USF 3D Swabs Perform as well as the Commercial Standard Swab in Detection of COVID-19

Dr. Kami Kim served as principal investigator on a recent clinical trial that shows 3D swabs performed as well as the standard commercial swab for accurate detection of COVID-19 infection. The 3D swabs were invented by USF Health doctors (including Dr. Kim), teaming with Tampa General Hospital, Northwell Health and Formlabs and have been used worldwide to meet the shortages of test kit swabs.

Click here to read the USF Health story.

Click here to read the Clinical Infectious Diseases journal article.

ID Secures Two New Grants for Treatment and Prevention of HIV and STI

Ryan White HIV/AIDS Program (RWHAP) - The Florida Department of Health-Hillsborough County (FDOH-Hillsborough) in collaboration with USF Infectious Diseases and International Medicine, under Drs. Doug Holt, Charurut Somboonwit, and Jamie Morano's leadership was awarded $150,000 from the Ryan White HIV/AIDS Program Part C Capacity Development Program. The funding will enhance FDOH-Hillsborough to End the HIV Epidemic by expanding services to rural FDOH satellite clinics and mobile health units. FDOH-Hillsborough will bolster its existing HIV/STI testing and treatment services beyond current city-based locations to the at-risk, underserved population in testing, treatment, and HIV/STI Risk Counseling.

Ratelle Sexually Transmitted Disease Prevention Training Center - The Sylvie Ratelle STD/HIV Prevention Training Center (STD PTC) named the USF Division of Infectious Diseases and International Medicine as the lead for the Florida STD Prevention Training Center (STD PTC). This regional STD PTC will address New England and Florida’s HIV preventive services’ training, technical assistance, and systems change needs. Dr. Charurut Somboonwit, USF, serves as the co-Medical Director (Florida) with Dr. Kevin Ard, Harvard University (New England). Florida STD PTC will focus on the seven jurisdictions in Florida that are the hardest hit by HIV to increase PrEP uptake, identify persons living with HIV, and those with unsuppressed viral loads. This CDC sponsored 5-year program will develop, disseminate, evaluate, and provide technical assistance to advance HIV prevention in STD clinics by integrating quality improvement approaches in health care settings.

Dr. Oehler’s Coronavirus Mythbusting Podcast has More than 20,000 Views on VuMedi

Dr. Richard Oehler recently recorded a two-podcast series on the mythbusting of Coronavirus misinformation. VuMedi, a popular educational web site that calls itself “YouTube for physicians” recently posted excerpts from both of these podcasts to their site to share with their audience. The segment on Mask Myths has gotten over 20,000 views on the site and combined, the 6 video excerpts have close to 30,000 views. The full podcasts are now available at IDPodcasts. Click here to visit VuMedi (registration required, but the podcasts are free).

Congratulations to Our ID Faculty for Their Recent Research and Scholarly Accomplishments!

Iset Vera, PhD recently published a paper “Plasma cell-free DNA predicts pediatric cerebral malaria severity” in JCI Insight. In this manuscript, Dr. Vera and colleagues showed that plasma cell-free DNA, which can be measured with a simple fluorescent assay, correlates with malaria severity and could predict children with malaria retinopathy who were more likely to die. Further analysis of the source of DNA in plasma indicated that both human and malaria parasite DNA contributed. Comparison of other biomarkers in the children with severe and uncomplicated malaria suggests that host inflammation, particularly neutrophil activation, is linked to severe and fatal malaria. Click here to read article.

Beata Casanas, MD has been selected (as Principal Investigator) on a novel study for treatment of HIV with injectable medications every 2 months. This is truly a paradigm shift in HIV care, which is expected to lead to increased compliance. Protocol Title: A Phase IIIb, Randomized, Multicenter, Parallel-group, Non-inferiority, Open-label Study Evaluating the Efficacy, Safety, and Tolerability of Switching to Long-acting Cabotegravir Plus Long-acting Rilpivirine from a Bictegravir Single Tablet Regimen in HIV-1 Infected Adults who are Virologically Suppressed.

The James A. Haley VA Hospital recently selected as a site for two new COVID-19 studies:

Dr. John Toney was selected to serve as Principal Investigator for the VA site for the Janssen SARS-CoV-2 vaccine trial - study title: A Randomized, Double-Blind, Placebo Controlled Phase 3 Study to Assess the Efficacy and Safety of AD26COVS1 for the Prevention of SARS-CoV-2 mediated COVID-19 in Adults Aged 18 years and Older (Operation Warp Speed/BARDA/VHA ORD).

Also, Dr. Anthony Cannella was selected as Principal Investigator for the VA CURES-1 RCT comparing convalescent plasma vs. placebo in early symptomatic COVID-19 patients – Study title: Coronavirus Research & Efficacy Studies (CURES): CURES-1 RCT of Convalescent Plasma.
Dr. Kami Kim is co-editor on the recent publication of the book, Toxoplasma gondii. This third edition of Toxoplasma gondii reflects the significant advances in the field in the last five years including new information on the genomics, epigenomics, and proteomics of T. gondii as well as a new understanding of the population biology and genetic diversity of this organism. This edition expands information on the effects of T. gondii on the central nervous system as well as new molecular techniques such as CAS9/CSPR, and information on the development of the sexual stages of T. gondii in vitro. Toxoplasma gondii remains the best model system for studying the entire Apicomplexa group of protozoans making this new edition essential for a broad group of researchers and scientists.

Editors: Dr. Kami Kim, Director of the Division of Infectious Disease at USF and Dr. Louis Weiss is Professor of Medicine at the Division of Infectious Diseases, Professor of Pathology at the Division of Tropical Medicine and Parasitology, and the Co-Director of the Global Health Center, Albert Einstein College of Medicine, Bronx, NY, USA.

Jacqueline Sherbuk, MD Joins the USF ID Team!

Please help us welcome Dr. Jacqueline Sherbuk to our ID Team! Dr. Sherbuk comes to us from the University of Virginia in Charlottesville where she recently completed her Infectious Disease Fellowship. Dr. Sherbuk received her MD from New York University School of Medicine and completed her Internal Medicine Residency at Yale New Haven Hospital in Connecticut. She is a member of the Infectious Disease Society of America (IDSA) and a Diplomate in the American Board of Internal Medicine.

Dr. Sherbuk’s research interests focus on outcomes research related to HIV, Hepatitis C, and structural determinants of health. During fellowship, Dr. Sherbuk served as co-investigator for an investigator-initiated grant aiming for micro-elimination of hepatitis C in Southwest Virginia. During her medical school training, Dr. Sherbuk spent one year dedicated to research on biomarkers of Chagas cardiomyopathy in Santa Cruz, Bolivia under the mentorship of Robert Gilman, MD, Johns Hopkins University and Caryn Bern, MD MPH with the University of California San Francisco.

Dr. Sherbuk will join the teaching team at Tampa General Hospital and will be involved in clinical care at the Department of Health — Hillsborough County.

USF Health Earns Recognition from Tampa Mayor

Division of Infectious Disease director, Dr. Kami Kim is a member of the innovative team that responded to the national shortage of swabs and collection kits needed for COVID-19 testing by creating 3D printed swabs from surgical grade plastic. The initial supply was created for USF Health and Tampa General Hospital clinicians and quickly evolved to a much bigger scope with thousands of swabs being distributed for national and international use. City of Tampa Mayor, Jane Castor, recently recognized the efforts at USF Health by selecting the team for the COVID-19 Heroes of Tampa Bay Award.

Dr. Kim is also the PI for the clinical research study that is comparing the performance of 3D printed swabs compared to standard flocked swabs in collection of nasopharyngeal samples needed.

Read more at USF Health Honors & Awards.
USF ID Welcomes Dr. Daniel McSkimming

Dr. Daniel McSkimming recently joined the Division of Infectious Disease as an Assistant Professor. Dr. McSkimming comes to us from Buffalo, NY where he was a Research Assistant Professor with the Department of Biochemistry at Jacobs School of Medicine and Biomedical Sciences at the State University of New York at Buffalo. There, he was also a Bioinformatics Research Scientist in the Genome, Environment, and Microbiome (GEM) Community of Excellence (CoE). Dr. McSkimming’s training includes both a BS and MA in Mathematics at State University of New York at Buffalo and he completed his PhD in Bioinformatics at the University of Georgia.

Dr. McSkimming joins our ID Research team as director of the Bioinformatics and Computational Biology Core. His long-term research interests focus on comprehensively understanding how microbes interact with host genetics and their environment to influence our health.

As the director of the Bioinformatics and Computational Biology Core, some of Dr. McSkimming’s goals will include:

- Establishing standards and practices that ensure reproducibility of analyses, allow for comparability between datasets, and ease interpretation of results.
- Providing education on computational and analytic techniques to researchers and students.
- Identifying novel analytic and machine learning methods applicable to microbiome data.

Ju Hee Katzman, MD, Joins the Division

We welcome Dr. Ju Hee Katzman, MD as an Assistant Professor in the Division of Infectious Disease. Dr. Katzman completed her MD and was Salutatorian of her class at De La Salle Health Sciences Institute in the Philippines. She did her Internal Medicine Residency at the University of South Florida where she was Chief Resident her third year. During residency, she was awarded both the Outstanding First Year and Outstanding Second Year Resident awards. In 2018, Dr. Katzman was presented the Outstanding Resident Award by the American College of Physicians. She recently completed her fellowship with the USF Division of Infectious Disease and International Medicine where she was Chief Fellow in her second year.

She is a member of the Infectious Disease Society of America, the Society for Healthcare Epidemiology of America and a member of the American College of Physicians. We have seen first-hand her dedication to academia, research and the practice of medicine and look forward to the contributions she will make to our division.

Dr. Katzman will join our ID team at Moffitt Cancer Center and will be our new Assistant Program Director for the ID Fellowship Program.
A Historic Event for the Fellowship Program

Friday, June 12th the USF Division of Infectious Disease and International Medicine's Infectious Disease Fellowship Program held it's graduation ceremony - virtually! It was the first time in the program's 46 years that the commencement ceremony was conducted virtually due to the COVID-19 pandemic. Faculty, staff, fellows and the fellows' family and friends were able to login to participate in this virtual event. Fellowship program director Dr. Beata Casanas led the ceremony and Dr. Kami Kim, division director and Dr. John Sinnott, chairman of Internal Medicine both addressed the graduates during the ceremony. Graduating fellow Dr. Greg Teo was presented this year's Jeffrey P. Nadler, MD, FACP Award for Research Excellence and graduate, Dr. Ju Hee Kim was presented with the Outstanding Infectious Disease Fellow Award from the James A. Haley VA Hospital ID team.

*Congratulations to all of the fellows!*
The ID Division at the Forefront of COVID-19 Research

The ID division has been busy with clinical and basic research on COVID-19 while responding to the pandemic at our clinical sites. Dr. Kami Kim has collaborated with the Tampa General Hospital CLIA laboratory to create a biorepository of samples from COVID-19 patients. With Dr. Tom Unnasch and Dr. John Adams of the USF College of Public Health (COPH) and Dr. Michael Teng of the Morsani College of Medicine (MCOM), Dr. Kim has set up a BSL2-BSL3 laboratory in the Interdisciplinary Research Building to study COVID-19 antibodies and COVID-19 viral pathogenesis. Drs. Kim, Unnasch, Adams and Teng will work together on the project “Serological Correlates to Immunity in SARS-CoV-2 Infection”, which was funded by the USF Pandemic Response Research Network.

This project will examine human SARS-CoV-2 antibodies and development of immunity to determine the best criteria to determine whether a person is immune to the SARS-CoV-2 virus. This work was featured on Tampa Bay’s New Channel 8.

Dr. Kim also is the PI for the clinical research study that is comparing the performance of 3D printed swabs compared to standard flocked swabs in collection of nasopharyngeal samples needed to diagnosis COVID-19 infection. There has been a national shortage of swabs and collection kits needed for COVID-19 testing. A team led by Dr. Summer Decker printed 3D swabs from surgical grade plastic to supply this critical need for USF and TGH clinicians. This was featured in the national and local press, click here to see the feature with the Tampa Bay Times.

For more information about COVID-19 research across USF Health - click here.
Latest Malaria Research

Congratulations to Liwang Cui, PhD, his lab, and their malaria research collaborators in the USF Global Health Infectious Diseases Research Center (GHIDR) on their recent publication in the May 9 issue of Journal of Infectious Diseases: Lineage-specific Expansion of Plasmodium Falciparum Parasites With pfhrp2 Deletion in the Greater Mekong Subregion. Dr. Justin Gibbons of USF GHIDR was the lead author and Dr. Jun Miao and Dr. Kami Kim of the ID Division contributed to the collaboration.

Link to full journal article.

Schematics showing the positions of deletions of pfhrp2 from 138 clinical samples collected from the China-Myanmar border area. A, Positions of the 2 breakpoints at and near pfhrp2. B, Normalized coverage in the pfhrp2 region from 10 random samples without pfhrp2 deletions. C, Normalized coverage in the pfhrp2 region for the breakpoint 1 samples. D, Normalized coverage in the pfhrp2 region for the breakpoint 2 samples. Vertical dotted lines indicate the location of the pfhrp2 gene.

Congratulations to ID Researcher, Dr. Elena Suvorova on the Award of R01 Grant

We congratulate ID researcher, Elena Suvorova, PhD, who was recently awarded her first NIH-NIAID funded R01 grant. Dr. Suvorova specializes in molecular parasitology, primarily working with apicomplexan parasite Toxoplasma gondii. T. gondii is an important human pathogen that causes life-long infection in millions of people. It presents a severe threat to people with immune deficiencies and unborn babies of infected mothers. This NIH funded study, “Cyclin mediated control of Toxoplasma development,” will examine how T. gondii maintains a balance between replication and development into dormant forms that evade host immunity. Particular focus will be placed on central mechanisms that regulate the transition from proliferative tachyzoite to latent bradyzoite state of the parasite responsible for currently incurable chronic toxoplasmosis.
USF and the Florida Department of Health - Hillsborough Team up to Form Network of COVID-19 Telehealth Providers

Beginning March 30, 2020, the USF Department of Internal Medicine teamed up with the Division of Infectious Disease and the Florida Department of Health – Hillsborough to create the COVID-19 Confirmed Follow Up Clinic (COCO), a network of healthcare providers to provide ambulatory care for patients who have tested positive for COVID-19. The program offers patients the option of home management of the virus to prevent hospitalization or re-admission to the hospital. Dr. Asa Oxner, Vice Chair for the Department of Internal Medicine and Dr. Elimarys Perez-Colon, Assistant Professor in the Department of Pediatrics are co-directors of the project.

This network of providers uses telehealth visits to assess, monitor and treat patients for COVID-19. During video visits, patients receive full medical assessment, including prescription of necessary medications, and in some cases are provided pulse oximeters to closely track their heart rate and oxygen levels. The team continues to monitor the patient’s vitals throughout the course of the disease. For the sickest patients, in-person care may be arranged at an isolation clinic with trained staff and USF physicians.

The COCO program encompasses not only the clinical care of the patient, but provides connections with home care companies, behavioral health clinicians and other resources for social support. If interested, patients may also be referred to clinical trials and participate in research.

As of today, our physicians in the COCO network have cared for over 750 COVID-19 positive patients, with more than 550 patients being “cleared” of the virus. The program continues to get an average of 20 new referrals and 20 follow up visits per day.

To support this and other USF efforts in COVID-19 response, please click here.

To schedule an appointment to get tested for COVID-19, link to care with us if you have already tested positive, or to see if you are eligible for one of our clinical trials: call 813-974-7616. You will need to register with USF Health and sign new patient forms electronically.

Related media articles: WTSP - 10 Tampa Bay, Univision Tampa Bay

Dr. Attiya Harit Selected for the 2020 Philip T. Gompf Award for Excellence in Infectious Disease!

Each year, the Division of Infectious Disease and International Medicine presents a graduating medical student with the Philip T. Gompf Award for Excellence in Infectious Diseases. This memorial award is supported by the USF Foundation and named after the son of ID faculty member, Dr. Sandra Gompf in honor of her son who lost his fight against amoebic encephalitis in 2009.

This year’s recipient, Dr. Attiya Harit was presented this award for her commitment to her academic career and her compassion to help the underserved. Her research includes being a PI on two projects at Kasturba Medical Hospital Manipal, Karnataka, India. Most notably, a project on the correlation between fluorescence in situ hybridization (FISH) and immuno-histochemistry – the (IHC) analysis for HER2/Neu status. She was also Co-Investigator for the project “Knowledge, Attitude, and Practice of Influenza Vaccination Among Healthcare Professionals” in India. As a SELECT student, she also worked on the team-based research project- Improving Patient Nasal RISE Comprehension and Compliance with Instruction Cards for Chronic Sinusitis and Post-Endoscopic Surgery Care: Otolaryngology Department, USF Health. She volunteered with Tampa Bay Street Medicine and Project World Health at USF and was president of the Internal Medicine Interest Group.

Dr. Harit will be doing her Internal Medicine Residency at George Washington University and has chosen the public health and underserved concentration there.
Welcome Anthony P. Cannella, MD to the ID Division!

We welcome Dr. Anthony Cannella as a new Assistant Professor in the Division of Infectious Disease and International Medicine. Dr. Cannella is a USF alumnus, graduating from the USF Morsani College of Medicine in 2006. He completed his internal medicine residency at the University of Alabama at Birmingham in 2009 where he received awards for both his research as well as teaching. He then completed both a clinical ID fellowship (2011) and a post-doctoral ID fellowship (2013) at the University of California, San Diego; there he obtained an NIH Diversity Award which funded him for two years on his adaptive immunology research of Brucella melitensis. In 2013 he became faculty at UCSD and was awarded an NIH (NIAID) K08 grant to study the innate and adaptive T cell responses of Plasmodium falciparum.

He was recruited to the University of Florida College of Medicine (2014) to work at the Emerging Pathogens Institute; there he authored senior authored manuscripts, received accolades for both teaching and mentoring as well as having the opportunity to be part of the UFCOM medical admissions process. He also started the UF Travel Clinic, Non-tuberculous mycobacteria clinic, worked in hospital epidemiology for both UF Health and the Malcolm Randall VAMC as well as starting the UF Outpatient Parental Antimicrobial Therapy (OPAT) program.

Dr. Cannella has now returned home to where he first learned medicine and will be part of the Hospital Epidemiology and Antimicrobial Stewardship Programs at the James A. Haley VAMC, as well as joining the Moffitt Cancer Center ID team. In his spare time, he enjoys boxing, culinary arts and spending time with his wife and two young sons.

Tampa General Hospital Selected One of 16 Sites for HERO-HCQ Trial Study

The Healthcare Worker Exposure Response and Outcomes (HERO) study was recently funded by the Patient Centered Outcomes Research Institute (PCORI) and will be led by the Duke Clinical Research Institute in response to the current COVID-19 pandemic. The study will focus on the healthcare workers who are at high risk of contracting this novel coronavirus. It will engage healthcare workers across the nation to understand the impact of COVID-19 on their health and to evaluate whether or not hydroxychloroquine can prevent COVID-19 infections.

USF Infectious Disease doctors Kami Kim, MD and Seetha Lakshmi, MD have worked closely with Tampa General Hospital (TGH) administrators and the OneFlorida consortium to submit their proposal for participation in this important study. As a result of their hard work, TGH has been selected as one of 16 prominent healthcare facilities across the country to participate in the study. Dr. Lakshmi will act as lead investigator for the TGH site.