MEDICINE

MATTERS

MESSAGE FROM THE CHAIR



V/elcome back from the holidays, and I wish everyone a very happy, healthy, and productive new year. As we start the month January, the DOM is poised for a busy year with new clinical programs and a growing research portfolio. We are actively recruiting in nearly all divisions and looking to expand in all of our missions. Indeed, a great sign of a vibrant Department. This is an excellent lead-in to the focus of this month's

featured Division of Infectious Disease and Global Health. This Division is a top ten leader in the field, and their past and current contributions have shaped their specialty and improved the lives of countless people. This is most evident in their transformative work in global health. I encourage all of you to read about their many impressive accomplishments.

With great sadness, we also celebrate the past accomplishments of Dr. Michael Rein, who recently passed away after a courageous fight against cancer. Dr. Rein was a legendary figure in the Department whose educational and clinical excellence set a standard for all of us. He was known for his kindness, gentleness, and ability to speak his mind respectfully and effectively. His enthusiasm for medicine and caring for patients was a model for many of us. He will be missed.

With best wishes,

Mitchell H. Rosner, MD, MACP Henry B. Mulholland Professor of Medicine Chair, Department of Medicine

JANUARY 2023

MEDICINE DEPARTMENT OF MEDICINE

MISSION

We are dedicated to preventing disease and treating illness, educating and inspiring future leaders in the field of internal medicine, and supporting innovative biomedical research.

VALUES

We strive for a sense of community, connection, and synergy among all faculty, staff, and trainees.

PLEDGE

We will conform to the highest ethical standards, uphold the values of our partner organizations, and give back to our community through public service.



Dom WEBSITE • •

GRAND ROUNDS • •

HIGHLIGHTED DIVISION • •

MINDFULLNESS MATTERS ..

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DOM Financial Update

Department of Medicine Summary of Consolidated Financials

FY21 as of November 30, 2022

	Budget	Actual	\$ Variance
	YTD	YTD	YTD
Work RVUs	509,675	483,318	(26,357)
Clinical Receipts (NPSR)	33,486,824	31,623,068	(1,863,756)
Total Revenues	92,089,837	94,157,748	2,067,911
Total Expenditures	89,925,723	89,364,226	561,497
Net Income	2,164,113	4,793,522	2,629,409

Summary Explanation of Variance:

For the fiscal year through November 2022 DOM reported a consolidated net gain of \$4.8M and a favorable variance to YTD net income budget of \$2.6M. Clinical receipts underperformed budget by \$1.9M due to unfilled positions, delayed starts, reduced bed capacity, open and unsigned encounters and unplanned leave. Total revenues include \$1.2M deficit support revenue accrual, \$656K unbudgeted MOU support and \$2.8M Endowment revenue recorded for December through June. Total expenditures are impacted by \$1.2M faster spending on a research studies countered by lower grant activities caused by OSP and procurement delays.



Barbara Mann PhD



Michael Ragosta MD



Michael E. Williams MD



Ira Helenius MD



Patrick Jackson MD



Jennifer Kirby MD PhD



Rahul Sharma PhD



Susan Kirk MD

Congratulations to the 2022 Dean's Faculty Award Recipients

Sharon L. Hostler Women in Medicine Leadership Award Barbara Mann, PhD, Associate Professor of Medicine

University of Virginia School of Medicine Master Clinician Award Michael Ragosta, MD, Professor of Medicine Michael E. Williams, MD, Professor of Medicine

Dean's Award for Clinical Excellence Ira Helenius, MD, Associate Professor of Medicine Patrick Jackson, MD, Assistant Professor of Medicine Jennifer Kirby, MD, PhD, Associate Professor of Medicine

Dean's Award for Excellence in Research Rahul Sharma, PhD, Associate Professor of Medicine

David A. Harrison Distinguished Educator Award
Susan Kirk, MD, Associate Dean for Graduate Medical Education and Associate Professor of Medicine







Kathleen McManus MD



Michael Avers MD



Kenneth Bilchick MD MS Sula Mazimba MD MPH





Firas El Chaer MD



Rebecca Dillingham MD MPH



William Petri MD PhD





Patricia Rodriguez-Lozano MD Andrew Parsons MD MPH



Awards and Achievements

Congratulations to Dr. John Kim (Division of Pulmonary and Critical Care), whose article "Associations of Omega-3 Fatty Acids with Interstitial Lung Disease & Lung Imaging Abnormalities Among Adults" has been selected as one of the 2021 Articles of the Year by the American Journal of Epidemiology.

Congratulations to Dr. Kathleen McManus (Division of Infectious Diseases and International Health) on her article, "Improving HIV care by innovating service delivery in the U.S.: The need for change" for the Infectious Diseases Society of America (IDSA).

Congratulations to Dr. Michael Ayers (Division of Cardiovascular Medicine), who has been selected to serve as a member of the Early Career Section Leadership Council beginning April 2023.

Congratulations to Dr. Michael Ayers (Division of Cardiovascular Medicine) on being present with the Mulholland Award for Teaching Excellence in the Next Generation Curriculum by the Class of 2025.

Congratulations to Dr. Sula Mazimba (Division of Cardiovascular Medicine) and Dr. Kenneth Bilchick (Division of Cardiovascular Medicine) on their new study that reveals a potential new treatment for heart failure. They are now working on starting a randomized clinical trial to validate these findings. Read more...

Congratulations to Dr. Firas El Chaer (Division of Hematology/Oncology) on his presentation on preliminary clinical data evaluating investigational agent TP-3654 at the 64th American Society of Hematology (ASH) Annual Meeting & Exposition, held December 10-13 in New Orleans, Louisiana. The presentation included preliminary clinical data from patients enrolled in a Phase 1/2 study evaluating TP-3654, an investigational selective oral PIM-1 kinase inhibitor, in patients with myelofibrosis previously treated with or ineligible for JAK inhibitor therapy. Read more...

Congratulations to Dr. Rebecca Dillingham (Division of Infectious Diseases and International Health and director of UVA's Center for Global Health Equity) and Dr. Emma Mitchell (associate professor of nursing) on a new \$1.2M NIH Grant to Support Cervical Cancer Screening, Treatment, and Follow-up in Nicaragua. The grant will support Drs. Dillingham and Mitchell in expanding and strengthening cervical cancer screening, treatment, and follow-up using an app called "Azulado" that Mitchell and Dillingham developed for women in Bluefields, Nicaragua. Read more...

Congratulations to Dr. William Petri (Division of Infectious Diseases and International Health), who was awarded the Walter Reed Medal in recognition of his distinguished accomplishments in the field of tropical medicine by the American Society of Tropical Medicine & Hygiene. Read more...

Congratulations to Drs. Jeff Wilson (Division of Asthma Allergy and Immunology), Patricia Rodriguez-Lozano (Division of Cardiovascular Medicine), and Sula Mazimba (Division of Cardiovascular Medicine), on being members of teams award Seed grants to support projects focused on immunology, imaging, and informatics in precision immunomedicine by (iPRIME) for Cardiovascular Disease by the University-funded iPRIME P2PE initiative. Read more...

Contratulations to Dr. Andrew Parsons (Division of General, Geriatric, Palliative and Hospital Medicine) on receiving the 2022 Early Career Physician Award by the Virginia American College of Physicians (ACP). This award is presented to a select ACP member of the Virginia chapter, within 16 years of graduation from medical school, who has made significant contributions as a leader in internal medicine and academics, including publishing, teaching, and mentoring.

Awards and Achievements







Kaitlin Love MD



Katarine Egressy MD



Tushar Chopra MD



Taison Bell MD



Stacy Park MD

Congratulations to **Dr. Aditya Sharma** and team (Division of Cardiovascular Medicine), who have been recognized for Providing Excellent Patient Care for 2022.

Congratulations to Kaitlin M. Love, MD (Division of Endocrinology) for receiving a 5-year NIH K23 award titled "Therapeutic Strategies for Microvascular Dysfunction in Type 1 Diabetes".

Congratulations to **Dr. Katarine Egressy**, who was named December's Woman of the Month by COWIMS. Dr. Egressy joined UVA in 2021 during the height of the pandemic within the Division of Pulmonary and Critical Care Medicine. Dr. Egressy's research interests span the gamut of lung cancer detection to the dietary aspects of lung cancer survivorship, as well as narrative medicine utilization in the care of critically ill patients. Dr. Egressy utilizes her multicultural background as well as her knowledge of seven different languages to connect with patients and families on a personal level. An immigrant herself, she shares a unique understanding of being the underserved and utilizes languages to bridge the cultural and narrative gaps for the most vulnerable. Dr. Egressy joins the team within the division of pulmonary medicine, thoracic surgery, and radiology of equally passionate colleagues focused on the development and promotion of outreach services for lung health, lung cancer care, and pulmonary nodule service line. Learn more about Dr. Egressy's background, interests, and recent humanitarian trip to Ukraine on Dr. Taison Bell's podcast: This Medicine Life.



Congratulations to **Dr. Tushar Chopra**, who has been named a new member of the QAIE Steering Committee.

Congratulations to **Drs. Taison Bell** and **Stacy Park** on their editorial "Colistin — That Was Fun, But Now We're Done" in which they discuss the results of Kaye et al.'s OVERCOME trial and whether colistin should have a place in treating carbapenem-resistant organisms.

Congratulations to **Drs. Jamey Cutts, Nisha Hosadurg**, and **Nick Ashur** for representing the Division of Cardiovascular Medicine and winning a very close contest to be crowned Virginia Jeopardy champions at the *Mid Atlantic Capital Cardiology Symposium*.

Dr. Karen Ballen and Team Celebrate 1,000th Stem Cell Transplant (Medicine In Motion)

The Cancer Center team hosted a celebration on Thursday, December 15, 2022 to thank their team for reaching a significant milestone: our 1,000th stem cell transplant. This accomplishment is the culmination of years of dedication, hard work, and innovation to make this treatment more accessible, safer, and effective for a variety of complex blood diseases.

Read more...



Dr. Jeffery Wilson's Research Shows COVID-19 Booster Increases Durability of Antibody Response (Medicine In Motion)

The new findings shed light on how mRNA boosters – both Pfizer and Moderna – affect the durability of our antibodies to COVID-19. A booster, the researchers report, made for longer-lasting antibodies for all recipients, even those who have recovered from a COVID-19 infection.

Read more...



Congratulations 2022 Fellowship Matches!

Andrew Bigelow - University of Virginia, Gastroenterology Olivia Blazek (Class of 2021)- Indiana University, Cardiology Fabian Bolte- University of Virginia, Hematology/Oncology **Ben Cahill- University of Virginia, Geriatrics** Nisa Desai (class of 2021) - University of Miami, Gastroenterology Sean Dougherty (Chief Resident)- University of Virginia, Hematology/Oncology Ramey Elsarrag- Wake Forest, Hematology/Oncology Addison Hicks- University of Virginia, Infectious Diseases **Jack Jalenak- University of Virginia, Cardiology** Sam Konkol (Chief Resident)- University of Virginia, Pulmonary and Critical Care Chelsea Lau (Chief Resident)- Northwestern, Hematology/Oncology Josh Makepeace- Georgetown, Cardiology Sam Maldonado- Massachusetts General, Infectious Diseases Ben Mautner- Georgetown, Hematology/Oncology Jimmy McParland- Wake Forest, Cardiology **Kelsie Mietla- Johns Hopkins, Pulmonary and Critical Care** Laura Mitchell (Chief Resident)- Vanderbilt, Endocrine **Angel Morvant- Vanderbilt, Endocrine** Sam Myears- Medical University of South Carolina, Cardiology Olivia Ondigi- University of Virginia, Cardiology **Christian Selinski- University of Chicago, Cardiology** Katya Swarts- University of Washington, Gastroenterology Michelle Tran- University of Virginia, Nephrology **Christian Widere- University of Virginia, Pulmonary and Critical Care Ben Yeager- Temple University, Gastroenterology** Collin York- Wake Forest, Gastroenterology

UVA Named Center of Excellence by Polycystic Kidney Disease Foundation

Mitchell H. Rosner, MD, FACP, the Henry B. Mulholland Professor of Medicine and chair of the Department of Medicine, led efforts resulting in the selection of the University of Virginia as an ADPKD Center of Excellence for a three-year term from 11/15/22 to 11/15/25.

Autosomal dominant polycystic kidney disease (ADPKD) Centers of Excellence provide comprehensive multidisciplinary clinical services for families affected by ADPKD. The University of Virginia is one of only a dozen centers in the United States to receive this prestigious distinction.

The program's mission statement includes understanding PKD through research, ensuring better care for all individuals with ADPKD, and educating and empowering the community.







UVA Health: COVID treatments limited after pause of monoclonal antibody authorization (NBC29)

The FDA has paused the authorization for the final approved monoclonal antibody treatment for COVID.

UVA Health says that at the moment, they have fewer options for treating patients with COVID as the Omicron variant continues to evolve.

"The many of these sub variants, including the predominant ones in the United States right now, are unfortunately not susceptible to the last remaining monoclonal antibody body," Doctor Costi Sifri said. Read more...

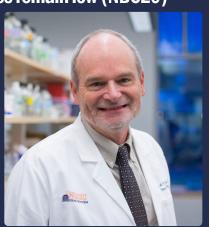


UVA Health: Flu season comes early, COVID transmission rates remain low (NBC29)

"The flu is much earlier than we've experienced in the last five or 10 years. Usually, flu comes up January until early March," Doctor Bill Petri with UVA Health said. "We have just as high levels right now at the beginning of December."

Dr. Petri says this year is very unusual, but there is some good news.

Read more...



UVA Joins U.S. Network Preparing for Future Infectious Disease Threats (UVA Today)



Researchers behind a new center at UVA, one of just five in the nation, will tackle the challenge of preventing outbreaks and pandemics.

"Combining pathogen genomics with epidemiologic data can reveal transmission pathways to help us better understand a pathogen," said Dr. Amy Mathers.

Read more...

UVA Experts: Be cautious when giving children adult medicine (NBC29)

Local health officials are saying parents should be cautious when giving children adult medicine.



Health Check (CNN)

U.S. now requiring travelers from China to show negative COVID test. Dr. Taison Bell speaks with Amara Walker about the new requirement.

Watch Video...



AACR Virtual Journal Club: Molecular Cancer Research With Dr. Charles Chalfant (Video)

This Journal Club features Charles Chalfant, PhD, discussing his article published in Molecular Cancer Research: "Ceramide Kinase Inhibition Drives Ferroptosis and Sensitivity to Cisplatin in Mutant KRAS Lung Cancer by Dysregulating VDAC-Mediated Mitochondria Function." This novel study depicts how CERK inhibition may serve as a new key point in a combination therapeutic strategy for NSCLC, specifically precision therapeutics targeting NSCLC possessing a KRAS mutation.

Watch Video...



DoM Education



Bottom row from left: Monte Parsons (Allergy/Immunology Fellowship Coordinator), Terry Bennett (DOM Compliance Manager), Second Row: Lisa Mackey (Heme/Onc Fellowship Coordinator), Joy Hilton (Director of Education), Cheryl Etelvari (Cardiology Fellowship Administrator), Lizzie Daniels - in green top (Pulmonary/Critical Care Fellowship Coordinator), Brittany Davis (Gastroenterology Fellowship Coordinator)

Back Row: Fawad Sohail (Nephrology Fellowship Coordinator), Caleb Martin (Infectious Diseases Fellowhip Coordinator), Tony Brinkman (Residency Program Coordinator and Geriatrics and Palliative Care Fellowship Coordinator), Karen Ward (UME Aministrator), Erin Zimmerman (Residency Program Administrator), Missing: Kara Watts (Program Administrator for Medicine Residency and Cardiology sub-specialty fellowships)

Welcome



Welcome to Fawad Sohail, who has taken over as the Nephrology Fellowship Coordinator as of October 31, 2022. Fawad moved to Charlottesville ten years ago with his family. He completed his bachelor's degree in Law and Management from Kabul University.

Before accepting this position, Fawad worked as a Deputy Clerk for the Charlottesville General District Court. He has also worked for UVA Medical Center as a Health Unit Coordinator and worked for the International Rescue Committee.

Fawad's life and administrative experiences have allowed him to interact with and relate to diverse people. His strong computer technology skills and his legal background serve him well in his new education coordinator role.

In his spare time, Fawad likes to hike, cook, play soccer, and enjoy volunteer work in the community.

"I am really excited to be working with all of you and can't wait to see what we can achieve together." – Fawad Sohail

For Your Listening Pleasure

New Episode of the Podcast, "This Medicine Life" with Dr. Taison Bell

In addition to working with the School of Medicine Faculty Development Office and other groups within UVA medicine, Department of Medicine senior leadership team Vice Chair for Faculty Affairs, Taison Bell, MD has a podcast called "This Medicine Life,"



"The Immunology Podcast" with Dr. Jie Sun

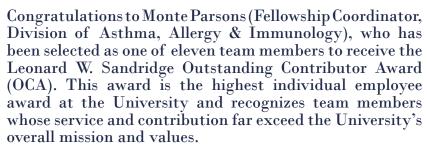
Jie Sun, PhD, professor of medicine in the Department of Medicine, Infectious Diseases Division and the Carter Immunology Center, discussAes his work on mucosal immunity after COVID-19 natural infection or vaccination in The Scientist magazine webinar entitled "COVID-19" Lessons Learned"; and his group research on respiratory immunopathology including Long COVID in The Immunology Podcast.



CLICK TO LISTEN

CLICK TO LISTEN

Monte Parsons Recognized with Leonard W. Sandridge Outstanding Contributor Award



Monte will receive a \$1,000 monetary award and an engraved gift for his efforts and be recognized at a reception in early 2023.

Thanks to Monte for all he does, and congratulations on receiving this prestigious award!





Do You Have News You'd Like To Share on Medicine Matters?

Contact Kim Kelley-Wagner kak2cj@virginia.edu 434.328.0680

Antonio Abbate, MD, PhD Brings Clinical Trial for STEMI Patients to UVA (Medicine In Motions)

Dr. Abbate recently joined the faculty at UVA. His new study will enroll patients at his previous institution (VCU) as well as UVA. The purpose of his new study is to examine the effects of IL-1 blockade with Anakinra on cardiorespiratory fitness, cardiac function, quality of life, inflammatory markers, and incidence of heart failure 6 weeks and one year after a







Mindfulness for Healthcare Employees Free Winter 2023 Course Held via Zoom Thursday, February 2 – March 23, 2023 4:30pm – 6:30pm Retreat: Saturday, March 11, 2023

WELCOME NEW FELLOWS!

In Memorial - Dr. Michael Rein



Michael Rein MD

By Dr. Gerald Donowitz

The Department of Medicine lost one of its consummate educators with the death of **Dr. Michael Rein** in December 2022. Serving on the faculty from 1974 until his retirement in 2008, Dr. Rein excelled in various educational roles. As director of the internal medicine clerkship, he established clinical-skill-based, patient-oriented goals and objectives for the rotation and what was necessary for each student to succeed. Under his leadership, the clerkship became one of the best learning experiences of the third year of medical school. Dr. Rein went out of his way for students on the service, supporting those that needed extra help and challenging everyone to do the best job possible. He often told students that "they had done good" when their individual challenges were met.

As a Division of Infectious Disease and International Health member, Dr. Rein, both on the consultation service and the general medicine wards, exemplified what a clinician-educator meant. He had a comprehensive knowledge of his specialty area, sexually transmitted diseases, and took great pleasure in sharing that knowledge with students, residents, fellows, and faculty. Teaching at all levels was one of Dr. Rein's strengths. While he won many national and regional teaching awards, teaching at the

bedside and at the individual level brought him the greatest joy and satisfaction. His sense of humor, humility, and self-deprecation created an environment where everyone felt comfortable learning. Dr. Rein consistently supported junior faculty and was one of the people who always sought advice on how to succeed academically. There was no way one could not become a better clinician-educator by simply watching Dr. Rein do his job. While Dr. Rein had been retired for over a decade, his influence remained via the many UVA faculty he helped train. As a teacher, clinician, and role model for the Department, Dr. Rein "done good". He will be missed.





On December 15th, 2022, the Department held its first in-person holiday party in two years. The food was delicious, the company exceptional, and smiles all around! Here's to every member of the University of Virginia Department of Medicine, and a Happy New year to all!



The delicious food and festivities



Dr. Mitch Rosner and Terri Washington



Drs. Chris Kramer and Thomas Platts-Mills



Drs. Dana Albon and Larry Borish



Tiffany Powell, Erika Dorsey, and Travis Key



Drs. Antonio Abbate and Stefano Toldo



Andrew Bowen and Terri Washington



Hiba Osmani, Jia Liu, and William T



Dr. John Wagner, Rachel Boston, Dr. William Skelton



Dr. Rahul Sharma, Dr. Vikram Sabapathy, Franklin Jabaraj Herbert, and Bushra Mehkn



Judy Grigg and Dr. Igor Shumilin



Drs. Thomas Platts-Mills and Andrew Wang



Karen Duffy and her husband Michael



Drs. Mitch Rosner, Paul Helgerson, Taison Bell, and John Voss



Tahmina Ahmed and Erin Wettstone



Russ Manley and Terri Washington



Terri Washington, Kim Blowe on right, and Kim's husband Ervin in the middle



Dr. Thomas Platts-Mills and Joy Hilton



Dr. Eric Hendrickson and Dr. Anja Bielinsky



Russ Manley and Dr. Susan Kirk

DEPARTMENT OF MEDICINE MEDICINE GRAND ROUNDS UNIVERSITY OF VIRGINIA



UVA Resources for Team Members

support for dealing with crisis and how to stay informed.

Message from Eric Houpt MD, Infectious Diseases Division Chief



Eric Houpt MD

Time flies as I write this at the end of 2022. I remember 2020 was the first year of the pandemic, 2021 was a year of promise because of vaccines, and last year I predicted 2022 would be a year of perseverance. Well, we persevered, and now life and work are normalizing. National in-person meetings are happening again, travel is back, and our research and clinical services are busy. I hope these trends continue and 2023 is a year of new normalcy. Our new normal remains pretty busy for our Division of about 35 faculty and over 80 staff, each of us performing some combination of clinical care, research, education, infection control, antimicrobial stewardship, or other activity.

We now have three inpatient consultation services, populated by three faculty, three fellows, and three nurse practitioners. Our transplant/immunocompromised infectious disease consult service continues to grow, with this year's addition of Dr. Tarina Parpia to that team to join Drs. Arnold, Park, Sifri, and Wispelwey.

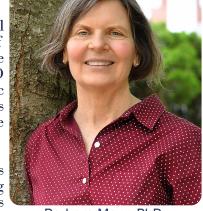
Research productivity and funding have been outstanding. The Division now has ~ 14 faculty with one or more NIH R01 grants, not to mention several large projects funded by the CDC, the Gates Foundation, and the Virginia Department of Health. Work is ongoing in all aspects of infectious diseases, from basic science to translational to clinical research and public health. Please see more below and contact any of us if you are interested in the topic

or collaborating!

A couple of updates for 2023 – Dr. Barb Mann will retire in the summer. Barb has been our Vice Chief

for Research and Faculty Development for many years. She has been indispensable to the University through establishing the BSL3 laboratory that enabled us to conduct COVID research. Before COVID, she worked on bioterrorism pathogen tularemia and parasitic diseases. She epitomizes collaboration, is the consummate team player, and always lends a helping hand; we look forward to working closely with her for another six months while wishing her well on such a well-deserved retirement after a fantastic career.

Also, in 2023, after seven years of leading our fellowship program, Dr. Chris Moore will pass the baton to Dr. Patrick Jackson. Chris has successfully navigated us through recruiting new fellows at a time when the national program fill rate has been declining. During his tenure, we graduated 18 fellows who have gone on to faculty positions in some of the most practicious academic institutions around the country. These follows have received clinical



Barbara Mann PhD

prestigious academic institutions around the country. These fellows have received clinical and teaching recognitions, K awards, Burroughs-Wellcome Fund awards, and Fogarty Fellowships. Patrick is already familiar with much of the Department, particularly as he trained in residency and ID fellowship here and emerged as the go-to institutional resource for COVID management. He will continue his HIV research program, clinical activities, and clinical research. Welcome, Patrick.

Recently, the Division and the Department lost a great friend with the passing of Dr. Michael Rein. Many of you knew Mike. For those who did not, he received his M.D. from Harvard in 1969 and trained in Internal Medicine and Infectious Diseases at Mount Sinai Hospital in New York and the University of Virginia. After that, he served as Head of the Clinical Research Branch of the Venereal Disease Control Division at the CDC. He was then an Infectious Diseases fellow at UVA in 1974, joined our faculty, and rose to become the William S. Jordan Professor until his retirement. During his expansive career at UVA, he directed the Thomas Jefferson District's Sexually Transmitted Disease Clinic and attended the General Medical and Infectious Diseases Consultation Services. He served as Director of the Clerkship in Medicine and the Infectious Disease Fellowship Program. He was Master of the American College of Physicians and Governor of the Virginia Chapter of the American College of Physicians. He was the past President of the American Venereal Disease Association and Editorin-Chief of the journal Sexually Transmitted Diseases. He served as Chair of the NIH AIDS Therapeutic and Data Safety Monitoring Board, was a consultant to CDC, NIH, and WHO, and authored over 200 publications. He became emeritus in 2008 but remained extremely helpful to the Division and taught several classes. This doesn't capture Mike's personality – invariably warm, humorous, humble, and kind. Without fail, it was always a pleasure to see Mike. He was a dear friend to so many in the Division and at UVA. Our thoughts are with his wife Margie and the Rein family. ~Eric Houpt, MD

RESEARCH HIGHLIGHTS

Research activities in the Division of Infectious Diseases and International Health focus on critical issues in infectious diseases that impact health and health care in the United States and globally. Extramural research funds total over \$16 million from diverse sources such as NIH, CDC, Virginia Department of Health, the Bill and Melinda Gates Foundation, and the Manning Family Foundation. Two NIH training grants in their 46th and 20th years, co-directed by Bill Petri, and Alison Criss, from the department of Microbiology, Immunology & Cancer Biology, support the research training of our ID Research fellows and students. Highlighted below are just a few of our recent research activities. Research Highlights:



Amy Mathers MD

Amy Mathers and her team, along with UVA's Biocomplexity Institute, the Virginia Division of Consolidated Laboratory Services, Virginia Department of Health, and Virginia Commonwealth University have been selected by the CDC to establish a Virginia-based center in the national Pathogen Genomics Centers of Excellence Network. This Virginia center is one of just five in the nation to be chosen by the CDC. This surveillance network aims to better identify, respond to, and prevent future infectious disease outbreaks and pandemics. Dr. Mathers' team will focus on antibiotic resistance and "superbugs" that do not respond to existing antibiotics and further refinement of wastewater surveillance to detect antibiotic resistance and other infectious diseases. Investigators will use their data at the Biocomplexity Institute to develop more accurate models and analyses of future infectious disease outbreaks and the effects of antibiotic resistance.

Kate McManus and her research team are working with six state health departments to understand the best ways for states' AIDS Drug Assistance Programs to deliver antiretroviral therapy to people with HIV with low incomes. Kate is the only researcher with federal funding to study this 2.4 billion-dollar program. While the state AIDS Drug Assistance Programs are federally funded, they are implemented at the state level, leading to variation in healthcare delivery and outcomes. Kate is partnering with colleagues at UVA School of Nursing, Emory University, DC-based non-profit NASTAD, and public health consulting group Killelea Consulting to carry out this multistate study. The study will examine healthcare delivery and HIV outcomes for 20% of people with HIV with low incomes in the United States over ten years.



Kate McManus MD



antibiotic Despite curative regimens, tuberculosis is a leading killer of a single infectious disease worldwide. Previously, tuberculosis treatment failure was thought to be due to non-adherence, a personal or programmatic failure. Scott Heysell and Eric Houpt conducted a prospective study in Tanzania, Bangladesh, Siberia that demonstrated that individual pharmacodynamics for key tuberculosis drugs determines outcomes, suggesting that dosing and regimen selection should personalized to a patient's pharmacokinetics or a much more local population pharmacokinetics (Heysell et al. Clin Infect Dis, 2022).

RESEARCH HIGHLIGHTS



related study, Heysell, Houpt, Tania Thomas, Margaret Kosek, and ID Fellow Dan Van Aartsen found that among a malnourished population in a tuberculosis-endemic in Tanzania, enteric pathogen burden is negatively associated pharmacokinetics with Aartsen et al., Lancet Microbe, 2022). Malnutrition is the leading determinant \mathbf{of} tuberculosis. but this study revealed that enteric pathogens predisposing to malnutrition make tuberculosis more challenging to treat when it develops. This finding may point to a new intervention to target enteric pathogen carriage at points along the tuberculosis disease cascade.

<u>Bill Petri</u> ID fellow Jen Sasson, along with other collaborators, conducted a phase 2a, randomized, double-blind trial on COVID-19 patients at the University of Virginia to assess the safety and efficacy of dupilumab, anti-IL-4R monoclonal antibody that blocks IL-13 and IL-4 signaling and a standard treatment for asthma and atopic dermatitis (Sasson et al. Open Forum Infect Dis, 2022). This study had no adverse events, and by day 60, survival was higher in the dupilumab group. In support of this therapy, they have analyzed electronic health record databases to show that patients on dupilumab at the time of COVID-19 infection had improved survival compared to case-matched controls (Donlan et al., Clin Infect Dis, 2022).

In the international arena, Bill Petri is participating on behalf of the University of Virginia with the icddr,b in Dhaka Banlgladesh as one of 7 participating sites in the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) Global Network for Maternal Child Health (Billah et al, Reprod Health. 2020). They have just completed a multi-center RCT that demonstrated that administering a single dose of the antibiotic azithromycin to women in labor prevented maternal deaths.

INFECTIOUS DISEASES SEMINARS & LECTURES

ID Case Conference
ID Didactic and Fellows Research Conferences
HIV Lectures
HIV Case Conferences
ID and Global Biothreats Seminar Series
ID and Global Biothreats Research-in-Progress
ID Clinical Journal Club
Translational ID and Global Biothreats Journal Club
Transplant Lecture Series
Microbiology Seminars
Beirne B. Carter Center for Immunology Seminars



EDUCATION HIGHLIGHTS







Christopher Moore MD

Kate McManus MD

Patrick Jackson MD

Program Director **Dr. Chris Moore** and Associate Program Directors Dr. Kate McManus and Dr. Patrick Jackson lead University of Virginia's Infectious Diseases Fellowship. The Infectious Diseases fellowship is a three-year training program that aims to produce excellent clinicians, researchers, and educators. The program has been supported by NIH T-32 training grants for more than four decades and

emphasizes rigorous clinical medicine and research training. The program has a unique structure in which first-year fellows dedicate their time exclusively to research. The second and third training years are divided between clinical and research time. During the clinical years, fellows see patients on separate general and immune-compromised/ transplant inpatient consult services. There are also opportunities to participate in outpatient HIV, general, transplant, mycobacterial, Clostridium difficile, travelers, and musculoskeletal infectious diseases clinics.

Fellows and their faculty mentors work one-on-one in a wide array of scientific projects encompassing basic, translational, clinical, and epidemiologic research at UVA and around the globe. Current fellows' areas of interest include sepsis and febrile illness in sub-Saharan Africa and South America, Clostridioides difficile infections, antibiotic resistance, HIV medicine, mobile health interventions, COVID-19 immunology and therapy, and tuberculosis. Fellows frequently present at national and international scientific meetings and publish in peerreviewed journals, including AIDS Patient Care and STDs, Anti-Infective Therapy, Antimicrobial Agents and Chemotherapy, Clinical Infectious Diseases, Clinical Microbiology, and Infection, Infection Control and Hospital Epidemiology, Lancet Infectious Diseases, mBio, Open Forum Infectious Diseases, and PLoS Medicine.

This year, we had another very successful match, and we look forward to welcoming Peter Oakes (LSU), Idu Meadows (Baptist Health/University of Arkansas), and Addison Hicks (UVA) to the fellowship program in 2023. After seven successful years as Program Director, Dr. Chris Moore will transition to an associate role, and Dr. Patrick Jackson will take his place as director.

We welcome hearing from residents and students interested in working on research projects in the Division. Please get in touch with Patrick Jackson (pej9j) or Kate McManus (km8jr) if you would like to be connected to a project, and follow our Twitter feed (@UVA_ID) to stay up to date with our news and activities!

Fellow	PGY	Residency	Research
Grundy	7	U Texas-Austin	Molecular diagnosis of AFI in Uganda
Sasson	6	UVA	SARS-CoV-2 immunity
Hodges	5	UVA/ABIM Research Pathway	TB & HIV linkage to care in Tanzania
Bielick	5	Boston U	HIV associated Ols
Geba	5	UVA	STI/Anal pap screening in HIV
llaiwy	5	Georgetown	TB biomarkers/diagnostics
Flynn	4	Cleveland Clinic	Diagnosis of acute febrile illness in Peru
Lehman	4	Inova	Stewardship/MDROs
Rigo	4	UNC/New Hanover	C difficile immunity

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Dick Guerrant - 50 Years as a Pioneer



Richard Guerrant MD

After 50 years as a University of Virginia faculty member, Dr. Richard 'Dick' Guerrant retired in September 2022. He was the Division Head of Geographic Medicine for many years, is a member of the National Academy of Medicine, and has been the worldwide leader of diarrheal disease research and its lasting effects on children worldwide. His discovery of Environmental Enteric Dysfunction (EED) as the cause of malnutrition, cholera's life-threatening impact on the body's fluid retention ability, and the detrimental long-term cognitive effects on children with persistent diarrheal diseases are just a few examples of the ways his work has helped us better understand the vicious cycle of enteric infections on those living in low-resource areas around the globe. He also has inspired countless other researchers and clinicians worldwide with his visionary selflessness, enthusiastic passion, and creative drive. He has received awards from the American Society of Tropical Medicine and Hygiene, the Sociedade Brasileira de Infectologia (Brazilian Society of Infectious Diseases), and the Infectious Diseases Society of America, to name a few, along with many from various entities at the University of Virginia.

The Division of Infectious Diseases and International Health celebrated Dr. Guerrant first with presentations by former fellows Dr. Sean Moore

(UVA Division of Pediatric Gastroenterology, Hepatology, & Nutrition), Dr. Margaret Kosek, (UVA Division of Infectious Diseases and International Health), Dr. Luther Bartelt (UNC School of Medicine), and Dr. Liz Rogawski McQuade (Emory University, Rollins School of Public Health). We then continued the celebration with a dinner at the Rotunda, where many current and former colleagues recalled their experiences with Dr. Guerrant and his impact on their personal and professional journeys.

Thank you, Dr. Guerrant, for your dedication and tireless effort to international health and for helping those around you look beyond themselves to help others.

Welcome To The World



Congratulations to Dr. Jashim Uddin (Research Associate, Petri lab) and his wife who welcomed their son in July.



Congratulations Dr. Stacy Park (Faculty) and her husband Peter who welcomed their son in May.



Congratulations to Dr. Ninj Jan (Research Scientist, Marie Lab) and her partner Dr. Gino Giri (Faculty, UVA Engineering) who welcomed their daughter in October.

STAFF PROFILE - Samantha Alleman Moreau



Tell us a little bit about yourself.

I've been at UVa since February 2022, after working in the local construction industry for 8.5 years in various administrative roles. I'm originally from Louisiana, grew up in the Mississippi Delta, and went to LSU for both undergrad and grad school (Geaux Tigers)

Why Research?

During my master's program, I completed an action research project – typical in the education sphere. I enjoyed planning the unit to see how the students' ideas evolved over the course of a few weeks. While I ended going in a different direction with my career, I've used those skills to inform how I approached all my work – finding the best way to communicate to my audience, planning out logistics of large projects, and using what I've learned to inform what to do for the next time. Working in ID (and the School of Medicine at large) allows me to use those skills to support those that are doing cutting-edge scientific research.

What brought you to Charlottesville?

I moved here in 2012 to live with my now-husband Brett, who also works in the Division as a Data Scientist, while he completed his PhD.

What excites you about your work?

For any place of work, there's the team on the ground and those in the wings providing support. I enjoy being in the wings, seeing what the ground team (in this case, clinical and research faculty and staff) is doing,

and supporting them with what I do. I also enjoy working with my colleagues in the wings (admin, finance, and grants) and knowing that if I need help, they'll have my back.

What do you consider to be your greatest achievement outside the professional realm?

I get jazzed when I complete a project that is more hands-on all on my own, either through trial and error or through my research. So while I don't have a "greatest" achievement, I have a lot of individually great ones -- building my own computer, fixing the dishwasher, and handmaking tote bags for Christmas gifts a couple of years back, to name a few.

What are you usually doing on the weekend?

I tend to hang around the house, spending quality time with my cat Byron. I started playing tennis casually this past year and tried to play each weekend when it was warmer outside.

How did you meet your partner?

Brett and I met on Move-In Day at LSU; we were in the same orientation group. We also were in the same honors history class. After hanging out as friends during the first semester, we started dating early in the second semester. Our wedding anniversary is the same day as our dating anniversary – it makes it easy if you only have to remember one day!

What is the one thing you always have in your fridge?

Eggs. It's my go-to food when I don't want to cook a big meal but need something substantial. I also always have some grain-based staple (rice/pasta/bread) in the pantry to pair it with.

What is your favorite vacation/activity spot?

I spend most of my vacations visiting family since none live close by. When planning vacations, I like visiting large metropolitan cities with many museums and sights, and national parks. I visited Yosemite National Park in 2019 and can't wait to return!



STAFF PROFILE - Samantha Alleman Moreau



What about you would surprise us?

How much I know about turtles. My family's business for a long time has been turtle farming, back to my paternal great-grandfather. My dad and uncle still do it, though it has become their secondary job over the last 10-15 years. Primarily, it involves gathering the eggs, hatching them, and selling the baby turtles to international buyers (the FDA bans selling turtles with a carapace less than 4 inches long in the US due to the risk of salmonella). While I don't know as much as them, I know more about turtles and the industry than your average person.

What is a talent or skill you don't have that you wish you did?

I wish I knew a second language. I have tried to learn multiple, with very little success. Usually, I end up getting busy and not keeping up the habit of reviewing or studying with it. Some things have stuck, and others haven't.

Favorite fictional characters?

Jane Eyre and Samantha Parkington (if you know, you know).

What year would you travel to if you could go back in time?

This is a tough question because I would have liked to have seen many historical events in person. Some to say I saw it (like visiting the Library of Alexandria); others to help solve the mystery (like what really happened to Edgar Allan Poe).

What is the last book you read for pleasure?

Recently, I finished Hare House by Sally Hinchcliffe. (I enjoyed it but felt that the ending was missing something.) Currently, I'm reading The Penguin Book of Dutch Short Stories, edited by Joost Zwagerman. I don't know much about Dutch literature, so it's been interesting to see how their styles compared to their contemporaries in other countries. If I've finished that by the time this comes out, the book next on my list is Daughters of the New Year by E. M. Tran. I'm excited to read it — Elizabeth and I studied Creative Writing together back at LSU, and it's been so much fun seeing how her writing has developed over the last decade.

Do you collect anything?

Books. I have over 1200, though don't ask me how many of them I've read. Charlottesville is a great place to be a book collector. (Dangerous to my wallet, though.) Regarding antique books, I've learned to focus on the writers or works I'm fond of rather than just old books. Most of them are out of boxes and on shelves, but shelves fill up quickly when you have so many books! (Also, for the cataloging enthusiasts – I sort by Library of Congress Call Number.)

What was your first job, and how old were you?

As mentioned above, my family's business has been turtle farming. So my first job was helping to gather the eggs during the laying season, roughly mid-April to mid-July, and washing the eggs before they were stored in the hatchery. I was going out to help at a very young age (though if you ask my dad, I was less helpful for those first few years.) I started getting paid around age ten, and at about the same time, I started being able to help with washing the eggs. It took about 1-4 hours, depending on the time in the season and how much the weather affected how much the turtles would lay – much like people, they too want to stay put when it gets too rainy outside. I worked 'on the ponds' every summer until I went to college.

FELLOW PROFILE - Brian Grundy



Tell us a little bit about yourself.

I am in my third year as an Infectious Diseases Fellow at the University of Virginia. I grew up in Austin, Texas, and went to Cornell University as an undergrad studying Biology and Animal Physiology. I went to medical school at the University of Queensland Ochsner Clinical School in Brisbane, Australia, and New Orleans, LA. I completed residency and a chief year in Internal Medicine at the University of Texas at Austin Dell Medical School. I live in Charlottesville with my partner, Marlena, a Pediatric Nurse Practitioner, and our three dogs, Sneakers, Byrd, and Moose.

Why Healthcare?

I became a doctor because I enjoy the variety of work and complex problem-solving and lifelong learning it requires. I love helping others and talking with patients.

What brought you to Charlottesville?

I came to Charlottesville for my infectious diseases fellowship after meeting many amazing faculty and fellows and knew I would receive an outstanding education and have many opportunities in research. I enjoy the city of Charlottesville for its many restaurants, outdoor activities, and mountains.

What excites you about your work?

All the fantastic people! Working with my co-

fellows and all of the attendings makes every day exciting. From the attendings to our clinical staff, everyone supports each other. Meeting patients, making complex diagnoses, and helping them through their medical care is very rewarding.

What do you consider to be your greatest achievement outside the professional realm? I play Ultimate frisbee, have competed in six national championship tournaments, and still play competitively on a co-ed club team here in Charlottesville called Spice.

Next life?

Mountain climber/explorer. I love hiking and exploring, and finding new places.

What are you usually doing on the weekend?

We enjoy taking our dogs on hikes and exploring breweries and wineries, or I'm playing Ultimate frisbee. I also enjoy watching soccer and football on TV or in the stands!

How did you meet your partner?

Marlena and I met on a dating app while living in Austin. Marlena says our carts bumped into each other during online shopping.

What is the one thing you always have in your fridge? Cheese sticks.

What is your favorite vacation/activity spot?

We enjoy going to the Outer Banks and national parks. Next on our list is Acadia!

What about you would surprise us?

I ride a motorcycle (when the weather is nice).

What is a talent or skill you don't have that you wish you did?

I wish I could play piano and guitar.

What is the last book you read for pleasure?

I'm currently reading Lonesome Dove. And by now, I mean it will probably take me a year.

What's the most unusual thing you have ever eaten? Probably a cricket taco in Mexico City.

Do you collect anything?
Does student debt count?

What was your first job, and how old were you?

I worked at my Tennis club as a grill cook when I was 14. I make a mean Philly cheesesteak.





FELLOW PROFILE - Jackie Hodges



Tell us a little bit about yourself.

My family moved around a lot (my dad was a pilot in the Air Force) until we settled in Virginia when I was in middle school, and I went to the University of Virginia for undergrad. I went to Tufts University for medical school, got my MD/MPH, and returned to UVA for residency. I stayed for an infectious diseases fellowship through the ABIM research pathway.

Why medicine?

I love meeting new people and learning about their lives, probably because of all the moving up until high school. I also enjoy a good mystery case and day-to-day that lets me partner with underserved populations. In medicine, particularly in ID, you get all three, and there are many ways you can create the career you want (patient care, research, public health/prevention, community partnerships, etc).

What brought you to Charlottesville?

I loved it here as an undergrad, there are lots to do, but it's a much chiller pace compared to LA and Boston, where I lived before coming back. On top of the training programs seeming solid when I interviewed, I thought the relative lack of traffic, reasonable cost of living, mountain views, and Bodos would make training a way healthier and less stressful experience overall, and that turned out to be very much be true

ID takes a lot of creativity and thinking about every aspect of a person's life, not just the biological, which makes it gratifying. The research projects I've enjoyed doing the most are those that take the same whole-person approach, creating strategies for patient care that recognize factors in their lives outside the biological and address them head-on. Both my clinical work and research experiences have led me to meet and work with some incredible, compassionate, intelligent, and hard-working people.

What about you would surprise us?

I'm a triplet. I'm identical to my sister, she's a writer/editor and mostly writes about cool science and research, and my brother is a dentist. We all went to UVA together.



What do you consider to be your greatest achievement outside the professional realm? My daughter, Maya. She turned one in August; she's very feisty and totally fearless.

What is your favorite vacation/activity spot? Pretty much anywhere with a great view of the ocean and good food! I've lived in Guam, Hawaii, Florida, and California, so I've always loved being at the beach.

What excites you about your work?

Tie between my parents. My dad is the hardest-working and most resilient person I know, and my mom raised three babies simultaneously after leaving everyone she knew back home in Korea when she married my dad.

How did you meet your partner?

We met on the first day of medical school orientation. Before we became a couple, we were study buddies and each other's best friend in med school.

What is a talent or skill you don't have that you wish you did? I wish I could whistle and surf (well).

What is the last book you read for pleasure? I just started Crying in H Mart by Michelle Zauner.

What's the most unusual thing you have ever eaten?

Most recently, I tried banana soup in Moshi, Tanzania, for work - it was not sweet at all and was really good!

What was your first job, and how old were you? Lifeguarding when I was 17. I jumped into the pool for a rescue zero times.

FACULTY PROFILE - Stacy Park



Tell us a little bit about yourself.

I have now been at the University of Virginia for more than ten years after initially coming for medical school. After that, I stayed for an internal medicine residency and infectious diseases fellowship before starting on faculty in July 2021. I attend the general and immunocompromised consult services and spend most of my time on antimicrobial stewardship efforts.

What brought you to Charlottesville?

I originally came for medical school. I stayed because I love living in Charlottesville and having excellent colleagues.

What excites you about your work?

I relish in the detective work of a good infectious disease case, and in particular, I enjoy navigating the complexities of management in immunocompromised hosts. On the stewardship side, I like that I get to promote patient safety and improve the quality of care while also providing teaching to other team members.

Next life?

A linguist or cryptologist- maybe both.

What is your favorite place to hike in Virginia?

Grayson Highlands State Park. I wish it were a bit closer! My local favorites are probably Riprap Trail in Shenandoah National

Park and Saint Mary's Wilderness.

What is your favorite local restaurant?

Lampo or Al Carbon depending on what I'm in the mood for. C&O for special occasions.



FACULTY PROFILE - Jie Sun



Tell us a little bit about yourself.

I was born in China and obtained my Bachelor's and Master's degrees in China. I moved to the United States to pursue my Cell and Molecular Biology PhD at the University of Pennsylvania twenty years ago. I then did my postdoctoral training with Dr. Tom Braciale in the Carter Immunology Center and Department of Pathology at the University of Virginia before assuming my faculty position at Indiana University. In 2016, I joined the Mayo Clinic as a faculty member and moved back to UVA in January 2022. I am thrilled to return to where I trained to be an independent scientist, and I have really enjoyed my work and life at UVA and Charlottesville so far.

Why Research?

I am a curious person and always eager to find out answers to how things work fundamentally. I run a research lab studying host immunity to respiratory pathogens and cancer. I chose to do research in Immunology because I was fascinated by the beauty of Ying/Yang in our body's immune system, i.e., the paradoxical roles of the immune system in promoting health or diseases depending on the context. I grew up in China, influenced by the principle of Yin and Yang theory for a long time, and decided to study the delicate balance between anti-pathogen immunity and the tolerance program in our body after my PhD and postdoctoral training.

What brought you to Charlottesville? I lived here for almost five years, from 2007 to the end of 2011. I

loved the mountains, scenery, and orchards and enjoyed interacting with colleagues and friends. I found an outstanding balance between the UVA academic environment and the quality of life in the surrounding areas. And so I have been looking forward to moving back to Charlottesville after leaving here eleven years ago.



What excites you about your work?

The surprise of new, unexpected scientific data that may help us learn more about biology, medicine or treatment.

What are you usually doing on the weekend? I am catching up on emails/reading/work, spending time with my family, watching soccer and table tennis games, and playing tennis with friends.

What is the one thing you always have in your fridge?

Spicy and numbing (Mala) Sauce. I like spicy Sichuan food and almost can not live a week without it!

What is your favorite vacation/activity spot? Australia.

What is the best advice anyone ever gave you? Don't give up, and be persistent!



What is the last book you read for pleasure?

Life Span. I like the story-telling style of communicating Science, Nature, and History by David Sinclair in the book.

What's the most unusual thing you have ever eaten? Snake. It was quite delicious, actually.

What was your first job, and how old were you?

I helped my parents with farming and planting when I was very young (starting probably at seven years old). I was not fond of it too much, so I am not a fan of gardening and planting in my backyard nowadays.