Annual Report 2023-2024







MESSAGE FROM THE DEAN



Dear School of Medicine community,

In just one short year, we have much for which to be proud across our three missions of research, education and clinical care.

In these pages you'll find stories of the exemplary students we are teaching, evidence of the impactful and innovative research we are conducting and recognition of the outstanding faculty who advance the health of our community through **unparalleled** training, discovery and care.

This year, we saw an impressive rise in our Blue Ridge Institute for Medical Research rankings, the annual nationwide analysis of National Institutes of Health funding and researchers. Our total NIH funding increased 7.6% to nearly \$77 million, with three of our departments ranking in the top 25 in their fields.

We successfully matched 99 percent of our graduating medical students into a PGY-1 position. More than one-third of our graduates will be completing all or part of their residency training in Virginia, demonstrating that our school is at the forefront of training – and retaining – the next generation of compassionate caregivers, researchers and physician leaders right here in the commonwealth.

Our Department of Anesthesiology chair, Alice Coombs, M.D., is the first Black woman to head the Medical Society of Virginia. Psychiatrist Kenneth Kendler, M.D., rose to No. 1 in the world lifetime ranking for research and publications by ScholarGPS. Richard Marconi, Ph.D., who has done groundbreaking work on Lyme disease, was selected this year to be a senior member of the National Academy of Inventors.

We all share collective pride in our school, but what makes me most proud is not top rankings and a full trophy case. It's knowing the students we train are the caregivers of tomorrow. The scientific discoveries we make bring hope to the world. And the compassionate care we deliver to anyone who comes through our doors tells members of our community that they matter.

This school matters.

Thank you to all faculty, students and staff, to VCU and VCU Health, and to the MCV Foundation and our many donors and supporters, for your **unwavering** commitment to the School of Medicine.



Arturo P. Saavedra, M.D., Ph.D.

Dean, VCU School of Medicine Executive vice president for medical affairs, VCU Health System

OUR MISSION

To improve health through exceptional and innovative discovery, training and patient care



CORE VALUES

The core values that guide our conduct, performance and decision-making are:

EDUCATION & LIFELONG LEARNING RESPECT & INTEGRITY DIVERSITY & INCLUSION COMMUNICATION & COLLABORATION INNOVATION & TECHNOLOGY COMMUNITY ENGAGEMENT



2023-24 ANNUAL REPORT

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For more School of Medicine news, please visit <u>medschool.vcu.edu/news</u>

GOOD THINGS COME IN THREES

Each with their own motivations and aspirations, siblings Hiba, Habeebah and Hisham Vohra are on their way to becoming doctors.

By Grace McOmber

Hisham Vohra admitted that his first semester of medical school was easier than he expected. It hasn't been without its challenges, but he has a built-in support system that not many M1s can claim — two older sisters, Habeebah and Hiba, who just finished their M2 and M3 years, respectively.

"There's just less stress because of them," Hisham said. "They let me know when I should and shouldn't be worried about things. I know I have it pretty easy compared to what they went through."

One after the other, yet on different paths, the Vohra siblings are making their way through VCU School of Medicine's M.D. program, an experience they said has brought them together in a way they didn't plan or expect.

According to Donna Jackson, Ed.D., interim senior associate dean for admissions and student outreach, family units like the Vohras are uncommon and a testament to the quality of education in the M.D. program.

Read more about the Vohras:



"It just shows how a passion and love for VCU can be transferred," Jackson said. "We are a family too, and perhaps we draw people from the same family, like the Vohras, as a result."

Health

One of Hiba's earliest memories was joining her mother to drop her father off at the MCV Campus, where he completed his geriatric medicine fellowship in the Department of Internal Medicine in 2001.

"We always knew that our dad was a doctor, but he didn't talk about work all that much," Hiba said. "Whenever he would come home, he would smell like the hospital and we would get a bunch of stuff from it, like pens from pharmaceutical companies."

The family patriarch, Muhammad I. Vohra, M.D., immigrated to the U.S. after graduating from medical school in Karachi, Pakistan. He currently practices as a geriatrician in Midlothian, the Richmond suburb where the Vohra siblings spent most of their childhood. When the siblings were younger, they spent two summers in Karachi, volunteering at the free clinic that their dad established and reconnecting with family they hadn't seen in years.

"I think that's the immigrant story," Habeebah said. "He came here so he could give back to his community."



BRIDGING THE GAP BETWEEN SCIENCE AND POLICY

Ph.D. candidate Stanley Cheatham, whose research explores the gut's reaction to chemotherapy, was one of 10 nationwide Washington Fellows in 2023.

By Anthony DePalma

Stanley Cheatham wants to do more than make discoveries in the lab. He also wants to advocate for stronger ties with policymakers and increased funding so that researchers across the U.S. can continue advancing science and medicine for the betterment of society.

As a Ph.D. candidate in the Department of Pharmacology and Toxicology, Cheatham was named a 2023 Washington Fellow by the American Society for Pharmacology and Experimental Therapeutics (ASPET). The one-year program aims to empower early-career scientists who are interested in the intersection of science and policymaking, and included a trip to Washington, D.C., to lobby for more federal funding for pharmacology and toxicology research. Cheatham is investigating chemotherapyinduced gastrointestinal distress and why it persists in patients who have become resistant to treatment, and he hopes his research can help lead to the development of alternative treatment modalities for both cancer and the side effects of medications to treat it.

When asked about challenges as a researcher, Cheatham emphasized the value of being stubborn and advocating for yourself.

"There are days that you don't want to come into the lab, you don't want to have to repeat your experiment for the sixth time," he said. "So, there are common struggles in academic research that you have to power through ... but my advice would be to stay stubborn and don't give up."



SCHOOL OF MEDICINE AND RICHMOND VA MEDICAL CENTER TEAM UNRAVELS CONNECTION BETWEEN DEMENTIA AND LIVER HEALTH

1 of 10 veterans diagnosed with dementia may instead have cognitive decline from cirrhosis

By A.J. Hostetler

As many as 10% of older U.S. veterans diagnosed with dementia may suffer instead from reversible cognitive decline caused by advanced liver disease, according to an analysis from the School of Medicine and Richmond VA Medical Center.

It can be difficult for physicians to differentiate dementia from the cognitive decline caused by cirrhosis, called hepatic encephalopathy. If undetected, patients may not receive appropriate treatment that can reverse or halt the impairment. The study, published in the journal JAMA Network Open, sought to learn more about the prevalence and risk factors of undiagnosed cirrhosis and potential encephalopathy in veterans with dementia.

Additional research among non-veteran patients with a diagnosis of dementia suggests that this finding is similar among the general population. The findings suggest that physicians treating patients with dementia, even without a cirrhosis diagnosis, should consider assessing their patients for liver disease. Identifying cirrhosis early on may unveil reversible causes of cognitive impairment, potentially improving the lives of these patients.

"This unexpected link between dementia and liver health emphasizes the importance of screening patients for potentially treatable contributors to cognitive decline," said lead author Jasmohan Bajaj, M.D., a gastroenterologist and expert in hepatic encephalopathy with the VCU Stravitz-Sanyal Institute for Liver Disease and Metabolic Health. "Early detection of liver issues allows for targeted interventions and opens avenues for addressing treatable factors contributing to cognitive decline."



CELEBRATING OUR ACHIEVEMENTS

From clinical innovations and research breakthroughs to national appointments and NIH grants, our extraordinary individuals and teams exemplify VCU School of Medicine's mission to improve health through exceptional discovery, training and patient care. Here are just a few examples of our mission in action:



Steering committee appointment for NIH's CTSA program

Gerard Moeller, M.D., director of the VCU C. Kenneth and Dianne Wright Center for Clinical and Translational Research and Department of Psychiatry professor, has been appointed to the Clinical and Translational Sciences Awards (CTSA) Program Steering Committee by the National Institutes of Health's National Center for Advancing Translational Sciences.

Virginia Academy of Family Physicians' next president

Denée J. Moore, M.D., assistant professor and M3 clerkship director in the Department of Family Medicine, was named the 77th president of the Virginia Academy of Family Physicians (VAFP) for the 2023-2024 term.





Innovator of the year

Curtis Sessler, M.D., a professor in the Department of Internal Medicine, created the RASS scale that intensive care unit clinicians and researchers around the world have used for more than two decades to describe a patient's level of alertness and agitation. VCU TechTransfer and Ventures, which facilitates commercialization of university inventions for the benefit of the public, named Sessler the 2023 Innovator of the Year for his development of the scale.

Making history at the Medical Society of Virginia

Alice Coombs, M.D., chair of the Department of Anesthesiology, became the first Black female president of the Medical Society of Virginia. With the appointment, Coombs now has the rare distinction of serving as the president of two state medical societies during her career, having served as president of the Massachusetts Medical Society in 2010.



RESEARCH HIGHLIGHTS

\$230.9 MILLION

> IN SPONSORED RESEARCH FUNDING

of VCU's total research funding

~50%



spots gained in medical research rankings*

DEPARTMENTS IN THEIR SPECIALTIES' TOP 25:

14 th	Family Medicine and Population Health
20 th	Pharmacology and Toxicology
24 th	Psychiatry

*Source: 2023 Blue Ridge Institute for Medical Research Rankings

Senior membership with National Academy of Inventors

Richard Marconi, Ph.D., a professor and researcher in the Department of Microbiology and Immunology, was named a senior member by the National Academy of Inventors (NAI). Marconi has dedicated his career to diagnosing and treating Lyme disease, the most prevalent tick-borne disease in the U.S. He developed a vaccine for canines that has been on the market since 2016 and is working on a vaccine for humans.





No. 1 lifetime ranking with ScholarGPS

The Department of Psychiatry's Kenneth Kendler, M.D., achieved the No. 1 lifetime ranking by ScholarGPS, a platform that analyzes researchers and their publications based on their productivity, impact and quality.

President-elect for SCARD medical education leadership society

Ann Fulcher, M.D., chair of the Department of Radiology, named president-elect of the Society of Chairs of Academic Radiology Departments (SCARD). Her term as president will begin in October 2024.



NEW SCHOOL OF MEDICINE LEADERSHIP

During the 2023-24 academic year, we have been proud to welcome new leaders across the School of Medicine:



Mary Daly, M.D. Chair, Department of Ophthalmology



Pamela Knapp, Ph.D. Chair, Department of Anatomy and Neurobiology

Scott Stringer, M.D. President, MCV Physicians



David Limbrick, M.D., Ph.D. Chair, Department of Neurosurgery





Patrick Nana-Sinkam, M.D. Associate Vice President, Clinical and Translational Research

251 STUDENTS

GRADUATE **EDUCATION**

FALL 2023 ENROLLMENT

36 Certificate **89** M.S.

126 Ph.D.

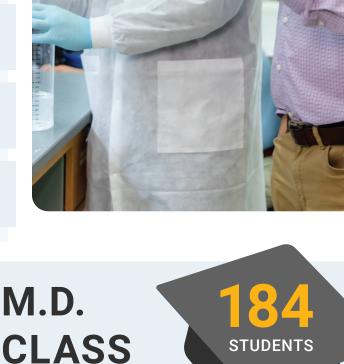
Publications by graduating Ph.D. students

Doctoral fellowships and other grants

Non-fellowship awards and recognitions

100+

23 243





OF 2027 States represented Students 99 from Virginia First generation 6 college students

*det Supplementel Offer and Acceptance Program *det Supplementel Offer and Ac



New family medicine residency program

The VCU Health Community Memorial Hospital Family Medicine Residency Program will welcome its first cohort of trainees in July 2024. The program aims to produce community-centered family medicine physicians trained to meet the broad scope of medical needs in rural and underserved communities of Virginia and beyond.

Early specialty exposure

M2 Thérèse "Tess" Weidenkopf spent 10 weeks away from home learning from neurosurgery professors and residents as the 2023 recipient of the Campagna Scholarship, a highly selective program for pre-clinical medical students interested in neurosurgery.





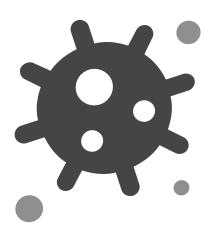
F3 fellowship funds orthopaedics research

M.D.-Ph.D. student and aspiring pediatric orthopaedic surgeon Anne Skelton kicked off her sixth year in VCU School of Medicine's Medical Scientist Training Program with a landmark achievement — earning her first grant from the National Institutes of Health to fund her research into bone formation.



Read more about our faculty, student, research and clinical achievements:





A tool in battling COVID

The Fibrosis-4 index, developed by a VCU researcher to predict advanced liver disease, was reported to accurately predict which COVID-19 patients might need a respirator.

"FIB-4 stands the test of time" and continues to find new applications, said Richard Sterling, M.D., chief clinical officer of VCU's Stravitz-Sanyal Institute for Liver Disease and Metabolic Health and the study's corresponding author.

Multidisciplinary research for movement disorders

The VCU Parkinson's and Movement Disorders Center (PMDC) awarded \$50,000 each to three VCU investigators researching neurodegenerative disorders such as Parkinson's disease and Alzheimer's disease and other types of movement disorders.

"By combining expertise across different disciplines, the researchers who receive grants are able to answer more complex scientific questions

and ultimately have a greater impact on patients affected by Parkinson's or other types of movement disorders," said Brian Berman, M.D., a professor in the Department of Neurology and director of the PMDC. "More research of this kind will ultimately lead to scientific advances that positively impact the quality of life for individuals living with these disorders."



Uncovering TBI mysteries

The School of Medicine is leading a new study to better understand how traumatic brain injuries (TBIs) influence the development of Alzheimer's disease. Results from the preclinical research, recently awarded a \$750,000 grant from the U.S. Department of Defense, could help medical experts develop therapies for preventing or treating TBI-induced dementia later in life.

"An estimated 2.5 million people in the United States sustain a TBI annually," said lead investigator Kirsty Dixon, M.D. "This study is an important step toward understanding the nuances of this condition and identifying tools to prevent long-term disability."

Promising new therapy for sickle cell disease

The Children's Hospital of Richmond at VCU and VCU Medical Center were involved in a clinical trial that led to the approval of a new gene therapy that the FDA approved in December 2023 for sickle cell disease.

"Our hope is also that many more patients will qualify in the near future and that we can begin curing people of sickle cell disease without them having to experience the extreme pain and other side effects of vaso-occlusive crises," said India Sisler, M.D., clinical director of pediatric hematology and oncology.



PHILANTHROPY Making an impact for people and programs in the School of Medicine	KEY DATES
\$14.3 OVERALL MEDICAL SCHOOL	MAY 8 2024 Student Honors Day
MILLIONINDEBTEDNESS REDUCED BYRAISED IN STUDENT SUPPORT FUNDS10%	MAY 10 2024 M.D. hooding ceremony Advanced degree recognition ceremony
IN FY23	JULY 222 2024 Transition to medical school begins
Scholarship awards hit a record high	AUG 2024 White coat ceremony
in 2023-2024	AUG 5 2024 Medical students begin classes
FULL-TUITION MCGLOTHLIN ENDOWED	AUG 17 2024 Graduate student orientation
SCHOLARS SCHOLARSHIPS	AUG 20 2024 Graduate students begin classes
170 ENDOWED PROFESSORSHIPS AND CHAIRS	MAR 17 2025 Match Day
	MAY 9 2025 M.D. hooding ceremony Advanced degree recognition ceremony

Photos courtesy of Kevin Schindler and the Office of Development and Alumni Relations

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