State University of New Jersey. **Michael Lewis, PhD**, university distinguished professor of pediatrics and psychiatry, serves as director of the center, which addresses the previously unmet needs of children with autism and their families.

"The Autism Center represents our commitment to the integration of research and services that will aid children of New Jersey suffering from autism spectrum disorders (ASD)," says Dr. Lewis. The center involves professionals from seven areas: a medical group, an educational intervention group, an outreach program, and four basic research groups including brain behavior special-

ists, cell biology, genetics, and pharmacology.

The Autism Center builds on synergies in applied and clinical research with the affiliated hospitals of RWJMS and the center's collaborative partners. In addition, the center will work with the Douglass Developmental Disabilities Center at Rutgers, CSH, and Jersey Shore University Medical Center in Neptune.

New Jersey is a particularly important location for a center dedicated to understanding autism and supporting families of children with ASD. The state has recognized the prevalence of autism in the region and has allocated resources for identifying the causes and providing the needed services to affected children and their families.

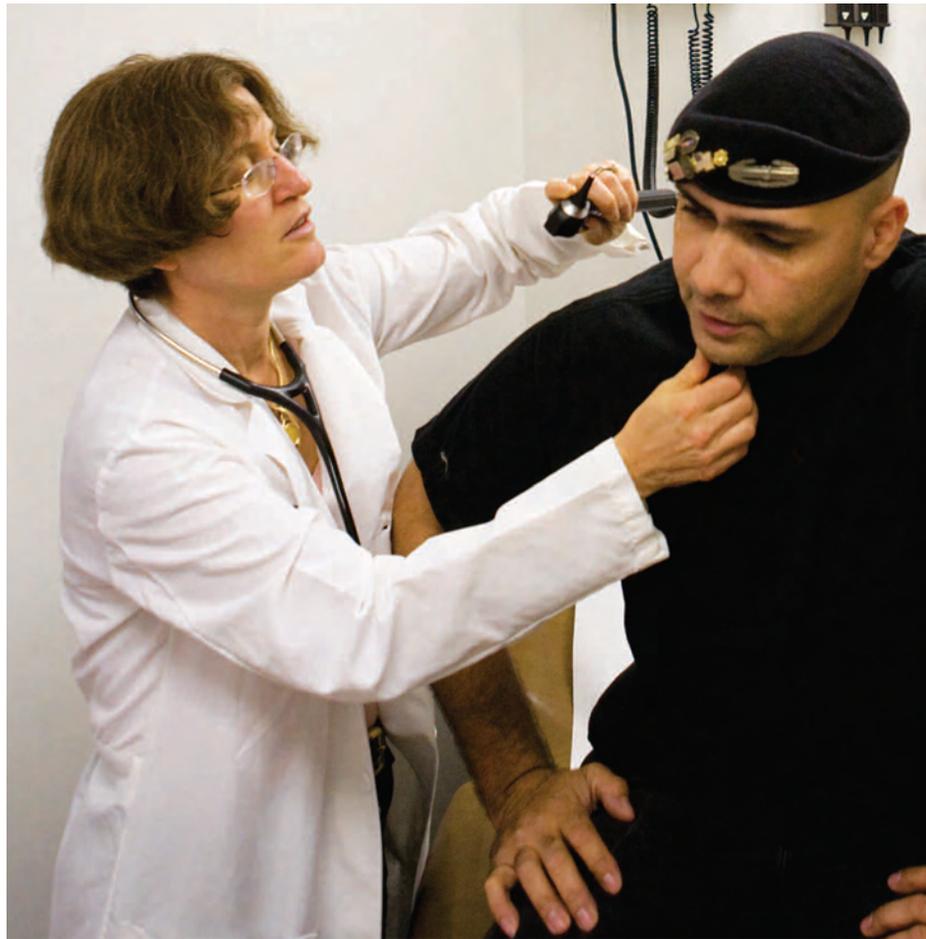
Robotic Surgical System Lowers Risks for Patients with Prostate Cancer

“This is the future!” When he first saw the da Vinci robotic surgical system, this was the response of urologist **Isaac Kim, MD, PhD**, assistant professor of surgery and director, minimally invasive, laparoscopic, and robotic surgery, division of urologic oncology, CINJ. Dr. Kim brought this piece of the future



to RWJMS, where he has introduced it to fellow surgeons and has fully trained residents to use the robot.

As he performs a minimally invasive, laparoscopic prostatectomy using the robot, Dr. Kim sits at the console, near the patient. The system translates his hand movements to three miniature robotic arms that work inside the patient, while a fourth endoscopic arm provides a magnified, three-dimensional view of the surgical field. The surgeon makes five small keyhole openings rather than the single six-inch incision made during a traditional open prostatectomy. These small openings result in less pain, and little or no blood loss. Patients who undergo this surgery generally leave the hospital within two days, and their recuperation time is approximately 50 percent shorter than for recovery from a traditional prostatectomy.

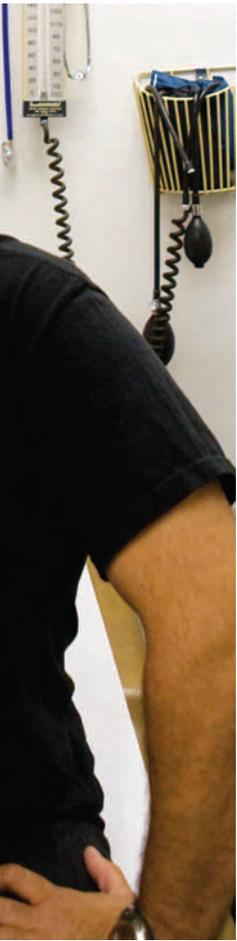


RWJMS Provides Care and Advocacy for 9/11 Responders

Iris G. Udasin, MD, associate professor of environmental and occupational medicine and member, Environmental and Occupational Health Sciences Institute (EOHSI), is a principal investigator in the World Trade Center (WTC) Medical Monitoring and Treatment Program. The EOHSI site is one of five in the interstate consortium and the only one located in New Jersey. Funded at \$3.1 million by the National Institute of Occupational Safety and Health, the clinic staff provides monitoring and treatment for WTC responders with medical conditions triggered or exacerbated by fallout from the 9/11 attacks.

In September 2007, Dr. Udasin testified before a committee of the

House of Representatives to advocate for continued federal funding for the program. The complex mixture of contaminated materials present at the WTC site resulted in an unprecedented incidence of illness, she testified, stating: “The patients have unusual presentations that make these conditions difficult to diagnose, requiring more physician time than is usually allotted by primary care physicians. They need access to physicians who are experienced in the treatment of World Trade Center-related health conditions. Sometimes the diagnosis is so difficult that additional testing is needed, which is not easily available to community physicians.”



Above: Iris G. Udasin, MD, associate professor of environmental and occupational medicine, member, Environmental and Occupational Health Sciences Institute (EOHSI), and a principal investigator in the World Trade Center (WTC) Medical Monitoring and Treatment Program, examines her patient, Anastacio C. Irizarry.

Family Medicine Leadership Sharpens Focus on Patient-Centered Care

Alfred F. Tallia, MD '78, MPH, professor of family medicine, was named chair of the department. Dr. Tallia had served as acting chair since 2005.

"I am extremely pleased that Dr. Tallia agreed to assume leadership of the Department of Family Medicine," says Peter S. Amenta, MD, PhD, interim dean. "His expertise in practice quality care strengthens the patient-centered and physician training services provided by the medical school."



A board-certified family physician and associate director of the department's research division, Dr. Tallia focuses his practice-based research on the organization and quality of the health care system. Earlier in his career, he led the New Brunswick-based family medicine residency, widely recognized for providing innovative community-based training for family physicians.

"Family physicians can provide a

personal medical home for patients. It's our responsibility to know our patients, understand what they want from the health care system, provide them access, and coordinate that care," says Dr. Tallia.

Dr. Tallia also chairs the national commission evaluating

"Family physicians can provide a personal medical home for patients. It's our responsibility to know our patients, understand what they want from the health care system, provide them access, and coordinate that care," says Dr. Tallia.

the physician licensing examination process in the United States. The editor and primary author of a popular medical review textbook and multiple abstracts, book chapters, and publications, he is the principal or co-principal investigator on numerous research studies, all of which focus on practice quality care, organization, and function.

Additional Highlights in Patient Care

■ Joseph Aisner, MD, professor of medicine and environmental and occupational medicine and chief medical officer, The Cancer Institute of New Jersey (CINJ), and Joseph R. Bertino, MD, university professor of medicine and pharmacology and interim director, CINJ and the Stem Cell Institute of New Jersey, were honored with the inaugural Statesman Award at the 43rd Annual Meeting of the American Society of Clinical Oncology. In October, Dr. Bertino received the Bob Pinedo Cancer Care Prize, awarded by the Amsterdam-based Medical Knowledge Institute, recognizing advances he has made in ensuring compassionate care for cancer patients.

■ Edward J. III Excellence in Medicine Awards were presented to Robert L. Trelstad, MD, professor of pathology, and Patricia N. Whitley-Williams, MD, professor and interim chair, Department of Pediatrics, RWJMS, and physician-in-chief, The Bristol-Myers Squibb Children's Hospital at Robert Wood Johnson University Hospital.

■ The 2007 *New York* magazine list of "Best Doctors" in the New York area included 46 full-time and volunteer RWJMS faculty members. The July issue of *South Jersey Magazine* named 32 RWJMS faculty members to its "Top Physicians 2007" list. The November 2007 issue of *New Jersey Monthly* named 58 members of the RWJMS faculty and volunteer faculty to its "Top Doctors 2007" list.

■ Mark Merlin, DO, assistant professor of emergency medicine, was named EMS Physician of the Year by the New Jersey Emergency Medical Services Council and the Office of Emergency Medical Services of the New Jersey Department of Health and Senior Services. This award is presented annually to a New Jersey physician who contributes to emergency medical services.

■ The New Jersey Academy of Family Physicians named Karen W. Lin, MD '89, associate professor of family medicine and director, Family Medicine Residency Program, the 2007 New Jersey Family Physician of the Year.



Eric G. Jahn, MD '88, associate professor of environmental and occupational medicine, acting senior associate dean for community health, and medical director of the Eric B. Chandler Health Center, examines José Rodríguez at the Chandler Center's Church Street Annex location.



Above: Sally Mravcak, MD '00, takes a patient history on William Báez.

Community Health

Mission Advances through Partnerships and Collaborations

Eric G. Jahn, MD '88, associate professor of environmental and occupational medicine, was appointed in March to serve as acting senior associate dean for community health. In this position, Dr. Jahn oversees the many partnerships that are key to the success of the UMDNJ-Robert Wood Johnson Medical School mission in community health.



Dr. Jahn continues to serve as medical director of the **Eric B. Chandler Health Center**, a position he has held since 1994. RWJMS established the federally funded community health center in 1987, and it owns and operates the center in collaboration with the community advisory board. "Partnerships are key to the RWJMS mission in community health," says Dr. Jahn. "They also help us advance our academic mission, particularly our commitment to training culturally competent physicians."

The Chandler Health Center is the most prominent community health program at RWJMS. "Chandler is the foundation of the medical school's mission in community health," says Dr. Jahn. The excellent

quality of clinical care and social services at the Chandler Health Center reflects Dr. Jahn's commitment to care for the whole person, regardless of the patient's ability to pay. "Not having resources doesn't mean you shouldn't get excellent care, follow-up care, or continuity of care," he says.

"Our mission in community health connects closely to our missions in education and clinical care," says Dr. Jahn. Chandler Health Center serves as an important teaching site for medical students and residents in pediatrics, OB/GYN, and internal medicine. Chandler is also a site for student outreach programs, such as the **Homeless and Indigent Population Health Outreach Project (HIPHOP)**.



Healthier New Brunswick 2010: Initiatives Focus on Child Health

Hhealthier New Brunswick 2010 (HNB 2010), with its mission to improve the health of New Brunswick's children and successive generations, is one of the most important RWJMS partnerships. HNB 2010 is a collaboration involving RWJMS; the City of New Brunswick; Rutgers, The State University of New Jersey; and New Brunswick Tomorrow, a private not-for-profit organization that fosters network-based redevelopment of the city.

- One of HNB 2010's newest initiatives is the **Health Literacy Project**. Volunteers from the student-run **Homeless and Indigent Population Health Outreach Project (HIPHOP)** work with local health providers and day care centers, training

For several years, Chandler was stretched to its limits, working overtime to meet the needs of the community's uninsured patients and families. But the Eric B. Chandler Health Center Church Street Annex opened in 2006, providing much-needed new space that strengthened Chandler's spectrum of programs in clinical care and health care education. In 2007, Chandler provided care to more than 14,000 patients, in nearly 50,000 medical and dental visits.

Right: Virginia Matos-Perrotte, DMD, administers dental care to one of her patients.

Above (standing, left to right): Eric G. Jahn, MD '88; Georgina Quiles, LPN; Virginia Matos-Perrotte, DMD; Sandra Adams, interim executive director; and Gladys James, and (seated) Sally Mravcak, MD '00, constitute the health care team at the Eric B. Chandler Health Center Annex. • Right: Sunita Cheruvu, MD, tends to the younger set at the Chandler Health Center.



them to teach parents of pre-schoolers what to do when a child appears to be ill. Working with a book written at an elementary level, in English or Spanish, the students help parents understand the significance of various symptoms. When pilot-tested in California, the highly successful program reduced

unnecessary visits to the doctor or emergency room by 40 percent, says Camilla Comer-Carruthers, program director, HNB 2010.

- **The Parent Nutrition Education Project**, another RWJMS-Rutgers collaboration under the HNB 2010 umbrella, focuses on teaching parents of pre-school-age children how to develop healthier eating habits, starting in childhood. The project emphasizes the nutritious foods that should be provided at home.

"Behavior change is difficult, if not impossible, without the buy-in of the parents and changes in the home," says Ms. Comer-Carruthers.

- Approximately 70 percent of the patients at the Chandler Health Center are Spanish-speaking residents of New Brunswick's Latino community, and more than 85 percent of these patients reported that they need interpreter services. In an effort to help improve communication between physicians and their patients, the Office of Community Health created the **New Brunswick Community Interpreter Project** in 1998, a collaboration with Rutgers University that provides an opportunity for bilingual students to serve as medical interpreters at various sites throughout New Brunswick. The program is funded by grants from Johnson & Johnson and New Brunswick Tomorrow.



RWJMS Recognizes Graduates for Distinction in Service to the Community

At Convocation, three members of the Class of 2007 were awarded diplomas with the newest honor available to RWJMS graduates, Distinction in Service to the Community (DISC). Students selected for DISC have a strong interest in improving the public health and eliminating health disparities. Their work, particularly their research project, done in collaboration with community partners, contributes to the promotion of evidence-based, population-oriented health interventions. In partnership with faculty and community mentors, the students address local community health needs identified through Healthy People 2010, Healthy New Jersey 2010, and locally focused priorities such as HNB 2010 and projects of the student-run Urban Health Initiative, on the RWJMS Camden campus. The student projects

were supported by mini-grants from the Foundation of UMDNJ.

"This program shows that we hold service to the community in the highest esteem and demonstrates the medical school's commitment to its mission in community health," says **Susan Rosenthal, MMS '75, MD**, clinical professor of pediatrics and associate dean for student affairs for the clinical years.

A new elective, "Students Interested in Restoring Community Health" (SIRCH), introduces first- and second-year medical students to community activities in which they can become involved. Medical students may want to volunteer for one or more of the wide variety of programs presented during the lunch lecture series. "We see SIRCH as a feeder for the DISC program," says Dr. Rosenthal.

Student-Run Organizations Lead New Programs in Community Health

The success of many RWJMS community-based initiatives depends on volunteers from the student-run community service organizations: the **Homeless and Indigent Population Health Outreach Project (HIPHOP)** on the New Brunswick/Piscataway campuses and the **Urban Health Initiative (UHI)** on the Camden campus.

Through a collaboration of the Office of Community Health, the Department of Family Medicine, the Office of Student Affairs, and HIPHOP, the medical school received a Learn and Serve Higher Education sub-grant from Morehouse School of Medicine's Center for Community Health and Service. "The grant helped establish a community service mini-grant program to support extra-curricular student-initiated community-based health projects," says **Susan Giordano**, program coordinator, HIPHOP. Guided by faculty, staff, and community mentors, seven teams of students implemented three-month pilot projects involving more than 250 participants from diverse cultures. The projects were presented at a symposium on May 3, 2007.

HIPHOP is newly reorganized as an umbrella program with two major components: the **Community Health Initiative (CHI)** and the **Promise Clinic**.

- CHI seeks to promote healthy living practices, provide preventive health education, and support and advocate for underserved and indigent populations. Students achieve this goal

through varied opportunities including electives, lecture series, curriculum integration, and volunteerism.

- Through the Promise Clinic, medical students provide much-needed continuity of health care services to uninsured adult clients of Elijah's Promise Soup Kitchen in New Brunswick.

LISTOS, a new HIPHOP elective, means "We're ready" and is an acronym for Literacy Initiative for Students Teaching Older Spanish Speakers. Started in 2007 through the Morehouse Mini Grants Service Learning Program, the project offers students the benefit of learning basic medical Spanish.



On the Camden campus, UHI's three Health Outreach Project (HOP) Clinics — the adult clinic, the women's clinic, and the pediatric clinic — continued to grow.

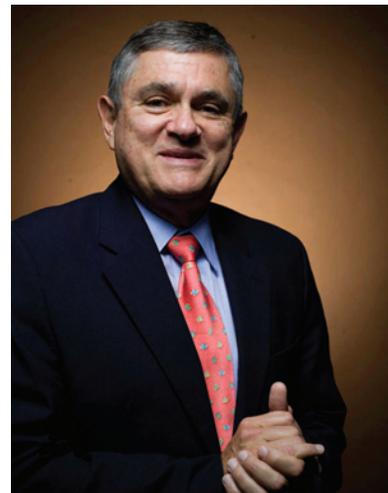
At the family medicine office at the LEAP Academy charter school in central Camden, medical students saw 150 patients during the year and were mentored by approximately 20 faculty volunteers. Separately, medical students mentored 12 high school students who have an interest in science and medicine.



Above: Masayori Inouye, PhD, professor of biochemistry, mentors a student in the Research in Science and Engineering Program for undergraduates. The program is co-sponsored by the Rutgers University Graduate School, New Brunswick, and the UMDNJ-Graduate School of Biomedical Sciences at RWJMS to increase diversity in the science, mathematics, and engineering fields to improve the health of our community. • Left: Michelle Johnson, a chemistry and chemical biology graduate student at Rutgers, mentors RISE student Yamalia Roberts.



“The Office of Global Health will drive the strengthening of existing linkages and the establishment of new ones,” says Dr. Escobar (*below*). “With a view to training culturally competent clinicians, we support our students’ deep interest in international health.”



RWJMS Establishes Office of Global Health

In 2007, Peter S. Amenta, MD, PhD, interim dean, created the Office of Global Health. “We developed the Office of Global Health in response to our faculty’s vast interest in this area and our medical students’ enthusiasm for engaging in international activities,” says Dr. Amenta. “The blending of research and clinical knowledge across borders will surely benefit patients in our local communities as well as those in other areas of the world.”

Dr. Amenta appointed Javier I. Escobar, MD, professor and former chair, Department of Psychiatry, to serve as associate dean for global health. For more than two decades, Dr. Escobar has demonstrated his commitment to advances in international

health. From 2003 to 2004, he was senior adviser to the director of the National Institute of Mental Health (NIMH), where he helped to create an Office of Global Health. In addition, he served as liaison between the NIMH and the World Health Organization in Geneva. Dr. Escobar has stimulated international agreements with institutions in Europe and Latin America.

“The Office of Global Health will drive the strengthening of existing linkages and the establishment of new ones,” says Dr. Escobar. “With a view to training culturally competent clinicians, we support our students’ deep interest in international health. Firsthand engagement in a wide variety of global health programs will help broaden the education we

provide to our students and better prepare them to serve patients in the 21st century.”

The reach of the Office of Global Health will be extended through collaborations and partnerships with the UMDNJ-School of Public Health, UMDNJ-School of Health Related Professions, Robert Wood Johnson University Hospital, The Cancer Institute of New Jersey, and the University Center for Disaster Preparedness.

Faculty Couple Expands Health Care Initiative in Ghana

The non-profit International Health Care Volunteers (IHCV) was created in 2001 by a husband-wife team from the RWJMS faculty:

James Aikins, Jr., MD, associate

professor of obstetrics, gynecology, and reproductive sciences, division of gynecologic oncology, Camden campus, and **Charletta Ayers, MD**, associate professor of obstetrics, gynecology, and reproductive sciences and chief, division of general obstetrics and gynecology, New Brunswick campus.

Each year, the couple assembles a multi-disciplinary health care team consisting of RWJMS faculty, residents, nurses, and students. They travel to Dr. Aikins native Ghana to focus on two major goals: providing free health care to women in underserved areas and medical education for health care professionals.

In 2007, they traveled to Kumasi, Ghana's second-largest city. Specialties represented on the IHCV team included OB/GYN, general and oncologic surgery, pediatrics, and anesthesiology. The team members were accompanied by an emergency physician, who assisted the staff members of Central Regional Hospital, in Cape Coast, in developing emergency care protocols, while a gas-

troenterology team helped create a community education project in Kumasi that will address the risk factors of colon cancer. In two weeks, IHCV volunteers saw 900 patients (mostly



Dr. Aikins and Dr. Ayers (above) represent the many RWJMS faculty, staff, and students who contributed their expertise in 2007 to improving health care worldwide.

women and children) and performed 67 major surgeries and 30 endoscopies.

Dr. Aikins and Dr. Ayers represent the many RWJMS faculty, staff, and students who contributed their expertise in 2007 to improving health care worldwide.

Initiative Improves Health Care for South Asian Community

The South Asian Total Health Initiative at RWJMS is a multi-

faceted community outreach and research program that aims to address the health-related needs of the South Asian community. Members of the initiative work to improve the delivery of culturally competent care and address health care disparities in New Jersey's fast-growing South Asian community.

Through community-based programs, the initiative educates, engages, and empowers the South Asian community to promote preventive health care measures and increase medical knowledge. In addition, the initiative will develop research-based data resources and provide informed consultation and training services to health care providers, policy makers, and others.

Sunanda Gaur, MD, professor of pediatrics and a pediatric infectious disease specialist, and **Naveen Mehrotra, MD, MPH**, clinical assistant professor of pediatrics, established the initiative in collaboration with **Robert C. Like, MD, MS**, professor of family medicine and director, RWJMS Center for Healthy Families and Cultural Diversity, in the Department of Family Medicine.

Philanthropy

Robert Wood Johnson Medical School deeply appreciates the generous support it received in 2007. Advancement of the medical school's four missions depends on the generosity of those who believe in the school's drive to educate, discover, innovate, and to advance clinical care in a neighborhood that can span the globe.

That support comes from every corner of the medical school's extended community of supporters: government, industry, and non-profit organizations, as well as a dedicated cohort of alumni and friends. In this report, we spotlight two donors whose philanthropic motivation speaks for all whose gifts helped take RWJMS to a new level of excellence in 2007.

\$1 Million Gift to RWJMS Will Finance Research

A generous gift of \$1 million to the Foundation of UMDNJ from central



New Jersey residents Dr. Gary and Janis Grover will help finance research for scientists in physiology and biophysics. The Grovers established the Janis and Gary Grover Endowed Professorship in Physiology and Biophysics at RWJMS, because they are passionate about supporting scientists.

"On behalf of Robert Wood Johnson Medical School, I thank Dr. Gary and Janis Grover," says Peter S. Amenta, MD, PhD, interim dean. "Their generosity, combined with their dedication to scientific discovery, is extraordinary."

Janis Grover serves as director of marketing for an international food importer. Gary Grover, PhD, is the director of pharmacology of Eurofins, a biotechnology company. Dr. Grover has served on the RWJMS faculty for more than 20 years and holds the title of adjunct associate professor of physiology and biophysics. "We both believe that life is not complete until you give back," he says. "There was always someone helping us; now it's our time to help somebody else."

2007 Facts and Figures

Founded in 1962, UMDNJ-Robert Wood Johnson Medical School is an academic unit of the University of Medicine and Dentistry of New Jersey, the state's university of the health sciences.

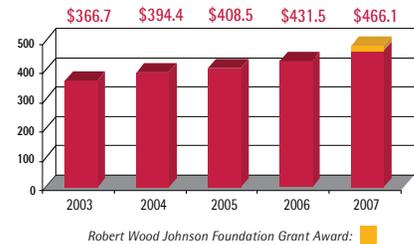
The medical school originally was formed as Rutgers Medical School through a grant from the Kellogg Foundation.

The medical school encompasses 22 basic science and clinical departments and six major institutes at its three campuses and integrates diverse clinical programs conducted at hospital affiliates and ambulatory care sites throughout the state.

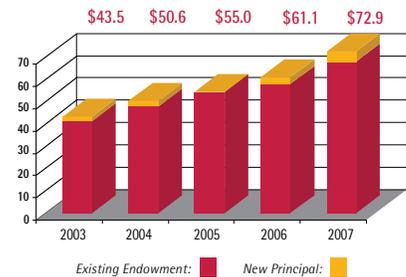
- The Class of 2011 had the highest MCAT scores in the history of RWJMS and the highest percentage of women, 58 percent. Six of the first-year students were also admitted to the MD/PhD program.
- The 156 members of the first-year class were selected from an applicant pool of 3,551, the largest ever. Twenty-five percent graduated from Ivy League schools, and 19 percent are graduates of Rutgers, The State University of New Jersey. They were born in 32 different countries; 63 are natives of New Jersey. They have done community service in 24 countries worldwide.
- The medical school has more than 2,700 full-time, part-time, and volunteer faculty members.
- RWJMS provides charitable clinical care to indigent patients at an estimated cost of \$38 million annually.
- Clinical income for RWJMS in FY 2007 exceeded \$151 million.
- RWJMS sponsors 42 graduate medical education programs, which are accredited by either the Accreditation Council for Graduate Medical Education (ACGME) or the American Board of Medical Specialties (ABMS). There are 429 residents in programs accredited by the ACGME or the ABMS. There are four additional fellowships for which ACGME or ABMS accreditation is not available.
- The Cancer Institute of New Jersey (CINJ) provides close to 80,000 patient visits each year. In addition, more than 15,000 cancer patients are diagnosed and treated annually at one of CINJ's network hospitals across New Jersey.
- The Robert Wood Johnson University Medical Group (RWJUMG), the medical school's multi-specialty group practice, is the largest in New Jersey, with 600 physician members and 210 clinical programs. RWJUMG physicians provide clinical care at numerous hospitals and ambulatory care sites throughout the state. More than one million patient visits and medical procedures are performed annually.
- RWJMS received nearly \$144 million in research grant awards in FY 2007. This funding includes \$20 million from the Robert Wood Johnson Foundation and \$55 million from the National Institutes of Health.

- In 2007, the Eric B. Chandler Health Center, a federally qualified health center owned by the medical school, had nearly 50,000 patient visits. It is the only family health center of its kind in New Jersey that is supported by a medical school. The center provides a variety of medical and social services at a single site regardless of patients' ability to pay.

Total Income in Millions:



Endowment Market Value in Millions:



Additional 2007 Statistics

MD Students	674
PhD Students	230
MD/PhD Students	31
Residents	429
Faculty	2,700
Alumni	4,373

Administration

Robert Wood Johnson Medical School Administration

Peter S. Amenta, MD, PhD
Dean (interim)

Stephen F. Lowry, MD
*Senior Associate Dean
for Education*

Kathleen W. Scotto, PhD
*Senior Associate Dean
for Research*

Eric G. Jahn, MD
*Senior Associate Dean for
Community Health
(acting)*

Anthony Scardella, MD
*Senior Associate Dean for
Clinical Affairs
Acting President
Robert Wood Johnson
University Medical Group
(acting)*

Gloria A. Bachmann, MD
*Associate Dean for
Women's Health*

Joseph R. Bertino, MD
*Associate Dean for
Oncology Programs
(interim)*

Javier I. Escobar, MD
*Associate Dean for
Global Health*

Terri Goss Kinzy, PhD
*Associate Dean
UMDNJ-Graduate School
of Biomedical Sciences at
Robert Wood Johnson
Medical School*

David S. Kountz, MD
*Associate Dean for
RWJMS at Jersey Shore
University Medical Center*

Judith Neubauer, PhD
*Associate Dean for
Research*

Susan Rosenthal, MD
*Associate Dean for
Student Affairs for the
Clinical Years*

David Seiden, PhD
*Associate Dean for
Student Affairs*

David E. Swee, MD
*Associate Dean for
Education*

Carol A. Terregino, MD
*Associate Dean for
Admissions
Associate Dean for the
Camden Campus
(interim)*

Marie C. Trontell, MD
*Associate Dean for
Graduate Medical
Education*

Cheryl Dickson, MD, MPH
*Assistant Dean for
Student and Multicultural
Affairs*

Evelyn Erenrich, PhD
*Assistant Dean for
Recruitment and
Retention
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of Biomedical Sciences at
Robert Wood Johnson
Medical School*

Archana Pradhan, MD
*Assistant Dean for
Education*

Robert Risimini, MD
*Assistant Dean for
Student Affairs
Camden Campus*

Norma S. Saks, EdD
*Assistant Dean for
Educational Programs*

William A. Zehring, PhD
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Curriculum*

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Robert Wood Johnson
Medical School*

Alice C. Lustig
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