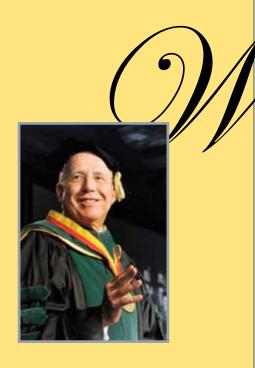
June 2012 Vol.13 No.10

DEAN'S MESSAGE: What's On My Mind



Dr. Darrell Kirch urged the **GRADUATES TO HELP ADDRESS DISPARITIES AND INJUSTICE** IN THE NATION'S HEALTHCARE SYSTEM. HE ALSO VOICED SUPPORT FOR THE "MEDICAL HOME" CONCEPT OF CARE IN WHICH HIGH FUNCTIONING TEAMS ACROSS THE HEALTH PROFESSIONS ARE FOCUSED ON THE PATIENT, NOT ON THE CONVENIENCE OF THE CLINIC OR HOSPITAL.

hat's on my mind this month is the School of Medicine's Class of 2012 and their extraordinary achievements, which we celebrated

last month in a wonderful convocation ceremony at the Baltimore Hilton. One-hundred fifty-two students took the solemn Oath of Hippocrates, signifying their commitment to the ancient tradition of healing, and pledging to serve humanity. This oath has stood the test of time, and represents the gold standard of moral and ethical behavior to which all physicians are bound. Our graduating medical students join the ranks of some 17,000 alumni, who have profoundly transformed medicine and science and who have brought honor to the profession and to this institution.

Convocation is a time of celebration and reflection. As I look back over these last few years, I am struck the ability of our medical and graduate students to balance an intense desire to achieve personal and professional goals and a strong determination to make a difference in the lives of others. Our medical, graduate and allied health students have been taught and mentored by exceptional faculty members. They

have been exposed to rigorous curricula, preparing them to become outstanding physicians, scientists, physical therapists and medical technologists.

This year's medical school keynote speaker was Dr. Darrell Kirch, president and chief executive officer of the Association of American Medical Colleges (AAMC). A distinguished physician, educator, and medical

DEAN E. ALBERT REECE has appointed

Richard N. "Robin" Pierson III, MD, as the new

roles, Dr. Pierson, a professor in the Department

interim director of research affairs. In his new

scientist, Dr. Kirch is an expert on the nation's health care system, and how academic medicine can transform that system for the better. Pointing out that 50 million American's don't have health insurance, Dr. Kirch urged the graduates to help address disparities and injustice in the nation's healthcare system. He also voiced support for the "medical home" concept of care in which high functioning teams across the health professions are focused on the patient, not on the convenience of the clinic or hospital. I am proud to say that the University of Maryland is pioneering the medical home model of care through a strong collaboration with Johns Hopkins University and the state health department.

Since 1807, the University of Maryland School of Medicine has produced some of the most outstanding physicians, scientists and educators of our time. In fact, 22 School of Medicine graduates have served as deans of medical schools. Among the many respected graduates, there are several prominent examples:

- In 1948, Dr. Theodore Woodward '38, was part of a team that discovered the initial therapeutic cure for scrub typhus fever and was a Nobel Prize nominee.
- In 1968, Dr. R Adams Cowley '44, directed the opening of the world's first Shock Trauma Center, which serves as the world's leading trauma center.
- In 1985, Dr. Morton Mower, '59, was co-inventor of the implantable automatic defibrillator, a life saving device used today by many.
- In 2006, Dr. Melvin Sharoky '76, and a member of our Board of Visitors, received FDA approval for the first transdermal patch for the treatment of major depressive disorder.

As we appreciate the accomplishments of the past, we must look to future. The healthcare landscape is changing

> rapidly and in ways that could not have been imagined even a decade ago. Our graduates will have the opportunity to participate in the transformation of healthcare, to shape its delivery, and to harness its potential to relieve suffering and illness. It is a daunting challenge, but the members of the Class of 2012 have shown that they have the dedication and determination to truly make a dif-

> > ► BY KAREN ROBINSON

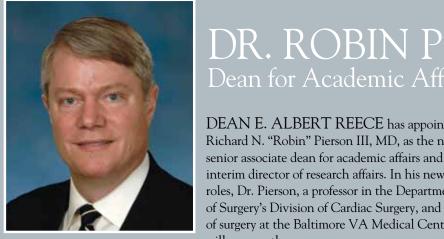
ference. I offer my heartfelt congratulations to the Class of 2012, and to our entire academic community, which made their achievements possible.

In the relentless pursuit of excellence, I am Sincerely yours,

E. allest lace

E. Albert Reece, MD, PhD, MBA

Vice President for Medical Affairs, University of Maryland John Z. and Akiko K. Bowers Distinguished Professor and Dean, University of Maryland School of Medicine



DR. ROBIN PIERSON Named Senior Associate Dean for Academic Affairs, Interim Director of Research Affairs

plantation of organs and tissues across species to

address the limitations of donor availability.

of Surgery's Division of Cardiac Surgery, and chief of surgery at the Baltimore VA Medical Center, will oversee the academic and research enterprise of the School of Medicine. Dr. Pierson directs a major research program which While continuing to direct his own National Institutes of focuses, in part, on xenotransplantation, the trans-

Health-funded research laboratory and performing heart and lung transplants, he will vacate his position at the VA. Dr. Pierson will work to ensure collaboration through-

out the medical education enterprise and oversee the development of new initiatives to advance into the future. He will oversee the School of Medicine's nearly half billion dollar research enterprise and become actively engaged in construction planning for the new Health Sciences Facility III research building. He will work collaboratively with the campus to ensure protection for research subjects, and to support School of Medicine and university interdisciplinary research.

"This is an incredible opportunity for me to help this organization grow and prosper and to identify new areas in which we can evolve," said Dr. Pierson. "I have spent my

career deeply involved in research and education. I look forward to working closely with our administrative and research leadership teams to sustain the recent academic accomplishments of our outstanding institution, and to determine new goals and initiatives to help us excel." He added, "I'm passionate about transforming fundamental research findings into new clinical treatments that can help patients. This institution has been a national leader in that area, as evidenced by our recent full-face transplant case. I hope to be able to strengthen our burgeoning basic science foundation, and improve the

> pathways to clinical translation, making it easier for investigators to successfully bring their innovative ideas to the bedside, and safer yet easier for patients to gain access to emerging treatments and technologies."

Dr. Pierson replaces Bruce Jarrell, MD, FACS, the former executive vice dean of the School of Medicine since 2006 who has been appointed chief academic

and research officer and senior vice president of the University of Maryland's founding campus in Baltimore.

Dr. Pierson directs a major research program which focuses, in part, on xenotransplantation, the transplantation of organs and tissues across species to address the limitations of donor availability. He is funded by the NIH with nearly \$3 million and has been continually funded for many years. "Should we perfect these techniques, xenotransplantation could allow us to more fully implement transplantation as a treatment for conditions

[please turn to back page]

DR. JORDAN WARNICK Retires after 38 Years

After 38 years of dedicated service to the University of Maryland School of Medicine and its students, Jordan E. Warnick, PhD, professor of Pharmacology & Experimental Therapeutics, and associate dean for Student Research, retired on May 31, 2012.

Dr. Warnick has led the Office of Student Research since its inception in the '80s with great distinction, creating a model program through which high school, undergraduate and graduate students, as well as medical and other health profession students, can avail themselves of research experiences and improve their respective scientific backgrounds. Dr. Warnick has nurtured the research careers of thousands of young scientists and physicians, not just at the University of Maryland in Baltimore, but throughout the University System of Maryland and elsewhere, providing them with practical training and mentorship and a better understanding of the ethical and responsible conduct of research.

Dr. Warnick reflected, "When I first took on the Office of Student Research role in the early '80s, the first Medical Student Research Day I oversaw was the eighth one in the history of the University of Maryland School of Medicine. I've been here so long, the same event this fall will be its 36th! It has matured into an educational and time-honored event with more than 50 participants. Also, I am particularly proud of our 30-plus years of success in providing research traineeships to medical and undergraduate students and the successes they have had in publishing and obtaining further research support from various professional societies. Enabling students to pursue their research interests and seeing the fruit of their labor is immensely gratifying."

In the past several years, more than 75 percent of the freshman class has sought individual assistance in the Office of Student Research in pursuit of research placement and funding with faculty in the School of Medicine and at other national and international institutions. They have been in capable hands. Dr. Warnick has been a highly successful scientist and research training director, receiving more than \$8 million in research grants, training grants and contracts. For the past two years, more than 80 medical students participated in summer research projects, clinical fellowships or research fellowships, and these students successfully competed for total grant awards in excess of \$500,000 from the NIH, AOA, Doris Duke Charitable Foundation and Howard Hughes Medical Institute. Among these are some additional, singular and prestigious awards earned by only a handful of medical students nationwide. The assistance provided to University of Maryland medical students is unique among U.S. medical schools and perhaps anywhere, in providing the necessary development, mentoring and nurturing of interests as well as the successful matching and placement of our students with faculty and funding

Dr. Warnick is also responsible for developing the dual MD/Masters programs including those in Bioengineering, Business Administration, Clinical

Research, Epidemiology, Health Services Administration, Public Health and Public Policy. As a result of his work, there are now plans to add the track for the MD/MS in Bioethics and MD/MS in Translational Medicine in cooperation with the Graduate Program in Life Sciences. These offerings, along with two senior research electives, have provided an increasing number of students with an opportunity to learn

about the conduct of research and gain early specialization while in school. He has also maintained extensive teaching and mentoring responsibilities for nearly three decades, including that of course director for Medical Pharmacology (1982 to 1993), for Pathophysiology & Therapeutics I and II in the sophomore year (1993 to 2011) and as the unit leader for various parts of these courses, also in the sophomore year. He also was co-course director for the new Foundations of Disease course as well as lecturing and leading small groups in these courses. He is the recipient of numerous awards and honors, including his induction as an inaugural member of the University of Maryland School of Medicine's Pass and Susel Academy of Educational Excellence (2008). He has also served as the training director for the NHLBI, NIEHS and Fogarty Minority International Training grants and is currently the director of the

NIA Health Professions—Student Training in Aging Research program at the

Dr. Warnick has nurtured the research

AND PHYSICIANS...PROVIDING THEM WITH

RESPONSIBLE CONDUCT OF RESEARCH.

CAREERS OF THOUSANDS OF YOUNG SCIENTISTS

PRACTICAL TRAINING AND MENTORSHIP AND A

BETTER UNDERSTANDING OF THE ETHICAL AND

School of Medicine and campus Principal Investigator for the University of

Maryland's NSF Alliance for Graduate Education and The Professoriate.

"As a course director, the richness I derived from interacting with faculty from our 25 departments, and enlisting more than 150 of them to teach in Year II is priceless. Here

at the School of Medicine, I have met a large number of remarkable individuals—my thanks are out to them all and to the large numbers who volunteered as research mentors," said Dr. Warnick.

Appropriately enough, Dr. Warnick was the honorary mace bearer at this May's convocation ceremony. He filled that role as proudly as he's filled the myriad of other roles at the School of Medicine.

Dr. Warnick leaves us with these parting words, "This medical school has been my home for more than half my life. In working here, my passion has been our students. It's those truly rewarding interactions with our medical students that I will always fondly remember, and while I may not be here physically in the future, both my heart and mind will be."



Dr. Tom Abrams is Recipient of Maryland Regents Award for Teaching



With the creation of GPILS, Dr. Abrams was asked to chair a Curriculum Committee representing biomedical graduate programs from across campus.

TOM ABRAMS, PHD, associate professor, Departments of Pharmacology & Experimental Therapeutics and Anesthesiology, received a 2012 University System of Maryland Regents' Faculty Award for Teaching. This award is the highest honor the Board of Regents bestows in recognition of outstanding faculty achievement. Dr. Abrams was recognized primarily for his involvement in establishing the Core Course in the Graduate Program in Life Sciences (GPILS) as well as a "pro-seminar" that teaches hypothesis testing and experimental design.

Dr. Abrams' involvement in the training of graduate student researchers in hypothesis testing began more than a decade ago. Based on comments from neuroscience graduate students, Dr. Abrams realized there was a deficiency in the training of these students. The traditional method of training future researchers involved an apprenticeship-type experience in which students formed a close working relationship in the lab with mentors. "But in the modern era, where faculty researchers spend much less time in the lab

and more time on administrative and grant-writing responsibilities, they typically don't work as closely with individual students," Dr. Abrams said. Dr. Abrams and several other GPILS Program in Neuroscience faculty created the pro-seminar in Hypothesis Testing and Experimental Design to remedy this deficit.

"We developed a series of exercises that engage students in this type of thinking," said Dr. Abrams. "We kept improving these exercises based on feedback from students and faculty. One of the most innovative aspects of the pro-seminar is several presentations where faculty present flawed experimental designs from their own research, which the investigator, after critical reassessment, now realizes have serious shortcomings. The objective is to convince the student participants of the importance of critically examining

experimental designs before the studies are conducted." In the latter part of the course, the students develop their own sets of experimental designs and then work together in small groups to critique and revise their designs before presenting to the entire class.

With the creation of GPILS, Dr. Abrams was asked to chair a Curriculum Committee representing biomedical graduate programs from across campus. The Curriculum Committee created a Core Course that would provide graduate students with the strong fundamental background needed for more advanced studies. This Core Course had a number of novel features.

First, there was an appreciation by faculty that it was no longer realistic to expect graduate students to master the entire core body of knowledge in their field when there is much, much more for them to learn. "The amount of information published every year has grown dramatically, so if you track articles on any given [research] topic, the number of articles that come out in a year has increased sometimes as much as a 1,000-fold," explained Dr. Abrams. "We began to think about how students should approach understanding all this information and how to develop their ability to design experiments using new techniques that are constantly evolving." In this respect, Dr. Abrams and his colleagues were influenced by his experience with the pro-seminar: they had a growing appreciation that what was key for students was not learning facts, but learning how to use contemporary techniques in developing experimental approaches to address important biomedical questions.

"It's a very challenging course to present and a challenging course for the students," Dr. Abrams stated. "It immerses them in a very intensive way in the fundamentals of modern biomedical research. They have the opportunity to begin to understand how to read papers, how experimental techniques are developed and how those techniques impact the way investigations are conducted. Ideally, the students come away transformed during a period of just 15 weeks."

The students also must learn to work with others beyond their specialty areas to bring these new models to fruition. Another innovative feature of the Core Course is a variety of Vertically Integrated Topics—clinical disorders with known molecular defects that are introduced at the outset and that then reappear throughout the course in different sections, such as in the protein processing or cell signaling sections. The Vertically Integrated Topics provide threads that help the students to integrate the vast amounts of information they encounter during these intensive 15 weeks.

Pediatrics Faculty Study Obesity and WIC

he major findings of two research teams from the Department of Pediatrics were featured in a special nutrition issue of the Archives of Pediatric and Adolescent Medicine in May.

Mothers of overweight toddlers do not perceive their toddlers as overweight and are highly satisfied with their body size, suggesting that they view heavy as normal, found one study. Mothers of underweight toddlers had accurate perceptions of their toddlers' body size, but were dissatisfied, according to the study by Erin R. Hager, PhD, assistant professor, Departments of Pediatrics and Epidemiology & Public Health.

"These findings are very concerning," said Dr. Hager. "Both parental perceptions of a child's body size and how satisfied a parent is with their child's size are likely to influence how parents feed their children. Parents who desire for their child to be larger, even if the child is a healthy weight (or overweight) may overfeed their child, increasing the toddler's risk for obesity later in life. Parents of overweight children who perceive their children as being a healthy size may be unlikely to follow guidelines to prevent overweight. The next step in our research is to determine how to help parents adopt behaviors that promote healthy growth."

Specifically, the study found that most low-income mothers of overweight toddlers (94%) perceived their children to be smaller than they really were. The majority of these mothers (82%) were satisfied with their toddler's body size, with some even wanting their overweight toddler to be bigger.

This trend was also seen in healthy weight toddlers. Two-thirds (63%) of mothers of healthy weight toddlers perceived that their child had a smaller body size than they really did. Most (72%) were satisfied with their child's body size, and 21% of mothers of healthy weight children wanted their child to be bigger.

"The clinical implications of this research suggest that pediatric providers promote guidelines for healthy growth with all families," said Dr. Hager. "The results suggest that pediatric providers should plot and discuss toddler weight status with families of all toddlers, emphasizing parents' roles in building healthy dietary and lifestyle habits for the family. The toddler silhouette scale is a helpful tool that could be used in a clinical setting to gage parents' accuracy and satisfaction with their child's body size, thus guiding counseling strategies."

The other study in that edition of the journal, this one by Maureen Black, PhD, MA, John A. Scholl, MD, and Mary Louise Scholl, MD, Distinguished Professor, Department of Pediatrics, found that as family stresses, such as food insecurity and maternal depression increase, children's health risks increase. Participation in WIC reduces, but does not eliminate, the negative health consequences associated with stressed families.

"The building blocks that support children throughout life are formed during their early years. Disparities associated with household food insecurity and caregiver depressive symptoms disrupt these building blocks and can compromise children's health, resulting in lifelong negative consequences to their health and well-being," said Dr. Black. She continued, "Evidence presented here illustrates that family stress is associated with child health risks and that WIC attenuates both family stress and the child health risks associated with household family stress. To reduce disparities and promote children's health, WIC is an excellent investment. The next steps are to examine why some WIC-eligible families do not participate in the program and to examine innovative strategies of implementing nutritional counseling."

Economic hardship occurs among increasingly large segments of the national population, undermining children's health and well-being, and leading to poor adult health, social disparities and limited human capital. Without adequate economic resources, families must make difficult choices among basic needs, such as food, housing, energy and health care, often resulting in frustration and emotional distress. Emotional distress, particularly when it occurs with other stressors, interferes with caregiving practices and

adversely impacts children's well-being. Food insecurity, meaning uncertain access to enough food for all household members to sustain an active and healthy life, is a major public health problem.

Not only has food insecurity increased in prevalence during the current economic downturn, but it threatens young

deficiencies, hospitalizations, delayed development and poor health. The study examined how WIC participation relates to family stress and to children's health in 26,950

children's well-being by increasing the risk for nutritional

WIC-eligible families with children under age 3 from seven urban medical centers across the country.

The first finding is that mothers who receive WIC have lower rates of food insecurity and maternal depression than mothers who are eligible, but not receiving WIC, even after adjusting for other environmental factors, such as education, race/ethnicity and immigration status. The second finding

is that in the face of food insecurity and maternal depression, children in WIC-receiving families have better health indicators than children in families that are eligible, but not receiving WIC.



Maryland Legislative Session Brings Good News

During the 2012 legislative session, the Maryland General Assembly approved \$4.7 million dollars in matching funds for the preliminary design of the University of Maryland School of Medicine's Health Sciences Facility III (HSF III) Research Building. HSF III will transform medicine by supporting "bench to bedside" translational research initiatives which will make new and more effective treatments available to patients more quickly. The legislature approved \$5 million in matching funds last year. The 332,000 square-foot, \$284 million facility will be located on the site currently occupied by Hayden-Harris Hall (the former University of Maryland Dental School) and is expected to be complete in 2017. Approximately two-thirds of the new facility will address space needs for research, with the remaining third to support functions currently in the Medical School Teaching Facility, providing for the renovation of that building.

Lawmakers also approved a pilot program to reduce health disparities in Maryland. The program was developed by a work group chaired by Dean Reece, which recommended tax breaks and other incentives to local health departments and community groups working in underserved areas—labeled as Health Enterprise Zones. The work group found that blacks in Maryland are nearly twice as likely to be hospitalized for asthma, hypertension and heart failure. Such disparities in the state cost Medicare and extra \$26 million annually.





Frin R Hager PhD



Maureen Black, PhD. MA

Class of 2012 Graduates!



Richard Colgan, MD, associate professor, Department of Family & Community Medicine, bestows Mawuena Agbonyitor with her doctoral hood. The new Dr. Agbonyitor will begin her medical career with a residency in psychiatry at the University of Maryland Medical Center.



(L-R) Newly-minted medical doctors Kaci Haines, MD, and Rania Habib, MD, can't contain their excitement at graduation. Both will conduct their residencies at the University of Maryland Medical Center—Dr. Haines in internal medicine and Dr. Habib in oral and maxillofacial surgery.

The brand new physicians of the Class of 2012 received their doctoral hoods on May 18, 2012, in a convocation ceremony held at the Baltimore Hilton. "Convocation is a time of celebration and reflection," said Dean E. Albert Reece. "As I look back over these last few years, I am struck by your ability to balance an intense desire to achieve personal and professional goals and a strong determination to make a difference in the lives of others. Your optimism, enthusiasm and positive outlook are absolutely inspiring. Hold fast to the vision that you have on this day, and let that vision fuel you throughout your careers."

Keynote speaker Darrell G. Kirch, MD, president and CEO of the Association of American Medical Colleges, urged the students to keep ethics in the forefront when considering their future actions as physicians. "The beautiful simplicity of medical ethics is that there are only four principles," he stated. "One, benevolence: Do good. You will get up every morning intending to do good for your patients. Two, non-malfeasance: Do no harm. Sadly, the more we learn, the more inadvertent opportunities we have to do harm. Too often we see that play out in end-of-life decisions, where we focus on prolonging life at the expense of decreased suffering. Third, autonomy. Not our autonomy as doctors, but the autonomy of our patients. They're the ones who make the decisions. And the fourth is the one we struggle with the most—social justice. It's our obligation to make sure all patients are treated fairly, and that we use that precious nearly three billion dollars a year we're currently spending on healthcare in this country wisely."

Dr. Kirch suggested that in the face of such challenges, many will want to take the easy way out and invest only in their self-interests. "That's when you need to remember that ethical commitment. But I think you're the right people. I've learned a lot about your class. You wouldn't have done [the many community projects in which you've participated] if you didn't want to make a better healthcare system. By reaching out, you've already shown you understand your ethical commitment. I hope you find the courage that we all need as physicians to make good on your ethical obligations."

Dr. Robin Pierson [continued from page 1]

such as diabetes, heart failure, liver failure and end-stage lung disease," Dr. Pierson said.

Dr. Pierson's laboratory also studies methods of tricking the immune system into accepting a transplanted graft without the need for long-term immunosuppression, known as transplant tolerance. Current anti-rejection drugs have important risks and side effects. "We have been working with preclinical heart transplant models, blocking individual co-stimulation pathway molecules to try to trick the immune system into believe the transplanted organ is 'self," Dr. Pierson explained.

He received his BA from Princeton University in English and American Studies in 1978, and his MD from Columbia University College of Physicians and Surgeons in 1983. His postgraduate clinical training included general surgery at the University of Michigan, Ann Arbor, cardiac and thoracic surgery at the Massachusetts General Hospital/Harvard, and clinical and research fellowship in Cardiothoracic Transplantation at Papworth Hospital, Cambridge University, in Cambridge, England.

In 1994, Dr. Pierson began working at Vanderbilt University Medical Center as assistant professor of surgery and director of heart and lung transplantation; he became associate professor in 1999. He joined the University of Maryland School of Medicine in 2002 as associate professor of surgery and clinical director of the heart and lung transplant programs and the LVAD program; he became chief of surgery at the Baltimore VA Medical Center in 2006.

Dr. Pierson is a distinguished and highly regarded surgeon and scientist and has received many awards and honors. He was honored with the Presidential Early Career Award for Science and Engineering in February 1999, the ASTS Wyeth Mid-Level Faculty Research Fellowship in 2004, the John Alexander Research Scholarship of the American Association for Thoracic Surgery in 1996, and the American Lung Association Award as a Dalsemer Research Scholar in 1996.

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University of Maryland School of Medicine June 2012 Vol.13 No.10

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