inside: The new Center for Vaccine Development and Global Health



UNIVERSITY of MARYLAND School of Medicine

SOMnews

Point of PRIDE



Dr. Francis Donaldson, an accomplished physician and pathologist, graduated from the UMSOM in 1846 and became the first American physician to utilize excision aspiration and the technique of exfoliative biopsy for the diagnosis of cancer.



DEAN'S MESSAGE

Many times in our lives we have the opportunity to choose our strategy. We may choose to be proactive — to plan and forecast for the futures of our visions, or we may decide to wait and respond to our circumstances as we receive them. I am of the same mind as famed author and speaker John C. Maxwell, when he professes his belief "that everyone chooses how to approach life. If you're proactive, you focus on preparing. If you're reactive, you end up focusing on

repairing." As much as possible, in our lives and in our work, we must choose the initial heavy lifting in a proactive approach. When we make this choice, we equip ourselves with as many tools, resources, and support as possible to achieve the best outcomes in our situations.

Although we must recognize the occasional need for a reactive role, the School of Medicine has strategically chosen to proactively address its challenges. For example, the University of Maryland Medicine's **"Shared Vision 2020"** demonstrates our strategy to position ourselves for maximum and extraordinary success through accelerating the pace of discovery, collaboration, innovation, and quality of patient-centered care, even in the face of diminished federal research support.

For over 40 years, the physicians and researchers in our **Center for Vaccine Development and Global Health** (CVD) have chosen to dedicate themselves to the discovery, development and implementation of both preventive medicine and medical treatment solutions. The exceptional work they produce enables the citizens of this world to make the best-informed decisions for their unique circumstances, whether that includes the employment of prophylactic or therapeutic vaccinology.

CVD is an integral part of a team working to promote wide-scale use of a conjugate vaccine for typhoid, a disease that results in 11 to 20 million cases a year and

up to 161,000 deaths worldwide. This team, the Typhoid Vaccine Acceleration Consortium (TyVAC), is working to accelerate introduction of new typhoid conjugate vaccines in low resource settings around the world. This milestone work of CVD could dramatically impact prevention efforts. Considering this latest accomplishment and our history of endeavors, from malaria and cholera prevention to immunizations of diarrheal and infectious diseases, I am immensely proud of the dedication and passion for global health I have witnessed among our esteemed CVD faculty, staff, trainees, and students. They embody our four key mission areas of Education, Research, Clinical Care

What's on My Mind...



...is the significance of living and working with purpose and intention, so that we may not only plan for the future, but also enjoy the plans we make by leading as high a quality of life as medically and scientifically possible.

Sometimes diagnoses such as cancer leave us with little choice but to respond and repair, yet our ambition positions us in the best possible posture to react. Just a few weeks ago, we celebrated a pivotal chapter in the School of Medicine's narrative of cancer treatment with the official dedication of the Fannie Angelos Cellular Therapeutics Laboratory. The initiation of this laboratory marks the clinical viability of cancer immunotherapy we have achieved, signifying the possibility of saving tens of thousands of lives in the years to come. Stimulating the immune system to work harder and smarter, this creative technique proves a promising new frontier in cancer treatment. The out-of-the-box strategy of helping the immune system to recognize cancer cells and strengthening its response to destroy them appropriately joins our growing enterprise of cancer treatment innovations, including the Maryland Proton Treatment Center and GammaPod technology for breast cancer.

As we celebrate graduation this month, I invite the Class of 2018 to consider their individual strategies of serving with a higher purpose and greater intention in the profession of healthcare they have chosen. Their commitment reaches far past their own lives and into those of thousands of others who will benefit from this remarkable class' devotion through the ability to enjoy the plans they created for themselves. While we cannot always choose the proactive approach when faced with challenges, all of us can elect to work diligently in planning for those scenarios when we must be reactionary. As we approach the mid-point of the calendar year, let us assess the goals we identified in January and review our accomplishments thus far. We can still actively engage in our aspirations and define the steps we must take to achieve our aims over the second half of the year. I wholeheartedly believe we are on pace for yet another impressive year of success at the School of Medicine.



What's New...

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

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and **Community Engagement and Impact** through the realization of exemplary events such as the prevention of a disease due to a vaccine or therapy we researched, tested, and in many cases, helped develop. The significance of the advancements we initiate is immeasurable.

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

E. allert feece

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

A Third Century Where Discovery Transforms Medicine 655 W. Baltimore Street • Baltimore, MD 21201 PROGRAM FOR EXCELLENCE IN PATIENT-CENTERED COMMUNICATION

PEP Produces Powerful Results

IN JUST TWO YEARS, FACULTY CLINICIAN-PATIENT COMMUNICATIONS PROGRAM ACHIEVES A 66% INCREASE IN POSITIVE 66% PATIENT RESPONSE

alk about PEP! Since its launch at the University of Maryland School of Medicine (UMSOM) in March 2016, the Program for Excellence in Patient-Centered Communication (PEP) has reached out to train nearly 500 of the school's 1,000 clinical faculty in the art of enhancing patient-provider communications — with the goal of bringing the highest levels of satisfaction to the patient experience.

Now with the release of its most recent March 2018 survey report, conducted by both the Clinician and Group Consumer Assessment of Healthcare Providers and Systems (CGCAHPS) through the Centers for Medicare & Medicaid Services (CMS), and by health care performance improvement consultants Press Ganey, it's clear that PEP is realizing its potential in a big way.

Across eleven touch points of patient-provider communications outlined in the survey, PEP-trained UMSOM clinicians collectively have achieved a remarkable upsurge in the program's overall rankings, rising from the low 20th percentile in 2014 to well above the 60th percentile by early 2018. More simply put, positive patient response to communications with PEP physicians rose in aggregate by 66 percent in the past two years. "These are spectacular results," says David Schwartz, MD, Professor in UMSOM's Department of Obstetrics, Gynecology and Reproductive Sciences, and Director of the Dean's Clinical Program Initiatives. "We want to make sure that we are presenting ourselves to our patients and the public as an institution that not only provides superb and safe clinical care, but also a superior patient experience at every point. For patients, a key element is how they relate to their physicians. Our clinical faculty can be an integral part of that cultural transformation by enhancing the ways in which they interact with their patients."

PEP employs a proven, evidence-based curriculum developed by the Academy on Communication in Healthcare (ACH). The program is conducted in two phases, beginning with the recruitment of highly respected and experienced faculty physicians to train and serve as workshop facilitators. Then, within each PEP small-group workshop, facilitators employ both instruction and role-playing to practice specific communication skills in training physicians to build more effective partnerships with their patients. Nearly 88 percent of faculty physicians who have completed the course have rated it as "good" or "very good," with 86 percent saying they would recommend it to their colleagues. Just over 82 percent of respondents



FIRST PEP COHORT OF FACILITATORS: *1st Row (left to right): Dr. David Schwartz, Dr. Samra Blanchard, Dr. Connie Lacap, Ms. Rukiya Wongus; 2nd Row (left to right): Dr. Anthony Lehman*

(Senior Associate Dean for Clinical Affairs), Mrs. Joyce Phillip;

3rd Row (left to right): Dr. Sally Cheston, Dr. Sharon Feinstein, Dr. Auguste Fortin (ACH) 4th Row (left to right): Dr. Ada Ibe Offurum, Dr. Donald Thompson, Dr. Joseph Martinez

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agreed or strongly agreed that they would change their professional communication strategies as a result of the course.

Rukiya Wongus, MHA, CMPE, PMP, who manages the PEP program as FPI's Service Excellence Project Manager in Human Resources, shares Dr. Schwartz's enthusiasm on the latest PEP findings. *"We were certainly hoping for positive results,"* she says. *"We definitely see some correlation between specific program components and those areas where we made that greatest strides in terms of positive patient* To accomplish this step, the PEP team has expanded the online PEP Talk newsletter at **www.medschool.umaryland.edu/programs/pep/ Patient-Centered-Communication-Resources** to include additional references materials and resources provided by ACH. The program also is introducing an annual onsite refresher course for past program participants. *"We want to make as many resources available as possible to our 'graduates' to maintain and enhance their skills,"* says Dr. Schwartz.

response. However, there is no way that I could have predicted this consistent improvement so quickly!"

A key ingredient to the success of the PEP training model, Ms. Wongus points out, is the function of role-play. "In terms of the program, I think the aspect of practicing the skills in role-play helps enormously in terms of participants being observed and receiving immediate feedback," she says. "We also ask participants to choose an aspect of communication that they want to work on for the subsequent 30 days. Their facilitators then follow up with them by personal email to help them evaluate their level of success in adopting that communication skill."

Even with these metrics that PEP is meeting and even exceeding its goals, Dr. Schwartz and his team are redoubling their efforts to take PEP to the next level and work to exceed the current percentile scores. *"Our challenge lies in retaining the program's momentum,"* he says. *"In moving forward, we need to train all of our clinical faculty while refreshing the skills of those faculty who have successfully completed the program."*

In expanding its impact on the larger enterprise of UMSOM, Dr. Schwartz notes that, "PEP also wants to extend a modified version of this program to house staff and medical students, and to also make a discernible and tangible difference to the patient experience by the way that we interact in the non-clinical aspects of an encounter. In this regard, we would like to incorporate the same principles into the training of other members of the medical team. In this manner, we can spread this learning process throughout the rest of the system."



For more information, visit the Program for Excellence in Patient-Centered Communication (PEP) at www.medschool.umaryland.edu/programs/pep.

SOMnews Research&Discovery

THE CENTER FOR VACCINE DEVELOPMENT AND GLOBAL HEALTH

Eliminating Vaccine-Preventable Disease

In April, the University of Maryland School of Medicine (UMSOM) announced the launch of

the **Center for Vaccine Development and Global Health (CVD).** The new Center is led by UMSOM Professor of Medicine and Pediatrics, **Kathleen Neuzil, MD, MPH, FIDSA,** one of the world's most influential research scientists and advocates in vaccine development and policy.

CVD

merges two previous UMSOM entities: the Institute for Global Health and the Center for Vaccine Development. As part of the new organizational structure, the Associate Directors

below were appointed to form the CVD leadership team: 1) Karen Kotloff, MD, Professor of Pediatrics and Medicine, is Associate Director for Clinical Research; 2) Miriam Laufer, MD, Associate Professor of Pediatrics, Medicine, Epidemiology & Public Health, is Associate Director for Malaria Research; and 3) Marcelo Sztein, MD, Professor of Pediatrics, Medicine, Microbiology & Immunology, is Associate Director for Basic and Translational Research.











Dr. Neuzil was recruited to UMSOM in 2015, when longtime Center for Vaccine Development Director **Myron M. Levine, MD, DTPH**, the Simon and Bessie Grollman Distinguished Professor, was transitioning to his role as the new Associate Dean for Global Health, Vaccinology, and Infectious Diseases. Dr. Neuzil has conducted pivotal clinical and epidemiologic research on vaccine-preventable diseases domestically and internationally. Through this research, she has been a key driver in the many changes in vaccine policy in the U.S. and abroad. Dr. Neuzil has a large portfolio of federal and foundation funding, including serving as Principal Investigator for the Typhoid Vaccine Acceleration Consortium (TyVAC), a multiorganization, multi-site effort to accelerate the introduction of typhoid conjugate vaccines. She serves on prestigious scientific and policy committees for the Centers for Disease Control and the World Health Organization.

Under Dr. Neuzil's leadership, the newly launched CVD will build upon its four decades of established expertise in global infectious and tropical disease research coupled with critical vaccine research and development, to expand path-breaking research programs in enteric diseases, influenza and respiratory diseases, malaria, and emerging pathogens. CVD is in a unique position where faculty and researchers collaborate across these areas in the critical work of antigen discovery, microbial pathogenesis, immunology, and clinical and field research.



CVD conducts clinical trials and epidemiological research both here on campus and in more than a dozen countries located in South America, Africa, and Asia.

- Discover and harness antigens for the design of effective vaccines;
- Conduct pre-clinical vaccine development to make vaccines that are safe and effective in humans;
- Conduct clinical vaccine trials to evaluate the safety and efficacy in humans;
- Conduct critical human challenge trials to understand

the infectious process and measure vaccine efficacy;

- Uncover immune correlates of protection to understand how best to stimulate immunity;
- Inform vaccine policy to introduce effective vaccines into vulnerable populations;
 Train the next generation of vaccinologists.

CVD EXPERTS ARE WORKING IN AREAS TO

- Understand and measure disease burden/epidemiology to prioritize the most needed vaccines;
- Analyze the molecular pathogenesis of diseasecausing infections;



Q & A WITH DR. NEUZIL ABOUT THE NEWLY LAUNCHED CVD

What makes the Center for Vaccine Development and Global Health unique?

CVD scientists work collaboratively and employ pioneering and data-driven approaches to tackle difficult challenges. Few academic centers have our range of expertise, which spans the continuum of vaccinology — from discovery to impact. Importantly, we are driven by the public health need for the work we do.

What are some of the biggest global health challenges?

The leading killers of children throughout the world are pneumonia, diarrheal disease, and malaria. In addition, emerging infections remain a constant threat. CVD works to improve health in all of these areas, with an emphasis on prevention.

Can you discuss CVD's training programs and why that is such a critical part of the Center's work?

We are committed to educating the next generation of scientists, both here and in low-resource countries. For over 40 years, CVD has been training scientists in Vaccinology and related disciplines, and many of our trainees now hold leadership positions in academics, government, and industry. For the past 20 years, we have held an NIH T32 Postdoctoral Vaccinology Training Grant, and are proud to have recently received news of its renewal for another five years.

How effective has CVD been in delivering research from bench to bedside?

We have multiple examples of success in this area. In 2016, the FDA approved a cholera vaccine developed at the CVD, and the



CDC recommended it for United States travelers for protection from cholera. Our research has directly informed policies for vaccine introduction and changes in malaria treatment and prevention programs domestically and internationally.

Where are some areas of research in which you see CVD focusing in the near future?

CVD will continue to focus on our core areas, as preventable morbidity and mortality remain unacceptably high. In addition, we have a growing program in developing vaccines that combat diseases with high antimicrobial resistance, given this growing concern globally.



SOMnews AcademicInnovations

STUDENT AFFAIRS



he Institute of Human Virology (IHV) at the University of Maryland School of Medicine (UMSOM) has been engaged in public health and HIV initiatives in Zambia since 2005. Situated within the central southern region of Africa, Zambia is a landlocked country covering nearly a million square kilometers. The country has an estimated population of 16.5 million and is home to, Lusaka, one of the fastest developing cities in southern Africa.

Lusaka is the nucleus of government, commerce, and education in Zambia. The University Teaching Hospital (UTH) is the largest hospital and principal medical training institution in the country. The 1,655-bed facility is the site of medical training for the University of Zambia (UNZA) School of Medicine and serves as the country's referral center. UTH is a major national asset and resource, providing a full range of primary, secondary, and tertiary medical services to millions of Zambians.

Robert L. Sheneberger, MD, Assistant Professor of Family and Community Medicine Center for International Health, Education, and Biosecurity (CIHEB), IHV, has been based full time in Zambia since the early days of the President's Emergency Plan for AIDS Relief (PEPFAR) initiative. Initially, IHV partnered with local clinics in Zambia to improve treatment outcomes pertaining to HIV/AIDS, however Dr. Sheneberger noticed the need for advanced training and expertise in HIV. By 2005, the country had only 646 doctors in government facilities, with little expertise in HIV management. In response to this crisis, the University of Maryland, Baltimore developed a model partnership with the Zambian Ministry of Health to address the HIV epidemic by training and deploying healthcare professionals to meet the health-care needs of Zambia. This partnership led to development of the country's first post-graduate training program in HIV medicine and infectious diseases, and a comprehensive 5-year residency program, also in advanced HIV medicine, internal medicine, and infectious diseases.



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Devang M. Patel, MD, Assistant Professor of Medicine, Division of Clinical Care and Research, IHV and Associate Director, Infectious Diseases Fellowship Program, University of Maryland Medical Center (UMMC), joined IHV in 2008, and with his colleague Christopher Bositis, MD, a internal medicine residency at Kettering Medical Center in Ohio, as well as an infectious diseases fellowship at the University of Rochester Medical Center



in Rochester, New York. In 2012, Dr. Hachaambwa set up an infectious diseases service at UTH.

Cassidy Claassen, MD, MPH, Assistant Professor of Medicine, CIHEB, IHV, spent most of his childhood overseas in West Africa. Dr. Claassen returned to the states for undergraduate studies and completed his medical training at UMSOM and his infectious disease fellowship at UMMC. In addition to Zambia, Dr. Claassen has worked throughout sub-Saharan Africa,

primarily focusing on HIV care and treatment, and health system capacity development. *"I have been a beneficiary of several international health rotations, and one of my career goals was to create something similar so that I could give back to the next generation of medical students,"* said Dr. Claassen.

In 2015, Dr. Claassen, Dr. Hachaambwa, and Dr. Patel agreed that UTH would be an excellent opportunity for an international medical rotation elective. In 2015, the first two UMMC residents came to Zambia for a one month rotation. Last year, the rotation was accepted as an official elective for medical students.

This medical rotation elective provides a clinical experience in tropical infectious diseases in a resource-limited setting for medical students with an interest in global health. Students gain a basic understanding of the treatment of HIV, tuberculosis, and other common diseases in a resource-limited setting and learn how they can incorporate global health activities into their future careers.Students are expected to participate in clinical activities, including hospital rounds and clinic, as well as educational conferences, while contributing to the educational program at UNZA. *"It is a two-way street. Zambian residents learn from our medical students and our medical students learn from Zambian residents — a wonderful opportunity for cultural exchange and medical education,"* said Dr. Patel.

"IHV's CIHEB is developing a broader strategy to provide opportunities

for students, residents, and fellows who are interested in pursuing global health later in their careers," said Deus Bazira, DrPH, MPH, MBA, Assistant Professor of Medicine and Director of IHV's CIHEB. "This includes spending time either training in the country at one of the partner academic institutions, or becoming involved in CIHEB ongoing projects, and then using those projects for capstone and other student projects. We currently have established



more than 10 Memoranda of Understanding with academic institutions in Botswana, Kenya, Nigeria, Rwanda, Tanzania, and Zambia, in order to develop high level partnerships with them."

To date, 26 trainees have rotated in Zambia at UTH including Internal Medicine residents, Infectious Diseases fellows, pharmacy students, nursing students, pharmacy residents and 10 UMSOM medical students. Very few of these trainees have been sponsored by grants or have received additional funding. "I would absolutely recommend this elective to other medical students who are interested in broadening their understanding of the practice of medicine. Just because we learn and perform medicine one way in our institution doesn't mean that somebody else isn't doing an alternative or even greater version of that practice elsewhere," said medical student Samantha Dizon. "From the moment I walked through the doors of the University Teaching Hospital in Lusaka, I knew my potential for learning would be endless," said medical student Elena Donald. "I would encourage other medical students to pursue this course because it is important to recognize the structure of other health care systems and medical culture. We get lost in our vast amount of resources and seldom use our own eyes and hands to make assessments of our patients with a physical exam." Ms. Dizon and Ms. Donald will be graduating this year and look forward to careers in global health and infectious diseases.

former IHV faculty member, partnered with UNZA to spearhead the residency program. Dr. Patel works extensively with UMSOM medical students and

UMMC residents, many of whom expressed interest in a global health elective. IHV's CIHEB has programs operating in several countries, but Zambia seemed to be the best fit for such a rotation based on existing faculty in-country, living facilities, and safety.

This initiative currently has two faculty members who are board-certified infectious disease physicians overseeing the medical student and resident electives course in Zambia. **Lottie Hachaambwa, MBChB,** Assistant Professor of Medicine, CIHEB, IHV, provides technical support for several IHV care and treatment programs and graduate medical education programs at UNZA. Dr. Hachaambwa graduated from UNZA School of Medicine and finished his



To learn more about this course or how to support, contact the UMSOM Office of Student Affairs: studentaffairs@som.umaryland.edu

CommunityImpact

SERVICE AWARD

Post-Doctoral Fellow Honored for Her Service to Refugee Families

Now in its sixth year, the *Runners for Others: An Ignatian 5K* event brings together all of the Jesuit organizations in the greater Baltimore area to run, walk, and support social justice ministries of local Jesuit schools, parishes, and apostolates. On April 7, Post-Doctoral Fellow, **Vonetta Edwards, PhD**, was presented with the 2018 "Beyond the Finish Line," in recognition of her service at St. Ignatius Church and dedication to serving refugee and immigrant families. Dr. Edwards has made it possible for dozens of her fellow parishioners to welcome and connect with immigrants and refugees who need their advice, support, and fellowship.

Dr. Edwards moved to Baltimore in 2012 as a researcher in women's health and is currently a post-doctoral fellow at the Institute for Genome Sciences at the University of Maryland School of Medicine (UMSOM). In 2013, she joined St. Ignatius Church and soon became a member of the Justice and Peace Committee, and is now the chair of the Immigration Sub-Committee. This year, she was elected to the St. Ignatius Pastoral Council.

"I admire Vonetta, not only for her hard work and dedication to immigrants and refugees, but also for her leadership style. She is softspoken and brings others in as partners, both parishioners and by networking with other groups serving and advocating for this population. That mix of direct service, partnering and advocacy is what makes our whole Justice and Peace Committee so effective," said Father James Casciotti, SJ, Pastor of St. Ignatius Church.

Dr. Edwards has supported several advocacy initiatives in her previous parishes, both in Maryland and Guyana. At St. Ignatius, Vonetta has found a home to continue her work, joined by many compassionate parishioners. She hopes to bring novel proposals to engage fellow parishioners and move strategically forward to assist those most in need. During her acceptance speech, Dr. Edwards said *"I urge you all to find whatever you are passionate about and work towards making it the ideal you visualize. It may not happen in your lifetime, but know that whatever you do is a stone in the path once it's completed."*

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2018 Runners for Others: An Ignatian 5K — Patterson Park



St. Ignatius Loyola Academy students

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The new Fannie Angelos Cellular Therapeutics Laboratory **Ribbon Cutting Held in Leadership Hall**

On April 30, the University of Maryland School of Medicine held the ceremonial opening of the Fannie Angelos Cellular Therapeutics Laboratory (FACT), a state-of-the-art facility that will allow scientists to create the next generation of cancer cures - cells that help a patient's immune system attack and eliminate cancer. The laboratory will also be used to study and develop ways to engineer cells for a wide variety of other illnesses, including diabees and heart disease.

The laboratory is made possible by a \$1 million gift from Baltimore lawyer and Orioles owner Peter G. Angelos, as well as donations from other benefactors.

The opening was part of a daylong event focused on cancer immunotherapy, a new treatment that involves modifying the immune system to enable it to better attack cancer cells. Î



Aaron P. Rapoport, MD, Professor of Medicine, is the FACT lab director.



Governor Larry Hogan and other VIPs joined Dean E. Albert Reece in the cutting of the ribbon.



SOMAccolades...



Applause for Robert Redfield, MD, professor in the Department of Medicine at UMSOM and co-founder and associate director of its Institute of Human Virology. Dr. Redfield was appointed March 21, 2018, to oversee the U.S. Centers for Disease **Control and Prevention** (CDC), the federal government's top public health agency.

"Dr. Redfield is eminently qualified for this critical position. He has made a lifelong commitment to advancing biomedical research and human health through discovery-based medicine." said Dean E. Albert Reece.



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"Practices"

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

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