

 **UNC** | SCHOOL OF  
MEDICINE

# Office of Research 2024 Annual Report

<https://www.med.unc.edu/oor/>

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# Message from the Vice Dean for Research

*Blossom Damania, PhD*

In 2024, the UNC School of Medicine continued its upward trajectory, welcoming several new leaders in the Dean's Office and for our Departments and Centers, further strengthening our leadership in clinical and research excellence. We also launched the SOM Accelerate Forward Together strategic plan, focused on advancing research, education, patient/clinical care, and people development. The SOM plan is concurrent with the UNC Health Forward Together 2030 plan with synergies to expand clinical research capabilities and further enhance the bidirectional relationship between research and clinical translation. To that end, there have been increased efforts to facilitate the ability to do research with the Medical Center and with other UNC Health entities that will substantially bolster our translational efforts.

Research funding in FY24 exceeded \$648M, a \$21.9M increase over FY23, which reflects our continued investments in infrastructure, technology, and cross-campus collaborations. Our diverse, interdisciplinary strengths were evident in the many proposals and two successful awards from the newly formed Advanced Research Projects Agency for Health (ARPA-H) and a prestigious Keck Foundation award. We also hosted an ARPA-H webinar in December for the ARPA-H ACTR program, headed by former SOM Vice Dean for Academic Affairs, Etta Pisano. 2024 was another fantastic year with significant strides made in pushing the boundaries of innovative research and working to improve health outcomes. We will continue to focus on keeping this momentum going as we move forward with our strategic initiatives and collaborative efforts.

# New Leadership in the School of Medicine

## Dean's Office and UNC Health System

### Cristy Page – President of UNC Health Enterprises, Chief Academic Officer



**Cristy Page, MD, MPH**, was named President of UNC Health Enterprises & Chief Academic Officer in October 2024. Dr. Page oversees several systemwide initiatives including the ongoing implementation of the UNC Health Forward Together 2030 strategic plan. In addition, she will manage the many external relationships with UNC-Chapel Hill, UNC System office and continued close coordination with the School of Medicine.

### Samantha Meltzer-Brody - Executive Dean, UNC School of Medicine



**Samantha Meltzer-Brody, MD, MPH**, was appointed Executive Dean of the UNC School of Medicine in January 2025. She provides strategic vision, leadership, and support to advance the school's mission across education, research, and clinical care. Dr. Meltzer-Brody will report to Cristy Page, MD, MPH.

### Tonya Jenkins – Senior Executive Director of Research Administration



**Tonya Jenkins** assumed the role of Senior Executive Director of Research Administration for the UNC SOM in February 2024. She created and oversees the new School of Medicine Sponsored Projects Administration Office (SPA), which bolsters the research functions of all SOM departments and centers, with an important focus on grant submission management, research contract management, engagement with external organizations, and more to advance the SOM research mission.



## **Karlina Matthews – Chief Financial Officer (CFO), Vice Dean for Finance and Business Operations**

**Karlina Matthews, MBA**, assumed the role of CFO and Vice Dean for Finance and Business Operations in July of 2024. Karlina leads the financial functions for the UNC SOM across its mission areas of education, research and clinical care. She is responsible for developing and implementing financial strategies that align with the UNC SOM and UNC Health strategic plans. She oversees budget planning, forecasting and monitoring, ensuring effective resource allocation and financial accountability.



## **Zishan Mustafa – Senior Associate Dean for Administration**

**Zishan Mustafa, MHA**, assumed the role of Senior Associate Dean for Administration for the UNC School of Medicine on November 11, 2024. He oversees administrative practices for the UNC School of Medicine as well as the Offices of HR, IT, Space Planning, Sponsored Projects Administration Office and Professional Service Contracts and Affiliations.



## **Brian Strahl – Associate Dean for Basic Research**

**Brian Strahl, PhD**, was promoted to Associate Dean for Basic Research on September 1, 2024. He reports to the Vice Dean for Research, Blossom Damania, PhD, and focuses on overseeing the infrastructure, communication and development necessary to bolster the growing research enterprise of the SOM. He has been in the SOM Office of Research since June 2023, where he joined as the Interim Assistant Dean for Research.



## **Laura Viera – Assistant Vice Chancellor for Clinical Research (OVCR), Clinical Research Integration Officer (SOM)**

**Laura Viera, MA, CCRP**, was appointed as assistant vice chancellor for clinical research for the Office of the Vice Chancellor for Research (OVCR) and as Clinical Research Integration Officer for the UNC SOM, effective September 30, 2024. She provides leadership and strategic direction for Carolina's clinical research enterprise, spanning operations within the University.

# New Leadership in the School of Medicine

## Department Chairs and Center Directors

### Robert “Bob” Ferris – Executive Director of UNC Lineberger Comprehensive Cancer Center



**Robert L. Ferris, MD, PhD**, a head and neck surgical oncologist, leading expert in cancer immunotherapy and cancer center chief executive, was named the executive director of UNC Lineberger Comprehensive Cancer Center, and UNC system chief of oncology services, effective October 1, 2024. Ferris came to UNC from the University of Pittsburgh Medical Center, where he was the director of the Hillman Cancer Center. He succeeds Shelley Earp, MD, who served as UNC Lineberger director twice. Ferris led a highly productive clinical, translational and laboratory research enterprise during his tenure at Hillman Cancer Center, which has led to the founding of two companies and the publication of more than 450 peer-reviewed scientific papers and book chapters.

### Laura Ferris – Chair of the Department of Dermatology



**Laura Ferris, MD, PhD**, was appointed the Clayton E. Wheeler, Jr. Distinguished Professor as well as chair of the UNC Department of Dermatology on October 14, 2024. Ferris joined UNC-Chapel Hill from her role as a clinical vice chair of the Department of Dermatology at the University of Pittsburgh, where she was also a professor of dermatology. She also served as the director of clinical trials at the University of Pittsburgh Medical Center (UPMC) and the UPMC chief of community and ambulatory dermatology. She practices general dermatology with a focus on skin cancer and psoriasis as well as other inflammatory diseases. She has served as PI on more than 130 clinical trials in her field.

## Melisa Haendel – Director of Precision Health & Translational Informatics



**Melissa A. Haendel, PhD, FACMI**, was named the Sarah Graham Kenan Distinguished Professor in the Department of Genetics, and Director of Precision Health & Translational Informatics on April 15, 2024. Haendel's groundbreaking work in biomedical informatics is set to significantly contribute to our pursuit of advanced healthcare solutions. She joined UNC-CH from the University of Colorado Anschutz Medical Campus, where she led the Translational and Integrative Sciences Laboratory and was the Chief Research Informatics officer, Marsico endowed chair in data science, and a Professor of Biomedical Informatics in the CU School of Medicine.

## Chris Ingersoll – Senior Associate Dean for Health Sciences & Chair, Department of Health Sciences



**Chris Ingersoll, PhD**, was selected to serve as Senior Associate Dean for Health Sciences and Chair for the Department of Health Sciences in July 2024. Ingersoll came to UNC from the University of Central Florida, where he was the founding dean for the College of Health Professions and Sciences. Prior to UCF, he was at the University of Toledo in Ohio, holding several leadership roles, including vice provost of health science affairs and dean of the college of health and human services. His area of research is sports medicine, and he has published and presented on athletic training and neuroscience topics throughout his career.

## Greg Matera – Director of the Integrative Program for Biological Genome Sciences (iBGS)



**Greg Matera, PhD**, professor in the Departments of Biology and Genetics, was promoted to Director of the Integrative Program for Biological Genome Sciences (iBGS) on January 1, 2025. He has been the interim director since August 1, 2023. Matera succeeded Bob Duronio, PhD, who led iBGS since 2012. In his role, Matera oversees all activities of iBGS, an interdisciplinary program that links the College of Arts and Sciences and the School of Medicine to foster research focused on the mechanistic understanding of biological processes.

## Tetsuro “Ted” Sakai – Chair of Department of Anesthesiology



**Ted Sakai, MD, MHA, PhD**, was named the chair of the Department of Anesthesiology on August 1, 2024. Sakai joined UNC from the University of Pittsburgh School of Medicine, where he served as a professor as well as in several leadership roles in its Department of Anesthesiology, including chair of the department’s Academic Promotions Committee, vice chair for professional development, and more. Sakai serves as the immediate past president of the Society for the Advancement of Transplant Anesthesia, chair for the leadership advisory board of the Association of University Anesthesiologists, and chair of the research committee of the Society for Education in Anesthesia.

## Jean Wright – Chair of the Department of Radiation Oncology



**Jean Wright, MD**, was selected to be the chair of the Department of Radiation Oncology, which she started on August 5, 24. Wright came to UNC from Johns Hopkins where she served in several leadership roles in their department of Radiation Oncology and Molecular Radiation Sciences, including as Director of Breast Radiation Oncology and Vice Chair of Patient Safety and Quality. Dr. Wright specializes in breast cancer treatment and has worked extensively in patient safety and quality of care.

## Sam Young – Director of the UNC Gene Therapy Center



**Sam Young, PhD**, joined the Department of Pediatrics as a Roper Investigator, Professor with Tenure and Director of the UNC Gene Therapy Center on June 28, 2024. Dr. Young joined UNC from the University of Iowa where he was a Professor in the Department of Anatomy and Cell Biology and served as the Director of the Molecular Auditory Research in the Department of Otolaryngology. Young’s primary areas of research interest involve the synaptic control of auditory information processing and viral vector mediated gene therapy approaches for hearing and balance disorders.

# SOM Accelerate FORWARD TOGETHER

## *Strategic Plan (2024-2029)*

Beginning in May 2023, UNC School of Medicine teammates and learners began working on our new strategic plan, *Accelerate Forward Together*. The planning team gathered feedback from across our community to determine the focus areas of our new plan and to strategize on how we can best move forward together. More than 350 members of our community contributed to the successful launch of the plan in June 2024.

Our SOM *Accelerate Forward Together* plan is focused on four pillar areas: Research, Education, Patient/Clinical Care, and People. The SOM plan also aligns with the *UNC Health Forward Together 2030* Amplified Academics pillar, which focuses on alignment of discovery and clinical care, workforce development, commercialization and innovation, and meeting community health needs. This helps both of our organizations move toward our collective mission of improving the health and wellbeing of North Carolinians and others whom we serve. Below is a brief update on some of the Research Pillar initiatives that are included in *Accelerate Forward Together*.



### **Research Pillar: Develop Tomorrow's Breakthroughs Today**

The **Postbaccalaureate Research Initiative in Science and Medicine (PRISM)** is a biomedical workforce effort to hire recent graduates into research spaces as they prepare for doctoral, medical, and other advanced degrees. The PRISM program successfully launched and onboarded its first cohort of postbacs this January. PRISM scholars will engage in orientation and professional development workshops this spring, as well as their work in the lab with bench mentors and PIs. The leadership team includes **Ms. Kaitlin Blakemore** (Program Coordinator), **Dr. Jonathan Schisler** (Faculty Director), **Dr. Donita Robinson** (Associate Dean for Graduate Education) and **Dr. Brian Strahl** (Associate Dean for Research). The PRISM program looks forward to welcoming its next cohort in May of this year. Labs and research units interested in hosting PRISM students can contact Kaitlin Blakemore at [blakek@email.unc.edu](mailto:blakek@email.unc.edu) for more information.

The **Office of Biomedical Science Training and Research (BioSTAR)** now provides additional support for SOM postdoctoral scholars and their research mentors. One of the first areas of assistance involved providing small grants to SOM laboratories to raise postdoc salaries to the NIH minimum. Twenty-five grants were awarded. In addition, postdoc-specific professional development programming, support for international scholars, and community building events have also been expanded. Finally, a SOM postdoc listserv has been created to ensure timely communication with trainees across the SOM. The leadership team includes **Dr. Patrick Brandt** (Senior Director of Career Development), **Dr. Ashalla Freeman** (Director of Engagement and Student Success), and **Dr. Jason Franz** (Faculty Director of Postdoctoral Success).

A variety of efforts are underway to optimize and enhance our substantial research infrastructure.

- In collaboration with the OVCR, a **core asset database** was developed to track and strategize equipment investments.
- In addition to the annual support for core equipment repair, replacement and method development, competitive **core voucher funding** was provided to 18 researchers using SOM cores to cultivate new users and services.
- Departments and Center common equipment was also targeted for support with 17 units receiving funding for **shared equipment replacement and acquisition**.

The RFA for annual **Translational Team Science Awards (TTSA)** was released and pilots will be awarded in the Spring. Additional support is planned this spring for new Center/PPG teams and innovation research. Stay tuned!

# SOM Accelerate FORWARD TOGETHER

## Strategic Plan (2024-2029)

(Continued from page 9)

Six **Bridge** and **Boost** awards were distributed to support NIH competitive renewals and new awards.

Significant progress has been made to enhance **SOM clinical informatics infrastructure** and develop the appropriate governance and security guidance to streamline usage.

- In collaboration with UNC Health and 3Cloud, development of the **Secure Health Informatics Research Environment (SHIRE)** Azure cloud platform was initiated as a secure workspace to enable flexible compute and more sophisticated clinical data analytical capabilities (e.g., ML, AI) while assuring data security.
- **ORDR(D)**, a deidentified subset of the Carolina Data Warehouse for Health, was launched and made available to researchers to support direct access to data while ensuring patient privacy.
- The installation of **TriNetX**, a vendor-managed tool to support clinical trial feasibility and recruitment, is underway. It will replace the highly utilized i2b2 resource and provide additional efficiencies and capabilities.

The **Sponsored Programs Administrative Office (SPA0)** in collaboration with campus, has launched a governance committee to oversee efforts to optimize research administration performance, training and outcomes. Working groups have been selected to address identified challenges. A new Director of Operational Effectiveness and Optimization, Megan Gallegos, is spearheading these efforts. SPA0 has also been working closely with OSP/OIC to streamline Industry Contracting. A new position is being created that will be embedded in OSP to navigate issues and slowdowns for contracts.

The Strategic Plan continues to support initiatives from the previous Strategic Plan, including: the **Physician Scientist Training Program (PSTP)** for recruiting and retaining physician scientists; the **Bioinformatics and Analytics Research Collaborative (BARC)** which serves as a core bioinformatics hub for data analysis and training; and the **Clinical Research Alliance (CRA)**, which was created to streamline infrastructure for UNC to serve as a leader in industry sponsored multi-site clinical trials.

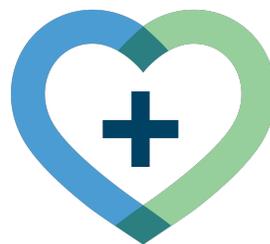
Read more about all four pillars of the *Accelerate Forward Together Strategic Plan*



Research



Education



Patient/Clinical Care



People

# Office of Research and School of Medicine Highlights



## Janelle Cross – Associate Director, School of Medicine Office of Research

**Janelle Cross, PhD**, was named associate director of the UNC School of Medicine Office of Research on October 28, 2024. Cross contributes to the mission of the Office of Research to support the research enterprise of the School of Medicine. She joined UNC from the Medical College of Wisconsin, where she was an Associate Professor in the Department of Orthopaedic Surgery, and the Director of the Sports Medicine Research Division.



## Laura Hawkins – Director of Learning and Work Environment

**Laura Hawkins, DPhil**, joined the School of Medicine as the Director of the Learning and Work Environment in August 2024. Hawkins acts as a neutral, non-punitive resource to faculty, staff, and students on issues in their learning or work environments and helps guide response and prevention efforts. She is also forming collaborations with partners in other campus offices to coordinate training, workshops, and other prevention efforts.

## Expertscape Database

Expertscape identifies the top individuals with specialized biomedical expertise across a vast spectrum of specific fields worldwide. Our Expertscape Database is now live and features SOM Faculty that have been ranked in the Top 20 of their respective fields in hopes of 1) helping patients seek knowledgeable experts to address their needs, and 2) showcase the expertise in our School. Expertscape also Ranks UNC Medical Center as an “All-Around Expert Medical Center” with rankings for all 21 categories of specialties.

## UNC SOM Clinical Research Alliance (CRA) launches website

The Clinical Research Alliance (CRA), UNC’s academic research organization designed to coordinate multicenter clinical trials, has launched its website. On the website, researchers can find the CRA’s mission, therapeutic areas of expertise, and a list of services and capabilities provided by the CRA team. Visit <https://www.med.unc.edu/unc cra> to learn more!

## SOM Representation at UNC Research Week

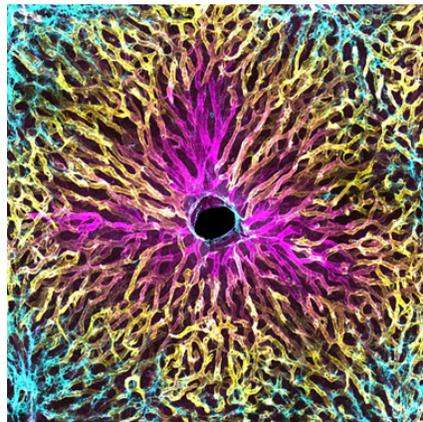
UNC Research Week, a celebration of the research done in all disciplines across campus, took place October 21 – 25, 2024. This year’s theme was “Back to Basics”, celebrating the power of foundational research and its real-world impact across many disciplines. Many of these events featured School of Medicine faculty, staff, and trainees, and below are a few noteworthy examples:

- **SOM Art in Science Competition Winners:** the winning images of the SOM Art in Science Competition were on display in Bondurant Hall throughout the entire week. Congratulations to the laboratories of **Berfin Azizoglu, PhD**, **Ken Hutson, PhD**, and **Lori O’Brien, PhD**, for submitting the winning images! [More about the winners can be found here.](#)
- **2024 Hettleman Talks:** One of the 5 recipients of the [2024 Hettleman Prize recipients](#) was from the SOM. **Mark Shen, PhD**, from the Department of Psychiatry presented a 15-min talk about his research program involving autism research at the reception.
- **Jefferson-Pilot Fellowships in Academic Medicine and James Woods Junior Faculty Award Seminar:** the recipients of these prestigious junior faculty awards provided brief talks about their research programs to attendees. Congratulations to [Jefferson-Pilot awardees Samantha Schilling, MD, MSHP](#), and [Meghan Rebuli, PhD](#), and [James Woods recipient Christine Chu, MD, MSCI](#).
- **Department of Defense Research Roundtable: Exploring New Sources of Extramural Funding:** The Office of Research Development and the SOM Office of Research co-hosted a panel discussion showcasing faculty funded through various defense-related research sponsors. Panelists included **Wei You, PhD**, **Johna Register-Mihalik, PhD**, **Jason Whitmire, PhD**, **Frank Leibfarth, PhD**, and **Ray Tan, MD, MSHPM**.
- **Core Facility Showcase Event:** Core directors presented posters and other information about their services, highlighting new services and technologies available. This allowed attendees to meet core directors and staff, learn about the research infrastructure our cores provide across the disciplines, and about how collaborating with the core could enhance their own work.

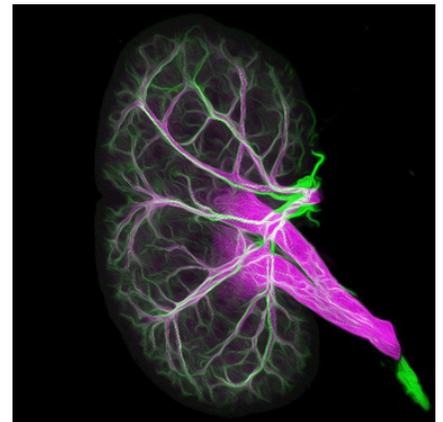
ART  
IN  
SCIENCE  
WEEK



“Ear Steps”  
Hutson Lab  
Otolaryngology



“Deep inside the Liver”  
Azizoglu Lab  
Cell Biology and Physiology



“Postnatal Duplex Mouse Kidney  
Neurovasculature” O’Brien Lab  
Cell Biology and Physiology



# Office of Biomedical Science Training and Research (BioSTAR)

The **Office of Graduate Education** has changed its name to the **Office of Biomedical Science Training and Research**, or **BioSTAR**! This change reflects the broader scope of our mission: to support the development of future biomedical science leaders: undergraduate and postbaccalaureate students, graduate students, and postdoctoral fellows. BioSTAR promotes innovative recruitment and training, stimulates purposeful career development, removes barriers to success, and fosters a collaborative and thriving research community. To reach these broad goals, BioSTAR runs many programs to support the research training community in the School of Medicine. Highlights from 2024 include:

**Biological and Biomedical Sciences Program (BBSP).** The BBSP graduate students who entered Fall 2023 completed their first year and joined graduate programs and thesis labs. In August 2024, 109 new BBSP students matriculated, and they are currently completing their spring rotations. BBSP was led by **Dr. Dave McDonald** (Director of BBSP), **Ms. Kaitlin Blakemore** (Student Services Manager), **Dr. Lisa Tarantino** (2023-2024 Faculty Director of BBSP) and **Dr. Michelle Itano** (2024-2025 Faculty Director of BBSP), along with a team of faculty teaching in BBSP First Year Groups.

Interest in the BBSP umbrella admissions program remains extremely strong as another record number of applications were submitted for the 2024-25 admissions season. 2416 applications were submitted, representing a 9% increase from the previous year. These applications are being reviewed by 6 admission committees and 461 applicants were selected for an interview.

BBSP admissions and recruitment were led by **Mr. Jeff Steinbach** (Director of BBSP Admissions), **Dr. Rob Nicholas** (2023-2024 Faculty Director of BBSP Admissions), **Dr. Terry Furey** (2024-2025 Faculty Director of BBSP Admissions), and **Dr. Scott Williams** (Assistant Dean of Graduate Education).

**Grant-Funded Training Programs.** The *Initiative for Maximizing Student Development (IMSD)* program continued its mission to strengthen graduate research training environments and promote broad participation in the biomedical research workforce. IMSD specifically supports the transition to graduate school and builds a vibrant research community. In 2024, IMSD transitioned from an R25 educational research grant (originally awarded 1996) to a T32 training mechanism. First-year students that were R25-funded for 2023-24 successfully transitioned into their PhD programs and thesis labs. The IMSD leadership team developed an application and rubric compliant with federal and state policies which have been used as a model for both UNC and national programs. 22 BBSP first-year students joined the IMSD community (115 total students) with ten as T32 trainees. After 11 years of outstanding leadership for the IMSD program, **Dr. Jean Cook** stepped away from the program to focus on her position as Chair of the Department of Biochemistry & Biophysics. With her exit, **Dr. Rita Tamayo** became Contact PI, **Dr. Tom Kash** remained Co-PI, and **Dr. Ashalla Freeman** joined as Co-PI.

The *UNC PREP (Postbaccalaureate Research Education Program)* enjoyed its 15th year of R25 funding in 2024. The PREP 14 cohort completed their PREP year, with 8/9 matriculating into top biomedical doctoral programs and one remaining in PREP for a second year. An additional 8 scholars



# Office of Biomedical Science Training and Research (BioSTAR)

*(Continued from page 13)*

were selected from over 600 applications to create the PREP 15 cohort, who are currently interviewing with graduate programs across the country. In summer 2024, PREP leadership transitioned as **Dr. LaKeya Hardy** (former PREP Director) left UNC and **Dr. Christiann Gaines**, previously Assistant Director of IMSD, became Director of UNC PREP and Science Outreach.

The Office also supported over 150 students participating in more than a dozen summer undergraduate research programs in the School of Medicine by providing logistical support, organization, and professional development training for participants. This effort was led by **Dr. Christiann Gaines**, with assistance from the entire BioSTAR team.

**Trainee Well-Being.** For students who enter through the BBSP program, we have a dedicated embedded mental health counselor, **Zoe Silverman (LCSW)**, from CAPS. Zoe provides brief therapy treatment, referrals to medication management at CAPS, referrals to community therapists, and connections to various campus resources. Each semester, Zoe offers a popular 4-week mindfulness course designed to help students manage stress and enhance their overall well-being.

**Mentor Training in Biomedical Research.** Director **Dr. Dave McDonald** led 8-hour mentor training each semester for faculty and postdoctoral fellows who biomedical trainees, increasing the total number of faculty and postdocs trained by OGE/BioSTAR to 309! He has also launched a 6-hour mentor training for graduate students and research staff who serve as unofficial ("bench") mentors to other trainees.

**Career Programming.** The Training Initiatives in Biomedical & Biological Sciences (TIBBS) program, led by directors **Dr. Patrick Brandt** and **Dr. Beka Layton**, serves the career exploration and professional development needs of SOM graduate students and postdoctoral scholars. TIBBS supports several Career Cohorts to explore and prepare for various career paths, as well as Community Building Groups to support holistic scientific development across a number of social identities. In fall 2024, TIBBS co-hosted an 8-part Industry Skills series with the Office of Postdoctoral Affairs. Members of the BioSTAR office work with UNC and national colleagues on various ongoing research projects aimed at identifying best practices in biomedical training. In 2024 these efforts resulted in a new NSF award and 4 published manuscripts. Check out our recent publications on the BioSTAR Innovations & Impact webpage.

**BioSTAR Staff.** BioSTAR is led by a team of outstanding directors, staff and faculty. We welcomed **Cassidy Eglund** (Administrative Assistant), **Dr. Michelle Itano** (Faculty Director of BBSP), and **Dr. Terry Furey** (Faculty Director of BBSP Admissions). We celebrated the transition of **Dr. Christiann Gaines** from an Assistant Director role to the Director of UNC PREP and Science Outreach. In early 2025, we appointed two new faculty directors: **Dr. Jason Franz** for Postdoctoral Success and **Dr. Jonathan Schisler** for PRISM. We said goodbye to **Dr. Rob Nicholas** (Faculty Director of Admissions and Associate Director of the OGE), **Lousia Steffen** (former Business Officer), **Dr. Lisa Tarantino** (former Faculty Director of BBSP), and **Dr. LaKeya Hardy**, (former Assistant Director of UNC PREP and Science Outreach).

*(Continued page 14)*

# ARPA H Spotlight



## UNC Researchers Secure Two Major ARPA-H Awards

The UNC School of Medicine celebrated two major funding awards in 2024 from the Advanced Research Projects Agency for Health (ARPA-H), underscoring the groundbreaking research being conducted across campus and encouraging faculty to explore future ARPA-H opportunities with the support of the Office of Research Development (ORD). ARPA-H, established to accelerate transformative health breakthroughs, funds high-impact projects aimed at solving the most pressing health challenges.

### \$10 Million Award: Biomedical Data Fabric Toolbox – Cancer Identification and Precision Oncology Center (CIPOC)

A multidisciplinary team led by **Ashok Krishnamurthy, PhD**, director of the Renaissance Computing Institute (RENCI), was awarded \$10 million from ARPA-H's Biomedical Data Fabric (BDF) Toolbox program. This award will support the development of the Cancer Identification and Precision Oncology Center (CIPOC), which aims to improve cancer diagnosis and personalized treatments by integrating diverse health data sources. Co-led by faculty from 12 UNC schools, centers, and departments, the project will develop an AI-driven oncology learning system for real-time cancer identification, clinical decision support, and improved care equity. Designed for scalability across North Carolina and beyond, it will enhance cancer care through data-driven precision medicine. The project's Principal Investigators include **Ashok Krishnamurthy, PhD**, (Director of RENCi); **Jennifer Elston Lafata, PhD**, (Pharmacy); **Caroline Thompson, PhD, MPH**, (Epidemiology); and **Melissa Troester, PhD, MPH**, (Epidemiology/Path & Lab Medicine). *"This project demonstrates the power of interdisciplinary collaboration in tackling complex health challenges,"* said **Krishnamurthy**. *"The tools we develop for cancer care can eventually be adapted for use in other areas of healthcare, driving broader health improvements."*



Ashok Krishnamurthy, PhD  
Director of RENCi

### \$3 Million Award: Sprint for Women's Health – Targeting Migraine Treatment for Women

**Kathleen Caron, PhD**, chair of the Department of Cell Biology and Physiology, and her team secured \$3 million through ARPA-H's Sprint for Women's Health initiative. This initiative focuses on tackling health conditions that disproportionately affect women, and the UNC team's project, Female Lymphatic GPCR Therapeutics for Migraine Treatment (FLyGT), aims to develop a novel therapeutic approach for migraine treatment by targeting meningeal lymphatics. The interdisciplinary team, including **Mark Zylka, PhD**, **Bryan Roth, MD, PhD**, **Ben Philpot, PhD**, **Mark Shen, PhD**, and **Yen-Yu Ian Shih, PhD**, will combine advanced genetics, pharmacology, and brain imaging to investigate how targeting lymphatic function may provide more effective migraine treatments, ultimately improving quality of life for women who suffer from chronic migraines. *"Women are disproportionately affected by migraine, yet treatment approaches have not significantly evolved in decades,"* said **Caron**. *"Our team is excited to pursue this groundbreaking approach to improving brain health for women."*



Kathleen Caron, PhD  
Chair, Cell Biology and  
Physiology

### Explore ARPA-H Opportunities with the Support of the Office of Research Development (ORD)

These two significant ARPA-H awards highlight the opportunity for UNC researchers to pursue ambitious, high-impact health research through ARPA-H funding mechanisms. Faculty with large, interdisciplinary project ideas are encouraged to contact the Office of Research Development (ORD) for support with proposal development and submission: [ord@unc.edu](mailto:ord@unc.edu).

# Dean's Office

## Research Award Recipients

### Jefferson-Pilot Fellowships in Academic Medicine

The Jefferson-Pilot Fellowships in Academic Medicine are given to talented junior faculty across all disciplines in the School of Medicine. The 2024-2025 recipients of these awards were **Samantha Schilling, MD, MSHP**, and **Meghan Rebuli, PhD**.



#### Samantha Schilling, MD, MSHP

**Samantha Schilling, MD, MSHP**, is an Associate Professor of Pediatrics, in General Pediatrics & Adolescent Medicine. She is a Child Abuse pediatrician, specializing in the evaluation and care of children who have suffered abuse or neglect. Her research focuses on mechanisms to prevent child abuse, specifically studying the impact of parenting programs on increasing parental self-efficacy, effectiveness, and reducing severe discipline and abuse.



#### Meghan Rebuli, PhD

**Meghan Rebuli, PhD**, is an Assistant Professor of Pediatrics, in Allergy/Immunology. Her research investigates sex-specific effects of air pollutants and emerging tobacco products on pulmonary health, focusing on how genetic and hormonal factors interact with respiratory toxicants to influence health outcomes at both individual and population levels.

### James W. Woods Junior Faculty Award

The James W. Woods Junior Faculty Award is given to talented members of the School of Medicine's clinical faculty. **Christine Chu, MD, MSCI**, was the recipient of the 2024-2025 James W. Woods Junior Faculty Award.



#### Christine Chu, MD, MSCI

**Christine Chu, MD, MSCI**, is a Clinical Assistant Professor of Obstetrics & Gynecology, in Urogynecology. She was recognized for her study, "Recurrent UTI and Postmenopause: A Translational Approach to Treatment and Prevention," which describes a home-based self-sampling study to monitor microbiome changes in postmenopausal women. This award signifies her exemplary work in research and a promising career ahead in women's health.

# Dean's Office

## Research Award Recipients

### UNC SOM's Rising Stars Program

The UNC SOM's Rising Star Program aims to help postdoctoral fellows excel during the faculty interview process: Admitted scholars receive a two-day campus visit to UNC and opportunities to complete mock job talks, chalk talks, and one-on-one faculty interviews. Both internal and external postdocs are invited to apply.

In 2024, four scholars were admitted to the program. **Karel Alcedo, PhD**, from Harvard University, **Rebecca Parodi Rullan, PhD**, from Temple University, **Brenda Cabrera Mendoza, PhD**, from Yale University, and **Alvaro Curiel Garcia, PhD**, from Columbia University. Since the program began in 2022, two Rising Stars postdocs have been recruited as faculty at UNC: **Dr. Tigist Tamir** (2023 cohort) joined the Biochemistry & Biophysics department in January 2025, and **Dr. Shahzad Khan** (2022 cohort) joined the Cell Biology & Physiology department in summer 2023.

### UNC SOM-Novant Health Research Pilots

The Research Advisory Council (RAC) is comprised of leaders from Novant Health, Novant Health New Hanover Regional Medical Center, the UNC Health care System, and the UNC School of Medicine, and is the backbone of the UNC-Novant partnership to increase research and provide better care to the Southeastern NC. The following teams received awards in 2024:

- **Kristin Tully, PhD** (UNC Department of Obstetrics and Gynecology) and **Heather Renye, RN-LBCLC** (Novant Health) were awarded the Promoting Clinical Research in Southeastern NC award for their project, *Multilevel breastfeeding support for black pregnant and postpartum families in southeastern North Carolina*.
- The project, the *Coastal Carolina Children's Research Initiative*, led by UNC Department of Pediatrics doctors **Michelle Hernandez, MD**, **Marzena Krawiec, MD**, and **Jack Sharp, MD** (Novant Health), received a Capacity Building Grant, aimed to bolster research network to target health disparities for children with asthma.
- Another initiative, the *Prostate-specific Membrane Antigen Positron Emission Tomography (PSMA-PET) Directed Stereotactic Body Radiation Therapy in Oligometastatic Castrate-Resistant Prostate Cancer Project*, led by **Shivani Sud, MD** (UNC Department of Radiation Oncology), **Michael Papagikos, MD** (Novant Health), **Matthew Milowsky, MD** (UNC Department of Medicine), **Steven Rowe, MD, PhD** (UNC Department of Radiology) and **Neil Wijetunga, MD, PhD** (UNC Department of Radiation Oncology) received a Capacity Building Grant. The project incorporates next-generation imaging and hyper-focused radiation to address survival rate in prostate cancer.

# Office of Research Research Award Recipients

## Physician Scientist Training Program (PSTP)

The School of Medicine is fully committed to promoting research across the translational spectrum to bridge basic science and clinical research and recognizes the significant role Physician-Scientists play in translational research and advancing research to the practice of medicine. The Physician Scientist Training Program (PSTP) is a training program to specifically enhance the career development of Physician-Scientist trainees who are close to their transition to faculty positions. The program functions as a pipeline to recruit, train, and retain the most promising individuals to our clinical programs and provide them with mentorship and support to foster their careers.

The PSTP supports Physician-Scientists at two stages: the resident/fellowship level and early-stage faculty level. For both stages, the program partners with the trainees' home departments and provide funding to support their research efforts. In addition to receiving monetary support, trainees enter a career development program with peer-level physician scientists across multiple clinical disciplines.

### 2024 PSTP Cohort

- **Brooke Matson, MD, PhD** (Resident / Fellowship Level) – Department of Medicine. Matson's research will focus on the pathophysiology of diabetes and obesity, specifically understanding the relationship of plasma glucose, incretin hormones and brain glucose to better design preventions and treatments.
- **Jeremy Meier, MD, PhD** (Faculty Level) – Department of Medicine. Meier is a hematologist working on how extracellular signals in the tumor microenvironment regulate the differentiation and function of immune cells.
- **Brittany Raffa, MD** (Faculty Level) – Department of Pediatrics. Raffa is an assistant professor of general pediatrics and adolescent medicine and her research serves to inform policy that will improve population health outcomes.
- **Shivani Sud, MD** (Faculty Level) – Department of Radiation Oncology. Sud is an assistant professor in Radiation Oncology with a research focus on personalized cancer therapy using biomarkers and other interventions to mitigate toxicity from cancer-directed therapies.

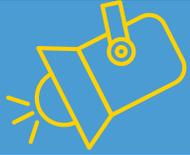


# Faculty Recipients of Prestigious Awards



NATIONAL ACADEMY  
OF SCIENCES

**SPOTLIGHT**



**Stanley M. Lemon, MD**, professor of medicine in infectious diseases and microbiology and immunology and a member of the Institute for Global Health and Infectious Diseases, was elected to the National Academy of Sciences (NAS) in May 2024. Dr. Lemon joined UNC's Department of Medicine in 1972, completed his residency and fellowship in Infectious Diseases, and later served as Chief of Infectious Diseases and Associate Chair for Research. His groundbreaking research has advanced understanding of the molecular biology of hepatitis A and C viruses, including uncovering how these viruses evade immune defenses and identifying a potential antiviral treatment for hepatitis A. Members are elected to the National Academy of Sciences in recognition of their distinguished and continuing achievements in original research. Membership is a widely accepted mark of excellence in science and is considered one of the highest honors that a scientist can receive. Congratulations Dr. Lemon!

## SOM Faculty Awards

Below is a comprehensive list of the awards received by the SOM faculty and featured in Vital Signs in 2024. For a complete list of grants received by our faculty, please look for our monthly "Latest Awards from SOM Faculty" article in Vital Signs.

- 2023 Barry Siegel Lectureship Award - **Steven Rowe, MD**
- 2023-2024 Carolina's Creativity Hubs funding - **Leon G. Coleman, MD, PhD, Benjamin Vincent, MD, Daniel Dominguez, PhD, Brian Kuhlman, PhD, Albert Bowers, PhD, Krzysztof Krajewski, PhD**
- 2023-2024 Carolina's Creativity Hubs funding - **Paul Dayton, PhD, Gianmarco Pinton, PhD, Vibhor Krishna, MD, Adam Hantman, PhD, and other investigators from the SOM**
- 2023-2024 Carolina's Creativity Hubs funding - **Gianpietro Dotti, MD, Barbara Savoldo, MD, PhD, Soumya Rahima Benhabbour, MSc, PhD, Richard Loeser, MD, Nicholas J. Shaheen, MD, MPH, Shehzad Sheikh, MD, PhD, Ryan Balfour Sartor, MD, Chirag S. Desai, MD, John Buse, MD, PhD, and other investigators**
- 2023-2024 Carolina's Creativity Hubs funding - **Yueh Lee, MD, PhD, FACR, James Sivak, MD, FACC, James Gruden, MD, FCCP, and other investigators**
- 2024 Castle Connolly Top Doctors list - **Joshua Alexander, MD, Christine Cleveland, MD**
- 2024 David A. Peterson Award - **Jan Busby-Whitehead, MD, Ellen Roberts, PhD, MPH, Denisé Dews**
- 2024 Distinguished Academic Achievement Award by the University of Vermont's Larner College of Medicine Alumni Association - **James F. Howard, Jr, MD**
- 2024 Distinguished Faculty Awards - **Tom Belhorn, MD PhD, Adam O. Goldstein, MD MPH**
- 2024 Distinguished Research Award by the Pediatric Infectious Disease Society - **Toni Darville, MD**
- 2024 Distinguished Service Awards - **Shelley Earp, MD, Joy J. Renner**
- 2024 Lifetime Achievement Award from the AANEM - **James F. Howard, Jr**
- 2024 MacDowell Fall-Winter Fellows - **Diana Cejas, MD, MPH**
- 2024 National Scientific and Health Care Achievement Awards - **John Buse, MD, PhD**
- 2024 Postdoctoral Awards for Research Excellence - **László Bálint, PhD, Katherine Barnett, PhD, Maria White, PhD**
- 2024 Rashbaum Leadership Award - **Amy Bryant, MD, MSCR**
- 2024 UNC School of Medicine Distinguished Faculty Award - **Tom Belhorn, MD, PhD**
- 2024 Urology Care Foundation Research Scholar Award - **Colton Walker, MD**
- AAAAI Foundation Faculty Development Award - **Erin Steinbach, MD, PhD**

# Faculty Recipients of Prestigious Awards

## SOM Faculty Awards *(Continued from page 19)*

- Academy of Geriatric Emergency Medicine Academic Lifetime Achievement Award - **Christina Shenvi, MD, PhD, MBA**
- ACEP National Faculty Teaching Award and ACEP Outstanding Speaker Award - **Christina Shenvi, MD, PhD**
- Ali Shir Navai International Award - **Aziz Sancar, MD, PhD**
- Alpha Omega Alpha Inductees - **John Baratta, MD MBA, Richard Moore II, MD, Keyona Oni, MD, Colin Orr, MD**
- American Board of Anesthesiology (ABA)'s "Spoon" award - **David Zvara, MD**
- American Board of Anesthesiology Board of Directors - **Robert Isaak, DO**
- American College of Rheumatology 2024 Distinguished Clinical Scholar Award - **Beth L. Jonas, MD**
- American College of Rheumatology 2024 Master Award - **Richard F. Loeser, MD**
- American Urological Association's 2024 Young Urologists of the Year Award - **Hung-Jui (Ray) Tan, MD**
- Appointed To Board Of Directors For The National Resident Matching Program - **Emily M. Hawes, PharmD, BCPS, CPP**
- Appointed to the 2024 Congressional Budget Office's (CBO) Panel of Health Advisors - **Erin Fraher, PhD**
- Appointed To The Board Of The International Papillomavirus Society - **Chemtai Mungo, MD, MPH**
- Bailey K. Ashford Medal - **Jonathan Juliano, MD, MSPH**
- Battle Distinguished Cancer Research Award - **Jonathan Serody, MD, Jen Jen Yeh, MD**
- Board of American Cancer Society - **Norman "Ned" Sharpless**
- Bondurant-Ehringhaus Award - **Samantha Morrissey, MD, PhD**
- Carolina Antimicrobial Stewardship Program Super Steward Awards - **Jenny Boyd, MD, Joseph Stromberg, MD, David J. Weber, MD, MPH**
- CARRA-Arthritis Foundation Advancing Biosample Collection Award - **Eveline Wu, MD, MSCR**
- Chair Elect of the Scoliosis Research Society's (SRS) Health Policy Committee - **Cheerag Upadhyaya, MD, MBA**
- Chair of the Women & Substance Use Disorders Special Interest Group for the ASAM - **Hendrée Jones, PhD**
- Chair-Elect For The American Urological Association's Data Committee - **Hung-Jui (Ray) Tan, MD**
- Clinical Affairs and Quality Council Vice Chair of the American Society for Radiation Oncology - **Jean Wright, MD**
- CLL Society 2024 Integrative Medicine Award - **Christopher Jensen, MD, MSCR**
- Cystic Fibrosis Achievement Award - **Kimberly Stepheson**
- Distinguished professorships - **Benny L. Joyner, MD, MPH, Barbara Savoldo, MD, PhD**
- Elected as a Fellow in the Infectious Diseases Society of America - **Melissa Miller, PhD**
- Elected President Of The Association Of Academic Chairs Of Emergency Medicine - **Jane Brice, MD, MPH**
- Elected President Of The Society Of Pelvic Surgeons - **Daniel Clarke-Pearson, MD**
- Elected Vice President Of The Gerontological Society Of America - **Tamara Baker, PhD**
- Elizabeth A. Rich, MD, Award - **Stephanie D. Davis, MD**
- Fellow At The Association Of Medical Illustrators - **Mark Schornak, MS, CMI**
- Fellows For The 2024-2025 Executive Leadership In Academic Medicine Program - **Angela Smith, MD, MS**
- Global Health Without Borders Moderator - **Linda Van Le, MD**
- Honorary membership to the European Society of Radiology - **Matthew A. Mauro, MD**
- James W. Woods Junior Faculty Award - **Christine Chu, MD, MSCI**
- Jefferson-Pilot Fellowships in Academic Medicine - **Samantha Schilling, MD, MSHP, Meghan Rebuli, PhD**
- KLS Martin Innovations Challenge Award - **Andrew Abumoussa, MD**
- Leading Transformation in Academic Medicine 2024-2025 Cohort - **Meena Bhatia, MD, Mara Buchbinder, PhD, Brian Conlon, PhD, Moe Lim, MD, Millie Long, MD, Nancie MacIver, MD, PhD, Lukasz Mazur, PhD, Casey Olm-Shipman, MD**
- Lifetime Achievement Award by the Research Society on Alcohol (RSA) - **Leslie Morrow, PhD**
- Marion Downs Pediatric Audiology Award - **Patricia Roush, AuD**

# Faculty Recipients of Prestigious Awards

## SOM Faculty Awards *(Continued from page 20)*

- Master Surgeon Educator by the American College of Surgeons - **David Fleischman, MD, MS, FACS**
- Member Of The Section On Tumors Neurosurgery Research & Education Foundation- **Dominique Higgins, MD, PhD**
- NAM Scholars in Diagnostic Excellence Program - **Matthew Nielsen, MD, MS**
- Nancy Caroline Award - **Jane Brice, MD, MPH**
- National Physical Therapist of the Year by the National Bleeding Disorders Foundation - **Jennifer Newman, MSPT**
- Ned Brooks Award for Public Service - **Lisa Carey, MD, ScM, FASCO**
- New Scoliosis Research Society Program - **Cheerag Upadhyaya, MD, MBA**
- Nominated To The Committee Of British Neuro-Oncology Society - **Soma Sengupta, MD, PhD**
- North Carolina Pediatric Society's Outstanding Academic Service Award - **Cynthia M. Powell, MD, MS**
- Oxford-Harrington Rare Disease Centre Scholar Award - **Jackie Bower, PhD**
- Pope Fellowship Award - **Gino Carpinito, MD**
- President of the UNC Academy of Educators for 2024 – 2026 - **Christina Shenvi, MD, PhD, MBA**
- Professional Development Award from the National Endowment for the Humanities - **Omar Young, MD**
- Robert A. Ingram Distinguished Professorship - **Dan Reuland, MD, MPH**
- Sherman Prize from the Bruce and Cynthia Sherman Charitable Foundation - **Millie Long, MD, MPH**
- Triangle Business Journal's 2024 Health Care Leadership Award - **Chirag Desai, MD, FACS**
- UNC Center for Health Innovation 2024 Innovation Pilot Award - **Katherine Chan, MD, MPH**
- UNC Chapter of Alpha Omega Alpha National Medical Honor Society - **Kelly Chamberlin, MD, MSCR**
- UNC Chapter of Alpha Omega Alpha National Medical Honor Society - **Olivia Gilbert, MD**
- UNC Hospitals & UNC Faculty Physicians Award for Carolina Care Excellence - **205 recipients from SOM Departments!**
- UNC Hospitals Hillsborough campus "Surgical Star of the Month" - **Luke Ford, MD**
- UNC SOM Academy of Educators (AoE) Teaching Award Recipients:
  - Resident Educator Award - **Taylor Carter, MD, Sydney Hendricks, MD**
  - Scholarship Award - **Fei Chen, Ph.D., M.Ed**
  - Educational Research Mentor Award - **Sofia Aliaga, MD, MPH**
  - Educational Mentor/Advisor Award - **William Kwan, Jr., MD, Olga Otter, MD**
  - Faculty Teaching Resident/Fellow Award - **Jonathan Heath, MD**
  - High-Value Care Award - **John R. Stephens, MD**
  - Innovation in Biomedical Graduate Teaching Award - **Mara Evans, PhD**
  - Innovation in Teaching Award - **Jennifer Fuchs, MD**
  - Foundation Phase Teaching Excellence Award - **Gina M. Donato, PhD, Megan Pruette, MD**
  - Application/Individualization Phase Clinical Preceptor Excellence Award - **Elizabeth Acquista, MD, Rongrong Fan, MD, William Ntim, MD, Zachary Pettigrew, MD, Russell Coletti, MD, MPH, Matthew Pizzuto, MD**
  - B BSP Distinguished Teaching Award - **Robert Nicholas, PhD**
  - Department of Health Sciences Distinguished Teaching Award - **Nancy Bagatell, PhD, OTR/L, FAOTA**
  - Craver Medical Student Teaching Award - **Jennifer Carr, MD**
  - Junior Faculty Award - **Shiva Zargham, MD, MSc**
  - Senior Faculty Award - **David Mayer, MD, FASA**
  - Medical Alumni Distinguished Teaching Professorship - **Evan Raff, MD, Emily Vander Schaaf, MD, MPH**
  - Lifetime Achievement Award in Medical Education - **Marco Alemàn, MD, Karon Dawkins, MD**
- UNC SOM Simmons Scholars - **Jessica Young, MD, MPH, Nicole Stephenson, MD**
- UAMS College of Medicine's 2024 Dean's Distinguished Alumnus Award - **Wesley Burks, MD**
- Yang Family Biomedical Scholars - **Sarah Linnstaedt, PhD, Benjamin Vincent, MD, Pengda Liu, PhD**



## Research Rankings

### Blue Ridge Medical Institute Rankings for NIH Funding

The FY2024 NIH research rankings from the [Blue Ridge Institute for Medical Research](#) were released in February 2025, with the UNC School of Medicine ranked **19th** in the country in NIH funding, and **6th** among peer public universities. The total dollar amount of FY24 funding from the NIH was **\$349 Million**, \$5.3M higher than the previous fiscal year. All six basic science departments ranked in the top ten for NIH funding and two departments increased their rankings. Thirteen clinical departments rank in the top 30, including 3 new departments. In addition, **23 SOM faculty are in the top 5% of NIH funding** out of 46,394 researchers (including R&D contracts). The numbers in parentheses reflect the rank among public schools of medicine.

#### Basic Science Departments

- **Biochemistry & Biophysics #5 (3)**
- **Biomedical Engineering #8 (5)**
- **Cell Biology & Physiology #3 (3)**
- **Genetics #2 (1)**
- **Microbiology & Immunology #9 (4)**
- **Pharmacology #5 (3)**

#### Clinical Departments

- **Anesthesiology #15 (6)**
- **Dermatology #26 (12)**
- **Emergency Medicine #19 (11)**
- **Family Medicine #11 (11)**
- **Medicine #22 (9)**
- **Obstetrics & Gynecology #15 (9)**
- **Otolaryngology #21 (12)**
- **Pediatrics #23 (10)**
- **Physical Medicine & Rehabilitation #18 (8)**
- **Psychiatry #18 (8)**
- **Radiology (includes Radiation Oncology) #23 (11)**
- **Surgery #29 (14)**
- **Urology #28 (13)**



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### Highly Cited Researchers

In 2024, **33 UNC-Chapel Hill faculty** made [Clarivate's list of Highly Cited Researchers](#), recognizing those who have demonstrated significant and broad influence in their fields of study. Each researcher on the list has authored multiple papers that rank in the top 1% by citations for their field and publication year in Clarivate's Web of Science platform over the past decade. The list is then refined using qualitative analysis and expert judgment, observing for evidence of community-wide recognition from an international and wide-ranging network of citing authors.

Faculty from the UNC School of Medicine recognized on Clarivate's 2024 Highly Cited Researchers list include: **Xi-Ping Huang, PhD** (Pharmacology), **Bryan L. Roth, MD, PhD** (Pharmacology, Eshelman School of Pharmacy), **John B. Buse, MD, PhD** (Medicine), **Sidney C. Smith Jr., MD** (Medicine), **Gianpietro Dotti, MD** (Microbiology and Immunology), **Katherine A. Hoadley, PhD** (Genetics), **Scott H. Randell, PhD** (Medicine, Cell Biology and Physiology), **Jenny P. Y. Ting, PhD** (Genetics), **Yanqi Ye, PhD** (Biomedical Engineering), **David van Duin, MD, PhD** (Medicine, Microbiology and Immunology), **Ralph Baric, PhD** (Microbiology), **Timothy P. Sheahan, PhD** (Microbiology, Medicine), **Rachel L. Graham, PhD** (Microbiology), **Lisa E. Gralinski, PhD** (Microbiology), **Sarah R. Leist, PhD** (Microbiology), and **Alexandra Schaefer, PhD** (Microbiology).

# Innovation and Commercialization

Researchers in the School of Medicine have continued to pursue entrepreneurial efforts in technology commercialization. Although there are too many stories to highlight all the outstanding innovation stories brought to life by SOM investigators, here are some brief highlights from 2024:

**Carolina Instruments – Co-founder Jose Rodriguez-Romaguera, PhD** (Psychiatry). Carolina Instruments is a UNC-affiliated startup developing groundbreaking ocular photometry technology to monitor arousal metrics like heart rate, respiration, and pupil dynamics in real time through wearable devices. [Read more here.](#)

**Commercialization Development – Jason Franz, PhD** (Biomedical Engineering) was awarded \$160K from NCBiotech and UNC Innovate Carolina to commercialize wearable sensing and machine learning technologies for precision rehabilitation in knee osteoarthritis. [Read more here.](#)

**Commercialization Development – Jackie Bower, PhD** (Ophthalmology) was named one of 10 scientists worldwide to the inaugural class of Oxford-Harrington Rare Disease Centre (OHC) Scholar Award recipients. The \$100,000 award will support her lab's investigative work in developing therapeutic solutions to treat uveal melanoma. OTC has filed a patent on the IP. [Read more here.](#)

**Eshelman Innovation Award – Gregory Scherrer, PharmD, PhD** (Pharmacology) received the Eshelman Innovation Novel Pain Therapeutics grant for his project, "Resolving the Neurobiological Mechanisms of Opioid-Induced Reward, Dependence, and Respiratory Depression to Identify Novel Therapeutics Against Opioid Addiction and Overdose Death". [Read more here.](#)

**Innovate Carolina Names Inaugural Members to UNC National Academy of Inventors (NAI) Chapter** – The inaugural members include NAI Senior Members **Paul A. Dayton, Brian Kuhlman, Matthew Penny,** and **Yueh Z. Lee,** along with NAI Fellow **Koji Sode.** Notably, Carolina's NAI Fellows include the late Nobel laureate **Oliver Smithies** and former BME chair Nancy Albritton. NAI celebrates the contributions of inventors and supports innovation and intellectual property across academic fields. [Read more here.](#)

**UNC-Chapel Hill ranks in top 100 for patents granted amongst universities worldwide** – The University of North Carolina at Chapel Hill has been named to the top 100 list of worldwide universities granted U.S. utility patents for the tenth consecutive year. In its newly released annual Top 100 Worldwide Universities List, the National Academy of Inventors (NAI) spotlights top universities holding U.S. utility patents to showcase the important research and innovation taking place within academic institutions. [Read more here.](#)

As we look ahead to 2025, we remain committed to advancing research, education, and clinical care through strategic collaboration and innovation. Thank you for being part of our journey!



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