



# SOM *news*

## Point of PRIDE



In 1994 at UMSOM, Dr. Eve J. Higginbotham became the first woman ever to become chair of a Department of Ophthalmology. She also wrote the first paper on **preventing or delaying the onset of glaucoma in African-Americans with ocular hypertension.**



### What's New...

*SOMnews* has now expanded to eight pages, with more information and special sections on Research & Discovery, Clinical Care, Academic Innovations, and Community Impact.

### What's Inside...

- 2 Researchers Debut GammaPod
- 4 Faculty Leading the Way in Diversity
- 6 Social Justice Course
- 7 Students in the Community
- 8 Faculty Diversity Awards

### DEAN'S MESSAGE

This year had a troubled start. In January, the University of Maryland Medical Center (UMMC)'s Midtown Campus was thrust into the public spotlight for the disrespectful discharge of a patient from the hospital following good and appropriate medical care. The incident highlighted the fact that care extends into the discharge process and exit from the hospital.

The University of Maryland Medical System (UMMS) and UMSOM practice sites are a joint enterprise (UM Medicine). Our faculty physicians provide the medical care at UMMS facilities each and every day. Our patients receive the highest-quality care, grounded in exceptional science. Therefore, when the terribly unfortunate incident came to light, UMMC's President and CEO, **Mohan Suntha, MD, MBA**, and his leadership team took immediate action to thoroughly investigate the circumstances, as well as to ensure that this will never happen again.

The young woman's case reminds us that we care for patients facing complex and challenging medical conditions, and that, as a research-intensive academic medical center, we need to meet those challenges head-on. We are, therefore, incredibly fortunate to work in an environment where diverse, multidisciplinary approaches are employed to tackle the most perplexing diseases and conditions known today. The care that we provide is founded in exceptional basic, translational, and clinical research, all working on concert toward the common goal of dramatically improving health and wellbeing.

Diversity is engrained in the culture and environments of UMSOM. We come from many different backgrounds, cultures, and parts of the world, but here we are all part of the same community. Our School is composed of individuals with a multitude of ideas and perspectives. This blend is a great resource. The mosaic of voices strengthens all of us.

This month we hold our annual Celebrating Diversity Dinner, in which we honor those who understand diversity in the wider context of acknowledging, understanding, accepting, and valuing differences among people. The unique experiences we have from our system of learned and accepted patterns of behaviors in our backgrounds bring together a philosophy of life that is passed on from generation to generation as accepted beliefs, values, and mores from parents, teachers, and society.

Ethnic, racial, and cultural diversity requires that we acknowledge our individual differences and recognize that this country was founded on the principles of a diverse population. Our diverse workforce is a reflection of a changing world and consequences of a changing marketplace. Diverse work teams, whether in a hospital or a research laboratory, bring value to an organization. Diverse talent and diverse skills benefits any workplace and increases our productivity. We are highlighting the outstanding leadership of our faculty in the Department of Microbiology and Immunology in this area.

We need to continue this UMSOM tradition of diversity as a hallmark of our institution. We must involve as many

### What's on My Mind...



...is the importance of working with a diverse community of faculty, staff, students, and trainees, and the incredible value that our unique perspectives add to our robust biomedical enterprise.

There are four practical reasons why diversity is vitally important in our medical schools:

- 1 Diversity shapes the quality of medical education for all students and provides "culturally competent" physicians who can treat people from a wide range of cultural and ethnic backgrounds.
- 2 Diversity expands access to medical care for all.
- 3 Diversity in medical research leads to an acceleration of advances in medical and public health research as often times, investigations into medical issues are problems that are rooted in social, cultural, and behavioral determinants.
- 4 Diversity makes good business sense in the health-care industry. A medical staff that mirrors the health-care organization's clientele is more capable of dealing.

people as possible to realize our utmost potential. We need physicians, researchers, and health professionals from every facet of life, from every race, religion, and culture. Our diversity is one of greatest strengths. It is a point of pride and leadership and we should celebrate it. We know that diversity makes us a better School of Medicine — better for learning, for teaching, and for conducting research.

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

E. Albert Reece, MD, PhD, MBA  
Executive Vice President for Medical Affairs, UM Baltimore  
John Z. and Akiko K. Bowers Distinguished Professor and  
Dean, University of Maryland School of Medicine



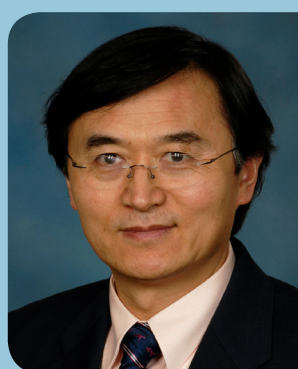


Photo courtesy of  
Xcision Medical  
Systems, LLC



# “Changing the Paradigm”

## UMSOM DEBUT GAMMAPOD,<sup>TM</sup> PIONEERING TECH TO TREAT BREAST CANCER



**GammaPod<sup>TM</sup>**  
*invented at UMSOM by  
Cedric X. Yu, DSc, and  
William F. Regine, MD*



**On** Tuesday, January 9, 2018, the bar for innovative discovery at the University of Maryland School of Medicine (UMSOM) was raised even higher. That day, a press conference held at the University of Maryland Medical Center (UMMC) revealed that a new, first-of-its-kind technology for treating early-stage breast cancer had received 510(k) clearance from the U.S. Food and Drug Administration (FDA) for commercial production and use.

The GammaPod is a pioneering stereotactic radiotherapy system invented at UMSOM by **Cedric X. Yu, DSc**, a clinical professor of radiation oncology at UMSOM and chief executive officer of Xcision Medical Systems, LLC, along with **William F. Regine, MD, FACR, FACRO**, the Isadore & Fannie Schneider Foxman Endowed Chair and professor of radiation oncology, and chief of radiation oncology at the University of Maryland Marlene and Stewart Greenebaum Comprehensive Cancer Center (UMGCCC). *“We believe this novel radiotherapy system has the future potential to change the paradigm for treating early stage*

*tumors, negating the need for surgery for some patients,”* says Dr. Regine.

Traditionally, the medical response to early-stage cancer has been a surgery to remove a single tumor, followed by chemotherapy and three to six weeks of radiation targeting the cancer site. While the field has advanced to favor more minimally invasive lumpectomies rather than mastectomies, the effects of prolonged radiological treatments still pose the threat of side effects, including damage to other organ tissues such as the heart and lung.

By contrast, the GammaPod delivers high-dose stereotactic radiation to a tumor while minimizing damage to healthy breast tissue and major organs. It has the potential to improve quality of life for breast cancer patients by reducing the number of radiation treatments needed and the harmful side effects associated with this radiotherapy. As co-inventor Dr. Yu explains, *“The GammaPod has the potential to significantly shorten the treatment time to a few sessions or possibly even one treatment. We envision that one day we’ll be able to neutralize a tumor with a high dose of focused radiation instead of removing it with a scalpel.”*



Stereotactic radiation therapy is most commonly used to treat brain cancer and cancers in other parts of the body, such as the lung, spine and liver, where it is called stereotactic body radiation therapy, or SBRT. It delivers a high-dose of radiation directly to the tumor, sparing nearby healthy tissue, in far fewer treatments than standard radiation therapy. The GammaPod employs this technology to target breast cancer with thousands of precisely focused beams of radiation from 36 rotating sources. Treatments take five minutes to 40 minutes, depending on the therapy plan.

As part of the FDA review process, UMSOM investigators submitted data from 15 patients treated with the GammaPod in a feasibility and safety study, starting in early 2016. Patients received a single “boost” treatment with GammaPod to the site where their tumor was removed, along with three weeks of traditional radiation treatments to the whole breast. The total treatment regimen was reduced by about a week.

Initial results indicate that the GammaPod system can deliver radiation to the breast safely, according to the study’s principal investigator, **Elizabeth M. Nichols, MD**, an assistant professor of radiation oncology and clinical director of the Department of Radiation Oncology at UMSOM.

*“The GammaPod delivers a uniform dose to the tumor but the amount of radiation drops off rapidly outside the targeted area with a substantially reduced dose to healthy breast tissue. We believe that this reduced exposure will result in better cosmetic outcomes for patients,”* says Dr. Nichols, a radiation oncologist who treats patients at the UMGCCC and the Maryland Proton Treatment Center.

With the FDA’s 510(k) clearance, treatment will be offered to breast cancer patients at UMGCCC as early as spring 2018, and upcoming clinical trials will test the various ways GammaPod could be used before and after surgery to reduce the size of the tumor and improve surgical outcomes, or even eliminate the need for surgery all together. Researchers

will also seek to identify subgroups of patients who may not require surgery after treatment.

*“GammaPod not only presents a new treatment option for our breast cancer patients,”* says **John A. Olson, Jr., MD, PhD**, Campbell and Jeanette Plugge Professor of Surgery, Associate Director of the UM Greenebaum Comprehensive Cancer Center, and head of the University of Maryland Cancer Network. *“It also exemplifies the strength of the University of Maryland cancer research program in conceptualizing, developing and delivering new and innovative treatments to patients in our state and throughout the country.”*

UMSOM Dean **E. Albert Reece** agrees. *“The development of the GammaPod represents the extraordinary innovation and entrepreneurial spirit that we foster through our faculty at the University of Maryland School of Medicine,”* he says.

*(Disclosure: Dr. Yu and Dr. Regine are inventors of GammaPod with patent rights and are also shareholders of Xcision Medical Systems, which manufactures the device.)*



Dr. Nichols, treats patients at the UMGCCC and the Maryland Proton Treatment Center.



For more information visit [www.xcision.com](http://www.xcision.com)



# EXPANDING DIVERSITY PROGRAMS

**FACULTY  
LEADING  
THE  
WAY**



Dr. Hassel, Dr. Davila and Dr. Carey



With UMSOM expanding its efforts to increase diversity in the pool of qualified applicants to academic programs within the UMSOM and at other educational institutions, one department has found itself at the forefront of these activities.

The Department of Microbiology and Immunology, led by Professor and Chair **James Kaper, PhD**, features three award-winning faculty members — Greg Carey, Eduardo Davila and Bret Hassel — who have been relentless in creating and linking together a range of diversity programs at every level of education, from middle school to high school to undergraduate and post-baccalaureate to graduate programs.



Dr. Kaper

Working together, the trio have made tremendous strides in building programs and networks between UMSOM and the community that foster and nurture excitement in science, medicine and research. This includes research, service and service-learning projects as well as mentoring, interacting and giving talks to students and members of the community on STEM careers and on the role of research in improving and protecting community health.

The bottom line, they say, is to ensure that a diverse and inclusive pipeline of exceptional students at every level have access to educational opportunities in medical and scientific research.

*“Drs. Carey, Davila and Hassel have demonstrated a genuine, unwavering commitment to diversifying the pool of young students who will one day be our physicians and scientists,”* added **Sandra Quezada, MD, MS**, Assistant Professor of Medicine, Assistant Dean for Admissions, and Assistant Dean for Academic and Multi-Cultural Affairs. *“Their vision and dedication to diversity as a core value is absolutely inspiring.”*

### Diamonds in the Rough

According to **Greg Carey, PhD**, who is Assistant Professor in the Department, as well as a scientist in the UMSOM Center for Vascular and Inflammatory Diseases and a member of the UM Marlene & Stewart Greenebaum Comprehensive Cancer Center, the result is that *“many rising stars, ‘diamonds in the rough,’ students who didn’t have opportunities before, now have a chance to participate.”*

For Dr. Carey, who himself is a product of one of these programs, (the Continuing Umbrella of Research Experience or CURE Scholars Program), it is about giving back and making a difference in students’ lives — particularly at a young age. The UMB CURE program, which is funded by the NCI Center to Reduce Cancer Health Disparities (CRCHD), is the first of its kind to focus on middle school students and address the need to reach under-represented minority students (URM) at an earlier stage in their education. The program now has more than 80 participants with cohorts in 6th, 7th and 8th grade. Dr. Carey has been a part of the program’s leadership team since its inception in 2015.

*“At its core, mentoring is about seeing a spark in someone and giving them every chance to shine brightly,”* said Dr. Carey, who has personally trained and mentored 14 students, and postdoctoral fellows in his laboratory. *“It is amazing what can happen. These trainees have gone on to pursue and earn advanced degrees, enter research and the health professions, and to enter careers in government, academia and in industry. Many of them would have never had that opportunity.”*

### Driven by Passion

An increasing focus on diversity is taking place at advanced levels of education as well.

**Eduardo Davila, PhD**, who is Associate Professor in the Department, has been awarded a \$2.5 million grant from the National Institute of General Medical Sciences to augment the scientific, educational, and research experience of under-represented minority post-baccalaureates, and to increase the number of students who are accepted into highly competitive biomedical-related PhD degree or MD/PhD degree programs and research careers. Known as STAR-PREP, it will be funded until 2021 and is among only a few programs of its kind nationwide.

*“More than anything, this has been driven by our passion,”* said Dr. Davila, who is also Co-Director of the UM Marlene and Stewart Comprehensive Cancer Center’s Tumor Immunology Program, *“Many of us involved in these programs have ourselves benefitted, and we have an intense desire to give back and help to provide the same opportunities for others.”*

Dr. Davila said that as a young scientist, he received mentoring that helped him achieve his goals. *“I have always believed that my work as a scientist and my work as a mentor and leader were along the same lines,”* he said. *“Both pursuits are about helping those who need a hand, whether they are cancer patients or minority researchers.”*

### Bridges to the Doctorate

Like Dr. Carey, **Bret Hassel, PhD**, has been a member of the CURE Scholars Program since its inception. He references the diversity of the program’s leadership team as a microcosm of diversity that is at the heart of the program’s goals.

In addition to the CURE Scholars, Hassel plays leadership roles in several National Institutes of Health-funded programs that promote minority inclusion and diversity at UMSOM and UMB. He has directed the UMSOM’s Nathan Schnaper Intern Program in Translational Cancer Research (NSIP) for 16 years and is a member of the core team for the STAR-PREP minority post baccalaureate program.

Recently, he received a five-year, \$2.1 million R25 Education grant from the National Cancer Institute for the Schnaper Program. The program, named for the late UM Greenebaum Comprehensive Cancer Center (UMGCCC) psychiatrist and advocate for student-directed research, **Dr. Nathan Schnaper**, provides integrated research, educational, and clinical components for high-caliber undergraduate interns from across the US. Prior to NCI funding, this program was supported by local benefactors and the UMGCCC for over 30 years, with more than 15 NSIP alumni matriculating to the UMSOM medical and graduate programs in the last decade alone.

Most recently, Dr. Hassel received a Bridges to the Doctorate grant in partnership with Towson University to foster the progression of minority master’s degree students to PhD programs. He also contributes to minority-focused training programs at Morgan State, Coppin State, and the University of Maryland, Baltimore County.

*“A major issue in diversifying the biomedical work force is developing a diverse pipeline of highly qualified trainees to pursue careers in this area,”* said Dr. Kaper. *“Drs. Carey, Davila and Hassel are strongly committed to training and mentoring individuals at all levels, even as young as elementary school students. They work tremendously well together and their dedicated efforts have been highly productive in developing programs and obtaining NIH funding for these programs.”*

### Something in the Water?

What is it about the Department of Microbiology and Immunology that has resulted in this dedicated diversity mission among its faculty?

*“I think the answer can be found in the history of the Department and the Molecular Microbiology and Immunology (MMI) Graduate Program that promotes a culture of inclusion and fosters a supportive mentoring environment,”* said Dr. Hassel. He pointed out that **Tonya Webb, PhD**, Associate Professor in the Department, is a leader in minority-focused professional societies nationwide. Like Dr. Carey, she is an alumnus of the CRCHD’s CURE Scholars Program who has ‘completed the circle’ as one of our most sought after MMI faculty mentors for both UR and non- UR students.

Another MMI faculty member, **Eileen Barry, PhD**, Professor of Medicine and Microbiology & Immunology, was awarded the PROMISE AGEP Faculty Diversity Award, along with Drs. Davila, Carey and Hassel in 2015, for her strong mentoring and work with minority students. **Claire Fraser, PhD**, also an MMI faculty member who is Professor of Medicine and Microbiology & Immunology as well as Director of the UMSOM Institute for Genome Sciences, has been a leader in promoting genomics education in summer programs for Baltimore children.

Dr. Kaper noted that the trio are also part of the UMGCCC and have been strongly supported by **Kevin Cullen, MD**, the Marlene and Stewart Greenebaum Distinguished Professor in Oncology, Director of the UMSOM Program in Oncology and Director of the UMGCCC.

*“Perhaps there is something in the water (culture) in the Department and MMI Program,”* Dr. Carey said laughing. *“But, I think we all would point to the leadership at the UMSOM, and particular to Dr. Kaper’s support and transformational leadership style as the key to our growing success.”*





# Public Health

## LEGAL ISSUES FOCUS OF UMSOM SOCIAL JUSTICE COURSE

Experts in public health law and advocacy will discuss a range of critical issues such as emergency treatment for the uninsured, end of life issues from a legal and ethical standpoint and prescription drug pricing, as part of the University of Maryland School of Medicine's (UMSOM) Social Justice Course this semester.

The program, which is in its second year, is available to all first-year medical students and is a four-year elective course that offers students the opportunity to learn and better understand the meaning of social justice. The curriculum intertwines societal issues and social determinants of health. Educating and exposing students to issues that marginalized groups face is important in developing skills to treat all patients effectively.

Guest lectures on social justice topics are open to anyone, according to **Darlene Robinson, MD**, Assistant Professor of Emergency Medicine, who is director of the Social Justice program at UMSOM.


This semester kicked off with a presentation by **Kathleen Hoke, JD**, a law professor at the University of Maryland Francis King Carey School of Law and Director of the Network for Public Health Law. The Network for Public Health Law, which was launched in 2010, provides technical legal assistance to national, state and local public health professionals as well as their attorneys and legislators.

During February, guest speakers include UMSOM Faculty, **Larry Weiss, MD, JD**, Clinical Professor of Emergency Medicine and **Elizabeth Clayborne, MD, MA**, who will discuss end of life issues from a legal and ethical standpoint.

The Emergency Medical Treatment and Labor Act (EMTALA), a law that requires anyone admitted to an emergency department to be stabilized and treated regardless of their insurance or ability to pay, will be covered



later in the semester. Dr. Weiss will be the featured speaker on this topic.

In April, **Danya Qato, Pharm D, MPH, PhD**, a practicing pharmacist, epidemiologist, and health services researcher at the University of Maryland School of Pharmacy will discuss prescription drug pricing. 



**“My interest is in Community Health and Social Determination of Health. I have developed a longitudinal social justice curriculum for medical students. I teach about the effects of social issues on health outcomes.”**

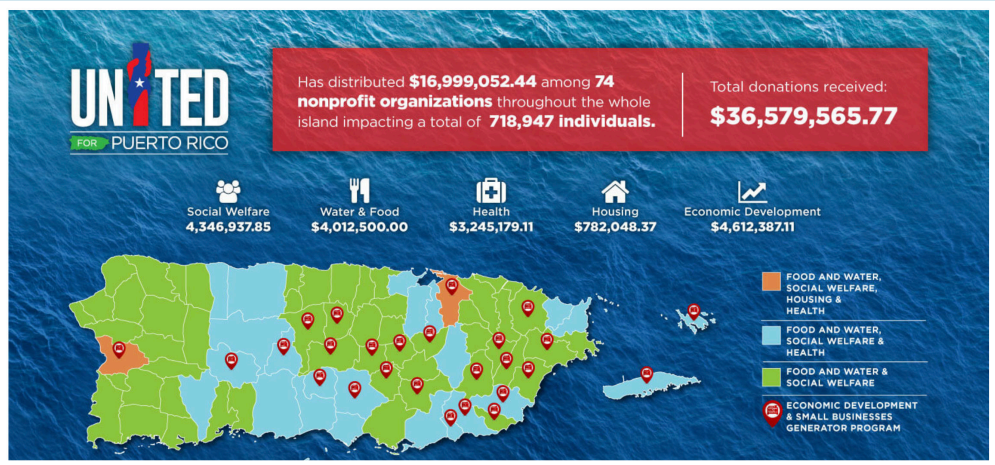
— Darlene Y. Robinson, MD

UMSOM is committed to:

- Social Justice • Diversity and Inclusion • Health Equity
- Lifelong Learning • Discovery • Interdisciplinary Collaboration • Community Engagement and Service



HURRICANE RELIEF



# UMSOM Students Act to Help Hurricane Victims in Puerto Rico

University of Maryland School of Medicine (UMSOM) students have raised more than \$2,500 so far to help hurricane victims in Puerto Rico. The effort was organized by a student committee including second-year medical student, **Savannah Cheo**, third-year medical student **Taylor Rosenbaum** and **Miriam Blitzer, PhD**, Professor of Pediatrics.

On Friday January 5, there was a school-wide art sale and talent show that took place at the Pratt Street Ale House in Baltimore. More than 100 UMSOM students and faculty came to see beautiful art, hear amazing performances, and support the cause. Funds raised benefit **Unidos por Puerto Rico**, an organization created by Puerto Rico’s First Lady, Beatriz Rosselló, and the private sector, to help those affected by Hurricane Irma and Hurricane María. In Puerto Rico, many have been left without homes, electricity and medication.



**YOU CAN STILL HELP!**

The UMSOM fundraiser is still taking place. For those wishing to donate to this cause please visit: <https://www.gofundme.com/umsom-for-puerto-rico>. For any additional questions, please email Taylor Rosenbaum at [taylor.rosenbaum@som.umaryland.edu](mailto:taylor.rosenbaum@som.umaryland.edu) or Savannah Cheo at [savannah.cheo@som.umaryland.edu](mailto:savannah.cheo@som.umaryland.edu).





# Outstanding Faculty Awards


**2018**

BRET HASSEL, PHD, receives both the UMB Faculty Award at the 2018 Dr. Martin Luther King, Jr. & Black History Month Commemoration Event; and the Dean's Faculty Award at the UMSOM Annual Celebrating Diversity Reception and Dinner for his leadership roles in the CURE Scholars Program, the Nathan Schnaper Internship Program in Translational Cancer Research and the Bridges to the Doctorate. 🏛️


**2017**

GREG CAREY, PHD, receives top award from National Cancer Institute for Lymphoma Research and Student Mentoring Program for his outstanding contributions to mentoring trainees and diversifying the biomedical research workforce. In 2013, he had received the UMB Martin Luther King Faculty Award. 🏛️


**2016**

EDUARDO DAVILA, PHD, is awarded the Dean's Faculty Award for Diversity and Inclusion at the UMSOM Annual Celebrating Diversity Reception and Dinner for his leadership role in programs to help minority under-represented minority students at every level achieve access to scientific careers and research. 🏛️

## SOMSpirit...

Watch the **History of Davidge Hall** video



## "Practices"

New UMSOM policy requires all patient care facilities to be called "practices."

SOMnews is produced by the University of Maryland School of Medicine Office of Public Affairs

**E. Albert Reece, MD, PhD, MBA**  
Executive Vice President for Medical Affairs, UM Baltimore  
John Z. and Akiko K. Bowers Distinguished Professor and Dean, University of Maryland School of Medicine

**Chris Hardwick**, Executive Editor  
Tom Jemski & Mark Teske, Photos

Dave Beaudouin, David Kohn, Joanne Morrison & Julie Rosen, Contributing Writers  
Kris Rifkin, Design



Find the University of Maryland School of Medicine on Facebook, <http://www.facebook.com/Maryland.Medicine> or follow us on Twitter @UMmedschool.



[www.medschool.umaryland.edu](http://www.medschool.umaryland.edu)