

# The Rockefeller University

Science for the benefit of humanity

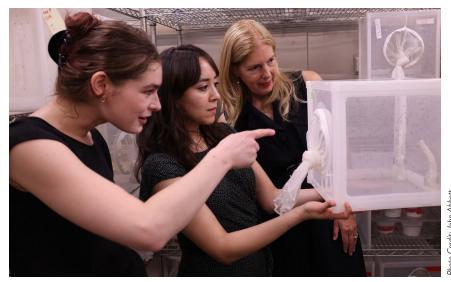
The Rockefeller University is one of the world's foremost institutions dedicated to research and graduate education in the biomedical sciences. Rockefeller was founded in 1901 with the core principle that understanding the fundamental causes of disease provides the surest route to prevention and effective therapy. The university's unique interdisciplinary environment is structured around individual laboratories rather than academic departments. Each of the 72 labs on campus is headed by a visionary scientist, who is asking big questions that can result in transformational discoveries.

In the university's 123-year history, 26 Rockefeller scientists have received Nobel Prizes, 26 have won Lasker Awards, and 20 have garnered the National Medal of Science, the highest honor in science and medicine awarded by the United States government.

Seminal discoveries in basic science from Rockefeller scientists have driven dramatic clinical advances, including:

- discovery that DNA is the substance of heredity, setting the course for modern biological research
- · discovery of human blood types, improving the safety of blood transfusions
- research studies that paved the way for safe antibiotics
- discovery of dendritic cells, the sentinels of the immune system, which laid the groundwork for cancer immunotherapy
- devising a system to replicate and study the virus that causes hepatitis C, leading to the development of drugs that cure the disease
- discovery of the molecular mechanisms that control circadian rhythm
- uncovering the role of stem cells in homeostasis, wound repair, inflammation, and cancer
- determination of the molecular structure of the protein involved in cystic fibrosis, opening the way for improved therapeutics
- discovery of GLP-1 and its role in digestion, leading to the revolutionary new class of medicines to treat diabetes and obesity

# About Women & Science



2023 W&S Graduate Fellow Adelia Gaffney and 2019 W&S Graduate Fellow Adriana Rosas Villegas with Professor Leslie Vosshall

Founded in 1997, the Women & Science initiative supports women investigators and their scientific pursuits in myriad ways. This includes funding for research and education, highlighting the many significant contributions of women scientists, underscoring the importance of basic science in addressing women's health challenges, and encouraging more women to make scientific research a philanthropic priority.

Through the Partners in Discovery Fund, donors to Women & Science have generously raised more than \$55 million in support of graduate and postdoctoral fellowships, recruitment of women faculty, special research initiatives related to women's health, and, through the Anna-Maria and Stephen Kellen Women's Entrepreneurship Fund, women-led translational research projects.

Today, approximately 40 percent of Rockefeller's scientists—including graduate students, postdoctoral investigators, research and clinical scientists, assistant and associate professors, and tenured senior professors—are women.

# Core Priorities of the Initiative

#### MENTOR THE NEXT GENERATION

The cornerstone of the Women & Science initiative is our fellowship program, which recognizes outstanding women graduate students and postdoctoral scientists. To date, more than 270 of these coveted fellowships have been awarded, and many recipients have gone on to careers in academia, technology, government, education, and medicine.

#### PROMOTE WOMEN IN LEADERSHIP

Women & Science has helped to increase representation of women at the university in both the lab and on the board. In the last ten years, the university has hired seven women heads of lab with the support of the Women & Science Fund to Recruit Women Faculty. The number of women trustees has tripled since the initiative was founded, and women now constitute 48 percent of the board.

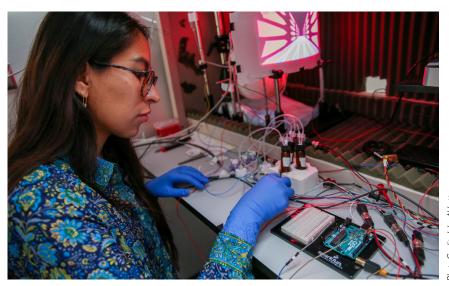
#### HARNESS THE POWER OF TRANSLATIONAL RESEARCH

The Anna-Maria and Stephen Kellen Women's Entrepreneurship Fund (Kellen WEF) is an innovative program established to encourage more women scientists at the university to pursue the clinical and entrepreneurial potential of their scientific discoveries.

#### RECOGNIZE OUTSTANDING WOMEN IN BIOMEDICAL RESEARCH

Women & Science is committed to elevating the visibility of women in academic science and biomedical research. To that end, the initiative features women researchers in presentations on topics related to women's health. Additionally, the Pearl Meister Greengard Prize recognizes the accomplishments of women in biomedical science, and installations on campus showcase women scientists at Rockefeller, past and present.

# Current Women & Science Fellows



2022 W&S Graduate Fellow Andrea Terceros in the Skoler Horbach Family Laboratory of Neural Dynamics and Cognition

#### POSTDOCTORAL FELLOWS

#### Lina Carlini, Ph.D.

Selma and Lawrence Ruben Laboratory of Chemistry and Cell Biology Headed by Tarun Kapoor, Ph.D.

#### Shanshan Liu, Ph.D.

Laboratory of Metabolic Regulation and Genetics Headed by Kıvanç Birsoy, Ph.D.

#### Sofia Moraes, Ph.D.

Laboratory of Host-Pathogen Biology Headed by Jeremy Rock, Ph.D.

#### **GRADUATE FELLOWS**

## Cameron Chapa

The University of Texas at Austin

#### Isabelle Chen

Northwestern University

#### Chloe Schaefer

University of Pennsylvania

#### Janet Zhao

McGill University
University of British Columbia

# Spotlight on Former Women & Science Fellows

## JOSEFINA DEL MÁRMOL, PH.D. • 2010 FELLOW • RUTA LAB

Dr. del Mármol was named a HHMI Freeman Hrabowski Scholar and a 2023 Pew Scholar in Biomedical Research. She was a 2022 Blavatnik Regional Award Winner in the life sciences category. She is now an assistant professor and head of lab at Harvard Medical School.

"There is a string of amazing female figures at Rockefeller. Seeing how these women have the ability to be trailblazers in their careers and also have very rich personal lives was very impactful."

## DIANY PAOLA CALDERON, M.D., PH.D. • 2013 FELLOW • PFAFF LAB

Dr. Calderon received the 2021 Nancy M. and Samuel C. Fleming Research Scholar Award. She is now an assistant professor of neuroscience in the Brain and Mind Research Institute at Weill Cornell Medical College.

"Earning a W&S Fellowship gave me the confidence to pursue my ideas and encouraged me to keep applying for funding."

#### YUKO ULRICH, PH.D. • 2014 FELLOW • KRONAUER LAB

Dr. Ulrich is a principal investigator at the Max Planck Institute for Chemical Ecology. In 2022, she was named the first recipient of the Zukunftskolleg Research Award from the University of Konstanz.

"Beyond the fact that my W&S Fellowship allowed me to pursue ambitious research goals, it made me aware that we were actively, concretely supported by a larger community."

# Striving for Gender Parity: The Fund to Recruit Women Faculty



Heads of Lab Amy Shyer, Vanessa Ruta, Cori Bargmann, Agata Smogorzewska, Elaine Fuchs, Viviana Risca, Li Zhao, Priya Rajasethupathy, and Lamia Wahba

Rockefeller's faculty are innovative scientific leaders with visionary research programs that have the potential to transform their fields. These investigators, in turn, attract the best and brightest students and postdoctoral scholars, who come from around the world to train in Rockefeller labs. In the last ten years, Rockefeller has hired seven women heads of laboratory with support from the Women & Science Fund to recruit women faculty—a demonstration of the university's commitment to fostering a diverse scientific community.

"From the day you open your lab, you're encouraged to be very bold and risky in your thinking—to really try to address the most fundamental questions you can conceive of. And with all the resources available, it allows you to think about the most impactful and incisive ways to address these questions. That's something I felt as a graduate student here and something that drew me to come back to Rockefeller."

Vanessa Ruta, Ph.D. '05

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Gabrielle H. Reem and Herbert J. Kayden Professor Laboratory of Neurophysiology and Behavior Investigator, Howard Hughes Medical Institute

# Women Heads of Laboratory

#### Cori Bargmann, Ph.D.

Vice President for Academic Affairs Torsten N. Wiesel Professor Lulu and Anthony Wang Laboratory of Neural Circuits and Behavior

## Elizabeth Campbell, Ph.D.

Corinne P. Greenberg Women & Science Professor Laboratory of Molecular Pathogenesis

## Jue Chen, Ph.D.

William E. Ford Professor Laboratory of Membrane Biology and Biophysics Investigator Howard Hughes Medical Institute

## Titia de Lange, Ph.D.

Leon Hess Professor
Laboratory of Cell Biology and Genetics

#### Elaine Fuchs, Ph.D.

Rebecca C. Lancefield Professor Robin Chemers Neustein Laboratory of Mammalian Cell Biology and Development Investigator

Howard Hughes Medical Institute

## Mary E. Hatten, Ph.D.

Frederick P. Rose Professor Laboratory of Developmental Neurobiology

# Priya Rajasethupathy, M.D., Ph.D.

Jonathan M. Nelson Family
Associate Professor
Skoler Horbach Family Laboratory of
Neural Dynamics and Cognition

## Viviana I. Risca, Ph.D.

Assistant Professor Laboratory of Genome Architecture and Dynamics

# Vanessa Ruta, Ph.D.

Gabrielle H. Reem and Herbert J. Kayden Professor Laboratory of Neurophysiology and Behavior Investigator Howard Hughes Medical Institute

#### Amy E. Shyer, Ph.D.

Associate Professor Laboratory of Morphogenesis

#### Agata Smogorzewska, M.D., Ph.D.

Skoler Horbach Family Professor Laboratory of Genome Maintenance

# Ekaterina V. Vinogradova, Ph.D.

Assistant Professor Laboratory of Chemical Immunology and Proteomics

#### Leslie B. Vosshall, Ph.D.

Robin Chemers Neustein Professor Laboratory of Neurogenetics and Behavior Vice President and Chief Scientific Officer Howard Hughes Medical Institute

#### Lamia Wahba, Ph.D.

Assistant Professor Laboratory of Non-Canonical Modes of Inheritance

#### Li Zhao, Ph.D.

Associate Professor Laboratory of Evolutionary Genetics and Genomics

# Women Research Affiliates

#### Marina Caskey, M.D.

Professor of Clinical Investigation Laboratory of Molecular Immunology

#### Theodora Hatziioannou, Ph.D.

Research Associate Professor Laboratory of Retrovirology

#### Ines Ibañez-Tallon, Ph.D.

Research Associate Professor Laboratory of Molecular Biology

#### Rhonda G. Kost, M.D.

Associate Professor of Clinical Investigation and Clinical Research Officer Center for Clinical and Translational Science

#### Sarah F. Leibowitz, Ph.D.

Research Associate Professor

#### Orna Levran, Ph.D.

Research Associate Professor

#### Margaret R. MacDonald, M.D., Ph.D.

Research Associate Professor Laboratory of Virology and Infectious Disease

#### Svetlana Mojsov, Ph.D.

Research Associate Professor

## Erin Norris, Ph.D.

Research Associate Professor
Patricia and John Rosenwald Laboratory
of Neurobiology and Genetics

## Alison North, Ph.D.

Research Associate Professor and Senior Director Frits and Rita Markus Bio-Imaging Resource Center

# Dana Orange, M.D., M.Sc.

Chapman-Perelman Associate Professor of Clinical Investigation Laboratory of Molecular Neuro-Oncology

#### Hilda Amalia Pasolli, Ph.D.

Research Associate Professor and Director Electron Microscopy Resource Center

#### Sarah J. Schlesinger, M.D.

Associate Professor of Clinical Investigation and Senior Attending Physician The Rockefeller University Hospital

#### Shen-Ying Zhang, M.D., Ph.D.

Associate Professor of Clinical Investigation
St. Giles Laboratory of Human Genetics
of Infectious Diseases

# Recent Awards and Honors

#### CORI BARGMANN, PH.D.

Dr. Bargmann received the 2024 Gruber Neuroscience Prize for her role in linking genetics with behavior, which includes identifying the first odorant receptor and linking this receptor to a specific innate behavior. This prize honors scientists for major discoveries that have advanced the understanding of the nervous system. She will become the third Rockefeller scientist to receive this prestigious honor including Drs. Michael W. Young and Marc Tessier-Lavigne.

#### TITIA DE LANGE, PH.D.

Dr. de Lange received an Outstanding Investigator Award from the National Cancer Institute (NCI). These awards recognize highly innovative scientists who have potential to yield significant impact within cancer research. Dr. de Lange also received the 2024 Pezcoller Foundation-AACR International Award which recognizes scientists who have made major contributions to basic or translational cancer research.

#### SVETLANA MOJSOV, PH.D.

Dr. Mojsov has received numerous prizes for her discovery of a blood sugar-regulating gut hormone called GLP-1 which led to the development of new medicines for type 2 diabetes and weight loss. These prizes include: the Lasker Award, the VinFuture Prize for Innovation with Outstanding Achievements in Emerging Fields, the 2024 Princess of Asturias Award for Technical & Scientific Research, the 2024 Pearl Meister Greengard Prize, the Warren Triennial Prize, and the Tang Prize in Biopharmaceutical Science. In 2023, Dr. Mojsov was listed among Nature magazine's annual top 10 people who made a difference in science and she was named one of the TIME100 Most Influential People in 2024.

#### LESLIE VOSSHALL, PH.D.

Dr. Vosshall received the 2024 Dickson Prize in Medicine from the University of Pittsburgh School of Medicine. This prize is awarded annually to an American biomedical researcher who has made significant, progressive contributions to medicine. Dr. Vosshall joins six other scientists at Rockefeller who have received this prize: Drs. Torsten Wiesel, Jim Darnell, Bob Roeder, Elaine Fuchs, and the late Drs. Paul Greengard and Dave Allis.

# The Anna-Maria and Stephen Kellen Women's Entrepreneurship Fund

# The Anna-Maria and Stephen Kellen Women's Entrepreneurship Fund

(Kellen WEF) was established to inspire more women to develop the translational and entrepreneurial potential of their research. In addition to a competitive grants program, the Kellen WEF supports a speaker series and educational workshops featuring industry leaders. The Kellen WEF is central to Rockefeller's robust translational research ecosystem and ensures that all university investigators have the funding, scientific resources, and entrepreneurial programming to take their discoveries from the lab to the clinic.

The Kellen WEF was established with gifts from Women & Science donors and endowed by a generous gift from the Anna-Maria and Stephen Kellen Foundation at the recommendation of Michael and Denise Kellen.

#### **EDUCATIONAL PROGRAMS**

# A Guide for the Biotech Adventurer: Interactive Workshop on Drug Discovery Led by the Traverse Biotech Team

Participants learn what it takes to translate foundational science into clinically relevant products for patients in a "choose your own adventure" game.

# Managing Science & Scientists: A Workshop for Early-Career Researchers

Led by Harvard Business School and Berkeley Haas Faculty

A three-day intensive annual workshop designed to ease the transition from individual contributor to manager.

#### Candid Conversations with Bioscience Leaders

Small networking events for researchers featuring leaders in academia and industry.

# Kellen WEF Grant Program

The Kellen WEF grant program fosters translational projects from women scientists and supports collaborative ventures where a woman is one of the team leaders. This grant program complements the existing translational opportunities on campus, funding projects ranging from early-stage exploratory research to translational science entering clinical trials. Since its launch in the fall of 2020, more than 40 Kellen WEF grants have been awarded.

#### RECENT GRANT RECIPIENTS

#### ILANA KOTLIAR • POSTDOCTORAL ASSOCIATE

Multiplexed diagnostics platform to detect serum anti-GPCR autoantibodies in pre-eclampsia and autoimmune diseases: This pilot award is enabling the research team to validate and benchmark their diagnostics platform using serum samples from human subjects with various chronic autoimmune disorders.

#### PRIYA RAJASETHUPATHY • HEAD OF LAB

Developing and testing lead compounds to improve short-term memory: Working memory is a form of short-term memory that stores and processes sensory experiences, for seconds to minutes, in order to drive goal-directed behaviors. It can be severely disrupted by learning disabilities, in aging, and in diseases such as Alzheimer's and schizophrenia. The Rajasethupathy lab recently determined that variations in a single gene, called GPR12, are responsible for substantial variability in short-term memory performance. This gene encodes a receptor molecule found on nerve cells, where it is involved in neural signaling. In this project, Dr. Rajasethupathy and her colleagues are working to identify small-molecule modulators of the GPR12 receptor that point the way toward therapeutics to restore cognitive function in individuals with neurodegenerative disease.

#### AGATA SMOGORZEWSKA • HEAD OF LAB

Helicases as therapeutic targets in medulloblastoma and other cancers: This project focuses on BRCA2, a protein that is essential for cellular DNA repair. Mutations in the gene that produces BRCA2 can lead to breast, ovarian, prostate, and pancreatic cancers, as well as pediatric brain tumors called medulloblastomas.

# Portrait of Discovery

#### FIVE ROCKEFELLER TRAILBLAZERS WHO MADE SCIENTIFIC HISTORY



Five Trailblazing Women Scientists at The Rockefeller University Brenda Zlamany,  $81 \times 100 \, \%$  inches, oil on canvas, 2021

In 2019, Women & Science and the student-led organization, Women In Science at Rockefeller (WISeR), collaborated on a monumental project: The Women & Science Portrait Initiative. Brooklyn-based painter Brenda Zlamany was commissioned to create a portrait of five pioneering women scientists from Rockefeller's early decades. This groundbreaking portrait—the university's first depicting women scientists—Florence R. Sabin, Louise Pearce, Rebecca C. Lancefield, Gertrude E. Perlmann, and Marie M. Daly (above, left to right), includes researchers who held significant tenures at Rockefeller or went on to have distinguished careers at other institutions. All were among the first women in their respective fields and are recognized for their pioneering contributions to science.

This portrait was unveiled in 2022 as part of the 25th anniversary celebration of Women & Science and now hangs above the fireplace in Abby Aldrich Rockefeller Hall.

# Pearl Meister Greengard Prize

#### RECOGNIZING OUTSTANDING WOMEN IN BIOMEDICAL RESEARCH



oto Credit: C + G Partne

The Pearl Meister Greengard Prize, a major international award, recognizes the accomplishments of outstanding women in biomedical science. The Prize was established by Nobel laureate Paul Greengard (1925–2019), and his wife, sculptor Ursula von Rydingsvard. Dr. Greengard donated his entire monetary share of the 2000 Nobel Prize in Physiology or Medicine to Rockefeller and, in partnership with generous supporters of the university, created this annual award.

An exhibit recognizing the Pearl Meister Greengard Prize recipients was installed in the Abby Aldrich Rockefeller Hall in 2021. Composed of translucent, color-shifting hexagons, each with an etched portrait and citation, the exhibit spotlights the outstanding women scientists who have received the prize.

# Recent Women & Science Programs

**MAY 2024** Spring Lecture and Luncheon

From the Clinic to the Bench and Back: Insights into the

Genetics of Neurological Disorders

Huda Y. Zoghbi, M.D.

**APRIL 2024** Breast Cancer and Women's Health: Past, Present,

and Future

Elizabeth Comen, M.D.

Sleep and Beyond: How Basic Research is Leading a DECEMBER 2023

Revolution in Circadian Medicine

Sofia Axelrod, Ph.D.

**NOVEMBER 2023** Pathways to Regeneration: Uncovering New Possibilities

in Medicine

A. James Hudspeth, M.D., Ph.D.

Spring Lecture and Luncheon **MAY 2023** 

Skin Stem Cells: Coping with Stress, Inflammation,

and Cancer Elaine Fuchs, Ph.D.

Hardwired for Song and Dance: The Neurobiology of **APRIL 2023** 

Language and Movement

Eric Jarvis, Ph.D., and Constantina Theofanopoulou, Ph.D.

New Insights into Rheumatoid Arthritis: How Self-Testing OCTOBER 2022

Could Revolutionize the Fight Against Autoimmune Diseases

Dana Orange, M.D., M.Sc.

MAY 2022 25th Anniversary Lecture and Luncheon

> Unlocking the Science of Memory Priya Rajasethupathy, M.D., Ph.D.

A Portrait of Discovery: Five Rockefeller Trailblazers Who **APRIL 2022** 

> Made Scientific History An Unveiling Celebration

> > Videos of past programs are available here: youtube.com/user/RockefellerUniv

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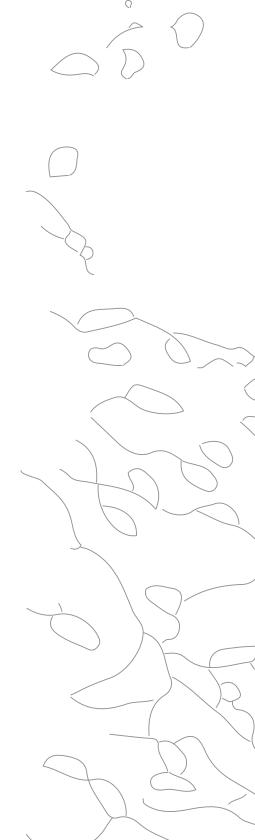
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# rockefeller.edu/women-and-science



# Laurel Birch

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