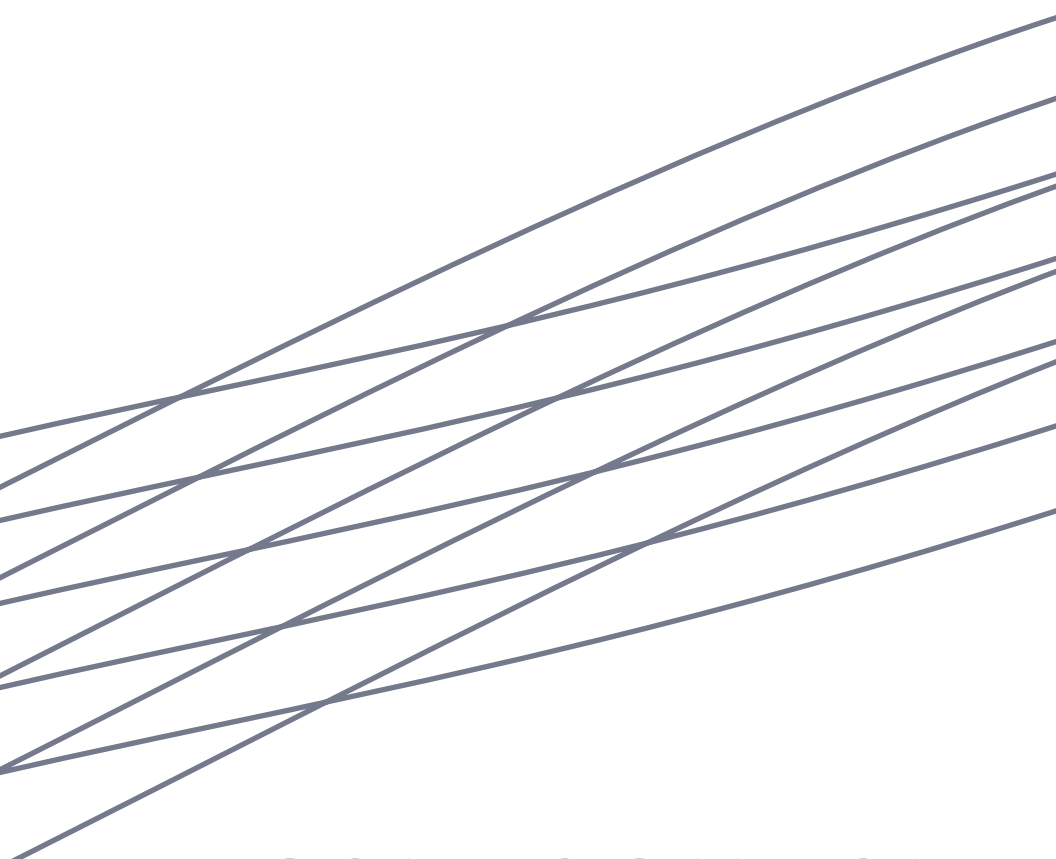


THE ROCKEFELLER UNIVERSITY



CONVOCATION
FOR CONFERRING DEGREES · 2022

THURSDAY, THE NINTH OF JUNE, 2022

ACADEMIC PROCESSION

NEW CASTLE BRASS QUINTET

WELCOMING REMARKS

RICHARD P. LIFTON, M.D., PH.D.
PRESIDENT AND CARSON FAMILY PROFESSOR

INTRODUCTION

SIDNEY STRICKLAND, PH.D.
DEAN OF GRADUATE AND POSTGRADUATE STUDIES
VICE PRESIDENT FOR EDUCATIONAL AFFAIRS

CONFERRING OF THE DEGREE OF DOCTOR OF PHILOSOPHY

DR. LIFTON

**CONFERRING OF THE DEGREE OF DOCTOR OF SCIENCE,
HONORIS CAUSA**

DR. LIFTON

LULU C. WANG
ANTHONY S. FAUCI, M.D.
KATALIN KARIKÓ, PH.D.

ACADEMIC RECESSION

FARID ABOHARB*

B.A., RUTGERS UNIVERSITY

Mixed Coding in the Dorsomedial Frontal Cortex

WINRICH FREIWALD

MARIANNA ELIZABETH AGUDELO

B.S., MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Human Antibody Response to Flaviviruses and SARS-Coronavirus-2

MICHEL C. NUSSENZWEIG

EDUARDO AGUILAR

B.S., UNIVERSITY OF CALIFORNIA, SANTA BARBARA

SINV Macrodomein Poly-ARH Activity Is Critical to Viral RNA Synthesis Initiation

CHARLES M. RICE

IN ABSENTIA

ANNA AMELIANCHIK

B.A., SAINT PETERSBURG STATE UNIVERSITY / BARD COLLEGE

M.SC., VRIJE UNIVERSITEIT AMSTERDAM /

CHARITÉ-UNIVERSITÄTSMEDIZIN BERLIN

The Effect of Early Dietary Intervention on Alzheimer's Disease-related Pathology and Cognitive Function in Mice

ERIN H. NORRIS & SIDNEY STRICKLAND

2022 GRADUATES

NIPUN BASRUR

B.A., GRINNELL COLLEGE

The Genetic and Neural Basis of Sexual Dimorphism in Mosquito Behavior

LESLIE B. VOSSHALL

LINDSEY CANTIN

B.S., UNIVERSITY OF MASSACHUSETTS AMHERST

Epigenetic Specializations in a Songbird Brain

ERICH D. JARVIS

SPENCER T. CHEN

B.A., CORNELL UNIVERSITY

B Cell Receptor Signaling in Germinal Centers

MICHEL C. NUSSENZWEIG

CHAN HEE CHOI*

B.A., B.S., THE UNIVERSITY OF CHICAGO

Uncovering Regulators of Whole-body Metabolism by Chemoproteomic Profiling of the Adipocyte Secretome

PAUL COHEN

TANDRILA DAS

B.S., M.S., INDIAN INSTITUTE OF SCIENCE

Functional Analysis of S-palmitoylated IFITM3 Antiviral Activity and Regulation

HOWARD C. HANG

PRESENTED BY SIDNEY STRICKLAND

RYAN J. FARRELL

B.S., B.S., PURDUE UNIVERSITY

Novel Optical Tools to Investigate Presenilin Control of Neurotransmission

TIMOTHY RYAN

EMMA H. GARST

A.B., MOUNT HOLYOKE COLLEGE

Reconstitution and Biophysical Analysis of Site-specifically Lipidated IFITM3

HOWARD C. HANG

IN ABSENTIA

GREGORY GEDMAN

B.A., DREW UNIVERSITY

Songbird Brain Organization and Its Molecular Convergence with Humans
for Vocal Imitation Learning

ERICH D. JARVIS

2022 GRADUATES

ITZEL GONZALEZ ISHIDA

B.S.C., UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO

Sign-inverting Vectors Underlie a Coordinate Transformation in the
Drosophila Central Brain

GABY MAIMON

MARGO HERRE*

B.F.A., NEW YORK UNIVERSITY

Non-canonical Odor Coding Ensures Robust Mosquito Attraction to Humans

LESLIE B. VOSSHALL

MIZUHO HORIOKA-DUPLIX

A.B., M.S., DARTMOUTH COLLEGE

Biased Constitutive Activity in the Uveal Melanoma Oncogene CYSLTR2 Is
Unique in the CYSLTR2 Germline and Pan-cancer Human Variome

THOMAS P. SAKMAR

IN ABSENTIA

AMY HUANG

B.S., UNIVERSITY OF CALIFORNIA, LOS ANGELES

Integration Sites in the Persistence of Latent HIV-1

MICHEL C. NUSSENZWEIG

BRIAN HURWITZ *

B.S., THE OHIO STATE UNIVERSITY

New Roles for the Integrated Stress Response in Cancer and Proteostasis

ELAINE FUCHS

PRESENTED BY SIDNEY STRICKLAND

IRYNA IVASYK *

B.S., CORNELL UNIVERSITY

DNA Methylation and DNA Methyltransferases in the Clonal Raider Ant,
Ooceraea biroi

DANIEL KRONAUER

VIRAPAT KIEUVONGNGAM

B.S.C., MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Structure and Mechanism of PCAT1, a Polypeptide Processing and
Secretion Transporter

JUE CHEN

AINSLEY LOCKHART

B.A., KENYON COLLEGE

Intestinal CD4+ T Cell Responses to Food

DANIEL MUCIDA

IN ABSENTIA

2022 GRADUATES

CHENG LYU

B.S., M.S., PEKING UNIVERSITY

Building an Allocentric Traveling-direction Signal via Vector Computation

GABY MAIMON

PASCAL MAGUIN

B.A., HUNTER COLLEGE

Restriction-Modification and CRISPR-Cas Systems: Cooperation Between
Innate and Adaptive Immunity in Prokaryotes

LUCIANO MARRAFFINI

JAVIER MARQUINA-SOLIS

B.SC., UNIVERSIDAD PERUANA CAYETANO HEREDIA

Peptidergic Signaling Controls the Dynamics of Sickness Behavior in
Caenorhabditis elegans

CORI BARGMANN

LIN MEI

B.S., PEKING UNIVERSITY

Multi-modal Regulation of Actin Networks

GREGORY M. ALUSHIN

LINAMARIE MILLER

B.A., WILLIAMS COLLEGE

Structural Studies of the Nucleolar Stages of Ribosome Biogenesis in Yeast

SEBASTIAN KLINGE

PRESENTED BY SIDNEY STRICKLAND

ZACHARY KENNETH MIRMAN

B.A., POMONA COLLEGE

53BP1/shieldin Counteract DSB Resection Through Fill-in Synthesis

TITIA DE LANGE

PHILIP MOJSOV NUSSENZWEIG*

B.A., THE UNIVERSITY OF CHICAGO

Cas9-primed Adaptive Immunity During the CRISPR-Cas9 Response

LUCIANO MARRAFFINI

MEMBER OF THE GRADUATING CLASS OF 2020

MARIA PASSARELLI*

B.S., YALE UNIVERSITY

Tumor Suppression by a tRNA Synthetase

SOHAIL TAVAZOIE

PRESENTED BY SIDNEY STRICKLAND

ALINA RASHID

B.A., RUTGERS UNIVERSITY

A Developmental Pathway for Epithelial-to-Motoneuron Transformation
in *Caenorhabditis elegans*

SHAI SHAHAM

2022 GRADUATES

MICHAEL RIAD

B.S.C., UNIVERSITY OF MASSACHUSETTS AMHERST

M.S.C., NORTHWESTERN UNIVERSITY

Modulation of Prefrontal Cortex Activity and Sociability by Local Interneurons Expressing Corticotropin-releasing Hormone

NATHANIEL HEINTZ

ELIAS SCHEER

SC.B., BROWN UNIVERSITY

Sensory and Neuromodulatory Entrainment of Foraging States in *Caenorhabditis elegans*

CORI BARGMANN

VICTORIA MARIE SCHNEIDER

B.S., UNIVERSITY OF PITTSBURGH

Characterization of a Novel Sensing Mechanism Governing Antigenic Variation in *Plasmodium falciparum*

KIRK W. DEITSCH & HOWARD C. HANG

IN ABSENTIA

GABRIELLA SPITZ-BECKER

A.A., BARD COLLEGE AT SIMON'S ROCK

B.A., BARD COLLEGE

Transcriptomic and Proteomic Studies of Intercellular Communication Between Melanocytes and Keratinocytes in Human Skin

SANFORD M. SIMON

FRANK TEJERA

B.SC., M.SC., UNIVERSIDAD DE LA HABANA

Nonlinear Representation of Auditory Stimuli Across the Auditory Cortex

ALIPASHA VAZIRI & MARCELO MAGNASCO

IN ABSENTIA

KRITHIKA VENKATARAMAN

B.A., SMITH COLLEGE

Reproductive Resilience of *Aedes aegypti* Mosquitoes

LESLIE B. VOSSHALL

ANDREW LAWRENCE HADDAD WEBSTER

B.SC., MCMASTER UNIVERSITY

Mechanism of Tumorigenesis in the Setting of Fanconi Anemia
Pathway Deficiency

AGATA SMOGORZEWSKA

PAIGE WINOKUR

B.S., HAVERFORD COLLEGE

Endogenous Neurosteroid Hormone Production and Early
Oligodendrocyte Development

TIMOTHY VARTANIAN, BRUCE MCEWEN,
& DONALD PFAFF

2022 GRADUATES

EVAN WITT

A.B., WASHINGTON UNIVERSITY IN ST. LOUIS

Genetic and Regulatory Novelty in the Male *Drosophila* Germline

LI ZHAO

ZETIAN YANG

B.ENG., BEIHANG UNIVERSITY

M.S., BEIJING NORMAL UNIVERSITY

Ultra-fast and Multi-dimensional Face Processing in a New Face Area

WINRICH FREIWALD

ZHE YANG

B.SC., NATIONAL UNIVERSITY OF SINGAPORE

Mechanistic Understanding of the Role of TRF1 in Telomere Replication

TITIA DE LANGE

LEO YUAN

B.S., UNIVERSITY OF CALIFORNIA, BERKELEY

Ras Drives Malignancy Through Stem Cell Crosstalk with the Microenvironment

ELAINE FUCHS

PRESENTED BY SIDNEY STRICKLAND

ANTHONY S. FAUCI, M.D.

Anthony Fauci has had an extraordinary career in biomedical research and national public health leadership. As director of the National Institute of Allergy and Infectious Diseases (NIAID) since 1984, he has effectively led the institute's fight to prevent, diagnose, and treat many of the greatest challenges to global public health, including infection with the HIV and SARS-CoV-2 viruses.

A native of Brooklyn, Dr. Fauci attended Regis High School (on 84th Street between Madison and Park), and earned his B.A. from Holy Cross and M.D. from Cornell University Medical College. After graduation in 1966, he began his research career at NIAID, where he devised therapies for several rare and formerly fatal inflammatory diseases before becoming the Institute director. He also serves as the chief medical advisor to the President of the United States under President Biden.

Dr. Fauci has been a key figure in the fight against acquired immunodeficiency syndrome (AIDS), first recognized in 1981, and subsequently found to be caused by HIV. He has made seminal contributions to the understanding of how HIV destroys the body's defenses and has been instrumental in developing highly effective strategies for therapy, as well as in efforts to develop a vaccine to prevent HIV infection. He spearheaded the President's Emergency Plan for AIDS Relief (PEPFAR), which has saved millions of lives in the developing world.

Through seven presidential administrations, Dr. Fauci has provided guidance on public health and medical issues to the U.S. population and its presidents. During the COVID-19 pandemic, NIAID investigators made critical contributions to development of the safe and effective vaccines against the SARS-CoV-2 virus. Dr. Fauci earned the nation's trust by providing clear, compassionate advice rooted in the available facts through the rapidly evolving pandemic. He is revered for his insistence on the pursuit of truth, and the distinction between what is known and what is not, serving with unwavering dedication despite an extremely challenging political environment. In addition to spearheading NIAID's role in combatting HIV and COVID-19, he ushered the public through numerous other challenges, including the anthrax scare of 2001 and outbreaks of swine flu, Ebola, and Zika.

Dr. Fauci is a member of the National Academy of Sciences, the National Academy of Medicine, the American Academy of Arts and Sciences, and the American Philosophical Society. His many awards and accolades include the Presidential Medal of Freedom, the National Medal of Science, the George M. Kober Medal of the Association of American Physicians, and the Mary Woodard Lasker Award for Public Service.

HONORARY DEGREE

KATALIN KARIKÓ, P.H.D.

Katalin Karikó has dedicated her career to achieving a dream that the scientific establishment once deemed implausible. For four decades, her research has focused on the use of messenger RNA (mRNA) for therapeutics and vaccines. She discovered how to overcome the potentially lethal inflammatory response caused by synthetic mRNA that had precluded its use in humans. Her foundational discoveries laid the groundwork for the rapid development of mRNA vaccines that have saved millions of lives during the COVID-19 pandemic.

Dr. Karikó was born and raised in Hungary. During her studies at the University of Szeged, where she earned a B.S. in 1978 and Ph.D. in 1982, she began her pursuit of clinical use of mRNA. Dr. Karikó packaged nucleic acid into lipid-based carriers and mastered RNA manipulation.

Research-funding problems in Hungary drove her to the U.S. She held fellowships in two labs before joining the University of Pennsylvania. There, Dr. Karikó collaborated with several clinical investigators as her work progressed, despite lack of grants and institutional support. During the 1990s, she persevered even though, by this time, conventional wisdom held that delivering intact mRNA to cells in the human body was infeasible.

Dr. Karikó joined forces with immunologist Drew Weissman, and together they discovered that synthetic mRNA could be prevented from activating the innate immune system by replacement of uridine with pseudouridine, a modification found in transfer RNAs. The resulting modified mRNAs can be translated without triggering the innate immune response. Drs. Karikó and Weissman went on to demonstrate that such modified mRNA formulated with lipid nanoparticles can be a potent vaccine. This technology ultimately became the basis for the FDA approved COVID-19 mRNA vaccines that are used to combat the current global pandemic. Pioneering work by Dr. Karikó has fueled these advances and opened the door for future therapeutics for a wide range of health conditions.

Today, Dr. Karikó is senior vice president at BioNTech and adjunct professor of neurosurgery at the Perelman School of Medicine at the University of Pennsylvania. In the last two years, the critical importance of her discovery has won a breathtaking number of honors and prizes. Dr. Karikó's awards include the Breakthrough Prize in Life Sciences, the Lasker-DeBakey Clinical Medical Research Award, the Gairdner Award, the Japan Prize, the Paul Ehrlich and Ludwig Darmstaedter Prize, and, most recently, Rockefeller University's Pearl Meister Greengard Prize.

LULU C. WANG

Lulu Chow Wang is the living embodiment of the power of hard work, perseverance, and integrity. A pioneer in the financial world, she has used her tremendous intelligence, determination, and resilience to establish an extremely successful career in a male-dominated industry. Widely recognized for changing the landscape of Wall Street, Ms. Wang has similarly forged new paths in philanthropy, urging women to assume leadership positions in the organizations they choose to support. Her mentorship of women in all areas of her life has created a legacy that will endure for generations.

Ms. Wang's father was a senior member of the Chinese Nationalists and though the family's roots were in Shanghai, his work took the Chow family to New Delhi, at the time when Ms. Wang was born. She came to the U.S. with her family when she was four years old. After attending high school in Long Island, Ms. Wang joined the Class of 1966 at Wellesley College, where she gained a deep respect for the transformative power of women's education.

After her marriage to Anthony "Tony" Wang, Ms. Wang initially stayed at home, but missed the intellectual challenge she had experienced at Wellesley. She found a position as a writer in a securities firm, but soon realized how much more she enjoyed investing and began to train to become a securities analyst, subsequently earning her M.B.A. at Columbia Business School.

Ms. Wang went on to hold positions at Bankers Trust and Donaldson, Lufkin & Jenrette, before joining Equitable Capital Management where she oversaw public equities management for ten years. She moved on to become director and executive vice president of Jennison Associates Capital Corporation, a primary platform for asset management at Prudential Financial. In 1998, Ms. Wang founded Tupelo Capital Management to manage assets for institutional and private clients.

Ms. Wang has dedicated a large portion of her time and expertise to public service. She serves as trustee and vice chair of the Asia Society and is a member of the board of Columbia Business School. She is a trustee emerita of The Rockefeller University, The Metropolitan Museum of Art, and Wellesley College, and director emerita of New York Public Radio.

As a Rockefeller University trustee, Ms. Wang has served on the board's Executive, Hospital, and Investment Committees, as well as the Nominating and Governance Committee, which she chaired from 2013 to 2020. Under her chairmanship, 21 trustees were elected to the University's board. Ms. Wang is also a leader in Rockefeller's Women & Science initiative.

Founded in 1901, The Rockefeller University is a world-renowned center for research and graduate education in the biomedical and physical sciences. The university's some 70 laboratories conduct research on a broad range of biological and biomedical questions with the mission of improving the understanding of life for the benefit of humanity. Over the years, Rockefeller has been the site of many historic breakthroughs, including the landmark discovery that genes are made of DNA. Twenty-six researchers associated with Rockefeller throughout its history have been awarded the Nobel Prize.

The graduate program, with a unique curriculum that emphasizes independent research, began in 1955 and was named in honor of David Rockefeller in 2005. Since the first convocation in 1959, The Rockefeller University has granted doctor of philosophy degrees to 1,395 individuals – including 40 students who will receive their Ph.D. degrees today.

THE ROCKEFELLER UNIVERSITY
1230 YORK AVENUE
NEW YORK, NY 10065
WWW.ROCKEFELLER.EDU

