# Jack Gladstein Steps Down as Associate Dean

Jack Gladstein, MD, stands between Terry Rogers, PhD, director, MD/PhD Program (left) and David Stewart, MD, acting chair and associate professor, Department of Family Medicine, at a reception on September 19 in the Gladhill Boardroom honoring Dr. Gladstein for his decade of service as associate dean for Student Affairs. Dr. Gladstein will continue as an associate professor in the Department of Pediatrics as well as serve in a new role as a hospitalist for the University of Maryland Medical Center.

{Mini-Med School}

# 5th Annual Mini-Med School Graduates 162

Students from elementary, middle and high school to participants well into their retirement years and from as far away as places like Rockville, MD, and Fredericksburg, VA, attended this year's Mini-Med School, a community outreach program open to the public and designed to educate people about preventive medicine, how to improve their health and advances in health care.

Held on five consecutive Wednesday evenings in September and October, this year's topics included: Heart Disease and How to Prevent It (Robert Vogel, MD), GERD (George Fantry, MD), Bariatric Surgery (Mark Kligman, MD), The Obesity Epidemic and the American Diet (Nanette Steinle, MD), Sleep Disorders (Steve Scharf, MD, PhD), Complications in Pregnancy (Hugh Mighty, MD), Participating in Clinical Research (Claudia Baquet, MD), Oral Cancer (Harold Goodman, DDS, MPH), and Attention Deficit Hyperactivity Disorder in Children (Maureen Black, PhD).

High school students from Baltimore Freedom Academy pose for a group shot.

The Parent and Allen families at Mini-Med School.

Dr. Vogel answers a question about heart disease.

# *Medical Student Research Day Winners*

The 28th Medical Student Research Day (MSRD) took place in September complete with poster and oral presentations and featuring Angela M. H. Brodie, PhD, professor of pharmacology & experimental therapeutics, as the keynote speaker. Prizes were awarded for first through fourth place in both poster and oral presentations as judged by participating faculty and students in Alpha Omega Alpha (AOA). The following prizes were awarded:

**Posters**

| | | |
|---|---|---|
| 1st Prize | Zhi Huang, MS I | $400 |
| 2nd Prize | Melissa Liriano, MS I | $250 |
| 3rd Prize | Kelly Sittler, MS I | $125 |
| 4th Prize | Heather Aamodt, MS I | $75 |

**Orals**

| | | |
|---|---|---|
| 1st Prize | Michael Collins, MS II | $400 |
| 2nd Prize | Timothy Phelan, MS II | $250 |
| 3rd Prize | Shayna Rich, MS II | $125 |
| 4th Prize | Erinn Cooke, MS I | $75 |

MSRD is sponsored by AOA and the Office of Student Research.

## Mark Your Calendars!

## White Coat Ceremony

*The annual White Coat Ceremony will take place on Thursday, November 17, at 1:00 PM in the MSTF Auditorium. All are welcome—please attend and support our students! For more information, contact the Office of Student Affairs at 6.7476.*

SOMnews is produced by the University of Maryland School of Medicine, Office of Public Affairs ▸ Donald E. Wilson, MD, MACP, Vice President for Medical Affairs, University of Maryland, and Dean, School of Medicine ▸ Jennifer Litchman, Executive Editor ▸ Heather Graham, Becky Deraul and Lucy Rogers, Contributors ▸ Brushwood Graphics Design Group, Design ▸ Submitting information to SOM news: Please email your submission to Jennifer Litchman, assistant dean for Public Affairs, at jlitchman@som.umaryland.edu.

SOMnews

University of Maryland School of Medicine November 2005 Vol.7 No.3

University of Maryland School of Medicine

# SOMnews

November 2005 Vol.7 No.3

# The Importance of asking

*. . . the most important reason people cite for making a philanthropic gift is the most obvious—because they were asked.*

As we move toward the School of Medicine's bicentennial celebration, philanthropy continues to be one of the most important strategic priorities for the School of Medicine. Private support has increased significantly over the last three years, reaching a record-setting $36,861,932 during FY05. During that period, the development staff has been expanded with a sharpened focus in areas such as major gifts, corporate and foundation relations, stewardship, and constituent relations.

Faculty and staff are encouraged to utilize the development staff's expertise to further increase private support for the medical school and our departments.

Whether a donor is an alumnus, grateful patient, corporation, foundation or friend, the most important reason people cite for making a philanthropic gift is the most obvious—because they were asked. Donors make gifts for a variety of reasons, for example, a desire to give back, an expression of genuine charitable nature, and sometimes, even the need for a tax break. Too often, more attention than necessary is focused on analyzing the "how and why" a person might give rather than describing "what" can be accomplished with a sufficient amount of funding.

Our faculty are among the nation's leading experts in a variety of fields and our staff facilitates excellent medical education, research and care. Being passionate about describing what we are currently able to do and what we can potentially accomplish in the future is something all faculty and staff can do. Being bold about asking people to help us achieve those possibilities is what will enable the University of Maryland School of Medicine to achieve an even higher level of eminence.

The Office of Development and many of our faculty and staff are willing to make the ask for philanthropic support. As new and expanded sources of funding are sought to augment research funding, state support and other revenue sources, philanthropic support becomes essential. Your willingness to be passionate about our mission and ask prospective donors to help the SOM reach its potential becomes even more important.

If you are interested in partnering with the development office to cultivate donors or if you would like to learn more about how to ask for a gift, please contact the Office of Development at 6.8503.

# "What Do We Do?"

Office of Information Services

Most of the faculty and staff at the School of Medicine know the folks in the Office of Information Services by sight or by name and in most cases, by voice. That's because Information Services (IS) handles phone calls to the computer Help Desk, makes "house calls" to offices and works behind the scenes to maintain proper technical support for computer systems throughout the School of Medicine.

This hardworking group of 24, headed by James McNamee, PhD, Chief Information Officer and Associate Dean for Information Services, works to provide a reliable, fast and secure computer system to meet the needs of all computer users within the School of Medicine. When Dr. McNamee began working at the School of Medicine in the spring of 2001, he made improving the quality of the School's data network as well as Help Desk services a major priority. Not only has IS accomplished this goal during the past four years, but it also now provides desktop support, manages file servers and several other key applications such as BRAAN, the Biomedical Research and Assurance Network.

The office is comprised of three different teams: hardware, software and security. The hardware team of 12 people handles networking, manages the SOM server and staffs the Help Desk. "They respond to calls from people having technical problems and go to locations throughout campus to fix computer issues," says Dr. McNamee.

The 10 members of the software team programmed the new SOM website, which was launched in August, and manage major databases throughout campus. The two-person security team works to prevent and fight viruses as well as help diagnose potential breaches by scanning vulnerable computers. "One of our most recent accomplishments is our greatly increased network security," explains Dr. McNamee. "As a result, we have 80 percent fewer computers contracting viruses from outside, making it much easier for the SOM network to function properly."

Recent changes in the computer industry have greatly impacted IS. "In terms of speed, new and improved technology makes computing simpler so people expect instant results, and we strive to meet these expectations," says Dr. McNamee. "Vulnerabilities and threats have grown enormously because of technological advances. This means that people's work is essentially more vulnerable. We work extremely hard to protect against these new threats."

While the IS department certainly has its hands full tending to the computer needs of the School of Medicine, Dr. McNamee and his team are constantly keeping up with technological changes and planning for the future. "We feel that grant application, submission and administration should benefit from technology just as research does," he says. "We hope to begin taking on some big projects in these key areas in the near future."

Office of Information Services Staff *(L-R) Bottom step:* Bryan Kail, James McNamee, Nicole Germroth, Sharon Bowser; *Second step:* Sony Yu, Catherine Beverage, Valerie Agwale, Marietta Moten; *Third step:* Brandon Finlay, Charles Richardson, Albert Hybl, Amy Scharmann, Michael Khazan; *Fourth step:* Clyde Bethea, Matthew Larrimore, Peter Lesko, Jennifer Ward; *Top step:* William Gorman, Karen Clark, Jimmy Reid.

## University of Maryland School of Medicine Public Health Institute

**"Fostering Trust in Clinical and Community-Based Research: A Key Strategy for Improving Public Health and Addressing Health Disparities"**

**Tuesday, November 15, 2005**

***8:30 am–4:00 pm • Westminster Hall 519 W. Fayette St. • Baltimore, MD 21201***

The University of Maryland School of Medicine will host its first Public Health Institute, which is intended to highlight the importance of partnerships with local policy makers, community members, health care providers, and businesses in facilitating the translation of research into useful practice.

**Confirmed** featured speakers include:

- **David Satcher, MD, PhD**, Interim President, Morehouse School of Medicine and 16th Surgeon General of the United States
- **Yvonne Maddox, PhD**, Deputy Director, National Institute of Child Health and Human Development
- **Mark Clanton MD, MPH**, Deputy Director, Cancer Care Delivery Systems, National Cancer Institute
- **Lisa Egbuonu–Davis, MD, MPH, MBA**, Vice-President, Global Outcomes Research, Pfizer
- **Robert L. Comis, MD**, President and Chairman, Coalition of Cancer Cooperative Groups
- **Michelle Gourdine, MD**, Deputy Secretary for Public Health Services, Maryland Department of Health and Mental Hygiene

***Reservations Required***

For more information, please contact Donna Johnson at 6.5226.

## Basic Science

### Quick Studies

► **Abdu Azad, PhD, MPH, PharmD**, professor, Department of Microbiology & Immunology, received a five-year $2,160,231 competitive renewal grant from the National Institutes of Health National Institutes of Allergy and Infectious Diseases entitled "Generation of Genetically Attenuated Rickettsiae." ► **Nicholas H. Carbonetti, PhD**, associate professor, Department of Microbiology & Immunology, was awarded a one-year $67,678 non-competitive renewal grant from the National Institutes of Health National Institute of Allergy and Infectious Diseases (NIH/NIAID) for his work entitled "Effect of Pertussis Toxin on Cough in Guinea Pig." The NIH/NIAID also awarded Dr. Carbonetti a one-year $297,000 non-competitive renewal grant for his work entitled "Pertussis Toxin Trafficking and Processing in Cells." ► **Michael Criscitiello, PhD**, postdoctoral research fellow, Department of Microbiology & Immunology, received a one-year $48,296 non-competitive renewal grant from the National Institutes of Health National Institute of Allergy and Infectious Diseases entitled "Origins of T Helper Cell Function in Adaptive Immunity." ► **Ferenc Livak, MD**, assistant professor, Department of Microbiology & Immunology, received a one-year $74,250 non-competitive renewal grant from the National Institutes of Health National Institute of Allergy and Infectious Diseases entitled "Transcriptional Control of AICDA Expression." ► **Jessica A. Mong, PhD**, assistant professor, Department of Pharmacology & Experimental Therapeutics, was awarded a five-year $1.5 million grant from the National Institutes of Health National Heart, Lung and Blood Institute for her grant entitled "Cellular Mechanisms for the Hormonal Modulation of Sleep." ► **Vincent C.O. Njar, PhD**, associate professor, Department of Pharmacology & Experimental Therapeutics, was awarded a two-year $351,000 grant from the National Institutes of Health entitled "Retinoids, RAMBAs and Histone Deacetylase Inhibitors for Prostate Cancer." ► **Yun Qiu, PhD**, assistant professor, Department of Pharmacology & Experimental Therapeutics, was awarded a five-year $1.3 million grant from the National Cancer Institute entitled "Molecular Mechanisms of Hormone-Independence of Prostate Cancer." Additionally, Dr. Qiu received a three-year $557,000 grant from the U.S. Army entitled "Functional Characterization of the 44 kd Isoform of Pim-1 Kinase in Prostate Cancer Cells."

Niel Constantine, PhD

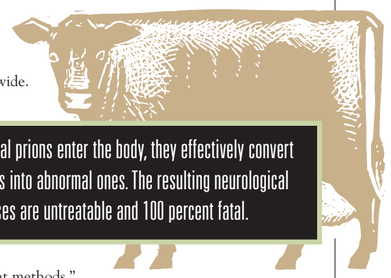
# Test Shows Promise for Screening Blood to Detect Incurable Diseases

**Scientists at the School of Medicine** have developed a highly sensitive test to detect abnormal prions that cause several incurable diseases, such as Bovine Spongiform Encephalopathy (BSE), known as Mad Cow disease, and Creutzfeld-Jacob disease (CJD), a fatal neurological disorder in humans. The test is more sensitive than all current tests, giving it the potential to be used to examine the blood of cattle prior to slaughter and test the nation's blood supply to ensure that it is free from CJD. Results of this study, using a novel new Immuno-PCR technique, were published in the July, 2005 edition of the *Journal of Virological Methods*.

"For the past four years and in collaboration with scientists from SeraCare, Inc., we've been dedicated to developing a blood screening test for both humans and animals to be able to detect prion disease before any symptoms appear," says Niel Constantine, PhD, professor of pathology and director of the Clinical Immunology Laboratory at the University of Maryland Medical Center.

"We hope that in the near future this test will be used to screen populations of animals and humans to ensure that they are not incubating a prion disease and potentially passing it on to others. Presently, the only way to definitively diagnose these diseases in living humans is with a brain biopsy," says Dr. Constantine, whose work to develop the test was funded in part by the U.S. Department of Defense.

Prions are proteins found in the central nervous system of humans and animals. When abnormal prions enter the body, they effectively convert normal prions into abnormal ones. The resulting neurological diseases are untreatable and 100 percent fatal. Prion diseases occur in many animals, including scrapie in sheep, chronic wasting disease in deer and elk and BSE in cows and even in cats. CJD occurs spontaneously in one in about one million people and can be passed genetically. A variant form of CJD caused by ingestion of prions from infected beef has caused over 150 fatal cases in humans worldwide.



> When abnormal prions enter the body, they effectively convert normal prions into abnormal ones. The resulting neurological diseases are untreatable and 100 percent fatal.

According to Dr. Constantine, currently available tests that can detect prions in the brain where levels are most concentrated cannot detect abnormal prions in the blood. "Those tests just aren't sensitive enough," he says. "We have devised a technique that can detect ultra-low levels of prion protein and believe it has the sensitivity to detect abnormal prions in blood. Our Immuno-PCR test uses a combination of two highly sensitive techniques to detect protein levels several thousand fold to a million fold lower than the current methods."

So far, Dr. Constantine and his team have assessed the Immuno-PCR test only in a laboratory setting. Future plans call for testing of blood from small animal models known to be infected with prion disease. After that, they plan to evaluate the test among cattle in Europe and in humans.

The availability of such a blood test could have enormous impact on the cattle industry and the blood donor system. "If the test is effective in being able to detect Mad Cow disease and CJD during the incubation period in advance of symptoms, we will have a much better chance of protecting persons from infected beef and increasing the safety of the blood supply," says Dr. Constantine.

"Consider that in the United States alone we screen 15 million units of blood a year and there are 100 million head of cattle. Ensuring that beef and blood are safe will save lives and will decrease the concern of the public over this class of fatal diseases," Dr. Constantine adds.

In September, Dr. Constantine was selected as the Innovator of the Year by *The Daily Record* newspaper for his work on developing the prion test. Other nominees from the School of Medicine were Alessio Fasano, MD, professor of pediatrics, medicine and physiology and director of the Mucosal Biology Research Center, and Robert Poston, MD, assistant professor of surgery.

# School of Medicine Receives Largest Contract Ever to Study Nuclear Radiation Countermeasures

Thomas MacVittie, PhD

The University of Maryland School of Medicine received a $46 million federal contract to oversee testing of medications that could be used to treat people exposed to potentially lethal doses of radiation in the event of a nuclear terrorist attack.

Thomas MacVittie, PhD, professor of radiation oncology and pathology, received the five-year contract from the National Institute of Allergy and Infectious Diseases (NIAID), which is spearheading the U.S effort to develop medical countermeasures to radiological threats in the wake of the Sept. 11, 2001, terrorist attacks on the World Trade Center and the Pentagon.

The agency selected the School of Medicine to lead a consortium comprised of two other universities, two research institutes, three data management firms, two drug development companies and four clinical centers, including the School of Medicine's General Clinical Research Center. The contract is the largest in the School of Medicine's history.

Dr. MacVittie says the NIAID wants to identify drugs that would be effective in the event of a nuclear disaster, such as terrorists setting off a "suitcase" nuclear bomb in a major American city. The medications must be thoroughly tested and approved by the U.S. Food and Drug Administration before the federal government can purchase and stockpile them for use after a nuclear attack.

"Currently, we have no medications specifically approved by the FDA to treat radiation sickness. We can offer patients only supportive care, such as fluids and antibiotics, but we hope to identify drugs that will counteract the damaging effects of radiation on the hematopoietic and immune systems and gastrointestinal tract," Dr. MacVittie says.

High-dose radiation destroys the bone marrow, increasing the risk of infection and uncontrolled bleeding. Radiation also kills cells that line the GI tract, causing severe fluid imbalance, and may also damage the lungs and kidneys.

Dr. MacVittie notes that several drugs given to cancer patients to boost their white blood cell counts after chemotherapy treatments appear promising for combating radiation sickness, and will likely be among the first compounds to be tested. He expects evaluations to begin in about six months and the clinical spin-off from the research program to be significant. He adds, "We may well identify a new generation of products capable of restoring the bone marrow and the immune system after chemotherapy-induced myelosuppression. This would allow cancer patients to recover more quickly from the debilitating effects of successive bouts of tumor-killing chemotherapy."

Dr. MacVittie's laboratory will work with labs at the University of Illinois in Chicago and the University of Indiana in Indianapolis. Other members of the consortium include the Armed Forces Radiobiology Research Institute in Bethesda; the Lovelace Respiratory Research Institute in Albuquerque; the Uniformed Services University of Health Sciences; the University of Illinois, Chicago Clinical Center; the Eli Lilly Center; Ricera Biosciences, LLC and Cangene Corporation.



# 50th Anniversary

## *Dinner Kicks Off Festivities for Department of Physical Therapy & Rehabilitation Science's 50th Anniversary*

Chair Mary M. Rodgers, PhD, PT, Dean Wilson, MD, MACP, and UMB President David J. Ramsay, DM, DPhil.

On September 15, over 100 people attended the kick off event to celebrate the founding of the University of Maryland School of Medicine's Department of Physical Therapy & Rehabilitation Science (PTRS) in 1956.

The Harbor Court Hotel provided an elegant venue for guests to reminisce with former classmates, mentors and colleagues. During the cocktail reception, archived photos, literature and artifacts were on hand as part of the department's traveling "time capsule" display.

The evening's program featured the department's achievements over the past 50 years, highlighting those who helped move the department forward. Honored guests included founder Florence P. Kendall, PT, FAPTA, and past department chairs Ruth M. Latimer, PT, MS, and Clarence W. Hardiman, PT, PhD.

In addition to honoring the past, the department's current progress was recognized as well. George Hepburn, PT, '74, president of Dynasplint Systems Inc., was acknowledged for his generous $1 million gift to the School of Medicine—the first endowed professorship in physical therapy at the School of Medicine—and subsequently, Dean Wilson announced the appointment of Mary M. Rodgers, PhD, PT, as the George R. Hepburn Dynasplint Professor and Chair.

The evening concluded with well wishes for future growth and success as the candles on the PTRS birthday cake were extinguished.

Visit pt.umaryland.edu or contact Alyssa Menkes at 6.2299 for information regarding other PTRS 50th anniversary events.

George Hepburn, PT, '74, president of Dynasplint Systems Inc., and Dean Wilson.

Past and current chairs blow out the birthday candles. *L-R:* Ruth M. Latimer, PT, MS, Mary M. Rodgers, PhD, PT, and Clarence W. Hardiman, PT, PhD.

# Annual Games for Health Conference Held at the School of Medicine

With the video game industry booming and new technologies being developed every day, a unique two-day conference called Games for Health was held at the School of Medicine in September. It brought together healthcare professionals, game developers, academic researchers, and consultants to explore how video games and game developers are driving new strategies in healthcare.

The same technology that powers games for entertainment is increasingly finding applications for military and training simulations, medical and academic use. "Game developers have the skills to create programs that will help patients learn about diseases and disease management," says Bruce Jarrell, MD, vice dean for academic administration. "There's real promise in the video game industry to bring needed healthcare information to patients in a familiar yet unique format," he adds. Dr. Jarrell delivered opening remarks to welcome the more than 200 attendees.

"At last year's conference, we showed the world that there is exciting work being done to apply the motivational, educational and graphical power of video games to improving public health," says Ben Sawyer, co-director of the Games for Health Project. "Some of the next-generation projects will be innovative in terms of their potential to help people live healthy lives and assist professionals in the practice of healthcare."

According to Sawyer, the video game industry is moving beyond entertainment to address a wide range of public and private policy, leadership and management issues. As a result, the self-titled "serious games" field is exploding. Within this overall genre of games lies a specific set of projects focusing on health and healthcare.

The Games for Health Project, sponsored by the Robert Wood Johnson Foundation, is designed to foster the development of health-focused, video game-related projects. By developing and promoting best practices, bringing together novel communities of interest, and supporting innovation in healthcare training, health messaging, and disease management, the project is nurturing this dynamic field.

This year's Games for Health conference featured case studies, a demonstration expo, research, lectures, panels, and discussions covering a wide range of topics and projects.


## Clinical

### Quick Studies

► **Horea G. Rus, MD, PhD**, assistant professor, Department of Neurology, was an invited speaker at the 10th European Meeting on Complement in Human Disease in Heidelberg, Germany in September. ► **S. Michael Plaut, PhD**, assistant dean for Student Affairs and associate professor, Department of Psychiatry, was honored with a service award by the Society for Sex Therapy and Research (SSTAR) for making significant and long-lasting contributions to the organization. This award is the first of its kind and will be presented to Dr. Plaut at the 31st Annual SSTAR meeting in March 2006. ► **Patricia L. Turner, MD**, assistant professor, Department of Surgery, and **Adora C. Okogbule-Wonodi, MBBS**, assistant professor, Department of Pediatrics, were granted Henry C. Welcome Fellowships from the Maryland Higher Education Commission. Each fellowship is a three-year $20,000 grant for research and educational expenses in preparation for the opportunity to pursue a tenured professorship. ► **Gary M. Fiskum, PhD**, professor, Department of Anesthesiology, was awarded a four-year $1.6 million RO1 grant from the National Institutes of Health entitled "Molecular Mechanisms of Ischemia/Reperfusion Brain Injury." ► **David J. Kouba, MD, PhD**, assistant professor, Department of Dermatology, was awarded a two-year $50,000 Passano Physician Scientist Award by the Passano Foundation, which was established in 1943 to encourage medical science and research, particularly those endeavors with clinical application. An annual award is given to a young scientist to promote continuing research. Dr. Kouba's research interest is basal cell carcinoma (BCC), a form of non-melanoma skin cancer and a cause of significant morbidity due to locally invasive growth. BCC tumors are particularly sensitive to changes in local and host immunity. Dr. Kouba will continue to test his hypothesis that these tumors have the natural ability to suppress the local immune response, allowing them to grow and invade, through analysis of cytokine levels on BCC surgically excised from patients. Bringing clinical observations to the bench and subsequent research results back to clinical practice, Dr. Kouba combines novel immunomodulatory techniques as adjuncts to standard surgical treatments for several of the more common forms of skin cancer to most effectively optimize patient outcomes. ► **Tibor Kristian, PhD**, assistant professor, Department of Anesthesiology, was awarded a two-year $340,000 R21 grant from the National Institutes of Health entitled "Separation of Brain Glial and Neuronal Mitochondria." ► **William Weiner, MD**, professor and chair, Department of Neurology, co-published an article entitled "Practice Parameter: Therapies for Essential Tremor" in *Neurology 64*, June 2005 edition.

## Laser Vision Correction Surgery

The University Laser Vision Center offers all University employees, as well as their family members, a reduced rate on laser vision correction surgery for nearsightedness and farsightedness. Since 1996 Drs. Allan Rutzen and Ramzi Hemady, full-time faculty members in the Department of Ophthalmology & Visual Sciences, have provided laser vision correction at the University Laser Vision Center. Laser vision correction can be used to correct nearsightedness, farsightedness and astigmatism.

This delicate surgery must be performed carefully by an experienced ophthalmologist, and not everyone is a good candidate for surgery. To determine if you are a candidate, call 8.7069 for a no-cost screening or to attend an educational seminar.