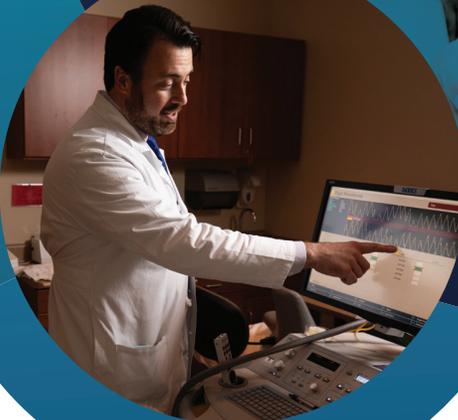


VANDERBILT UNIVERSITY MEDICAL CENTER
DEPARTMENT OF MEDICINE

EXCELLENCE IN RESEARCH, CLINICAL CARE, AND EDUCATION

A Year of Innovation

2023 - 2024
Annual Report



VANDERBILT  UNIVERSITY
MEDICAL CENTER

Department of Medicine



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2023-2024

DEPARTMENT LEADERSHIP



Jane Freedman, MD
Interim Chair



Brian Christman, MD
Vice Chair, VA Hospital



Walter Clair, MD, MPH
Vice Chair



Jill Gilbert, MD
Vice Chair



Bryan Harris, MD, MPH
Executive Vice Chair



T. Alp Ikizler, MD
Vice Chair



John McPherson, MD
Vice Chair



Roy Zent, MD, PhD
Vice Chair



Jane Case, DNP
Associate Vice Chair



Edward Gould, MD
Associate Vice Chair



Sara Horst, MD, MPH
Associate Vice Chair



Henrique Serezani, PhD
Associate Vice Chair



Derek Miller
Chief Business Officer



Anna Hennes, MD
 Director
 Allergy, Pulmonary
 and Critical Care Medicine



Francis Miller, MD
Interim Director
 Cardiovascular Medicine
 Academic Affairs



Daniel Muñoz, MD, MPA
Interim Director
 Cardiovascular Medicine
 Clinical Affairs



David G. Harrison, MD
 Director
 Clinical Pharmacology



Alvin Powers, MD
 Director
 Diabetes, Endocrinology
 and Metabolism



Wei Zheng, MD, PhD, MPH
 Director
 Epidemiology



Richard M Peek Jr., MD
 Director
 Gastroenterology, Hepatology
 and Nutrition



Nancy Cox, PhD
 Director
 Genetic Medicine



Harvey Murff, MD, MPH
 Director
 Geriatric Medicine



Jordan Berlin, MD
 Director
 Hematology and Oncology



Kelly Dooley, MD, PhD, MPH
 Director
 Infectious Diseases



Tom Elasy, MD
 Director
 General Internal Medicine
 and Public Health



T. Alp Ikizler, MD
 Director
 Nephrology
 and Hypertension



Leslie Crofford, MD
 Director
 Rheumatology
 and Immunology



CHAIR'S MESSAGE

Jane Freedman, MD

Professor of Medicine

Interim Chair, Department of Medicine

Interim Physician-in-Chief,

Vanderbilt University Adult Hospital

The Department of Medicine experienced notable growth and transformation this past year. It was a year of significant change and incredible progress, and we are proud of the strides we've made as a department and as an institution. In this report, we celebrate the achievements of our talented faculty, staff and trainees whose commitment and dedication continue to drive our success.

This year marked a pivotal moment for our leadership with the appointment of new Division Directors, Dr. Anna Hemnes (Allergy, Pulmonary and Critical Care Medicine), Dr. Alex Bick (Genetic Medicine), and Dr. Tracy Frech (Rheumatology). Their expertise and fresh perspectives have already begun to shape the future of our organization, steering us toward new opportunities for growth and collaboration. At the same time, we bid a fond farewell to four remarkable leaders who helped shape our institution over many years, including three division directors, Drs. Timothy Blackwell, Nancy Cox and Leslie Crofford. Dr. W. Kimryn Rathmell, former Chair of the Department of Medicine, was appointed Director of the National Cancer Institute. She was a driving force behind the remarkable success of our department, and left behind a legacy of innovation and excellence. Each of these leaders made indelible contributions to our success, and their legacy will continue to inspire us.

We also want to extend our heartfelt thanks to our more than 1,000 faculty members and over 550 advanced practice providers. Their dedication to patient care, education and research is the backbone of our institution. The outstanding work of these

individuals is a testament to the strength and resilience of our entire community. Our training programs continued to thrive, with over 550 trainees participating in educational experiences that foster the next generation of leaders in health care. Their passion and drive to learn are inspiring, and we are excited to see what they will accomplish in their careers.

A notable achievement this year is our growth in research. For the first time in our department's history, we were the No. 1 institution in NIH funding as ranked by the Blue Ridge Institute. This milestone reflects the exceptional research taking place within our institution and the tireless efforts of our faculty, staff and trainees to push the boundaries of discovery. As we look ahead to the coming year, we are excited to celebrate our 100-year anniversary, a momentous occasion that will serve as a platform for new achievements and continued progress. We are energized by the possibilities and are confident that the growth and transformation we have experienced this year will lay the foundation of even greater accomplishments for years to come.

This report highlights the outstanding work being done across our department, with a particular focus on the efforts of our faculty, trainees, scientists, and staff. The collective efforts, leadership and collaboration across the department are instrumental to our ongoing success, and we are proud to showcase their many accomplishments.

“ What drives me is to see the success of everybody around me...the growth and transformation that’s occurring on this campus right now is pretty amazing. ”

2023-2024

TAKING PULSE OF THE NUMBERS

13
SUBSPECIALTY
DIVISIONS

554
ADVANCED PRACTICE
PROVIDERS
in Department of Medicine clinics

1,034
FACULTY
53% women
47% men

558
TRAINEES
in Department of Medicine graduate,
residency and fellowship programs

\$266M
in NIH funding

#1 IN NIH FUNDING
by the Blue Ridge Institute



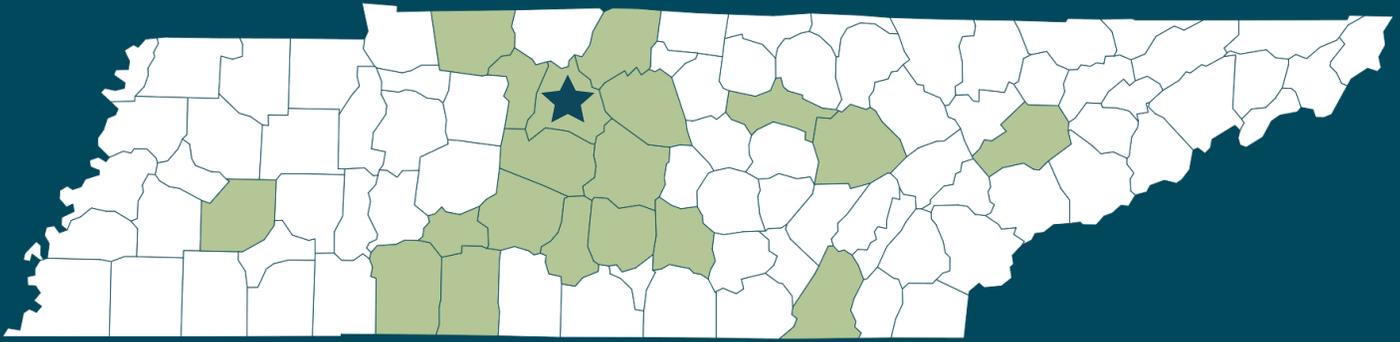
MISSION

To dedicate our talents
to advance human health
for all.



VISION

A world where we have the tools and knowledge to
enable every person to have the opportunity to enjoy
health that allows them to live their lives to the fullest.



DEPARTMENT OF MEDICINE CLINICS SERVED
PATIENTS IN 19 COUNTIES
ACROSS TENNESSEE THIS YEAR

**CLINICAL
OPERATIONS**
\$244.7 million



**SPONSORED
ACTIVITIES**
\$224 million



VALUES

We value being on the forefront of personalized care for all patients, making and implementing impactful scientific discoveries, advancing excellence, and training the next generation of clinicians, scientists and educators.

VICE CHAIR UPDATE

CLINICAL AFFAIRS

The Department of Medicine continues to excel in delivering compassionate, cutting-edge, and personalized clinical care. In the 2023-2024 year we continued to grow our clinical operations, both in volume as well as geographically. Outpatient clinic visits across the department increased 3% year-over-year. Our inpatient primary teams provided care to over 24,000 patients, while our consulting teams offered expert advice to countless more. Additionally, our procedural volumes also continued to grow with gastrointestinal endoscopies, cardiac catheterization, electrophysiology procedures, and infusions exceeding previous records. The remarkable impact we are making on so many lives is truly inspiring.

We are committed to breaking down traditional silos in patient care and have continued to create multidisciplinary clinics across our campus. For example, this year we launched a nontuberculous mycobacterial clinic through a collaboration between our divisions of Infectious Disease and Allergy, Pulmonary and Critical Care Medicine. Additionally, collaboration between Allergy, Pulmonary and Critical Care Medicine with the Department of Neurology led to the multidisciplinary Amyotrophic Lateral Sclerosis (ALS) Clinic being named a Center of Excellence. To better serve our patients and to support our colleagues in the Emergency Department, we expanded our Rapid ED Follow-up visit processes. In the first year alone, 550 admissions were averted with majority managed by our Department of Medicine clinics.

As a department, we have continued to strengthen our ties with our regional hospital partners to provide Vanderbilt-quality care in the community. A notable example is the January 2024 opening of Vanderbilt-Ingram Cancer Center's (VICC) new clinic in Wilson

Bryan Harris, MD, MPH, MMHC ▶
Executive Vice Chair for Clinical Affairs



ONLY HOSPITAL IN
THE SOUTHEAST
NAMED TO THE
2023-2024
**U.S. NEWS & WORLD
REPORT AMERICA'S
BEST HOSPITALS
HONOR ROLL**

1,070,320
OUTPATIENT CLINIC VISITS

74,137
TELEHEALTH VISITS

24,656
INPATIENT DISCHARGES

County, with further partnerships anticipated for the upcoming fiscal year.

As we continue to grow, we remain steadfast in our dedication to achieving high-quality patient outcomes. We are particularly proud that our primary care group exceeded 67% of its quality preventive goals this year. Recognizing the challenges of growth, we are exploring several trials of artificial intelligence solutions with the hope of alleviating some of the burden of documentation on clinicians.

Looking ahead, our growth trajectory remains strong. The new, 180-bed inpatient tower, expected to open in October 2025, will provide us with the opportunity to positively impact even more lives. While there is much work to be done in the coming year to prepare for this expansion, we are confident that our team will rise to the challenge, just as we always have.

NOTABLE RECOGNITION

In recognition of their outstanding clinical care, eight Department of Medicine colleagues were among the 25 faculty inducted into the 2023 Vanderbilt University School of Medicine's Academy for Excellence in Clinical Medicine:

CARDIOVASCULAR MEDICINE

- Sean Hughes, MD
- Rebecca Hung, MD, PhD

DIABETES, ENDOCRINOLOGY AND METABOLISM

- Lindsay Bischoff, MD
- Gisella Carranza Leon, MD

GENERAL INTERNAL MEDICINE AND PUBLIC HEALTH

- Derek Pae, MD

HEMATOLOGY AND ONCOLOGY

- Kristen Ancell, MD
- Kristen Ciombor, MD, MSCI

NEPHROLOGY AND HYPERTENSION

- Gautam Bhawe, MD, PhD

CLINICAL HIGHLIGHTS

760

ADULT TRANSPLANTS

35,143

ENDOSCOPIES

55,439

CANCER PCC INFUSION VISITS



Dr. Ronak Mistry, Hematology and Oncology Fellow, ▲ examines a patient in the VICC infusion clinic

VICE CHAIR UPDATE

RESEARCH

Research and the advancement of science remains one of the Department of Medicine's foremost objectives. Basic, translational and clinical research is carried out across all 13 divisions by exemplary faculty and staff. In the 2023-2024 year, researchers in the Department of Medicine were awarded \$266 million in funding from the National Institutes of Health (NIH). As a result, for the first time in the department's history, we were ranked No. 1 in NIH funding by the Blue Ridge Institute, further securing our position among the very best academic research institutions in the country.

The increase in our NIH funding was due to our ability to renew old grants and further expand our existing research portfolio with those that were newly awarded. Some notable funding additions included awards for the ECHO/ELVIS study, which is one of the largest NIH grants awarded to VUMC; and the formation of the RAPID-LHS center, which focuses on supporting research that minimizes the gaps between the generation of clinical evidence, implementation of interventions and the development of public health policy. The Vanderbilt-Ingram Cancer Center, now under the direction of Dr. Ben Ho Park (Hematology and Oncology), also earned a National Cancer Institute Merit award. The department this year obtained 19 new RO1 awards totaling nearly \$16 million, and eight VA career development and Merit awards totaling nearly \$10 million. We had 10 new K awards and maintained 13 active T32 awards.

Our faculty obtained numerous prestigious awards this year. Dr. Nancy Cox (Genetic Medicine) won the American Society of Human Genetics Leadership award, and Dr. W. Kimryn Rathmell (Hematology and Oncology) received the Doris Duke Foundation Paragon Award for Research Excellence. We also did especially well in regard to the Department of Veterans Affairs with Dr. Alvin Powers (Diabetes, Endocrinology and Metabolism) receiving the William S. Middleton Award for basic science research, Dr. Wes Ely (Allergy, Pulmonary and Critical Care Medicine) winning the Paul B. Magnuson Award for Outstanding Achievement in Rehabilitation Research and Development, and Dr. Timothy Cover (Infectious Diseases) winning the Senior Clinician Scientist Investigator award.

Our young investigators were also highly successful, receiving four "Emerging Generation" awards from the American Society of Clinical Investigation (ASCI) and two early-career awards from the Southern Society for Clinical Investigation (SSCI). Consistent with the incredible success in funding, our faculty and trainees published more than 900 articles, some of which were featured in high-impact journals like *The New England Journal of Medicine*, *Lancet*, *JAMA* and *Nature Medicine*.

Looking ahead, we are optimistic about the trajectory of the department. We continue to explore new opportunities in all aspects of research, and are working to develop innovative programs that span across each of our divisions, as well as in collaboration with other departments at the Medical Center. These opportunities will keep us at the leading edge of scientific discovery with hopes that they may one day translate into improved health for us all.

NIH FUNDING BY YEAR



TOP NEW NIH AWARDS WITH OVER \$1 MILLION IN FUNDING

- **E. Wesley Ely, MD, MPH** (Allergy, Pulmonary and Critical Care Medicine) – R01 – “REVERSE-Long COVID: A Multicenter Randomized, Placebo-Controlled Clinical Trial of Immunomodulation (with Baricitinib) for Long COVID Related ADRD” – National Institute on Aging (NIA)
- **Tina Hartert, MD** (Allergy, Pulmonary and Critical Care Medicine)
 - UG3 – “ECHO Renewal for the CANOE Study Cohort” – Office of the Director
 - UG3 – “ECHO Renewal for the INSPIRE Study Cohort” – Office of the Director
- **Drs. Russell Rothman and Alvin Powers** (General Internal Medicine and Public Health) – U01 – “CODA: COvid and Diabetes Assessment” – National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)
- **Drs. Suman Das, Jane Freedman, Simon Mallal and Ravi Shah** (Infectious Diseases) – U24 – “ECHO Laboratory Core at Vanderbilt for Integrated Sample Biobanking and Processing” – Office of the Director

NEW R01 AWARDS

ALLERGY, PULMONARY AND CRITICAL CARE MEDICINE

- **E. Wesley Ely, MD, MPH** – “REVERSE-Long COVID: A Multicenter Randomized, Placebo-Controlled Clinical Trial of Immunomodulation (with Baricitinib) for Long COVID Related ADRD” – NIA

HIGHLIGHTS

19 NEW R01

AWARDS TOTALING

\$15.8 MILLION

13 T32 AWARDS

10 NEW K

AWARDS TOTALING

\$1.7 MILLION

900+

PUBLICATIONS

6

HIGHLY CITED
RESEARCHERS

◀ **Roy Zent, MD, PhD** (left)
Vice Chair for Research

T. Alp Ikizler, MD (right)
Vice Chair for Clinical Research



• **James West, PhD**

- “The Thromboxane-Prostanoid Receptor in Radiation-Induced Pulmonary Fibrosis” - National Cancer Institute (NCI)
- “Activity and therapeutic antagonism of the TP receptor in cardiomyopathy of muscular dystrophy” - National Heart, Lung, and Blood Institute (NHLBI)

CARDIOVASCULAR MEDICINE

- **Sheila Collins, PhD** - “Role of SIK3 in PKA/mTORC1 regulation of adipose browning” - NIDDK
- **Kasey Vickers, PhD** - “Novel functions of plasminogen and its diverse cargo in blood” - NHLBI

CLINICAL PHARMACOLOGY

- **Dmytro Kryshnal, PhD** - “Non-selective Large Conductance Ion Channels In Triggered Arrhythmia” - NHLBI
- **Julie Rhoades Sterling, PhD** - “Next Gen Targeted nanoparticles for Inhibiting Gli2 in Bone Metastatic Tumors” - NCI

EPIDEMIOLOGY

- **Danxia Yu, PhD** - “Gut microbiota-related mechanisms that impact colorectal cancer risk after bariatric surgery” - NCI

GASTROENTEROLOGY, HEPATOLOGY AND NUTRITION

- **Richard Peek, MD** - “Interactions Between the Microbiota and Helicobacter pylori in Gastric Carcinogenesis” - NCI

GENETIC MEDICINE

- **Alexander Bick, MD, PhD** - “Establishing the dynamics of lymphoid clonal hematopoiesis and its aging-related disease consequences” - NIA
- **Ruben Martinez Barricarte, PhD**
 - “The role of SERPINB1 in T cell function and its contribution to human diseases” - National Institute of Allergy and Infectious Diseases (NIAID)
 - “Gain-of-function complement activators as a new class of immunotherapeutic molecules” - NCI
- **Michelle Southard-Smith, PhD** - “Neural crest-derived pelvic ganglia and the effects of developmental deficits on lower urinary tract innervation” - NIDDK

HEMATOLOGY AND ONCOLOGY

- **Laura Kennedy, MD, PhD** - “Neoadjuvant Neratinib in Stage I-III HER2-mutated Lobular Breast Cancer” - NCI

INFECTIOUS DISEASES

- **Kelly Dooley, MD, PhD, MPH** - “Short-course rifapentine for TB prevention for all: clinical pharmacology matters” - NIAID
- **Peter Rebeiro, PhD** - “Retaining relevance: extending clinical retention measures to improve their utility in describing HIV care engagement in the United States” - NIAID
- **Scott Smith, MD, PhD** - “Role of IgE in human disease and immunity to ticks” - NIAID

RHEUMATOLOGY AND IMMUNOLOGY

- **Jin Chen, MD, PhD** - “Vascular regulation of fatty acid transport in metastatic tumor outgrowth” - NCI

NEW K AWARDS

ALLERGY, PULMONARY AND CRITICAL CARE MEDICINE

- **Daniel Cook, MD, PhD** - “Inhibiting CD4+ Th2 development and function by CFTR activity” - NIAID
- **Jamie Meegan, PhD** - “Cell-free hemoglobin-oxidized LDL-LOX-1 axis and microvascular hyperpermeability during sepsis” - NHLBI

CARDIOVASCULAR MEDICINE

- **Kaushik Amancherla, MD** - “Cell-Specific Transcriptional Programs in Cardiac Allograft Vasculopathy” - NHLBI
- **David Armstrong, MD** - “C-type natriuretic peptide in hypertrophic cardiomyopathy” - NHLBI

DIABETES, ENDOCRINOLOGY AND METABOLISM

- **Mona Mashayekhi, MD, PhD** - “The Effect of SGLT2 Inhibition on Adipose Tissue Inflammation and Endothelial Function” - NHLBI

GASTROENTEROLOGY, HEPATOLOGY AND NUTRITION

- **Curtis Gabriel, MD, PhD** - “The Gut-Liver Axis in HIV-Related Non-Alcoholic Fatty Liver Disease” - NIDDK

GENERAL INTERNAL MEDICINE AND PUBLIC HEALTH

- **Scott Lee, MD, PhD** - “Measuring and modifying delay discounting as a mechanism of smoking in pregnancy” - National Institute on Drug Abuse (NIDA)

NEPHROLOGY AND HYPERTENSION

- **Fabian Bock, MD, PhD** - “Rac1 and the actin cytoskeleton in renal tubular repair” - NIDDK
- **Kerri Cavanaugh, MD, MHS** - “Expanding Multilevel Multicomponent Mentorship in Kidney Disease Research” - NIDDK

RHEUMATOLOGY AND IMMUNOLOGY

- **Paras Karmacharya, MBBS** - “Association of Phenotypes and Genotype with Treatment Response in Psoriatic Arthritis” - National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)

T32 AWARDS

Department of Medicine faculty lead 13 of VUMC’s 17 T32 training programs.

ALLERGY, PULMONARY AND CRITICAL CARE MEDICINE

- **Stokes Peebles, MD** - “Interdisciplinary Training Program in Lung Research” - NHLBI
- **Lorraine Ware, MD** - “Clinical and Translational Training Program in Pulmonary Medicine” - NHLBI

CARDIOVASCULAR MEDICINE

- **Drs. Jane Freedman and Ravi Shah** - “Vanderbilt University Cardiovascular Medicine Training Program” - NHLBI

CLINICAL PHARMACOLOGY

- **Bjorn Knollmann, MD, PhD** - “Clinical Pharmacology Training Program” - National Institute of General Medical Sciences (NIGMS)

DIABETES, ENDOCRINOLOGY AND METABOLISM

- **Kevin Niswender, MD, PhD** – “Research Training in Diabetes and Endocrinology” – NIDDK

EPIDEMIOLOGY

- **Xiao-Ou Shu, MD, PhD, MPH** – “Vanderbilt Training Program in Molecular and Genetic Epidemiology of Cancer” – NCI

GASTROENTEROLOGY, HEPATOLOGY AND NUTRITION

- **Richard Peek, MD** – “Training in Gastroenterology” – NIDDK

GENERAL INTERNAL MEDICINE AND PUBLIC HEALTH

- **Christianne Roumie, MD, MPH** – “Learning Health System training program: PROgRESS—Patient/pRactice Outcomes and Research in Effectiveness and Systems Science” – Agency for Healthcare Research and Quality (AHRQ)

GENETIC MEDICINE AND CLINICAL PHARMACOLOGY

- **Drs. Nancy Cox and Dan Roden** – “VGM: Vanderbilt Genomic Medicine Training Program” – National Human Genome Research Institute (NHGRI)

HEMATOLOGY AND ONCOLOGY

- **Douglas Johnson, MD, MSCI** – “VOLT (Vanderbilt Oncology Training Program)” – NCI

INFECTIOUS DISEASES

- **Spyros Kalams, MD** – “Vanderbilt Infectious Pathogenesis and Epidemiology Research Training Program” – NIAID

NEPHROLOGY AND HYPERTENSION

- **Drs. Raymond Harris and T. Alp Ikizler** – “Renal Biology and Disease Training Program” – NIDDK

RHEUMATOLOGY AND IMMUNOLOGY

- **Leslie Crofford, MD** – “Interdisciplinary Training in Rheumatic Diseases” – NIAMS

Vanderbilt Faculty Research Scholars

- **Corey Bolton, PsyD** (Geriatric Medicine)
- **Christian Egly, PharmD, PhD** (Clinical Pharmacology)
- **Scott McCall, MD, PhD** (Allergy, Pulmonary and Critical Care Medicine)
- **Emily Morrow, PhD, MS** (General Internal Medicine and Public Health)

Clarivate Highly Cited Researchers

- **Justin Balko, PhD** (Hematology and Oncology)
- **Douglas Johnson, MD, MSCI** (Hematology and Oncology)
- **Elizabeth Phillips, MD** (Infectious Diseases)
- **Dan Roden, MD** (Clinical Pharmacology)
- **C. Michael Stein, MD** (Clinical Pharmacology)
- **Lynne Stevenson, MD** (Cardiovascular Medicine)

Early Career Investigator Awards

- **Alexander Bick, MD, PhD** (Genetic Medicine) – American Federation for Aging Hevolution/AFAR New Investigator Award in Aging Biology and Geroscience Research
- **Eden Biltibo, MD, MS** – Multiple Myeloma Research

Foundation Scholars Program Award

- **Fabian Bock, MD, PhD** (Nephrology and Hypertension) – SSCI Research Scholar Award
- **Yash Choksi, MD** (Gastroenterology, Hepatology and Nutrition) – 2024 SSCI Research Investigator Early Career Faculty Award
- **Daniel Cook, MD, PhD** (Allergy, Pulmonary and Critical Care Medicine)
 - ASCI Emerging Generation Award
 - Parker B. Francis Fellow Award
- **Debra Dixon, MD, MS** (Cardiovascular Medicine) – ASCI Emerging Generation Award
- **Fabien Maldonado, MD, MSc** – Vanderbilt-Ingram Cancer Center P3 Catalyst Award
- **Margaret Salisbury, MD, MS** (Allergy, Pulmonary and Critical Care Medicine) – ASCI Young Physician-Scientist Award
- **Kevin Seitz, MD, MSc** (Allergy, Pulmonary and Critical Care Medicine) – ASCI Emerging Generation Award
- **Ashley Spann, MD, MSACI** – Robert A. Winn Career Development Award
- **Victoria Thomas, MD** – American Heart Association Jay D. Coffman Early Career Investigator Award

Notable Publications

- Dietary Sodium and Blood Pressure-Reply. **Gupta DK, Lewis CE, Allen NB.** *JAMA.* 2024 Apr 2;331(13):1155-1156. doi: 10.1001/jama.2024.1910. PMID: 38563837.
- Clonal hematopoiesis of indeterminate potential is associated with acute kidney injury. **Vlasschaert C, Robinson-Cohen C, Chen J, Akwo E, Parker AC, Silver SA, Bhatraju PK, Poisner H, Cao S, Jiang M, Wang Y, Niu A, Siew E, Van Amburg JC, Kramer HJ, Kottgen A, Franceschini N, Psaty BM, Tracy RP, Alonso A, Arking DE, Coresh J, Ballantyne CM, Boerwinkle E, Grams M, Zhang MZ, Kestenbaum B, Lanktree MB, Rauh MJ, Harris RC Jr, Bick AG.** *Nat Med.* 2024 Mar;30(3):810-817. doi: 10.1038/s41591-024-02854-6. Epub 2024 Mar 7. PMID: 38454125; PMCID: PMC10957477.
- The INSPIRE study: RSV infection during infancy - Authors' reply. **Rosas-Salazar C, Gebretsadik T, Dupont WD, Hartert TV.** *Lancet.* 2024 Feb 24;403(10428):729-730. doi: 10.1016/S0140-6736(23)02285-7. PMID: 38401964.
- A triple dose of optimism: an initial foray into triplet therapy in metastatic renal cell carcinoma. **Beckermann KE, Rini BI.** *Nat Rev Clin Oncol.* 2023 Sep;20(9):581-582. doi: 10.1038/s41571-023-00795-6. PMID: 37353556.

VICE CHAIR UPDATE

EDUCATION

The Department of Medicine's residency and fellowship training programs continue to thrive. In the 2023-2024 year, the department trained over 400 residents and fellows in various ACGME- and non-ACGME accredited training programs.

To keep up with the continued growth of the Medical Center, the Internal Medicine Residency Program was approved to expand its program, which occurred through a highly successfully 2024 Match. The program added eight additional slots, increasing its total complement to 144 residents who will join Vanderbilt for the 2024-2025 academic year. The Match resulted in 51 new interns from a pool of more than 3,400 applicants with one of the best rank-to-fill ratios in our program's history.

The residency program continued to expand its curriculum to reflect the ever-evolving landscape of internal medicine and health care in the United States.

This included the creation of new experiences in adult LGBTQ+ health, at the Tennessee Department of Health, in outpatient wound care, and in our new primary care ENT clinic. We also updated our Global Health Pathway, and we have a record seven residents scheduled for international rotations in Africa, Central America and South America in the upcoming year. We expanded our career planning and mentorship program by creating several peer-reviewed specialty timeline documents to provide guidance throughout residency to residents planning to apply for subspecialty fellowships or positions in general internal medicine. We also developed new training sessions on topics including business in medicine, models of primary care, and value-based care practices. Nearly all our residents continue to participate in significant research during residency and present their work at national scientific meetings.

This year, the Social Medicine Committee also strengthened its relationship with community organizations, including Open Table Nashville, The Nashville Food Project and The Purple Foundation, and the residency program led several community food drives and a school supply drive. Our residents continue to participate in public health screenings, volunteer at community health centers, and mentor local students to increase the pipeline into health professions.

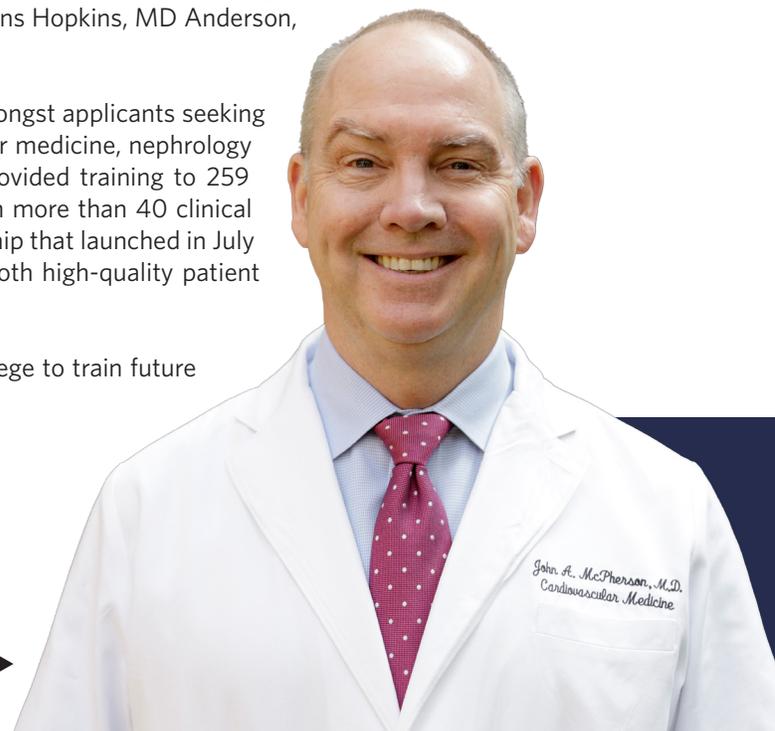
Graduates from our Internal Medicine program are extremely well-prepared when they complete our program, which is reflected in our 100% pass rate on the 2023 American Board of Internal Medicine examination. Approximately 20% of our 2024 graduating residents chose careers in general internal medicine and several have joined our faculty this summer. Of the 80% pursuing subspecialty fellowship training, nearly half are fellows at VUMC, and the remainder are training at elite institutions across the country, including Mass General Brigham, Johns Hopkins, MD Anderson, UCLA, Michigan and Texas-Southwestern.

Our fellowship training programs continued to be highly coveted amongst applicants seeking subspecialty training in Medicine specialties including cardiovascular medicine, nephrology and hypertension, and hematology and oncology. This year, we provided training to 259 fellows, including 171 clinical fellows and 88 postdoctoral fellows, in more than 40 clinical and research training programs, including an LGBTQ+ health fellowship that launched in July 2023. Fellows continued to thrive in the clinic and lab, delivering both high-quality patient care and research alongside our faculty.

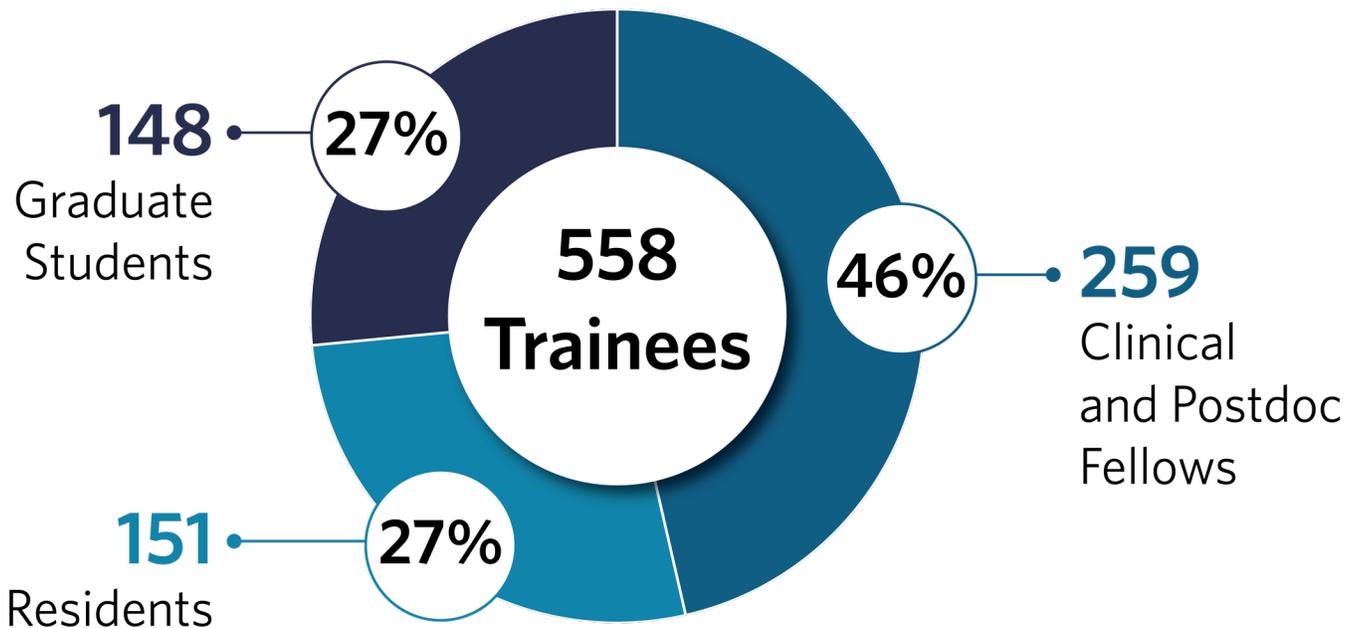
We are proud of our training programs, and it is an honor and privilege to train future leaders in medicine, science and service.



The LGBTQ+ Healthcare Fellowship Program ▲ was established in July 2023



John McPherson, MD ▶
Vice Chair for Education



NOTABLE RECOGNITION

ACADEMY FOR EXCELLENCE IN EDUCATION

- **Sumathi Misra, MD, MPH** (General Internal Medicine and Public Health)

HUGH J. MORGAN TEACHING AWARDS

Hugh J. Morgan Teaching awards are presented annually by the Vice Chair for Education during the State of Department Address.

- **Suzanne Sacks, MD** (Cardiovascular Medicine) – Best Faculty Teacher, Vanderbilt University Hospital
- **Brian Christman, MD** (Allergy, Pulmonary and Critical Care Medicine) – Best Faculty Teacher, Nashville VA Medical Center
- **Babatunde “Bobby” Carew, MD** (General Internal Medicine and Public Health) – Best Faculty Teacher, Ambulatory
- **Kaele Leonard, MD** (Allergy, Pulmonary and Critical Care Medicine) – Best Fellow Teacher
- **Jacqueline Visina, MD** – Best Resident Teacher

HARRISON SOCIETY ALUMNI ACCOMPLISHMENTS

The Harrison Society is the Department of Medicine’s physician-scientist training program, which is led by Dr. Patrick Hu (Hematology and Oncology). This year, several Harrison Society alumni received awards or special recognition for their ongoing contribution to research in their medicine specialty.

- **Matthew Alexander, MD, PhD** (Clinical Pharmacology)
 - Fellow, American Heart Association
 - AHSCP Certified Hypertension Specialist
- **Fabian Bock, MD, PhD** (Nephrology and Hypertension) – Southern Society for Clinical Investigation (SSCI) Research Scholar Award
- **Yash Choksi, MD** (Gastroenterology, Hepatology and Nutrition) – SSCI Research Investigator Early Career Faculty Award
- **Debra Dixon, MD, MS** (Cardiovascular Medicine)
 - ASCI Emerging Generation Award
 - Member, AHA National Leadership Committee
- **Jeff Freiberg, MD, PhD** (Cardiovascular Medicine) – Vanderbilt Faculty Research Scholar
- **Curtis Gabriel, MD, PhD** (Gastroenterology, Hepatology and Nutrition) – NIH K23

“ It is an honor and privilege to train future leaders in medicine, science and service. ”

VICE CHAIR UPDATE

VETERANS AFFAIRS

It was a challenging year at VA Tennessee Valley Healthcare System (TVHS) with significant fiscal constraints due to changing government budgets. Nevertheless, Vanderbilt faculty with effort at the VA showed great creativity, developed new efficiencies and continued to make major contributions in clinical care, education and research.

The Hematology/Stem Cell Transplant group continued to achieve superb clinical outcomes with survival data much better than predicted by clinical severity. The TVHS Stem Cell unit outcomes rival the best programs in the country. Their expanding repertoire of cellular therapies for chimeric-associated T-Cell (CAR-T) is resulting in a significant number of referrals from around the country.

Dr. Sally York (Hematology and Oncology) successfully competed for a grant from the Office for Rural Health (VA Intramural funding) as part of the Close to Me Initiative. The innovative proposal supports the development of satellite clinics across our large catchment area where TVHS providers will be able to administer chemotherapy to patients near their homes. When fully implemented, this will markedly improve access and quality of life for our patients.

Combined efforts of the Interventional and Electrophysiology branches of TVHS Cardiology resulted in the development and growth of the left atrial appendage closure device program. Implantation of the Watchman Device allows patients with atrial fibrillation, a major risk factor for stroke, to discontinue anticoagulation if they have elevated risk of bleeding.

In the 2023-2024 year, the Nashville VA Research Service increased its funding, moving from the No. 20 to No. 10 position among 100 stations with active research programs. Faculty in the Department of Medicine earned most of the new funding. Drs. Devika Nair (Nephrology and Hypertension) and Matthew Mart (Allergy, Pulmonary and Critical Care Medicine) received new Career Development Awards, and there were several new Merit Review grant awardees. Most significantly, Vanderbilt Medicine faculty members who are senior investigators at VA TVHS won 50% of the four national awards for career contributions to Veterans research. Dr. Alvin Powers (Diabetes, Endocrinology and Metabolism) won the Middleton Award, the highest honor awarded annually in recognition of sustained contributions in the areas of biomedical and bio-behavioral research relevant to the care of veterans. Dr. Wes Ely (Allergy, Pulmonary and Critical Care Medicine) won the Magnuson Award which is presented annually to a VA Rehabilitation Research and Development investigator who exemplifies entrepreneurship, humanitarianism, and dedication to veterans.

Clinical volumes continued to grow with an approximately 12% increase in clinical workload compared to prior years.

The VA Tennessee Valley Healthcare System remains a busy and vibrant part of the Department of Medicine with great opportunities for innovative research, education, and clinical care for some of our most deserving patients, our veterans.



“ Innovative research, education and clinical care for some of our most deserving patients, our veterans. ”

◀ **Brian Christman, MD**
Vice Chair for Clinical Affairs, VA Hospital

NOTABLE RECOGNITION

- **Timothy Cover, MD** (Infectious Diseases) – Department of Veterans Affairs Senior Clinician Scientist Investigator Award
- **E. Wesley Ely, MD, MPH** (Allergy, Pulmonary and Critical Care Medicine) – Paul B. Magnuson Award for Outstanding Achievement in Rehabilitation Research and Development, U.S. Department of Veterans Affairs
- **Alvin Powers, MD** (Diabetes, Endocrinology and Metabolism) – 2023 William S. Middleton Award, Department of Veterans Affairs Biomedical Laboratory Research and Development Service

VA CAREER DEVELOPMENT AND MERIT AWARDS

ALLERGY, PULMONARY AND CRITICAL CARE MEDICINE

- **Matthew Mart, MD, MSCI** – “The Role of Mitochondrial Dysfunction in Physical Recovery after Critical Illness”
- **Jonathan Kropski, MD** – “Mechanisms of alveolar homeostasis and repair”

CARDIOVASCULAR MEDICINE

- **Vineet Agarwal, MD** – “A Pathogenic Role for the Natriuretic Peptide Clearance Receptor in Heart Failure with Preserved Ejection Fraction”

DIABETES, ENDOCRINOLOGY AND METABOLISM

- **Katie Coate, PhD** – “Pancreatic islet alpha cell response to insulin resistance and type 2 diabetes”
- **Jordan Wright, MD, PhD** – “In vivo mechanisms of amyloid-induced pancreatic islet dysfunction in type 2 diabetes”

GASTROENTEROLOGY, HEPATOLOGY AND NUTRITION

- **Keith Wilson, MD** – “BCCMA: Targeting Gut-Microbiome in Veterans Deployment Related Gastrointestinal and Liver Diseases: Dysbiosis, PTSD, and Epithelial and Immune Biology in Inflammatory Bowel Disease in Veterans”

HEMATOLOGY AND ONCOLOGY

- **Brent Ferrell, MD** – “Dissecting Clonal Evolution of Myeloid Malignancies”

NEPHROLOGY AND HYPERTENSION

- **Devika Nair, MD, MSCI** – “Activation for Self-Care Needs in Older Adults with Chronic Kidney Disease: ACTIVE SENIORS with CKD”

NOTABLE PUBLICATIONS

- Association of HIV Infection and Incident Abdominal Aortic Aneurysm Among 143 001 Veterans. Filipkowski AM, **Kundu S**, Eden SK, Alcorn CW, Justice AC, So-Armah KA, **Tindle**

Dr. Alvin Powers, director of the Division of Diabetes, Endocrinology and Metabolism, was awarded the 2023 William S. Middleton Award, the highest honor awarded by the Department of Veterans Affairs Biomedical Laboratory Research and Development Service

HA, Wells QS, Beckman JA, **Freiberg MS**, **Aday AW**.

Circulation. 2023 Jul 11;148(2):135-143. doi: 10.1161/CIRCULATIONAHA.122.063040. Epub 2023 May 25. PMID: 37226738; PMCID: PMC10443901.

- Helicobacter pylori Burden in the United States According to Individual Demographics and Geography: A Nationwide Analysis of the Veterans Healthcare System. Shah SC, Halvorson AE, Lee D, Bustamante R, McBay B, Gupta R, Denton J, Dorn C, Wilson O, **Peek R Jr**, Gupta S, Liu L, **Hung A**, Greevy R, **Roumie CL**. *Clin Gastroenterol Hepatol*. 2024 Jan;22(1):42-50.e26. doi: 10.1016/j.cgh.2023.05.016. Epub 2023 May 26. PMID: 37245717.
- Genetic Inhibition of APOL1 Pore-Forming Function Prevents APOL1-Mediated Kidney Disease. **Hung AM**, Assimon VA, Chen HC, Yu Z, Vlasschaert C, **Triozzi JL**, Chan H, Wheless L, Wilson O, Shah SC, Mack T, **Thompson T**, Matheny ME, Chandrasekar S, Mozaffari SV, **Chung CP**, Tsao P, Susztak K, **Siew ED**, Estrada K, Gaziano JM, Graham RR, Tao R, Hoek M, **Robinson-Cohen C**, Green EM, **Bick AG**; Million Veteran Program. *J Am Soc Nephrol*. 2023 Nov 1;34(11):1889-1899. doi: 10.1681/ASN.0000000000000219. Epub 2023 Oct 6. PMID: 37798822; PMCID: PMC10631602.

NEW LEADERS

- **Matthew Mart, MD, MSCI** (Allergy, Pulmonary and Critical Care Medicine) – Medical Director, MICU, VA Tennessee Valley Health Care System MICU
- **Amanda Mixon, MD, MPH** (General Internal Medicine and Public Health) – Deputy Associate Director for Research, Geriatric Research Education and Clinical Center, VA Tennessee Valley Healthcare System
- **John Stafford, MD, PhD** (Diabetes, Endocrinology and Metabolism) – Endocrinology Section Chief, Department of Veterans Affairs Research

PROFESSIONAL SERVICE

- **Jim Powers, MD** (Geriatric Medicine) – Age-Friendly Steering Committee Member, Department of Veterans Affairs



VICE CHAIR UPDATE

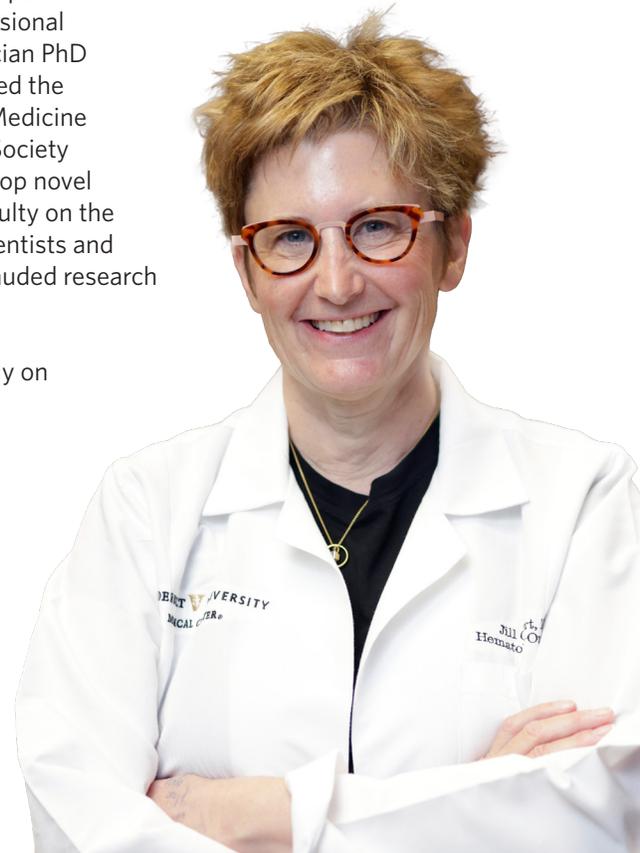
PROFESSIONAL DEVELOPMENT

We have had a very busy and exciting year for professional development in the Department of Medicine. Most notably, we welcomed several new directors to lead our professional development societies. In an effort to better focus on the needs of our non-physician PhD faculty, Dr. Dawn Newcomb (Allergy, Pulmonary and Critical Care Medicine) joined the Neilson Society as an Associate Director. Dr. Henrique Serezani, Department of Medicine Associate Vice Chair for Research (Infectious Diseases), also joined the Neilson Society Steering Committee. Together, Drs. Newcomb and Serezani take the lead to develop novel professional development support and programming for our non-physician PhD faculty on the tenure and research tracks, and will facilitate collaborations between our PhD scientists and patient-facing faculty. This important group proves critical for the department's lauded research funding and innovative scientific discovery.

The Mentorship Council has also been very productive this year, focusing primarily on our Clinician Educator faculty. The Clinician Educator track encompasses over 300 Department of Medicine faculty. The title is a misnomer as many of these have an academic focus other than education, such as administrative work and clinical investigation. However, we want all Clinician Educator faculty to have blueprint for academic success. Thus, the council created clear scaffolding that takes the individual faculty member from participant to master within a particular area of academic focus. Ultimately, this effort culminated in a department retreat and changed how we guide and advise this group to best support the professional development and academic growth of this critical group. To further demonstrate the impact of the Clinician Educator faculty, it should be noted that as full professors, these faculty members

Jill Gilbert, MD ▶

Vice Chair for Professional Development



1,034
FACULTY

78
NEW FACULTY

18
NEW DEPARTMENTAL AND
INSTITUTIONAL LEADERS

554
ADVANCED PRACTICE
PROVIDERS

70
FACULTY PROMOTIONS

3
PROFESSIONAL DEVELOPMENT
SOCIETIES

are key thought leaders, clinical investigators and educators on a national, and often international, stage. For example, clinician educators in the Department of Medicine clinician have pioneered trials that have to significant clinical impact such as COVID vaccination and novel anti-cancer therapies, among others. They serve in leadership roles on national educational accreditation councils, professional societies, clinical guidelines writing committees, all of which have an ongoing and profound impact on health care and health discovery internationally.

The Women in Medicine Initiative (WIMI) also welcomed two new co-directors, Drs. Ana Nobis and Emily Brown, whose goal will be to build community and opportunity for WIMI, allies and interested participants! In addition, Dr. Amanda Doran joined Drs. Sara Horst, Dawn Beaulieu, Neeraja Peterson and Jill Gilbert on the WIMI steering committee. As a physician scientist, Dr. Doran brings new ideas and perspectives. In addition, we held our first Influencer Development Program for faculty in the Department of Medicine. The goal of this three-part program was to educate faculty on how to become influencers in their own lives and to find their voice as a professional in the field of medicine. Ultimately, our 25 participating faculty learned skills to support self-confidence and empowerment, which are critical for success in the workplace self-efficacy. Given the outstanding reviews by the participants, we are planning to bring this program back to empower another cohort of leaders who will lead within the Department of Medicine this year, and beyond.



*Dr. Walter Clair (center) received VU's 2024 ▲
Joseph Johnson Distinguished Leadership
Professor Award*

NOTABLE RECOGNITION

NEW VUMC DIRECTORSHIPS

- **Fabien Maldonado, MD, MSc** (Allergy, Pulmonary and Critical Care Medicine) – Pierre Massion Directorship in Lung Cancer Research
- **Jonathan Brown, MD** (Cardiovascular Medicine) – Riven Family Directorship in Cardiovascular Medicine
- **Tracy Frech, MD, MSCI** (Rheumatology and Immunology) – Directorship in Rheumatology
- **Harvey Murff, MD, MPH** (Geriatric Medicine) – Grant R. Wilkinson Directorship
- **Meredith Pugh, MD, MSCI** (Allergy, Pulmonary and Critical Care Medicine) – John Newman Directorship for Education in Pulmonary and Critical Care Medicine

VUSM FACULTY AWARDS

- **Lindsay Bischoff, MD** (Diabetes, Endocrinology and Metabolism) – W. Anderson Spickard Jr. Award for Clinical Excellence in a Cognitive Discipline
- **Rick Peek, MD** (Gastroenterology, Hepatology and Nutrition) – Charles R. Park Award for Basic Research Revealing Insights into Physiology and Pathology
- **C. William Wester, MD, MPH** (Infectious Diseases) – John L. Tarpley Award for Commitment to Care of Underserved Communities
- **Wei Zheng, MD, PhD, MPH** (Epidemiology) – Kathryn M. Edwards Award for Clinical and Translational Research Impacting Disease Prevention

VANDERBILT UNIVERSITY FACULTY AWARDS

- **Walter Clair, MD, MPH** (Cardiovascular Medicine) – Joseph Johnson Distinguished Leadership Professor Award

- **Jonathan Brown, MD** (Cardiovascular Medicine) – Chancellor's Award for Research
- **Douglas Ruderfer, PhD** (Genetic Medicine) – Chancellor's Award for Research
- **Consuelo Wilkins, MD, MSCI** (Geriatric Medicine) – Chancellor's Award for Research

PROFESSIONAL SOCIETY ELECTIONS

- **Matt Alexander, MD, PhD** (Clinical Pharmacology) – Fellow, American Heart Association
- **Sarah Bloom, MSN** (Allergy, Pulmonary and Critical Care Medicine) – Fellow, American College of Critical Care Medicine
- **Jonathan Brown, MD** (Cardiovascular Medicine) – Fellow, American Society for Clinical Investigation (ASCI)
- **Leslie Crofford, MD** (Rheumatology and Immunology) – Master, American College of Rheumatology
- **James Gainer, MD** (General Internal Medicine and Public Health) – Fellow, American College of Cardiology
- **Anna Hennes, MD** (Allergy, Pulmonary and Critical Care Medicine) – American Academy of Pediatrics
- **Richard Peek, MD** (Gastroenterology, Hepatology and Nutrition) – American Clinical and Climatological Association
- **Matthew Semler, MD, MSc** (Allergy, Pulmonary and Critical Care Medicine) – Fellow, ASCI
- **Xiao-Ou Shu, MD, PhD, MPH** (Epidemiology) – Fellow, American Association for the Advancement of Science (AAAS)
- **Wei Zheng, MD, PhD, MPH** (Epidemiology) – Fellow, AAAS





DERBIET HEINRICH

ALLERGY, PULMONARY AND CRITICAL CARE MEDICINE



Dr. Anna Hemnes was appointed director of the Division of Allergy, Pulmonary and Critical Care Medicine in April 2024 ▲

The Division of Allergy, Pulmonary and Critical Care Medicine strives to deliver world-class clinical care to patients with allergic diseases, pulmonary conditions, and critical illness through employing a collaborative, multi-disciplinary approach. We lead in the development of cutting-edge, patient-focused research that extends from basic discoveries to clinical implementation. We provide state of the art education and training to inspire and nurture the next generation of leaders in allergy and immunology, pulmonary and critical care medicine.

In April 2024, Dr. Anna Hemnes was named Division Director after a brief interim service in this role by Dr. Joao de Andrade. Dr. de Andrade continues to serve the division as the Chief Medical Officer of the Vanderbilt Lung Institute (VLI) and Associate Division Director. Dr. Meredith Pugh continued to serve as the Fellowship Program Director, and Dr. Jonathan Kropski assumed the role of Director of Research for the Division. Together, the leadership team is excited to continue grow all three critical and mutually synergistic academic missions of research, education and patient care.

Clinics at the VLI have reached a new record with an estimated 68,000 completed visits this year. This robust volume has supported our lung transplant program that last year completed a record 96 lung transplants, making us the fourth highest volume center in the country. Importantly, we have supported

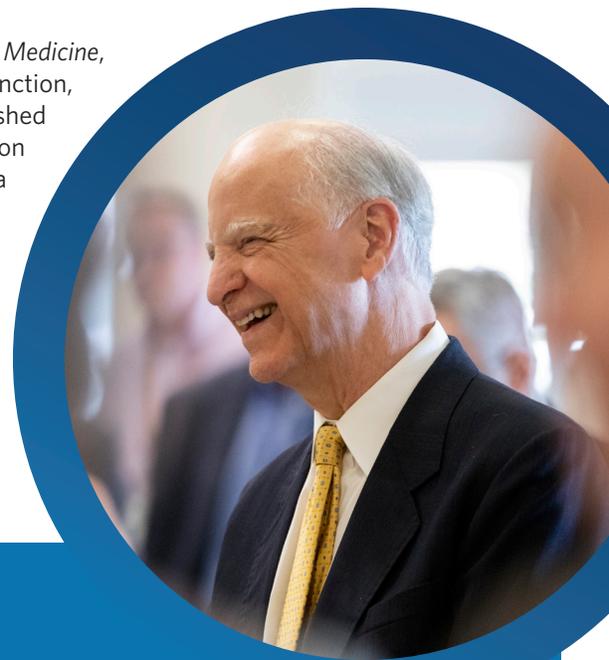
this growth with continued excellent outcomes. We have had a successful launch of the Lung Cancer Initiative that will enhance interdisciplinary care coordination and improve patient experience. Our colleagues in Allergy have continued to expand their drug desensitization program, with added capability for iodine contrast desensitization.

Our three fellowships - Pulmonary and Critical Care Medicine, Interventional Pulmonology, and Allergy/Immunology - continue to attract the highest quality applicants from across the country. In addition to the robust clinical training available, our fellows are engaged in highly impactful research and are publishing first author manuscripts in top tier journals. Our fellowship in Interventional Pulmonology received certification from the Accreditation Council for Graduate Medical Education this year, highlighting the breadth and quality of training in this important discipline. This year we also graduated our largest class of fellows to date, and we are fortunate to have many of the graduating fellows join faculty in the 2024-2025 academic year, which is a testament to the engaging academic careers and culture in our division.

Our faculty and fellows are driving our field forward with impactful research. In the past year, our critical care research groups have published a trial of acetaminophen in critically ill patients with sepsis in *JAMA*, a randomized trial of cefepime vs. piperacillin-

tazobactam in adults hospitalized with acute infection in the *New England Journal of Medicine*, and has a newly funded study of treatment strategies for COVID-related brain dysfunction, to name just a few accomplishments. The Pulmonary Fibrosis Research Group published a major paper in *Nature Genetics* identifying disease-context specific genetic regulation of gene expression as a novel contributor to chronic lung diseases and was awarded a \$15 million Program Project Grant from the National Heart, Lung, and Blood Institute to study the molecular origins of pulmonary fibrosis. The Richmond Lab was also awarded a \$4.2 million grant from the Department of Veterans Affairs to improve understanding of the causes and natural history of respiratory disease in Iraq and Afghanistan Veterans and improve current diagnostics.

In summary, the past year has been one of tremendous growth and discovery. We look forward to continued innovation and meaningful contributions in research, teaching and patient care in the coming year.



Dr. Gordon Bernard was honored in a reception ▲ held by Medical Center leaders recognizing his more than 40 years of service to VUMC

NOTABLE RECOGNITION

LEADERSHIP

Julie Bastarache, MD – Director, Edge for Scholars

Anna Hemnes, MD – Director, Division of Allergy, Pulmonary and Critical Care Medicine

Fabien Maldonado, MD, MSc

- Director, Interventional Pulmonology
- Co-director, MASLAB

RESEARCH

Daniel Cook, MD, PhD – Parker B. Francis Fellow

E. Wesley Ely, MD, MPH – Paul B. Magnuson Award for Outstanding Achievement in Rehabilitation Research and Development, U.S. Department of Veterans Affairs

Tina Hartert, MD

- 2023 Vanderbilt Biomedical Science Impact Award
- 2024 Richard F. Lockey Program Lectureship and Research Award

Matthew Krantz, MD – American Academy of Allergy, Asthma & Immunology (AAAAI) Faculty Development Award

Lisa Lancaster, MD – 2023 NIH Applicant Assistance Program

Fabian Maldonado, MD, MSc – VUMC P3 Catalyst Award

Mark Rolfsen, MD – 2024 American Thoracic Society (ATS) Abstract Scholarship

Cosby Stone, MD, MPH

- AAAAI Faculty Development Award
- Outstanding Reviewer Award, *The Journal of Allergy and Clinical Immunology: In Practice*

EDUCATION

Fabien Maldonado, MD, MSc – Distinguished Clinician Educator, *CHEST*

PROFESSIONAL SERVICE

Julie Bastarache, MD

- Deputy Editor, *American Journal of Physiology Lung Cellular and Molecular Physiology*
- Vice President, American Society for Clinical Investigation

Sarah Bloom, MSN – APP Professional Development Committee, Society of Critical Care Medicine

Joao de Andrade, MD – Editorship, *Annals of the American Thoracic Society*

Fabien Maldonado, MD, MSc

- Associate Editor, *CHEST*
- Section Editor, *UpToDate*
- Chair, Interventional Oncology of the Procedural-based Therapy Program, Alliance for Clinical Trials in Oncology

Anna Hemnes, MD – President, Pulmonary Vascular Research Institute

Lisa Lancaster, MD – Diffuse Lung Disease Steering Committee, American College of Chest Physicians

Stokes Peebles, MD – Advisory Council, National Advisory Allergy and Infectious Diseases

Ciara Shaver, MD, PhD – Grants and Awards Committee, International Society for Heart and Lung Transplantation

Cosby Stone, MD, MPH – Co-chair, Joint CDC/Society of Healthcare Epidemiology of America Task Force on Low-risk Penicillin Allergy Education



DEPARTMENT OF MEDICINE GIVING

Generous donors like the Vallees help strengthen the Department of Medicine's educational, research and patient care programs.

For more information and to make a contribution, scan the QR code, or visit medicine.vumc.org/dom-giving.



PHILANTHROPY HIGHLIGHT

One Family's Commitment to Advance the Understanding of Long COVID

At 27, Charlie Vallee understood more about human nature than most others.

He was a student of the world. As a child, Vallee spent several years in Slovakia, captivated by the U.S. Marines who guarded the Embassy where his family lived. Mentors in high school and college deepened his interests in foreign affairs - he graduated college proficient in Arabic as a career in intelligence beckoned.

Vallee's parents, Denise and Skip, remember when he invited a reformed terrorist to his college campus to give a speech. "He was always working toward understanding - he was empathetic to the plights people endure that seed terrorism. Charlie worked to eradicate the misery that terrorism brings to so many," said Denise.

Yet as Vallee prepared for a second deployment with the Defense Intelligence Agency's Combating Terrorism Center, persistent symptoms from a recent COVID infection were unrelenting. Severe headaches, overwhelming brain fog, uncontrollable arm shaking. Vallee sought medical care in the Washington, D.C., area, where care teams thought time would heal him.

Vallee died on May 3, 2022.

"Not understanding what Long COVID did to our son is almost as bad as the shock of his death," said Skip. "There must be a mechanism of hope for desperate COVID-19 sufferers." The Vallees established the Charles M. Vallee Long Covid Research Foundation to support science focused on the nexus of Long COVID to neurological effects.

Through the Foundation's work, the Vallees met Wes Ely, MD, who co-directs the Critical Illness, Brain Dysfunction and Survivorship Center at Vanderbilt University Medical Center. The center advances knowledge, education and models of care for people affected by critical illness. "There is a driving, unmet need to improve our care for millions of people experiencing the underrecognized public health problem of Long COVID," said Ely. "Globally an estimated 60-80 million people have this debilitating chronic health condition."

Through a recent gift to the CIBS Center, the Vallees' generosity will ease the pain of Long COVID, equipping scientists with resources to test a wide range of ideas and theories. "Charlie was a highly analytical person. He wanted to understand a problem from all angles. That's what we hope this work will accomplish - a foundation for researchers to unravel the mystery of Long COVID," said Skip. "We also believe these discoveries will dispel this notion of doubt around Long COVID and lead to improved care."

Ely describes Charlie's legacy as more than a testament to his empathy and understanding, but also a guide to the team's scientific exploration into the many unknowns of Long COVID.

"As scientists, Charlie's legacy drives us along in our process of discovery to find answers for others like Charlie who experience Long COVID as an unrelenting and perilously disabling disease state. Our team is tremendously grateful to have the Vallee family as a benefactor and partner in our mission of service," said Ely. "Philanthropy is of paramount importance to complement our federal funding and accelerate our robust research programs designed to determine the risks and benefits of different medications, cognitive rehabilitation efforts and other interventions for Long COVID. We are deeply grateful to the Vallee family and their Foundation for their generosity and commitment to changing the narrative around Long COVID."



◀ Charlie Vallee



DIVISION UPDATE

CARDIOVASCULAR MEDICINE

Dr. Eiman Jahangir (right) was named inaugural director of the Section of General Cardiology ▶

The Division of Cardiovascular Medicine at Vanderbilt University Medical Center remains focused on its mission to promote human health through clinical excellence, compassionate care, pioneering research and outstanding education. Through inquiry and innovation, we advance patient care and biomedical knowledge, and develop cardiovascular careers and physician leaders in a culture that supports critical thinking and creativity. The driving theme of the past year has been growth across the research, academic, and clinical domains, as well as through new multidisciplinary partnerships across the broader Vanderbilt community.

In the past academic year, the division's faculty has continued to grow with a membership that now exceeds 150, and includes a broad array of physician-scientists, clinician educators, clinical practice track faculty, and PhD research scientists. We saw several exciting leadership changes driven by both growth and academic promotion. Dr. Jane Freedman assumed the Interim Chair role for the Department of Medicine, and appointed two Interim Co-Directors for the division: Dr. Daniel Muñoz overseeing Clinical Affairs and Dr. Francis Miller overseeing Academic Affairs. Dr. Eiman Jahangir was named inaugural Director of the Section of General Cardiology. Dr. Xiangke Huang was named the Medical Director of our growing cardiology practice in Lebanon, Tennessee.

With inpatient bed expansion and associated growth opportunities in both our Nashville- and regionally-based ambulatory practices, we have successfully recruited a significant number of talented faculty members this past year. This is a growth-oriented effort that will continue in high gear over the next two to three years.

Reflective of our deep commitment to training our future colleagues and leaders in the field of cardiovascular medicine, our faculty trained nearly 50 fellows across our eight subspecialty fellowship programs. Our General Cardiology fellowship is ably led by Dr. Julie Damp, whose national footprint includes a key leadership role in program planning for the American College of Cardiology Scientific Sessions, one of the most educationally impactful meetings in the country for cardiology trainees and practicing physicians. Dr. Damp is supported by an outstanding team of associate program directors, Drs. Quinn Wells (Research), Angela Lowenstern (Clinical) and Barinder Hansra (Professional Development). Our cardiology fellows continue to extend the division's tradition of educational excellence, with several recipients of department-wide teaching awards over the past several years.

Our research portfolio continued to expand, encompassing clinical, population, translational and basic science studies. Faculty

members maintain a high level of productivity, publishing an average of 35 papers each month. They also present numerous abstracts at national and international conferences while holding positions on various editorial boards and within professional societies. We are growing our research pipeline with 14 early-career investigators securing new mentored research awards. Our funding sources remained diverse, with National Institutes of Health (NIH) support growing to approximately \$25 million.

In summary, the Division of Cardiovascular Medicine continues to experience an exciting chapter of growth across key clinical, educational, and research dimensions. Our division continues to innovate through the creation of new programs and the expansion of our clinical reach. We aim to deliver uncompromisingly high-quality care to more patients in the region, while simultaneously forging new frontiers of scientific discovery and unlocking new tools for understanding disease and improving the lives of others. All of this is made possible by our talented faculty and the daily inspiration derived from interaction with our trainees.



Dr. Matthew Fleming (center) with Cardiology fellows, ▲
 Drs. Lawrence Charles (left) and Brett Heimlich (right)

NOTABLE RECOGNITION

LEADERSHIP

Daniel Muñoz, MD – Interim Director, Division of Cardiovascular Medicine

Francis Miller, MD – Interim Director, Division of Cardiovascular Medicine

Eiman Jahangir, MD, MPH – Inaugural Director, Section of General Cardiology

CLINICAL

André Churchwell, MD – *Modern Healthcare* Luminary Award

RESEARCH

Victoria Thomas, MD – American Heart Association (AHA) Jay D. Coffman Early Career Investigator Award

PROFESSIONAL SERVICE

Julie Damp, MD – Vice Chair, American College of Cardiology (ACC) Annual Scientific Session

Jane Freedman, MD – President, Association of University Cardiologists

Furrukh Malik, MD – Governor, Tennessee Chapter, ACC

Daniel Muñoz, MD

- Board President, Greater Nashville AHA
- Incoming Member, AHA Southeast Board of Directors

SENIOR EDITORSHIPS

Vineet Agarwal, MD – Associate Editor, *Circulation Research*

Amanda Doran, MD, PhD – Technical Editor, *Circulation Research*

Jane Freedman, MD – Editor-in-Chief, *Circulation Research*

Francis Miller, MD – Deputy Editor, *Circulation Research*

Ravi Shah, MD – Associate Editor, *Circulation Research*



DIVISION UPDATE

CLINICAL PHARMACOLOGY

Dr. Jonathan Mosley (left), is corresponding author ▲ of a study published in Nature Communications that reported patients predisposed with low white blood cell count are more likely to experience diagnostic procedures and medication discontinuation

The Division of Clinical Pharmacology's mission is to discover new therapeutic approaches for the treatment of human disease and to improve human health. Comprised of nearly 40 faculty and trainees whose work is primarily focused on hypertension, arrhythmias, causes of sudden death and bone biology, the division is the oldest and largest Clinical Pharmacology division in the world. Members analyze the human genome to discover gene variants responsible for altered heart rhythms, and study these variants in isolated cells using highly sophisticated recordings of electrical currents. Using these approaches, we have discovered life-saving drugs that prevent heart arrhythmias. We are also leaders in the understanding and treatment of high blood pressure, or hypertension, which affects half of the adult population.

The division was highly productive this year, resulting in more than \$18 million in NIH funding as well as numerous publications in high-impact journals such as *JAMA*, *Nature Medicine*, *Circulation* and *Nature Communications*. As a result, two of our faculty, Drs. Dan Roden and C. Michael Stein, were among this year's list of Clarivate Highly Cited Researchers.

An AHA Hypertension Center of Excellence, our division has discovered unique causes of hypertension and why it causes damage to target organs like the heart, the kidney, the brain and blood vessels. We also care for patients with difficult-to-treat hypertension and evaluate patients for conditions like high aldosterone and tumors that produce excessive norepinephrine, which raises blood pressure. We have helped write the AHA guidelines for treatment of hypertension, and our Division Director, Dr. David Harrison, is the Deputy Editor of *Hypertension*, the AHA's peer-reviewed journal. This year, Dr. David Patrick was awarded AHA's 2024 Harry Goldblatt Award for New Investigators, which is an international competition for the most out-standing young scientists in the field of hypertension. He joins three other faculty who have previously received the award.

The Division of Clinical Pharmacology is the also home to the Vanderbilt Autonomic Center, which cares for patients with difficult-to-treat fluctuations in blood pressure and heart rate. Research performed by center members has resulted in the discovery of new causes of these problems, including variations in genes that regulate catecholamine transport.

Our division also houses the Vanderbilt Center for Bone Biology (VCBB), which is devoted to understanding causes of bone loss, bone deformities, and bone cancer. Basic scientists and clinicians in the VCBB use highly sophisticated measures of bone strength and metabolism in humans and experimental models to treat patients with bone disease.

The division remains devoted to training the next generation of scientists and physicians. The division's NIH-funded training grant, "Clinical Pharmacology Training Program," has been funded for more than 50 years and has trained hundreds of young physicians and pharmacists to become clinician scientists who discover new treatments for disease, and ultimately help to move our mission forward.



Dr. Matt Alexander was elected Fellow ▲ of the American Heart Association

NOTABLE RECOGNITION

RESEARCH

Monica Santisteban, PhD – COMPASS Scholar (Washington University School of Medicine, National Institute of General Medical Sciences - NIGMS - R25)

Cyndya Shibao, MD, MSCI – 2023 Council on Hypertension Mid-Career Award for Research

EDUCATION

Rachelle Johnson, PhD – Co-Director, VUSM ASPIRE Program in Molecular Medicine

PROFESSIONAL SERVICE

Rachelle Johnson, PhD

- President, Cancer and Bone Society
- Chair, Innovation Committee for the American Society for Bone and Mineral Research

Dmytro Kryshnal, PhD – Ad Hoc Reviewer, NIH Myocardial Physiology/Pathophysiology B (MPPB) Study Section

Cheryl Laffer, MD, PhD

- Member, Hypertension Science Committee
- Co-Founder, Fernando Eljovich Early Career Clinician Scientist Award

Elizabeth Rendina-Ruedy, PhD – Member, NIH Skeletal Biology Development and Disease Study Section

Julie Rhoades, PhD

- Past President and Treasurer, Cancer and Bone Society
- Board Member and Co-Chair, Cancer Biology Training Consortium Committee

Monica Santisteban, PhD

- Chair, American Physiological Society Neural Control & Autonomic Regulation (APS NCAR) Section Awards Committee
- Member, APS NCAR Section Steering Committee
- Vice-Chair, AHA Hypertension Trainee Advocacy Committee
- Member, AHA Hypertension Council leadership Committee

Cyndya Shibao, MD, MSCI

- Representative-at-Large, International Society for Autonomic Neuroscience
- Co-Chair and Principal Investigator, Researching COVID to Enhance Recovery (RECOVER), Autonomic Protocol

SENIOR EDITORSHIPS

David Harrison, MD – Deputy Editor, *Hypertension*

Annet Kirabo, PhD – Associate Editor, *Circulation Research*

DIVISION UPDATE

DIABETES, ENDOCRINOLOGY AND METABOLISM

Dr. Lindsay Bischoff (center) received VUSM's 2024 W. Anderson Spickard Jr. Award for Clinical Excellence in a Cognitive Discipline



In the 2023-2024 academic year, the Division of Diabetes, Endocrinology and Metabolism expanded its regional, national and international impact through its patient care, research and training. Once again, our division's excellence in clinical care was recognized in *U.S. News and World Report* rankings as one of the top endocrinology programs in the country.

To reduce the burden of diabetes, our physicians and advanced practice providers expanded the use of continuous glucose monitoring and insulin delivery algorithms, and utilized new medications that improve diabetes control and reduce cardiovascular events. Members of the division advanced the treatment of metabolic bone diseases such as X-Linked Hypophosphatemia and Hypophosphatasia through their research, the delivery of clinical care to individuals from throughout the United States, and testimony before the FDA. Our physicians led programs for the evaluation and treatment of thyroid malignancies and led specialized, multidisciplinary programs for body weight management, and for the care of patients with pituitary, osteoporosis, thyroid and adrenal disorders. These specialized centers, including a new one focused on adrenal or thyroid masses, coordinate and integrate diagnostic and therapeutic expertise. The division looks forward to expanding its delivery of clinical services throughout middle Tennessee and the Southeast.

The research of our faculty provided new insight into the pathogenesis of diabetes through studies of the pancreas, including alterations in the exocrine pancreas, changes in the pancreatic islet, and discoveries related to the glucagon-producing alpha cells of the pancreatic islet. Our faculty also investigated new ways to increase or protect the insulin-producing cells in the pancreatic islets and the impact of new diabetes medications on inflammation, especially in adipose tissue. Research in the division also investigated how lipid molecules interact with nuclear receptors and communicate within cells, the role of oxidative stress and diet in neurologic diseases such as Alzheimer's, and sexual dimorphism in dyslipidemia, cardiovascular disease and diabetes. The success of the division's scientists resulted in new grants from the NIH and the VA Office of Research and Development.

Training the next generation of physicians and scientists continued to be a major part of the division's activities as our faculty lead three fellowship training programs: endocrinology, which has three fellows per year; obesity medicine (one fellow per year); and LGBTQ+ health (one fellow per year). Our faculty members are national leaders in the training of providers in obesity medicine as well as medical students in diabetes and endocrinology. Faculty members lead four NIH-supported training programs for medical students, graduate students, and postdoctoral fellows in diabetes, endocrinology, quantitative

biology and toxicology.

Division faculty members led the planning committee for national scientific meetings, including the annual meeting of the Endocrine Society, served as President of the Endocrine Nurses Society, and served in the leadership roles for the American Association of Physicians, International Thyroid Oncology Group and the International Society of Endocrinology.

The accomplishments of our faculty were recognized by the following: Paul Lacy Medal Award, the highest honor given by

the Midwest Islet Club in recognition of meritorious career achievement in the field of islet biology; the W. Anderson Spickard Jr. Award for Clinical Excellence in a Cognitive Discipline; the Albert Renold Award from the American Diabetes Association for a career distinguished by outstanding achievements in mentorship and creation of a robust environment for diabetes research, and the William S. Middleton Award which is the highest honor awarded to senior VA biomedical research scientists in recognition of their outstanding scientific contributions and achievements in biomedical research.

NOTABLE RECOGNITION

LEADERSHIP

Chase Hendrickson, MD, MPH – Executive Medical Director, Medicine Patient Care Center

Omolola Olajide, MD – Director, Osteoporosis Program, Section of Endocrinology

Sahar Takkouche, MD – Associate Chief Medical Officer, Wilson and Sumner County Regions

John Stafford, MD, PhD – Endocrinology Section Chief, Department of Veterans Affairs

CLINICAL

Kathryn Dahir, MD – Clinical Mentor, Aspire Pathway in Molecular Medicine (APMM)

RESEARCH

Maureen Gannon, PhD – Midwest Islet Club Paul Lacy Medal Award

Alvin Powers, MD – 2023 William S. Middleton Award, Department of Veterans Affairs Biomedical Laboratory Research and Development Service

EDUCATION

Gisella Carranza Leon, MD – VUSM Faculty Leader, 2024 Graduation Oath Recital

Omolola Olajide, MD – Director, VUSM Integrated Science Course for Diabetes

Kathryn Dahir, MD – Director, Pediatric and Adult Endocrinology Course

PROFESSIONAL SERVICE

Lindsay Bischoff, MD

- Board of Directors, International Thyroid Oncology Group
- Vice Chair, NCCN Thyroid Cancer Guidelines

Gisella Carranza Leon, MD – Steering Committee Member, Endocrine Society Annual Meeting

Katie Coate, PhD

- Co-chair, 2023 Annual Investigator Meeting of the Human Islet Research Network Planning Committee
- Abstract Reviewer and Session Chair, American Diabetes Association 83rd Annual Scientific Sessions

Kathryn Dahir, MD

- Co-chair, Soft Bones 2nd Annual Scientific Meeting
- Chair and Speaker, OI Foundation Regional Conference

Maureen Gannon, PhD – Learning Community Advisor, Executive Leadership in Academic Medicine Program

Debra Greenspan, NP – President, Endocrine Nurses Society

Fiona Harrison, PhD

- Ad Hoc Member, NIH Study Section, Chronic Dysfunction and Integrative Neurodegeneration (CDIN)
- Executive Steering Committee, Alzheimer's Association ISTAART Nutrition, Metabolism and Dementia Professional Interest Group

Chase Hendrickson, MD, MPH – Host, Endocrine Society "Endocrine Feedback Loop" podcast

Omolola Olajide, MD – Member, American Board of Internal Medicine (ABIM) Endocrinology, Diabetes and Metabolism Writing Task Force

John Stafford, MD, PhD

- Board of Directors, Kern Lipid Conference
- Board of Directors, Frederickson Lipid Conference

PHILANTHROPY HIGHLIGHT

Couple's Legacy of Giving Results in Transformative Change in Field of Endocrinology

When David Orth, MD, emeritus director of the Division of Endocrinology and Metabolism at Vanderbilt University Medical Center, retired in 1997, he and his wife, Linda D'Errico, were already exploring ways to give back to both the institution and medical specialty he had come to view as family.

Orth graduated from Vanderbilt University School of Medicine in 1962 and completed his residency on the Osler Medical Service at Johns Hopkins. He returned to Vanderbilt in 1965 to join the faculty as a postdoctoral fellow in clinical endocrinology with an invaluable mentor, Grant W. Liddle, MD. Liddle was a pioneer in the field of clinical endocrinology who served as chief of Endocrinology and later as chair of the Department of Medicine at VUMC.

"I had thought I would only train for two years with Dr. Liddle and move on. I just never managed to leave," Orth laughed. "I was fortunate to have a mentor who provided me with a laboratory and an income so I could do my postdoctoral training. Then, I just stayed on because I enjoyed it so much. I never saw a place I wanted to live more or an institution that I thought would provide me more opportunities in my profession. Vanderbilt is very much in my heart."

Orth built a remarkable career in endocrinology at Vanderbilt, gaining a reputation as an exemplary educator, clinician and researcher. From 1968 to 1981, he served as the joint director of the Division of Endocrinology and Metabolism and as director from 1984 until he retired in 1997.

Orth hired D'Errico for a secretarial role in the Division of Endocrinology and Metabolism. They fell in love and were married in 1979. D'Errico, who built her own career as an administrative officer for the division, followed her husband in retirement in 1998.

In retirement, Orth returned to his early love of art, painting and sculpting expressive figures. Together, they spend time working in their large pottery studio. D'Errico continued volunteering, and in recent years the Catholic Charities, Diocese of Nashville's work assisting refugees in resettling in the area has been close to her heart.

They also began to look for ways to give back to Vanderbilt and the division.

"As I worked at Vanderbilt, I became so attached to the division,

and when I had the ability to do it, I wanted to give back," Orth said. "We've always lived within our means, and we've saved throughout our careers, so we were comfortable when we retired. We had some resources that we wanted to use it in a meaningful way."

In 2019, the David N. Orth Lectureship in Endocrinology was established to bring speakers in the specialty to the Medical Center. The David Orth Award was also founded in Orth's honor and presented by the Division of Diabetes, Endocrinology, and Metabolism and the Endocrine Society to a graduating medical student who has had outstanding performance in clinical or research endocrinology.

In early 2023, the couple went a step further and established the David Orth and Linda D'Errico Fund to support the division's work. Their gift provides lifetime support for high-priority needs, as identified by the division director, and will include a bequest from their estate upon their passing to establish a directorship in the division.

"It has been remarkable to watch the fruits of their giving," said Alvin C. Powers, MD, director of the Division of Diabetes, Endocrinology, and Metabolism. "Through their philanthropy, young investigators and clinicians from many different backgrounds and career paths have been positively influenced by their kindness and actions. It is due to individuals like David Orth and Linda D'Errico that science and patient care are advanced on a personal level."

This is an excerpt from a previously published VUMC News story. [Click here to read the full story.](#)

Dr. David Orth and Linda D'Errico ►

DEPARTMENT OF MEDICINE GIVING

Generous donors like David Orth and Linda D'Errico help strengthen the Department of Medicine's educational, research and patient care programs.

For more information and to make a contribution, scan the QR code, or visit medicine.vumc.org/dom-giving.





DIVISION UPDATE

EPIDEMIOLOGY



*Dr. Wei Zheng (center), received VUSM's 2024
Kathryn M. Edwards Award for Clinical and
Translational Research Impacting Disease Prevention*

The Division of Epidemiology continued its impactful research to enhance our understanding of the determinants of disease in all populations. Faculty in our division led more than 50 externally funded research projects and training programs, including four large ongoing population-based prospective studies with over 225,000 study participants. In the 2023-2024 academic year, division faculty obtained multiple large NIH-funded research grants, including a new R01 led by Drs. Jirong Long and Xiao-Ou Shu to identify protein biomarkers associated with breast cancer risk. Junior faculty recruited over the past four years have also been very successful this year in developing their research programs, obtaining a K01 grant to study the role of 24-hour activity in Alzheimer's Disease (Dr. Kelsie Full) and an R01 grant to study the role of pre-exposure prophylaxis in Getting to Zero HIV infections (Dr. Daniel Escudero).

This year, faculty expanded their research of environmental exposures in relation to risk of cancer and other chronic diseases. We continued recruitment for the Southern Environmental Health Study led by Drs. Wei Zheng and Martha Shrubsole that, through a framework of community-engagement, aims to recruit 35,000 individuals from across 18 southern states. Over 10,000 people have already joined the study which will integrate environmental exposure data from multiple sources, including personal wristbands, to address critical issues in the environmental etiology of cancer. Geospatial data is increasingly important in measuring the impact of environmental exposures on health. In a new R01, Drs. Melinda Aldrich and Shrubsole are leading a multicenter team to develop and refine lifetime residential histories in the Southern Community Cohort Study, also led by Drs. Zheng and Shrubsole, for linkage with geospatial data.

The division is deeply committed to mentoring and training the next generation of epidemiologists. The Vanderbilt Training Program in Molecular and Genetic Epidemiology of Cancer, directed by Dr. Shu, aims to equip postdoctoral fellows with the methodological tools and hands-on research and grant writing experience necessary to launch an independent career in cancer epidemiology. Division faculty Drs. Shu and Douglas Heimbarger continued to lead a National Cancer Institute-funded international cancer epidemiology training grant with the University of Zambia, Vanderbilt-Zambia Cancer Research Training Program (VZCARE). The goal of VZCARE is to develop a cadre of researchers and educators equipped with expertise to lead cancer epidemiology research and training in Zambia and to encourage U.S.-based researchers to engage in cancer research in low- and middle-income countries. In April 2024, we received another international training grant from the NIH Fogarty International Center, Vanderbilt-Vietnam Genetic Epidemiology Training Program (V2-GENE). Led by Drs. Digna Velez Edwards and Shu, in collaboration with Hanoi Medical University as well as

Vietnam National Cancer Institute, the overall goal of V2-GENE is to develop a team of researchers and educators prepared with the necessary training and expertise to lead genetic epidemiology research of non-communicable diseases across the lifespan in Vietnam.

The division looks forward to the upcoming year and continued advancements in epidemiology research and training.

Dr. Xiao-Ou Shu was elected Fellow of the American Association for the Advancement of Science ▶



NOTABLE RECOGNITION

RESEARCH

John Boice, ScD – Radiation Research Society Failla Award

Ghadeer Dawwas, PhD – Top Reviewer, *Annals of Internal Medicine*

Wei Zheng, MD, PhD, MPH – VUSM Kathryn M. Edwards Award for Clinical and Translational Research Impacting Disease Prevention

EDUCATION

Todd Edwards, PhD

- Co-director, Edge for Scholars
- Director, Clinical and Translational Science Awards (CTSA) TL1 Training Program

PROFESSIONAL SERVICE

Ghadeer Dawwas, PhD – Member, International Society for Pharmacoepidemiology (IPSE) Membership and Education committees

Todd Edwards, PhD

- Chair, International Genetic Epidemiology Society Annual Meeting Planning Committee
- Chair, Pacific Center for Genome Research External Advisory Board
- Session Lead, American Society of Human Genetics Meeting
- Session Lead, Pacific Symposium on Biocomputing
- Session Lead, American Clinical and Translational Science Meeting

Danxia Yu, PhD

- Grant Reviewer, Swiss National Science Foundation
- Executive Committee, The Consortium of Metabolomics Studies

Wei Zheng, MD, PhD, MPH – Member, National Academies of Sciences, Engineering and Medicine (NAEM) Committee for Engaging Scientists in Central Asia on Data Governance Principles for Life Science Data

SENIOR EDITORSHIPS

Ghadeer Dawwas, PhD – Section Editor, *Journal of Thrombosis and Thrombolysis*

Todd Edwards, PhD

- Associate Editor, *BioData Mining*
- Associate Editor, *Frontiers in Genetics*

Danxia Yu, PhD – Associate Editor, *The Nutrition Journal*

NOTABLE PUBLICATIONS

Sodium Intake and Cause-Specific Mortality Among Predominantly Low-Income Black and White US Residents. Yoon HS, **Cai Q**, Yang JJ, **Lipworth L**, **Cai H**, **Yu D**, Steinwandel MD, Gupta DK, **Blot WJ**, **Zheng W**, **Shu XO**. *JAMA Netw Open*. 2024 Mar 4;7(3):e243802. doi: 10.1001/jamanetworkopen.2024.3802. PMID: 38530308; PMCID: PMC10966417.

Economic crises and cancer care in Pakistan-timely action saves lives. Awan UA, **Guo X**, Khatkhat AA, Hassan U, Khan S. *Lancet*. 2024 Feb 17;403(10427):613-614. doi: 10.1016/S0140-6736(23)01380-6. Erratum in: *Lancet*. 2024 May 11;403(10439):1854. doi: 10.1016/S0140-6736(24)00930-9. PMID: 38368005.

Association between F2-Isoprostane Metabolites and Weight Change in Older Women: A Longitudinal Analysis. Zhao Y, Nogueira MS, Chen Q, **Dai Q**, **Cai Q**, **Wen W**, Lan Q, Rothman N, Gao YT, **Shu XO**, **Zheng W**, Milne GL, **Yang G**. *Gerontology*. 2024;70(2):134-142. doi: 10.1159/000534258. Epub 2023 Nov 15. PMID: 37967546; PMCID: PMC10922451.

Type 2 Diabetes and Colorectal Cancer Risk. Lawler T, Walts ZL, Steinwandel M, **Lipworth L**, Murff HJ, **Zheng W**, Warren Andersen S. *JAMA Netw Open*. 2023 Nov 1;6(11):e2343333. doi: 10.1001/jamanetworkopen.2023.43333. PMID: 37962884; PMCID: PMC10646729.



DIVISION UPDATE

GASTROENTEROLOGY, HEPATOLOGY AND NUTRITION

Dr. Keith Obstein (center left) recruits participants ▲ for a phase 1 clinical trial of a magnetic, flexible endoscope that has the potential to provide a safer alternative to standard colonoscopy for individuals with IBD

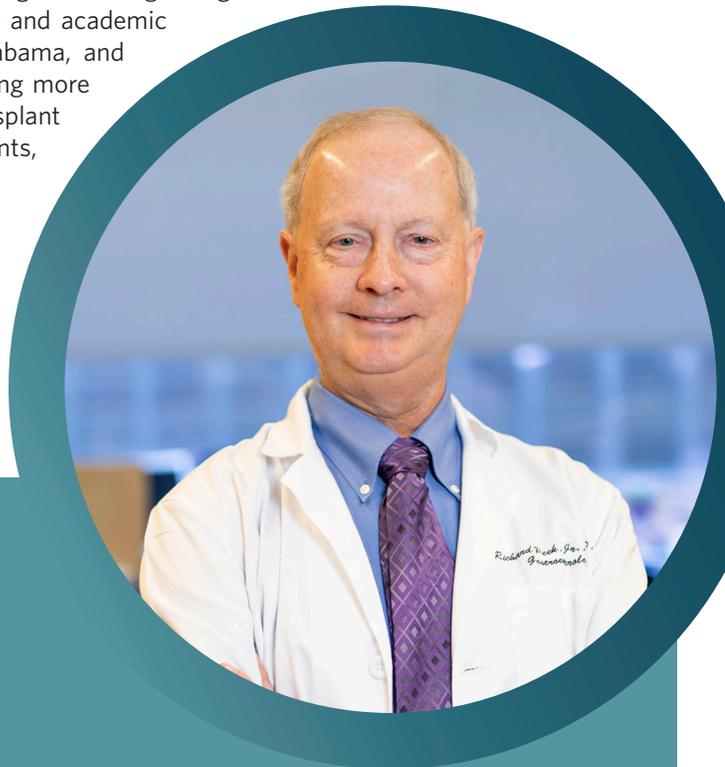
The Division of Gastroenterology, Hepatology and Nutrition at Vanderbilt University Medical Center is fiercely dedicated to patient care, research and biomedical education. Exceptional reputations in each of these areas have positioned our program as a major national referral center. In the 2023-2024 year, our group completed more than 60,000 outpatient visits and over 33,000 endoscopic procedures at eight different locations in Davidson, Williamson and Wilson counties, and provided care for patients at the Nashville VA Medical Center. In addition to general gastroenterology (GI), our division provides specialized multidisciplinary care for patients with inflammatory bowel disease (IBD), motility disorders, pancreaticobiliary and liver diseases, and nutritional disorders with an emphasis on aligning clinical care with translational science and providing access to cutting-edge clinical trials.

Research funding within the division is approximately \$13 million per year, primarily from the NIH, and we enjoy robust collaborations with the Division of Pediatric Gastroenterology and the Department of Pathology, Microbiology and Immunology, where many of our faculty have joint appointments. We are active participants in the Vanderbilt Institute for Infection, Immunology, and Inflammation and the Vanderbilt Center for Immunobiology, and our work is strongly supported by the Vanderbilt Institute for Clinical and Translational Research and its large de-identified patient cohort and genetic biorepository, BioVU.

The division fellowship program offers 18 positions in Gastroenterology and Hepatology, Liver Transplantation, IBD and Advanced Endoscopy. The general GI fellowship program remains in the top tier in the country, receiving more than 500 applications annually for five positions. Importantly, our program has achieved an 80% matriculation rate for graduating fellows into academic faculty positions over the last five years.

In terms of subspecialty care and accomplishments in the last year, the Vanderbilt IBD Center completed more than 16,000 clinic visits, over 50% of which were conducted via telehealth, and added a psychiatric advanced provider to broaden its portfolio of comprehensive services. The Functional Medicine Program expanded to serve patients not only in General GI and Nutrition, but also Endocrinology and Rheumatology. The GI Motility Program was duly recognized with the Vanderbilt Excellence in Patient Care Award. Faculty excelled in educational efforts by serving as course directors for the School of Medicine, as EXCITE Mentors for the Residency Program, and by holding didactic lectures focused on the conduct of endoscopy and esophageal testing. The Motility Program also developed and optimized next generation diagnostic testing for gastroesophageal reflux disease, which is now being deployed for clinical care across the world. The Vanderbilt Pancreaticobiliary Center hired two new faculty and successfully launched a new interventional endoscopy e-Service line. Members in this center also serve in leadership positions for the American Society for Gastrointestinal Endoscopy. The Center for Human Nutrition acquired a \$10 million Innovation Award focused on Celiac Disease and held an inaugural Celiac Disease Gala to support food assistance programs that benefit families navigating celiac disease. The nutrition support team also received a Team of Excellence Award at the American Society for Parenteral and Enteral Nutrition meeting, and was awarded an NIH U01 award to develop new technologies for diagnosing celiac disease. The Section of Hepatology substantially broadened its clinical and academic footprint by staffing outreach clinics in Wilson County, Madison, Alabama, and Evansville, Indiana; publishing 23 peer-reviewed manuscripts; and leading more than 40 clinical and registry trials. And most significantly, our liver transplant program is on an unprecedented pace to perform over 180 transplants, including living donor procedures, in the 2024-2025 academic year.

Dr. Rick Peek, director of the Division of Gastroenterology, Hepatology and Nutrition, was elected to the American Clinical and Climatological Association



NOTABLE RECOGNITION

LEADERSHIP

Keith Obstein, MD, MPH

- Director, Center for Experimental Learning and Assessment (CELA)
- Assistant Dean for Simulation in Medicine Education, VUSM

CLINICAL

VUMC awarded Nutrition Support Team of Excellence at American Society for Parenteral and Enteral Nutrition (ASPEN) 2024 annual meeting

Dawn Adams, MD, MS – Berryman Philanthropy Award for Innovation in Celiac Disease

RESEARCH

Bob Coffey, MD – Cancer Moonshot Research Presentation

Keith Obstein, MD, MPH – Brock Family Center for Applied Innovation Inaugural Innovator of the Year Award

Ashley Spann, MD, MSACI

- American Association for the Study of Liver Diseases (AASLD) Harold Amos Medical Faculty Development Program Hepatology Award
- Robert A. Winn Career Development Award

EDUCATION

Rishi Naik, MD, MSCI – Associate Director, Gastroenterology Fellowship Program

PROFESSIONAL SERVICE

Dawn Adams, MD, MS – President-elect, Society for the Study of Celiac Disease

Keith Obstein, MD, MPH

- Chair, American Gastroenterological Association (AGA) Gastroenterology Training Exam
- Co-director, American College of Gastroenterology (ACG)
- Board of Governors American Society for Gastrointestinal Endoscopy Best Practices Course

Richard Peek, MD

- External Advisory Board Member, Texas Medical Center Digestive Disease Research Center
- Scientific Advisory Board Member, National Cancer Institute Program on the Origins of Gastroesophageal Cancers



DIVISION UPDATE

GENERAL INTERNAL MEDICINE AND PUBLIC HEALTH

Section of Hospital Medicine ▲

The Division of General Internal Medicine and Public Health continues to be defined by growth and excellence across VUMC's tripartite mission of clinical care, education and research. In the 2023-2024 year, a highlight of our clinical efforts included nearly 350,000 outpatient visits with our outpatient clinicians receiving several quality and patient satisfaction commendations. Our Section of Hospital Medicine grew to nearly 115 faculty, enabling us to expand our services and introduce long sought out efficiencies that included geographical localization. Additionally, after a careful national search, the Section of Hospital Medicine enthusiastically welcomed Dr. Russell Ledford as its new Section Head. Drs. Ed Shackelford and Lynn Holliday continued to lead our expanding urgent care assets across Middle Tennessee, providing care for middle Tennesseans in more than 140,000 visits this year.

Highlights of our educational portfolio included Dr. Melanie Skelton assuming the leadership of our Hospice and Palliative Care Fellowship Program. In addition, our faculty continued to oversee much of the inpatient and outpatient training of our expanding Internal Medicine and Medicine-Pediatrics residency training programs.

Our research portfolio remained robust and we continued to enjoy strong federal support, including new R01 (Dr. Lindsay Mayberry), VA (Dr. Christianne Roumie), K23 (Dr. McKenzie Roddy) and K12 (Dr. Hilary Tindle) awards. Many internal and external recognitions for our faculty highlighted below demonstrate the continued appreciation for their excellence by internal and external organizations.

NOTABLE RECOGNITION

LEADERSHIP

Jane Case, DNP – Vice Chair for Advanced Practice, Department of Medicine

Sunil Kripalani, MD, MSc – Vice President for System Sciences

Amanda Mixon, MD, MPH – Deputy Associate Director for Research, Geriatric Research Education and Clinical Center, VA Tennessee Valley Healthcare System

Lyndsay Nelson, PhD – Assistant Director, Center for Quality and Implementation Research

Chase Webber, DO – Associate Director, Center for Advanced Mobile Healthcare Learning

CLINICAL

Hayden Schafer, MD – 2024 Castle Connolly “Rising Star”

Chase Webber, DO – American Medical Association ChangeMedEd Innovation Grant

RESEARCH

Establishment of the Realizing Accelerated Progress, Investigation, Implementation, and Dissemination in Learning Health Systems (RAPID-LHS) Center, co-led by Drs. Christianne Roumie and Russell Rothman

Russell Rothman, MD, MPP – 2023 George L. Engle Award for Outstanding Health Communications Research

EDUCATION

Sunil Kripalani, MD, MSc – Excellence in Mentoring Translational Scientists, Vanderbilt Translational Research Forum

PROFESSIONAL SERVICE

Sunil Kripalani, MD, MSc – Advisory Council, Agency for Healthcare Research and Quality (AHRQ)

Lindsay Mayberry, PhD – President-elect, Behavioral Research in Diabetes Group Exchange

Amanda Mixon, MD, MPH – Chair, VA Special Series Programming, Society of General Internal Medicine (SGIM) National Meeting

NOTABLE PUBLICATIONS

Effect of a Co-Located Bridging Recovery Initiative on Hospital Length of Stay Among Patients With Opioid Use Disorder: The BRIDGE Randomized Clinical Trial. Marcovitz D, Dear ML, Donald R, Edwards DA, Kast KA, Le TDV, Shah MV, Ferrell J, Gatto C, Hennessy C, Buie R, Rice TW, **Sullivan W**, White KD, Van Winkle G, Wolf R, Lindsell CJ; Vanderbilt Learning Healthcare System Platform Investigators. *JAMA Netw Open*. 2024 Feb 5;7(2):e2356430. doi: 10.1001/jamanetworkopen.2023.56430. PMID: 38411964; PMCID: PMC10900965.

Injuries From Legal Interventions Involving Conducted Energy Devices. Achola EM, Griffith KN, Wrenn JO, Mitchell CR, Schwartz D, **Roumie CL**. *JAMA Intern Med*. 2024 Apr 1;184(4):440-443. doi: 10.1001/jamainternmed.2023.8012. PMID: 38315481; PMCID: PMC10845035.

Impact of the COVID-19 Pandemic on Medical Grand Rounds Attendance: Comparison of In-Person and Remote Conferences. Monahan K, Gould E, Rice T, Wright P, **Vasilevskis E**, Harrell F, Drago M, Mitchell S. *JMIR Med Educ*. 2024 Jan 3;10:e43705. doi: 10.2196/43705. PMID: 38029287; PMCID: PMC10766009.

The Core Competencies in Hospital Medicine-Clinical Conditions 2023 Update. Nichani S, Brooks ME, Fitterman N, Lukela M, Marzano N, **Sopko K**, Sweigart JR. *J Hosp Med*. 2023 Jul;18 Suppl 2:S6-S43. doi: 10.1002/jhm.13117. Epub 2023 May 18. PMID: 37199400.

Dr. Sunil Kripalani was named Vice President ►
for VUMC System Sciences



PHILANTHROPY HIGHLIGHT

Giving Back After Making History

Patient Gives Back to Honor Relationships with Two Clinicians

In 1978, Betty Bush made hamburger history – she became the first female registered franchise applicant for a McDonald’s restaurant. At the time, she was a high school counselor and English teacher who was ready for a big change.

A lover of books, she studied franchise ownership and navigated a thorough interview process. She completed her degree at Hamburger University in Chicago and opened her first McDonald’s franchise in Helena, Arkansas, on April 28, 1980. It was the start of a franchise empire that would change the trajectory of her life.

She moved to Tennessee with her husband Jim, with whom she is celebrating 40 years of marriage this year, and she took on ownership of two additional McDonald’s locations.

Bush has been “retired, but not idle” since selling her McDonald’s stores in December 2020. This time allowed her to explore philanthropy and create a giving trust through which she and Jim made generous gifts to Vanderbilt University Medical Center. Bush’s relationships with Robert Miller, MD, and Craig Sussman, MD, inspired them to give back to VUMC.

“We wanted to honor them in that way because of what they meant to me and my quality of life,” Bush said.

In 2010, Bush was searching for a new doctor and found Dr. Sussman’s name on a list of the top 100 doctors in *The Tennessean*. He became her primary care physician and in 2015, he referred her to Dr. Miller for a problem with her lung. She describes them both as “servants of the people.”

The gift made in honor of Dr. Miller supported his work with the Shade Tree Clinic. The clinic, founded and run by Vanderbilt University School of Medicine students, strives to be the medical home for the underserved and uninsured in Nashville by providing free, quality care for acute and chronic illnesses, social services and health education. When Bush learned about the clinic, she instantly knew she wanted to make a gift to further support their mission and work.

“The clinic is becoming a model for other learning clinics,” she said. “We wanted the money to go to a place where people could utilize the value of it.”

The Bushes also made a gift to support research and education initiatives in the Division of Diabetes, Endocrinology and Metabolism, in honor of Dr. Sussman.

About VUMC and both doctors, Bush says, “I cannot think of a better place, and I cannot thank them enough. I’ve depended on them for so much information and so much guidance.”

◀ *Betty Bush*

DEPARTMENT OF MEDICINE GIVING

Generous donors like the Bushes help strengthen the Department of Medicine’s educational, research and patient care programs.

For more information and to make a contribution, scan the QR code, or visit medicine.vumc.org/dom-giving.







DIVISION UPDATE

GENETIC MEDICINE

*Dr. Jibril Hirbo (center right) led a glaucoma research team, including Drs. Eric Gamazon (back right) and Xue Zhong (right), that published an article in the journal *Cell Reports Medicine** ▲

The Division of Genetic Medicine had a great deal to celebrate this year. Dr. Nancy J. Cox received the 2023 Leadership Award from the American Society of Human Genetics, Dr. Alexander Bick was awarded the American Federation for Aging Hevolution New Investigator Award in Aging Biology and Geroscience Research, Dr. Douglas Ruderfer was appointed Director of the new Center for Digital Genomic Medicine, and Dr. Tuya Pal received Vanderbilt-Ingram Cancer Center recognition for high-impact clinical investigation in breast cancer.

A new research fellowship award was established for Genetic Counselors at Vanderbilt through an National Human Genome Research Institute R25 award for Fellowships in Genomic Outcomes Research to co-PI's Drs. Cox and Martha Dudek (Department of Obstetrics and Gynecology), who also work with investigators at the University of Pennsylvania on the Advanced Research Training for Genetic Counselors project funded through the Warren Alpert Foundation for enriching research experience for Genetic Counselors at VUMC.

The division was highly productive this year, publishing more than 90 articles in high-impact, peer-reviewed journals such as *Nature*, *Nature Genetics* and the *American Journal of Human Genetics*. The All of Us flagship paper, led by Dr. Bick, was also published in *Nature* in February 2024 and is a milestone for both the overall program and Vanderbilt's extensive participation in All of Us.

Dr. Alex Bick (right) was named to succeed Dr. Nancy Cox as director of the Division of Genetic Medicine, effective in the 2024-2025 academic year ►

NOTABLE RECOGNITION

LEADERSHIP

Douglas Ruderfer, PhD – Director, Center for Digital Genomic Medicine

RESEARCH

Alexander Bick, MD, PhD – American Federation for Aging Rejuvenation/AFAR New Investigator Award in Aging Biology and Geroscience Research

Nancy Cox, PhD – 2023 American Society of Human Genetics Leadership Award

EDUCATION

VUSM establishes research fellowship program for genetic counselors

SENIOR EDITORSHIPS

Piper Below, PhD – Sr. Statistical Editor, *Circulation Research*

NOTABLE PUBLICATIONS

Physical Activity and Incident Obesity Across the Spectrum of Genetic Risk for Obesity. Brittain EL, Han L, Annis J, Master H, Hughes A, Roden DM, Harris PA, **Ruderfer DM**. *JAMA Netw Open*. 2024 Mar 4;7(3):e243821. doi: 10.1001/jamanetworkopen.2024.3821. PMID: 38536175; PMCID: PMC10973894.

Clonal hematopoiesis of indeterminate potential is associated with acute kidney injury. Vlasschaert C, Robinson-Cohen C, Chen J, Akwo E, Parker AC, Silver SA, Bhatraju PK, Poisner H, Cao S, Jiang M, Wang Y, Niu A, Siew E, Van Amburg JC, Kramer HJ, Kottgen A, Franceschini N, Psaty BM, Tracy RP, Alonso A, Arking DE, Coresh J, Ballantyne CM, Boerwinkle E, Grams M, Zhang MZ, Kestenbaum B, Lanktree MB, Rauh MJ, Harris RC Jr, **Bick AG**. *Nat Med*. 2024 Mar;30(3):810-817. doi: 10.1038/s41591-024-02854-6. Epub 2024 Mar 7. PMID: 38454125; PMCID: PMC10957477.

Novel ancestry-specific primary open-angle glaucoma loci and shared biology with vascular mechanisms and cell proliferation. Lo Faro V, Bhattacharya A, Zhou W, Zhou D, Wang Y, Läll K, Kanai M, Lopera-Maya E, Straub P, Pawar P, Tao R, **Zhong X**, Namba S; Global Biobank Meta-analysis Initiative; Sanna S, Nolte IM, Okada Y, Ingold N, MacGregor S, Snieder H, Surakka I, Shortt J, Gignoux C, Rafaels N, Crooks K, Verma A, Verma SS, Guare L, Rader DJ, Willer C, Martin AR, Brantley MA Jr, **Gamazon ER**, Jansonius NM, Joos K, **Cox NJ**, **Hirbo J**. *Cell Rep Med*. 2024 Feb 20;5(2):101430. doi: 10.1016/j.xcrm.2024.101430. PMID: 38382466; PMCID: PMC10897632.

Alternative polyadenylation quantitative trait methylation mapping in human cancers provides clues into the molecular mechanisms of APA. Li Y, Gong J, Sun Q, Vong EG, Cheng X, Wang B, Yuan Y, Jin L, **Gamazon ER**, Zhou D, Lai M, Zhang D. *Am J Hum Genet*. 2024 Mar 7;111(3):562-583. doi: 10.1016/j.ajhg.2024.01.010. Epub 2024 Feb 16. PMID: 38367620; PMCID: PMC10940021.

Epigenome-wide association study of total nicotine equivalents in multiethnic current smokers from three prospective cohorts. Huang BZ, Binder AM, Quon B, Patel YM, Lum-Jones A, Tiirikainen M, Murphy SE, Loo L, Maunakea AK, Haiman CA, Wilkens LR, Koh WP, Cai Q, **Aldrich MC**, Siegmund KD, Hecht SS, Yuan JM, Blot WJ, Stram DO, Le Marchand L, Park SL. *Am J Hum Genet*. 2024 Mar 7;111(3):456-472. doi: 10.1016/j.ajhg.2024.01.012. Epub 2024 Feb 16. PMID: 38367619; PMCID: PMC10940014.

Mosaic chromosomal alterations in blood across ancestries using whole-genome sequencing. Jakubek YA, Zhou Y, Stilp A, Bacon J, Wong JW, Ozcan Z, Arnett D, Barnes K, Bis JC, Boerwinkle E, Brody JA, Carson AP, Chasman DI, Chen J, Cho M, Conomos MP, **Cox N**, Doyle MF, Fornage M, Guo X, Kardia SLR, Lewis JP, Loos RJF, Ma X, Machiela MJ, Mack TM, Mathias RA, Mitchell BD, Mychaleckyj JC, North K, Pankratz N, Peyser PA, Preuss MH, Psaty B, Raffield LM, Vasan RS, Redline S, Rich SS, Rotter JI, Silverman EK, Smith JA, Smith AP, Taub M, Taylor KD, Yun J, Li Y, Desai P, **Bick AG**, Reiner AP, Scheet P, Auer PL. *Nat Genet*. 2023 Nov;55(11):1912-1919. doi: 10.1038/s41588-023-01553-1. Epub 2023 Oct 30. PMID: 37904051; PMCID: PMC10632132.



DIVISION UPDATE

GERIATRIC MEDICINE



Dr. Harvey Murff (left), director of the Division of Geriatric Medicine, was named holder of VUMC's Grant R. Wilkinson Directorship

The Division of Geriatric Medicine continued its growth in the 2023-2024 year with the addition of several new faculty members. Our research portfolio grew with the addition of Drs. Corey Bolton and Leslie Gaynor, who are also part of the Vanderbilt Memory and Alzheimer's Center and have a research focus on improving the diagnosis and care of individuals with cognitive impairment.

Our clinical operations remained robust with inpatient consultative services, outpatient clinics, post-hospitalization care and the Acute Care for Elders (ACE) inpatient unit. Dr. Rachael Petry assumed the role as the Medical Director for the ACE unit taking the reins from Dr. Mariu Duggan, who helped the Unit achieve 4M's Age Friendly Healthcare recognition status. Over the past year, Dr. Tara Horr developed two new services to help deliver care in patients' homes and improve post-acute facility care. As a result of her expertise in caring for patients in the home, Dr. Horr was invited to present her work on enhanced home health services for high acuity patients at the International Council of Nurses Congress.

Under the direction of Dr. Duggan, the Geriatric Medicine Fellowship Program had another great year, recruiting four new fellows in what is a very competitive environment. Dr. Kimberly Beiting worked on developing a curriculum on treating substance abuse in older adults for the Addiction Medicine Fellowship. In

addition, Drs. Beiting and Duggan published their work with the Geriatric Fellows Learning Online And Together (Geri-a-FLOAT) program, founded in part by Dr. Duggan. As a result of this publication, Dr. Beiting was named as the recipient of the American Geriatrics Society Outstanding Junior Clinician Education Manuscript Award. The Geri-a-FLOAT program now reaches over 700 registered learners in 25 different countries across six continents.

Several geriatrics faculty received major grant awards to support their research programs. Dr. Sandra Simmons was awarded a \$3.9 million grant from the Tennessee Department of Health Healthcare Resiliency Program to develop and evaluate innovative models of nursing care. Dr. Consuelo Wilkins was awarded a \$51 million NIH award to improve the efficiency of clinical trials.

Our faculty continued to have a local and national impact on geriatric care. Dr. Jim Powers, who serves on the Age-Friendly Steering Committee for the Department of Veterans Affairs, was named an advisor to the Governor's Office on the creation of a cabinet-level position for the Tennessee Commission on Aging and Disability. Dr. Simmons was interviewed by the office of Senator Bob Casey, Chairman for the Special Committee on Aging, about long-term care workforce issues as the Senator develops a Long-Term Care Workforce Support Act.

The Division of Geriatric Medicine is looking forward to the upcoming year. We hope to further grow our research portfolio. In the clinical space, we plan to further expand the home-based services that we offer. Finally, we will continue to deliver outstanding training and education in geriatrics for our fellows, residents and medical students.



Dr. Consuelo Wilkins was awarded a \$51 million NIH award to improve the efficiency of clinical trials

NOTABLE RECOGNITION

LEADERSHIP

Rachael Petry, MD – Medical Director, 7 Round Wing

EDUCATION

Kimberly Beiting, MD – American Geriatrics Society (AGS) 2024 Outstanding Junior Clinician Education Manuscript Award

PROFESSIONAL SERVICE

Jim Powers, MD – Age-Friendly Steering Committee Member, Department of Veterans Affairs

Corey Bolton, PsyD – Co-chair, Symptomatic Subcommittee of the Advisory Group for Risk Evidence Education in Dementia (AGREEDementia)

Leslie Gaynor, PhD – Communications Chair, Alzheimer's Association ISTAART Cognitive PIA

Harvey Murff, MD, MPH

- Chair, American Cancer Society Cancer Prevention and Health Promotion Study Section
- Ad Hoc Member, National Cancer Institute Cancer Diagnosis, Prevention and Therapeutics Review Branch Special Emphasis Panel

SENIOR EDITORSHIPS

Harvey Murff, MD, MPH – Deputy Editor, American College of Physicians Journal Club

NOTABLE PUBLICATIONS

In persons aged ≥ 45 y, the mt-sRNA test had 94% sensitivity for colorectal cancer and 46% for advanced adenomas. **Murff HJ.** *Ann Intern Med.* 2024 Feb;177(2):JC23. doi: 10.7326/J23-0114. Epub 2024 Feb 6. PMID: 38316002.

Challenges in Deprescribing among Older Adults in Post-Acute Care Transitions to Home. Wang J, Shen JY, Yu F, Nathan K, Caprio TV, Conwell Y, Moskow MS, Brasch JD, **Simmons SF**, Mixon AS, Norton SA. *J Am Med Dir Assoc.* 2024 Jan;25(1):138-145.e6. doi: 10.1016/j.jamda.2023.09.021. Epub 2023 Oct 29. PMID: 37913819; PMCID: PMC10843747.

Integrating participants as partners in research governance and operations: an approach from the *All of Us Research Program* Engagement Core. Hammack-Aviran C, **Fair AM**, Aldrich M, Richmond J, Carpenter SM, Watson KS, Cohn EG, **Wilkins CH.** *BMJ Open.* 2023 Nov 27;13(11):e068100. doi: 10.1136/bmjopen-2022-068100. PMID: 38011981; PMCID: PMC10685928.

Why do older adults decline participation in research? Results from two deprescribing clinical trials. Strayer TE, Hollingsworth EK, Shah AS, Vasilevskis EE, **Simmons SF**, Mixon AS. *Trials.* 2023 Jul 18;24(1):456. doi: 10.1186/s13063-023-07506-7. PMID: 37464431; PMCID: PMC10353211.

HEMATOLOGY AND ONCOLOGY



Dr. W. Kimryn Rathmell, division member and former Department of Medicine Chair, was appointed director of the National Cancer Institute ▲

The Division of Hematology and Oncology continued to have great success in the 2023-2024 year.

In the Section of Hematology, we welcomed seven new faculty between July and September 2023, which resulted in increased faculty productivity in the clinic and labs, as well as in their contributions to leading professional organizations. Dr. Sanjay Mohan, who was promoted to Clinical Lead for malignant hematology, delivered an oral presentation at The American Society for Hematology (ASH) annual meeting and was selected to Chair the ASH Training Awards Subcommittee. Drs. Mary Philip and Brent Ferrell were named as Research Program Fellows in the Vanderbilt-Ingram Cancer Center (VICC), a program designed to prepare future leaders in VICC. Dr. Vivek Patel, a former Chief Fellow and one of our newest faculty members, was named an ASH Ambassador Faculty Advisor, one of only 20 in the nation. Dr. Bipin Savani was awarded an American Society for Transplantation and Cellular Therapy (ASTCT) Survivorship Special Interest Group Lifetime Achievement Award. Dr. Eden Biltibo, who is also a member of the Vanderbilt Institute for Global Health, was named a Multiple Myeloma Research Foundation Scholar Recipient. Dr. Reena Jayani, in partnership with colleagues in the Department of Medicine Division of Geriatric Medicine, helped VICC get listed by the Institute for Healthcare Improvement as an Age-Friendly Healthcare system-

Committed to Care Excellence.

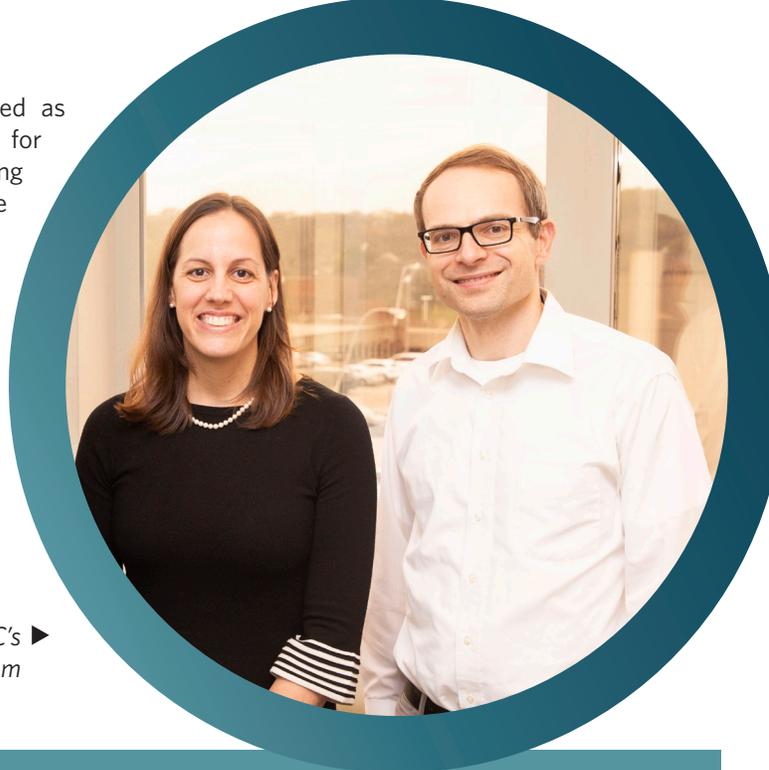
The Section of Solid Tumor had two members accepted into the VUMC Academy for Excellence in Clinical Medicine, Drs. Kristin Ancell and Kristen Ciombor. The leader of the section, Drs. Justin Balko and Doug Johnson were among 12 members of VUMC to be named to Clarivate's list of "Most Highly Cited Researchers." Dr. Balko was also named a 2023 Chancellor Faculty Fellow. Dr. Scott Haake received two Idea Development Awards from the Department of Defense Kidney Cancer Research Program, each worth over \$1 million. Dr. Cathy Eng designed and led a trial of fruquintinib in colorectal cancer that was successful and led to FDA approval of the drug in 2023 and a Lancet paper. She is now on the Board of Directors for the advocacy group, Fight Colorectal Cancer, and chaired their inaugural meeting on early-age onset colorectal cancer in Nashville. Dr. Rob Ramirez was elected to serve a second term on the Board of the North American Neuroendocrine Tumor Society. And most notably, division member and former Department of Medicine Chair, Dr. W. Kimryn Rathmell was not only elected to the American Society for Clinical Investigation, but was appointed Director of the National Cancer Institute (NCI).

Our Advanced Practice Providers (APP) delivered over a dozen presentations and publications and continued to take leadership

positions in national organizations. Karina Wilkerson was selected as Research and Publications Committee Co-chair for the Foundation for Women and Girls with Blood Disorders Sickle Cell Disease Working Group. Heather Jackson, a founding Board of Directors member of the Pain Medicine Academy of Advanced Practice Providers, received multiple accolades including 2023 VUMC APP of the Year for National APP week.

Division members continue to be recognized for their contributions through awards and grants, appointments to leadership positions internal and external to VUMC, and invited speaker opportunities that demonstrate their leadership across the field of hematology and oncology. As we embark on the next year, we remain focused on delivering exceptional patient care, performing groundbreaking research, and mentoring the next generation as proud and productive members of the Department of Medicine.

Dr. Kristen Ciombor (left) joined Dr. Douglas Johnson (right) to lead VICC's Translational Research and Interventional Oncology Research Program ▶



NOTABLE RECOGNITION

LEADERSHIP

Kimryn Rathmell, MD, PhD, MMHC – Director, NCI

Vandana Abramson, MD – Breast Cancer Research Program, VICC

Kristen Ciombor, MD, MSCI – Translational Research and Interventional Oncology Research Programs, VICC

CLINICAL

2023 Hematology and Oncology Division APP Awards

- **Gray Ryan, DNP, APRN** – APP Fellow Preceptor of the Year
- **Whitney Chase, MSN** – Inpatient APP
- **Kate Kennedy, MSN** – Outpatient APP

Deborah Hawkins, MSN – Advanced Practice Provider Oncology Summit MVP Award

Cathy Eng, MD

- 2024 *Castle Connolly* “Top Doctor”
- 2024 *Castle Connolly* “Exceptional Women in Medical Oncology”
- “Top 100 Influential Women in Oncology: Key Opinion Leaders to Follow on Social Media”
- “Top 100 Influencers in Colorectal Cancer: Key Opinion Leaders to Follow on X (Twitter)”

Heather Jackson, MSN, BSN, PhD

- 2023 VUMC National APP Week APP of the Year
- American Society of Regional Anesthesia and Pain Medicine
- 2024 Advance Practice and Nursing Award

Bipin Savani, MD – American Society for Transplantation and Cellular Therapy (ASTCT) Survivorship SIG Lifetime Achievement Award

RESEARCH

Eden Biltibo, MD, MS – Multiple Myeloma Research Foundation Scholars Program Award

Cathy Eng, MD – 2023 VUMC Biomedical Science Impact Award

Kimryn Rathmell, MD, PhD, MMHC – Doris Duke Foundation Paragon Award for Research Excellence

EDUCATION

Heather Jackson, MSN, BSN, PhD – 2024 Culpepper Education and Mentoring Award Recipient

Ronak Mistry, DO – American Society of Hematology (ASH) Medical Educators Initiative Award

PROFESSIONAL SERVICE

Kristin Ciombor, MD, MSCI – Chair, EGCOG-ACRIN Colorectal/Anal Working Group

Cathy Eng, MD

- Board of Directors, Fight Colorectal Cancer
- Chair, 8th Annual Early Onset Colon Cancer Summit

Heather Jackson, MSN, BSN, PhD – Founding Member and Board Director, Pain Medicine Academy of Advanced Practice Providers

Sanjay Mohan, MD – Chair, American Society of Hematology Training Awards Subcommittee

Robert Ramirez, DO – Board of Directors, North American Neuroendocrine Tumor Society



DIVISION UPDATE

INFECTIOUS DISEASES

Dr. John Koethe (right) was named director of the Tennessee Center for AIDS Research. He succeeds Dr. Simon Mallal (left) who held the position since 2015

The Division of Infectious Diseases is dedicated to enhancing prevention and treatment of infectious diseases through discovery and application of new knowledge that is seamlessly integrated with mentoring trainees to become the next generation of national leaders in the field. The division's mission is enhanced by our strong emphasis on interdisciplinary collaboration, commitment to life-long self-learning, and professionalism. We emphasize a global perspective and aim to maintain excellence and compassion in every clinical encounter.

Dr. Kelly Dooley completed her first year as Division Director in September 2023 and continues to be honored and inspired by the role. Dr. Karen Bloch, the Associate Division Director for Clinical Affairs, continues to have a strong vision for steady and smart clinical growth in the context of shortages of ID-trained physicians nationwide. To help us better serve our Vanderbilt University Hospital (VUH) colleagues, we added advanced practice providers to our inpatient consultation teams. Dr. Titus Daniels continued to help us expand our regional reach - a great need as there is only one ID specialist for every 56,000 patients in Tennessee - by expanding our telehealth services to Vanderbilt Bedford County Hospital and Vanderbilt Tullahoma Harton Hospital. Dr. Sean Kelly is the Medical Director of VUMC's Comprehensive Care Center (VCCC), which was named a top five HIV clinic in the United States. As a testament to his sound judgment and dedication to the underserved, he

was appointed Associate Medical Director of VUMC's Office of Outpatient Referral Assistance. In June 2024, we welcomed Dr. Maricar Malinis to VUMC as the Director of Transplant ID, where she will lead a robust group of faculty and expanded transplant ID services. Dr. Casey Smiley, another new faculty member, partnered with vascular surgery to lead a multidisciplinary comprehensive wound care clinic that includes ID care.

Our division is home to multiple national leaders in Infectious Diseases. This year, Dr. Thomas Talbot was named President of the Society for Hospital Epidemiology of America (SHEA), the home for the science and practice of infection prevention and antimicrobial stewardship. Dr. Anna Person was named the Vice Chair of the Board of the HIV Medicine Association (HIVMA). Dr. Keipp Talbot, an expert in viral infections and vaccinology, was appointed Chair of the Advisory Committee on Immunization Practices (ACIP), the organization charged by the Centers for Disease Control and Prevention (CDC) with developing recommendations for use of vaccines in the U.S. Other individual faculty achievements to highlight include the selection of Dr. Karen Bloch by the Infectious Diseases Society of America (IDSA) for the Watanakunakorn Clinician Award, an award recognizing outstanding achievements in the clinical practice of infectious diseases.

In the 2023-2024 year, division faculty led a large - nearly

\$77 million – and diverse portfolio of research that spans fundamental laboratory investigation, epidemiology, clinical trials, implementation science, and public policy. This includes a U24 to Dr. Suman Das and colleagues for ECHO Laboratory Core for Integrated Sample Biobanking and Processing, which is one of VUMC’s largest NIH awards to date; renewal of the Southeast Regional AIDS Education and Training Center (SEAETC), led by Principal Investigator Dr. Cody Chastain; and an award to Dr. Scott Smith to explore the role of IgE in human disease and immunity to ticks. Dr. Peter Rebeiro successfully navigated the notoriously-difficult K-to-R transition with not one but two R01 awards within a month of each other. Dr. Timothy Cover received the most prestigious grant award from the Department of Veteran Affairs, the Senior Clinician Scientist Investigator Award, for his work on Helicobacter pylori and its link to gastric disease and stomach cancer. Dr. John Koethe assumed the role of Director and Principal Investigator of the Tennessee Center for AIDS Research (CFAR), a partnership between VUMC, Meharry Medical College, the Tennessee Department of Health (TDoH), and Nashville CARES. Dr. Keipp Talbot leads the Epidemiology of Infectious Diseases partnership with TDoH, and our faculty, including Drs. C. William Wester, Paul Blair, Timothy Sterling, Jessica Castilho, and others continue to have a major impact on global health through their research. We anticipate further collaborative research successes following an inspirational research retreat hosted by the Office of Strategy and Innovation this year. We are grateful for philanthropy successes in HIV care Drs. Kelly, Cristian Chandler and Krystn Wagner, and Drug

Safety and Immunology by Dr. Elizabeth Phillips and colleagues.

The division provides exceptional training across three fellowship programs. The general ID Fellowship Program is ably led by Drs. Christina Fiske and Sharon Ong’uti, who was appointed Associate Program Director this year. The program continues to attract top-notch fellows, matching five exceptional candidates this year, while more than half of U.S. programs went unfilled. The Addiction Medicine fellowship, housed in ID since 2022, is led by Dr. Katie White, and Dr. Kevin Dee directs the Transplant ID Fellowship, one of just 20 programs in the country. We are dedicated to medical education, as evidenced by Dr. Ban Allos’ new role as the Chair of Medical School Admissions and Dr. Cody Chastain’s selection as Assistant Dean of Undergraduate Medical Education Program Evaluation and Improvement.

The Division of Infectious Diseases is a dynamic and collaborative place, filled with the very best faculty, trainees and staff who are dedicated to addressing unmet medical needs, calmly and with unwavering dedication to service. We are committed to ending the HIV epidemic, to treating – and finding new ways to treat – complex infections in those patients who need us, and to meeting today’s and tomorrow’s infectious pathogens head-on.

NOTABLE RECOGNITION

LEADERSHIP

Sean Kelly, MD – Associate Medical Director, Office of Outpatient Referral Assistance

CLINICAL

Launch of Nontuberculosis Mycobacteria (NTM) & Bronchiectasis Multidisciplinary Center

Karen Bloch, MD, MPH – Infectious Disease Society of America (IDSA) 2023 Watanakunakorn Clinician Award

RESEARCH

Timothy Cover, MD – Department of Veterans Affairs Senior Clinician Scientist Investigator Award

EDUCATION

Cody Chastain, MD – VUSM 2024 Geoffrey David Chazen Award for Innovation in Medical Education

PROFESSIONAL SERVICE

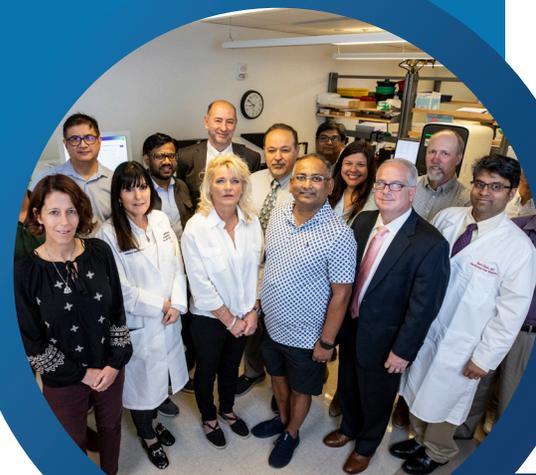
John Koethe, MD, MSCI – Director, Tennessee Center for AIDS Research

Sharon Ong’uti, MD, MPH – Member, Infectious Disease Society of America (IDSA) Professional Development Committee

Anna Person, MD – Vice Chair, HIV Medicine Association Board

Keipp Talbot, MD, MPH – Chair, CDC Advisory Committee on Immunization Practices

Thomas Talbot, MD, MPH – President, Society of Healthcare Epidemiology of America (SHEA)



The ECHO/ELVIS study is one of VUMC’s largest NIH awards, totaling nearly \$70 million in funding to date

NEPHROLOGY AND HYPERTENSION



Dr. Ebele Umeukeje ▲

The Division of Nephrology and Hypertension accomplished significant growth and achievements in the 2023-2024 academic year. Our clinical program is highlighted by a record breaking 330 kidney transplants, which is an almost 20% increase in volume over the last three years. This remarkable accomplishment is accompanied by one of the largest academic home dialysis programs with 120 patients. Our outpatient program has grown with three additional outreach programs covering a substantial geographic area in Tennessee. The specialty clinics are enriched with newly launched Onco-Nephrology and Kidney Stone clinics. We also performed over 9,000 acute treatments for various conditions requiring extracorporeal therapies in the inpatient setting.

Under the direction of Dr. Anna Burgner, our clinical fellowship training program continued to thrive with 15 general nephrology and two transplant fellowship slots. In recognition of this highly successful program, Dr. Burgner was awarded the 2023 American Society of Nephrology Distinguished Educator Award. In addition, Dr. Gautam “Jay” Bhave was elected to the Vanderbilt University School of Medicine’s (VUSM) Academy for Excellence in Clinical Medicine based on his exceptional clinical acumen and teaching. Dr. Raymond Harris received the 2024 Edge for Scholars Excellence in Mentoring Award for excellence in mentoring early career faculty to research independence.

Our faculty also continued to excel in research this past academic year. Dr. Eman Gohar received funding from NIH to study the impact of estrogen signaling on postmenopausal hypertension. She was also appointed as the Co-chair, American Society of Nephrology’s Clinical Guidance Committee. Dr. Roy Zent was awarded the Keck Foundation grant for groundbreaking genetic research. Dr. Lauren Woodard is the Chair of Nonviral Therapeutic Delivery Committee for the American Society of Gene and Cell Therapy.

The Division of Nephrology and Hypertension is committed to its continued efforts to be a nationally and internationally recognized leader in the care of individuals living with kidney disease.

Dr. Gautam “Jay” Bhave was elected to the 2024 class ►
of VUSM’s Academy for Excellence in Clinical Medicine

NOTABLE RECOGNITION

LEADERSHIP

Kelly Birdwell, MD, MSCI – Medical Director, Kidney and Pancreas Transplant Program

Eman Gohar, PhD – Steering Committee, Women on Track

EDUCATION

Anna Burgner, MD – American Society of Nephrology Distinguished Educator Award

Ray Harris, MD – 2024 Edge for Scholars Excellence in Mentoring Award for “Excellence in Mentoring Early Career Faculty to Research Independence”

PROFESSIONAL SERVICE

Anna Burgner, MD – Chair, American Society of Nephrology In-training Exam Committee

T. Alp Ikizler, MD – Co-chair, American Society of Nephrology Clinical Guidance Committee

Lauren Woodard, PhD – Chair, American Society of Gene and Cell Therapy Nonviral Therapeutic Delivery Committee

SENIOR EDITORSHIPS

T. Alp Ikizler, MD – Associate Editor, *Kidney International*

NOTABLE PUBLICATIONS

Cytoplasmic retention of the DNA/RNA-binding protein FUS ameliorates organ fibrosis in mice. **Chiusa M**, Lee YA, **Zhang MZ**, **Harris RC**, Sherrill T, Lindner V, **Brooks CR**, Yu G, Fogo AB, Flynn CR, Zienkiewicz J, Hawiger J, **Zent R**, **Pozzi A**. *J Clin Invest*. 2024 Mar 15;134(6):e175158. doi: 10.1172/JCI175158. PMID: 38488009; PMCID: PMC10940094.

Adenine Nucleotide Translocators Control Kidney Metabolism and Lipid Handling. Sugahara S, **Brooks CR**. *J Am Soc Nephrol*. 2024 Mar 1;35(3):257-258. doi: 10.1681/ASN.0000000000000314. PMID: 38356156; PMCID: PMC10962857.

Prostacyclin Mitigates Renal Fibrosis by Activating Fibroblast Prostaglandin I₂ Receptor. Li J, Guan Y, Xu Y, Cao Y, Xie Q, **Harris RC**, Breyer MD, Lu L, Hao CM. *J Am Soc Nephrol*. 2024 Feb 1;35(2):149-165. doi: 10.1681/ASN.0000000000000286. Epub 2023 Dec 8. PMID: 38062563; PMCID: PMC10843231.

Epidermal growth factor receptor activation is essential for kidney fibrosis development. **Cao S**, Pan Y, **Terker AS**, **Arroyo Ornelas JP**, **Wang Y**, Tang J, Niu A, **Kar SA**, Jiang M, **Luo W**, Dong X, Fan X, Wang S, **Wilson MH**, Fogo A, **Zhang MZ**, **Harris RC**. *Nat Commun*. 2023 Nov 14;14(1):7357. doi: 10.1038/s41467-023-43226-x. PMID: 37963889; PMCID: PMC10645887.

Inhibition of retinoic acid signaling in proximal tubular epithelial cells protects against acute kidney injury. Yang M, Lopez LN, Brewer M, **Delgado R**, Menshikh A, Clouthier K, Zhu Y, Vanichapol T, Yang H, **Harris RC**, Gewin L, **Brooks CR**, Davidson AJ, **de Caestecker M**. *JCI Insight*. 2023 Oct 23;8(20):e173144. doi: 10.1172/jci.insight.173144. PMID: 37698919; PMCID: PMC10619506.

Fluid management protocols in hemodialysis patients using bioimpedance validation: time to look elsewhere? **El Shamy O**, **Ikizler TA**. *Kidney Int*. 2023 Sep;104(3):425-427. doi: 10.1016/j.kint.2023.06.033. PMID: 37599016.

Genome-Wide Association Study of CKD Progression. Robinson-Cohen C, **Triozi JL**, Rowan B, He J, Chen HC, Zheng NS, Wei WQ, Wilson OD, Hellwege JN, Tsao PS, Gaziano JM, Bick A, Matheny ME, Chung CP, Lipworth L, **Siew ED**, **Ikizler TA**, Tao R, **Hung AM**. *J Am Soc Nephrol*. 2023 Sep 1;34(9):1547-1559. doi: 10.1681/ASN.0000000000000170. Epub 2023 Jun 1. PMID: 37261792; PMCID: PMC10482057.

Deregulating iron-erythropoiesis regulation: transferrin receptor 2 as potential target for treating anemia in CKD. Koury MJ, Haase VH. *Kidney Int*. 2023 Jul;104(1):25-28. doi: 10.1016/j.kint.2023.04.017. PMID: 37349056.





DIVISION UPDATE

RHEUMATOLOGY AND IMMUNOLOGY

Dr. John Sergent (center), associate program director of the Internal Medicine Residency Program, delivered the 22nd Annual Levi Watkins, Jr. MD Lecture ▲

It has been an exciting year for the Division of Rheumatology and Immunology with many of our initiatives coming to fruition. We continued to grow our specialized clinical services. New faculty member Dr. Erin Chew created a new clinical program in musculoskeletal ultrasound, allowing improved diagnostic accuracy and guided injections for our patients. Dr. Tyler Reese, together with Anna Richmond, NP, completed preparations to launch the Transitions Clinic that aims to smooth the transition from pediatric rheumatology to the adult clinic. Dr. Sarah Homann returned to the faculty, following completion of her fellowship training in palliative care, to create a Palliative Rheumatology Clinic. Our specialty clinics in vasculitis, systemic sclerosis, myositis, and spondyloarthropathies continued to enroll patients into prospective cohorts, collecting biospecimens to facilitate our translational research. These focused clinics facilitate coordinated multidisciplinary care and increase enrollment into clinical trials.

On the clinical research front, we embarked on an ambitious program to bring cellular therapies such as chimeric antigen receptor (CAR)-T cells to patients with autoimmune diseases.

Dr. April Barnado's work bridges NIH funding with clinically important questions. She is utilizing the electronic health record to identify patients with a positive ANA who are at high risk of having a systemic autoimmune rheumatic disease according to a novel algorithm she developed. Along with Emily Grace, PA, Dr. Barnado is facilitating rapid referral and evaluation to shorten the time to diagnosis. They will also use these studies to identify patients at low risk that may not need referral to rheumatology clinics. We also continued to see great success for our young physician-scientist faculty with Dr. Paras Karmacharya receiving an NIH career development award, and Dr. Robert Corty receiving funding from the Arthritis National Research Foundation.

Several faculty and fellows are also involved with the American College of Rheumatology, including Dr. Tracy Frech, who serves as clinical chair for our annual scientific meeting, ACR Convergence, and Dr. Leslie Crofford, who was awarded the designation of Master by the American College of Rheumatology. In the 2024-2025 academic year, Dr. Frech succeeds Dr. Crofford as Director of the Division of Rheumatology and Immunology.

NOTABLE RECOGNITION

CLINICAL

Jason Springer, MD, MS – 2024 *Castle Connolly* “Top Doctor”

PROFESSIONAL SERVICE

April Barnado, MD, MSCI

- Member, NIAMS AMS Study Section
- Committee Member, American College of Rheumatology Lupus and Lupus Nephritis Treatment Guidelines
- Committee Member, American College of Rheumatology and CDC Lupus Quality Measures

Kevin Byram, MD – President, Vasculitis Foundation Board of Directors

Paras Karmacharya, MBBS – Core Committee Member, Axial Spondylarthritis American College of Rheumatology Guidelines

Jason Springer, MD, MS – Member, ADVOCATE Study Group

Bobo Tanner, MD

- Board Member, International Society for Clinical Densitometry
- Co-director, Society of Clinical Research Associates Nashville Chapter
- TN Allergy Society Representative, Medicare Carrier Advisory Committee
- Moderator, 2023 Annual Santa Fe Bone Symposium

Erin Wilfong, MD, PhD

- Member, Global Conference on Myositis Organizing Committee
- Co-chair, American College of Rheumatology (ACR) Myositis and Muscular Biology Abstract

NOTABLE PUBLICATIONS

Comparison of late-onset and non-late-onset systemic lupus erythematosus individuals in a real-world electronic health record cohort. Adeogun G, Camai A, Suh A, Wheless L, **Barnado A**. *Lupus*. 2024 Apr;33(5):525-531. doi: 10.1177/09612033241238052. Epub 2024 Mar 7. PMID: 38454796; PMCID: PMC10954386.

An antigen-specific immunotherapeutic, AKS-107, deletes insulin-specific B cells and prevents murine autoimmune diabetes. Alleva DG, Delpero AR, Sathiyaseelan T, Murikipudi S, Lancaster TM, Atkinson MA, Wasserfall CH, Yu L, Ragupathi R, **Bonami RH**, Zion TC. *Front Immunol*. 2024 Mar 7;15:1367514. doi: 10.3389/fimmu.2024.1367514. PMID: 38515750; PMCID: PMC10954819.

Multimorbidity phenotypes in ankylosing spondylitis and their association with disease activity and functional impairment: Data from the prospective study of outcomes in ankylosing spondylitis cohort. **Karmacharya P**, Crowson CS, Lennon RJ, Poudel D, Davis JM 3rd, Ogdie A, Liew JW, Ward MM, Ishimori M, Weisman MH, Brown MA, Rahbar MH, Hwang MC, Reveille JD, Gensler LS. *Semin Arthritis Rheum*. 2024 Feb;64:152282. doi: 10.1016/j.semarthrit.2023.152282. Epub 2023 Nov 7. PMID: 37995469; PMCID: PMC10872589.

Denosumab treatment lapses, discontinuation, and off-treatment fracture risk: A retrospective study of patients with osteoporosis in a real-world clinical setting. Cruchelov KR, Peter ME, Chakrabarti A, Gipson HM, Gregory WT, DeClercq J, Choi L, **Tanner SB**. *Bone*. 2023 Dec;177:116925. doi: 10.1016/j.bone.2023.116925. Epub 2023 Oct 4. PMID: 37797711.

Single-cell atlas of healthy human blood unveils age-related loss of NKG2C+GZMB-CD8+ memory T cells and accumulation of type 2 memory T cells. Terekhova M, Swain A, Bohacova P, Aladyeva E, Arthur L, Laha A, **Mogilenko DA**, Burdess S, Sukhov V, Kleverov D, Echalar B, Tsurinov P, Chernyatchik R, Husarcikova K, Artyomov MN. *Immunity*. 2023 Dec 12;56(12):2836-2854.e9. doi: 10.1016/j.immuni.2023.10.013. Epub 2023 Nov 13. Erratum in: *Immunity*. 2024 Jan 9;57(1):188-192. doi: 10.1016/j.immuni.2023.12.014. PMID: 37963457.

Dr. Tracy Frech was named to succeed Dr. Leslie Crofford as director of the Division of Rheumatology and Immunology, effective in the 2024-2025 academic year



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Associates in Medicine

Jill Cash, MSN

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Inas Winchester, APRN
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NEPHROLOGY AND HYPERTENSION

Professors

Richard Breyer, PhD
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Billy Hudson, PhD
Adriana Hung, MD, MPH **
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*Dr. Jane Freedman delivers the 2023-2024
State of the Department Address* ►

HIGHLIGHTS IN PHILANTHROPY

\$26.3M+

IN TOTAL GIFTS



1

NEW DIRECTORSHIP

7

DONOR AND PROSPECTIVE DONOR EVENTS

- \$1M faculty bequest to establish directorship
- \$550,000 family commitment to the Critical Illness, Brain Dysfunction and Survivorship Center (CIBS)
- \$500,000 family commitment for research in the Division of Cardiovascular Medicine
- Family commitment for research, education and innovation in celiac disease, including a faculty directorship

EVENT SPOTLIGHT: DINE AND DANCE GALA FOR CELIAC DISEASE

The Dine and Dance Gala for Celiac Disease is a joint endeavor between the adult and pediatric Celiac Disease Clinics at Vanderbilt University Medical Center to raise funds for important celiac disease related programming. The inaugural event of 2024 raised roughly \$21,000 that went directly to a gluten-free food assistance program to help feed Vanderbilt Health celiac families struggling with food insecurity. This year's event is raising funds for much needed mental health support programs.



Gifts from our generous donors support our mission to advance scientific discovery, elevate patient care and train future leaders in health care.

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