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.

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 serve as its Co-founders, and Chairman Emeritus and President Emeritus, respectively.

The Foundation ended its fourth year at Yale after holding a Gruber Prize event on campus for the first time. The 2014 Gruber Cosmology Prize was presented at the Greenberg Center with Yale President Peter Salovey joining Patricia Gruber in the award ceremony. Gruber Board members Benjamin Polak, Joan O’Neill and Waring Partridge attended, along with many Yale faculty and students. In 2014 all three Gruber Prize events were staffed by Gruber Science Fellows, and this has benefitted the Foundation and the students alike.

Along with the award at Yale, the 2014 Gruber International Prizes were awarded in San Diego and Washington DC; the Gruber Program for Global Justice and Women’s Rights held a lecture by, and satellite discussion with, Paul Farmer, as well as other events such as the Global Constitutionalism Seminar. The Gruber Science Fellowship Program administered by Yale’s Graduate School provided support to another cohort of exceptional students. The three programs are described in more detail in their respective sections.

The Board of Directors of The Gruber Foundation comprises: Peter Salovey, Chairman; Ben Polak, President; Patricia Gruber, President Emeritus; Joan O’Neill; Waring Partridge. The Treasurer is Robert Herr, 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 2015 Financial Overview**

**Statement of Financial Position as of June 30, 2015**

**Assets**
- Cash and cash equivalents $ 97,089
- Investments 99,694,125
- Beneficial interest in charitable gift annuity 29,569,667
  **Total assets** 129,360,881

**Liabilities**
- Accounts payable 37,578
  **Total liabilities** 37,578

**Net assets** $129,323,303

**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. 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 $2,500,000
- Gruber Justice and Women’s Rights $1,200,000
  $3,700,000

**Gruber Prizes**

Gruber Prizes disbursed through June 30, 2015 were as follows:

- 2014 Cosmology Prize $500,000
- 2014 Genetics Prize $500,000
- 2014 Neuroscience Prize $500,000
  $1,500,000
Gruber International Prize Program
Fiscal year 2015 saw the 2014 Gruber Prizes awarded and the 2015 recipients selected. 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 2014 Prizes

COSMOLOGY

October 1, 2014
Yale University Greenberg Center
New Haven, CT
Gruber Lecture: Cosmology Up Close

Prize Citation:
The Gruber Foundation proudly presents the 2014 Cosmology Prize to Jaan Einasto, Kenneth Freeman, Brent Tully and Sidney van den Bergh for their pioneering contributions to the understanding of the structure and composition of the nearby Universe.

Their work laid the foundations of Near Field Cosmology. They clarified the properties of nearby galaxies -- dwarfs, spirals, lenticulars and ellipticals -- through studies of their morphology, stellar and gaseous content. The early recognition of the role of dark matter, and of the filamentary clustering of galaxies together with setting the distance scale of galaxies was crucial in setting the cosmological context for our current understanding of the evolution of galaxies and large-scale structure.

Selection Advisory Board: Andrew Fabian, Wendy Laurel Freedman (Chair), Owen Gingerich (non-voting), Gerhard Huisken, Helge Kragh, Andrei Linde, Sadanori Okamura, Martin Rees (non-voting), Subir Sarkar

GENETICS

October 19, 2014
64th Annual Meeting of the American Society of Human Genetics, San Diego, CA
Lecture: How C. elegans developmental genetics and plant virology revealed a complex small RNA world

2014 Genetics Prize recipients David Baulcombe, Gary Ruvkun and Victor Ambros

Peter Salovey, 2014 Cosmology Prize co-recipients Jaan Einasto and Kenneth Freeman, Patricia Gruber, Prize Advisors Owen Gingerich and Sadanori Okamura, Prize co-recipient Brent Tully and for Prize recipient Sidney van den Bergh, his son Peter van den Bergh.
Prize Citation:

The Gruber Foundation proudly presents the 2014 Genetics Prize to Victor Ambros, David Baulcombe, and Gary Ruvkun for the discovery of small non-coding RNAs and for the demonstration of their central roles in the regulation of development and gene expression.

This research, which combined elegant genetics and molecular biology, demonstrated that a previously unknown class of RNAs (called microRNAs and small interfering RNAs) affected post transcriptional gene activity in nematodes and vertebrates (Ambros and Ruvkun) and in plants (Baulcombe). Their seminal findings led to an explosion in research that greatly increased our understanding of the control of such diverse processes as cell differentiation, developmental timing, cellular metabolism, cell death, and pathologies such as viral infection and cancer.

Selection Advisory Board: Bonnie Bassler, Martin Chalfie, Helen Hobbs, Richard Lifton, Maynard Olson, Allan Spradling, Huda Zoghbi (Chair)

NEUROSCIENCE

November 16, 2014
44th Annual Meeting of the Society for Neuroscience, Washington DC
Gruber Lecture: Circuits and Strategies for Skilled Motor Behavior

Prize Citation:

The Gruber Foundation proudly presents the 2014 Neuroscience Prize to Thomas Jessell for his pioneering work on the differentiation of spinal cord neurons and their wiring into networks.

Jessell identified many of the key cellular and molecular components that control the development and function of the spinal cord. His work has characterized the fundamental mechanisms that govern the specification of neuronal subclasses and the formation of selective connections.

Thomas Jessell’s work has forged a direct causal link between gene, neuron, circuit and motor behavior and has established the spinal cord as an exemplary model system for understanding neural development and synaptic connectivity throughout the central nervous system.

Selection Advisory Board: Carol Barnes (Chair), Ben Barres, Martin Chalfie, David Lewis, Erin Schuman Leslie Ungerleider, Robert Wurtz

More information on the 2014 Gruber Prizes is available at: [http://gruber.yale.edu/gruber-prizes](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: 1) 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 took place September 17-20, 2014, in New Haven, with the theme “Sources of Law and Rights.” Twenty-two judges from 17 courts participated in the seminar’s roundtable format, including 6 new participants. In addition to the rich exchanges facilitated by the Seminar’s roundtable sessions and student events, the Yale community benefited from the extended stay of Justices Aharon Barak and Albie Sachs. As Gruber Global Constitutionalism Fellows, each taught a course at the Law School during the Fall 2014 semester.

**Gruber Distinguished Lectures in Global Justice and Women’s Rights**

Paul Farmer presented “No Health, No Justice: Recent Lessons from West Africa” as the Gruber Distinguished Lecture in Global Justice on March 3, 2014. Over 500 students, faculty, and others turned out to hear Dr. Farmer, who is a noted physician and anthropologist, and a true pathbreaker in the field of global justice. He is widely credited for helping to shape the field now known as “global health justice,” which underscores the intrinsic link between justice and access to health care. Dr. Farmer is the chief strategist and co-founder of Partners In Health. Dr. Farmer serves as Kolokotrones University Professor and chair of the Department of Global Health and Social Medicine at Harvard Medical School, and chief of the Division of Global Health Equity at Brigham and Women’s Hospital in Boston. He also serves as U.N. Special Advisor to the Secretary-General on Community-based Medicine and Lessons from Haiti. Dr. Farmer has written extensively on human rights, health, and the consequences of social inequality.

**Gruber Global Justice and Women’s Rights Fellowships**

**Post-Graduate Fellowships**

The fourth class of Gruber Fellows in Global Justice and Women’s Rights will have completed their fellowship projects as of fall 2015.

**Hannah Brennan** (Yale Law School ’13) works with Public Citizen’s Global Access to Medicines Project to develop a human rights-based litigation strategy that seeks to expand access to medications.

**Hilary Oliva Faxon** (Yale School of Forestry and Environmental Studies ’13) works to implement the environment section of Myanmar’s first National Strategic Plan for Advancement of Women, which comes at a critical juncture in the country’s recent pivot towards human rights and democracy.

**Lia Nicholson** (Yale School of Forestry and Environmental Studies ’14) manages a community-based climate change project for the government of Antigua and Barbuda. Based in the Environment Division of the Ministry of Agriculture, Lands, Housing and the Environment, her focus includes
engaging and empowering women’s groups to respond to climate variability and participate in national development.

Celso Perez (Yale Law School ’14) works with Human Rights Watch (HRW) to implement the organization’s nascent advocacy strategy on the rights of lesbian, gay, bisexual, transgender (LGBT) couples in Latin America and the Caribbean.

Shayak Sarkar (Yale Law School ’13) works with Greater Boston Legal Services (GBLS) to strengthen domestic workers’ rights to fair pay and employment practices.

Julia Spiegel (Yale Law School ’13) serves as a policy advisor in the Executive Office of the U.S. Ambassador to the United Nations, Samantha Power. She works on a variety of foreign policy issues, focusing in particular on preventing and responding to mass atrocities.

Daniel Tam-Claiborne (Jackson Institute for Global Affairs ’14) works on a microfinance initiative with the China Foundation for Poverty Alleviation (CFPA), the largest civil society organization of its kind on the mainland.

The Gruber Committee selected seven post-graduate 2014-2015 Peter and Patricia Gruber Fellows in Global Justice and Women’s Rights, from a pool of 24 applications received from Yale graduate students and alumni from the Law School, the School of Medicine, the School of Forestry and Environmental Studies (FES), the School of Public Health, and the Jackson Institute for Global Affairs. The newest cohort of Fellows includes the Program’s first FES graduates, as well as a placement with an organization led by a Yale World Fellow alumnus.

Faculty Fellowships

The Law School will host two Peter and Patricia Gruber Fellows in Global Justice during the 2014-2015 academic year: Patrick Weil and Eyal Benvenisti.

2014-2015 Gruber Committee

The Gruber Committee is appointed by the Yale Law School Dean and is responsible for selecting the Gruber Fellows and the Gruber Distinguished Lecturers. The 2014-2015 Gruber Committee includes: Reva Siegel (Gruber Committee Chair and Nicholas deB. Katzenbach Professor of Law); Muneer Ahmed (Clinical Professor of Law); Michael Cappello (Professor of Pediatrics, of Epidemiology, and of Microbial Pathogenesis; Director of the Yale Program in International Child Health; Director of the Yale World Fellows Program); Linda Lorimer (Vice President for Global and Strategic Initiatives); Robert C. Post (Dean and Sol & Lilian Goldman Professor of Law); Judith Resnik (Arthur Liman Professor of Law); and, ex officio, Megan Barnett (Associate Dean, Yale Law School) and Sara Lulo (Director of the Gruber Program for Global Justice and Women’s Rights).
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.

Carl Hashimoto, Sarah Hreha and Graduate School Dean Lynn Cooley pose with the 2014 cohort of Gruber Science Fellows at Yale.

Arthur Adams, Astronomy
Megan Cahill, Public Health
Wesley Cai, Molecular Medicine, Pharmacology, and Physiology
Eunice Cho, Molecular Medicine, Pharmacology, and Physiology
Jesse Collins, Immunology
Natasha Dudzinski, Neuroscience
Usman Farooq, Neuroscience
Julianne Gerdes, Molecular Cell Biology, Genetics, and Development
Aileen Lee, Immunology
Xiuqi Li, Molecular Medicine, Pharmacology, and Physiology
Christopher Lim, Biochemistry, Biophysics, and Structural Biology
Xiao Liu, Molecular Cell Biology, Genetics, and Development
Ayomiposi Loye, Biomedical Engineering
Yisi Lu, Immunology
Harding Luan, Immunology
Curran Oi, Biochemistry, Biophysics, and Structural Biology
Joseph Pottackal, Neuroscience
Ryan Powles, Computational Biology and Bioinformatics
Titus Sengupta, Molecular Cell Biology, Genetics, and Development
Benjamin Slater, Immunology
Angel Solis, Molecular Cell Biology, Genetics, and Development
Zuri Sullivan, Immunology
Koen Vanderschuren, Molecular Cell Biology, Genetics, and Development
Patrick Wong, Immunology

Gruber Science Fellowship Lecture
Diane Mathis, Professor of Microbiology and Immunobiology, Morton Grove-Rasmussen Chair of Immunohematology at Harvard Medical School, delivered the 2015 Gruber Science Fellowship Lecture on April 24.

Professor Mathis's lecture was titled “Aire, The Versatile Thymic Maestro of Immunological Tolerance”