GRUBER
FOUNDATION

FY 2024 Annual Report

July 1, 2023 – June 30, 2024

A supporting organization of Yale

A. Sarah Hreha, Executive Director
The Gruber Foundation
November 5, 2024
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Executive Summary

The Gruber Foundation honors individuals in the fields of Cosmology, Genetics, Neuroscience, Justice, and Women's Rights, whose groundbreaking work provides new models that inspire and enable fundamental shifts in knowledge and culture.

A. Sarah Hreha, Executive Director

The Gruber Foundation is a 509(a)(3) Type 1 supporting organization operated, supervised, or controlled by Yale University and incorporated in 2011 under the 501(c)(3) section of U.S. Corporate Law. It was funded by The Peter and Patricia Gruber Foundation, and Peter and Patricia Gruber were its Co-founders. As President Emeritus, Patricia Gruber has a lifetime seat on the Board.

The 2023 Gruber International Prize venues were very international! The Cosmology Prize was awarded in Marseille, France and the Genetics Prize in Melbourne, Australia. The Neuroscience Prize was awarded a little closer to home, in Washington DC. The 2024 Genetics Prize was awarded in FY24 but will be featured next year with the other 2024 prizes. Despite covid exposures and the apparently inevitable international travel snafus all three events were lovely, well-deserved tributes to the recipients: Richard Ellis (Cosmology), Allan Jacobson & Lynne Maquat (Genetics), and Huda Akil (Neuroscience).

It was a good year for Gruber Prize laureates! Uroš Seljak (Cosmology) was elected to the American Association for the Advancement of Science; Stuart Orkin (Genetics) made Time's list of 100 Most Influential People and received the Elain Redding Brinster Prize; Lily Jan and Eve Marder (Neuroscience) received the Pearl Meister Greengard Prize; and Michael Greenberg (Neuroscience) was the co-recipient of the Brain Prize.

The Gruber Program for Global Justice and Women's Rights continued its robust programming, and the Gruber Science Fellowship brought back its annual lecture, which had stopped during COVID.

The Board of Directors of The Gruber Foundation comprises: Peter Salovey, Chairman; Steven Wilkinson, President; Patricia Gruber, President Emeritus; Joan O'Neill; Waring Partridge. The Treasurer is Elizabeth Bilodeau, and the Executive Director is A. Sarah Hreha.

Further information on the Foundation is available online at gruber.yale.edu

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Fiscal Year 2024 Financial Overview

Statement of Financial Position as of June 30, 2024

Assets	
Cash and cash equivalents	$ 103,445
Investments	140,504,552
Beneficial interest in charitable gift annuity	89,741,309
Total assets	230,349,306
Liabilities	
Accounts payable	1,685
Due to Yale University	453,972
Total liabilities	455,657
Net assets	$ 229,893,649
Total liabilities and net assets	$ 230,349,306

2024 PROGRAM SPENDING

Grants to Yale University

The Gruber Foundation provides grants to Yale University for the Gruber Science Fellowship Program and the Gruber Program for Global Justice and Women's Rights. The agreement provides that The Gruber Foundation will distribute for the benefit of the Gruber Science Fellowship Program the greater of $2.5 million or 1.6% of the net value of The Gruber Foundation's assets as of the beginning of each fiscal year, subject to certain adjustments. In addition, the agreement provides for disbursements of $1.2 million for the benefit of the Global Justice and Women's Rights Program.

The following grants have been distributed through June 30:

Gruber Science Fellowship Program	$3,330,349
Gruber Justice and Women's Rights	$1,200,000
	$4,530,349

Gruber Prizes

Gruber Prizes disbursed through June 30, 2024 were as follows:

2023 Cosmology Prize	$500,000
2023 Genetics Prize	$500,000
2023 Neuroscience Prize	$500,000
2024 Genetics Prize	$500,000
	$2,000,000

Gruber International Prize Program

Fiscal year 2024 saw the 2023 Gruber Prizes awarded and the 2024 recipients selected. The 2024 Genetics Prize was also awarded, in March 2024, but will be covered in the FY25 report. The program mission statement is: *The International Prize Program honors individuals in the fields of Cosmology, Genetics, and Neuroscience, whose groundbreaking work provides new models that inspire and enable fundamental shifts in knowledge and culture.*

The 2023 Prizes

COSMOLOGY

July 9, 2023
"Shedding new light on the first billion years of the Universe"
16th edition of the GECO team conference cycle
Marseille, France

Gruber Lecture: ***The Quest for Cosmic Dawn: Progress and Challenges***

Advisory Board Member Jean-Loup Puget, Prize Recipient Richard Ellis, and Sarah Hreha

Prize Citation:

The Gruber Foundation is pleased to present the **2023 Cosmology Prize** to **Richard S. Ellis** for his numerous contributions in the fields of galaxy evolution, the onset of cosmic dawn and reionization in the high redshift universe, and the detection of the earliest galaxies via the Hubble Ultra Deep Field study.

Richard S. Ellis has also driven several frontier instrumental developments in optical astronomy, especially the use of multi-object spectroscopy to study many galaxies in the same field of view. These included the "autofib" instrument, the "2dF" facility on the Anglo-Australian Telescope, which led to the discovery of baryon acoustic oscillations, the "LDSS" on the Herschel Telescope, which studied the redshifts of faint galaxies, and the "PFS" currently under commissioning on the Subaru Telescope to study dark matter and dark energy.

Selection Advisory Board: Jeremy Butterfield, Wendy Freedman (non-voting), Paul Ho, Angela Olinto (chair), Jean-Loup Puget, Hans Ringström, Martin Rees (non-voting), Linda Tacconi, Licia Verde

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GENETICS

Sarah Hreha, Prize Recipients Lynne Maquat and Allan Jacobson, and Advisory Board Chair Allan Spradling

October 8, 2023
International Congress of Genetics
Melbourne, Australia

Gruber Lectures: ***NMD, translation termination, and readthrough therapy: consequences and suppression of genetic nonsense (Jacobson); Nonsense-mediated mRNA decay in human health and disease (Maquat)***

Prize Citation:

The Gruber Foundation proudly presents the **2023 Genetics Prize** to **Allan Jacobson** and **Lynne Elizabeth Maquat** for their discoveries and pioneering studies on the mRNA surveillance mechanism known as Nonsense Mediated mRNA Decay (NMD). NMD is a complex evolutionarily conserved pathway that plays an important role in genetics and the regulation of gene expression. Jacobson is being recognized for the genetic elucidation and analysis of the NMD pathway and related consequences of premature translation termination. Maquat is being recognized for elucidating the mechanisms and cellular importance of NMD and NMD factors in mammalian cells and human disease.

Selection Advisory Board: Aravinda Chakravarti, Philip Hieter, Jeannie T. Lee, James Lupski, Eric N. Olson, Geraldine Seydoux, Allan Spradling (Chair)

NEUROSCIENCE

Sarah Hreha, Advisory Board Chair Frances Jensen and Prize Recipient Huda Akil

November 12, 2023
52nd Annual Meeting of the Society

for Neuroscience
Washington DC

Gruber Lecture: ***The Emotional Brain: Embracing the Complexity***

Prize Citation:

The Gruber Foundation proudly presents the **2023 Gruber Neuroscience Prize** to **Huda Akil** for major contributions to the identification of the neural circuitry and molecular mechanisms that underlie a wide range of neuropsychiatric conditions such as stress, pain, depression, and drug addiction.

Akil was the first to provide experimental evidence supporting the existence of endogenous opioids and their roles, together with their receptors, in regulating pain and stress. She also initiated studies on the molecular underpinnings of mood disorders by identifying the involvement of fibroblast growth factor family members in depression. Her work on rodent models of mental disorders has been validated in translational studies defining genome-wide expression profiles in postmortem human brains.

In addition to scientific contributions that have transformed the field of the neurobiology of mental diseases, Akil has made many generous contributions to the neuroscience community, including mentoring future generations and illustrating the importance of socio-cultural transitions experienced by immigrants in the scientific community.

Selection Advisory Board: Joanne Berger-Sweeney, Frances Jensen (chair), Pierre Magistretti, Eve Marder, Ikue Mori, Eric Nestler, Christine Petit

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More information on the 2023 Gruber Prizes is available at: http://gruber.yale.edu/gruber-prizes

Gruber Program for Global Justice and Women's Rights

The Gruber Program for Global Justice and Women's Rights has four core components: l) the Global Constitutionalism Seminar; 2) the Gruber Distinguished Global Justice and Women's Rights Lectures; 3) the Gruber Global Justice and Women's Rights Fellowships; and 4) the Gruber Project.

Global Constitutionalism Seminar

The Global Constitutionalism Seminar was held September 19-21, 2023. It marked a departure, as Judith Resnik, Liman Professor of Law stepped down as faculty director and in her stead, a committee composed of Yale Law School faculty and Global Constitutional Seminar judicial participants organized the seminar. Cristina M. Rodriguez, Leighton Homer Surbeck Professor of Law, chaired the committee. The Seminar focused on four topics: Gender and Judging (an open-to-Yale Law-panel discussion); Free Speech and Its Limits; Equality and Rights, and the Role of Courts in Defending Democracy. Additional panels included presentations from Yale Law faculty on Roman Property Law as well as the use of Artificial Intelligence in Judging. Among other innovations was a judge-only session that provided judicial participants a forum for frank, confidential discussion

Gruber Distinguished Lectures in Global Justice and Women's Rights

Hossam Bahgat delivered the Fall 2023 Gruber Distinguished Lecture in Global Justice on January 30, 2024, due to a reschedule. In conversation with Aslı Ü. Bâli, Bahgat spoke about his experience as a journalist and as an activist. On March 4, 2024, **Alicia Garza** delivered the 2024 Gruber Distinguished Lecture in Women's Rights, in conversation with Claudia Flores.

Gruber Global Justice and Women's Rights Fellowships

Post-Graduate Fellowships

The eleventh class (2021-2022) of Gruber Fellows in Global Justice and Women's Rights will have completed their fellowship projects as of fall 2023.

The Gruber Committee selected five post-graduate 2023-2024 Peter and Patricia Gruber Fellows in Global Justice and Women's Rights, from a pool of 15 applications received from Yale graduate students and alumni from the Law School, the Graduate School of Arts and Sciences, the School of Public Health, and the School of Architecture.

1. **Isabelle Barnard** (YLS '23) pregnant, caregiver workers' rights, Gender Equality Law Center, NYC
2. **Erin Gilmer** (YSPH '23) midwifery in conflict, fragile settings, American College of Nurse Midwives
3. **Alaa Hajyahia** (YLS '22) launch Palestinian feminist lab (PAL-LAB) in Israel, Assiwar a feminist org
4. **Jessica Quinter** (YLS '23) preserve, expand abortion access, ACLU Reproductive Freedom Project
5. **Rachael Stryer (**YLS '22) temp worker conditions, Unemployed Workers United, Houston, Nashville

Faculty Fellowships

Charles Ngwena was Visiting Research Scholar with the Global Health Justice Program

Gruber Project

The Gruber Project provides support for clinical and experiential learning initiatives and supports five initiatives in 2023-2024: 1) the Global Health Justice Partnership; 2) the International Refugee Assistance Project; 3) the Law and Organizing Initiative; 4) Program for the Study of Reproductive Justice (PSRJ) and 5) Yale Immigrant Justice Project. The Gender Violence Clinic was not offered for the 2023-2024 academic year, but the Visiting Practitioners-in-Residence program is being revived.

2023-2024 Gruber Committee

The Gruber Committee is appointed by the Yale Law School Dean and is responsible for selecting Fellows and Gruber Distinguished Lecturers. The 2023-2024 Gruber Committee includes: **Reva Siegel,** (Nicholas deB. Katzenbach Professor of Law) Chair, **Christine Jolls** (Gordon Bradford Tweedy Professor of Law), **James Silk,** (Binger Clinical Professor of Human Rights at Yale Law School, and Director, Orville H. Schell, Jr. Center for International Human Rights), **Rohit De** (Associate Professor, Department of History, Yale University), **Shelley Geballe** (Assistant Professor of Public Health Practice, Yale School of Public Health and a Clinical Lecturer in Law at Yale Law School) **and Mindy Jane Roseman** (Director, Gruber Program for Global Justice and Women's Rights) (ex officio).

Gruber Science Fellowship Program

The purpose of the Gruber Science Fellowship is to recruit and support the very best graduate students to pursue doctoral studies in the life sciences, cosmology, and astrophysics at Yale's Graduate School of Arts and Sciences. The spring 2024 Lecture was given on June 18 by Ruth Lehmann.

2023 Gruber science fellows:

Daniel Akwa, Biochemistry, Quantitative Biology, Biophysics and Structural Biology

Emily Burke, Neuroscience

Dominica Cao, Molecular Cell Biology, Genetics and Development

John Carew, Public Health

Kristina Marie Ferrara, Microbiology

Anne George, Neuroscience

Taylor Gierke, Biochemistry, Quantitative Biology, Biophysics and Structural Biology

Stephen Gilliat, Neuroscience

Emma Keeler, Microbiology

Xinyun Li, Computational Biology and Bioinformatics

Hong-Sheng Liao, Plant Molecular Biology

Aatmik Mallya, Computational Biology and Bioinformatics

Mileena Nguyen, Molecular Cell Biology, Genetics and Development

Yemi Osayame, Immunobiology

Bhavya Pardasani, Astronomy

Giramnah Peña-Alcántara, Neuroscience

Sarah Reeves, Translational Molecular Medicine, Pharmacology and Physiology

Alicia Schaeffer, Microbiology

Weiyi (Rose) Tian, Molecular Cell Biology, Genetics and Development

Xueting Wang, Computational Biology and Bioinformatics

Di (Dee) Xu, Immunobiology

Han Yang, Molecular Cell Biology, Genetics and Development

Yuxuan (Jenny) Yue, Neuroscience

Fellowship Events and Activities

Professional Development

- Peer Pathways Night
- Summer Research Program Event
- Gruber Science Fellow Symposium

Social Programming

- Gruber Science Fellowship Reception