

Duke University School of Medicine

Moving Medicine Forward

2023 ANNUAL REPORT

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DOM Annual Report 2023 (July 1, 2022 – June 30, 2023)

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Message from the Chair



Dear Friends and Colleagues,

I am excited to share with you a glimpse of the remarkable work of the Duke Department of Medicine (DOM) from our 2022-23 fiscal year. In this annual report, we highlight work across our department that reflects our tripartite mission—providing compassionate patient care, training the next generation of physician leaders, and developing new scientific knowledge that can be translated into better health for people in our community and beyond.

In this message, I'm sharing a few notable achievements – but I hope you'll take the time to read through the entirety of the report to see the remarkable impacts of the DOM.

Several years ago, when coming out of the COVID-19 pandemic, our DOM leadership team committed to recreating our mission and values which we highlight on page four. The work on values has been particularly transformative from a leadership perspective. We agreed to use three key principles: to make data-informed decisions, to use our values to guide our work, and to fully commit to increasing equity and inclusivity while addressing racism in all forms. I would like to recognize our leadership team, especially Vice Chair for Diversity, Equity and Inclusion Laura Svetkey, for supporting these principles and continuing to support the work of our department.

Our DOM is well known for our outstanding clinical training programs. Last year, under the direction of our Vice Chair for Education Lisa Criscione-Schreiber, we launched several new supplemental programs to continue our goal of developing exceptional academic internists and specialists. This includes the launching of a new program called the Society for Early Education Scholars led by Matthew Sparks and a Fellows Advocacy Curriculum led by Caroline Sloan. This latter program provides our fellows with knowledge of health policy and skills to become effective physician advocates.

Another area of significant focus is our physician scientist workforce. Our DOM continues to be in the top 10 for funding from the National Institutes of Health. Our investments in our internal talent pipeline will ensure that we are able to secure federal grants to support our research. Among our new programs is the Fellows Research Academy, which provides our trainees with unique access to faculty leaders for networking, mentoring, and grant writing opportunities.

This annual report closes with a story about our DOM's relationship with the Durham Veterans Affairs Medical Center (VA). We are fortunate to have the VA literally across the street, which makes it easy to share clinical care, research and education missions with our partners. But as David Simel, former vice chair of Veterans Affairs, points out, it takes more than proximity to make this relationship work, each partner needs to invest in the relationship which is evident in the work we do together.

It has been an honor to lead this department over the last five years. I hope you are impressed by the breadth and depth of our commitment to excellence in all missions as we continue to move medicine forward.

Kathleen A. Cooney, MD, MACP George Barth Geller Distinguished Professor of Medicine Chair, Department of Medicine Duke University School of Medicine

DEPARTMENT OF MEDICINE LEADERSHIP



Kathleen Cooney, MD **CHAIR**

VICE CHAIRS



Andrew Muir, MD **CLINICAL AFFAIRS**



Lisa Criscione-Schreiber, MD, MEd EDUCATION



Carla Brady, MD FACULTY DEVELOPMENT



James Alspaugh, MD ACADEMIC AFFAIRS



Laura Svetkey, MD **DIVERSITY, EQUITY AND INCLUSION**



Amy Porter-Tacoronte, MBA ADMINISTRATION AND FINANCE



Scott Palmer, MD RESEARCH





Christopher Hostler, MD, MPH **VETERANS AFFAIRS**



DIVISION CHIEFS



Cary Anders, MD MEDICAL ONCOLOGY (INTERIM)



GERIATRICS



Megan Clowse, MD RHEUMATOLOGY AND IMMUNOLOGY





Thomas Ortel, MD, PhD HEMATOLOGY



Andrew Muir, MD GASTROENTEROLOGY



David D'Alessio, MD ENDOCRINOLOGY, METABOLISM, AND NUTRITION



Manesh Patel, MD CARDIOLOGY



John Perfect, MD INFECTIOUS DISEASES





William Yancy, MD GENERAL INTERNAL MEDICINE (INTERIM)



Stefanie Sarantopoulos, MD, PhD HEMATOLOGIC MALIGNANCIES AND **CELLULAR THERAPY**



Myles Wolf, MD, MMSc NEPHROLOGY



MISSION AND VALUES

OUR MISSION:

The Duke Department of Medicine strives for excellence and equity by providing compassionate health care for all individuals, creating an inclusive environment to train the next generation of health care providers and leaders, and driving new knowledge to improve the health of our population locally and globally.

OUR VALUES:

VALUE DRIVEN AND DATA INFORMED

In the Department of Medicine, we make decisions through data. As we look at change and what impact we have on the future of medicine and the future of Duke, we promise to make informed decisions driven by data.

INCREASE INCLUSIVITY

With a growing focus on diversity, inclusion, and anti-racism efforts and activities, we continue our pledge to be one Duke, standing against racism, bias, and hate.

2023 AWARDS AND RECOGNITIONS

DEPARTMENT OF MEDICINE DISTINGUISHED PROFESSORSHIPS

Svati Shah, MD, MHS Ursula Geller Distinguished Professor of Research in Cardiovascular Diseases

Christopher Granger, MD Donald F. Fortin, M.D. Distinguished Professor of Medicine

Daniel George, MD Eleanor Easley Distinguished Professor in the School of Medicine

Christopher Woods, MD Wolfgang Joklik Distinguished Professor of Global Health

Rana Gupta, PhD W. David and Sarah W. Stedman Distinguished Professor in the School of Medicine

Steven Patierno, PhD Charles D. Watts Distinguished Professor of Medicine



Svati Shah



Christopher Woods



Christopher Granger



Rana Gupta



Daniel George



Steven Patierno

2023 AWARDS AND RECOGNITIONS

Heather Whitson, MD, MHS

Professor of Medicine Research Mentoring Award: Career Mentoring Award in Basic Science

Saumil Chudgar, MD, MS

Associate Professor of Medicine Master Clinician/Teacher Award

Maria Blasi, PhD

Assistant Professor of Medicine Research Mentoring Award: Early Career Mentoring Award in Basic Science







Saumil Chudgar





Kristen Dicks, MD, MPH

Katherine Garman, MD Associate Professor of Medicine

Research Mentoring Award:

Mentoring Excellence Award in

Equity, Diversity, and Inclusion

Assistant Professor of Medicine Excellence in Professionalism Award

Katherine Garman

DEPARTMENT OF MEDICINE AWARDS

2023 CAREER ACHIEVEMENT AWARD

Jeffrey Crawford, MD George Barth Geller Distinguished Professor for Research in Cancer

Louis Diehl, MD Professor of Medicine

J. Brice Weinberg, MD Professor of Medicine



J. Brice Weinberg



Jeffrey Crawford

DEPARTMENT OF MEDICINE AWARDS

2023 CHAIR'S AWARD

James Alspaugh, MD Professor of Medicine



2023 MASTER CLINICIAN AWARD

Carl Berg, MD Professor of Medicine Sangeeta Joshi, MD, MBBS Professor of Medicine Shelley McDonald, DO, PhD Associate Professor of Medicine







2023 NEIL L. SPECTOR ART OF MEDICINE AWARD

Heather Whitson, MD, MHS Professor of Medicine

David D'Alessio, MD James B. Wyngaarden Distinguished Professor of Medicine



DEPARTMENT OF MEDICINE AWARDS

2023 EXCELLENCE IN EDUCATION AWARD

Anita Kelsey, MD Cardiology

Nicole Jelesoff, MD Endocrinology, Metabolism & Nutrition

Cecelia Zhang, MD Gastroenterology

Bruce Peyser, MD General Internal Medicine

Gowthami Arepally, MD Hematology

Colby Feeney, MD Hospital Medicine

Julia Messina, MD Infectious Diseases Hope Uronis, MD Medical Oncology

Kimberley Evans, MD Nephrology

Alyssa Soskis, MD Pulmonary, Allergy & Critical Care Medicine

Serena Wong, DO Geriatrics

Danielle Brander, MD Hematologic Malignancies & Cell Therapy

Ankoor Shah, MD Rheumatology & Immunology

2023 ADMINISTRATIVE AWARDS

Distinguished Achievement in Administrative Service Award Chris Weymouth

> Rising Star for Administrative Excellence Christy Dixon

Team Award for Administrative Excellence *DOMRA Effort Management Team* Denise Wynn Berlin Bermudez Darcy Lewis

EDUCATION LEADERSHIP

INTERNAL MEDICINE RESIDENCY PROGRAM

Lisa Criscione-Schreiber, MD, MEd Vice Chair

> Aimee Zaas, MD, MHS Director

INTERNAL MEDICINE PEDIATRICS PROGRAM

Colby Feeney, MD Director

INTERNAL MEDICINE PSYCHIATRY PROGRAM

Nicole Helmke, MD Director







FELLOWSHIP PROGRAMS

Richa Agarwal, MD Program Director, Heart Failure and Transplant Cardiology

Alisha Benner, MD Program Director, Hospice & Palliative Medicine

Stephen Bergin, MD Program Director, Pulmonary and Critical Care Medicine

Anna Lisa Chamis, MD Program Director, Cardiovascular Disease

Lingye Chen, MD Program Director, Critical Care Medicine

Matthew Crowley, MD Program Director, Endocrinology

Donald Hegland, MD Program Director, Clinical Cardiac Electrophysiology

William Schuyler Jones, MD Program Director, Interventional Cardiology

Megan Jordan, MD Program Director, Pediatric Hospice and Palliative Medicine **Richard Krasuski, MD** Program Director, Adult Congenital Heart Disease

David Leverenz, MD Program Director, Rheumatology

Eileen Maziarz, MD Program Director, Infectious Diseases

Richard Riedel, MD Program Director, Hematology-Oncology

Omobonike Oloruntoba Sanders, MD Program Director, Transplant Hepatology

Matthew Sparks, MD Program Director, Nephrology

Richard Wood, MD Program Director, Gastroenterology

Mamata Yanamadala, MBBS Program Director, Geriatrics

OUR TRAINEES 2022-23: BY THE NUMBERS

148 Fellows

40	Cardiology	ÎÊR
23	Heme/Onc	ŢŢŖŖŢŢŖŖŢŢŖŖŢŢŖŖŢŢŖŖŢŢ
22	Pulmonary	ŦŴŀŦŴŀŦŴŀŦŴŀŦŶŀŦŶŀŦ
15	Gastroenterology	
13	Infectious Diseases	
13	Nephrology	
9	Endocrinology	
6	Geriatrics	
4	Rheumatology	
3	Hospice	İ İİ

193 Residents

146	Categorical	ŶŴŀŶŴŀŶŶŀŶŶŀŶŶŀŶŶŀŶŶŀŶŶŀŶŶŀŶŶŀŶŶŀŶŶŀŶŶŀŶ
24	Combined Medicine-Pediatrics	i * i * i * i * i * i * i * i * i * i *
12	Combined Medicine-Psych	
11	Preliminary	



Supplemental Programs Prepare Trainees for the Future of Medicine

Internal medicine physicians who come to Duke for their post-graduate residencies and fellowships receive mentoring, support, and rich, hands-on experiential learning. Duke Department of Medicine (DOM) is committed to recruiting a diverse workforce and creating a unique experience of collaboration and camaraderie through a range of trainee development programs, some of which are for fellows, some for residents only, and others that include a blend of trainees.



Lisa Criscione-Schreiber

"What we want to do is teach people additional skills," said Professor Lisa Criscione-Schreiber, MD, MEd, and DOM vice chair for education. "Our goal is to provide each trainee with the training you need for the career that you want."

The DOM supports more than 300 trainees — fellows and residents — as they pursue varying career paths that involve discovery, education, clinical practice, administration, and informatics. In addition to its usual training programs, the department offers supplemental programs in which trainees have the chance to hone their career goals beyond the science of

their medical work and interact with faculty and peers not just in their own fields, but across specialties.

Mentorship is a key part of the education and training in the DOM, and the trainee development programs rely heavily on the dedication of faculty and graduates to support the next generation of physicians. "It's always important in medicine to have a mentor, whether it's to guide people through their clinical development or if they want to be a researcher or if they want to be a teacher," Criscione-Schreiber said. "It's really good to have mentors help guide you in your career, people who've had similar experience or have a career that looks like what someone wants their career to look like.'

Physicians at the beginning of their medical education often experience a heavy load and might not have been able to do everything they wanted to, said Associate Professor Matthew Sparks, MD, and faculty lead for the Society for Early Education Scholars (SEEDS), a program designed for fellows. But supplemental trainee programs at Duke offer trainees another chance at extra learning. "They're growing not only their professional life, but their personal life," he said. "Opportunities are there, and it's up to everyone to take advantage of those things."



Matthew Sparks

TRAINEE CAREER DEVELOPMENT PROGRAMS

DOM provides four supplemental programs for trainee career development.

Career Preparation Retreat Series (Fellows)

Lead faculty: Lisa Criscione-Schreiber, MD, MEd, professor

Through multiple in-person and online sessions, the retreat series helps fellows develop career navigation skills useful to physicians in all internal medicine subspecialties. The sessions provide opportunities throughout the academic year for fellows across the DOM to network

with each other and with faculty members and learn about negotiating contracts, financial planning, choosing a career path, and transitioning from fellowship to the first job.

"We talk about things like, how do you choose your career?" said Criscione-Schreiber, who leads the program. "What are the issues in that first year when you're transitioning into your independent practice?"

Answers to those questions are provided by experts and experienced professionals. For instance, staff from the DOM's finance and administration office teach fellows how to approach signing their first post-training employment contract and how to identify elements that they consider important in their first job. The financial planning series is taught by a physician faculty member sharing knowledge from personal experience of financial planning from a doctor's point of view.

The series also engages recent DOM fellowship graduates from different career settings to share the decisionmaking processes around their initial career choices and tips on making the move from fellow to that first job. The program brings graduates who work in clinics, do research, and work in other areas to share their personal experiences, including how to tune into well-being during times of transition.

Society for Early Education Scholars (SEEDS) (Fellows)

Lead faculty: Matthew Sparks, MD, associate professor



SEEDS is a year-long mentored program geared toward fellows pursuing careers as clinician educators or education scholars. Fellows are paired with a DOM mentor, who provides feedback on clinical and didactic teaching. SEED fellows also learn about medical education theory, practice and assessment, and have the opportunity to complete a project.

The program began as a response to interest for training that focused on education, not just research, Sparks said. "It's important because education touches everybody, and we're not taught how to be an educator throughout our training."

The SEEDS program trains fellows who are interested in education across the spectrum, including developing curriculum for local use and digging even deeper, possibly applying for grant-funding and aiming for publication. Scholars complete a teaching rotation within their specialty, and fellows have an optional opportunity to rotate as a solo VA attending physician. The SEEDS cohort brings together fellows from various subspecialties, allowing for rich interactions with colleagues that might not otherwise meet.

The program, now in its third year, is filling an important gap and helping fellows to become leaders in education. "You don't overnight become a good educator. It takes practice, it takes learning, it takes skill," Sparks said. "We train people to be researchers, why can't we train people to be educators? Medical education traditionally has been done pro bono, it's just something you're expected to do."

The SEEDS program changes that dynamic by helping build the next generation of scholars pushing for investment and protected time for these scholars. Not only do scholars learn how to be a better teacher and communicator, they learn how to become better leaders.

Fellows Advocacy Curriculum (Fellows)

Lead Faculty: Caroline Sloan, MD, assistant professor

The Department's newest elective track program for fellows began in July 2023 and provides mentorship and advocacy opportunities for fellows interested in health policy. Mirroring a similar program for residents, the one-year course includes six half-day sessions on health policy throughout the year and an assigned faculty mentor, with whom fellows meet monthly.



Caroline Sloan

The program ends with a two-day trip to Washington for fellows to meet with legislators and their aides to advocate for health care issues.

"My goal for this curriculum is not for them to change the world right this second, but to learn how to incorporate advocacy into their career moving forward, and become effective physician advocates," said Assistant Professor Caroline Sloan, MD, who directs the program. The program, in collaboration with Duke's Office of Government Relations, keeps up to date on policies and topics of relevance to the Duke health care community.

Health policy legislation and regulations can have a direct impact on patient care, so it's important that medical experts contribute to the process. Sloan said getting involved early in your career is the best way to effect change over the long term.

"Effective advocacy takes years of building relationships with people — policymakers, legislators. After many years, they may trust our opinions and take them into account when they're writing the next bill," she said. "By the time a physician is mid-career and more of an expert on a topic, they'll actually know the people they need to talk to."

Incorporating advocacy into a career path can be as simple as joining a professional society. "It can feel daunting or overwhelming. Sometimes it just feels like whatever we say, no one's going to listen," Sloan said. "If you join a coalition of people who have beliefs like you, that can be much more powerful."

Learning Health Systems Training Program (LHSTP) (Fellows and Residents)

Lead faculty: Aimee Zaas, MD, professor

The Learning Health Systems Training Program began in 2013 and trains residents and fellows to better understand data generated from day-to-day clinical practice and look for ways to drive positive change in an increasingly complicated and digitized environment. The program, which includes both classroom and online sessions, focuses on experiential learning

that is multidisciplinary and project-based, allowing trainees to meet and talk with health system leaders.

Through the program, trainees learn to become leaders in the evolving field of digital health systems. They're taught technology skills, such as how to use the Duke Enterprise Data Unified Content Explorer (DEDUCE) and Slicer Dicer, which are self-service tools for accessing and exploring Duke Health clinical, operational, and electronic health records (EHR) longitudinal patient data. The EHR anchors patient's medical information in a way that allows providers a way to collaborate with each other and the patient and ultimately provide better, safer care.

"The electronic health record is a dominant force in medical care," said Professor Aimee Zaas, MD, lead faculty for the program. "While it catches a lot of flak for some good reasons, it is also an incredibly powerful resource and repository of our practice patterns. Used correctly, we have the ability to better understand what we do, identify gaps in care, and ultimately do a better job serving our patients."

The LHSTP aims to train a new generation of clinical leaders to use data to understand and inform care delivery. One group of early trainees was involved in the Sepsis Watch project, Zaas said, which is now embedded in Duke's EHR. "Sometimes the best things we learn are problems with EHR architecture." 14





Aimee Zaas

RESEARCH LEADERSHIP

Scott Palmer, MD, MHS Vice Chair, Research

Gow Arepally, MD Research Quality Officer

Armando Bedoya, MD Associate Chief, Medical Informatics Officer Associate Chair, Data Science

Matt Crowley, MD

Chair, Clinical Research, Research Development Council

Elaine Dowdy, MSW, LCSW, CCRC Research Practice Manager, Clinical Research Jennifer Hamill, RN, MSN Director, Clinical Research

Xunrong Luo, MD, PhD Chair, Basic/Translational Research, Research Development Council

Laurie Snyder, MD, MHS Medicine Director, Clinical

Research Unit, and Clinical Research Quality Officer

Steve Taylor, MD Associate Vice Chair, Global Health Research

Denise Wynn, PhD, MBA Director, Basic Research Administration

Saini Pillai, MBA Senior Program Coordinator, Research

OUR FOCUS

Basic and Translational Research

We have a broad research portfolio that is well supported by multiple sources, including the National Institutes of Health, foundations and industry.



Clinical Research

We combine the clinical expertise and academic leadership of a premier teaching hospital to improve the health of adults through more than 1,200 active protocols per year.



RESEARCH DATA

The Duke Department of Medicine engages in transformative research—both basic science and clinical. With more than \$181 million in federal research grants each year, our department ranks in the top 10 in the Blue Ridge Institute for Medical Research rankings for internal medicine.

BY THE NUMBERS

Total new grants: 494 annually

170 federal grants 60 federal NIH grants 110 federal non-NIH

324 non-federal grants

1,370 active research projects 222 Faculty with a total of 513 publications



350			
300	Non-Federal Gran	ts -	_
250			-
200			-
150	Federal Grants-NIH	_	
100			
50	- Federal Grants-Non NIH		
0			

2022-2023 Department of Medicine K Awards				
PRINCIPAL INVESTIGATOR DIVISION MECHANISM TITLE				
Senthil Selvaraj, MD	Cardiology	K23	Dissecting the Ketone Metabolic Axis in Heart Failure with Reduced Ejection Fraction	
Melanie M. Kaelberer, PhD	Cartanatarah	K01	Efferent Vagal Modulation of Neuropod Cells in the Small Intestine	
lan A. Williamson, PhD	Gastroenterology	K99	Quantifying Enteric Metabolism of Branched-chain Amino Acids in Relation to Other Dietary and Microbiota Nutrients	
Caroline Sloan, MD	General Internal Medicine	K23	Improving Medication Adherence and Disease Control for Patients with Multimorbidity; the Role of Price Transparency Tools	
Cara L. McDermott, PharmD, PhD	Geriatrics	K23	Reducing Polypharmacy and Fall Risk for Multi-Morbid Adults with Chronic Obstructive Pulmonary Disease	
Stacey Maskarinec, MD	Infectious	K23	Staphylococcus aureus Cardiac Device Infections - From the Vascular Viewpoint	
Joshua T. Thaden, MD	Diseases	K08	Characterization of Novel E. coli Type III Secretion System Associated with Increased Patient Mortality	
Deepshikha C. Ashana, MD		K23	Racial Disparities in Shared Decision Making for Patients with Acute Respiratory Failure	
Aparna C. Swaminathan, MD	Pulmonary	K23	Complement Pathway Activation in Idiopathic Pulmonary Fibrosis and other Progressive Fibrosing Interstitial Lung Diseases	

TRAINING THE NEXT GENERATION OF PHYSICIAN SCIENTISTS TO IMPACT PATIENT CARE

Medical research impacts society by supporting the discovery of new and better ways to treat diseases and conditions, helping people live longer and better. Medical professionals learn to think critically, assess new evidence, and ask important questions by doing research.

The Duke Department of Medicine (DOM) ranks No. 5 for National Institutes of Health (NIH) research funding among clinical departments and prides itself on being person-focused. Not only does the department champion a supportive framework for all researchers, especially early-career scientists, it does so while always keeping in mind the ultimate beneficiary: the patient.



"As a clinical department our research includes a strong focus on patient



Scott Palmer

A central mission within the department is training the next generation of physician scientists to do research that impacts patients, is translational and improves human health. Under the leadership

Donald F. Fortin Distinguished Professor of Medicine and vice chair for research. DOM researchers generate noteworthy papers, reports and impactful studies, Palmer said, but the improvements in patient care that happens as a result of the research is one of the key reasons patients come to Duke. "Our departmental research helps define Duke's identity as a health system in the sense that people come to Duke not just because Duke is a place for great care, but they come to Duke because they know Duke is doing great research and they are going to receive outstanding and cutting edge care."

of Chair Kathleen Cooney, MD, MACP, the department has helped build programs that support trainees, Palmer said. Mentoring is a main focus in the department's 2019 Research Strategic Plan, and in 2021, the department founded the Fellows Research Academy (FRA,) a longitudinal support program tailored to help aspiring researchers prepare to submit NIH K awards as junior faculty.

"Getting a career development award, such as a K award, is really, really important for someone's success as an independent

researcher," said Matt Crowley, MD, associate professor of medicine and head of FRA. The FRA supports fellows by providing a framework of networking, mentoring, grant-writing workshops, and career development. About 30-35 fellows in the annual cohort learn to develop their own grants through large group discussions and small group work with expert research faculty members.



Matthew Crowley

"One of the things we talk a lot about in the FRA is how to make the transition from fellowship to faculty in a way that will allow you to have continued support and protection as you pursue your career development work," Crowley said. Building a mentorship team, accruing publications, and refining research ideas can be very daunting. The academy helps fellows build that solid foundation so that they can be independent researchers at the next level of their career.

"The big picture is that we are interested in supporting people, early-career researchers and independent researchers, at every stage of their development," Crowley said, noting DOM recently launched a Career Development Award (CDA) Community to help early-career researchers with the transition to independence.

Early Career Research Support

Two early career researchers who have benefitted from the FRA are assistant professors Caroline Sloan, MD, and Deepshikha Ashana, MD.

While a resident at Duke in a primary care clinic, Sloan noticed that many low-income patients couldn't afford the treatment that she was trying to prescribe them. She also realized she had no idea how much the treatments cost.

"The best medicine is the one that goes into your mouth," Sloan said. "I want to be able to prescribe the best possible treatments for my patient, but I also need them to be able to afford to pick the medications up at the pharmacy."

Sloan's NIH K-23 grant studies how clinicians are using a new electronic health record-based tool mandated by Medicare to give providers information about drug costs and coverage. "Are we using it equally for everyone or are our implicit biases leading us to only use it for some people and not others? What's the impact of using this tool on our relationships with patients and our discussions about costs with our patients?," Sloan asked.

Sloan met fellowship mentor, Virginia Wang, PhD, during her residency, then did a general internal medicine fellowship through the Durham Veterans Affairs Medical Center, which allowed Sloan to earn a master's in public health at the University of North Carolina at Chapel Hill. "I received training on how to do research, then during those two years I got connected to really supportive researchers, several of whom are mentors on my grant now," Sloan said.

The FRA helped Sloan with the grant-writing and review process, and she was impressed by how collaborative Duke is, noting that two of her mentors are in other departments. "You're getting really high-quality feedback from other people who are also writing grants and that was invaluable," said Sloan.

Ashana also credits the resources DOM provides in supporting and guiding her. "We feel very vulnerable in this phase of our career because it's either sink or swim," she said. "But the department provides a lot of scaffolding to ensure it's not quite so dire a situation."

Ashana was awarded a five-year grant in 2022 for her study about how clinicians engage and make shared decisions with Black families in the intensive care unit. Data suggests clinicians don't have as robust conversations with Black families compared to other families.

After doing her medical training in Philadelphia, Ashana came to Duke, living in the South for the first time. "The legacy and ongoing impact of racism is really evident in both of those places. These are not issues that are particular to one place or industry," she said. "But I think it's most intolerable in health care. When people are already vulnerable because they're ill, we can't tolerate that they are also discriminated against, whether it's intentional or not."

Ashana said the support she received through the DOM was invaluable, particularly the help of grant-writing specialists Irina Mokrova, PhD. "There's a huge learning curve to these sorts of things, and a lot of guidance is needed to be successful," said Ashana.

The DOM offers concept reviews in which faculty from different fields review a proposal. "I think these programs promote equity," said Ashana, who was new to Duke when she started the process and didn't know many people. "Who reviews your proposal is not dependent on your network because they're connecting you with a wide range of people."

One of her mentors, Chris Cox, MD, reminded her how important it is to find meaning in one's work. "Sometimes you get caught up in the papers and the grants and you forget why you're doing it," she said. "One thing that Chris really excels at is always keeping patients and families at the center of his work. That's really infectious."

Paying it Forward

Early-career research physicians like Sloan and Ashana will eventually become mentors themselves as they advance to midcareer independent researchers, which is what the department wants.

"Over time we've started to see those trainees now get their own grants, and the return on that investment is really great because then they can become successful NIHfunded investigators down the road," Palmer said.



PATIENT CARE: BY THE NUMBERS

	FY23	FY22	% Growth
wRVUs (work relative value units)	1,849,215	1,720,239	7.5%
Outpatient visits	348,287	333,236	4.5%
Procedures	650,293	601,739	8.1%
Unique patients seen	207,656	194,798	6.6%



CARDIOLOGY TEAM PROVIDES TRANSPLANT EXCELLENCE INCLUDING CARE FOR COMPLEX PATIENTS

Duke Health's heart transplant program was the largest volume transplant program in the country this past year and marked its 2,000th transplant in December with highquality patient outcomes. The internationally renowned program began in 1985 and employs a team of health care providers, co-led by Department of Medicine (DOM) cardiologists, who follow their patients through their heart failure, transplant, and recovery journey. Heart transplant represents not only a life-saving procedure, but a life changing opportunity to improve quality of life and enhance longevity.

The heart transplant program has doubled in volume over the past few years and boasts better post-operative survival at 30 days than the national median while safely minimizing hospital readmissions. The DOM's Cardiology division is an integral component to that success, leading the way in cutting-edge science, technology, and clinical care.





Chet Patel

While the number of patients who need transplants compared to the overall number of patients with heart failure is relatively small, it still can be a matter of life and death for those waiting

for a heart. "Our job as a team and our idea at Duke is to help manage and take care of the patients across that entire spectrum of heart failure," said Associate Professor Chet Patel, MD, former medical director of the heart transplant program and vice chief for network development for Duke Heart Center. "That's our mission and goal and to identify the areas when they are most at risk and require a different approach."

A patient who undergoes a heart transplant has often been battling heart failure for years. Medicines and other therapies, such as lifestyle changes, are proven to help patients in earlier stages of heart failure. Cardiologists help manage medical and device therapies and identify those patients with progressive disease that may require advanced therapies such as heart transplantation or a mechanical heart.

Heart transplants require a donor heart, but ventricular assist devices (VADs) can be a bridge therapy for someone waiting for a heart, or a destination therapy for someone who is not a transplant candidate. VADs are placed to help support a patient's failing heart by pumping blood from the weakened chamber to the rest of the body. Duke's Mechanical Circulatory Support Program is a US leader in left ventricular assist device (LVAD) implants – having recently reached a program milestone



of 1500 durable VAD implants since 1994.

"A patient's quality of life can markedly improve with these therapies, as can overall function and time safely out of the hospital," said Associate Professor Robert Mentz, MD, who serves as chief of the heart failure section in



cardiology and editor-in-chief of the Journal of Cardiac Failure. "The thing that really drew me to Duke was this incredible blend of fantastic clinical work with amazing teams and research and education efforts that are second to none." Duke is not only leading on the clinical side, but also on the research side through basic, translational and clinical research studies that inform care locally and around the world, said Mentz, who joined Duke in 2010, and has witnessed and contributed to the exponential growth of the heart transplant program. The DOM continues to hire exceptional clinicians and investigators, he said, and creates an environment that supports the incredible people at Duke while collaborating with and recruiting other experts from around the world.

Key priorities are focused on trainee development and mentorship, recruitment and prioritizing diversity and inclusion. "Transplant success results from a multidisciplinary team effort, which includes not only the surgeons, but cardiology faculty, trainees, nurses, advanced practice providers, therapists, coordinators, social workers, pharmacists and many other key team members," said Mentz. "One of the strengths of Duke is how well we work together to best improve the lives of our patients."

One reason for the increase in the number of heart transplants over the last several years is Duke's dedication to being an early adopter of heart transport technology.

"In 2015, if you did a heart transplant, you would have brought the heart back in a cooler — the same thing you buy in the store," said Associate Professor Adam DeVore, MD, medical director of the heart transplant program, noting that outside the body there was about a four-hour window to safely transport a heart. In 2019, Duke led the way by participating in studies and programs using advanced organ care systems, or procurement devices, that allow better transport options. The advent of oxygenation devices during transport allows the heart to remain perfused while out of the body, which means longer distances can be traversed between donor location and recipient location



Adam DeVore

"We quickly expanded the number of hearts we could use," said DeVore, who joined Duke in 2010.

"We could fly all over the country, go to Canada, Puerto Rico. We could go wherever we needed to go, and we could offer transplant more frequently, and expand the donor pool that way."

Today, people come to Duke from all over the country for cardiology care and evaluation for transplant. In part because of the use of cutting-edge transport technology, Duke Health has the shortest average wait time for a heart transplant: an average of 52 days versus 134 days nationally. Post-operative 30-day survival at Duke is 98.4% compared to 94.6% nationally.

"All these preservation technologies, that's really what we've been leading the way on," DeVore said. "When new devices come out, we're going to be early adopters, we're going to study it. We're going to lead the trials. That's why patients travel to Duke from so far away – we offer better options with really good outcomes."

While hitting 2,000 heart transplants is a major milestone, it's important to recognize how many specialists that patients see along their heart failure journey. "These patients are managed by our cardiologists for a long time before they ever need a transplant," DeVore said, noting patients are seen in the cardiac catheterization labs, by electrophysiology teams, by cardiac imaging teams, by infectious disease experts, in our intensive care units, by hematologists and even by gastroenterologists. "Patients with heart failure touch so many areas within the Department of Medicine."

The Gift

More than six million Americans suffer from heart failure, and that number is growing as the population ages, according to the Heart Failure Society of America. Improved therapies that help people survive heart attacks also mean more people are living with heart injuries. At the same time, the number of donor hearts available for transplanting is also increasing, said Chet Patel, who came to Duke as a fellow in 2006. Tragically, much of that increase is due to the rise in opioid overdose and suicide deaths, but organ



donation offers an opportunity for another person to receive a life-saving gift. "It's always a tragic event," he said. "As a transplanter, you learn how best to manage that tough scenario and give somebody an opportunity where another life has been lost."

Duke has risen to the top of heart transplant hospitals in part because of its dedication to finding ways of looking at organs that were otherwise left unused. Ten years ago, many donor hearts were being rejected solely because of donor age, but through new technologies and research, Duke found older hearts could still be viable and successfully transplanted, Patel said.

"That was our 'secret sauce', if you would. We're always one to look at a heart, and see if we can make it work for a particular recipient," he said. "A lot of the work we've done over the last five to 10 years has been finding ways to support those hearts as they come out of the donor and are transported to the recipient."

"It's part of our Duke culture to challenge the status quo. As long as it's safe and we think we can do a good job with it, that has been the persistent theme across the time that I've been part of this team. We have always looked to find a way," said Patel.

In addition to caring for patients, Patel said one of the most important jobs he and his fellow DOM faculty have is training the next generation of providers who are drawn to cardiology and to caring for heart failure patients. "It's Department of Medicine faculty that are doing that work, and helping these patients, and getting out there and talking to people in the community about when there are options and so forth," Patel said. "I think it's something to be proud of.

"We as a group of individuals who manage chronic complex cardiovascular diseases are really leading in the department to try and navigate some pretty challenging water for our patients. We can do this work at Duke because everybody's committed to finding the best path for the patient."

Manesh Patel Heads New Heart Innovation Hub and AI Clinical Testing Lab

The impact of artificial intelligence (AI) on health care is immensely promising, yet there are substantial challenges to understanding what that impact will mean. The risks include of misuse resulting in unintended consequences such as biased care and worsening health inequities or broad use of AI without real scientific evidence on what works.

But with challenge comes opportunity—and innovation.



Manesh Patel

In his new role as Duke University Health System Physician Vice President for Heart and Vascular Services, Manesh R. Patel, MD, is working closely with Duke Health System team leaders to pioneer digital health solutions in response to the challenges presented by AI with the establishment of

a new heart innovation hub, within the Duke Heart Innovation Collaboratory, which includes a Health Al clinical testing lab. "Innovation in medicine is often how humans interact with the discoveries rather than the discoveries themselves," said Dr. Patel, chief of the divisions of Cardiology and Clinical Pharmacology, and the Richard Sean Stack, M.D. Distinguished Professor of Cardiology. "The biggest opportunity for us to actually impact health is to play a role in how these potentially really powerful tools are evaluated and then appropriately used in clinical practice."

The AI lab offers a fundamental opportunity to think about how AI-based innovations can be tested, while the Heart Innovation Hub will focus on clinical practice management and the evidence and monitoring of AI that will be required to change care and health outcomes. The Hub and AI clinical testing lab will also serve areas of medicine beyond the cardiovascular space as well.

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PROMOTING COGNITIVE HEALTH IN OLDER ADULTS AND THEIR CAREGIVERS

Alzheimer's disease has been called the defining disease of the Baby Boomer generation. Almost six million Americans have it, and it is the leading cause of dementia, a chronic condition most prevalent in people over 65 that affects memory, thinking, and social abilities. By 2029, people over 65 will make up 20% of the U.S. population.

The Duke Department of Medicine (DOM) division of Geriatrics, a leader in cognitive health and dementia care, is preparing to support this unprecedented wave of patients and their caregivers in many ways, including conducting collaborative research that focuses on inclusivity and new paradigms for investigating Alzheimer's disease, advancing Latino health equity, and employing a groundbreaking model of care for caregivers of dementia patients.

Duke and the University of North Carolina at Chapel Hill established the Duke/UNC Alzheimer's Disease Research Center (ADRC) in 2021, a National Institutes of Health (NIH) Center of Excellence with the aim of studying younger people who don't have symptoms of dementia but have a family history or a known genetic factor. The collaboration between the two institutions creates a unique and driving force in Alzheimer's research.



Heather Whitson

"Alzheimer's disease is one of those complex disease processes that requires a wide range of expertise, and a wide range of equipment and infrastructure to diagnose, treat and study the disease," said ADRC Co-Director Heather Whitson, MD, MHS, a professor of medicine, neurology, and ophthalmology and director of Duke Center for the Study of Aging and Human Development.

Alzheimer's disease is characterized by the accumulation of amyloid, a protein that starts to clump on the brain and is associated with loss of neurons and memory loss. Whitson and researchers at the Duke-UNC ADRC are studying what happens before the amyloid begins to accumulate and factors

driving disparities. Dementia is more common in Black and Latino populations, and the reasons for these disparities are unknown.

"There's a lot of changes in the brain that happen in the years to decades before we even begin to see the amyloid accumulate," Whitson said. "Our center is focused on understanding more about that."

One of those changes is inflammation Whitson said, noting that infections as well as stressful conditions like discrimination and poverty can create chronic inflammation. The center will examine how those changes in different populations may contribute to racial, ethnic, and geographic disparities.

Historically Alzheimer's research has left out non-white populations, so data is incomplete and contributes to misdiagnoses. The Duke-UNC ADRC aims to include at least 20% non-white populations in its longitudinal study, which focuses on Eastern North Carolina. Participants must visit the center once a year for data collection, which includes gathering cerebral spinal fluid and blood, cognitive testing, and imaging.

Because many participants will be between ages 45 and 60, a sub-study will examine peri-menopausal women, Whitson said. Women, who are known to get Alzheimer's at a higher rate than men, will get additional tests to capture that data.

"It has been suggested that the metabolic changes that occur during menopause may shift the brain environment to be more favorable to the accumulation of amyloid and this could be the beginning of the chain reaction that could ultimately cause dementia," said Whitson.



The study also offers participants valuable feedback and data about their own health and information about trials and other health care opportunities. While some people might have barriers to participate in the study longitudinally, they can be part of Alzheimer's research by supplying biological samples. Banking these samples from diverse populations helps researchers look for markers on how social determinants of health and factors outside the body affect a person's health. Extending brain research to a younger, more diverse group of people yields new types of data, which may lead to better drug treatments and perhaps even a cure.

"Alzheimer's disease is one of the top 10 leading causes of death," Whitson said. "It's the only one of the top 10 that doesn't have a cure or prevention."

Latino Health Equity in Alzheimer's Research

One of the big areas in need of development in Alzheimer's research is the inclusion of populations that have been historically underrepresented in science, starting with creating an equitable infrastructure for research.



María Marquine

María Marquine, PhD, associate professor in the division of Geriatrics and Department of Psychiatry and Behavioral Sciences, is a bilingual expert in cross-cultural neuropsychology, health disparities and neurocognitive aging who joined Duke in 2022. Her newest NIH-funded study is the first to collect cognitive test data from Spanish speakers in North Carolina. These data are an important tool to accurately identify Alzheimer's disease and related dementia in the Latina community.

Performance on cognitive tests, such as tests of memory and language, is key for the diagnosis of dementia. Cognitive normative data for groups of people from backgrounds and languages that differ from non-Hispanic white populations are limited, which can lead to misdiagnosis.

"Performing a cognitive test is a behavior, and as such it is partly determined by cultural norms and lived experiences," said Marquine, who serves as the associate scientific director for research career development at the Duke Aging Center. "Performance on a cognitive test might look a little different across groups because of this cultural component of behavior and related factors."

For instance, completing a cognitive test is similar, in some ways, to taking a school-type test. Thus, it might result in different responses in a group that has had limited access to formal education compared to a group that is familiar, comfortable, and confident in that setting. Those differences in responses might not have anything to do with brain dysfunction, but without that understanding by the researcher or the clinician, performance on a cognitive test can be misconstrued and mislabeled.

Latinos are the fastest-growing ethnic/racial minority population in North Carolina, increasing to more than one million in the 2020 Census from just 75,000 in 1990. Lack of access to health care and insurance create health inequities, especially in a region where the infrastructure has not yet been adapted to the new group, and language and cultural barriers widen the treatment gap. Without signage, trusted interpreters, or providers who speak the language and understand the culture, many Spanish speakers go without adequate care.

Researchers have barriers to cross too. For instance, the standard requirements for payment for research participation and spaces available to conduct study visits, do not consider the needs of populations historically underrepresented in research. Changes to these and other "standard" practices for the conduction of studies are needed to ensure that everyone is given a fair chance to participate in research.

"The infrastructure and processes to do research were developed for groups who were at the table when the research infrastructure was created," Marquine said. "These systems are less well developed for Latinos here because there hasn't been a big need. When you're doing research with a population that is notably growing in a region, considering their circumstances is critical for inclusion in research."

Being new to Duke and Durham, Marquine first connected with the Latina community via LATIN-19, an advocacy network established by clinicians at Duke to address health disparities within this community as a result of the COVID-19 pandemic. "LATIN-19 has done tremendous strides towards health equity for Latinos in the region. If appropriately supported, it has the potential to position Duke as an example to follow for academic-community partnerships in regions with growing Latina communities across the country," Marquine said.

Dementia is 1.5 times more likely to affect Latinos than non-Latino whites, Marquine said. Cardiometabolic factors such as diabetes or cardiovascular disease, which is more prevalent among U.S. Latinos, may be behind that statistic. Including groups that have not been represented in science, like Latinos, can notably add to the disease understanding and treatment as a whole.

"Number one, that is good science, period," Marquine said. "If you don't include all segments of the population, you develop suboptimal science. Number two, by including different sociocultural and language groups, you can disentangle the effect of cultural and language influences from the effects of a disease process on markers used to identify the disease.

"If you're trying to identify and cure a disease, you want to do so for all. And especially the groups that are disproportionately impacted by it."

Paradigm Shift in Dementia Care

Dementia is a unique disease because it robs patients of their decision-making abilities, so someone else must step in. Often that is a family member or trusted friend, and that job becomes more taxing as the disease progresses.

The division of Geriatrics is partnering with Duke Population Health Management, the Duke Dementia Family Support Program, Duke Homecare and Hospice, and community agencies to develop a new Cognitive Health Care Management program with a start date planned for July 2024.



Heidi White

Heidi White, MD, clinical vice chief for the division of Geriatrics and geriatric medical director for the Duke Population Health Management Office (PHMO), directs the project at Duke with Milta Little, DO, associate professor and the medical director of the Duke Geriatric Evaluation and Treatment (GET) Clinic, serving as co-lead.

"It's really about walking with families in this journey of dementia from diagnosis to death," White said.



Most patients want to stay at home, and caregivers usually want to honor

that. Longitudinal care management provides a way to offer the wraparound care and attention that someone would receive in a long-term care facility in the home. Education is a big part of the program, White said, and GUIDE will standardize training caregivers on how to deal with behavioral as well as physical changes in their loved ones, and how to communicate in a way that de-escalates difficult situations. The program will also help caregivers apply for respite care grants.

"What we all want to see is that patients remain as much as possible out of the emergency room, out of the hospital, and out of long-term care at home with their families as long as possible," said White, who is coordinating with entities within DOM, PHMO, the health systems, and the community to make the model operational at Duke. "A lot of it is looking at the caregiver wellbeing and making sure they have what they need to be able to sustain the work they're doing. It's a 24/7 job."

Little will manage the daily operation of the program through the GET Clinic at Duke. "I do see this as a key role in ensuring that education is standardized," she said. "I think it will be really instrumental in getting the support that people need: people living with dementia, their caregivers and the medical team, particularly the social workers, pharmacists, care navigators, coordinators who can really get people what they need in the community."

The program aims to provide consistent standardized care for patients living in their home by offering access to a support system of physicians, nurses, occupational therapists, pharmacists, and care managers to help patients and their caregivers connect to available services. This multi-professional collaboration and longitudinal patient and caregiver care will be a game-changer, Little said.

"That's a big source of frustration for medical providers taking care of people with dementia, where we're trained to take care of one aspect of dementia care: primarily medical management. The social support, the resources, all of those we neither have training nor time to fill those needs for the patients and their caregivers. This will help to fill that frustrating gap in care that we currently really aren't able to provide in our health system," said Little.



DEEP Care Management Model Designed for Patients and Their Caregivers

Department of Medicine geriatricians are teaming up with the Duke Population Health Management Office (PHMO) on a new longitudinal dementia care management model for patients and their caregivers.

Dementia Education and Engagement Program (DEEP) is an evolution of existing complex care management that was developed out of longstanding engagement between PHMO and geriatrics, which prompted an analysis of available data and deepening appreciation of the complex needs that have gone unaddressed for people living with dementia and their care partners.

DEEP is striving to engage programs that span multiple elements of the Duke Health system, bringing together PHMO care management, the Geriatrics Evaluation and Treatment Clinic, Duke Dementia Family Support Program, the Duke Caregiver Support Program, and primary care among others to interact more seamlessly in supporting patients. The core interprofessional team will include the expertise of nurse care managers, a geriatrics nurse practitioner, pharmacist, and an occupational therapist. Once enrolled, the yearlong program will include a home visit to fully assess and address the well-being of both the patient and the involved care partners, and longitudinal caregiver education and support for advanced care planning, safety, and connection to community resources.

"Putting the patient and care partner in the center of a robust team of professionals while keeping their relationship to this team streamlined through one nurse care manager over the course of a year will support established relationships in the Geriatrics Clinic and primary care," said Heidi White, MD, vice chief for Clinical Affairs in the Geriatrics division.

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ACROSS THE DEPARTMENT

EDUCATION



Dr. Wanda Lakey received the 2023 Duke Endocrinology Faculty Teaching Award (Endocrinology,

Metabolism and Nutrition)



Dr. Cecelia Zhang received the 2023 Paul G. Killenberg Teaching Award (Gastroenterology)



Dr. Neil MacIntyre received the AACP Master Educator Award (*Pulmonary*)



Dr. John Roberts received the 2023 Golden Apple Clinical Faculty Award (*Nephrology*)



Dr. Laura Caputo received the VHA 2022 Worthen Innovator Award (General Internal Medicine)

The Pulmonary Disease and Critical Care Medicine Fellowship program received full continued ACGME accreditation (Pulmonary, Allergy, and Critical Care Medicine)

CLINICAL

The Duke Palliative Care program celebrated 25 years (*Geriatrics*)

The Duke Asthma, Allergy, and Airway Center was designated a World Allergy Organization Center of Excellence (*Pulmonary, Allergy, and Critical Care Medicine*)

The Duke Cardio-Oncology Program was designated a International Cardio-Oncology Society Gold level Center of Excellence (*Medical Oncology and Cardiology*)





The Duke Liver Transplant Program, led by **Dr. Lindsay King** of Gastroenterology and **Dr. Deb Sudan** of Transplant Surgery, passed 2,000 liver transplants in 2023. Additionally, the program set a new

annual record with 165 liver transplants, including 149 adults (*Gastroenterology*)



The Duke Small Bowel Endoscopy Program passed 1,000 double balloon enteroscopies in 2023. Led by **Dr.**

Dan Wild, it is the leading program in the southeast United States (*Gastroenterology*)

The Duke Outpatient Clinic hosted Singaporean Minister of Health Ong Ye Kung and delegation from the Ministry of Health, National University of Singapore, and Duke-NUS Medical School. The distinguished guests learned about population-health focused strategies for caring for individuals with high medical and psychosocial complexity (General Internal Medicine)



Outpatient hematology care at Duke Raleigh Hospital was expanded with the recruitment of **Dr. Ayanna Baptiste, Dr. Sargam Kappor**, and a nurse practitioner (Hematology) Duke was recognized as a Center of Excellence by the American Initiative in Mast Cell Diseases Network acknowledging Duke's expertise in caring for people with system mastocytosis and related mast cell disorders and leading ongoing research to find effective treatments for such diseases (Hematologic Malignancies and Cellular Therapy)

Infectious Disease care was expanded with the creation of the second ID service at Duke Regional Hospital, a fourth service for Transplant ID at Duke Hospital, a fifth service for General ID at DUHS, and telehealth consult services across the organization (Infectious Diseases)



The Duke Travel Clinic was re-established under the direction of **Dr. Robert Rolfe** (*Infectious Diseases*)

Duke Raleigh Hospital, Duke Regional Hospital, and Duke Cancer Network expanded disease-based care, including breast, gastrointestinal, genitourinary, head & neck, and thoracic malignancies (Medical Oncology)

The Duke University Hospital Solid Tumor Service was redesigned with APP-based teams, including hospitalists serving as the primary attending with medical oncologists providing consultative support (Medical Oncology) In partnership with the Duke Cancer Institute, established the Duke Sarcoma Center as a Center of Excellence (*Medical Oncology*)

The Duke Center for Brain & Spine Metastasis expanded to include disease experts in thoracic and head & neck oncology and service offerings at Duke Raleigh Hospital (*Medical Oncology*)

A comprehensive nephrology clinical practice was established in Wake County, including outpatient clinic and inpatient coverage at Duke Raleigh Hospital, and new outpatient dialysis units (*Nephrology*)

Duke received a Federal Drug Administration Breakthrough Therapy Designation for being the first center worldwide to offer the first and only modified allogeneic umbilical cord blood-based cellular therapy, omidubicel, to treat patients with high-risk blood cancers (Hematologic Malignancies and Cellular Therapy)

Cellular therapy care was expanded, including CAR-Ts, TILs, and BiTEs, which designated Duke as a leading North Carolina center for the number of patients treated with CAR-T (*Hematologic Malignancies and Cellular Therapy*)

Duke Regional Hospital achieved the Age Friendly Health System Commitment to Care Excellence designation (*Geriatrics*) The Duke Lung Transplant team performed more third lung transplants than any other hospital in the United States, completing 13 of 15 in the country (*Pulmonary, Allergy, and Critical Care Medicine*)

RESEARCH



Dr. Kristin Newby, Dr. Yongmei Liu and Dr. Pam Douglas ranked among the Best Female Scientists in the World by Research.com (Cardiology)



Dr. Jashalynn German received the American Society for Clinical Investigation 2023 Emerging-Generation

(E-Gen) Award (Endocrinology)



Dr. Katherine Garman received an R01 from NIDDK for IMAGINE (Intestinal Metaplasia And

Gastritis INtErception Study), which will study Helicobacter pylori heterogeneity and the relationship to gastric mucosal changes and outcomes (Gastroenterology)



Dr. Brian Sullivan received the VA Career Development Award *(Gastroenterology)*



Dr. Kara Wegermann received the American College of Gastroenterology Junior **Faculty Development**

Grant (Gastroenterology)



Dr. Thomas Ortel and team successfully completed an NIDDK U2C/TL1 award with the University

of North Carolina and Wake Forest University to increase opportunities for support of pre-doctoral and post-doctoral trainees (Hematology)

A new Translational Oncology Mentoring Program was established to serve as an incubator for basic and translational scientists, and clinicians to kick start research funding ideas, mentoring support, and expedite the translation of discoveries in the laboratory (Medical Oncology)



Dr. Cathleen Colón-Emeric and team received a \$10 mil PCORI contract to study models of post-acute

care in complex older adults with fractures (Geriatrics)



Dr. Jennifer Rymer received the American Society of Clinical Investigators (ASCI) 2023 Young Physician-Scientist Award (Cardiology)



Dr. Gerald Bloomfield, Dr. Thuy Le, and Dr. Jonathan Piccini elected to the American Society of Clinical Investigators (Cardiology, Infectious Diseases)



Dr. Gerard Blobe elected 2022 American Association for the Advancement of Science Fellow (Medical Oncology)



Dr. Zachary Healy received the NIH R00 Award for "Characterization of CMV-specific

T cell responses in immunocompromised hosts" (Pulmonary, Allergy, and Critical *Care Medicine*)

PEOPLE



Dr. Melissa Teitelman appointed Vice Chief for Clinical Services (Gastroenterology)



Dr. Lindsay King appointed Medical **Director for Liver** Transplantation (Gastroenterology)



Dr. Nancy McGreal received the Crohn's and Colitis Foundation Triangle Community Impact Award (Gastroenterology)



Dr. Sharon Rubin honored with the American College of Physicians Mastership (General Internal

Medicine)



Dr. Milta Little served as the President of The Society for Post-Acute and Long-Term Care Medicine (Geriatrics)

DOM FACULTY

829 Regular Rank 432 Non-Regular Rank

FACULTY DEMOGRAPHICS

43% Female 10% URiM 48.5 Average age

Snapshot

A 70-YEAR PARTNERSHIP EXPANDS CARE FOR VETERANS



The Duke University Department of Medicine (DOM) has had a longstanding relationship with the Durham Veterans Affairs Medical Center (VA), which opened its doors in 1953, just across the street from Duke University Hospital. Many DOM faculty have dual appointments at Duke and the VA, and trainees spend a significant amount of time at the VA, a teaching facility that also boasts one of the top research programs in the Veterans Health Administration (VHA).

"We're one of the strongest affiliations in the country," said Professor Emeritus of Medicine David Simel, MD, MS, who served as VA vice chair for 16 years, retiring in April 2023. "Early on, Duke made a strong commitment to participating in VA care. Duke decided that taking care of veterans was important, and they also decided they wanted opportunities for additional training for their house staff and wanted additional opportunities for some of their faculty to be able to do research," he said.



David Simel

Over the years, Simel said he has observed a growing respect and appreciation of the VA, and Duke has increasingly committed to making sure the relationship supports high-quality

appointments at both facilities. "We are one of the best clinical VAs in the country," Simel added. "We use that position of high-quality, competent, compassionate care to educate trainees."



Christopher Hostler

Residents and fellows spend anywhere between 25% and 40% of their clinical time at the VA, said Assistant Professor of Medicine Christopher Hostler, MD, MPH, who assumed the role of associate vice chair after Simel's retirement. "Having the same quality physician on both sides of the street is really important to ensure that the training that people are getting through the course of their residency or fellowship is consistent," Hostler said, adding that he will continue the work Simel has done, especially regarding the management of part-time appointments. 33

"I appreciate the fact that we have a really different medical service compared to a lot of other VAs in that the overwhelming majority of our specialists are part-time, and they work both here and at Duke," he said. While that can create administrative challenges with compensation and scheduling, the professional interactions for DOM and VA faculty and trainees at both medical centers can create great opportunities, and he wants to support that. "Whenever I can take barriers out of their way and let them do the great things they can do, that's my job."

The relationship between the two top-tier medical centers affords unique chances for medical professionals to take the lead on research and new clinical therapies. For example, the Durham VA was the first in the nation to bring an innovative medical treatment, renal denervation, to veterans. The new minimally invasive FDA-approved therapy helps patients with resistant hypertension by disrupting nerves in the renal artery, which lowers blood pressure.

The first such procedure performed within the VHA was done in December 2023 at the Durham VA by two DOM cardiologists, Jorge Antonio Gutierrez, MD, MHS, and Rajesh Swaminathan, MD. The Durham VA was also the site for one of the first Watchman FLX procedures to implant a device that helps patients with heart arrhythmia. Research is a focus at both medical centers, and physician scientists can take advantage of access to the VA to research topics that would be beneficial to veterans. One Duke pulmonologist is writing a grant to study burn pit exposure and is working with the VA to create a meaningful study about toxic exposure in veterans. "There are a lot of research opportunities at the VA which benefit not just the VA, but benefits the academically minded faculty at Duke," Hostler said.

The connection between the DOM and VA also offers faculty, trainees, and administrators experience working within different frameworks for health care delivery and administrative oversight. The VA operates through the federal government, providing capitated or flat-fee services. Physicians are salaried and are limited to prescribing drugs from an evidence-based national formulary.

"There's a national brand and there's standards that we're held to nationally," Simel said. Ninety percent of the patient population at the VA is male, and veterans are U.S. citizens who have attained a certain level of education. They feel a sense of connection to the VA because of their service. "The VA has a core mission, and everyone understands that mission, which is to take care of veterans and take care of them in the best way to get the best outcomes," said Simel.

At a private medical center like Duke, patients can come from any place in the world, with different backgrounds and education levels. The fee-for-service model means prices can be less predictable, depending on insurance coverage. Physicians may have more options for drug treatments, but patients and providers often must spend time negotiating with insurers. While the mission at Duke is to be the best medical center in the world and provide the best outcome for its patients, it's not part of a bigger system with a structure it must adhere to. "We do face similar problems, but have different ways of approaching things," Simel said.

It can be tricky with dual appointments, as physicians and administrators must understand both frameworks, but that knowledge can be helpful as health care delivery evolves. The recent process of transforming Duke's Private Diagnostic Clinic to the Duke Health Integrated Practice (DHIP) is a great example of when that understanding becomes valuable.



Jorge Gutierrez



Rajesh Swaminathan

"There were a lot of things for DHIP to learn from the VA because the VA had been a capitated model with salaried employees," Simel said. "Establishing work expectations and setting salaries were things the VA had considered for years. There's a lot of learning that can go back and forth with each other."

Growing Pains

The VA medical centers and hospitals across the country are intentionally situated in proximity to medical schools. While the Durham VA hospital sits adjacent to Duke, the service area spans 27 counties in North Carolina, from Alamance County to the coast, and it's continuing to grow. There are clinics in Morehead City, Greenville, and Raleigh, and a large outpatient center is being built in Garner to provide care and service to areas with large veteran populations. As the distance between Duke and some of these sites expands, leaders at the DOM and the VA will have to wrestle with some tough questions.

"How can we continue to partner with Duke in order to make sure that we have the same kind of top-notch candidates while we expand our clinical services in areas that are outside of the university scope itself?" Hostler asked.

The original VA medical center in Durham poses an additional challenge: It has no room for expansion on its current footprint, and the 75-year-old building needs repair and renovation.

"I do think having the proximity has been really beneficial from a training perspective," Hostler said. "It's really beneficial for our faculty as well who are shared."

As the VA and Duke look to the future of the decades-long relationship, Simel says location may not be everything. "Although it's helpful to be geographically close, being geographically close does not ensure that you've got a high-quality working relationship where both hospitals care about each other," he said. "That only comes from the people involved."



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