

SCHOOL OF MEDICINE AND HEALTH SCIENCES

Annual Report 2013





A Year of Growth + Achievement

Our school is truly on an upward trajectory towards greatness.

Building on our strength of outstanding clinical education and training, it is evident that our school continues to transform in a very exciting way. The inspirational commitment and dedication of School of Medicine and Health Sciences students, faculty, staff, and alumni have enabled the institution to make major strides in pursuit of greatness. In the pages of this report, you will see some wonderful accomplishments that have led to the continued success of SMHS.

Solidifying the school's leadership structure and recruiting key new faculty members dominated our efforts this year and laid a firm foundation for accomplishing our future strategic goals. Dynamic leadership in any organization is paramount to its success, and this year's crop of renowned scientific recruits are already leading exciting initiatives to grow our research portfolio and raise the reputation of GW as a research institution. The basic science, translational, and clinical research underway in Ross Hall, the GW Medical Faculty Associates, and across campus promises to generate tangible solutions to many of the most complex problems associated with cancer, HIV/AIDS, and neurological developmental disorders.

The wave of anticipation among faculty, students, residents, and staff is inescapable as the steady progress of the renovation and improvement projects throughout Ross Hall continues. As completion of the new Research Center for Neglected Diseases of Poverty nears, and several other projects reach major milestones, the growing sense is that these developments will catalyze SMHS for generations. Through projects such as the CO6 grant, which funded creation of the new Center for Neglected Tropical Diseases of Poverty, as well as the new Clinical Learning and Simulation Skills Center (CLASS), we are constructing sleek, modern facilities to offer our students and faculty enhanced opportunities to engage, work, and hone their skills – helping them to become world-leaders in their fields. While our research accomplishments and construction projects offer concrete examples of the school's recent achievements, we are also making strides in raising funds to support critically important student scholarships. We are increasing our capacity to provide greater financial assistance in order to help mitigate the burdensome debt facing many medical students after graduation. Through our generous alumni and grateful patient communities, SMHS is also creating endowed professorships to extend our support to faculty members and continue to attract the best of the best to join SMHS. Raising funds is essential for the growth and success of our institution and I am very pleased to be able to say that we exceeded our fundraising targets for this past year. Within this report you will see the results of our increased success in this arena.

This report offers a glimpse of the progress SMHS has enjoyed over the past academic year (2012–13) that will serve as a foundation for continued successes for generations to come. Our school is truly on an upward trajectory towards greatness.



JEFFREY S. AKMAN, M.D. '81, RESD '85 Walter A. Bloedorn Professor of Administrative Medicine, vice president for Health Affairs, and dean of the School of Medicine and Health Sciences

When you look at a patient, you don't just see their anatomy or their biochemistry, you think of all of these things as a whole.



Education + Training

THE FINE ART OF CURRICULUM ENHANCEMENT

Since the 1910 publication of the Flexner Report, Abraham Flexner's famed assault on the state of medical education, two years of basic sciences followed by two years of clinical rotations has been the standard prescription for physician training among U.S. medical schools. But much has changed in health care since the dawn of the 20th century, and faculty leaders at the George Washington University School of Medicine and Health Sciences (SMHS) believe it's time medical education evolved as well.

Associate Professor of Medicine Matthew Mintz, M.D. '94, RESD '97, who leads the M.D. program curriculum revision and implementation process, along with a team of SMHS faculty and administrators, has been taking a closer look at the school's curriculum — as well as those of other medical schools — in an effort to develop a revised and enhanced M.D. program that reflects the challenges facing tomorrow's health care professionals.

The early plans they've developed seek to provide more time for independent learning while emphasizing active-learning pedagogies and early clinical experiences. Mintz says the curriculum will still focus on the traditional medical education fundamentals. The difference, he says, will come in the order in which some of that information is presented.

The most obvious change to the curriculum will be a shortened and integrated preclinical curriculum. Currently students cover the basic sciences, then take discipline-based courses, and then move into the clerkships. The idea for the revised curriculum, according to Mintz, is to reduce that preclinical period and get students started on the wards earlier.

"We believe that students learn medicine best when they are directly in contact with patients," he says. "Early medical ward experience is a real benefit to the development of clinical skills and reasoning."

Mintz adds that SMHS is not just shortening the preclinical curriculum, but also integrating it. Incorporating some of the basic science training into the clerkship experience is expected to add relevance to the information. "When you look at a patient, you don't just see their anatomy or their biochemistry; you think of all of these things as a whole," explains Mintz. "Hopefully, by aligning these basic science topics in the clinical context, it will help integrate these important competencies as well as help students to start thinking like doctors."

The reduction in class time is also expected to leave more time for independent learning, research, or special educational experiences that are uniquely available thanks to GW's Washington, D.C., location.

Elements of the current curriculum, such as the school's popular track program, will remain in the revised curriculum, according to Mintz. "However, there also will be some additional offerings in the revised curriculum, such as public health, diversity, and professional development."

Senior students will continue to have acting internships, rotations in emergency medicine, and electives, as well as an intensive, one-month capstone course. The course, previously called Practice of Medicine IV, will continue to prepare students as they get ready for their residencies. It will focus on the refinement of many technical skills and reinforcement of essential clinical competencies.

Faculty members have already begun experimenting with some of the new teaching methodologies, such as team-based learning and other active-learning techniques, contained in the new curriculum. New instructional technologies, such as video- and audio-recorded lectures and tablet computing in the classroom, have already entered the testing phase and will be available for all students as the revised curriculum is introduced.

"We conducted a lot of site visits," says Mintz of the early days of curriculum development. "We found many interesting ideas at a number of different schools, but we never identified one particular school whose model fit our needs. I believe that while many other schools have done, or are doing, what we're doing — shortening the preclinical training period and integrating the basic sciences — the way in which we accomplish that will have a unique GW spin to it."



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STUDENTS ENROLLED IN M.D. PROGRAM

GRADUATE, UNDERGRADUATE, AND CERTIFICATE STUDENTS ENROLLED IN HEALTH SCIENCES PROGRAMS



NUMBER OF INCOMING M.D. PROGRAM STUDENTS



STUDENTS ENROLLED



STATES REPRESENTED IN M.D. ENTERING CLASS

PHYSICAL THERAPY LAUNCHES PAIR OF SPECIALIZED RESIDENCY PROGRAMS

A main goal of the Department of Physical Therapy (PT) and Health Care Sciences at SMHS is to develop clinical specialists in orthopedic and neurologic physical therapy. This objective has been the inspiration for the development of two new postgraduate residency programs in the department: the orthopedic PT residency program, which has existed in partnership with Johns Hopkins University since 2012, and the neurologic PT residency program, which began as a one-year pilot program in collaboration with the MedStar National Rehabilitation Network in August 2013.

Assistant Professor Jennifer Halvaksz, DPT, O.C.S., serves as the academic director of the orthopedic residency program. In addition to developing clinical specialists, "we're trying to help these residents develop as clinician educators," Halvaksz says. This, in turn, allows for the perpetuation of excellence throughout the profession. "The more highly qualified clinical instructors we have, the better quality student we can put into the marketplace," she says.

Students of both yearlong residency programs immerse themselves in four primary focus areas: clinical practice, teaching, research, and didactic education. Elizabeth Ruckert, DPT, N.C.S., G.C.S., assistant professor and academic director of the neurologic residency program, says that clinical mentorship is the hallmark of the programs. "It's focused time with a rehab specialist," she says. "It gives the resident the opportunity to ask any questions they might have and engage in higher-level discussion related to clinical decision-making, problem solving, and reflection."

Halvaksz notes that the orthopedic residency program promotes inter-professional leadership among its residents. "We encourage residents to take on leadership qualities that are necessary to practice in today's environment, where we are trying to diminish silos and improve communication with other health care practitioners," she says. The program, which has plans for growth, has enrolled three residents for the 2013–14 academic year.

Joyce Maring, DPT, Ed.D., associate professor and chair of the Department of Physical Therapy and Health Care Sciences, notes that the PT field, like health care in general, is becoming more complex. "In order to provide the best-quality services, you really need practitioners and leaders who have advanced qualifications to be able to address the needs of a particular population," Maring says. SMHS's orthopedic and neurologic PT residency programs provide the ideal experience for newly graduated physical therapists.



STUDENTS ENROLLED



Howard Straker, PA-C, M.P.H., assistant professor of physician assistant studies, instructs students on tracheal intubation procedures.

SMHS's orthopedic and neurologic PT residency programs provide the ideal experience for newly graduated physical therapists.



Josh D'Angelo



Larissa May, M.D.' 02, RESD '06, M.P.H. '08, M.S.P.H.

STUDENT + ALUMNI RECOGNITION

AMY WALDNER, a third-year medical student, was elected as a national delegate to the Organization of Student Representatives Administrative Board.

DANIEL O'NEILL, M.D. '13, received the 2013 Excellence in Public Health Award from the U.S. Public Health Service Physician Professional Advisory Committee.

ELIZABETH WILEY, M.D. '12, J.D., M.P.H., was elected to serve as the national president of the American Medical Student Association.

JOSH D'ANGELO, a third-year doctor of physical therapy student, was elected president of the American Physical Therapy Association (APTA) Student Assembly. He was also the first GW recipient of the McMillan Scholarship Award given out by the APTA, for his academic ability and his passion for promoting the physical therapy profession.

KATHERINE LEMMING, a graduating student with a bachelor of science degree in Health Sciences in the pharmacogenomics program at SMHS, received the Health Sciences Outstanding Undergraduate Student Award.

KELSEY YOUNG, a third-year dual-degree physician assistant PA/M.P.H. student, was elected chief delegate for the Student Academy of the American Academy of Physician Assistants.

LARISSA MAY, M.D. '02, RESD '06, M.P.H. '08, M.S.P.H., assistant professor of emergency medicine and associate director of clinical research in the Department of Emergency Medicine at SMHS and a student in the Clinical and Translational Research program in the Department of Clinical Research and Leadership in Health Sciences, received an alumni association prize for her commitment to the university and its community, her academic and extracurricular accomplishments, and her leadership.

PETER TOOLEY, a third-year doctor of physical therapy student, was named chair-elect for the American Physical Therapy Association Student Assembly Nominating Committee.



NUMBER OF FULL TIME FACULTY MEMBERS







Research

ALLIED MINDS: BUILDING PARTNERSHIPS TO CREATE INNOVATIVE HEALTH CARE TECHNOLOGY

Medical research is a foundational principle of the GW School of Medicine and Health Sciences (SMHS) experience and mission. The school is dedicated to growth and excellence in basic science, translational research, and clinical research, with particular emphasis on signature specialties including autism, cancer, cardiovascular disease, and HIV/AIDS. Through a commitment to multidisciplinary research within SMHS, as well as across the University and with global partners in the public and private sectors, the school is expanding its position among world-class research institutions.

In November 2012, GW and Allied Minds, Inc., a private investment innovation firm, announced the formation of LuxCath, LLC, a medical technology company that is developing real-time lesion visualization technology based on breakthrough research from the university.

Atrial fibrillation (AF), a commonly occurring cardiac arrhythmia that can cause stroke, affects 2.5 million people, according to figures from the Centers for Disease Control and Prevention. It is currently treated with an invasive procedure called AF catheter ablation, which disconnects electrical pathways to restore a normal heartbeat. LuxCath's technology for directly visualizing tissue and lesions in real time has initial application for the treatment of AF. The device, which helps ensure that electrophysiologists are treating the right parts of the heart in AF patients, should radically improve the speed of procedures and outcomes.

This medical innovation is based on collaborative research by Marco Mercader, M.D., associate professor of medicine at SMHS and a cardiologist at the GW Medical Faculty Associates; Matthew Kay, D.Sc., a biomedical engineer at the GW School of Engineering and Applied Sciences (SEAS); and Narine Sarvazyan, Ph.D., professor of pharmacology and physiology at SMHS. This collaboration represents GW's growing interest in investing in research programs that may become the basis of corporate partnerships like this one with Allied Minds. "Such partnerships are crucial to bringing the benefits of collaborative research and the development of innovative technologies to those who need them, and to provide an opportunity to fully develop and provide products in the commercial market," says University Vice President for Research and Professor of Pharmacology and Physiology Leo Chalupa, Ph.D.

"We were impressed with the collaboration across multiple disciplines and among multiple schools at GW in this arena. Bringing new thinking to problem solving and cross-fertilizing ideas to optimize and apply an innovative technology to a real-world problem was particularly compelling to us. We commend GW's efforts here," says Omar Amirana, M.D., managing director for life sciences at Boston-based Allied Minds.

Mercader, Kay, and Sarvazyan have focused their research for many years on AF because effectively treating the condition is one of the biggest problems hospitals face, not just in the United States, but around the world.

"To date, monitoring tissue injury in real time remains a major limitation of ablation approaches," says Mercader. "Detection of viability gaps between the lesions and closure of these gaps during a single radio frequency ablation would increase both the safety and efficacy of therapy. We are very excited to develop products that will significantly enhance the lives of patients."

Such partnerships are crucial to bringing the benefits of collaborative research and the development of innovative technologies to those who need them

> - University Vice President for Research Leo Chalupa



Associate Vice President for Clinical and Translational Research at GW Lisa M. Guay-Woodford, M.D., confers with Research Laboratory Manager Chaozhe Yang, M.D.

TRANSLATING SCIENCE INTO CLINICAL CARE

The George Washington University and Children's National Health System (Children's National) are entering the second half of their partnership in the Clinical and Translational Science Institute at Children's National (CTSI-CN). The five-year program, funded by the National Institutes of Health (NIH), provides \$20 million to help speed the delivery of advancements in care to patients and the community.

Lisa M. Guay-Woodford, M.D., principal investigator of the CTSI-CN and associate vice president for clinical and translational research at GW, says the Clinical and Translational Science Award is not a research grant in the typical sense. "It is not focused on a single disease or single age group," she explains. "It is really ... an infrastructure mechanism that is designed to address a pretty grand ambition: to transform the research environment."

The CTSI-CN provides highly integrated, cost-effective, investigator-focused resources designed to overcome research barriers, promote collaborative research, and enable research training across the lifespan of patients. According to Joseph Bocchino, Ed.D., M.B.A., associate professor of clinical research and leadership, and senior associate dean for health sciences at SMHS, who directs GW's degree program, translational medicine exerts new demands on leaders to evolve and requires a new leadership style. To support clinical and translational research, SMHS added a master's degree program that promotes collaborative thinking about complex health issues among professionals with varied backgrounds. "Defining and developing this new leadership style," he says, "is one of the essential pieces of our program. The strategy is to help people develop a broader base of experience across the continuum, from basic science, to clinical research, to matters of health policy."

THE D.C. DEVELOPMENTAL CENTER FOR AIDS RESEARCH (D.C. D-CFAR)

The GW School of Medicine and Health Sciences and the School of Public Health and Health Services together serve as the administrative home of the Washington, D.C., Developmental Center for AIDS Research. The National Institutes of Health-funded center brings together five of the District's leading academic health institutions — GW, Children's National Health System, Georgetown University, Howard University, and the Veterans Affairs Medical Center — to combat the District's HIV/AIDS epidemic. This D-CFAR designation instantly vaults the group among a network of the nation's most elite HIV/ AIDS research institutions.

The nation's capital has an HIV/AIDS prevalence of more than 3 percent among adults, the highest infection rate in the country, and more than three times the Centers for Disease Control and Prevention's threshold for a severe epidemic. The D.C. D-CFAR aims to lead and support the scale-up of HIV/ AIDS research activities in Washington, D.C.; assist with the development, recruitment, and retention of HIV/AIDS investigators in D.C.; and contribute to the prevention and treatment response to the epidemic. D.C. D-CFAR investigators work toward making a difference in the lives of persons infected with and at risk for HIV/AIDS in the D.C. area.

This D-CFAR designation positions the GW-based group among a network of the nation's most elite HIV/AIDS research institutions.



Gary Simon, M.D., Ph.D., Walter G. Ross Professor of Medicine and of microbiology and tropical medicine, director of the Division of Infectious Diseases, and co-director of the Washington, D.C. Developmental Center for AIDS Research

PERFORMANCE MEDICINE

Some would argue that the key to being a great clinician is finding the balance between the science of medicine and the art of healing. Guiding students to that point has been a goal of the SMHS for generations. Dating at least to the late 1960s, when Frank N. Miller, M.D. '48, B.S. '43, Professor Emeritus of Pathology, started a class called Medicine in Literature, faculty members at GW have turned to the arts to deepen their students' understanding of their patients.

Today, medical humanities is commonly defined as a pairing of the interdisciplinary fields of humanities, social science, and the arts with medical education and clinical practice. Most medical schools across the country offer their students some form of humanities electives. Few, however, offer programs as robust as GW's.

Apart from providing insight into the human condition, studying literature and the arts helps people develop and nurture skills of observation, analysis, empathy, and selfreflection — talents that are essential for humane health care.

Since 2005, SMHS has included a curriculum focused on medical humanities as part of the nine elective paths offered through the Office of Student Opportunities.

"Medical education is very vigorous and demanding. The humanities offer an opportunity for students to think and talk about what they're doing in a different language and through different perceptions," explains Linda Raphael, Ph.D., associate clinical professor of psychiatry and behavioral sciences, track director, and director of medical humanities at SMHS. "When any discipline sees itself as separate from all other things, it tends to suffer. Studying the humanities brings [students] back into the world from which they've come."

Another innovation at SMHS is a "theater in medicine" program, developed by Charles Samenow, M.D., M.P.H., assistant professor of psychiatry and behavioral sciences and director for medical student education, and visiting professor Jeffrey Allen Steiger, who directed a theater program at the University of Michigan. Actors dramatize issues such as personal relationships, stress, and competitiveness among practitioners to address matters of professionalism. Samenow believes that information delivered through the medium of theater — "a safe learning environment" — resonates with students and faculty, and theater makes lessons on communication, conflict resolution, and teamwork more vivid and, often, more permanent.

The school recently launched a chapter of the Arnold P. Gold Humanism Honor Society for residents. The society seeks to emphasize humanistic, patient-centered care at every level of health care.

"The Gold Humanism Foundation and others like it are trying to bring the human element back into what is almost algorithmic care," says Christopher Bayne, M.D., a urology resident and the inaugural chair of the chapter. "Medicine used to be a very personal interaction; now it's not."



Linda Raphael, Ph.D.



Anthony-Samuel LaMantia, Ph.D., professor of pharmacology and physiology (left), and Henry Kaminski, M.D., professor and chair of neurology, work to uncover the root causes of neurological diseases and translate those discoveries into patient care.

TAKING AIM AT NEUROLOGICAL DISORDERS

Neurologists and neuroscientists at GW are partnering with basic biomedical scientists, neuropsychologists, and clinicians with the goal of understanding the basis of debilitating brain diseases such as autism, epilepsy, multiple sclerosis, and myasthenia gravis to uncover their root causes and speed those discoveries to the public. Translating findings from the laboratory to the clinic begins with interdisciplinary collaborations. Clinical and neuroscience departments host seminars to facilitate those interactions, and researchers at SMHS and the School of Public Health and Health Services can conduct their brain-related experiments in a well-equipped core facility located at the GW Institute for Neuroscience (GWIN). At GWIN's Biomarker Discovery and Analysis Core Facility, researchers from the Department of Neurology, as well as myriad other centers across the GW campus gather in search of molecular biology services, tools, and expertise.

Henry Kaminski, M.D., professor and chair of GW's Department of Neurology, trusts that basic findings will move to the clinic at GW because the heads of each center actively push for translation. "I meet with scientists and clinicians in other departments spontaneously because I want to promote this type of interaction," Kaminski says.

"You can't force people to do things together, but you can provide opportunities that enable people with a variety of interests to cooperate," adds GWIN Director Anthony-Samuel LaMantia, Ph.D., professor of pharmacology and physiology at SMHS.

HOUSE CALLS FOR THE NEXT GENERATION

The Affordable Care Act has made a lot of headlines since it was signed into law in 2010. Most of the coverage has centered on health exchanges, but an important aspect of the law supports projects that try out innovative ways to save money and improve patient outcomes. Susie Lew, M.D., a nephrologist and professor of medicine in GW's School of Medicine and Health Sciences (SMHS) is leading one such project, along with Neal Sikka, M.D., associate professor of emergency medicine at SMHS. The two received a three-year, \$1.9 million grant from the U.S. government's Center for Medicare and Medicaid Services' Center for Medicare and Medicaid Innovation to explore telemedicine as a means of reaching patients who do peritoneal dialysis by themselves at home. The lessons learned from the project may help an assortment of patients with chronic diseases live better lives and waste less time getting to doctors' appointments or showing up in the emergency room with complications.

On the whole, people on dialysis are very sick and their care is very expensive. End-stage renal disease patients make up about I percent of the Medicare population, but they consume 6 percent of the Medicare budget. They have a lot of emergency room visits for problems related to kidney failure, such as electrolyte imbalance and shortness of breath, in addition to other health problems, like heart disease.

Patients receiving hemodialysis, the more common form of care, go to a dialysis center three times a week and spend four hours hooked up to a machine that cleans their blood. With two to three days between treatments, they can have large changes in their condition between visits — which sometimes means unexpected trips to the emergency room.

Peritoneal dialysis patients, on the other hand, are generally better off. Rather than going to a dialysis center every other day, these patients draw excess fluids and toxins out of their bodies at home. Almost anyone who needs dialysis can choose to do peritoneal dialysis.

Of the 300,000 Americans on dialysis, only about 80,000 choose peritoneal dialysis, according to the National Kidney and Urologic Diseases Information Clearinghouse. After



Susie Lew, M.D.

two weeks of training, patients are on their own. Even with the training, however, peritoneal dialysis patients still show up in the emergency room more than most people.

Lew and Sikka are exploring telemedicine to help patients take better care of themselves at home. "How can we make sure that our patients are doing what they're supposed to do — and improve outcomes?" Lew says. The idea is to give patients a new way to get quick help and for nurses and doctors to be able to keep a closer eye on how they're doing.

Eventually, according to Sikka, telemedicine could play a big role in lowering health care costs. "If the health care system can come up with reimbursement models that incentivize patients, doctors, and hospitals to invest in really simple tools, we can probably improve a lot of health care and save costs," Sikka says.



NEW LEADERSHIP AND LAB SPACE FOR THE FIGHT AGAINST NEGLECTED DISEASES

GW's Department of Microbiology, Immunology, and Tropical Medicine (MITM) conducts innovative fundamental and translational research and development, training, and policy advocacy for neglected tropical diseases (NTDs) and neglected infections of poverty (NIoP). These are infectious and parasitic diseases that initiate and perpetuate worldwide poverty and suffering.

Renowned HIV/AIDS researcher Douglas F. Nixon, M.D., Ph.D., joined the faculty on Oct. 1, 2013, as the Ross Professor of Basic Science Research and chair of MITM. Nixon has actively pursued immunovirology research for more than 25 years, his studies spanning clinical research, human immunology, basic virology, and molecular biology.

The department has built a strong tradition of scientific inquiry through both basic and translational research, significantly advancing the available body of knowledge for some of the world's most devastating infectious and parasitic diseases. With a \$15 million grant awarded to SMHS from the National Institutes of Health through the American Recovery and Reinvestment Act, as well as additional support from the school, GW is embracing this ideal and building a new research center that will focus on NIoPs and NTDs. State-of-the-art lab space for the new center, housed in MITM, is being constructed on the fifth and sixth floors of Ross Hall. The project is slated for completion during the 2013–14 academic year. SMHS received a \$15 million grant from the NIH through the Recovery Act Limited Competition: Extramural Research Facilities Improvement Program (C06), which was combined with additional funds, for the construction of new collaborative laboratory space on the 5th and 6th floors of Ross Hall. More than 10,000 GW and international faculty, staff, residents, fellows, and students have benefited from IMP's partnerships and affiliations in more than 50 countries.



International Medicine

BROADENING GW'S HEALTH HORIZON

In 2013, SMHS's Office of International Medicine Programs (IMP) celebrated its 20th year of flying the GW flag around the world and bringing the world to GW. The office, which provides international experiences to the SMHS community and offers educational opportunities at SMHS for the international medical community, has developed, coordinated, and completed more than 100 projects that have enhanced the lives of health care providers and patients around the globe. In total, more than 10,000 GW and international faculty, staff, residents, fellows, and students have benefited from IMP's partnerships and affiliations in more than 50 countries.

A recent achievement for IMP was the launch of the Medical Research Fellowship Program (MRFP) in response to a request from the Saudi Arabian Cultural Mission for assistance with improving the match rate for international medical graduates in the United States. The MRFP allows international medical graduates to participate in yearlong activities such as one-on-one mentorship, grand rounds, and professional development workshops, which in turn increases their competitiveness for U.S. residency programs. Huda Ayas, Ed.D. 'o6, executive director of IMP, says that the exchange of ideas and expertise, as well as cultural values, allows SMHS students to benefit from the program as well by increasing their cultural sensitivity and improving their ability to communicate with patients from various backgrounds.



A student helps prepare yucca in the Amazon Kichwa community.



Yushekia Hill, MSI, takes patient history and checks vital signs during a recent mission to Marmont, Haiti.

A MISSION FOR HAITI

In an effort to achieve quality health care for all Haitians, SMHS established a partnership with Project Medishare, an organization dedicated to sharing its human and technical resources with its Haitian partners since 2004. Twice a year, in the spring and fall, faculty from SMHS, the GW School of Nursing, and Children's National Health System, along with nursing and medical students, travel to SMHS's adopted clinic located near the village of Marmont, in Haiti's impoverished Central Plateau. During the seven-day mission, students treat children with malnutrition and respiratory issues; adults with diabetes, arthritis, and hypertension; and others. The multidisciplinary team also performs examinations and administers much-needed medications. Jack Summer, M.D. '81, clinical associate professor of medicine at SMHS, has led the program since 2005. "These students practiced medicine entirely through interviews and physical examinations," he says. "They were forced to rely on their hands and clinical skills to treat patients because medical tests and tools were scarce."

CARING FOR THE HEART

For the third consecutive year, Cynthia Tracy, M.D., professor of medicine at SMHS and associate director of the Division of Cardiology with the GW Medical Faculty Associates, along with her team of cardiologists from the GW Heart & Vascular Institute, traveled to the city of Comayagua, Honduras, to bring specialized cardiac care to people in need. During the two-week medical mission, sponsored by the GW Heart & Vascular Institute, the team implants pacemakers and defibrillators in patients. As this program continues to expand, Tracy hopes to bring hospital staff from Honduras to GW for training on how to manage patient devices, recognize problems, and troubleshoot. In addition, Tracy is working to identify the country's major equipment needs so that in the future the group will be better equipped to provide follow-up care. Ideally, Tracy would like to build a better lab that would be comparable to a U.S. facility.

FINDING PROMISE AMONG PARASITES

Researchers in SMHS's Department of Microbiology, Immunology, and Tropical Medicine (MITM) have made great strides toward eradicating neglected tropical diseases such as hookworm and liver fluke.

Jeffrey Bethony, Ph.D., and David Diemert, M.D., both associate professors of MITM, are conducting first-in-human studies of two hookworm vaccine candidates, Na-GST-1 and Na-APR-1, in a phase 1 clinical trial that will take place through the GW Medical Faculty Associates. A pilot study funded by the Clinical and Translational Science Award program is under way at Children's National Health System. They have been working with the Brazilian Ministry of Health in the state of Minas Gerais on a related clinical trial since 2003.

Along with his colleague Paul Brindley, Ph.D., professor of MITM, Bethony has identified a potential biomarker for the development of bile duct cancer in Asian liver fluke-infected persons — elevated plasma levels of Interleukin-6. An estimated 10 million people in Thailand are infected with the flatworm, which is hosted by cyprinoid fish, a staple of the Thai diet. Brindley and Bethony's research has led the Thai Ministry of Health to institute population-based screening for risk of bile duct cancer using this biomarker in the northeastern region of Isaan.



David Diemert, M.D.



Jeff Bethony, Ph.D.

RECONSTRUCTING MENTAL HEALTH IN POST-WAR IRAQ



Amir Afkhami, M.D. '03, Ph.D.

As a 2013–14 Robert Wood Johnson Foundation Health Policy Fellow, Amir Afkhami, M.D. '03, Ph.D., assistant professor of psychiatry and behavioral sciences and global health at SMHS, will bring insights from his extensive experience abroad to the National Academy of Sciences' Institute of Medicine, where he will gain front-line experience in federal health policy-making during the prestigious one-year fellowship.

In addition to authoring the U.S. Department of State-funded Iraq Mental Health Initiative — a 2008 international effort to rebuild Iraq's post-war mental health care infrastructure — Afkhami has worked with the U.S. Department of Defense in Afghanistan. There, he proposed a harm reduction approach to addressing the country's narcotics problem and supported mental health care initiatives for Afghani civilians. Afkhami is also a member of the Council on Foreign Relations, where he briefs government leadership on international health care issues.

"My experiences abroad have informed the way I think about the significant barriers to health care here in the United States, and I'm excited to bring some of my perspectives from the global arena to the local arena," Afkhami says.



Margaret Plack, PT, Ed.D.



Lisa Alexander, Ed.D. '03, M.P.H. '89, PA '79

THE GLOBAL REACH OF GW'S HEALTH SCIENCES

SMHS' health sciences program is the training ground for the nation's next generation of physical therapists and physician assistants. This year, the work of these future health care professionals and the faculty who educates them spanned the globe.

Margaret Plack, PT, Ed.D., professor of physical therapy at SMHS, traveled to Ghana for two weeks to volunteer with the Foundation of Orthopedics and Complex Spine, where she provided post-surgical physical therapy to patients who had undergone corrective procedures for orthopedic and other musculoskeletal disorders.

Lisa Alexander, Ed.D. '03, M.P.H. '89, PA '79, director of SMHS' physician assistant (PA) program, continued to serve as a technical advisor to the Kigali Health Institute (KHI). The Rwandan school graduated its first class of Clinical Officers (COs) — the East African nation's equivalent to PAs — this year. As a Fulbright Senior Specialist to the Rwandan Ministry of Education from 2009-2010, Alexander collaborated with Rwandan officials and KHI faculty to develop the curriculum for the CO program.

Nodair Razi, DPT '13, participated in a 14-week internship in Sydney, Australia during the final year of his physical therapy education at SMHS. While in Sydney, Razi supervised a group of six less-experienced PT students and honed his manual therapy skills on patients with chronic pain. Razi is now bringing the lessons he learned in Sydney to his role as a physical therapist at Sports Therapy and Rehabilitation, a private practice in northwest Washington, D.C.



NUMBER OF HEALTH CARE PROFESSIONALS WORLDWIDE WHO HAVE PARTICIPATED IN A GW IMP PROGRAM

120

NUMBER OF PARTNERSHIPS WITH GW'S IMP IN 45 COUNTRIES

CLINICIANS IN ARMS: MILITARY-FRIENDLY PROGRAMS AT SMHS

SMHS has had a long-standing relationship with the U.S. Navy and U.S. Army, collaborating to offer contract degree programs in a variety of health sciences fields to active-duty soldiers. Thousands of soldiers, sailors, and marines have participated in these programs over the years and successfully completed one or more degree programs.

Credits for military health care training are awarded in combination with general education college credits, building an academic program that can lead to associate, bachelor's, and master's degrees in Health Sciences.

The SMHS relationship with the United States Army and Navy dates back to the early 1970s, when GW began offering degree programs in Advanced Hospital Corps School, Medical Laboratory Technology, Nuclear Medicine Technology, Oral Biology, Physician Assistant studies, Radiologic Technology, and Undersea Medical Technology.

Thousands of soldiers, sailors, and marines have participated in SMHS programs over the years and successfully completed one or more degree programs.







Students use the CLASS Center to gain first-hand experience in a wide range of clinical skills, from management of critically ill patients to labor-and-delivery to laboratory procedural skills training.

The expanded space and the new technology will enable CLASS Center users to get hands-on practice in essential skills, procedures, and critical care.

Bricks + Mortar

A NEW HOME FOR HANDS-ON TRAINING

SMHS is building a brand-new Clinical Learning And Simulation Skills (CLASS) Center on the fourth floor of Ross Hall and is integrating new technology that will expand the teaching capability within the center.

The new center, which will be home to 17,000 square feet of laboratory, clinical skills, and collaborative teaching space, will include 12 outpatient and two inpatient examination rooms where students can learn and practice medical communication and examination skills. The expanded space and the new technology will enable CLASS Center users to get hands-on practice in essential skills, procedures, and critical care.

The CLASS Center enables students to learn in realistic scenarios using simulation. For example, students will now have enough space to simulate the movement of patients from a basic clinical room to an operating room or from a birthing suite to an operating room. This expanded footprint gives additional space for practicing critical communications skills and other practical systematic skills that health care professionals need to have as they enter the workforce.

Integrated into many of SMHS's programs, simulations enable students to apply their classroom learning to clinical skills training while simultaneously receiving feedback and evaluation from SMHS faculty members. The CLASS Center simulation suite, modeled on the simulation areas that allow pilots to practice flying without ever leaving the ground, provides high-tech patient simulators (mannequins) that can be programmed to display lifelike vital signs in order to mimic disease processes. All the while, instructors can observe from an adjacent control room and communicate with students as they perform clinical tasks in simulated high-pressure situations. The lessons they learn within the CLASS Center prepare them to become technically adept caregivers.

The new area will also provide additional space for the standardized patient program, which offers learners live encounters with persons trained to simulate real patients, followed by faculty feedback about their performance.

Construction on the new CLASS Center began in the fall of 2012; the center will open in the spring of 2014.



ROSS HALL CONSTRUCTION: AN INFRASTRUCTURE UPGRADE WITH AN AMBITIOUS FUTURE

In 2010, SMHS was awarded \$15 million by NIH through the Recovery Act Limited Competition: Extramural Research Facilities Improvement Program (Co6), which the university combined with additional funds to build new collaborative laboratory space on the 5th and 6th floors of Ross Hall. Under the leadership of the newly appointed Chair of the Department of Microbiology, Immunology and Tropical Medicine and Ross Professor of Basic Science Research, Douglas F. Nixon, M.D., Ph.D., SMHS will populate these new labs with current and new faculty who will help in the fight to eliminate infectious diseases of poverty. Two centers, including The Research Center for Neglected Diseases of Poverty and The Center for Basic Research for the Cure and Prevention of HIV/AIDS, will be established and the lab's state-of-the-art equipment will enable SMHS researchers to identify innovative ways to prevent and treat these debilitating diseases.

The new labs will provide space in Ross Hall to support GW's growing biotechnology capacity through increased efficiencies, creating more collaborative learning spaces for students, laboratory personnel, and faculty.

A sleek, glass and steel emergency-egress exterior stairway was constructed to meet code regulations, provide better access inside Ross Hall, and serve as an additional route out of the building. Upgrades to the electrical, plumbing, and HVAC systems have also been completed as part of the renovation.

Finally, Ross Hall's existing central utility plant that provides power, steam, and chilled water for the building, are being upgraded to serve both Ross Hall and the new Science and Engineering Hall (SEH) across 23rd Street. The new SEH will offer world-class, collaborative research and learning in engineering and science as well as provide state-of-theart space for students and faculty to conduct research and interact with corporate and government partners. Powered by Ross Hall, the new SEH will significantly improve the science and engineering offerings at the institution and help GW serve as a national and international hub for debate and dialogue on the intersection of discovery and policy.



Jeffrey S. Akman, M.D. '81, RESD '85, Walter A. Bloedorn Professor of Administrative Medicine, vice president for health affairs, and dean, SMHS, leads members of the dean's council on a tour of the new lab space in Ross Hall.





Jehan El-Bayoumi, M.D.

Community

GW ANNOUNCES THE ESTABLISHMENT OF THE RODHAM INSTITUTE

SMHS recently established a new initiative aimed at promoting health equity in the District of Columbia through community-focused education and training of health care providers. Named in honor of the late Dorothy E. Rodham and housed in SMHS, the Rodham Institute for Healthcare Provider Education to Eliminate Disparities promises to build on the school's longstanding commitment to community engagement.

"The establishment of this institution will serve as a catalyst for GW and our community partners to unite and commit to a common goal of improving the health of all District residents, regardless of their neighborhood, their skin color, their gender, or their bank accounts," said Jehan El-Bayoumi, M.D., director of the Rodham Institute and associate professor of medicine at SMHS.

The institute's core functions will focus on medical education programs for residents and students, active evaluation of efforts to address health disparities in Washington, D.C., and providing leadership and fostering collaboration to address the community's critical health care needs. Students and residents will discover new models of community health care delivery through new GW training programs. The Rodham Institute will regularly assess the impact of activities on health care provider education, community health practices, and health disparities. Institute leadership will also provide ongoing synthesis and analysis of best practices needed for planning and priority setting of education and training, community health program, and community linkages activities.

Initiatives that would ultimately grow into the Rodham Institute began in the Fall of 2012 with the first cohort of medical residents participating in the Underserved Medicine and Public Health (UMPH) concentration. By exposing residents to health disparities in the local community the hands-on program enhanced clinical competency in underserved settings, offered practical application of population-health principles and public health skills in medical practice, and helped to develop their public health leadership potential. Studies for the second cohort of residents are ongoing.

With key partnerships already established with the Association for Black Cardiologists, Inc.; the Calvin Coolidge High School Alumni Association; Girls Inc.; and The South East Tennis and Learning Center, the Rodham Institute is working to link high school students with medical students and students studying health professions, as well as SMHS faculty members, to provide a broad range of mentoring opportunities.



Compton Benjamin, M.D., Ph.D., RESD '09

For Benjamin and his colleagues in the Department of Urology at GW's Medical Faculty Associates, the prospect of saving lives within the African-American community outweighs the possible risk associated with overtreatment.

SMHS UROLOGIST PITS PREVENTATIVE MEDICINE AGAINST PROSTATE CANCER

Compton Benjamin, M.D., Ph.D., RESD '09, assistant professor of urology, recognizes the importance of regular prostate cancer screening, especially amongst the high-risk African-American community in Washington, D.C. Since joining the SMHS faculty in 2011, Benjamin has made an effort to bring this conversation to the forefront by encouraging medical doctors and the general public to reconsider the U.S. Preventative Services Task Force's recommendation against using the Prostate-Specific Antigen test due to potential complications and side effects. For Benjamin and his colleagues in the Department of Urology at GW's Medical Faculty Associates, the prospect of saving lives within the African-American community outweighs the possible risk associated with overtreatment.

Additionally, Benjamin is looking forward to continuing research he began during his fellowship at the National Cancer Institute. He plans to begin a Phase I trial of a mouse model for treating superficial bladder cancer using a proprietary interleukin substance in 2014. The substance will hopefully allow for a reduction in the use of Bacillus Calmette–Guérin for the treatment of bladder cancer, which can cause bladder irritation, as well as more severe side effects.

YOLANDA HAYWOOD APPOINTED AS SMHS ASSOCIATE DEAN FOR DIVERSITY, INCLUSION, AND STUDENT AFFAIRS

As Associate Dean for Diversity, Inclusion, and Student Affairs, Yolanda Haywood, M.D., RESD '87, will oversee the development, coordination, implementation, and assessment of academic and research programs to promote diversity within SMHS. She was appointed by SMHS Dean and Vice President for Health Affairs Jeffrey S. Akman, M.D. '81, RESD '85.

Haywood has been a longtime leader at GW, holding positions such as associate dean for Student and Curricular Affairs and associate professor of Emergency Medicine at SMHS. She holds a bachelor's degree in zoology, a master's degree in cell biology, and an M.D. from Howard University. She also graduated from the physician assistant program and was a resident at SMHS.

Akman formed the Diversity and Inclusion Task Force in 2012 to develop a strategic plan and action items by which the school could address health equity and position itself as a national leader in promoting diversity among U.S. academic health centers. The task force recommended establishing an associate dean position to lead strategic initiatives, accreditation compliance efforts, and the advancement of enhanced scholarship. The associate dean will also identify diversity opportunities in faculty development, academics, and research.

Under Haywood's leadership, SMHS will establish a new Office of Diversity and Inclusion in the near term.

"Diversity and inclusion is a top priority for me, as well as for the school. While SMHS has a long history of diversity, Yolanda Haywood will provide leadership and a solidified structure within our academic and research programs to ensure our community is diverse as we move forward," said Akman. "We are particularly pleased to support and enhance the efforts led by Terri Harris Reed, GW's vice provost for diversity and inclusion."

Haywood will work with other SMHS deans, faculty, and staff to develop, implement, and assess strategies intended to enhance diversity at all levels of the school. She will play a major role in forming the new SMHS curriculum and will participate in creating a new strategic plan.



Yolanda Haywood, M.D., RESD '87

With the Office of Faculty Affairs, Haywood will help strengthen faculty search procedures and ensure that women and members of minority groups are well represented in search committees. She will also develop metrics to assess goals in recruiting a more diverse faculty.

In addition, Haywood will work with the Office of Admissions to help SMHS recruit underrepresented minority students and develop pipeline programs. She will coordinate with the Office of Media Relations and the Division of Development and Alumni Relations to enhance external support for diversity and equity programs, with particular emphasis on undergraduate and graduate scholarships and fellowships.

WORKING TO CURE A COMMUNITY

You hear it all the time in health care circles: "Early detection saves lives." In almost every instance, whether heart disease or mental health, prompt diagnosis is cited as the key to successful outcomes. Detection, however, is not the only stage for which time is of the essence, especially when it comes to cancer. Access to care — accurate diagnosis and timely treatment — is an even greater concern. It's a phenomenon all too familiar in Washington, D.C., where minority populations experience significant disparities in access to care and suffer from the nation's highest incidence of prostate, breast, colorectal, and cervical cancers.

To address those gaps in access, and validate the growing belief that a little guidance could make a significant impact on health disparities, the GW Cancer Institute (GWCI) launched the Citywide Patient Navigation Network (CPNN) in 2010 to provide a system of navigation across primary care settings, screening sites, and cancer centers in the District.

Since then, CPNN navigators have removed more than 17,000 barriers to accessing cancer continuum-of-care services for 4,754 individuals. For the 2,840 people CPNN navigators helped last year, top barriers reported included social/practical support (16.7 percent), financial barriers (14 percent), system fragmentation and problems with

scheduling care (14 percent), and language barriers (10.6 percent). Of those helped, 86.2 percent were minorities and 9.3 percent were from Ward 8, the city's most underserved neighborhood. Most individuals received navigation from the point of screening onward, and the most prevalent cancer risk category was breast.

Breast cancer patients who received patient navigation services experienced significantly shorter diagnostic time than breast cancer patients who did not receive such services, according to research published in the journal Cancer Epidemiology, Biomarkers, and Prevention in October 2012.

GW researchers, led by associate professors of epidemiology and biostatistics Heather Hoffman, Ph.D.; Heather Young, Ph.D., M.P.H.; and Nancy LaVerda, M.P.H., program manager at GWCI, showed that breast cancer patients who received navigation services experienced diagnostic resolution in nearly half the time that resolution took for patients who didn't receive navigation assistance (25.1 days versus 42.1 days). GW investigators concluded that women who received navigation assistance, especially those requiring a biopsy, reached their diagnostic resolution significantly faster than women who were unassisted.







Above from left, ISCOPES Director Angie Hinzey, M.P.H., CHES, and Executive Cooordinator Donna Javellana

COMMUNITY-BASED LEARNING PROGRAM LENDS EAGER HANDS TO NEIGHBORHOODS IN NEED

In the waning years of the 20th century, SMHS leadership peered at the horizon and saw a health care future built on interdisciplinary team-based care. In response, SMHS led the creation of the Interdisciplinary Student Community-Oriented Prevention Enhancement Service (ISCOPES), a multi-school service-learning initiative designed to better prepare students for this new era in health care. ISCOPES pairs first-year medical students, physician assistant students, physical therapy students, and public health students to engage in intensive health promotion experiences.

The evolving, health-focused service-learning initiative connects these groups of SMHS students with employees from across the allied health fields, as well as community health organizations and residents of medically underserved neighborhoods throughout the Washington, D.C., region to form interprofessional learning communities to address the bigger health issues. For eight hours each month, from September through April, the students serve on project teams and tackle significant health issues in the community through cultural competency projects.

The philosophy of pairing teaching methodology with meaningful community service within the course curriculum provides tangible examples of health care issues, managed in a medical-team environment, to bolster the overall academic experience. Service projects completed through these learning communities provide students with applied knowledge and skills in real-world environments while helping community partners provide greater service to the local community. For eight hours each month, from September through April, the students serve on project teams and tackle significant health issues in the community through cultural competency projects.

READY, SET, GO GIRL

Genomic Opportunities for Girls In Research Labs (GO GIRL) is a weeklong educational outreach program. Created in 2009 by Nancy Skacel, Ph.D., former assistant professor of pharmacology and physiology at SMHS, along with Amanda Munson, Ph.D., and Tracey Nickola, Ph.D., adjunct assistant professors of pharmacology and physiology at SMHS and assistant professors at Shenandoah University's Department of Pharmacogenomics, the program is hosted by SMHS, the Bernard J. Dunn School of Pharmacy, and Loudoun County Public Schools, and supported through a grant from the Howard Hughes Medical Institute. GO GIRL, which is held at the GW Science and Technology Campus in Loudoun County, Va., is designed to boost high school girls' interest in genomics and help them better define what type of science they might like to pursue.

METEORIC RISE FOR RESEARCH

The Clinical and Translational Science Institute at Children's National (CTSI-CN) launched the Mentored Experience To Expand Opportunities in Research (METEOR) program in the summer of 2012. The program encourages newly admitted SMHS students from underrepresented communities to test the clinical and translational research waters by matching them with a mentor engaged in clinical or translational research. During the first eightweek summer session of the program, medical students and mentors are encouraged to meet each month and complete evaluation forms regarding their research progress. These students are required to enroll in the research track of the medical school curriculum, complete a second summer internship between their first and second years, and participate in a research elective during their final year of medical school.



Created in 2009, GO GIRL brings area female high school students into SMHS labs to help foster interest in genomics and careers in the sciences.



First-year medical students Yodit Tsegaye, Sophia Akhiyat, Eussera El-Magbri, and Nicole Findlay were selected to be the 2013 METEOR students.



HANDS-ON HEALING

Founded in 2006, the GW Healing Clinic, an SMHS student-run community health service, offers primary and preventive care, health education, and counseling for members of the local community, regardless of insurance status or ability to pay. The site opened its doors in 2007. It's located in Northwest Washington, D.C. at Bread for the City, a nonprofit organization that provides food, clothing, medical care, and legal and social services for underserved populations. The Healing Clinic hosts an annual charity auction in the spring. The event, which is open to the public, raises money by auctioning off items such as clothing, jewelry, and electronics. Donated items come from students, faculty, local businesses, and members of the GW community. Each fall, the clinic organizes a 5K walk/run called "Heel to HEAL."

REACHING OUT TO HELP OTHERS REACH UP

For six weeks each summer, nearly 40 students from more than a dozen Washington, D.C., public high schools participate in the Upward Bound (UB) summer residential program, which has been hosted at SMHS since 1999. As one of eight federal TRIO Programs designed by the U.S. Department of Education to serve students from low-income families, UB provides support to participants in their preparation for college entrance. Students get a glimpse of college life at GW by attending classes — math, laboratory science, English literature and composition, and Spanish language and culture — in SMHS buildings, dining in the hospital cafeteria, and living in a dormitory.

In addition to readying the students for the upcoming school year, UB aims to equip them for life beyond high school. The program includes SAT preparation, career workshops, and college tours around the region. Participating students are tracked for six years after high school graduation, at which point they are expected to have graduated from college.

UB has received \$1.25 million in funding from the U.S. Department of Education for its next five years of operation, as well as a \$40,000 grant from the D.C. Children & Youth Investment Trust Corporation in April 2012 to help run the summer program.



Upward Bound students get a glimpse of college life at GW by attending classes, dining in the hospital cafeteria, and living in a dormitory.

35





PREVENTATIVE MEDICINE

Offering health and medical screening programs to educate the community about prevention, early detection, and treatment of illnesses, as well as serving the community as an information and referral resource has become a hallmark of SMHS. Each year the school and its clinical partners participate in screenings and health education on campus and across town to connect Washington, D.C. residents with GW health experts.

This fall, SMHS joined with the George Washington University Hospital and the GW Medical Faculty Associates to host the annual Free Cancer Screening Day. Services offered included full body skin screenings, prostate exams, manual breast exams, and head and neck exams, as well as access to the GW Mammovan.

"This is an important way for us as surgeons to reach out to the community to increase awareness of oral cancer," said Nitin Patel, M.D., a fourth-year otolaryngology/head and neck surgery resident who participated in the event. "It provides a great forum to stress smoking cessation and teach routine self-examinations."

Each spring the GW medical community hosts Stroke Screening Day just outside the Foggy Bottom Metro, to help individuals identify their risk factors for stroke, the fourth leading cause of death in the United States, according to the Centers for Disease Control and Prevention.

Throughout the year, SMHS groups such as the GW Cancer Institute bring life-saving, early detection and critical health information to some of the city's most underserved neighborhoods.

According to the Centers for Disease Control, community health screenings are recognized as a cost-effective means of identifying, treating, or preventing potentially serious health problems before they develop or worsen. Each year SMHS, its students, and its institutes and clinical partners fan out across the Washington, D.C. region conducting free health screenings, often in the most underserved communities.



Jeffrey S. Akman, M.D. '81, RESD '85 with his family, from left, nephew Matthew Akman, and parents Alvin and Marion Akman.

Philanthropy + Alumni

AKMAN BEQUEST ADDS \$3.2 MILLION FOR STUDENT, RESIDENT, AND FACULTY INITIATIVES

Leonard C. Akman, M.D. '43, was a physician who put his patients first and an alumnus with a deep well of gratitude for his alma mater. Akman died in April 2011. In June 2013, Akman's friends and family, and GW faculty and staff, gathered to remember him for his generosity and to discuss the concepts that he believed would be important for SMHS, including partnerships with major global research organizations, such as the Weizmann Institute of Science in Israel.

As a pioneer in heart transplantation, cardiac catheterization, and cineradiography, Akman focused his attention on the future and worked diligently to bring new modalities to the bedside. He was committed to his patients and, given that he came from an era of house calls, he regularly saw his patients in the middle of the night. As a true humanist, Akman took time to get to know those he treated, often putting their needs ahead of his own.

The summer event was hosted by Akman's cousin, Jeffrey S. Akman, M.D. '81, RESD '85, Walter A. Bloedorn Professor of Administrative Medicine, vice president for health affairs, and dean of SMHS, who considered Leonard to be a mentor, friend, and visionary. The gathering and the luncheon provided an ideal opportunity to remember Akman's life and celebrate the gifts that he bequeathed to SMHS.

During the ceremony, Alvin Akman, Leonard Akman's cousin and personal representative of his estate, presented SMHS with a \$3.2 million check to support a variety of initiatives, including:

- The Charles and Sonia Akman Professorship in Global Psychiatry, an endowed fund in memory of the parents of Leonard C. Akman, M.D. '43;
- The Charles and Sonia Akman Fellowships in Global Psychiatry;
- The Leonard C. Akman, M.D. '43 Global Medicine Scholarships for medical students;
- The Bryan J. Akman Memorial Scholarship for medical student tuition support;
- The Leonard C. Akman, M.D. '43 Reception Area and the Steven M. Dixon, M.D. '83, RESD '87 Conference Room in the new Clinical Learning And Simulation Skills (CLASS) Center in Ross Hall; and,
- The SMHS Dean's Discovery Fund.

Leaders from the Weizmann Institute of Science also attended the ceremony and accepted a gift bequeathed for research. As explained at the ceremony, it was the hope of Leonard Akman that SMHS and the Weizmann Institute of Science would develop a relationship that would benefit the faculty and students of both institutions.



Diane P. Luckmann, M.D. '59, with Frank Miller, M.D. '48, B.S. '43, during a visit to campus.

THE PATHOLOGY OF GIVING: LEAVING A LEGACY FOR A BELOVED PROFESSOR

George Washington University School of Medicine and Health Sciences (SMHS) alumna Diane P. Luckmann, M.D. '59, recently made a significant bequest to endow the Frank Miller Distinguished Professorship. Miller, who passed away April 24, 2013, was a double alumnus, M.D. '48 and B.S. '43, and Professor Emeritus of Pathology. He served the SMHS community for more than 40 years, shaping the future careers of generations of medical students, including Luckmann. In his role as dean of students and curricular affairs from 1966 to 1973, Miller paved the way for women to enter medical school, markedly increasing female enrollment at SMHS during those years.

"My enthusiasm for teaching is inspired not only by the incredibly well chosen and talented pupils, but also by the outstanding physicians who taught me at GW in the 1950s," Luckmann recalled during a visit to campus for her 50th reunion.

A specialist in anesthesiology, emergency medicine, family practice, and pain medicine, Luckmann has spent years sharing her skills and knowledge, both by providing care in numerous foreign countries and through her teaching at the University of California at San Francisco. She has worked with Mother Teresa in India, assisted the Flying Doctors in Kenya, and provided trauma care in Papua New Guinea.

"As a professor, mentor, and friend, Dr. Miller was one of the most beloved faculty members in the history of the school," saidJeffreyS. Akman, M.D. '81, RESD '85, Bloedorn Professor of Administrative Medicine, vice president for health affairs, and dean of SMHS. "Thanks to Diane Luckmann's generous gift, his legacy will live on through the Dr. Frank N. Miller Professorship, supporting the school's tradition of distinguished teaching in the allied health fields."



A FOUNDATION FOR SUPPORT FOR GW

Shareholder advocate and nationally recognized corporate responsibility watchdog Evelyn Y. Davis this year donated \$1 million to support SMHS and the GW School of Business.

As the founder and editor of national financial newsletter *Highlights and Lowlights*, Davis has spent her career focused on corporate governance and executive compensation. She has gained a well-deserved reputation for holding companies and their executives accountable, in an age when few others have been willing to do so.

Born in Amsterdam, the Netherlands (which, she jokes, was "on the wrong side of the ocean, but the very right side of the tracks"), Davis was a member of GW's Class of 1951, the same class as Jacqueline Bouvier (Kennedy Onassis). Since those early days at the university, Davis has become well known around Foggy Bottom for her philanthropy. As president and trustee of the Evelyn Y. Davis Foundation, she has been a generous GW supporter over the years, having previously contributed to the Estelle and Melvin Gelman Library, the School of Media and Public Affairs, SMHS, the GW Medical Faculty Associates, and the George Washington University Hospital.

"As a longtime resident of Washington and a former student at George Washington, I am honored to be able to support this prominent institution in our nation's capital," said Davis.



Evelyn Y. Davis with GW President Steven Knapp

SIDAWY BECOMES FIFTH SALTZ CHAIR OF SURGERY

On the 50th anniversary of the naming of the first Lewis B. Saltz Chair of Surgery, the George Washington University medical community turned out to honor Anton Sidawy, M.D., M.P.H. '99, on the occasion of his installation as the Lewis B. Saltz Chair of Surgery.

The endowed position was established at SMHS in 1961 through a bequest from the Lewis B. Saltz estate. With his induction, Sidawy became the fifth GW surgeon to receive the distinction, joining an elite group that includes Brian Blades, M.D.; Paul Adkins, M.D.; Ralph DePalma, M.D.; and, most recently, Joseph Giordano, M.D., well known as the doctor who saved the life of President Ronald Reagan after a 1981 assassination attempt.

An internationally renowned vascular surgeon, Sidawy has served on the GW faculty for 25 years, and began his tenure as chair in December 2010. In the two years since he took over the leadership of surgery at GW, Sidawy has expanded and reorganized the department, adding a number of talented surgeons to the team and broadening the department's subspecialties to include vascular surgery, colorectal surgery, trauma, and general surgery, with immediate plans to expand thoracic surgery and various general surgery subspecialties, in addition to a limb salvage program.

"Dr. Sidawy's aspirations for turning the Department of Surgery into a world-class department matched exactly with what the university and SMHS see as their own aspirations," said Jeffrey S. Akman, M.D. '81, RESD '85, Bloedorn Professor of Administrative Medicine, vice president for health affairs, and dean of SMHS.



Former Saltz Chairs (from left) Ralph DePalma, M.D., and Joseph Giordano, M.D., welcomed Sidawy as the newest member of the select group of surgeons.

RECALLING H STREET

The H Street Society was created to honor and engage alumni who graduated 50 or more years ago. Named after the former location of the medical school (until 1973), 1335 H Street, NW, the H Street Society honors those distinguished alumni and hopes to strengthen their connection with the GW community. With the creation of the H Street Society, alumni who have had their 50th reunion will be invited back to campus every year to reconnect and reminisce with former classmates, check out what's new on campus, and participate in university activities and events. The society also encourages older alumni to reach out to their classmates and spread the word about reconnecting with SMHS.

REUNION WEEKEND

More than 300 GW medical alumni, faculty, and staff attended the school's 2012 Reunion Weekend. The weekend opened with the University's Distinguished Alumni Awards ceremony. University of Colorado Medical School Distinguished Clinical Professor of Medicine Paul D. Miller, M.D. '70, M.S. '66, was among six GW graduates to receive a GW Alumni Achievement Award (this was the 76th year the awards were presented). The following day, former classmates reminisced about the "good old days" at GW, as SMHS honored the Class of '62 on their 50th reunion at a special luncheon at the Fairmont Hotel. Addressing current medical students, alumni, faculty, and staff, John C. Pan, M.D. '70, RESD '74, executive director and founder of GW's Center for Integrative Medicine, delivered the fourth annual Allan B. Weingold Obstetrics and Gynecology Lecture, titled "Integrative Medicine, Now and Beyond." The weekend also served as the backdrop for the inaugural Frank N. Miller Lecture, honoring one of the school's most influential faculty members. A panel of GW experts - moderated by Alan G. Wasserman, M.D., chair of the Department of Medicine and Eugene Meyer Professor of Medicine at SMHS - addressed the future of medicine.



1335 H Street, NW, the former home of SMHS.



SMHS PA PROGRAM CELEBRATES 40 YEARS

In September 1972, the GW Physician Assistant (PA) program was established in the Department of Health Care Sciences under Thomas E. Piemme, M.D., former professor of medicine and director of the department's Division of General Medicine at GW. To date, more than 2,000 PAs have graduated from the program. The program has continued to thrive since its inception. From the first class of 24 PAs, who graduated in 1974, the program has grown to 62 PA graduates in 2013. In 1987, GW was the first to launch a joint Physician Assistant/Master of Public Health degree (PA/M.P.H.). The new degree option was created for students interested in the clinical application of preventive medicine.

THE NEXT FRONTIER IN MEDICINE

This innovative lecture series seeks to connect and engage members of the Washington, D.C. community with renowned medical experts to explore current health care topics. Improving cardiovascular health through innovation, early detection, and lifestyle modification, and accelerating neuroscience to neuro-therapy were some of the topics featured in the series.

GRATEFUL PATIENTS

Eve Wilkins noticed something was wrong last summer. Her heart raced, and she frequently found herself confused or disoriented. "I was forgetting directions to local places, places I'd been visiting for 40 years," recalls Wilkins.

After a few wrong turns and a misdiagnosis, Wilkins looked to the clinicians at the George Washington University for help. There, the staff identified a cancerous lesion growing on Wilkins' brain.

"I was terrified," says Wilkins, having watched helplessly as a friend endured the pain and a steep decline in quality of life during her cancer treatment years earlier. "At 80 years old, I just wanted to go home and fade away while the cancer took its course. A GW oncologist assured me that cancer treatment had improved significantly, and surgery would allow me the high quality of life I've enjoyed for many years to come."

The experience was so positive that months later when doctors found an additional lesion, this time on Wilkins' lung, she didn't hesitate to opt for another surgery. Following the second successful operation, Wilkins was referred to the George Washington Cancer Institute for the survivorship program. The program offers a range of support programs and services to cancer survivors, including a nurse practitioner, an internist, a patient navigator, and a registered dietitian to offer some direction for patients once they've received the all-clear from their physicians.

"I continue to be impressed by the attentive, professional, caring staff at GW," says Wilkins. "I have been an active participant in a cancer support group led by a GW social worker. My experiences have been so amazing I decided to make a charitable donation through the SMHS Discovery Fund so that GW can continue to offer comprehensive, compassionate care to patients. I felt like it was important to give back, considering the gift of life GW gave me." "My experiences have been so amazing I decided to make a charitable donation through the SMHS Discovery Fund so that GW can continue to offer comprehensive, compassionate care to patients. I felt like it was important to give back, considering the gift of life GW gave me."

-Eve Wilkins

DEPARTMENTS

Anatomy and Regenerative Biology

DEPARTMENT OF ANATOMY AND REGENERATIVE BIOLOGY Robert G. Hawley, Ph.D., chair, King Fahd Professor of

DEPARTMENT OF ANESTHESIOLOGY AND CRITICAL CARE MEDICINE

Michael J. Berrigan, M.D., chair, Seymour Alpert Professor of Anesthesiology

DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR MEDICINE Rakesh Kumar, Ph.D., chair, Catharine Birch and William P. McCormick Chair of Biochemistry and Molecular Biology

DEPARTMENT OF CLINICAL RESEARCH AND LEADERSHIP Catherine Turley, Ed.D., interim chair

DEPARTMENT OF DERMATOLOGY Alison Ehrlich, M.D. '96, RESD '97, chair

DEPARTMENT OF EMERGENCY MEDICINE Robert F. Shesser, M.D., chair

DEPARTMENT OF INTEGRATIVE SYSTEMS BIOLOGY Eric Hoffman, Ph.D., chair

DEPARTMENT OF MEDICINE Alan G. Wasserman, M.D., chair, Eugene Meyer Professor of Medicine

DEPARTMENT OF MICROBIOLOGY, IMMUNOLOGY, AND TROPICAL MEDICINE

Douglas F. Nixon, M.D., Ph.D., chair, Ross Professor of Basic Science Research

DEPARTMENT OF NEUROLOGICAL SURGERY Anthony J. Caputy, M.D., chair, Rizzoli Professor of Neurological Surgery

DEPARTMENT OF NEUROLOGY Henry J. Kaminski, M.D., chair

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY John W. Larsen, M.D., chair, Oscar I. and Mildred S. Dodek Professor of Obstetrics and Gynecology

DEPARTMENT OF OPHTHALMOLOGY Craig E. Geist, M.D., chair

DEPARTMENT OF ORTHOPEDIC SURGERY Robert J. Neviaser, M.D., chair

DEPARTMENT OF PATHOLOGY Donald S. Karcher, M.D., chair

DEPARTMENT OF PEDIATRICS Mark L. Batshaw, M.D., chair

DEPARTMENT OF PHARMACOLOGY AND PHYSIOLOGY

Vincent A. Chiappinelli, Ph.D., chair, Loewy Professor of Basic Science

DEPARTMENT OF PHYSICAL THERAPY AND HEALTH CARE SCIENCES Joyce Maring, Ed.D., DPT, chair

DEPARTMENT OF PHYSICIAN ASSISTANT STUDIES Lisa M. Alexander, Ed.D. '03, M.P.H. '89, PA-C '79, program director

DEPARTMENT OF PSYCHIATRY AND BEHAVIORAL SCIENCES James L. Griffith, M.D., chair

DEPARTMENT OF RADIOLOGY Robert K. Zeman, M.D., chair

DEPARTMENT OF SURGERY Anton Sidawy, M.D., M.P.H., chair, Lewis B. Saltz Chair and Professor of Surgery

DEPARTMENT OF UROLOGY Thomas W. Jarrett, M.D., chair

CENTERS + INSTITUTES

Center for Injury Prevention and Control

Center for the Application and Scholarship of Theater in Medicine

Clinical and Translational Science Institute at Children's National Health System (CTSI-CN)

Dr. Cyrus and Myrtle Katzen Cancer Research Center

GW Cancer Institute

GW Center for Integrative Medicine

GW Heart and Vascular Institute

GW HIV/AIDS Institute

GW Institute for Neuroscience

GW Institute for Spirituality and Health (GWish)

Human Hookworm Vaccine Initiative

Institute for Biomedical Sciences

McCormick Genomic and Proteomic Center

Rodham Institute

Ronald Reagan Institute of Emergency Medicine

W.M. Keck Institute for Proteomics Technology and Applications

Washington Institute of Surgical Endoscopy (WISE)

DEANS + SENIOR LEADERSHIP

JEFFREY S. AKMAN, M.D. '81, RESD '85

Bloedorn Professor of Administrative Medicine, vice president for health affairs, and dean

LISA M. ALEXANDER, Ed.D. '03, M.P.H. '89, PA-C '79 assistant dean for community-based partnerships, interim chair and program director for Physician Assistant program

MARK L. BATSHAW, M.D. associate dean for academic affairs, Children's National Health System

JOSEPH BOCCHINO, Ed.D., M.B.A. senior associate dean for health sciences

VINCENT A. CHIAPPINELLI, Ph.D. Loewy Professor of Basic Science, associate vice president for health affairs and associate dean

MARY A. CORCORAN, Ph.D., OT/L, FAOTA associate dean, faculty development for health sciences

NANCY GABA, M.D. associate dean for graduate medical education

RHONDA M. GOLDBERG, M.A. associate dean for student affairs

YOLANDA HAYWOOD, M.D., RESD '87 associate dean for diversity, inclusion, and student affairs, associate dean for student and curricular affairs

LANCE B. KAPLAN, M.B.A. associate dean of finance, administration, and operations

DIANE MCQUAIL assistant dean of admissions for the M.D. Program

VERONICA MICHAELSEN, M.D., Ph.D. assistant dean, evaluation

DENNIS NARANGO, M.A. associate dean and associate vice president for medicine and development and alumni relations

W. SCOTT SCHROTH, M.D., M.P.H. associate dean for administration

RAY LUCAS, M.D. interim associate dean for faculty affairs and professional development

LINDA WERLING, Ph.D. associate dean for graduate studies

M. LOURDES WINBERRY, M.P.H. associate dean for health affairs

CLINICAL PARTNERS

The George Washington University Hospital

The George Washington University Medical Faculty Associates

Children's National Health System

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RECRUITS + APPOINTMENTS

JEFFREY S. AKMAN, M.D. '81, RESD '85, installed as the Bloedorn Professor of Administrative Medicine, vice president for health affairs, and dean of SMHS.

LISA M. ALEXANDER, Ed.D. '03, M.P.H. '89, PA-C '79, named program director for the Physician Assistant program.

JOSEPH BOCCHINO, Ed.D., M.B.A., named senior associate dean for Health Sciences.

LAWRENCE "BOPPER" DEYTON, M.D. '85, former director of the Center for Tobacco Products at the U.S. Food and Drug Administration, joined the faculty as a clinical professor of medicine.

ALISON EHRLICH, M.D. '96, RESD '97, named chair of the Department of Dermatology.

YOLANDA HAYWOOD, M.D., RESD '87, was named associate dean for diversity, inclusion, and student affairs, associate dean for student and curricular affairs.

LANCE B. KAPLAN, M.B.A., named associate dean of finance, administration, and operations.

KURT D. NEWMAN, M.D., named president and CEO of Children's National Health System.

DOUGLAS F. NIXON, M.D., Ph.D., named Ross Professor of Basic Science Research and chair of the Department of Microbiology, Immunology, and Tropical Medicine.

ANTON SIDAWY, M.D., M.P.H. '99, named the Lewis B. Saltz Chair of Surgery.

BARRY A. WOLFMAN, M.S. '84, named CEO and managing director of The George Washington University Hospital.

GEORGE WASHINGTON UNIVERSITY ENDOWMENT ASSETS BY SCHOOL



UNIVERSITY SCHOOL OF MEDICINE AND HEALTH SCIENCES ALL OTHER GW SCHOOLS COMBINED

AY 2012-13 HEALTH SCIENCES PROGRAMS ENROLLMENT AT A GLANCE



GRADUATE MEDICAL EDUCATION AY 2012-13

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SPONSORED RESEARCH LIST

ANATOMY AND REGENERATIVE BIOLOGY

ANNE CHIARAMELLO, Ph.D., associate professor, Transcriptional Dynamics of Neuronal Survival, HHS/National Institutes of Health

SALLY ANN MOODY, Ph.D., professor, Maternal Determinants of Neural Fate, National Science Foundation

LOC Gene Regulation of Cranial Sensory Placode Development, HHS/National Institutes of Health

MARY ANN STEPP, Ph.D., professor, Paradigms of Wound Healing, Jefferson Medical College, Thomas Jefferson University

Molecular Approaches to Reversing Corneal Goblet Cell Hyperplasia, HHS/National Institutes of Health

Molecular Mechanisms of Corneal Recurrent Erosion Formation, HHS/National Institutes of Health

XIAOYAN ZHENG, Ph.D., assistant professor, Hedgehog-Mediated Regulation of Cell Adhesion, HHS/National Institutes of Health

Mary Ann Stepp, Ph.D.

ANESTHESIOLOGY

LAKHMIR S. CHAWLA, M.D., associate professor, Protocolized Care for Early Septic Shock (ProCESS), University of Pittsburgh

The Protocol to Assess the Severity of Acute Kidney Injury, ASN Foundation for Kidney Research

Protocolized Goal-directed Resuscitation of Septic Shock to Prevent AKI (ProGReSS), University of Pittsburgh

KATRINA HAWKINS, M.D., assistant professor, Late Cardiovascular Consequences of Septic Shock, University of Pittsburgh

BIOCHEMISTRY AND MOLECULAR MEDICINE

PATRICIA E. BERG, Ph.D., professor, Role of the Homeobox Gene in Triple Negative Breast Cancer, Georgetown University

Detection of BPI Protein A Transcription Factor in Serum of Women with Metastatic Breast Cancer, Avon Products Foundation Inc.

GOBERDHAN DIMRI, Ph.D., M.Phil, M.Sc., associate professor, The Role of *BMI1* in Breast Cancer, HHS/ National Institutes of Health

VALERIE HU, Ph.D., professor, DNA Methylation Changes in Autism Spectrum Disorders, SynapDx Corporation

Metabolomocs of Autism: Exploring Metabolic Dysfunction in the Autistic Brain, Simons Foundation

RAKESH KUMAR, Ph.D., M.Sc., Catharine Birch and William P. McCormick Chair of Biochemistry and Molecular Biology, ARRA Role of PAK1-MORC2 Pathway in Breast Cancer, HHS/National Institutes of Health

MTA1 in Oncogenesis, HHS/National Institutes of Health

PAK1 Signaling and Targets in Breast Cancer Progression, HHS/National Institutes of Health

Valerie Hu, Ph.D.

RAJ LAKSHMAN, Ph.D., M.Sc., research professor, Alcohol-Induced Liver Fibrosis: An *In Vitro* Model, HHS/ National Institutes of Health

Brain Socs3 and Ptpab-Adipose Leptin Feedback Axis in Alcoholic Hepatosteatosis, HHS/National Institutes of Health

Novel Modulators of Alcohol-Induced Metabolic and Liver Injury, HHS/National Institutes of Health

I. TONG MAK, Ph.D., research professor, Cardioprotective Efficacy of Mg Supplementation During HAART Therapy, HHS/National Institutes of Health

WILLIAM WEGLICKI, Ph.D., professor, EGFR Tyrosine Kinase Inhibitor-Induced Cardiomyopathy, HHS/National Institutes of Health

WENGE ZHU, Ph.D., assistant professor, DNA Replication Control and Its Application to Selective Killing of Cancer Cells, HHS/National Institutes of Health

CLINICAL RESEARCH AND LEADERSHIP

JOSEPH BOCCHINO, Ed.D., M.B.A., associate professor and senior associate dean for Health Sciences, Faculty Development in Primary Care, Children's Research Institute

Clinical and Translational Science Award, Children's Research Institute

SHAWNEEQUA CALLIER, J.D., assistant professor, Ethical, Legal, and Social Implications Issues in the Comparative Effectiveness Research on Personalized Genomic Medicine, Case Western Reserve University

MANDI PRATT CHAPMAN, M.A., adjunct instructor, GW Cancer Institute, Avon Safety Net Program, Avon Products Foundation Inc.

Citywide Survivorship Initiative, Susan G. Komen Breast Cancer Foundation

PERRY PAYNE, M.D., J.D., M.P.P., assistant professor, Clinical and Translational Science Award, Children's Research Institute

DERMATOLOGY

ALISON EHRLICH, M.D. '96, RESD '97, professor and chair, Raptiva Epidemiologic Study of Psoriasis Outcomes and Safety Events in Patients with Moderate to Severe Plaque Psoriasis Response, Genentech, Inc.

Dermatology Clinical Fellowship Program, Janssen Services, LLC

Dermatology Clinical Fellowship Program, Abbott Laboratories

EMERGENCY MEDICINE

JANICE C. BLANCHARD, M.D., M.P.H., associate professor, Health Policy Fellowship, the Physicians Foundation

JEREMY BROWN, M.B., associate professor, Multi-Center Study of Tamsulosin for Ureteral Stones in Emergency Medicine, HHS/National Institutes of Health

LARISSA MAY, M.D. '02, RESD '06, M.P.H. '08, M.S.H.S., assistant professor, Antimicrobial Stewardship Through Rapid MRSA Diagnosis in Emergency Department Patients with Abscesses, Children's Research Institute

KABIR YADAV, M.D.C.M., associate professor, Better, Stronger, Faster: Translating Biomedical Informatics Tools to Accelerate Comparative Effectiveness Research, Children's Research Institute

GRADUATE MEDICAL EDUCATION

NANCY D. GABA, M.D., associate dean, Creating and Developing a Pilot Resident Chapter of GHHS, the Arnold P. Gold Foundation

Medical Residents for NIH Clinical Center, HHS/National Institutes of Health

Sally Ann Moody, Ph.D.

HEALTH CARE SCIENCES

LISA M. ALEXANDER, Ed.D. '03, M.P.H. '89, PA-C '79,

assistant dean for community-based partnerships, interim chair of Physician Assistant Studies, Area Health Education Centers Point of Service Maintenance and Enhancement, HHS/Health Resources and Services Administration

D.C. Quality Health Care Initiative for Individuals with Intellectual and Physical Disabilities, D.C. Department on Disability Services

HIMMELFARB LIBRARY

ANNE LINTON, adjunct assistant professor, Information and Library Needs Assessment to Support the Orotta School of Medicine, Physicians for Peace and the GW School of Medicine and Health Sciences Project in Eritrea, the Elsevier Foundation

MEDICINE

CHRISTINA M. PUCHALSKI, M.D. '94, RESD '97,

professor, director of the GW Institute for Spirituality and Health, GWish Templeton Reflective Rounds: Sustaining Spirituality-Based Competencies in Medical Education,

John Templeton Foundation

Reflection Mentors: A Curriculum for Professionalism, Funding Individual Spiritual Health (FISH) Whole-Person Palliative Care Outpatient Clinic, E. Rhodes and Leona B. Carpenter Foundation

International Consensus Conference: The Transformational Role of Love and Forgiveness in Health Care, John E. Fetzer Institute Inc.

Integrating Caring Attitudes in the Nation's Health Care System, Arthur Vining Davis Foundation

GWish–Templeton Reflective Rounds: Sustaining Spirituality-Based Competencies in Medical Education, John Templeton Foundation

JEANNY B. ARAGON-CHING, M.D., assistant professor, Everolimus for Renal Cancer Ensuing Surgical Therapy: A Phase III Study, Southwest Oncology Group

JOSHUA L. COHEN, M.D., professor, Diabetes Management Using SMS Messaging after Emergency Room Visits, McKesson Foundation

Mobile Diabetes Management, WellDoc Inc.

HOPE FERDOWSIAN, M.D., M.P.H., assistant clinical professor, Developing Standardized Policies: A Comprehensive Evaluation of Factors Relevant to Ethical Considerations, National Science Foundation

SIDNEY FU, M.D., Ph.D., research professor, miRNA Biomarkers from FFPE Tissue for Early Breast Cancer Detection, Wendy Will Case Cancer Fund Inc.

miRNA Biomarkers from FFPE Tissue for Early Breast Cancer Detection, HHS/National Institutes of Health

FRED GORDIN, M.D., professor, Research Administration, CPCRA Clinical Trials Unit Year 7, HHS/National Institutes of Health

REBECCA KALTMAN, M.D., assistant professor, A Phase III, Randomized Clinical Trial of Standard Adjuvant Endocrine Therapy +/- Chemotherapy in Patients with 1-3 Positive Nodes, Hormone Receptor-Positive, and HER-2 Negative Breast Cancer with Recurrence Score(Rs) of 25 or Less, Frontier Science and Technology Research Foundation

RICHARD J. KATZ, M.D., Bloedorn Professor of Cardiology, Warfarin Versus Aspirin in Reduced Cardiac Ejection Fraction, Columbia University, HHS/National Institutes of Health

SUSIE LEW, M.D., professor, Health Care Innovation Challenge, HHS/Centers for Medicare and Medicaid Services LISA MARTIN, M.D., associate professor, MAP.3 — A Phase III Randomized Study of Exemestane Plus Placebo Versus Exemestane Plus Celecoxib Versus Placebo in Postmenopausal Women at Increased Risk of Developing Breast Cancer, National Cancer Institute of Canada Clinical Trials Group

TIMOTHY MCCAFFREY, Ph.D., professor, Concordant Integrative Analysis of Multiple Gene Expression Data Sets, HHS/National Institutes of Health

LISA MCGRAIL, M.D., assistant clinical professor, Phase II Placebo Controlled Trial of Lisinopril and Coreg CR to Reduce Cardiotoxicity in Patients with Breast Cancer Receiving NEO Adjuvant Chemotherapy with Trastuzumab (Herceptin), Frontier Science and Technology Research Foundation

DAVID M. PARENTI, M.D., M.Sc., professor, Extended Safety Evaluation in Subjects Who Have Participated in Chiron Technologies Center for Gene Therapy Retrovirus Protocols, Chiron Technologies

Strategic Timing of Antiretroviral Treatment, Institute for Clinical Research Inc.

Bone Mineral Sub-Study to Start, Institute for Clinical Research Inc.

An International Multicenter, Prospective Observational Study of the Safety of Maraviro Used with Optimized Background Therapy in Treatment-Experienced HIV-1 Infected Patients, Pfizer, Inc.

Palliative Care in People Living with AIDS: Integrating into Standard Care, Children's Research Institute

SAMIR S. PATEL, M.D., associate professor, Enhancing Diabetes and Hypertension Self-Management: A Randomized Trial of a Mobile Phone Strategy, McKesson Foundation Inc.

DOMINIC RAJ, M.D., professor, SPRINT — Factors Affecting Atherosclerosis Study (FAST), University of Utah Pulse Wave Velocity and Central Aortic Pressure Outcomes in SPRINT, University of Utah

Systolic Blood Pressure Intervention Trial (SPRINT), University of Utah

Cytokine Gene Polymorphisms in CRCIC Cohort, HHS/National Institutes of Health

AFSOON ROBERTS, M.D., associate professor, Phase II Open Label Multicenter Study of the Safety of Ritonavir-Boosted Gs-9137 (Gs-9137/R) Administered in Combination with Other Antiretroviral Agents for the Treatment of HIV-1 Infected Subjects, Gilead Sciences Incorporated A Multicenter, Randomized, Double-Blind, Double-Dummy, Phase III Study of the Safety and Efficacy of Ritonavir-Boosted Elvitegravir Versus Raltegravir, Each Administered with a Background Regimen in HIV-1 Infected Antiretroviral Adults, Gilead Sciences Incorporated

MARC SIEGEL, M.D., assistant clinical professor, TBTC Study 29: Evaluation of a Rifapentine-Containing Regimen for Intensive Phase Treatment of Pulmonary Tuberculosis, Veterans Affairs Medical Center of Washington, D.C.

Genomic Analysis of Respiratory Pathogens, Children's Research Institute

ROBERT SIEGEL, M.D., associate director of Clinical Oncology, Phase II Feasibility Trial Incorporating Bevacizumab into Dose-Dense Doxorubicin and Cyclophosphamide Followed by Paclitaxel in Patients with Lymph Node Positive Breast Cancer (E2104 Protocol), Frontier Science and Technology Research Foundation

Eastern Cooperative Group: ASSURE: Adjuvant Sorafenib or Sunitinib for Unfavorable Renal Carcinoma, Frontier Science and Technology Research Foundation

Phase III Trial of Continuous Schedule AC + G Versus Q2 Week Schedule AC, Followed by Paclitaxel Given Either Every Two Weeks or Weekly for 12 Weeks as Post-Operative Adjuvant Therapy in Node-Positive or High-Risk Node-Negative Breast Cancer, Frontier Science and Technology Research Foundation

ECOG 5103: A Double-Blind Phase III Trial of Doxorubicin and Cyclophosphamide Followed by Paclitaxel with Bevacizumab or Placebo in Patients with Lymph Node Positive and High-Risk Lymph Node Negative Breast Cancer, Frontier Science and Technology Research Foundation

ECOG: Program for the Assessment of Clinical Cancer Tests (PACCT-1): Trial Assigning Individualized Options for Treatment: The TAILORx Trial, Frontier Science and Technology Research Foundation

NSABP B-34: A Clinical Trial Comparing Adjuvant Clodronate Therapy Versus Placebo in Early-Stage Breast Cancer Patients Receiving Systemic Chemotherapy and/or Hormonal Therapy or No Therapy, NSABP Foundation

NSABP B-31: A Randomized Trial Comparing the Safety and Efficacy of Adriamycin and Cyclophosphamide Followed by Taxol to That of Adriamycin and Cyclophosphamide Followed by Taxol Plus Herceptin in Node-Positive Breast Cancer Patients with Tumors, NSABP Foundation

Tamoxifen and Exemestane Trial, Frontier Science and Technology Research Foundation A Phase III Randomized Trial of Chemotherapy with or without Bevacizumab in Patients with Recurrent or Metastatic Head and Neck Cancer, Frontier Science and Technology Research Foundation

NSABP B-33: A Randomized, Placebo-Controlled, Double-Blind Trial Evaluating the Effect of Exemestane in Clinical State TI-3 NO-1 Postmenopausal Breast Cancer Patients Completing at Least Five Years of Tamoxifen Therapy, NSABP Foundation

NSABP C-07: A Clinical Trial Comparing 5-Fluorouracil (5-Fu) Plus Leucovorin (Lv) and Oxaliplatin with 5-Fu Plus Lv for the Treatment of Patients with Stages II and III Carcinoma of the Colon, NSABP Foundation

A Clinical Trial to Determine the Efficacy of Five Years of Letrozole Compared to Placebo, NSABP Foundation

GARY L. SIMON, M.D., Ph.D., Walter G. Ross Professor of Medicine, An International Observational Study to Characterize Adults with Influenza, Institute for Clinical Research Inc.

An International Observational Study to Characterize Adults with Influenza A — Pandemic H1N1 (H1Nlv) — Insight H1Nlv Outpatient Trial M30-GW-009-0812-1, Institute for Clinical Research Inc.

An International Observational Study to Characterize Adults Who Are Hospitalized with Complications of Influenza, Institute for Clinical Research Inc.

Clinical and Translational Science Award (PCIR School of Medicine), Children's Research Institute

The District of Columbia Developmental Center for AIDS Research (D.C. D-CFAR), HHS/National Institutes of Health

TLC Plus — A Study to Evaluate the Feasibility of an Enhanced Test, Link to Care Plus Treatment Approach for HIV Prevention in the U.S. — HPTN 065, Family Health International

Clinical and Translational Science Award (Year 4 PCIR Medicine), Children's Research Institute

HARINDARPAL (HARRY) GILL, Ph.D., assistant research professor, Structure-Function Studies of the Dimerization of the N-Terminal Domain of NBCEI, HHS/National Institutes of Health

ALLEN J. SOLOMON, M.D., professor, Intermittent Atrial Fibrillation in Cryptogenic and Large Vessel Stroke, deCODE genetics EHF

Intermittent Atrial Fibrillation in Cryptogenic and Large Vessel Stroke, deCODE genetics EHF

CYNTHIA M. TRACY, M.D., professor, Catheter Ablation Versus Anti-Arrhythmic Drug Therapy for Atrial Fibrillation Trial, Duke University

MUDIT TYAGI, Ph.D., assistant professor, Cocaine-Induced Selective Epigenetic and Signaling Pathways Enhance HIV Replication, HHS/National Institutes of Health

Cocaine Enhances HIV Replication by Inducing Transcriptionally Active Chromatins, HHS/National Institutes of Health

MICROBIOLOGY, IMMUNOLOGY, AND TROPICAL MEDICINE

JEFFREY BETHONY, Ph.D., associate professor, Interest Award — Immunogenicity and Potency Testing for Two Recombinant Malaria Vaccines, Program for Appropriate Technology in Health

Dynamics of Drug-Induced Resistance to Schistosoma Mansoni, Centro De Pesquisas Rene Rachou

Product Development of a Membrane Tetraspanin Vaccine in Schistosomiasis, Albert B. Sabin Vaccine Institute Inc.

Clinical Development and Evaluation of the Na-GST-1 and Na-APR-1 Hookworm Vaccine Antigens, Albert B. Sabin Vaccine Institute Inc.

Biomarkers for the Progression of Cholangiocarcinoma, Queensland Institute for Medical Research

Interest Award — Product Development Support of the Human Hookworm Vaccine, Albert B. Sabin Vaccine Institute Inc.

Product Development Support of the Human Hookworm Vaccine (Dutch Funding), Albert B. Sabin Vaccine Institute Inc.

PAUL BRINDLEY, Ph.D., professor, Pathogenesis, Carcinogenesis, and Ecology of Opisthorchiasis in Thailand, Khon Kaen University

Narine Sarvazyan, Ph.D.

Biomarkers of Opisthorchis Viverrini–Induced Cholangiocarcinoma, HHS/National Institutes of Health

Role of Liver Fluke Granulin in Cholangiocarcinogenesis, HHS/National Institutes of Health

MICHAEL BUKRINSKY, M.D., Ph.D., professor and interim chair, Supplement — HIV Disease and Impairment of High-Density Lipoprotein Metabolism, HHS/National Institutes of Health;

District of Columbia Developmental Center for AIDS Research (D.C. D-CFAR), HHS/National Institutes of Health

Training Leaders for 21st-Century Biotechnology: Joint GW-MSU Educational Program, Department of Education Mechanisms of Virus-Induced Impairment of Reverse Cholesterol Transport, HHS/National Institutes of Health

HHVI-ASP NCE: Clinical Trials, Albert B. Sabin Vaccine Institute Inc.

DAVID DIEMERT, M.D., associate professor, Interest Award — Clinical Trials of the Na-GST-1 and Na-APR-1 Hookworm Vaccine Antigens, Albert B. Sabin Vaccine Institute Inc.

A Double-Blind, Randomized, Controlled Evaluation of Tolerability of a Proprietary Oil Blend in Adults Residing in Areas Endemic for Helminth Infection, INC Research LLC

JOHN HAWDON, Ph.D., associate professor, Developing Tools for Genetic Manipulation of Hookworms, HHS/ National Institutes of Health

IMTIAZ KHAN, Ph.D., M.Sc., professor, Dendritic Cell Response to Microsporidians, HHS/National Institutes of Health

Towards a Vaccine to Prevent Toxoplasmosis, University of Chicago

Long-Term Immunity Against Toxoplasmosis, HHS/ National Institutes of Health

CD8+ T Cell Effectors Against Microsporidia, HHS/ National Institutes of Health

MAGALI MORETTO, Ph.D., M.Sc., assistant research professor, District of Columbia Development Center for Aids Research (D.C. D-CFAR) NIH-funded Mini-grant, HHS/National Institutes of Health

NEUROLOGY

ELHAM BAYAT, M.D., assistant professor, Clinical Trial of Ceftriaxone in ALS, Massachusetts General Hospital

Lorenzo Norris, M.D.

KATHLEEN BURGER, D.O., assistant professor, Platelet-Oriented Inhibition in New TIA and Minor Ischemic Stroke, University of Maryland

HENRY KAMINSKI, M.D., professor and chair, Thymectomy in Non-Thymomatous MG Patients on Prednisone, University of Alabama

Thymectomy in Non-Thymomatous MG Patients on Prednisone — Supplement, University of Alabama

TED ROTHSTEIN, M.D., associate professor, Tygris: Tysabri Global Observational Program in Safety, Biogen Idec Inc.

ADELINE L. VANDERVER, M.D., assistant professor, Mechanisms of Glial Cell Dysfunction in Aicardi Goutieres Syndrome, Dana Foundation

NEUROSURGERY

DONALD C. SHIELDS, M.D., assistant professor, Responsive Neurostimulator (RNS) System Long-Term Treatment Clinical Investigation, NeuroPace Inc. Controlled Trial of DBS for OCD, Butler Hospital

OFFICE OF THE DEAN FOR ACADEMIC AFFAIRS

VINCENT A. CHIAPPINELLI, Ph.D., associate vice president for health affairs and associate dean, Clinical and Translational Science Award (Governance), Children's Research Institute

Medical Education Partnership Initiative Coordinating Center, HHS/Health Resources and Services Administration

Clinical and Translational Science Award (Governance Year 4), Children's Research Institute

Anne Chiaramello, Ph.D.; Sarah Shomstein, Ph.D.; Norman Lee, Ph.D.; Anthony-Samuel LaMantia, Ph.D.; and Judy Liu, M.D., Ph.D.

OFFICE OF THE VICE PRESIDENT FOR HEALTH AFFAIRS

JEFFREY S. AKMAN, M.D. '81, RESD '85, Bloedorn Professor of Administrative Medicine, vice president for health affairs, and dean, ARRA Space Renovation for New Research Center for the Neglected Diseases of Poverty, HHS/National Institutes of Health

YOLANDA HAYWOOD, M.D., RESD '87, associate dean for diversity, inclusion, and student affairs, Upward Bound, U.S. Department of Education

ORTHOPEDIC SURGERY

WARREN DAVID YU, M.D., associate professor, A Prospective, Multi-Center, Randomized Study Comparing the VertiFlex Superion Interspinous Spacer (ISS) to the X-STOP Interspinous Process Decompression (IPD) System in Patients with Moderate Lumbar Spinal Stenosis, VertiFlex Inc.

Treatment of Lumbar Spinal Stenosis with X-STOP IPD in Moderately Symptomatic Patients, Medtronic Spine, LLC.

PATHOLOGY

PATRICIA LATHAM, M.D., professor, A Multicenter Randomized, Blinded, Placebo-Controlled Study to Evaluate the Safety of Maraviroc in Combination with Other Antiretroviral Agents in HIV-1 Infected Subjects Co-Infected with Hepatitis C and/or Hepatitis B Virus, Pfizer, Inc.

SYLVIA SILVER, D.A., M.T.S., professor, The East Coast AIDS and Cancer Specimen Resource, HHS/National Institutes of Health The District of Columbia Developmental Center for AIDS Research (D.C. D-CFAR), HHS/National Institutes of Health

The Women's Interagency HIV Study (WIHS V), Georgetown University

PHARMACOLOGY AND PHYSIOLOGY

SUSAN CERYAK, Ph.D., associate professor, Mechanisms of Particulate Chromium Lung Carcinogenesis, HHS/ National Institute of Environmental Health Science

ZARUHI KARABEKIAN, Ph.D., assistant research professor, Preventing Immune Rejection of Stem Cell Derived Cardiac Grafts, American Heart Association

ANTHONY-SAMUEL LAMANTIA, Ph.D., professor, Regulation of 22q11 Genes in Embryonic and Adult Forebrain, HHS/National Institutes of Health

Specification of Peripheral Olfactory Stem Cells, HHS/ National Institutes of Health

NORMAN LEE, Ph.D., professor, Concordant Integrative Analysis of Multiple Gene Expression Data Sets, HHS/ National Institutes of Health

The Effects of Phthalates on the Heart: Molecular Pathways and Clinical Relevance, HHS/National Institutes of Health

Conditional Dicers Manipulation to Study miRNA Involvement in Opioid Addiction, University of Maryland

MARIA MANZINI, Ph.D., assistant professor, Intracellular Signaling in the Development of Human Cognitive Function, HHS/National Institutes of Health

DAVID MENDELOWITZ, Ph.D., professor and vice chair, Chronic Intermittent Hypoxia Alters Hypothalamic Neurotransmission to Brainstem Presympathetic and Cardiac Vagal Neurons, American Heart Association

Chronic Intermittent Hypoxia Alters REM Sleep Pathways to Parasympathetic Cardiac Neurons in the Brainstem, The Sleep Research Society Foundation

Neurophysiology of Parasympathetic Cardiac Neurons, HHS/National Institutes of Health

Mechanism of Cardiorespiratory Rhythm in Neonates, HHS/National Institutes of Health

Nicotine Modulation of Parasympathetic Cardiac Neurons, HHS/National Institutes of Health STEVEN PATIERNO, Ph.D., adjunct professor, GW Cancer Institute, Patient Navigation, Cancer Survivorship, and Health Policy Research and Training Center — Off Campus, Pfizer, Inc.

D.C. Citywide Patient Navigation Research Program, HHS/National Institutes of Health

Patient Navigation, Cancer Survivorship, and Health Policy Research and Training Center — On Campus, Pfizer, Inc.

D.C. Citywide Patient Navigation Research Program — GMAP Supplement 3, HHS/National Institutes of Health

NARINE SARVAZYAN, Ph.D., professor, Acute Myocardial Ischemia: When Too Little Is Too Much, HHS/National Institutes of Health

EAGER: Engineering of Universally Immunocompatible Biological Tissues Using Genetically Modified Embryonic Stem Cells and Decellularized Scaffolds, National Science Foundation

Real-Time NADH Imaging Device, Luxcath LLC

LINDA WERLING, Ph.D., professor, Mechanistic Study of the Repression of MUC5AC and MUC5B Gene Expression by the Delta 9-11 Compound, VBP15, in Human Lung Epithelial Cells, PhRMA Foundation

PEDIATRICS

MOHAMED ALY-HELMY MOHAMED, M.D., M.P.H.,

associate professor, Research and Technology Development to Prevent and Reduce Infection-Related Neonatal and Infant Mortality in Egypt, U.S. Department of Agriculture

PSYCHIATRY AND BEHAVIORAL SCIENCES

MICHAEL COMPTON, M.D., M.P.H., professor, Interest Award — Opening Doors to Recovery in Southeast Georgia, Bristol-Myers Squibb Foundation Inc.

First Episode Psychosis and Pre-Onset Cannabis Use, HHS/National Institutes of Health

CIT and Mental Health Service Accessibility in Police Encounters: Impact on Outcomes of Persons with SMI, University of Illinois

South Asian Hub for Advocacy, Research, and Education on Mental Health (SHARE), London School of Hygiene and Tropical Medicine

Applying Computational Linguistics to Fundamental Components of Schizophrenia, HHS/National Institutes of Health LORENZO NORRIS, M.D., assistant professor, GW Cancer Institute, National Cancer Survivorship Resource Center, American Cancer Society

RADIOLOGY

RACHEL BREM, M.D., professor, GW Cancer Institute, Avon Foundation Safety Net: Breast Care Navigation and m-Health Through a Text Message Program for Women in the Nation's Capital, Avon Products Foundation Inc.

SURGERY

JULIET LEE, M.D., assistant professor, The Experience of Chief Residents Who Have Remained in and Who Have Left Academic Medicine, American Medical Association Foundation

BABAK SARANI, M.D., associate professor, Progesterone for the Treatment of Traumatic Brain Injury, University of Pennsylvania

CHRISTINE TEAL, M.D., associate professor, A Clinical Trial to Determine the Efficacy of Five Years of Letrozole Compared to Placebo in Patients Completing Five Years of Hormonal Therapy Consisting of an Aromatase Inhibitor (AI) or Tamoxifen Followed by an AI in Prolonging Disease-Free Survival in Postmenopausal Women with Hormone Receptor Positive Breast Cancer, NSABP Foundation

GREGORY TRACHIOTIS, M.D., professor, Rheos Pivotal Trial, CVRx Inc.

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THOMAS JARRETT, M.D., professor and chair, A Randomized Phase III Trial of Neo-Adjuvant Docetaxel and Androgen Deprivation Prior to Radical Prostectomy Versus Immediate Radical Prostectomy in Patients with High-Risk, Clinically Localized Prostate Cancer, Frontier Science and Technology Research Foundation

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Prostectomy Versus Immediate Radical Prostectomy in Patients with High-Risk, Clinically Localized Prostate Cancer, Frontier Science and Technology Research Foundation

TOP 2 MOST CITED SMHS FACULTY JOURNAL ARTICLES

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Charles Faselis, M.D., associate professor of medicine, and of physician assistant studies: Kokkinos, P.F., Faselis, C., Myers, J., Panagiotakos, D., and Doumas, M. (2013). "Interactive effects of fitness and statin treatment on mortality risk in veterans with dyslipidaemia: a cohort study." *The Lancet*, 381: 394-399.

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Stefan Knapp, Ph.D., M.Sc., adjunct professor of biochemistry and molecular medicine: Filippakopoulos, P., Picaud, S., Mangos, M., Keates, T., Lambert, J.-P., Barsyte-Lovejoy, D., Felletar, I., Volkmer, R., Müller, S., Pawson, T., Gingras, A.-C., Arrowsmith, C.H., and Knapp, S. (2012). "Histone Recognition and Large-Scale Structural Analysis of the Human Bromodomain Family." *Cell*, 149(1): 214-231.

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