Washington University medical students organized and led a powerful event that brought together students, residents, faculty and staff in solidarity with those who stand against systemic racism. The White Coats for Black Lives event outside the Barnes-Jewish Hospital complex was held in conjunction with other hospitals across the area and country.

A large group from the medical center gathered as individuals to show support for communities of color and acknowledge that racism is a public health crisis. All began gathering between Forest Park Parkway and Parkview Place, at 11:30 am, while adhering to public health guidelines for the COVID-19 pandemic.

Washington University medical students organized and led a powerful event that brought together students, residents, faculty and staff in solidarity with those who stand against systemic racism. The White Coats for Black Lives event outside the Barnes-Jewish Hospital complex was held in conjunction with other hospitals across the area and country.
Hundreds then filled the sidewalks of Kingshighway Boulevard to demonstrate in support of Black Lives Matter. Doctors, nurses, pharmacists, technicians, motivated by events in Minneapolis in which George Floyd died in police custody, held a silent protest for 8 minutes and 46 seconds.

“I didn’t expect to be managing a hospital system’s response to a pandemic less than a year out of fellowship,” said Lee E. Connor, MD, ID fellow alumnus ’19. Several southern states are seeing an uptick in cases of COVID-19, as well as in Dalton GA, where there is a large Hispanic migrant population who seem to be disproportionately affected by this latest outbreak. “The governor of Georgia along with the surgeon general were kind enough to bring attention to the community about the rise in cases of COVID and to try and raise awareness about how to prevent the spread of the virus.”

Dr. Connor works at Hamilton Physician Group which serves Hamilton Medical Center, a 282 bed hospital. “I essentially do everything ID related. I’m in charge of infection prevention, stewardship, and occupational health for the medical center. When I’m not busy with all of that I’m usually seeing consults in the hospital and spend a couple half days in the clinic seeing follow-ups. It’s been a very rewarding experience and the community is so appreciative of the services I bring to them.”

“Infectious Diseases Division Newsletter July 2020

FEATURED COLLEAGUE

Lee Connor, MD (second from L.) stands behind the governor of Georgia, Brian Kemp and the surgeon general, Jerome M. Adams, M.D., M.P.H.

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Black Lives Matter continued

Dr. Vicky Fraser, department of medicine chair at Washington University School of Medicine, supporting White Coats For Black Lives

farewell . . .
Best wishes to Brad Stoner, MD, PhD, associate professor of medicine and anthropology, on his appointment as Head of the Department of Public Health Sciences at Queen’s University in Kingston Ontario. As an acknowledged authority on social and political influences on public health and STI epidemiology and prevention, Dr. Stoner has contributed enormously to the ID Division’s programs in STI treatment and prevention. He is currently co-principal investigator for research supported by the U.S. Centers for Disease Control and Prevention, with support totaling more than $6 million for Capacity Building Assistance for HIV Prevention and STI/HIV Prevention Training.

congratulations...

Matifadza Hlatshwayo, MD, MPH, instructor in medicine, ID division and Jesse Davis, MD, MBA, NICU Hospitalist at St. Louis Children’s Hospital and Clinical Instructor at Washington University School of Medicine on the birth of their daughter, Naniso Frances Sipiwe Davis on May 16. Naniso joins big sister, 3 year old, Aneni.

Connor cont’d

Dr. Connor has most weekends free so his family has been enjoying hiking, and before COVID, exploring Chattanooga. On Easter Sunday the home they were renting was hit by a tree and rendered uninhabitable. Fortunately, they were all safe. The silver lining in the tragedy is that they just closed on a new house, as they look to make Chattanooga their permanent home.

“The training at WashU has prepared me well for the role I am in. My mentors and co-fellows continue to be a resource for me in these challenging times.”
## RECENT GRANT AWARDS

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<td>Jennie H. Kwon, DO, MSCI, Michael J. Durkin, MD, MPH Stephen Y. Liang, MD, MPHs</td>
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<td>Stephen Y. Liang, MD, MPHs Virginia McKay, MA, PhD</td>
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* continued *
It is with sadness, we announce Donald Krogstad, MD, a former faculty member of the ID Division for 14 years, has passed away at his home in Palm Coast, Florida on August 14 at age 77.

Dr. Krogstad was a physician and researcher who devoted his life to the treatment of infectious diseases, with an emphasis on malaria. His interest was first triggered when doing a two-month elective in Haiti at Hospital Albert Schweitzer during his final year of medical school. It was furthered by two years at CDC as an EIS officer followed by a two-year stint as a physician in the Peace Corps in Malawi (1973-75). He became an internationally respected malaria researcher while at Washington University. While on sabbatical at the NIH, he was recruited in 1992 to be chair of the Department of Tropical Medicine in the SPHTM of Tulane University in New Orleans.

Dr. Krogstad was a powerhouse in the field of malaria research and contributed greatly to our understanding of the disease. His work has been vital to efforts to find a cure. Much of his work was focused in Mali where he developed warm, lasting relationships and a stellar reputation. In 2010 he led a team of investigators from the US and West and Central Africa to establish an NIH-funded International Center of Excellence in Malaria Research, and his legacy of clinical and public health research to combat malaria continues through his many African and American collaborators.

Dr. Krogstad was known for his gentle nature, diligence, collegial partnerships, and the students in whom he invested so much of his energy. He retired from Tulane University in October of 2019. Dr. Krogstad will be honored at the next meeting of the American Society for Tropical Medicine and Hygiene (ASTMH). Don was a past-president of ASTMH, a life member of the organization, and served on numerous councils and committees.

Our condolences to his wife Fran, sons, Aric and Kirk, and his grandchildren.
Meet our ID Fellowship Program Leaders

Gerome Escota, MD has been named co-director of the ID Fellowship Program. Dr. Escota has been involved in the fellowship program as associate director. He completed his medicine degree at the College of Medicine, University of the Philippines in 2004, and ID fellowship at WUSM in 2013. Dr. Escota is also Clerkship Director in Medicine, a position he has held since 2018. He is also a member of the executive committee of the IDSA Medical Education Community of Practice and chairs the Teaching and Learning Resources Work Group. He is the recipient of numerous honors including the

- 2017 – 2018: J. Russell Little, MD Clinical Education Award selected by current ID fellows (two-time recipient)
- 2018-2020: Washington University House Staff Teaching Award for “Distinguished Faculty – Infectious Diseases” (three-time recipient)
- 2019: Resident-Teacher of the Year Award in General Internal Medicine
- 2019: Clerkship Director of the Year Award
- 2019: academy of Educators, Inaugural Inductee
- 2020: Sidney S. Pearl, MD ’32 Clinical Teacher of the Year Award, given by the graduating class of 2020

Ige George, MD, MS, assistant professor of medicine, has also been named co-director of the ID Fellowship Program. Dr. George did his medical training at the Christian Medical College, Vellore The Tamil Nadu Dr. M.G.R. Medical University, Tamil Nadu, India and completed an ID fellowship training at WUSM in 2015. Dr. George’s research interest is epidemiology of infections in solid organ transplant recipients. Washington University has a very active transplant ID experience with over 400 solid organ transplants at BJH per year, approximately 700 stem cell transplants per year (among top 5 in the country), and an average 70-110 transplant consults per month.

Matifadza Hlatshwayo, MD, MPH, is a clinical instructor in medicine and recently named the associate director of the ID Fellowship Program. Dr. Hlatshwayo completed her medicine training at Cleveland Clinic Lerner College of Medicine/Case Western Reserve University and an Infectious Diseases Fellowship at WUSM in 2018. As part of her ID fellowship she continued training here in a dedicated non-ACGME one year HIV fellowship and a two year dedicated STD fellowship. She is the co-chair of the Fast Track Cities St. Louis organization which in collaboration with the city and county health departments, is dedicated to ending the HIV epidemic by 2030. Her other leadership roles include being the Lead HIV Clinician, Graduate Medical Education Coordinator and OPAT supervisor for the John Cochran VA Medical Center. Dr. Hlatshwayo’s research interests include HIV retention, and community engagement within marginalized populations. Dr. Hlatshwayo assumed a Leadership role in the Office of Inclusion and Diversity at WUSM where she focuses on policy development, community engagement and the recruitment, retention and mentorship of under-represented trainees.
welcome faculty

Juan Calix, MD, PhD, ID fellow alum 2020, joined the Department of Medicine in the Division of Infectious Diseases as an Instructor in April. Dr. Calix was born in New Orleans, LA but lived much of his youth in his family’s native El Salvador. He moved back to the United States to obtain his bachelor’s degree in biological sciences from Loyola University New Orleans. After taking a postgraduate year to work Hurricane Katrina relief efforts, Dr. Calix enrolled at the Medical Scientist Training Program (MSTP) at the University of Alabama at Birmingham. There he obtained his PhD in Microbiology studying the evolution of Streptococcus pneumoniae capsule serotypes. After completing the MSTP, he joined the Physician Scientist Training Program at Washington University, were he did both his Medicine Residency and ID Fellowship. Throughout his training, he maintained a career interest in advocating for Hispanic populations when it comes to healthcare delivery, focusing research efforts, and promoting diversity in the medical scientific work force.

Trained as a translational scientist, Dr. Calix takes a patient-centered approach to the molecular analysis of pathogens. His investigations combine clinical research, bacterial genomics and molecular microbiology to identify host and microbial determinants of infections, with special focus on the multidrug resistant pathogen Acinetobacter baumannii. This has led to the characterization of novel transmission dynamics demonstrated by A. baumannii and other clinically important pathogens, like Staphylococcus aureus and other Staphylococcal species. His ultimate research goal is to develop relevant research models with which to develop antibiotic-sparing interventions for the prevention and treatment of infections. Lastly, Dr. Calix strives to foster academic collaborations locally and internationally (especially in Latin America), in his mission to apply these research pipelines to better understand the pathobiology of other important pathogens.

Sharmila Nair, PhD, joined the Department of Medicine in the Division of Infectious Diseases as an Instructor in July, 2020. Dr. Nair grew up in India completed her Bachelor’s degree at the Amity University, India. She was interested in infectious diseases, especially dengue at that time, and moved to England to pursue her Masters by research program in virology at the University of Bristol, UK.

During her Masters, Sharmila conducted research investigating interactions between host proteins and dengue virus capsid protein in the nucleus. She then moved to Germany to pursue her PhD in Helmholtz Center of Infection Research in Braunschweig, Germany. She completed her PhD in 2014 and was awarded a fellowship from the German Research foundation to pursue post-doctoral training in the laboratory of Michael Diamond, MD, PhD, at Washington University School of Medicine.

Currently, Dr. Nair is investigating the mechanisms of Zika virus-based oncolytic activity against glioblastoma and potential of combination therapies with checkpoint blockade (PD1) treatment and/or current radiation strategies as a new strategy to eradicate the tumor. Her current research interests also include defining the role of Staphylococcus colonization in control of skin viral infections. For this she is involved in developing a mouse model to examine the effect of Staphylococcus epidermidis (S. epi) and Staphylococcus aureus (S. aureus) skin colonization on control of arthropod-borne (eg Chikungunya, Mayaro and West Nile virus as) and skin tropic viruses (eg. herpes simplex and poxvirus). Dr. Nair speaks six languages! and enjoys travelling and hiking especially to destinations with a lot of wilderness.

Jonathan Miner MD, PhD, completed his residency in internal medicine and a fellowship in rheumatology at Washington University School of Medicine. (WUSM) He completed a postdoctoral fellowship in Mike Diamond’s lab and became faculty in the Department of Medicine, Rheumatology in 2016.

Dr. Miner is an extremely accomplished physician-scientist whose laboratory studies the intersection of innate immunity, viral pathogenesis, and autoimmunity. The Miner lab studies rare genetic diseases, with a focus on rheumatic diseases caused by mutations in antiviral genes. Dr. Miner collaborates extensively with ID faculty, Megan Baldrige, Robyn Klein, Mike Diamond, and others on projects related to viral pathogenesis and host-pathogen interactions.

Dr. Miner joined the ID Division in 2020 as an Assistant Professor of Medicine, Pathology and Immunology, and Molecular Microbiology. Clinically, Dr. Miner takes care of patients with a rare genetic disease called RVCL, and is a co-director of the RVCL research center: https://rvcl-research.wustl.edu/our-team/.
Patients with COVID-19 donate specimens to advance research efforts

In early March, just as the pandemic was gaining steam in the St. Louis region, Jane O’Halloran, MD, PhD, an assistant professor of medicine and ID fellow alumnus ’19, and Philip Mudd, MD, PhD, assistant professor of emergency medicine, met to discuss the possibility of creating a COVID-19 specimen bank. Two and a half weeks later, they began collecting their first samples from COVID-19 patients. “The whole process would normally take at least six months,” Mudd said in a St. Louis Public Radio interview. “It was a very fast turnaround from conception to starting the project.”

To date, more than 7,000 samples, including blood, urine and saliva specimens, have been distributed to investigators conducting COVID-19 research on the Medical and Danforth campuses.

Collecting samples via one centralized process speeds research, prevents scientists from duplicating work already underway and relieves patients of the burden of being asked to participate in multiple studies. Learn more about current efforts or how to obtain research samples.

The repository was created with financial support from The Foundation for Barnes-Jewish Hospital, Siteman Cancer Center and Washington University’s Institute of Clinical and Translational Sciences (ICTS), as well as input from the Community Advisory Board of Washington University’s Institute for Public Health and ICTS.

M. Joshua Hendrix, MD, instructor in medicine, ID fellow alumnus ‘20 et al show the importance of wearing masks to slow the spread of COVID-19


Summary
Among 139 clients exposed to two symptomatic hair stylists with confirmed COVID-19 while both the stylists and the clients wore face masks, no symptomatic secondary cases were reported; among 67 clients tested for SARS-CoV-2, all test results were negative. Adherence to the community’s and company’s face-covering policy likely mitigated spread of SARS-CoV-2.

Implications for public health practice: As stay-at-home orders are lifted, professional and social interactions in the community will present more opportunities for spread of SARS-CoV-2. Broader implementation of face covering policies could mitigate the spread of infection in the general population.

Andrej Spec, MD, MSCI, co-authors editorial of the down-sides of lowered rigor seen during the COVID outbreak

The medical community must contend with an unprecedented deluge of scientific information during the worst pandemic in a century. In an effort to ensure rapid dissemination of studies, the rise of non-peered pathways, including the use of pre-print services and the apparent trend of publication by press releases, Drs. Spec and Ilan Schwartz argue that peer reviewed journals are more critical than ever. “It is imperative that journals not abandon principles of scientific rigor in favor of urgency”.

Andrej Spec, MD, MSCI, ID fellow alumnus ‘16 and assistant professor of medicine and Ilan Schwartz, MD, University of Alberta’s Faculty of Medicine and Dentistry describe events that lead to their editorial “Balancing Scientific Rigor with Urgency in the COVID19 Pandemic”.

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Dr. Bill Powderly, weighs in on US withdrawal from the WHO

‘Cutting this collaboration in the middle of a pandemic is foolish at best’

President Donald Trump’s recent announcement to suspend U.S. funding to, and withdraw from, the World Health Organization (WHO) is “counter to our interests in addressing our needs to save the lives and further the health of Americans, as well as an abandonment of America’s position as a global leader,” says the director of Washington University in St. Louis’ Institute for Public Health.

“The COVID-19 pandemic is truly a threat to the entire world and, as such, needs a comprehensive international response,” said infectious diseases specialist William “Bill” G. Powderly, MD, the Larry J. Shapiro Director of the Institute for Public Health and the J. William Campbell Professor of Medicine.

“It is very clear that this virus does not respect boundaries — either man-made or natural,” he added. “The unprecedented spread of the virus demonstrates that a coordinated response is needed. That is true within the U.S. and it is equally true when addressing this as a global crisis.”

“Global coordination and cooperation is critical to ensure that all the public health tools, including surveillance, monitoring, detection, prevention, research and policy, are available to tackle the threat from the SARS-CoV-2 coronavirus,” said Powderly, also director of the Institute of Clinical and Translational Sciences and co-director of the Division of Infectious Diseases at the School of Medicine.

“The ability of the United States to protect its own people depends on mobilizing global research and effective sharing of data. Cutting this collaboration in the middle of a pandemic is foolish at best.”

In addition to providing essential global assets that we in the U.S. can use for our responses and planning, the WHO provides technical and scientific expertise in countries with limited resources. Moreover, the organization plays a pivotal role in enabling united efforts against this pandemic and future pandemics, Powderly said.

“Its international role is dependent on funding from the developed world, and withdrawal from the WHO is also signaling our withdrawal from global leadership and a commitment to the health and well-being of the entire planet,” he said. “Our world leadership role over the last 50 years was earned, not granted; we can lose it easily by dismissing the needs of other parts of the world, but will not readily regain it if we abdicate our leadership against COVID now.

“WHO may not be perfect, and its response to the epidemic has had flaws, but our own national response has not been flawless, either, and we gain nothing by abandoning our international commitments.”

COVID-19 mouse model will speed search for drugs, vaccines

The global effort to quickly develop drugs and vaccines for COVID-19 has been hampered by limited numbers of laboratory mice that are susceptible to infection with SARS-CoV-2, the virus that causes COVID-19. Now, researchers at Washington University School of Medicine in St. Louis report they have developed a mouse model of COVID-19 that replicates the illness in people. Further, the same approach could be adopted easily by other scientists to dramatically accelerate the testing of experimental COVID-19 treatments and preventives.
The mouse model is described in a paper published online June 10 in the journal *Cell*. In addition to drug and vaccine testing, scientists can use the model with mice bred to develop health conditions such as obesity, diabetes or chronic lung disease to investigate why some people develop life-threatening cases of COVID-19 while others recover on their own.

“There’s been a huge push to develop vaccines and therapeutics as quickly as possible, and since animal models have been limited, these investigational drugs and vaccines have been put directly into humans, and many of them haven’t panned out,” said principal investigator Michael S. Diamond, MD, PhD, the Herbert S. Gasser Professor of Medicine and an expert on viral infections. “Mice are useful because you can study a large number of them and observe the course of the disease and the immune response in a way that is hard to do in people. It would be more cost-effective and efficient and safer for people if we could get more information about how these potential drugs and vaccines work and how effective they are before we move to more challenging non-human primate and ultimately human studies.”

WUSM scientists create a safer version of virus to speed research

The virus that causes COVID-19 is so dangerous that scientists studying it must wear full-body biohazard suits with pressurized respirators inside high-level biosafety labs.

Scientists at Washington University School of Medicine have developed a defanged virus that acts like SARS-CoV-2, but that can be handled under ordinary lab safety conditions, according to a study published online in *Cell Host & Microbe*. This can allow for faster development of drugs and vaccines.

“I’ve never had this many requests for a scientific material in such a short period of time,” said co-senior author Sean Whelan, PhD. “Even before we published, along with Michael Diamond, MD, PhD, people heard that we were working on this and started requesting the material.”

Paul Rothlauf, a visiting scientist at Washington University School of Medicine in St. Louis, works with a lab-made virus that infects cells and interacts with antibodies just like the COVID-19 virus, but lacks the ability to cause severe disease. This safer virus makes it possible for scientists who do not have access to high-level biosafety facilities to join the effort to find drugs or vaccines for COVID-19.
Jennifer Philips, MD, PhD, sets up high-security biosafety lab to screen potential COVID-19 antiviral drugs

A first step to finding antiviral drugs – before beginning studies in animals and people – is to screen chemical compounds for their ability to inactivate the virus in a dish. But many researchers don’t have access to high-security biosafety labs where they can work with a dangerous microbe like the COVID-19 virus. That’s where Dr. Philips comes in. She has set up a screening platform to test compounds for activity against the COVID-19 virus. Her lab already has screened dozens of compounds suggested by 10 different researchers at Washington University and elsewhere, and is prepared to accept more suggestions of promising candidate molecules.

“In the beginning of the outbreak, a lot of people were screening compounds that are already approved by the FDA for other conditions and could be quickly repurposed to treat COVID,” said Jennifer Philips, MD, PhD, an associate professor of medicine and co-director of the Division of Infectious Diseases who is also an associate professor of molecular microbiology. “Now those screens have been done, and there are not a large number of promising candidates. So we’re still looking for more possibilities. There are so many scientists who may have insight into some aspect of cell biology related to their particular expertise that could be relevant to finding an antiviral for COVID, but they don’t necessarily have the expertise or the facilities to explore it. If they have a good reason for thinking a particular molecule might work against COVID, we can test it for them.”

Before the pandemic, Philips had not worked with viruses. Her lab focuses on tuberculosis, a bacterial lung infection. Since tuberculosis is a deadly airborne disease, researchers must work with the tuberculosis bacteria in a biosafety level 3 (BSL-3) laboratory, which is an enclosed area with multiple levels of containment and specialized ventilation systems to minimize the risk of exposure. The COVID-19 virus requires the same precautions, but many investigators do not have access to such a facility.

Realizing that she could help fight the pandemic by turning part of her BSL-3 space over to COVID-19 experiments, Philips reached out to Michael S. Diamond, MD, PhD, the Herbert S. Gasser Professor of Medicine and an expert on viral infections, who already was working on COVID-19. Diamond’s lab members trained members of Philips’ lab in basic viral techniques and helped them set up a screening platform for chemical compounds known as small molecules. Now, with support from Washington University’s Institute of Clinical and Translational Sciences, the researchers are offering their services to the biomedical community at Washington University and elsewhere.

“We’ve found compounds that look promising for further optimization, and they have also now been identified in other screens, which is encouraging,” Philips said. “Given the ICTS funding, we have the capacity to screen more compounds now, so we’re hoping that more people will reach out to us with suggestions. We need to capture the ingenuity of the whole scientific community to defeat this virus.” Investigators can submit requests for screening at this link.

Dr. Jen Philips and colleagues argue for global wildlife surveillance that could provide early warning for next pandemic

In a perspective article published July 9 in Science, a diverse group of infectious disease experts, ecologists, wildlife biologists and other experts argue that a decentralized global system of wildlife surveillance could – and must – be established to identify viruses in wild animals that have the potential to infect and sicken people before another pandemic begins.
Rachel Presti, MD, PhD leads Washington University effort to conduct COVID-19 vaccine trials in collaboration with Saint Louis University

As U.S. scientists ramp up a national effort to evaluate COVID-19 vaccine candidates at clinical trial sites across the country, researchers at Washington University School of Medicine ID Clinical Research Unit (ID-CRU) and the Saint Louis University Center for Vaccine Development Unit (VTEU) have been tapped to join the historic effort to find a COVID-19 vaccine that can prevent the illness. Researchers at the two universities expect to enroll about 3,000 participants in several COVID-19 vaccine trials, with each school participating in different trials.

It will be critically important to enroll participants who are likely to be exposed to COVID-19 or those at risk for severe disease from COVID-19, including participants over age 65.

Washington University and Saint Louis University are participating in the trials as a part of the COVID-19 Prevention Network (CoVPN), a newly organized network formed by the NIAID to develop and test vaccines and treatments in the fight against COVID-19. Locally, Washington University and Saint Louis University are well positioned to conduct the COVID-19 vaccine trials, due to extensive expertise in infectious disease research. The Saint Louis University Center for Vaccine Development is home to one of 10 Vaccine and Treatment Evaluation Units in the United States with 30 years of experience testing novel vaccines. As such, SLU conducts phases 1 through 4 vaccine and treatment trials, including clinical studies in collaboration with industry partners.

“Our long history of working with the HIV community has demonstrated how critically important community support is in conducting successful clinical trials,” said Rachel Presti, MD, PhD, an associate professor of medicine, director of Washington University’s ID-CRU and principal investigator for the AIDS Clinical Trials Group and the HIV Prevention Trials Network. “We are excited that the St. Louis community will have this opportunity to participate in historic clinical trials aimed at helping to identify the most effective vaccines for preventing COVID-19.”

For more information about vaccine trials at Washington University School of Medicine, please e-mail idcru@wustl.edu, call 314-454-0058 or visit the Division of Infectious Diseases clinical trials site.
The Washington University ICTS, with support from The Foundation for Barnes-Jewish Hospital (FBJH), has awarded funding to faculty members for COVID-19 translational research. The grants, part of the COVID-19 Research Funding Program, provide critical financial support for research that has the potential to influence COVID-19 patient care within the next year. In collaboration with FBJH, the Washington University ICTS awarded faculty members for COVID-19 translational research. All research will be conducted at Washington University in St. Louis or BJC and projects are set to begin on July 1, 2020.

Infectious Diseases Division Award Recipients

Ige George, MD, MS, assistant professor of medicine
**Ultrasensitive SARS-CoV-2 Antigen Test for Rapid Diagnosis of COVID-19**
A recent breakthrough in ultrasensitive fluorescent immunoassays enables the possibility of cheap, fast, simple SARS-CoV-2 antigen testing that is at least as accurate and reproducible as state-of-the-art ELISA. We will develop a test using this technology and evaluate its accuracy on clinical samples (nasopharyngeal swabs and saliva) from patients with COVID-19 disease and compare with current gold standard nucleic acid amplification tests.

Stephen Liang, MD, MPH, associate professor of medicine
**Aerosol Characterization in Frontline COVID-19 Healthcare Settings**
While SARS-CoV-2 is transmitted primarily through larger respiratory droplets and direct contact, concern remains that smaller particles (aerosols & droplet nuclei) capable of carrying the virus may be created during patient care and certain procedures. Using air particle monitoring instruments, we will identify whether this is occurring in the emergency department and inpatient settings during acute care, and in dental clinics.

Rachel Presti, MD, PhD, associate professor of medicine
**Clinical Predictors of Longitudinal Antibody Response to SARS-CoV-2**
This study will use samples collected from patients who have been infected with SARS-CoV-2, the virus that causes COVID-19. We will look at the immune response over the first year after infection to understand the associations between strong and durable antibody responses and the symptoms and severity of the initial COVID-19 disease. These studies will help us understand who makes good antibodies, how long they last, and how protective they are.

Geng leads project analyzing spread of coronavirus

For four months, infectious disease experts at Washington University School of Medicine assisted Missouri officials in analyzing the spread of the coronavirus. The state has now entered a formal agreement with the School of Medicine infectious diseases division through the end of the year for data analysis, modeling and research capabilities related to COVID-19. Elvin Geng, MD, MPH, professor of medicine, will lead the project. Dr. Geng’s interests include implementation research, HIV, and engagement in treatment and care.
WashU, St. Louis County collaborate on COVID-19 survey, testing and social protection package

Washington University in St. Louis, the St. Louis County Department of Public Health and other collaborators are conducting a survey of St. Louis County residents and offering COVID-19 testing to gauge the prevalence of and risk factors for the illness.

Working with the county, Washington University’s Institute for Public Health is teaming up with other local public health and health-care providers to conduct a phone survey of up to 5,000 St. Louis County residents to shed light on the experiences of St. Louis County residents. William G. Powderly, MD, the Larry J. Shapiro Director of the Institute for Public Health (IPH) and co-director of the Division of Infectious Diseases and Elvin Geng, MD, MPH, professor of medicine and director of the Center for Dissemination and Implementation Science (CDI) at the IPH are two of the leaders for the project while Mati Hlatswayo, MD, MPH, instructor of medicine, infectious diseases, will be co-leading the clinical response portion.

Participants will be offered free COVID-19 testing at convenient locations across the county, regardless of whether they have symptoms. They will be offered either diagnostic testing to detect active COVID-19 infection or antibody testing to detect previous infection. Transportation to and from testing sites will be provided free of charge to those who need it.

The 30-minute phone survey will include questions about age, race, and gender, and how the virus has affected participants. Those who complete the survey and a test will receive Visa gift cards to help compensate them for their time and effort. When residents receive a call to participate in the survey, their caller ID will say: COVID-19 STL Survey.

All participants will be notified of their test results. Those who test positive for COVID-19 will receive a thermometer, a pulse oximeter to monitor oxygen levels in the blood and a face mask and hand sanitizer to help prevent the spread of infection to others. Medical personnel will follow up with anyone who tests positive to check on symptoms, at no cost to the participant.

“I am grateful that our Department of Public Health, Washington University's Institute for Public Health and the other partners have agreed to work together to help determine the prevalence of COVID-19 in our community,” St. Louis County Executive Dr. Sam Page said. “These critical partnerships will help us better understand the impact of the virus so that we can use our resources as effectively as possible.”

Dr. Powderly added: “We want to encourage St. Louis County residents who receive a call to participate in the survey and testing. The information they provide and the testing will be vital in helping us understand the impact of the pandemic in our region. We won't know the extent of COVID-19 cases in the region without testing a random sample of the population.”
During weekly grand rounds cases cannot go unmentioned. Sharing this time with my co-fellows was definitely one of the highlights, we pushed through the hard times together and built friendships that I will always cherish.

**Next Steps:** I will be staying on campus with the Washington University Infectious Diseases division, at least for the next 1-3 years while my wife finishes her post-doc.

**Highlights of fellowship:** One of my most memorable moments comes from the IDSA conference. I have never been to such a large conference with so many interesting topics from influential people. It's like a once in a lifetime experience that happens every year!

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**Sena Saywood, MD**

**Next Steps:** I will be staying on in the division to continue my training as a third year fellow on outpatient stewardship.

**Highlights of fellowship:** My favorite part of clinical training here was the HIV clinic, where I got to work with the best patients, fantastic staff, and really excellent preceptors. The highlight of my research year was working on an interesting project involving outpatient stewardship using community pharmacies with a very cool research mentor, Dr. Mike Durkin. I liked my project and my mentor so much that I'm doing a third fellowship year here at Wash U to continue working on it.

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**Frances Lahrmann Boly, DO**

**Next Steps:** I have accepted a job in Chicago. I will spend my consult time doing general and transplant ID and will also be involved in medical education. My employer is Advocate Christ Medical Center.

**Highlights of fellowship:** A highlight of my fellowship was the mentoring support I received from both clinical and research aspects.

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**Michael (Josh) Hendrix, MD**

**Next Steps:** I will be staying on campus with the Washington University Infectious Diseases division, at least for the next 1-3 years while my wife finishes her post-doc.

**Highlights of fellowship:** One of my most memorable moments comes from the IDSA conference. I have never been to such a large conference with so many interesting topics from influential people. It's like a once in a lifetime experience that happens every year!

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**Daniel T. Vo, MD**

**Next Steps:** I plan to continue my Infectious Diseases training at Washington University. I hope to further pursue my ID interests in HIV and health disparities through my clinical research, while continuing to provide clinical care. After completing my third year of fellowship, I plan to continue my academic career as a clinical researcher and clinician educator.

**Highlights of fellowship:** I have thoroughly enjoyed my time at Washington University, and I want to thank all of the wonderful people who have impacted my life thus far including my mentors who have been an invaluable source of advice, and especially my co-fellows who have supported me (through the good times and the bad) to allow me to get to where I am now. To my co-fellows, I will never forget all of the struggles that we endured through during our first year, but I will always cherish the wonderful moments that we shared outside of work and during our travels together.

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**Adriana M. Rauseo, MD**

**Next Steps:** I will be staying at Washington University for an additional clinical/research year in transplant ID and fungal infections.

**Highlights of fellowship:** I have been extremely fortunate to work alongside outstanding faculty with a deep commitment to education and research during my fellowship. I received constant support from my mentors with countless opportunities to discover ways I can contribute to the field and meet my career goals. The extensive clinical experience and great discussions during weekly grand rounds cases cannot go unmentioned. Sharing this time with my co-fellows was definitely one of the highlights, we pushed through the hard times together and built friendships that I will always cherish.
Gayathri Krishnan, MD

I am originally from Alleppey, Kerala, India. I went to medical school at the University of Arkansas for Medical Sciences, Little Rock AR. I did my residency also at the University of Arkansas.

My hobbies include dancing, painting and cooking.

Why did you choose WashU for your ID fellowship?
Wonderful and supportive people, great faculty, plentiful research opportunities in all fields in ID, close to my family!! What more can I ask for.

Patrick D. Olson, MD, PhD

I am from Omaha, NE and acquired a BS at the University of Nebraska, Lincoln, NE. I completed my MD, PhD at the Washington University School of Medicine, and completed my residency at WUSM - Barnes-Jewish Hospital.

I enjoy the outdoors, including waterfowl hunting, fly fishing and training competitive hunting retrievers.

Why did you choose WashU for your ID fellowship?
First, the open atmosphere of the current ID faculty and fellows followed by the unending basic science research opportunities available

Priya Pal, MD, PhD

I am from Tallahassee, FL. I have BS in Chemistry, Biomedical Mathematics, Biochemistry, and was summa cum laude at Florida State University, Tallahassee, Florida. I earned a PhD, Molecular Microbiology and Microbial Pathogenesis at Washington University School of Medicine, St. Louis MO. I earned an MD also at WUSM. Residency: Tulane University, New Orleans, Louisiana (2020)

I enjoy anything outdoors (running, soccer, Frisbee, hiking), weight-lifting, rock climbing, fixing broken things.

Why did you choose WashU for your ID fellowship?
Kind supportive environment, humble yet crazy smart faculty and fellows

Luis Parra-Rodriguez, MD

I am from Barquisimeto, Venezuela. I earned my MD at Central University of Venezuela, School of Medicine, Caracas, Venezuela. I interned at the Hospital Medicine: La Trinidad Academic Medical Center, Caracas, Venezuela. I did residency and served as Chief Resident at John H. Stroger Jr. Hospital of Cook County, Chicago, IL.

My main hobby is music in all its expressions, from enjoying a classical symphony concert, or rocking my guitar with a blues piece, to dancing a traditional salsa or merengue (I wish I could sing though!). I also collect instruments, currently 9 and counting!

Why did you choose WashU for your ID fellowship?
I strongly believe that in order to give your best, you have to be happy and comfortable. WashU ID made me feel that I could find exactly that in the fellowship program. In addition, Washington University/Barnes-Jewish Hospital is a top-notch medical center with state-of-the-art technology where I am sure there will be infinite opportunities to learn. Finally, the very large number of faculty members with expertise in so many areas of infectious diseases provides an excellent learning environment. I am very excited to continue my training, refining my clinical acumen, and research skills at WashU ID!

continued
Abby Sung, MD

My hometown is Diamond Bar and San Marino, CA. I earned my bachelor’s in history and biology at Washington University in St. Louis. I earned my MD at WUSM and residency also WUSM/Barnes-Jewish Hospital.

My hobbies include Animal Crossing, pretending to be salty, eating and sleeping, trying to not kill my houseplants, finding fine tip pens (0.3-0.5mm) in various colors, fantasizing that I will one day become good at Cities Skylines.

Why did you choose WashU for your ID fellowship?
The people are awesome, I like that the hospital has a very large referral area with patients from multiple backgrounds (and great pathology!), the flexibility of the program in accommodating our interests, and I can walk to work.

Fellows’ Achievements

Juan Calix, MD, PhD, ID fellow alumnus ’20, received a NIH K08 Mentored Clinical Scientist Research Career Development Award for a project titled, “Defining Microbial and Host Determinants of Acinetobacter Survival in the Urinary Tract”. The purpose of the K08 award is to provide individuals who have a clinical doctoral degree with an intensive, supervised, research career development experience. The K08 provides support and "protected time" for these individuals considered to be on a path to a productive, independent research career. Dr. Calix was promoted to instructor in medicine in April 2020.

Michael “Josh” Hendrix, MD, ID fellow alumnus ’20 was promoted to instructor in medicine, hospitalist division.

Patrick Mazi, MD, 2nd year fellow, was accepted into the Mentored Training Program in Clinical Investigation (MTPCI) in the Clinical Research Training Center effective July 1. The MTCPI provides multidisciplinary clinical and translational research training to promote the career development of junior faculty and postdoctoral fellows by helping them become clinical and translational researchers.

Joseph Cherabie, MD, 2nd year fellow, recently participated in a nationwide ZOOM panel talking about important LGBTQ issues. Joe was part of a panel of national experts and talked about LGBTQ+ discrimination in blood donations.

Laura Marks, MD, PhD, 4th year fellow, and Mike Durkin, MD, MPH, assistant professor of medicine, conducted a study that shows oral antibiotics work by shortening hospital stays for IV drug users. Read more.

Congratulations to fellows whose abstracts have been accepted for poster presentation at the IDWeek 2020.

FIRST YEAR FELLOW
Gayathri Krishnana, MD - three poster presentations

SECOND YEAR FELLOW
Joe Cherabie, MD, MSc - poster presentation
Miguel Chavez, MD, MSc - two poster presentations
Sasinuch Rutjanawech, MD - poster presentation

THIRD YEAR FELLOW
Adriana Rauseo, MD - poster presentation
Gerome Escota, MD, honored with “Sidney S. Pearl, MD, ’32 Clinical Teacher of the Year”

In 1979, Sidney S. Pearl, MD, alumnus of the class of 1932, established an award for inspirational teaching to be chosen by the medical school graduating class, from among the clinical faculty. The award was presented to Dr. Escota at the MD Commencement Recognition Ceremony 2020 by Dr. Brian Hickman, medical education representative and member of the class of 2020. “Dr. Escota helped guide us to be more independent, and prepare us for the responsibilities of being physicians. As director of internal medicine clerkship, he has positively impacted the education of all Washington University medical students. Dr. Escota maintains an open door policy making sure to reach out to every med student in the clerkship to ensure they are all feeling well supported. He enthusiastically celebrates their successes. All of his teaching is done with a signature of warmth and kindness. Considering he also won the 2019 Clinical teaching faculty of the year award for both general internal medicine and infectious diseases, it seems they have all come to a consensus of Dr. Escota.

Spec selected Deputy Editor of Mycoses

Andrej Spec, MD, MSCI, assistant has accepted the role as deputy editor of Mycoses. Dr. Spec is also an associate editor for Open Forum Infectious Diseases (OFID), and serves on the editorial boards of Medical Mycology and Clinical Infectious Diseases (CID).

JULY 2020
FACULTY PROMOTIONS

Associate Professors of Medicine

Stephen Y. Liang, MD, MPH5
Hilary E. L. Reno, MD, PhD
$5 million to support research into neglected tropical diseases

Researchers at Washington University School of Medicine in St. Louis have received two grants from the National Institutes of Health (NIH) totaling more than $5 million to study two types of parasitic worm infection that cause devastating illness in millions of people worldwide.

The two infections are on the World Health Organization’s (WHO) list of neglected tropical diseases, a group of about 20 illnesses that together affect more than 1 billion people. One project will focus on onchocerciasis, commonly known as river blindness, caused by a parasitic roundworm spread by black flies that live and reproduce near rivers. The second project will target fascioliasis, caused by a foodborne parasitic flatworm commonly found in cattle-farming operations.

Led by Makedonka Mitreva, PhD, a professor of medicine, infectious diseases, and of genetics, both projects involve large-scale genome sequencing of the parasites to help monitor the infections’ spread and track resistance these parasites already have developed against drugs intended to eradicate them. The genomic information also could lead to new therapies to combat the drug-resistant strains. Read more

Faculty set to participate in IDWeek 2020 - October 21-25, 2020

Hilary Reno, MD, PhD   Panelist on STIs in the HIV Care Setting. Saturday, October 24, 2020, 3:15 pm – 4:30 pm
Phil Budge, MD, PhD   Lecturer on “Parasitic Diseases” at the Andriole Board Review Course, premeeting workshops
Mati Hlatshwayo, MD, MPH   Co-Moderator: Making a safe space: How to influence the learning climate Saturday, October 24, 2020; 10:30 AM – 11:45 AM
Jennie Kwon, DO, MSCI   Oral Abstract for a top abstract award. SHEA Decennial Top Oral Abstract Awards.
Juan Calix, MD, PhD   Oral presentation. Session Name: MDRO Epidemiology and Transmission
Yasir Hamad, MD   Three poster presentations  Session Titles: Clinical Practice Issues and COVID-19 Special Populations
Study Demonstrates Superiority of Cabotegravir for Prevention of HIV

Rachel Presti, MD, PhD, associate professor and investigator at the IDCRU/ACTU for HPTN 083 says study results are a game changer for HIV prevention. Researchers from the HIV Prevention Trials Network (HPTN) announced today that the HPTN 083 clinical trial showed that a pre-exposure prophylaxis (PrEP) regimen containing long-acting cabotegravir (CAB LA) injected once every 8 weeks was superior to daily oral tenofovir/emtricitabine (TDF/FTC) for HIV prevention among cisgender men and transgender women who have sex with men. The results were reported at the 23rd International AIDS Conference (AIDS 2020: Virtual). HPTN 083 is a randomized, controlled, double-blind study comparing the safety and efficacy of a regimen including CAB LA to daily TDF/FTC at 43 sites around the world.

During a planned review of study data, an independent Data and Safety Monitoring Board (DSMB) recommended that the study results be announced as soon as possible. The study sponsor, the National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health, agreed with this recommendation.

Some people have difficulty with or prefer not to take pills, and an injectable product such as long-acting CAB could be a very important option for them. HPTN 083 showed that both the regimen containing CAB and oral TDF/FTC demonstrated high efficacy for prevention of HIV acquisition in the study, offering people options that best fit their lifestyle.

Overall, HPTN 083 enrolled 4,570 cisgender men and transgender women who have sex with men at research sites in Argentina, Brazil, Peru, South Africa, Thailand, the U.S., and Vietnam. Two-thirds of study participants were under 30 years of age, and 12% were transgender women. Half of the participants in the United States identified as Black or African American.
The Drs. Gerald and Judith Medoff Professor of Medicine will celebrate Jerry's passion and love for the School of Medicine, his outstanding career which began with basic mycology research and extended to clinical research, patient care, and education. Jerry loved to teach, and was a passionate educator when interacting with medical students, residents, and fellows.

To honor Jerry, Vicky Fraser, MD, and her husband, Steve Miller, MD, are making a lead gift of $1M in a matching fund to endow a professorship in the name of Drs. Gerald and Judith Medoff. Please join our effort by financially supporting his endowed professorship with a charitable gift. Your gift will enable us to continue the inspiring tradition of excellence in research, patient care, and education that Jerry was committed to throughout his career.

We thank you for your gifts and your consideration for helping celebrate Dr. Jerry Medoff's legacy.
Gifts received April 1 - June 30, 2020

Drs. Gerald & Judith Medoff Professor of Medicine
Dr. & Mrs. David and Jane Ortbals
Drs. Virginia B. and Gordhan L. Patel
Dr. Stuart A. Kornfeld
Lillian & Andrew Meyers Fund
Dr. Jacob P. Sosna
Drs. Samuel L. Stanley Jr. and Ellen Li
Dr. Karen Deborah Sumers
Janice & Gary Well Schwab Fund
Dr. Joseph Jay Segal

General ID Fund
Drs. Hilary M. Babcock & Andrew J. White
Mrs. Emilia Frohwerk

Every gift makes a difference.

Online gifts can be made through https://gifts.wustl.edu.
Please be sure to designate the School of Medicine Infectious Diseases, describe designation. You may also contact JoAnne Estwanick, MS, Business Director, Infectious Diseases Division, or mail your contribution (please describe designation). Checks can be made payable to:

Washington University School of Medicine, Infectious Diseases Division
ATTN: JoAnne Estwanick, MS
Campus Box 8051, 4523 Clayton Ave., St. Louis, MO 63110
phone: 314-454-8354 e-mail: estwanickj@wustl.edu

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