THE ROCKEFELLER UNIVERSITY HOSPITAL
CENTER FOR CLINICAL AND TRANSLATIONAL SCIENCE

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Center for Clinical and Translational Science
e-Newsletter

Center News

Dr. Robert Califf Delivers 2025 Rufus Cole Lecture at Rockefeller University Hospital

By Editorial Staff

On April 9, 2025 Dr. Barry Coller, Physician-in-Chief, welcomed Dr. Robert Califf as the 2025 Rufus Cole Lecturer. Dr. Califf is a towering figure in American medicine, combining leadership roles in cardiology and translational science at Duke and health technology at the Google-affiliated company, Verily, along with public service, including twice servcing as Commissioner of the U.S. Food and Drug Administration (FDA).

Dr. Coller outlined Dr. Califf's remarkable career, emphasizing his contributions to medicine, clinical research, and public health policy. He underscored Dr. Califf's long-standing commitment to evidence-based practice and his leadership at the FDA, where he played a central role in regulating tobacco and addressing the opioid use crisis.

Dr. Coller also noted the immense scope of the FDA's work, highlighting the communication challenges the agency faces in conveying complex scientific and regulatory decisions to the public.

During his lecture, Dr. Califf reflected on the evolving landscape of healthcare, emphasizing the need for more effective communication between scientific institutions and the public to rebuild trust in medicine and science. He pointed to the United States' persistent health disparities and called for a paradigm shift in how evidence is understood and

applied in both research and care delivery. Drawing on his background as a clinician, researcher, and policy leader, Dr. Califf spoke about the rapidly advancing field of healthcare data analysis. He described the growing complexity of organizing medical knowledge and the urgent need for better systems to manage and apply it. He also emphasized the critical importance of centering healthcare around the patient—both in terms of clinical outcomes and data ownership.

Dr. Califf's credentials are as impressive as they are extensive. He has trained and mentored 112 full-time academic professionals, including three deans, 22 members of the National Academy of Sciences, 46 members of the Association of American Physicians, and five recipients of the prestigious Kober Medal. As the founding director of the Duke Clinical Research Institute (DCRI), he helped pioneer collaborative approaches to clinical trials and translational research. His advisory work spans numerous key institutions, including the NIH, NCI, NHLBI, NIEHS, the National Library of Medicine, and the FDA. At Verily, he served as the head of medical policy and strategy.

Looking forward, Dr. Califf presented a set of key recommendations for the research and healthcare community:

- **Enhancing Rare Disease Treatment**: Researchers should explore innovative approaches to improve target and

continued on Page 9

Three Clinical Scholar Graduates Elected to The American Society for Clinical Investigation

continued on Page 8

By Editorial Staff

We are delighted to congratulate three Clinical Scholars program graduates who were elected to membership in The American Society for Clinical Investigation (ASCI). Niroshana Anandasabapathy, MD, PhD, Class of 2012, Rohit Chandwani, MD, PhD, Class of 2012, and Taia Wang, MD, PhD, Class of 2016, were elected for their groundbreaking research, which spans from cancer to immunology. The ASCI, one of the oldest medical honor societies in the U.S., recognizes physician-scientists who translate laboratory discoveries into clinical advancements

Dr. Niroshana Anandasabapathy is Vice Chair for Research in Dermatology at Weill Cornell. Her research focuses on dendritic cell biology and its role in tissue immunity and the skin cancer, malignant melanoma. Her work includes advancing Flt3L-based therapies to enhance anti-tumor immunity through dendritic cell expansion, supported by NIH grants. Dr. Anandasabapathy was introduced to dendritic cell biology as a Clinical Scholar in the laboratory of Nobel laureate Ralph Steinman. Since leaving Rockefeller, her lab has been supported by 3 NIH R01 grants and an NIH S10 grant. She now also serves as Institutional Associate Director of the Tri-Institutional Medical Scientist Training Program, which is the MD-PhD training programs sponsored by Rockefeller, Memorial Sloan Kettering, and Weill-Cornell Medicine.

Dr. Rohit Chandwani, a surgeon-scientist and Assistant Professor of Surgery at Weill-Cornell Medicine, studies epigenetic

Clinical Scholars and Hospital Staff Visit the Harlem Hospital Mural Collection

By Editorial Staff

The arts and sciences component of the Clinical Scholars program explores plays, museum exhibitions, art, and guest lecturers on topics related to translational science and medicine. As part of this program the Clinical Scholars and members of the Rockefeller University Hospital staff viewed the murals at Harlem Hospital on February 26, 2025.

These murals hold significant cultural, historical, and social importance. They were created during the Works Progress Administration era, and were the first federal art commission for African American artists. They celebrate African-American history, culture, and achievements, fostering pride in the community.

The murals emphasize themes of resilience, diversity, and healing. The murals also highlight the power of art in healthcare environments to advance the goals of social justice and community identity. Harlem Hospital is also home to a comprehensive exhibit detailing the history of Harlem and the many contributions of the Harlem community to the arts, music, and dance, and the educational programs supporting arts education. The Scholars also toured the exhibit and had the opportunity to speak with Georges Leconte, Chief Executive Officer of Harlem Hospital, and Dr. Maurice Wright, Medical Director.

"Modern Surgery & Anesthesia"
Artist: Alfred D. Crimi
Year:1940

"Magic in Medicine"
Artist: Charles Alston
Year: 1940

"Modern Medicine"
Artist: Charles Alston
Year: 1940

Clinical Scholars and Rockefeller University Hospital Staff in front of the Harlem Hospital Mural, "Recreation in Harlem," 1937, by Georgette Seabrooke, along with Georges Leconte, Harlem Hospital Chief Executive Officer, and Dr. Maurice Wright, Medical Director.

Clinical Scholar Graduate, Dr. Chibuzo Enemchukwu Highlights the Role of Correctional Health Services in Advancing Population Health

By Editorial Staff

Dr. Chibuzo Enemchukwu, an alumna of the Rockefeller University Clinical Scholars Program, delivered a compelling presentation on March 26, 2025 in the Seminar in Clinical Research series on the critical role played by the NYC Health+Hospitals Correctional Health Services (CHS) in bringing medical care to people in the Riker's Island jail. Her presentation also shed light on medical care in correctional facilities and marked a significant moment in the program's history by addressing health equity in carceral settings.

Drawing from her extensive experience in medicine and public health, Dr. Enemchukwu emphasized the moral and clinical imperative of delivering comprehensive healthcare to vulnerable, underserved populations, particularly individuals in custody. She detailed CHS's multifaceted approach to care, which includes chronic disease management, preventive health programs, and tailored services for special populations, including women and individuals with infectious diseases.

A focal point of her presentation was the implementation of a colorectal cancer screening program using fecal immunochemical testing within New York City jails. This innovative initiative reflects the growing recognition that incarcerated individuals, who often experience fragmented or absent medical care, should be included in broader public health efforts.

Dr. Enemchukwu's academic and clinical background positions her uniquely to lead this work. She holds an undergraduate degree in psychology from Duke University and a medical degree from the University of North Carolina at Chapel Hill. She completed Internal Medicine residency training at Mount Sinai and fellowship training in Infectious Diseases at Montefiore. Her Master's degree in Clinical and Translational Research from the Rockefeller University Clinical Scholars program centered on using implementation science to address health inequities, in addition to basic virology research in the laboratory of Nobel Laureate Dr. Charles Rice. Her current work focuses on viral hepatitis, HIV clinical care, and the development of population health strategies within CHS.

The discussion after her presentation addressed the systemic challenges of delivering care in jail-based correctional environments, where patients often face short stays, disrupted care continuity, and significant social and economic barriers upon release. Despite these challenges, CHS continues to expand innovative programs to meet complex needs both during incarceration and after reentry into the community.

Dr. Enemchukwu outlined several ongoing and future priorities for her team and partners:

Hepatitis C Program Optimization: Continue monitoring and enhancing screening and treatment, with a special focus on women in custody.

Medical Education Partnerships: Expand collaborations with academic institutions to support educational rotations and site visits.

Qualitative Research: Complete a study evaluating the medical weight management program to better understand patient experiences and outcomes.

Post-Release Continuity of Care: Strengthen collaborations with community clinics and prison health systems to ensure smooth care transitions.

Innovative Research: Explore the potential of GLP-1 receptor agonists in addressing medical indications within the jail population.

Discharge Planning Support: Provide high-need patients with prepaid cell phones to maintain communication and continuity of care after release.

Patient-Centered Design: Continue integrating patient voices and feedback into the design and improvement of population health programs.

Dr. Enemchukwu's work underscores the urgent need to address healthcare disparities in correctional settings and highlights the opportunity to use these systems as sites of meaningful public health intervention. Her presentation served as a powerful reminder that healthcare equity must extend to all populations, including those behind bars.

Highlights from the 16th Annual International Association of Clinical Research Nurses Conference

continued on Page 4

ByBernadette 'Candy' Capili, PhD, NP-C

The 16th Annual International Association of Clinical Research Nursing (IACRN) Conference held in Alexandria, Virginia was attended by 194 IACRN members. It provided a platform to connect, exchange ideas, and learn from each other.

Keynote Highlights

Dr. Joni Rutter, Director of the National Center for Advancing Translational Science (NCATS), delivered the keynote address. She highlighted the critical role of translational science in accelerating the transformation of laboratory and clinical observations into meaningful healthcare interventions. Dr. Rutter showcased the achievements of Heilbrunn Nurse Scholars Paule Joseph and Cassandra Godzik, emphasizing their contributions to translational research and their linkages to Clinical and Translational Science CTSA programs.

NCATS was established in 2011 to address challenges in translational science. Unlike other NIH Institutes and Centers, NCATS does not focus on specific diseases, acting as a catalyst to form interdisciplinary teams and develop technologies that expedite treatment of all illnesses.

Historical Perspectives on Clinical Research Nursing

Mary Larkin, Nurse Director from Massachusetts General Hospital, discussed the evolution of clinical research nursing practice, tracing its origins back to Nancy P. Ellicott, who served as Rockefeller's

Mary Larkin, Nurse Director of Massachusetts General Hospital

Highlights from the 16th Annual International Association of Clinical Research Nursing Conference

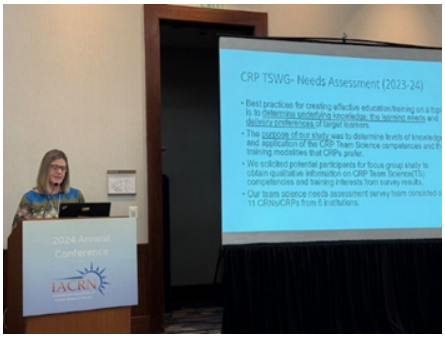
continued from Page 3

Superintendent of Nurses from 1910-1938, and laid foundational guidelines for integrating nursing practices into clinical research paradigms. These included meticulous record keeping, careful observations, and fastidious collection of specimens. Her legacy continues to inform contemporary practices. Mary Larkin's discussion provided valuable insights into how historical principles have shaped modern clinical practices, reinforcing the significance of nursing in the research enterprise.

Team Contributions

Rockefeller clinical research nurses made important contributions to the conference:

Jill McCabe, Nursing Clinical Operations Manager, presented on the importance of Team Science in clinical research, sharing



Jill McCabe

competencies and insights from a needs assessment survey completed by more than 200 clinical research professionals (CRPs). The session explored how CRPs can better engage with team science competency topics and enhance their learning experiences. She also discussed the competencies required for effective team science. The focus was on understanding how often clinical research professionals utilize these competencies and identifying training preferences.

Candy Capili, Director of Heilbrunn Family Center for Research Nursing, delivered a plenary address on study participation in clinical research. She discussed how practices can be integrated into clinical trials and address the systemic challenges to study participation. Her presentation underscored the importance of clinical trials that reflect diverse demographics for more effective treatments and decision-making. She also emphasized that tailored approaches are crucial for recruiting study participants across the life-span.

Dr. Kathleen Delaney Delivers the 2025 Beatrice Renfield Lecture on Adolescent Mental Health

ByBernadette 'Candy' Capili PhD, NP-c

Rita Devine, Kathleen Delaney, Barry Coller, and Marilyn DeLuca

The Rockefeller University Center for Clinical and Translational Science (CCTS), the Heilbrunn Family Center for Research Nursing, and the Women and Science Initiative hosted the 17th Annual Beatrice Renfield Lecture in Research Nursing on March 25, 2025. Dr. Barry Coller, Physician-in-Chief of the Rockefeller University Hospital, began the event with a short tribute to Ms. Nancy Ellicot, Rockefeller University Hospital's first Superintendent of Nursing, who established the standards for the practice of clinical research nursing and invented several novel devices to improve nursing care. He also discussed a recently published paper by the Rockefeller Senior Staff (Devine, Capili, Kost, Kreuger, Coller, 2024) focusing on trust and clinical research nursing. Dr. Coller discussed how building trust in clinical research requires a multi-faceted approach focused on ethical behavior, strong community relationships, and engaging clinical research nurses in every phase of the process.

Director of Nursing and Patient Care Services, Rita Devine hosted the program and introduced this year's speaker, Kathleen Delaney, PhD, APRN, PMH-NP, FAAN. Dr. Delaney is a professor emeritus of nursing at the Department of Community Systems and Mental Health Nursing at Rush University College of Nursing.

Dr. Delaney delivered an insightful lecture focused on addressing the pressing mental health challenges adolescents face today. Her presentation highlighted how youth mental health is a multifaceted issue requiring tailored interventions to ensure lasting change. Key points from her lecture emphasized the importance of social structures, family dynamics, and fostering cohesive school and community environments. These pillars play a crucial role in creating supportive networks for young people. The session also underscored the urgent need to re-imagine mental health services to meet the growing demand through a staged and comprehensive approach. By doing so, we can ensure access to care for all youth, no matter their circumstances.

Dr. Delaney's presentation concluded with a strong call to action: communities must prioritize sustainable initiatives that focus on evidence-based strategies, empowering local efforts to address the evolving mental health needs of young people. Together, communities can build a foundation of support that nurtures healthy futures for our youth.

One hundred and thirty-four participants registered for the webinar, and sixty participants attended the in-person lecture, including representatives from the Heilbrunn Foundation, Rockefeller University Hospital Nursing Department, and Rockefeller University Hospital Administration. Two Heilbrunn Nurse Scholars were also in attendance. For those who could not attend the live webinar, a recording is available on the Clinical Director Network's website: https://www.cdnetwork.org/research-nursing-educational-series.

Kathleen Delaney, Jessica Castner - 2015 Heilbrunn Scholar, and Jonathan Tobin

Highlights from the 2025 Nurse Scholar Symposium

ByBernadette 'Candy' Capili PhD, NP-c

On May 15, 2025, four Heilbrunn Nurse Scholars presented their research at the 2025 Heilbrunn Nurse Scholar Symposium. Topics ranged from examining surgical and pharmacologic treatments for obesity before pregnancy, to gestational diabetes mellitus in Chinese women, to ethical conflict experienced by obstetric providers related to drug testing in postpartum women with opioid use disorders, to exploring the feasibility of an individualized online home-based exercise program for gynecologic cancer survivors.

Gynecologic Cancer Survivors and Psychoneurological Symptoms

Zahra Barandouzi, PhD, RN, an assistant professor at Emory University, highlighted her project targeting gynecologic cancer survivors who suffer from psychoneurological symptoms such as pain, fatigue, sleep disturbance, depression, and cognitive impairment. Using a home-based, individualized exercise programs, her pilot study has the potential to improve the quality of life for gynecologic cancer survivors. Her research also focuses on reducing barriers to such treatment, incuding accessibility.

Advanced Practice Providers and Opioid Use Among Postpartum Women

Caroline Darlington, PhD, RN, who recently completed her PhD from the University of Pennsylvania, discussed how Advanced Practice Providers (APPs) play a vital role in maternity care. Still, they often face challenges when supporting patients with opioid use disorder. Darlington's research shed light on this critical issue, advocating for systemic interventions like standardized policies and improved research funding. Her findings aim to minimize the moral stress APPs face inproviding compassionate, patient-centered care for this patient population.

Addressing Health Risks in Chinese American Women

Shuyan Huang, PhD, RN, post-doctoral fellow from New York University brought attention to the cardiometabolic risks faced by Chinese American women with a history of gestational diabetes mellitus. Her findings emphasize the need for culturally tailored care, focusing on holistic health interventions in physical activity, nutrition, and sleep.

Semaglutide Use and Pregnancy Risks

Yang Yu, PhD, RN, assistant professor from the University of Rochester, explored the health implications of semaglutide use during pre-pregnancy, with her important finding of higher gestational weight gain and increased risk for other adverse pregnancy outcomes. Her research also identified the need for treatment guidelines for patients with pre-pregnancy obesity.

Advocating for Science

Barry Coller, MD, provided the closing keynote remarks on championing support for biomedical research, emphasizing the medical, humanitarian, and economic value of continued investment in science.

Research Matters

The research presented at the Heilbrunn Nurse Scholar Symposium underscores the vital connections between health, community, and policy. It showcased how nurse scientists are essential in advancing healthcare, from enhancing patient care access to promoting cultural competency in clinical care. The symposium highlights the impact of research in addressing healthcare challenges and fostering meaningful improvements.

Candy Capili, Zahra Barandouzi, Barry Coller, Yang Yu, Shuyan Huang, Yu-Ching (Katie) Yang, Li-Ting Longcoy, Caroline Darlington

Fostering Collaboration: A Half-Day Team Science Workshop with Clinical Scholars and Heilbrunn Nurse Scholars

By Bernadette 'Candy' Capili PhD, NP-C & Michelle Romanick

On May 14th, 2025 Rockefeller University hosted a dynamic half-day Team Science Workshop with Clinical Scholars and Heilbrun Nurse Scholars. The workshop was led by Angela Mendell, MS, CCRP, Program Manager at the Collaboration and Team Science, the University of Cincinnati College of Medicine. She has contributed significantly to team science competencies for clinical research professionals, helping define and develop skills and training materials to enhance clinical research team effectiveness. The workshop was designed to strengthen interdisciplinary collaboration and team effectiveness among research professionals. This session is tailored to support scientists in developing essential skills for working within diverse and collaborative research environments.

Workshop Scope and Objectives

The workshop was specifically designed to provide the Scholars with both theoretical insights and practical tools to enhance team productivity, understand team roles, and navigate interpersonal dynamics. The agenda combined foundational concepts in team science with interactive assessments and discussions designed to deepen self-awareness and improve group communication.

Topics covered in the workshop were:

1. Introduction to Team Science

The workshop began with an overview of team science — the study and application of collaborative processes in research. This set the stage for the day by exploring why team science is critical in today's complex scientific landscape.

2. Working Genius Assessment

Scholars completed and reflected on the Working Genius Assessment, a tool designed to help individuals identify their natural strengths in team settings. This session facilitates understanding of how each Scholar contributes to team progress and where challenges may arise in collaboration.

3. Conflict Management and the TKI Assessment

This portion of the workshop focused on understanding conflict styles using the Thomas-Kilmann Instrument (TKI). Scholars gained insights into their preferred conflict-handling modes and learn strategies for managing disagreement constructively within teams.

4. Negotiation Tips

Practical tips on negotiation — a key skill for resolving differences and aligning goals in collaborative research environments.

5. Final Session

The final session synthesized the day's key learnings, reinforced takeaways, and invited Scholars to reflect on how they can apply these skills and insights in their own research teams.

Conclusion

This workshop provided a valuable opportunity for Clinical Scholars at Rockefeller University and Heilbrunn Scholars at the Heilbrunn Family Center for Research Nursing to enhance their collaborative competencies, improve communication, and prepare for effective teamwork in the increasingly interdisciplinary world of scientific research. By investing in interdisciplinary team science training among physician scientists and nurse scientists, the Rockefeller University Center for Clinical and Translational Science continues its commitment to fostering a culture of shared leadership and innovation.

Working Genius Assessment

Small group break out session

Three Clinical Scholars Graduates Elected to The American Society for Clinical Investigation

Continued from page 1

dysregulation in pancreatic cancer. His research focuses on identifying chromatin signatures linked to aggressive disease, with the goal of improving treatments by targeting gene regulatory mechanisms beyond genetic mutations. His research, which bridges surgical oncology and molecular biology, is supported by 2 NIH R01 grants, 1 NIH R21 grant, and the Pancreatic Cancer Action Network.

Dr. Taia Wang is an Associate Professor of Medicine and Microbiology

& Immunology at Stanford University, where she leads a laboratory focused on understanding how antibody and effector cell biology influence vaccine responses and disease outcomes. Her research has uncovered critical insights into how the attachment of different sugars to immunoglobulin (IgG) affects immune responses, particularly in the context of influenza and dengue viruses. Notably, her work demonstrated that CD23 acts as a receptor for sialylated IgG, modulating B cell responses following influenza vaccination, and that severe dengue disease correlates with elevations in afucosylated anti-dengue IgG, which may contribute to disease pathology, vaccine responses, and disease outcomes.

The election of these three outstanding scientists to membership in ASCI brings the total of Clinical Scholars program graduates elected to ASCI to seven. The four graduates who previously were elected are Emma Guttman (elected 2015), Marina Caskey (2019). Saurabh Mehandru (2022), and Shen-Ying Zhang (2023).

Clinical Scholars program Celebrates 7 New Graduates

By Editorial Staff

On June 3, 2025, the Center for Clinical and Translational Science celebrated the graduation of seven Clinical Scholars with a dinner celebration in the Kellen BioLink. The celebration is the highlight of the year, and it was a wonderfully warm and inspiring event, with many friends and family members of the graduates attending and sharing the festivities. Mentors spoke about their Scholars and Scholars shared their experiences in the program. Dr. Sarah Schlesinger, Director of the Clinical Scholars program, welcomed the participants with inspiring words about the Scholars' achievements and the pride that the entire CCTS leadership has in the Scholars. Dr. Barry Coller, Co--Director of the program, concluded the festivities by congratulating the Scholars and their families.

Dr. Tamar Berger used oral brush samples to detect cancer-related mutations in Fanconi Anemia (FA) patients' normal-looking mucosa, changes not seen in healthy controls. She is expanding her study to other high-risk groups and is planning a clinical prevention trial at Rockefeller. She is also profiling FA tumors to explore immune-based therapies. Dr. Berger will continue this research in the Smogorzewska Lab, leading a clinical trial on cancer prevention.

Dr. Xiaojing Huang identified 10 serum proteins that may predict immune checkpoint blockade (ICB) response in advanced sarcoma patients, using proteomic analysis from a clinical trial. Dr. Huang will join the University of Minnesota as Assistant Professor.

Dr. Matthew Kudelka is studying whether checkpoint inhibitors induce anti-glycan antibodies, which could help predict treatment response or toxicity. He's analyzing blood from treated patients and healthy volunteers to identify relevant antibody signatures. Dr. Kudelka will continue this research as Instructor in Clinical Investigation in the Fuchs Lab.

Dr. Ryan Notti is studying inherited T-cell receptor gene variation, using structural, genomic, and functional approaches to understand its role in immunity and disease. Dr. Notti will be a Clinical Instructor at Memorial Sloan Ketting Cancer Center and Instructor in Clinical Investigation in the Laboratory of Molecular Electron Microscopy.

Dr. Amihai Rottenstreich investigated why aspirin fails to prevent preeclampsia in ~30% of high-risk women, especially African Americans. He links this to a genetic variant in the platelet thrombin PAR4 receptor affecting platelet reactivity and proposes low-molecular weight heparin as a potential adjunct therapy. Dr. Rottenstreich is now the Head of Maternal & Fetal Hematology Service at the Wolfson Medical Center in Israel.

Dr. Leon Seifert developed a novel mouse model with human liver cells to study intra-individual HBV diversity, a previously underexplored aspect of infection. Dr. Seifert will continue his research as a Instructor in Clinical Investigation in the Rice Lab.

Dr. Zijun Vinic Wang characterized HBV-specific T and B cells in patients with chronic, resolved, or self-limited infection, identifying immune signatures that may guide immunotherapy and staging of HBV. Dr. Wang will be Vice Chair of the Dermatology Department at Shanghai Ninth People's Hospital.

Class of 2025 with their mentors and progam leadership

Meet the Scholar: Shin-Rong Julia Wu, MD, PhD

Dr. Shin-Rong Julia Wu is conducting her Clinical Scholars reseach in the Laboratory of Neurobiology and Genetics, led by Sid Strickand. She received her MD and PhD degrees from the Michigan Medical School. She completed her internal medicine residency at New York-Presbyterian, Weill Cornell Medical Center, where she is currently also doing her Hematology/Oncology Fellowship. She was selected to be Co-Chief Scholar for the 2025 – 2026 academic year.

Dr. Wu's research centers on the interactions between the immune and blood clotting systems, particularly how they maintain homeostasis in health and contribute to organ damage in disease. She specifically investigates how peripheral blood components, including cellular populations and plasma proteins, affect Alzheimer's disease. Her research interests lie at the intersection of inflammation, coagulation, and neurodegeneration and she uses both murine models and human samples to understand how the immune and blood clotting systems interact in neurodegenerative disorders, including Alzheimer Disease. Her current research project is titled: "Investigating the Impact of Inflammation on Amyloid Precursor Protein (APP) Expression in the Hematopoietic Compartment.

How did you get interested in research? Were you always interested?
My parents were both scientists, and I remember always admiring them for how much they seemed to know about the natural world. In high school, one of my teachers encouraged me to do a summer research program at Roswell Park Cancer Institute. It was in an immunology lab. It was my first exposure to the field, and I was captivated by it. Later, as a college student, my mother took me to an American Association for Cancer Research meeting where the plenary session was on immunotherapy. I thought it was the coolest thing ever and wanted to be able to do what these people were doing.

How did you come to the Strickland Lab?
I have a PhD in immunology and did my medical residency in internal medicine. The original plan was to go into cancer immunotherapy, but during my intern year, the COVID pandemic struck. The immense power of the hemostatic and thrombotic systems captured my interest, similar to how the immune system fascinated me.

Dr. Strickland has been studying how the coagulation system mediates neurodegeneration in Alzheimer disease, which is also a well-described neuroinflammatory state. I saw an opportunity to work at the intersection of the blood and the immune system and to learn more about the brain. I'm grateful for the way the Srickland lab has welcomed and supported me.

What is your current research?
I am interested in how the immune and coagulation systems work together in health and disease. My project applies this interest to Alzheimer disease, where I am studying how a protein associated with the disease is produced in the blood and is regulated by immune system activity. The ultimate aim of this project is to provide a more comprehensive understanding of how Alzheimer disease develops so that we can better prevent it and treat it.

What were your expectations when you joined the Clinical Scholars program, and have they been met?
As I neared the end of my PhD training, my thesis advisor told me that my selection of mentor/mentors in the next stage of my research training would be critical. I hoped that through the Clinical Scholars program, I would find mentorship and support in my development as a physician-scientist.

Because my interests cross disciplines, I need multiple mentors. The Clinical Scholars program has helped facilitate initial connections to potential mentors, and my Master's degree Advisory Research Committee has helped formalize and foster those relationships.

What are your expectations and/or goals as Chief Scholar?
My first goal is to meet the expectations of the role and serve well! I want to help keep the program running smoothly and find opportunities to make it more effective at supporting the development of translational scientists. I also see this as a chance for me to learn through this work. Many of us note the strengths and weaknesses of leaders we admire and those we don't. I'm looking forward to putting theory into practice. I'm reminded of being an intern, where you must make this huge jump applying knowledge to actual practice. The subsequent years of clinical training really challenge you to grow. I strive to be open to the same growth opportunities in this role.

What has been a learning opportunity or teaching moment as a Scholar?
Writing a human subjects research protocol and thinking about the practicalities of translational research has been a fantastic learning experience. My research background is in bench-based science, where you have much more control over variables. I have been learning how to integrate the core principles of a well-executed experiment to fit real-world considerations. The facilitation office has been instrumental in this process. Because of their support, I've rapidly accrued participants and started collecting data. Their support and instruction have been very valuable to my research.

What has been the most educational, engaging, and/or surprising aspect of being in the Clinical Scholars program?
It is a joy and pleasure to be part of this group of researchers. They understand the attraction of clinical service and scientific research and the unique challenges of trying to straddle these worlds. I find inspiration, encouragement, and camaraderie from the other Scholars. When I've hit the inevitable obstacles and low moments, being in this program and having peers who understand the process have helped keep me motivated. It's also just really great to befriend some incredibly smart, kind people!

If someone asked you to describe the Clinical Scholars program in one sentence, what would it be?
A community of curious, intelligent, and motivated people connected by a desire to learn about human biology and use that knowledge to do good in the world.

What are your next steps/career goals when you graduate from the program?
My dream job would include time to care for patients with bleeding and clotting disorders and support to continue my research. It's really rewarding to be able to do both for distinct and complementary reasons.

Dr. Robert Califf Delivers 2025 Rufus Cole Lecture at Rockefeller University Hospital

continued from Page 1

molecule selection for rare disease therapies.

- **Evidence in Small Populations:** There is a critical need to develop probabilistic models to better assess safety and efficacy in rare disease clinical trials.

- **Building Trust in Science**: Institutions must explore pathways to restore public confidence in science and healthcare systems.

- **Shared Research Infrastructure:** Greater collaboration and resource pooling are essential for advancing rare disease research and streamlining clinical trials.

- **Funding Innovation:** Alternative, sustainable funding models for rare disease treatments should be developed to improve affordability and access.

- **Patient-Centered Data Use**: Researchers must continue to prioritize the ethical use of patient-centric data while ensuring robust privacy protections.

- **System Navigation:** Efforts should be made to build more navigable and transparent healthcare systems that support patients and clinicians alike.

Dr. Califf's Rufus Cole Lecture was preceded by a dinner the night before with Clinical Scholars and Center for Clinical and Translaitonal Science senior staff. He also participated in a Clinical Scholar tutorial before his lecture in which he and Dr. Coller reviewed a papter that they co-authored in 2009 entitled, "Traversing the Valley of Death: A Guide to Assessing Prospects for Translational Success."

Dr. Califf's lecture served as both a call to action and a roadmap for the future of healthcare research and policy. As challenges mount in the realms of public trust, data management, and access to care, his insights and recommendations offer a compelling vision for collaborative, patient-focused solutions.

Dr. Califf Co-Led the Clinical Scholar Tutorial on improving the drug development process before delivering the Rufus Cole Lecture

Historical Vignette: An Effective Dietary Therapy for Diabetes Before the Discovery of Insulin

By Dr. Elizabeth (Betsy) Hanson

Before the discovery of insulin in 1922, diabetes mellitus was often a fatal disease. High blood sugar levels and sugar in the urine were recognized as symptoms, and scientists knew by the early 20th century that a substance from the pancreas could lower sugar levels. Frederick M. Allen (1879-1964) was the first to realize, however, that diabetes was more than a problem with blood glucose; rather, it was a global disorder of metabolism. Allen developed the best therapy for diabetes available before insulin, a restricted-calorie diet that provided mainly fat and protein, with the minimum amount of carbohydrates needed to sustain life. Between 1914 and 1918 he treated 100 diabetics at the Rockefeller Hospital with this diet. Many other physicians began prescribing it, including Elliott Joslin, the most prominent American specialist in diabetes.

Allen based his diet on experiments with hundreds of dogs, cats, and other animals in which diabetes had been induced by removing most, but not all, of the pancreas. For about three decades scientists had known that completely removing the pancreas from a dog creates severe and sudden symptoms of diabetes. Allen's technique produced a milder, chronic diabetes, more like the disease in humans. Then he painstakingly controlled food intake and measured glucose in the urine to investigate how the diabetic animals metabolized fat, protein, and carbohydrate. The results of his work, published in 1913, came to the attention of the newly founded Rockefeller Institute. Metabolic diseases were a focus of research at the Rockefeller Hospital, which had opened in 1910, and Allen was recruited to extend his research to studies with patients.

Allen's diet was far from a cure. It essentially brought people with severe diabetes to the brink of starvation in order to control the disease. Yet many diabetics sought his treatment, and the diet did extend their lives. It also enabled hundreds of people—perhaps even thousands—to survive long enough to receive insulin when it became available. Allen left Rockefeller in 1918 to found his own clinic to treat diabetes and other metabolic disorders and to do research. After the discovery of insulin was announced, Allen was among the first physicians to receive samples of the hormone for trials with patients before it was generally distributed, and he made contributions to working out an effective regimen for administering insulin. Allen also received one of the allocations of the Rockefeller Foundation's Insulin Fund in 1923.

Frederick M. Allen earned his undergraduate and medical degrees from the University of California, which had its only campus in Berkeley at the turn of the twentieth century. After serving as an intern at the University's affiliated hospital in 1907 and 1908, he worked as a research fellow at Harvard Medical School. In 1913 Allen moved to the Rockefeller Institute. Six years later he left Rockefeller to establish his own center for treating diabetes and other metabolic disorders, the Physiatric Institute, in Morristown, New Jersey, which officially opened in 1921. Allen later did research on high blood pressure and on cancer, and he ended his career at the Pondville Cancer Hospital in Massachusetts.

Food.	gm.	c.	Protein. gm.	Fat gm.	
Breakfast.					
Egg white	162		20.0	0.3	
Celery T. C.*	200				
Spinach "	100				
Coffee		150			
Clear soup		150			
Bran biscuits (2)					
Dinner.					
Flounder	216		30.0	1.2	
Sauerkraut T. C.	200				
Brussels sprouts T. C.	200				
Bran biscuits (2)					
Coffee		150			
Soup		150			
Supper.					
Roast chicken	78		25.0	3.4	
Cauliflower T. C.	200				
Asparagus "	100				
Bran biscuits (2)					
Kaffee Hag		150			
Soup		150			
Gm.			75.0	4.9	
Calories			307.0	45.0	332

Exclusive protein diet, as sometimes used for bringing down blood sugar. From Total dietary regulation in the treatment of diabetes by F. Allen, et al., NY, 1919