

SCHOOL OF MEDICINE
AND HEALTH SCIENCES

PROGRESS REPORT 2018

THE GEORGE
WASHINGTON
UNIVERSITY

WASHINGTON, DC



DEAN'S LETTER

DEAR COLLEAGUES,

This past year was outstanding for the George Washington University (GW) School of Medicine and Health Sciences (SMHS). We saw significant progress in each pillar of our strategic plan: leadership, education, discovery, community, and clinical excellence.

The appointment of Thomas J. LeBlanc, PhD, as GW's 17th president was the highlight of the year. Upon his arrival, President LeBlanc invited the entire university community, including the faculty, students, and staff of SMHS, to engage in a series of conversations about our shared aspirations and values. In his inaugural address, the new president related that collective vision for GW built on our identity as a comprehensive, global research university. SMHS and our academic and clinical partners are central to that vision.

Achieving our strategic goals and objectives in education and training is critical to that success. Our accomplishments, including a residency match rate that consistently exceeds the national average and multi-year program accreditation awards, reflect our school's gains. These achievements, coupled with the emergence of innovative curricular changes, such as clinical public health initiatives and an expansion in health sciences programming, illustrate how we are shaping the careers of future caregivers and health care leaders.

The school's research portfolio continues its upward trajectory, and I am delighted that our faculty members have been so successful in getting their research proposals funded in a highly competitive



environment. We have a remarkably creative and innovative faculty who are advancing knowledge and working to improve the health and wellness of people around the world. Our investigators' drive for breakthroughs, powered by enhanced facilities and resources on campus, fosters the next generation of brilliant minds in medicine and the health sciences.

Finally, our reputation for social responsibility and community action continues to be a point of immense pride. Leveraging our location in Washington, D.C., SMHS faculty, students, residents, fellows, and staff are actively engaged with our local, national, and international neighbors to make a difference. Whether it is providing free screening events for kidney disease, cancer, and other health issues in our local community, or creating mental health programs for those who have experienced trauma, we are committed to health equity.

I hope that you enjoy reading our progress report and getting a sense of some of the exciting work taking place at SMHS. For further information, feel free to follow us on social media or check out our website at smhs.gwu.edu.

Regards,

A handwritten signature in black ink, appearing to read 'Jeffrey S. Akman'. The signature is fluid and cursive, written over a horizontal line.

JEFFREY S. AKMAN, MD '81, RESD '85
Vice President for Health Affairs
Walter A. Bloedorn Professor
of Administrative Medicine
Dean, GW School of Medicine
and Health Sciences

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MISSION + VISION

The George Washington University School of Medicine and Health Sciences is dedicated to improving the health of our local, national, and global communities by:

- Educating a diverse workforce of tomorrow's leaders in medicine, science, and health sciences;
- Healing through innovative and compassionate care;
- Advancing biomedical, translational, and health services delivery research with an emphasis on multidisciplinary collaboration; and
- Promoting a culture of excellence through inclusion, service, and advocacy.

As a globally recognized academic medical center, GW embraces the challenge of eliminating health disparities and transforming health care to enrich and improve the lives of those we serve.





LABORATORY LEADERS

Graduates of the George Washington University School of Medicine and Health Sciences' Medical Laboratory Sciences (MLS) program enjoy a 95 percent employment rate in the field. Between 2015 and 2024, the U.S. Bureau of Labor Statistics predicts the job growth rate for those with an MLS degree to reach 16 percent, 9 percent higher than the national average. In 2016, the MLS program received a 10-year reaccreditation from the National Accrediting Agency for Clinical Laboratory Science.

95%

EDUCATION

POST-BACC PRE-MED PROGRAM'S FIRST COHORT TAKES NEXT STEP

For many in the George Washington University (GW) School of Medicine and Health Sciences (SMHS) Post-Baccalaureate Pre-Medicine Program's first cohort of students, the path to becoming a doctor continued in fall 2017.

The program, directed by Lisa Schwartz, EdD '10, assistant professor of integrated health sciences at SMHS, launched in 2015 with a cohort of 10 students. It's designed specifically for those who earned a bachelor's degree in an area other than the life sciences, but whose passion for medicine couldn't be quelled.

One student in the first cohort is attending SMHS through GW's linkage program, while seven other students were admitted to the University of Florida, the University of Central Florida, Virginia Commonwealth University/Medical College of Virginia, SUNY Downstate, The Ohio State University, and the University of New England, among others.



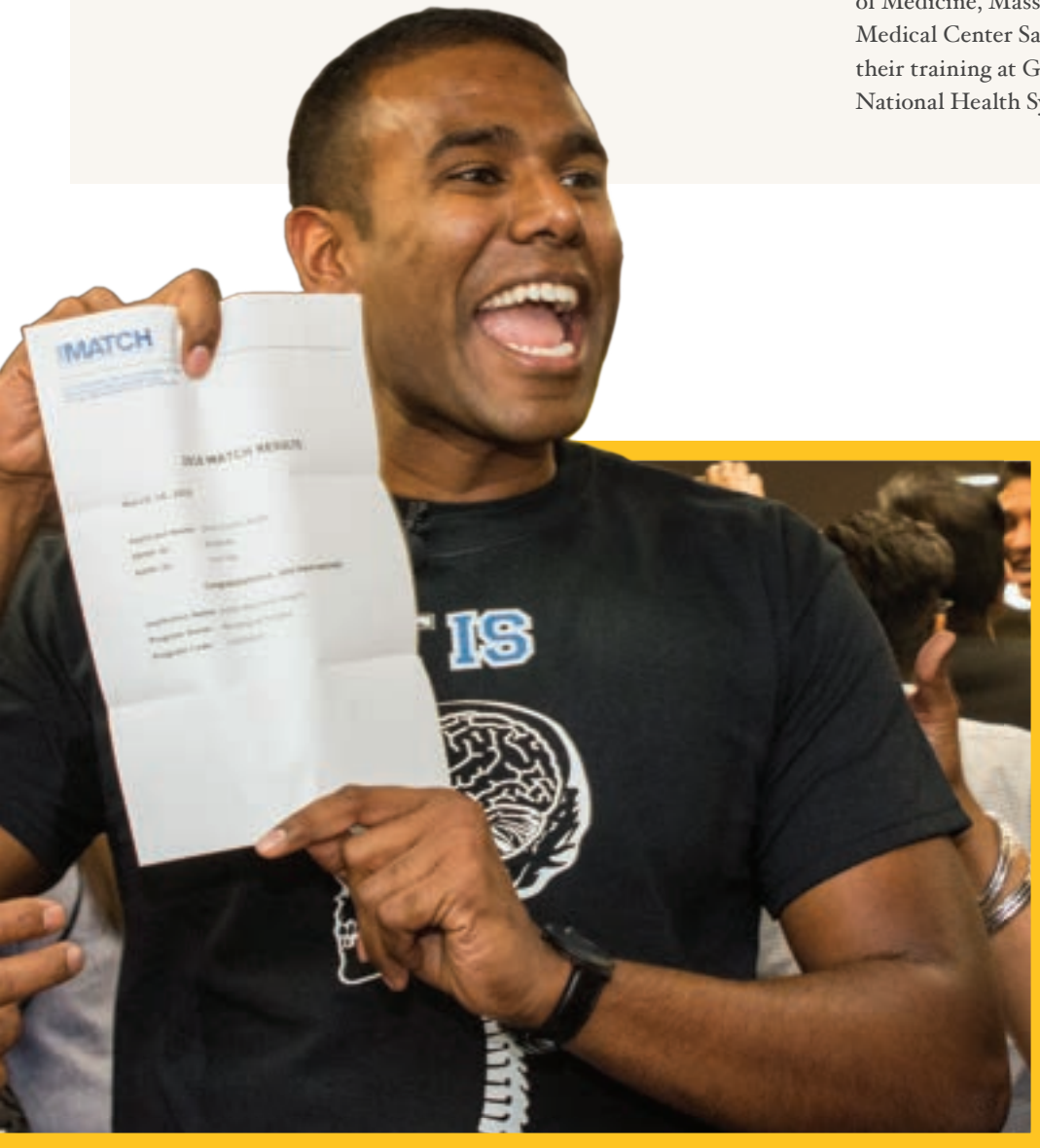
The Post-Bacc Pre-Med program offers students the educational foundation in classes they need to enter medical school and prepares them for the application process.

MATCH MADNESS

Excited. Nervous. Hopeful. A little overwhelmed. That's how Diana Lee described her emotions on March 16, 2018 as the clock slowly ticked toward noon, when medical students across the country discovered where their residency training would begin.

"It's crazy to see us all here at the end of the finish line, with friends and family all together to share the moment," said Lee, a George Washington University (GW) School of Medicine and Health Sciences (SMHS) fourth-year medical student. Lee received the Eugene B. Casey Scholarship, which provides a four-year scholarship for tuition, room, and board.

The Class of 2018 extended GW's streak of beating the National Resident Matching Program national match rate, with 97 percent of SMHS students matching at top institutions including Yale New Haven Hospital, Stanford School of Medicine, Massachusetts General Hospital, and Naval Medical Center San Diego. Thirteen students will continue their training at GW, and two will train at Children's National Health System.



2018 MATCH BY THE NUMBERS

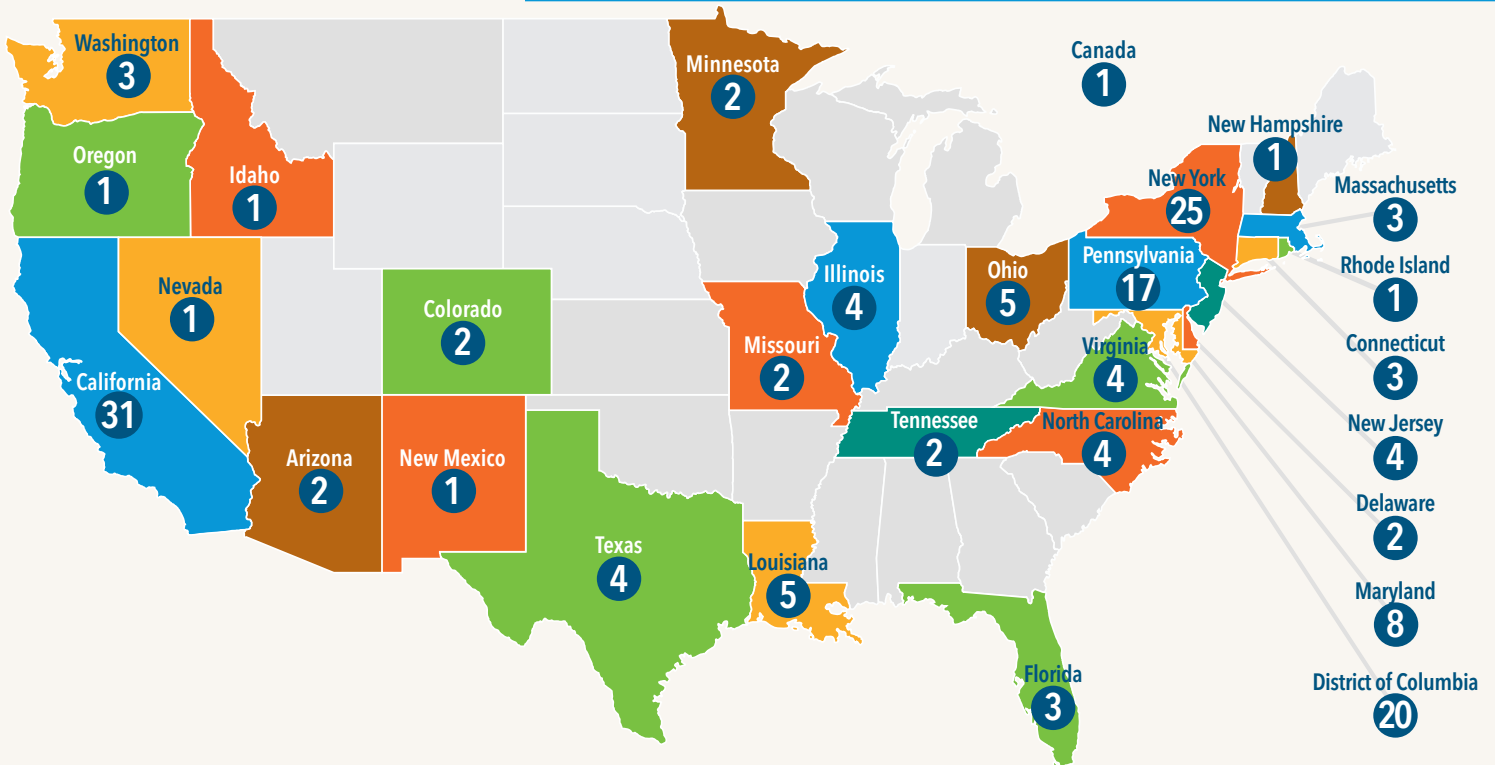
(Before Supplemental Offer and Acceptance Program)

97% MATCH
(national average 94.3%)

100% Military Match

100% Couples Match

Thirteen members of the Class of 2018 will continue their training at GW, and two will train at Children's National Health System.



TOP FIVE SPECIALTIES

| | |
|---------------------------|----|
| Internal Medicine | 45 |
| Emergency Medicine | 21 |
| Pediatrics | 15 |
| Obstetrics and Gynecology | 14 |
| Anesthesiology | 13 |

TOP FIVE INSTITUTION MATCHES

| | |
|--------------------------|----|
| 1. GW | 13 |
| 2. UCLA | 5 |
| 3. Icahn Mount Sinai | 5 |
| 4. U of Maryland Med Ctr | 4 |
| 5. Stanford | 4 |

ON AN UPWARD SWING

The George Washington University School of Medicine and Health Sciences (SMHS) and its Office of Diversity and Inclusion (ODI) believe that academic excellence and diversity are inextricably linked. ODI works with SMHS departments and offices to enhance policies and procedures, leads programming on diversity and equality, assists with the recruitment of students with identities underrepresented in medicine, and develops pipeline programs.



16 | Student participants in 2017 DC Health and Academic Prep Program (DC HAPP) cohort

34 out of 35 | Students from the 2015 and 2016 DC HAPP cohorts have gone to a four- or two-year college

25 out of 35 | Students from the 2015 and 2016 DC HAPP cohorts have gone to a four-year college

100% | All incoming medical students since 2014 have participated in the ODI Introduction to Cultural Competency seminar

100% | All incoming medical students since 2014 have participated in an ODI Unconscious Bias seminar

90 | Deans, chairs, faculty, staff, and students have attended the ODI Title IX training seminars

Upward Bound, a national program that has been at the George Washington University School of Medicine and Health Sciences (SMHS) for more than two decades, will see its longevity continue with a five-year, \$1.2 million grant from the U.S. Department of Education.

The program, led by Yolanda Haywood, MD, RESD '87, BA '81, senior associate dean for diversity and inclusion, associate dean for student affairs, and associate professor of emergency medicine at

SMHS, is designed to ease the transition from high school to a four-year college for first-generation college students. Participants receive SAT preparation, supplemental education, financial aid counseling, and tours of colleges. Those who show an interest in the health care field also receive additional exposure to related disciplines.

At SMHS, the program serves students from Washington, D.C., public schools in Wards 5, 6, and 7, and parts of Ward 8.



CREATIVE COOKING

A new culinary medicine elective offers third- and fourth-year George Washington University (GW) School of Medicine and Health Sciences students hands-on training and the tools to teach patients real-world skills to alter their diets, shopping habits, and meal preparation. GW partnered with local nonprofit Capital Area Food Bank for the elective.



AWARD-WINNING DERMATOLOGY RESIDENTS

Residents in the Department of Dermatology at the George Washington University School of Medicine and Health Sciences (SMHS) are quickly becoming a force to be reckoned with, impressing not only through their clinical work, but also their research — and the department is generating a list of awards to prove it.

Thomas Lee, MD; Elizabeth Robinson, MD; and Julia Schwartz, MD, each brought home awards for research presentations.

“To have this kind of activity this early on in the program is unheard of,” said Adam Friedman, MD, associate professor of dermatology at SMHS. “They were the right residents to have in a new program; they are so productive, engaging, and energetic.”

SCHOLARSHIP GIVES SMHS STUDENTS EXPERIENCE ABROAD



This past summer, seven George Washington University School of Medicine and Health Sciences MD students traveled abroad to learn how health care systems operate overseas. The opportunity was made possible by the Leonard C. Akman, MD '43, Global Medicine Scholarship, which is open to medical students looking to diversify their medical education.

Roma Rajput, MD '17, studied at a children's hospital in Córdoba, Argentina, learning about the operations of its various departments, improving her triaging skills, and providing high-quality care with limited resources.

"I probably wouldn't have been able to do an international rotation if it weren't for the scholarship," said Rajput, now a pediatrics resident at St. Christopher's Hospital for Children in Philadelphia.

Leonard Akman, who passed away in 2011, was a pioneer in heart transplantation, cardiac catheterization, and cineradiography, and worked diligently to bring new modalities to the bedside.

Clockwise from seated left: Kara Woodman, MID, senior education specialist; Amro Nassar, MD '17; Alisa Malki, MD '17; Huda M. Ayas, EdD '06, MBA '98, MHSA '93, associate dean for international medicine, executive director of the Office of International Medicine Programs; Karim Kherbache, MD '17; Jeffrey S. Akman, MD '81, RESD '85, vice president for health affairs, Walter A. Bloedorn Professor of Administrative Medicine, and dean of SMHS; Olivia Beau brun, MD '17; Roma Rajput, MD '17; Yasamin Soltanianzadeh, MD '17; Thejju Sebastian, MD '17; and Janet Chao, MSIV.

ACCREDITING EXCELLENCE

In an achievement spotlighting scholastic and leadership excellence, the Physical Therapy (PT) program in the George Washington University School of Medicine and Health Sciences (SMHS) Department of Health, Human Function, and Rehabilitation Sciences (HHFRS) earned a 10-year reaffirmation of accreditation from the Commission on Accreditation in Physical Therapy Education at the organization's spring 2017 meeting.

To achieve accreditation, PT programs have to submit a self-study report on areas such as curriculum, resources, and faculty qualifications, as well as host an on-site review.

"The accreditation process strongly emphasizes program outcomes, and therefore this achievement is a tribute to the remarkable faculty, students, and staff who commit so much time and effort to achieve the type of results recognized and commended by the commission," said Joyce Maring, DPT, EdD, chair of HHFRS and associate professor of health, human function, and rehabilitation sciences at SMHS.

CLINICAL PUBLIC HEALTH

First-year students at the George Washington University (GW) School of Medicine and Health Sciences (SMHS) gather in the Marvin Center each December to learn about, and make their mark on, the national HIV/AIDS strategy in the United States.

The event, *How Clinicians Can Help Achieve an AIDS-Free Generation: Doctors' Prescriptions for State and Local HIV/AIDS Action Plans*, is the first of a series of clinical public health seminars designed to prepare MD students at SMHS for a changing health care landscape.

In the 2014–15 academic year, SMHS began incorporating rigorous clinical public health education into the MD program curriculum. Since then, summit topics have expanded to include childhood asthma, obesity, and, starting last year, fourth-year students are able to choose their own clinical public health topic for a summit project that they can work on throughout their fourth year of medical school.



“The summits are a hallmark of our clinical public health curriculum,” said Lawrence “Bopper” Deyton, MD ’85, MSPH, senior associate dean for clinical public health and Murdock Head Professor of Medicine and Health Policy at SMHS. He added that the enhanced emphasis on clinical public health has become an attractive element to prospective students and enables the school to take greater advantage of GW’s unique location in the heart of the nation’s capital.

According to Deyton, integrating population health throughout students’ four-year medical education enables generations of GW physicians to develop the leadership and interprofessional skills, as well as the broader understanding of the social determinants of health, necessary to tackle complex problems.

Real-world public health challenges such as HIV/AIDS, asthma, and obesity provide the conduit linking students to public and population health resources and research techniques, and introduce them to local and national public health, policy, and health system experts and decision-makers. Feedback from those decision-makers, added Deyton, is one of the most significant aspects of the summits.

“We bring the senior-most officials who run the entirety of five states’ HIV/AIDS programs to GW for three days to directly work with GW medical students,” Deyton said. “Is there another medical school in the country that can do that?”



Kofi D. Essel, MD '11, MPH '17, FAAP, leads the Clinical Public Health summit, titled *How Physicians Can Turn the Tide of Obesity in Washington, D.C.*, between second and third year of the MD program. Among other honors, Essel has been recognized by the Alliance for a Healthier Generation for helping to create an innovative curriculum to enhance pediatric resident trainee skills on obesity management. He also assisted with developing a national toolkit for pediatric providers to better identify and screen for food insecurity in their clinical settings while serving as an anti-hunger advocate at D.C. Hunger Solutions and the Food Research & Action Center.

AREA STUDENTS EXPERIMENT WITH MEDICAL LABORATORY SCIENCES

This year, the Medical Laboratory Sciences (MLS) program at the George Washington University School of Medicine and Health Sciences (SMHS) hosted its first formal summer immersion program for Loudoun County high school students, those who have graduated and are entering college, and some students attending Northern Virginia Community College.

“We thought it would be a great opportunity to create a formalized program, and [it] also gave us an opportunity for outreach in our community in the Ashburn area,” said Marcia Firmani, PhD, MSPH, program director for MLS and interim chair of the Department of Integrated Health Sciences at SMHS.

During the two-week session, students spent their days in the lab covering topics such as molecular techniques, developing clinical laboratory skills, and learning how to work with DNA and other types of biomedical samples.

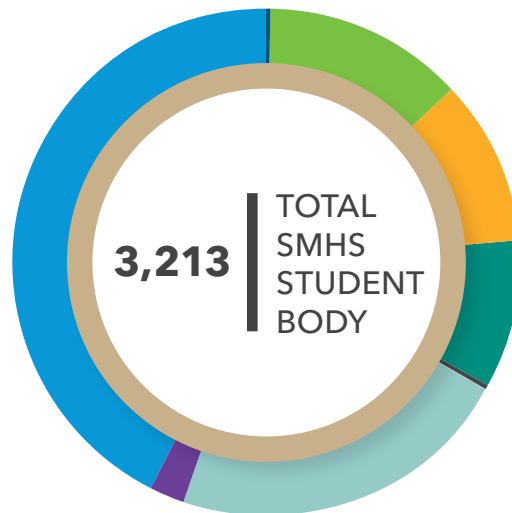
STUDENTS BY DEGREE PROGRAM

| | |
|------------|--|
| 320 | AS in Health Sciences |
| 440 | BS in Health Sciences |
| 131 | Doctor of Physical Therapy |
| 567 | MS in Health Sciences (not including PA) |
| 143 | MS in Health Sciences, Physician Assistant |
| 19 | Doctor of Occupational Therapy |
| 15 | Doctor of Translational Health Sciences |
| 728 | MD program |



SMHS STUDENT RACE AND ETHNICITY

Data self-reported





A LAUNCH PAD TO RESEARCH

Sharjeel Chaudhry, a second-year MD student at the George Washington University School of Medicine and Health Sciences, had applied for a few fellowship opportunities — and received two offers — but his decision was an easy one: the Sarnoff Fellowship.

“The Sarnoff Fellowship is one of the most unique research programs in the country for medical students,” he explained. “In addition to a \$32,000 stipend and funding for research supplies, the award gives students \$8,000 to travel across the country to find the ‘perfect’ research lab to work in for one year.”

Chaudhry, who is one of 10 recipients of the prestigious Sarnoff Cardiovascular Research Foundation Fellowship, also receives a lifetime of subsidized expenses for scientific meetings, and has the opportunity to choose the mentor, lab, and research project best suited to his goals.

ADVOCACY IN ACTION

Students at the George Washington University School of Medicine and Health Sciences (SMHS) have long been engaged in activism and advocacy; during the last several decades, they have supported HIV/AIDS research, measures for patient outcomes, and efforts to provide greater equity in health care. Now, the latest generation is immersed in social activism.

For some, that has meant writing letters, signing petitions, and calling representatives; for others, it has been organizing, marching, and putting a face to an issue.

In January 2017, the SMHS Social Justice Interest Group posed for a Twitter campaign with white boards displaying messages of solidarity for #WhiteCoats4BlackLives. Students also traveled to Capitol Hill to provide a voice for their patients, and Doctor of Physical Therapy students participated in the American Physical Therapy Association Federal Advocacy Forum, learning how to advocate for patients.

“It’s one thing to be vocal, it’s one thing to have an opinion, and it’s one thing to care about issues,” explained MD student Ashtin Jeney, student representative on the bipartisan American Medical Association Political Action Committee board. “But putting yourself at the table, with the people who are having the conversation to enact change, I think, is really where we have to [be].”

“The Healing Clinic definitely makes you think creatively. ... [L]earning to navigate barriers to care that aren’t taught in the classroom is a unique opportunity that only the Healing Clinic can provide.”

– Kirsten Almagro, second-year PA student, who volunteers with the Healing Clinic, an SMHS student-run free clinic founded in 2006 that is open to the community. The clinic, which has two locations, one in Prince George’s County, Maryland, and another at Bread for the City in the District, is made up entirely of student, resident, and clinician volunteers.

LEADERSHIP

YOLANDA HAYWOOD

Yolanda Haywood, MD, RESD '87, BA '81, was tapped to join the George Washington University School of Medicine and Health Sciences' (SMHS) senior leadership team to serve as the senior associate dean for diversity and inclusion.

Haywood's office has supported efforts to attract and retain talented diverse students, faculty, and staff. Recently, SMHS scored above the 90th percentile among peer institutions for recruitment and retention of a high number of black or African American students and female faculty members, according to the Mission Dashboard tracked by the Association of American Medical Colleges.

Additionally, Haywood maintains her roles as associate dean for student affairs and associate professor of emergency medicine.





RAYMOND LUCAS

Raymond Lucas, MD, was recently selected to serve as the senior associate dean for faculty and health affairs.

Lucas, who has served as the associate dean for faculty affairs and professional development since 2013, is an adviser to faculty and leaders across the clinical enterprise.

Since that appointment, his portfolio has continued to grow with an additional focus on wellness across the medical enterprise, the creation of a research workforce development function, and the development of the SMHS Center for Faculty Excellence.



WALTER HARRIS

Walter Harris, MBA, PMP, who joined SMHS in August 2016 as the senior associate dean for administration and operations, now holds the title of associate vice president for administration and operations.

The position change more accurately reflects his role as the SMHS chief operating officer. Harris came to SMHS from the Food and Drug Administration (FDA), where he served as the deputy commissioner for operations and chief operating officer, providing strategic and innovative operational services to more than 16,000 FDA staff members, overseeing a budget in excess of \$4 billion along with a \$450 million IT portfolio.

At SMHS, Harris is responsible for operations and administration, including financial planning and accounting, strategic planning, human resources, information technology, facilities, and safety and security.



ROBERT E. KELLY

Robert E. Kelly, MD, the new CEO of the George Washington University (GW) Medical Faculty Associates (MFA), knows that as the health care landscape evolves, the MFA will need to be ready for new value-based care and population health models.

Kelly already is making his mark on the organization. He has made strides in creating a strong management team, hiring for crucial roles such as chief financial officer, chief information officer, and chief business development officer.

As CEO, Kelly is tasked with overseeing operations management, the administrative structure that supports the clinical enterprise, as well as financial services. “What I want to do is make sure the doctors and all the providers feel like the MFA is here to support their practice,” Kelly said.

Kelly comes to the MFA from New York-Presbyterian, where he served as president and chief operating officer.

TACKLING RESEARCH WORKFORCE DEVELOPMENT



Alison K. Hall, PhD, the George Washington University (GW) School of Medicine and Health Sciences' (SMHS) new associate dean for research workforce development, has spent her inaugural year at SMHS working on a variety of initiatives to support the research enterprise. Among those projects are a weekly grant funding alert service and an online researcher database.

In the role, Hall provides oversight of research workforce development across the school. She gives guidance on research education, promotes research opportunities, and provides research support.

A new blog on the SMHS website, *Research Matters*, combines many of Hall's first initiatives into one place. It includes archived grant funding alerts, a new GW researcher database, and posts from GW experts about specific issues affecting research.

More recently, Hall led an update to the Institute for Biomedical Sciences' PhD program, and launched a new summer research education program, the GW Summer Program to Advance Research on Cancer, designed to enhance diversity in the biomedical research community.

Hall is a published neuroscientist with a focus on neurodevelopment and the peripheral nervous system. She most recently served as the deputy director of the Division of Training, Workforce Development, and Diversity at the National Institute of General Medical Science in the National Institutes of Health.

INSPIRING WORDS

When he returned to his alma mater in August 2013, Lawrence "Bopper" Deyton, MD '85, MSPH, senior associate dean for clinical public health and professor of medicine at the George Washington University School of Medicine and Health Sciences, found himself inspired by the newest generation of physicians before him.

"Today is one of the most humbling honors of all ... your potential to do good in this world fills me with awe and hope for our future," he said as keynote speaker at the time, minutes before the first-year medical students officially donned their white coats. It was a sentiment he repeated years later at another notable event: his installation as the Murdock Head Professor of Medicine and Health Policy in June 2017.

"Seek out the mentors here," he advised the young minds in the audience. "Learn from our mistakes. Become excellent clinicians for your patients, for your communities, for the nation, and for the planet."



AN ODYSSEY OF NEUROSCIENCE, DISCOVERY



In what he called a “milestone in an odyssey from the Midwest to the mid-Atlantic,” Anthony-Samuel LaMantia, PhD, director of the George Washington University (GW) Institute for Neuroscience and professor of anatomy and regenerative biology at the GW School of Medicine and Health Sciences, became the inaugural Jeffrey Lieberman Professor of Neurosciences.

LaMantia has played a pivotal role in expanding the GW neurosciences faculty and has been a catalyst for partnerships and collaborations across the school.

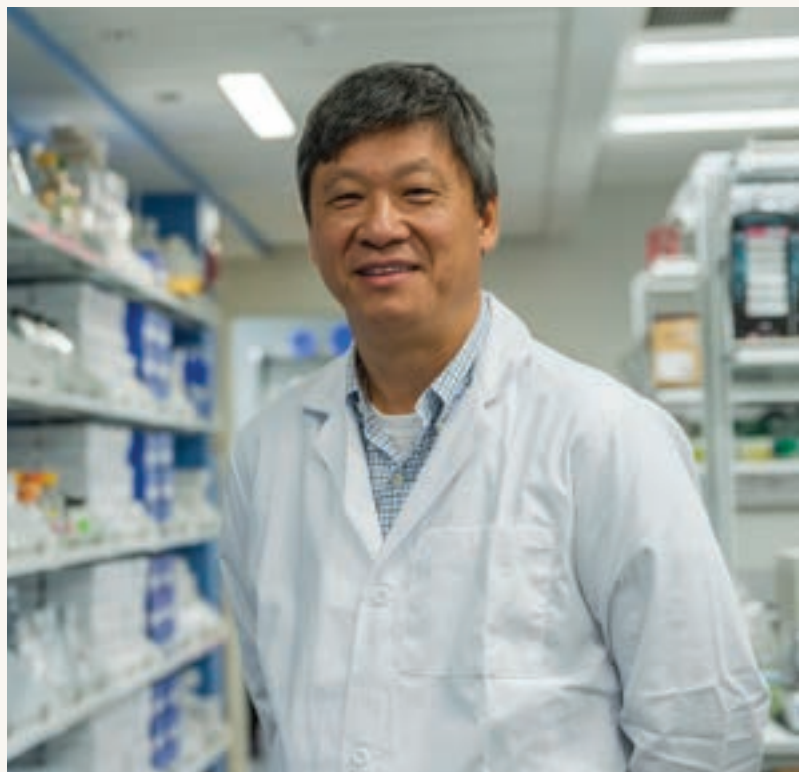
During the installation ceremony, LaMantia thanked those in attendance for their support. “[S]uccess is built upon the love, support, and guidance of family, friends, and colleagues. They make the journey possible,” he said.

PUTTING THE PIECES TOGETHER

The key to Edward Seto’s long career in cancer research is simple: “Rather than try to know everything, we should focus on how we can contribute a small piece to a large puzzle.”

Seto, PhD, associate center director for basic sciences at the George Washington University (GW) Cancer Center and professor of biochemistry and molecular medicine at the GW School of Medicine and Health Sciences, explained that his small pieces — in the form of research on cancer epigenetics and histone deacetylase enzymes, or HDACs — have helped him chip away at finding a cure for the disease. They’ve also earned him the distinction of King Fahd Professor of Cancer Biology.

“I’m honored today to be given this opportunity to contribute ... to the GW Cancer Center, the medical school, the university, and to the educational ambitions and goals of the late King Fahd [of Saudi Arabia],” Seto said at his installation.



KOVRT INSTALLED AS CHARLES AND SONIA AKMAN PROFESSOR IN GLOBAL PSYCHIATRY

Brandon Kohrt, MD, PhD, RESD '13, associate professor of psychiatry and behavioral sciences at the George Washington University School of Medicine and Health Sciences (SMHS), told stories of the positive effect mental health treatment has on children around the world.

He recalled Sangeeta, Ramesh, and Asha, children whose lives were restored thanks to his efforts, during his installment as the Charles and Sonia Akman Professor in Global Psychiatry.

“We are all part of the George Washington University because of the dedication to improving the quality of the human experience and to reducing human suffering through research, education, and service,” Kohrt said. “I am deeply grateful ... for the opportunity to pursue this mission to its fullest extent.”



The endowed fund was made in memory of the parents of Leonard C. Akman, MD '43, a pioneer in heart transplantation and cardiac catheterization and cousin

to Jeffrey S. Akman, MD '81, RESD '85, vice president for health affairs, Walter A. Bloedorn Professor of Administrative Medicine, and dean of SMHS.



ON THE RISE

Building on his experience as interim chief medical officer (CMO) at the George Washington University (GW) Hospital, Bruno Petinaux, MD, RESD '02, clinical associate professor of emergency medicine at the GW School of Medicine and Health Sciences (SMHS), was formally named CMO in June 2017.

Petinaux led the development and execution of safety and quality initiatives prior to his official appointment, and he also serves as co-chief of the section of emergency management at GW Hospital.

In addition, Petinaux is the director of the Emergency Medicine Track at SMHS and serves as the medical team manager for the Virginia Task Force 1/USA 1 Urban Search and Rescue Team.

CAROLYN J. DREW TO LEAD DEVELOPMENT AND ALUMNI RELATIONS

As the new associate dean and associate vice president for development and alumni relations at the George Washington University School of Medicine and Health Sciences (SMHS), Carolyn J. Drew leads the development and alumni relations teams to advance the education, clinical, and research missions of the school.

In addition, Drew is responsible for setting the strategic direction of development initiatives in collaboration with clinical partners; overseeing major principal gift fundraising for priority areas; and establishing innovative programs to engage prospects, enhance grateful patient programs, and optimize volunteers and development councils. She also serves as a member of the school's senior leadership team.

Drew most recently served as a development consultant for SMHS.



TAKING THE LEAD ON RESEARCH FUNDING

Vittorio Gallo, PhD, professor of pediatrics and of pharmacology and physiology at the George Washington University School of Medicine and Health Sciences (SMHS), supports faculty members in their pursuit of child health research funding as the associate dean for child health research.

In his position, Gallo works to enhance research relationships between SMHS and Children's National Health System, and he provides educational opportunities to enhance grant-seeking skills.

He also assists with coordination of child health research efforts and offers general administrative leadership for the operation of strategic projects in child health, in coordination with the senior associate dean for research.

MAURA POLANSKY NAMED CHAIR OF PHYSICIAN ASSISTANT STUDIES

Maura Polansky, PA-C, has been named chair and associate professor in the Department of Physician Assistant (PA) Studies at the George Washington University (GW) School of Medicine and Health Sciences.

Polansky joined GW from the University of Texas MD Anderson Cancer Center in Houston, Texas, where she served as program director for curriculum development in the Department of Clinical Education.

She served in several clinical and administrative leadership roles during her career at the MD Anderson Cancer Center. During her tenure, she founded the PA Oncology Fellowship Program and directed PA education for more than a decade.

Polansky takes the helm of a nationally recognized GW PA Program, currently ranked third out of 218 nationally accredited programs by *U.S. News and World Report*.



PLAYING A NEW ROLE IN LEADERSHIP

Karen Wright, PhD, PA-C, assistant professor in the Department of Physician Assistant (PA) Studies and program director for the PA program at the George Washington University School of Medicine and Health Sciences, has added a new title to an already impressive roster of leadership roles: assistant dean for student life and academic support for health sciences.

In her new position, Wright advances new student life initiatives, directs academic support services, and crafts and implements new programs and activities with fellow faculty members, among other responsibilities.

She also pursues research and academic activities, particularly those related to student experiences, such as wellness, community engagement, and the culture of diversity and inclusion. Additionally, she works in collaboration with the associate dean for academic planning and assessment in health sciences to design individualized programs for students.

MITCHELL SMITH JOINS GW CANCER CENTER

Mitchell Smith, MD, PhD, the new associate center director for clinical investigations at the George Washington University (GW) Cancer Center, looks to create a center that pioneers new treatments, rapidly delivers them to patients, and continually engages with the community it serves.

“It’s always been the goal to take good care of patients, but now we want to be on the cutting edge in terms of research and providing access to new drugs for patients,” he says. “Ultimately,

[we want to] take science that’s developed here, in the medical school and the laboratories ... to our patients.”

In his role, Smith oversees all cancer clinical trials. He sees the GW Cancer Center becoming a hive of activity, opening new trials at a fast clip, while developing a strong focus on in-house science.



DEPARTMENT GETS NEW CHAIR AND NEW NAME

During the summer of 2017, the Department of Integrative Systems Biology received a new name and a new chair.

Eric Vilain, MD, PhD, now serves as chair and professor of the Department of Genomics and Precision Medicine at the George Washington University (GW) School of Medicine and Health Sciences (SMHS) and Children's National Health System (Children's National). In addition, he remains a professor of pediatrics at SMHS and director of the Center for Genetic Medicine Research at Children's National.

The Department of Genomics and Precision Medicine focuses on investigating genetic and epigenetic mechanisms of disease, leading to individualized diagnosis, treatment, and risk stratification. The new name reflects the innovative genomic and bioinformatic approaches to translational medicine.

Vilain brings 30 years of expertise to GW. He is a renowned geneticist and one of the world's foremost experts in the genetic determinants of sex development and sex differences.

FISCAL EXPERTISE

Deborah Dickenson, MBA, a 25-year veteran of administrative and financial management, is a new addition to the George Washington University (GW) School of Medicine and Health Sciences (SMHS), serving as the assistant dean for finance, planning, and fiscal operations.

Dickenson advises SMHS leadership and acts as the principal financial officer for planning, organizing, executing, evaluating, and monitoring the school's fiscal functions.

"I am honored to be joining the leadership team at GW SMHS," Dickenson said at the time of her hiring. "I look forward to supporting faculty and staff, as well as the school's strategic plan, programs, services, and initiatives."



DISCOVERY

KEVIN PELPHREY AWARDED GRANT FROM SIMONS FOUNDATION FOR AUTISM RESEARCH

With the help of a grant from the Simons Foundation, Kevin Pelphrey, PhD, the Carbonell Family Professor in Autism and Neurodevelopmental Disorders and director of George Washington University's Autism and Neurodevelopmental Disorders Institute, is testing the effects of a neuropeptide on children with autism.

The grant will fund a double-blind treatment study giving patients either oxytocin or a placebo, followed by pivotal-response training, an evidence-based behavioral intervention. The brain activity of each child will be recorded via functional magnetic resonance imaging before the study begins to determine if the use of oxytocin helps improve the impact of behavioral therapy.

"Our prediction is that for kids who have certain low-levels of social brain activity ... when they are given oxytocin, they'll benefit more from the behavioral therapy," Pelphrey said.

It's an unusual approach, he explained, because often the context in which the drug is given does not carry much weight. However, in this study, that context – the behavioral therapy – is key.



ADVANCING GLOBAL RESEARCH PARTNERSHIPS

Drawing on the success of two previously held international scientific summits, the George Washington University (GW) Office of International Medicine Programs (IMP) and the GW School of Medicine and Health Sciences (SMHS) organized a third in December, this time convening GW researchers with colleagues in Madrid to focus on increasing research collaborations between the United States and Spain and developing the global physician-scientist workforce.

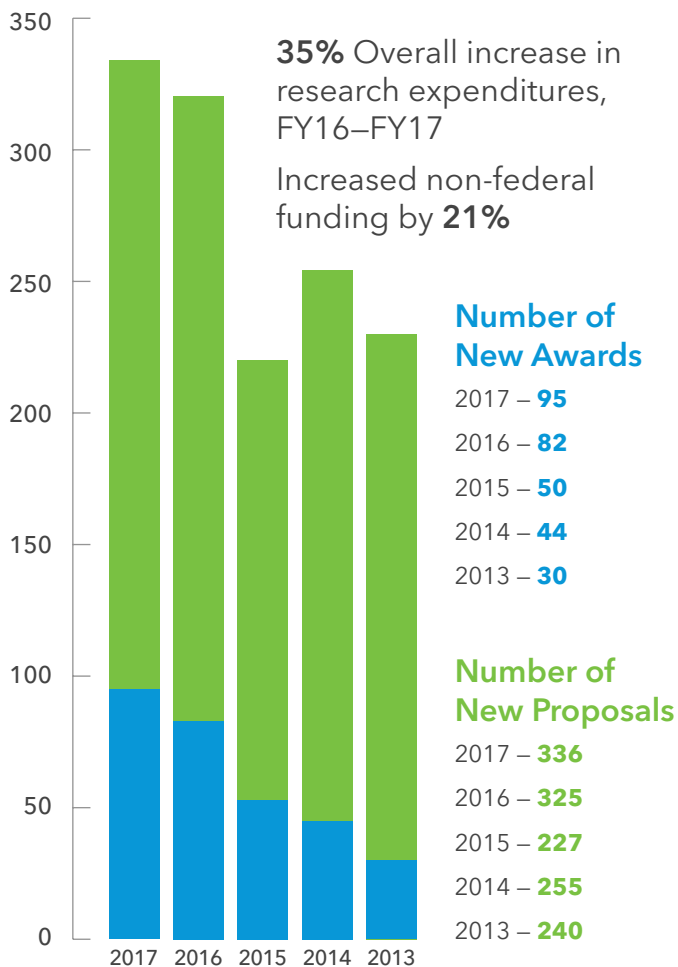
The summit was developed by the GW Cancer Center, SMHS researchers, and IMP, alongside Spanish co-sponsors



Puerta de Hierro Hospital and Research Institute and the Universidad Autonoma de Madrid.

Eduardo M. Sotomayor, MD, director of the GW Cancer Center, director of the Division of Hematology/Oncology, and professor of medicine at SMHS, said one goal of the summit was to find common

areas of biomedical interest between the institutions that could lead to strong collaborations. At the end of the summit, areas that emerged for partnership consideration included liquid biopsies in lung cancer and other solid malignancies, biology and immunotherapy of lymphomas, and skin malignancies.



SEEING WHAT WAS ONCE INVISIBLE

In a career dedicated to research, Narine Sarvazyan, PhD, professor of pharmacology and physiology at the George Washington University School of Medicine and Health Sciences (SMHS), has developed a cardiac imaging catheter that will allow her to traverse the bedside from the bench.

The catheter, developed with Marco Mercader, MD, director of electrophysiology research and associate professor of medicine at SMHS, is designed to make cardiac ablation, a procedure that burns or freezes heart tissue to correct arrhythmia, easier for surgeons.

The current catheter, which threads into a patient's vein and up to the heart, can detect changes in tissue autofluorescence caused by ablation. The tool has an illumination fiber and 17,000 imaging fibers, each capable of picking up a fluorescent signal from the tissue and relaying it to a camera. Sarvazyan's team then uses hyperspectral imaging to create a color map showing ablated tissue and viable gaps still needing ablation.

Sarvazyan, who received SMHS' first two-year, \$2.27-million National Institutes of Health Phase II Small Business Technology Transfer Program award in 2016, is already planning for Phase III to get the tool closer to the bedside.

ONE STEP CLOSER



With the support from a \$3 million grant from the NIH, David Diemert, MD (at left), and Jeffrey Bethony, PhD, have moved their hookworm vaccine to a Phase II clinical trial.

Two George Washington University (GW) School of Medicine and Health Sciences researchers — David Diemert, MD, associate professor of medicine, and of microbiology, immunology, and tropical medicine, and Jeffrey Bethony, PhD, professor of microbiology, immunology, and tropical medicine — are edging closer to a vaccine for hookworm.

A chronic parasitic infection primarily affecting children in poor, rural areas of the tropics, hookworm impacts more than 400 million people around the globe, hampering physical and cognitive development.

Diemert and Bethony, in searching for a solution, previously completed a Phase I trial of their recombinant vaccine, during which they tested its safety with volunteers and created a controlled human infection model. Now, with a \$3 million grant from the National Institutes of Health, they will move on to Phase II with a new set of volunteers, who will help test the vaccine's efficacy. They will also collaborate with GW researchers to determine the effects of novel immunostimulants given with the vaccine to see if a boost to the immune system aids the vaccine's performance.



THE ART OF 'GENE SHUFFLING'

African trypanosomes are masters of disguise. Delivered through bites from the tsetse fly, once inside a host, these parasites quickly disguise their appearance in a process called antigenic variation, or gene shuffling, all to avoid detection.

Galadriel Hovel-Miner, PhD, assistant professor of microbiology, immunology, and tropical medicine at the George Washington University School of Medicine and Health Sciences, seeks to uncover the genetics behind the parasite's ability to infect its host and attribute those genes to their function. Doing so

could expose gaps in the parasite's defenses, leading to future targeted therapeutics.

Trypanosomes thrive in sub-Saharan Africa and spread African sleeping sickness. The illness affects thousands of people living in sub-Saharan Africa and lays waste to livestock.

Hovel-Miner's lab is investigating the drug resistance of trypanosomes. Knowing which genes lead to drug resistance could help researchers identify new pathways associated with that resistance.

STREAMLINING DATA

Raja Mazumder, PhD, associate professor of biochemistry and molecular medicine at the George Washington University School of Medicine and Health Sciences, and his team, seeking to streamline and standardize cancer genomics data, are using a \$1.2 million grant from the National Cancer Institute of the National

Institutes of Health to develop two databases, BioMuta and BioXpress.

"There [are] a lot of data already generated, and that data is growing exponentially," Mazumder said. "Projects like this one will make utilizing that data much easier for researchers."

As part of his project, Mazumder will pull genomics data into a framework, standardize cancer terms for correct mapping, and provide interfaces and applications to make the data easily accessible and searchable for researchers.

THE CASE OF THE INPP5K MUTATION

The INPP5K mutation presented differently in patients with congenital muscular dystrophy, a neuromuscular disorder causing muscle weakness, intellectual disability, and vision issues; these patients were also of short stature with unique skeletal features.

M. Chiara Manzini, PhD, assistant professor in the George Washington University (GW) Institute for Neuroscience and the Department of Pharmacology and Physiology at the GW School of Medicine and Health Sciences, who studies severe forms of muscular dystrophy, was intrigued.

She reached out to researchers around the world, and each of the labs replicated what Manzini had suspected: the removal of the INPP5K gene caused muscle disruption, lens disruption, and a smaller brain. In other words, they had discovered a new type of congenital muscular dystrophy.

The next step, Manzini said, is finding more patients with this particular mutation and understanding how the gene functions in the muscle and the brain.

ROLLING BACK DISEASE

Allan L. Goldstein, PhD, Professor Emeritus in Residence of Biochemistry and Molecular Medicine at the George Washington University School of Medicine and Health Sciences, first isolated thymosins, small proteins in the thymus gland, in 1979; now, his life's work could have a significant impact on cystic fibrosis (CF).

CF, a genetic disorder affecting the lungs, gastrointestinal tract, and other parts of the body, presents two problems: first, because CF is an autosomal recessive mutation, the protein necessary to keep chloride channels open in cells lacks an amino acid, resulting in a misfolded protein; second, because the chloride channel doesn't work properly, the immune system is dysregulated.

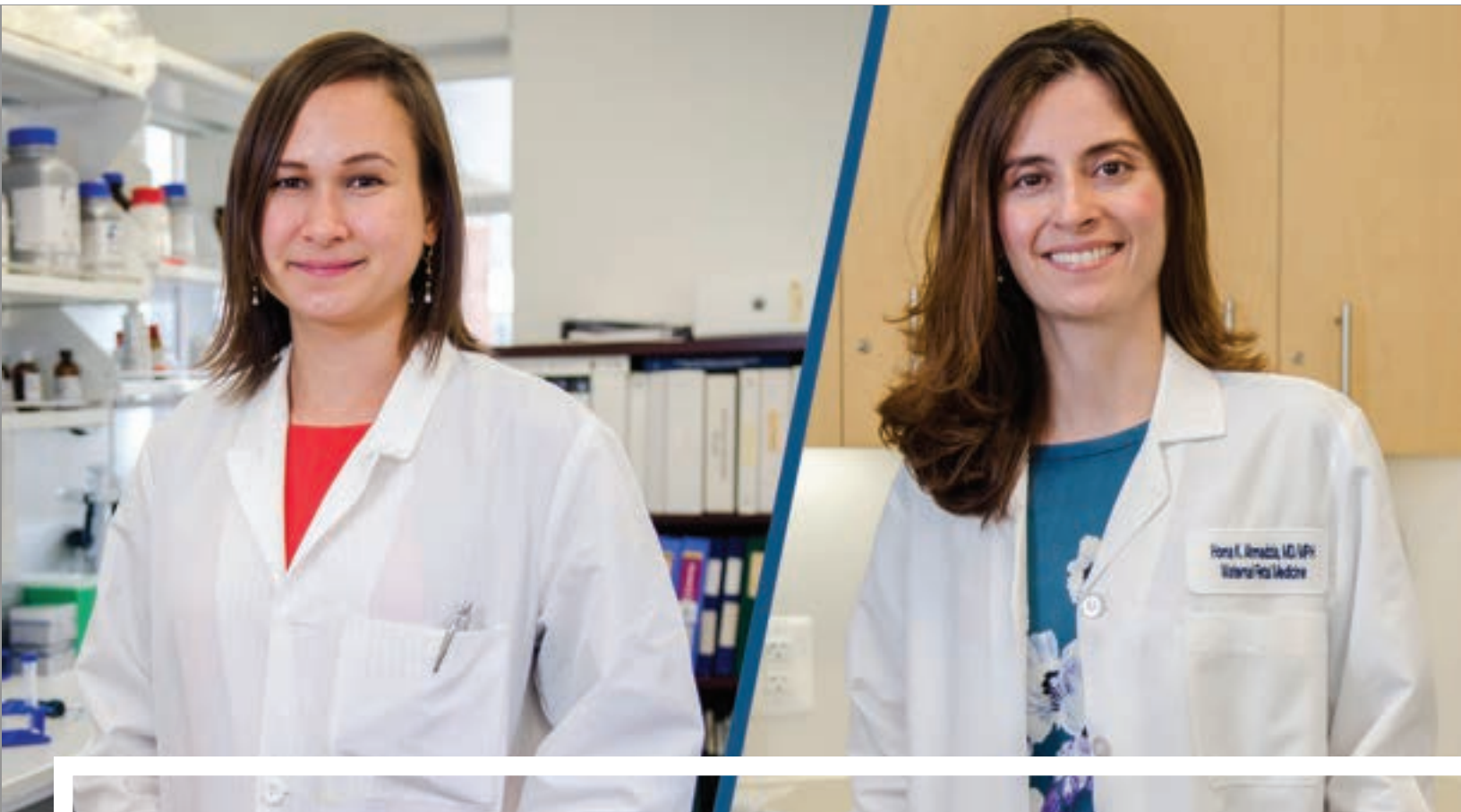
Goldstein's most recent study, conducted in collaboration with colleagues Luigina



Allan L. Goldstein, PhD, Professor Emeritus in Residence of Biochemistry and Molecular Medicine, first isolated thymosins in 1979. Since then, the proteins have become a research target for, among others, cardiovascular disease, neurodegenerative diseases and brain trauma, wound healing, cancer, and cystic fibrosis.

Romani and Enrico Garaci from Italy, found that thymosin α_1 ($T\alpha_1$) corrects the immune system defect, treating the symptoms while halting progression of the underlying disease.

$T\alpha_1$, whose commercial name is Zadaxin, has been approved for clinical use for more than 15 years in 35 countries, though not yet in the United States. It is now the main focus of a planned Phase I trial in Italy.



THE GROWTH INITIATIVE

The George Washington University (GW) School of Medicine and Health Sciences (SMHS) is working to grow its cadre of clinician-scientists to bolster the team already working at GW and making advances in the lab and the clinic. Two such experts are Aileen Chang and Homa Ahmadzia. Both received NIH KL2 Career Development Awards through the Clinical and Translational Science Institute at Children's National Health System (Children's National). The KL2 awards support newly trained clinicians in the development of successful clinical and translational research careers.

Aileen Chang, MD, MSPH, assistant professor of medicine at SMHS, received a KL2 award for her study, "Zika-Induced Guillain-Barre Syndrome: Elucidating the Role of Antibodies."

"I wanted to see what caused Guillain-Barre Syndrome (GBS) [a neurological disorder caused by an array of different infectious diseases that has seen an increased incidence since the Zika outbreak], and if it would be something we could potentially prevent," Chang says. "Sometimes GBS is caused by vaccines,

like the flu vaccine, and researchers are in the process of making a Zika vaccine. We want to make sure that the vaccine would be safe for the general public."

With the support of her KL2 award, Homa Ahmadzia, MD '08, MPH '08, BA '04, assistant professor of obstetrics and gynecology at SMHS and of global health at the Milken Institute School of Public Health at GW, is investigating the bioavailability of an IV formula for Tranexamic acid, a medication used to treat or prevent excessive blood loss by stabilizing the protein fibrin.

"Pregnancy is understudied in research. It [involves] a vulnerable population, and researchers are always very skeptical about studying it. I wanted to study a critical area that has potential impacts not only regionally, but also nationally and globally," says Ahmadzia.

COMMUNITY



SMHS AND ACPS JOIN FORCES

The George Washington University (GW) School of Medicine and Health Sciences (SMHS) and Alexandria City Public Schools (ACPS) are joining forces to educate the health care workforce of tomorrow.

Through an agreement, students at T.C. Williams High School will have the opportunity to participate in a health and medical sciences Career and Technical Education (CTE) pathway. The program

will begin in academic year 2018–19 for T.C. Williams students in grades 9 through 12.

“This is a wonderful opportunity for our students to get a head start on college, have access to a great education, and to develop a passion for a career field that has a critical need for future employees,” said Interim ACPS Superintendent Lois F. Berlin. “The Career and Technical Education program at T.C. Williams provides students with the chance to fully understand the field of study they may pursue and make sound decisions about that career choice before they fully commit to it. We are very excited about this unique public-private partnership opportunity with GW.”

The strategic educational partnership will establish five new CTE pathways within the new GW-ACPS Academy of Health Sciences at the school, joining existing pathways in surgery and nursing that were developed by ACPS. It will start with the launch of a biomedical informatics pathway in fall 2018, followed by four additional pathways — sports medicine, pharmacy, emergency medical services, and medical laboratory sciences — that will launch over the next four years. GW faculty will work collaboratively with faculty from T.C. Williams to broaden and enrich the offerings for the students.

The dual-enrollment courses also mean students can receive early high school and college credit. The credits earned will be accepted by SMHS toward a bachelor’s degree in health sciences at GW, if students meet admission requirements.



Kidney donor Claire Merwin, left, and Chadia Yacoubou, the recipient who had waited seven years for a kidney, met for the first time at a GW Transplant Institute celebration in August 2017. The pair represent the 100th kidney exchange through the GW Transplant Institute.

CELEBRATING LIFE

The two scenes, though months apart, exactly mirrored each other: at the George Washington University (GW) Transplant Institute, kidney recipients waited for their anonymous — or “non-directed” — donors to walk through the doors.

“You?” asked Jose Reyes, as he enveloped his donor, Sarah Miknis, photographer and production assistant with Biomedical Communications at the GW School of Medicine and Health Sciences (SMHS), in a hug.

Miknis and Reyes, as well as Jacob Lambdin, MD ’18, and his recipient, Andrew Lewis, met in early January 2017. Chadia Yacoubou and her donor, Claire Merwin, who represent the 100th kidney exchange through the GW Transplant Institute, met in August.

“[When you donate,] you’re not giving a kidney; you’re saving a life,” said J. Keith Melancon, MD, chief of the Division of Transplant Surgery, director of the GW Transplant Institute, medical director of the GW Ron and Joy Paul Kidney Center, and professor of surgery at SMHS, who regularly performs kidney surgeries and advocates for donations. “It gives me faith in humanity.”



Physical therapy (PT) students Mandy Duniyak, Latay Benson, and Kyra Corradin traveled more than 3,000 miles from GW's Foggy Bottom campus to the Toledo District of Belize as part of a service learning experience for the PT program's Interprofessional Community Practicum course.

SPREADING DISABILITY AWARENESS IN BELIZE

In May 2017, three Doctor of Physical Therapy (PT) students at the George Washington University School of Medicine and Health Sciences (SMHS) traveled to Belize to teach children about disability awareness.

Students Mandy Duniyak, Latay Benson, and Kyra Corradin, accompanied by Jill Boissonnault, PhD, PT, adjunct associate professor of health, human function and rehabilitation sciences at SMHS, traveled to Central America as part of a service learning experience for the Interprofessional Community Practicum course.

The curriculum Duniyak, Benson, and Corradin taught included highlights such as a puppet show featuring Manuel, a monkey who only had one arm but could still climb trees with the help of his tail, an activity where younger children made playdough tortillas with one arm, and presentations on the use of Braille.

HEALTHY GAMING

Imagine a screen flashing calming words, one at a time. To win, you simply read the words. That's the concept for a video game created by students at T.C. Williams High School for young people who suffer from anxiety.

It's just one of the games that Qing Zeng, PhD, director of the Biomedical Informatics Center and professor of clinical research and leadership at the George Washington University School of Medicine and Health Sciences, helped develop with students.

The reasoning behind using video games as a format to discuss health is simple, according to Zeng: "I don't know a child who does not play video games. They are a medium that the kids interact with the most."



IMPORTANCE OF COMMUNITY

In 1902, Justina Ford, MD, set up a medical practice in her home after being told she could not work in the local hospitals because she was African American and a woman. However, she did not let that stop her from serving the people in her community, delivering 7,000 babies during her 50-year career.

The story, told by Jehan "Gigi" El-Bayoumi, MD, RESD '88, founding director of the Rodham Institute, at the start of the organization's 5th annual summit, reflected the theme of the event: "Building and Strengthening Resilience in Our Community."

Keynote speaker Hillary Rodham Clinton, former senator and secretary of state, whose mother, Dorothy Rodham, inspired the creation of the institute, also spoke to resilience. Rodham fled her home at the age of 14 to work as a housekeeper and babysitter in an effort to find a better life, and in spite of her past, she grew to become a caring and thoughtful mother and friend.

"My mother told me along the way of this very difficult childhood that there were people who showed kindness to her, and I think that's right in line with the theme of building and strengthening resilience," Clinton said. "I personally think kindness is one of the most important gifts you can give someone."

In addition to the talk from Clinton, the summit also featured community panels and discussions.



TOASTING A NEW MAMMOVAN

Twenty-one years after the start of the George Washington University Medical Faculty Associates' Mobile Mammography Program, supporters gathered at the Embassy of France for the Blush Luncheon to toast a new mammo van and the future of the program.

The vehicle, which makes early detection for breast cancer accessible to underserved women across the city, is outfitted with 3-D mammography technology, the most comprehensive mammography system available.

The luncheon began with an introduction by Master of Ceremony and breast cancer survivor Jennifer Griffin, national security correspondent for Fox News. Griffin also sat down with celebrity guest Giuliana Rancic, the host of E! Entertainment and a breast cancer survivor, for a panel and audience discussion.

"I was 36 years old ... and pretty much my biggest worry the day before going to the doctor was what I was going to ask George Clooney on the red carpet," Rancic joked about learning she had breast cancer.

In addition, WUSA news anchor Andrea Roane presented awards to event honorees, including EagleBank Foundation, the contributions of which helped make the new mammo van possible.



Above left, Jennifer Griffin and Giuliana Rancic headlined the George Washington University Medical Faculty Associates' annual Blush Luncheon at the Embassy of France.

From left, Eduardo M. Sotomayor, MD, director of the George Washington University (GW) Cancer Center, director of the Division of Hematology/Oncology at the GW Medical Faculty Associates (MFA), and professor of medicine at the GW School of Medicine and Health Sciences (SMHS); Robert E. Kelly, MD, CEO of the MFA; Anton Sidawy, MD, MPH '99, president of the MFA and Lewis B. Saltz Chair and Professor of Surgery at SMHS; GW Hospital CEO Kim Russo, MBA, MS; and Jeffrey S. Akman, MD '81, RESD '85, vice president for health affairs, Walter A. Bloedorn Professor of Administrative Medicine, and dean of SMHS; with the new GW Mobile Mammography van.





GW MEDICAL STUDENT RECOGNIZED FOR SAVING FIREFIGHTER'S LIFE

Then first-year George Washington University (GW) School of Medicine and Health Sciences medical student Brandon Glousman was recognized along with other first responders for performing CPR on Officer Angelia Boddie after she went into cardiac arrest, resulting in an auto accident.

On April 25, 2017, less than a month after the accident, GW Hospital hosted a press conference highlighting the rescuers' heroics and celebrating Boddie's recovery. It was also Boddie's first time coming face-to-face with those who had a hand in saving her life.

During the press conference, D.C. Fire and EMS Chief Gregory Dean recognized the responders and presented them with Cardiac Arrest Save Coins, which are given to department members and bystanders who act to return a pulse to someone who has lost it.

"It is amazing how all of this turned out; I am proud to have been a part of it."

– Brandon Glousman, George Washington University School of Medicine and Health Sciences MD student, who spoke at a ceremony recognizing his role in helping to save the life of Officer Angelia Boddie after she went into cardiac arrest.

PT AWARD WINNERS

During the 2017 World Confederation for Physical Therapy in Cape Town, South Africa, a handful of platform presentation awards were announced, with faculty from the George Washington University School of Medicine and Health Sciences (SMHS) scooping up two of them.

Sue Leach, PhD, assistant professor of health, human function, and rehabilitation sciences at SMHS, and Ellen Costello, PhD, PT, director for the Physical Therapy Program and associate professor of health, human function, and rehabilitation sciences at SMHS, won an award for the North America Caribbean region category for their research, "A Novel Divided-Attention Stepping Intervention for Community-Dwelling Older Adults with Fall Risk."

Jill Boissonnault, PhD, PT, adjunct associate professor of health, human function, and rehabilitation sciences at SMHS, was part of the team that won an award in the European region category for research on "The Severity and Impact of Pelvic Girdle Pain and Low Back Pain in Pregnancy in the U.S., UK, Norway, and Sweden."



“It provided a tangible way to understand the surgical plan, and made me feel like I was truly a part of the process. ... It took away part of the fear of the unknown.”

– Danielle Collins, a GW Hospital patient who used the VR technology, describing how it better helped her understand life-threatening bleeding in her brain.

SEEING CLEARLY

In leading the pack in trending medical technology, the George Washington University (GW) Hospital recently debuted the latest in neurosurgery: Precision VR, a virtual reality tool.

The tool, based on an F-16 flight simulation plan, uses special software to identify potential surgical pathways for brain and spinal conditions. It’s also key for the GW School of Medicine and Health Sciences (SMHS) Department of Neurological Surgery’s emphasis on education and patient engagement.

Right now, budding neurological surgeons have access to the Ammerman Lab, a microsurgical lab in SMHS’ Ross Hall that focuses on skull base, minimally invasive, microvascular, and spine surgeries, as well as basic science research. There, residents can get a “feel” for surgery — the texture of tissues, vibrations, additional movements — but with Precision VR, they get a more in-depth understanding of the structural aspects of the brain and spine.

The tool is equally helpful for patients, who can see their specific condition and better grasp the complexities of surgery.

GW Hospital is the first in the mid-Atlantic region to offer the tool, which the clinical partnership hopes to expand to other disciplines.

CLINICAL EXCELLENCE

GW HOSPITAL BY THE NUMBERS

| | |
|----------------|-----------------------------|
| 19,842 | Admissions |
| 126,513 | Operating room visits |
| 72,668 | Emergency department visits |
| 3,469 | Deliveries |
| 24,552 | Total surgeries |
| 8,175 | Inpatient surgeries |
| 16,377 | Outpatient surgeries |

PROCEDURAL:

| | |
|--------------|--|
| 48 | Kidney transplants |
| 589 | Robotic surgeries |
| 317 | Open-heart surgeries |
| 509 | Spinal surgeries |
| 82 | Total joint replacements |
| 5 | Deep brain stimulations |
| 7 | Vagal nerve stimulations |
| 11 | Cochlear implants |
| 73 | ECMOs (Extracorporeal Membrane Oxygenation) |
| 54 | TAVRs (Transcatheter Aortic Valve Replacement) and TMVRs (Transcatheter Mitral Valve Repair) |
| 1,389 | Trauma activations |

A CONFLUENCE OF SCIENCE

Microbial oncology — or the study of how microbes, such as viruses or parasites, can be manipulated to fight cancer — boils down to the immune system. “These days, we have the technology to modify immune cells or microbes to fight cancer,” said Eduardo M. Sotomayor, MD, director of the George Washington University (GW) Cancer Center, director of the Division of Hematology/Oncology, and professor of medicine at the GW School of Medicine and Health Sciences.

Using genetically modified, or transgenic, parasites to both convert tumors and deliver cancer therapy is an important goal for the GW Cancer Center members. The program also prioritizes the influence of microbiota, intestinal or skin, on cancer development and therapy — a rapidly evolving field that links microbial composition in compartments such as the gastrointestinal tract with the development of GI malignancies. Rounding out the innovative program is the study of retrovirus-related malignancies and the broader role of human endogenous retroviruses in immuno-oncology.

“All the ingredients are here. Our job was to put them together to prepare a nice meal. I’m confident because we have good science, so we’ll be able to move the field forward.”

– Eduardo M. Sotomayor, MD, director of the George Washington University (GW) Cancer Center, director of the Division of Hematology/Oncology, and professor of medicine at the GW School of Medicine and Health Sciences

SERENDIPITOUS DIAGNOSIS

In August 2016, the George Washington University (GW) Hospital anesthesia team, including resident Samantha Brackett, MD, was waiting for a patient in the interventional radiology suite. The patient suddenly experienced an acute intra-abdominal hemorrhage, and complicating matters was the onset of symptoms characteristic of the rare condition malignant hyperthermia, or MH.

Luckily for Brackett and her patient, she had just participated in an MH simulation at the GW School of Medicine and Health Sciences Clinical Learning and Simulation Skills Center. Depending on the scenario, students and residents, as well as nurses from GW Hospital, can practice their skills and learn how to quickly diagnose conditions without worrying about negatively affecting patient outcomes.

For Brackett, the diagnostic process of her simulation directly played into her ability to quickly address her patient's health with confidence, though she credits the correct diagnosis to her team. "I had such a strong team around me," she said. "That definitely put me at ease, and we were able to effectively communicate and successfully treat the patient."



GENERAL SURGERY RESIDENT HELPED DEVELOP CENTRAL NECK DISSECTION GUIDELINES



Salem Noureldine, MD, earned a rare opportunity to serve with the American Head and Neck Society, the largest surgical organization in the United States focused on thyroid cancer treatment. The first-year resident in the Department of General Surgery at the George Washington University School of Medicine and Health Sciences was picked as a member of the team that developed a consensus statement addressing the surgical guidelines for managing regional metastases in thyroid cancer patients.

"I was fortunate to have been picked by the committee and allowed to participate ... I feel really lucky," he said. As part of the team, Noureldine was tasked with reviewing the literature to support the guidelines the team laid out and the specific goals of the consensus statement.

ALIGNING ON LYMPHOMA CARE

The George Washington University (GW) Cancer Center is bringing experts together from different specialties to create world-class lymphoma care offerings.

“It’s an opportune time to build something new in lymphoma,” said Kieron Dunleavy, MD, inaugural leader of the GW Cancer Center’s lymphoma team.

Dunleavy will draw upon support from GW Cancer Center Director Eduardo M. Sotomayor, MD, and Mitchell Smith, MD, PhD, associate center director for clinical investigations at the GW Cancer Center, to grow and advance GW’s care and research offerings in this area.

One major component is a synergy between GW Cancer Center and Children’s National Health System (Children’s National), which is opening the door to cutting-edge treatments. The new collaboration will allow adult patients to receive care at the GW Cancer Center through an extension of the Children’s National cell therapy program, said Catherine Bollard, MD, who was recently named associate center director for translational research and innovation at GW Cancer Center.



Kieron Dunleavy, MD (above right), leads the GW Cancer Center’s lymphoma team – bringing experts together from different specialties to create world-class lymphoma care offerings.



“We will have things here that nobody else has because of the partnership with Children’s [National Health System]. They’re a world-class program in cellular immunotherapy.”

– Mitchell Smith, MD, PhD, associate center director for clinical investigations at the George Washington University (GW) Cancer Center, on the GW Cancer Center’s lymphoma team, which is leveraging clinical partnerships, existing expertise, and new faculty to establish GW as a world-class site for lymphoma care and research.



“The designation will help draw patients, it gives our faculty increased reputations, it enables us to recruit better scientists.”

– Michael Benedict, PharmD, associate center director for administration and finance at the George Washington University Cancer Center, on seeking National Cancer Institute designation. The center is bringing together the best minds across departments, the university, and the research community to create a competitive, high-quality center.

PATHWAY TO NCI DESIGNATION

The National Cancer Institute (NCI) Centers Program tag line — “The whole is greater than the sum of the parts” — couldn’t be more apt for the George Washington University (GW) Cancer Center as it seeks a prestigious NCI designation.

The goal, according to Michael Benedict, PharmD, associate center director for administration and finance at the GW Cancer Center, is to bring together the best minds across departments, the university, and the research community to create a competitive, high-quality cancer center worthy of the designation.

Benedict and Eduardo M. Sotomayor, MD, director of the GW Cancer Center, director of the Division of Hematology/Oncology, and professor of medicine at the GW School of Medicine and Health Sciences, have crafted a five-year plan to reach that target.

Currently, there are just 69 NCI-designated cancer centers, but all are built on six essential characteristics: a focus on cancer research, a demonstration of institutional commitment, a center director with the appropriate qualifications and authorities, transdisciplinary collaborations, suitable physical space, and organizational capabilities that allow for and facilitate the advancement of science.

IMPROVING INNOVATION

George Washington University (GW) Hospital orthopedic medical resident Ryan Scully, MD, and his colleagues noticed an alarming trend: Almost every week, patients were canceling elective orthopedic surgery appointments. What they didn't know was why.

Now, as one of the winners of the GW Hospital Innovation Awards, Scully will be able to better answer that question. Winners receive a small cash award from the hospital, additional project support for direct costs, and help from the Center for Healthcare Innovation and Policy Research (CHIPR) to make their projects successful.

In 2017, five winners were chosen, up from the three picked in previous years. That's in part because of expanded interest in the program and the success in prior years, said Jesse Pines, MD, MBA, director of CHIPR and professor of emergency medicine and health policy and management at the GW School of Medicine and Health Sciences.

Anyone working at the hospital can participate in the annual competition, Pines said. The 2017 crop of winners stood out, he added, because of the many different areas of care they touch and how they "are making a statement about the importance of multidisciplinary work."



A POODLE AMONG PATIENTS

"There are days you can tell people are really happy to see him. He's not a big kisser; he doesn't really give out a lot of them. But sometimes he's really kissing somebody and giving them lots of love, and you can tell that he's really helped some people, taken their mind off things."

— Sandra Johnson, owner of James, a therapy dog. James and Johnson visit the Infusion Center at the George Washington University Cancer Center every Wednesday to bring smiles to patients' faces.



DEVELOPMENT



Jennifer Keller, MD, RESD '07, MPH '07

A GIFT OF SOMETHING SPECIAL

When Cheryl Silverbrook, MD '13, RESD '17, BS '09, heard her residency director, Jennifer Keller, MD, RESD '07, MPH '07, was moving to a new position — director of the Division of Education within the George Washington University (GW) Department of Obstetrics and Gynecology — she wanted to do something special.

With Nancy Gaba, MD '93, RESD '97, Oscar I. and Mildred S. Dodek and Joan B. and Oscar I. Dodek Jr. Professor and Chair of the Department of Obstetrics and Gynecology at the GW School of Medicine and Health Sciences (SMHS), and Sheetal Sheth, MD, RESD '10, assistant professor of obstetrics and gynecology at SMHS, Silverbrook reached out to alumni, faculty, and current residents. Together, they raised \$12,000 to donate to the OB/GYN Resident Education fund in Keller's honor.

The fund, Gaba said, enhances the education experience for residents by supporting educational tools, such as simulators for rarer clinical conditions, as well as research projects, online resources, and travel for conferences or international medical missions.

PAYING IT FORWARD

The George Washington University (GW) School of Medicine and Health Sciences (SMHS) Physical Therapy (PT) scholarship competition started with a question from alumnus Josh D'Angelo, DPT '13: "How can we get more people involved in the GW PT alumni network?"

The answer was a competition designed to garner more involvement than dollars; the class with the highest number of members providing donations — not the greatest amount raised — would be declared the winner. The Class of 2016 was the most recent champion, with more than 60 percent of alumni participating. The class also had 100 percent participation in its class gift, with each member contributing \$30 to buy a white coat for a member of the incoming PT class.

The competing classes plan to continue to face off for bragging rights and the satisfaction of "paying it forward," said Megan Scovil, DPT '15. "I think it is important for alumni to ... help support our future colleagues," she said. "It's also a good way to get into the habit of giving."

LAZARUS FAMILY SCHOLARSHIP HELPS SOJUNG YI STUDY GLOBAL SURGERY

Fourth-year medical student Sojung Yi's interest in global health runs deep, and thanks to the George Washington University Lazarus Scholars in Health Care Delivery program, she spent a research year in Kigali, Rwanda, and São Paulo, Brazil.

"I'm thankful for the Lazarus scholarship because it allowed me to even consider taking a dream opportunity that would have been otherwise unattainable," Yi said.

Through their philanthropy, Gerald Lazarus, MD '63, and his wife, Audrey Jakubowski Lazarus, PhD, established the Lazarus Scholars in Health Care Delivery program in 2006 to help medical students pursue extraordinary educational opportunities in health care. Students apply in the spring of their second year of medical school, and awardees receive funding during their remaining time in school. Twelve scholarships have been awarded so far.

Yi used the generous scholarship to take a year away from medical school for a research associate position with the Harvard Program in Global Surgery and Social Change, which she earned for the 2016-17 academic year.

"[T]his experience was the first time I could apply a nascent clinical lens to global health, and it was incredibly humbling to work in such variable-resource environments with providers who care deeply about health equity."



Sojung Yi, MSIV

— Fourth-year George Washington University (GW) School of Medicine and Health Sciences MD student Sojung Yi, speaking about her research year in Kigali, Rwanda, and São Paulo, Brazil. Her experiences there were made possible by the GW Lazarus Scholars in Health Care Delivery program, established in 2006 by Gerald Lazarus, MD '63, and his wife, Audrey Jakubowski Lazarus, PhD.

\$15,098,628 | Total giving for FY17

2,629 | Total distinct donors

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\$234,205,490 | Total SMHS endowment as of 6/30/2017

\$12,449,560 | Annual income from endowment

ATTAINMENT BY TYPE:

\$4,448,700 | Alumni

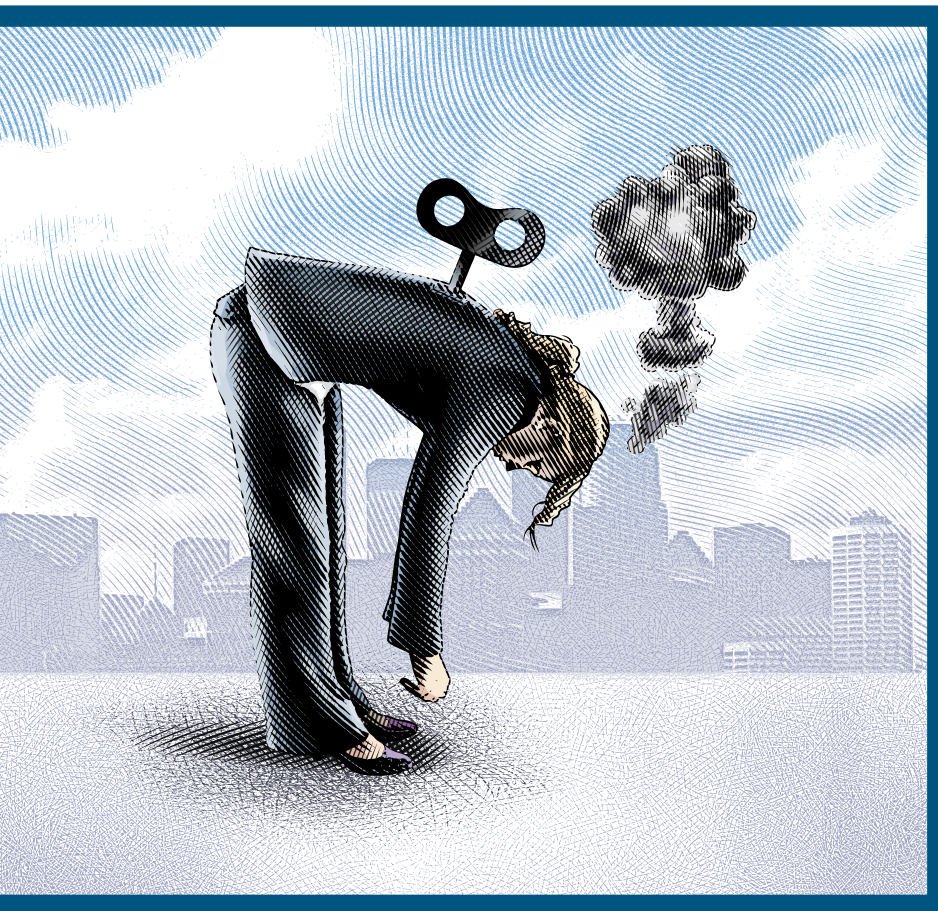
\$2,293,449 | Corporations

\$3,685,580 | Foundations

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\$2,185,908 | Other organizations

\$153,462 | Other individuals



BEATING PHYSICIAN BURNOUT

Burnout among physicians, residents, and medical students is a growing issue, but there are things clinicians can do to achieve better well-being, according to Lotte N. Dyrbye, MD, MHPE, professor of medicine and of medical education at Mayo Clinic.

In her lecture, “Physician Burnout: Prevalence, Drivers, Consequences, and Strategies to Mitigate Risk,” at the George Washington University (GW) School of Medicine and Health Sciences, Dyrbye examined the negative consequences of burnout and the ways in which it can be prevented.

The Alumni Legacy Fund for Physician Wellness made the lecture possible. The GW Medical Class of 1985 established the fund through a class gift in honor of its 30th reunion as a way to support programs that promote physician wellness and self-care.

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