June 20

Dear Professor Manioudis,

Thanks for writing to keep me up to date on your research. While it is a fairly arcane subject, you explain it in a way that makes it quite understandable. I hope your future significant progress in the near future. Again thanks.

Sincerely,

Warren Hellman
The 2011 Hellman Fellows Annual Report highlights the program’s significant accomplishments and grantmaking activities. The report reflects the continued growth of the Hellman Fellows program, which now provides annual fellowship awards at thirteen colleges, universities and academic institutions (see list on page 13).

This annual report also pays tribute to the program’s founders, Chris and Warren Hellman. In the early 1990’s, the Hellmans identified a need for funding to support junior faculty at colleges and universities. While young faculty were well-funded when first hired, there was little support available to further their research after these initial funds were expended. Many faculty would struggle at this point in their career, with few external funders ready to take a chance on their research. The Hellman Fellows program was designed to bridge this funding gap and smooth the trajectory for promising academic research careers.

The scope of the Hellman Fellows program has grown since its launch in 1995, but the program’s goals have remained unchanged. In 2011, the Hellman Fellows program provided 130 fellowships to faculty representing a broad range of academic disciplines, including the arts, humanities, and social sciences, sciences and engineering.

Please visit our website for more information about the program: www.hellmanfellows.org.

“The Hellman Fellows program is one of the best things we have done with our giving.”

– Warren Hellman
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*Botanical Paintings by Chris Hellman

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November 2012

My parents, Chris and Warren Hellman, started the Hellman Fellows program in 1995 with a $125,000 grant going to UC San Diego to award fellowships to five junior faculty and $250,000 to UC Berkeley where ten fellowships were awarded. As many of you know, the program was designed to address funding issues based on my personal experiences as a junior faculty member. Since then, the program has supported important and exciting research in a diversity of fields. In 2011, Hellman Fellowship awards were given at thirteen institutions, providing 130 faculty with awards totaling $3,375,000.

My father was something of an iconoclast, and considered calling the Hellman Fellows, the “Iconoclast Fund”. He was clear that he wanted the program to be open to all academic disciplines, to leave the award decisions to the institutions, to have no reporting requirements from awardees and to provide flexibility in the use of funds. To him, the role of the donor was to provide the means and then get out of the way of the faculty and their research. It seems he was right. Eighteen years later, the program’s intent remains the same, and Hellman fellowships have helped launch hundreds of academic careers.

Each year, my parents met with many Hellman Fellows to hear about their work. My Dad cherished these conversations and would tell me about the letters, reports and books the Fellows sent him. This program was truly one of their greatest joys and in their eyes, one of their greatest successes. They appreciated the intelligence, rigor, creativity and enthusiasm each fellow brought to their area of study, and loved to hear about the projects. Sadly, my father passed away in December 2011 from complications from leukemia, and my mother can no longer participate in the program due to her battle with Alzheimer’s.

While their leadership will be greatly missed, my parents had the foresight to ensure that the program would continue. In 2010, I had the good fortune to work with my father to set up a new Hellman Fellows Fund. We made our first grants together in 2011 and made a commitment to expand the program to all ten University of California campuses.

My family is dedicated to preserving our parents’ legacy through our continued support to the Hellman Fellows program. We have developed this annual report to provide information about program activities in 2011. We also honor our founders in this report, providing a glimpse into the lives of Chris and Warren Hellman, the intelligent and generous individuals who were the force behind creating the Hellman Fellows program.

Together with my siblings, I look forward to continuing to make this contribution to the research careers of new scholars and future academic leaders at our partner institutions.

Sincerely,
Frances Hellman
President, Hellman Fellows Fund
“...I had only recently come to understand just how generous, accomplished and genuine he was... I am sorry that I never had the fortune to meet Mr. Hellman – it was something I looked forward to from the day I received my award letter. Fortunately, with so many people touched by his generosity, the UC community and Bay Area will undoubtedly benefit from his accomplishments and efforts for many years to come.”

– Duncan Callaway
UC Berkeley Energy and Resources Group and Mechanical Engineering
2011 Hellman Fellow

“...UC San Diego is deeply indebted to you (Chris) and Warren for the selfless support and encouragement you have provided throughout the years to our junior faculty and our academic mission. His philanthropic legacy will continue on in our annual awarding of fellowships in the Hellman name.”

– Suresh Subramani
Executive Vice Chancellor,
UC San Diego
Chris and Warren Hellman, the founders of the Hellman Fellows program, shared their time, expertise and resources to create positive impacts for others throughout their lives together. Over the 56 years they were married, Chris and Warren created a philanthropic legacy that mirrored their own broad and deep interests in the world.

Warren Hellman grew up and graduated from Lowell High School in San Francisco, completed his undergraduate work at UC Berkeley and received an MBA from Harvard Business School. Chris grew up in England where she trained as a ballerina. They raised a family of four children: Frances, Tricia, Mick and Judith.

Warren's business career took him to New York City, where he started at Lehman Brothers and became their youngest partner ever at age 26, and president of the investment bank a decade later. In the 1980’s, Warren co-founded the San Francisco-based private equity firm Hellman

Tribute to Warren & Chris
& Friedman. Warren was an avid ski racer, ultra marathon runner, ride and tie competitor, and banjo player. Chris’ dance career included working as a soloist with the London Festival Ballet. In San Francisco, she served as Chair of the Board of Directors of the San Francisco Ballet from 1991-1999. Chris Hellman is also an accomplished ski racer and water color painter (examples of her work can be seen throughout this document).

Chris and Warren were deeply committed to civic and philanthropic causes. In addition to the Hellman Fellows, there were hundreds of educational, medical, social and cultural organizations that benefited from their generosity each year. They launched large initiatives, such as the Hardly Strictly Bluegrass Festival and the Bay Citizen news organization and also made countless gifts to deserving organizations throughout the Bay Area and beyond.

Chris and Warren Hellman’s vision and commitment to the Hellman Fellows program will continue to positively impact the careers and scholarship of junior faculty around the country for years to come.

In 2011, the Hellman Fellows program supported programs at thirteen colleges and universities. A total of $3,375,000 was awarded.

“Had I not been a dancer, I would have been a scientist. I find your work (Fellows) so fascinating.”

– Chris Hellman
Chris Hellman
In 2011, the Hellman Fellows program supported programs at thirteen colleges and universities. A total of $3,375,000 was awarded.

Hellman Fellows programs provided awards on nine University of California campuses, including four new programs:

- The University of California Los Angeles, University of California Merced, University of California Riverside and University of California Santa Cruz made their first awards totaling $675,000 to 36 faculty (average award size was $18,750).
- An additional $2,250,000 was awarded at five established University of California programs (UC Berkeley, UC Davis, UC Santa Barbara, UC San Diego and UC San Francisco) to 82 faculty (average award size was $27,439).

The Hellman Fellows program also continued to support faculty at four private institutions:

- A total of $450,000 was awarded at four private institutions (American Academy of Arts & Sciences, Harvard Business School, Stanford University and Williams College) to 12 faculty (average award size was $37,500).
2011 Award Highlights

130 AWARDS MADE TO FACULTY

- 73 awardees in arts, humanities and social sciences
- 57 awards in sciences and engineering

$3,375,000 MADE IN AWARDS

- $1,350,000 supported faculty in arts, humanities and social sciences
- $2,025,000 supported faculty in sciences and engineering

55% MALE FACULTY / 45% FEMALE FACULTY
### 2011 Awards By Discipline

#### Arts and Humanities

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Awards</th>
</tr>
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<tbody>
<tr>
<td>Anthropology</td>
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<tr>
<td>Architecture</td>
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<tr>
<td>Asian Studies</td>
<td>5</td>
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<tr>
<td>Business</td>
<td>3</td>
</tr>
<tr>
<td>Cognition</td>
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<tr>
<td>Economics</td>
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<tr>
<td>Education</td>
<td>4</td>
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<tr>
<td>English</td>
<td>4</td>
</tr>
<tr>
<td>Ethnic Studies</td>
<td>5</td>
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<tr>
<td>History</td>
<td>5</td>
</tr>
<tr>
<td>International Studies</td>
<td>2</td>
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<tr>
<td>Languages</td>
<td>1</td>
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<td>Linguistics</td>
<td>4</td>
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<tr>
<td>Music/Film/Media</td>
<td>5</td>
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<tr>
<td>Political Science</td>
<td>3</td>
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<td>Public Health</td>
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<tr>
<td>Psychology</td>
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<td>Religious Studies</td>
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<td>Sociology</td>
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<td>Theatre/Dance</td>
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<td>Women’s Studies</td>
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#### Sciences and Engineering

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<td>Biology</td>
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<td>Chemistry</td>
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<td>Earth Science</td>
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<td>Energy</td>
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<td>Environmental Science</td>
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<td>Experimental Medicine</td>
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<tr>
<td>Family/Community Medicine</td>
<td>1</td>
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<tr>
<td>Geography</td>
<td>1</td>
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<tr>
<td>Health Sciences</td>
<td>2</td>
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<tr>
<td>Internal Medicine</td>
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<td>Mathematics</td>
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<td>Medicine</td>
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<tr>
<td>Neuro Science</td>
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<tr>
<td>Oncology</td>
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<tr>
<td>Physics</td>
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<tr>
<td>Psychiatry</td>
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### 2011 Awards by Institution

#### Public Universities

<table>
<thead>
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<th>University</th>
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<td>University of California, Davis</td>
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<td>University of California, Los Angeles</td>
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<td>University of California, Merced</td>
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<td>University of California, Riverside</td>
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<td>University of California, San Diego</td>
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<td>University of California, San Francisco</td>
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<tr>
<td>University of California, Santa Barbara</td>
<td>11</td>
</tr>
<tr>
<td>University of California, Santa Cruz</td>
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#### Private Institutions

<table>
<thead>
<tr>
<th>Institution</th>
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</thead>
<tbody>
<tr>
<td>American Academy of Arts &amp; Sciences</td>
<td>1</td>
</tr>
<tr>
<td>Harvard Business School</td>
<td>1</td>
</tr>
<tr>
<td>Stanford University</td>
<td>6</td>
</tr>
<tr>
<td>Williams College</td>
<td>4</td>
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</tbody>
</table>
University of California, Berkeley

Ahmet Yidi  QB3/Physics, RES will administer funds
Carl Kullma  Landscape Architecture & Environmental Planning
Cindy Looy  Integrative Biology
Craig Miller  Molecular & Cellular Biology
Damian Elias  Environmental Science, Policy & Management
Duncan Callaway  Energy & Resources Group
Jacob Dalton  East Asian Languages & Cultures/ South & Southeast Asian Studies
Janelle Scott  Education/African American Studies
Jen-Chywan Wang  Nutritional Sciences & Toxicology
Keith Feldman  Ethnic Studies
Lin He  Molecular & Cellular Biology
Maya Petersen  School of Public Health/ Division of Biostatistics & Epidemiology
Meredith Fowlie  Agricultural & Resource Economics
Munis Faruqui  South & Southeast Asian Studies
Pieter Abbeel  Electrical Engineering & Computer Sciences
Stephanie Carlson  Environmental Science, Policy & Management
Susanne Gahl  Linguistics
Tamara Roberts  Music
Tina Trujillo  Education
William Fuchs  Haas School of Business
Yuriy Gorodnichenko  Economics
The electricity sector produces one-third of domestic CO2 emissions created by humans. Increased deployment of renewable energy has a potentially significant role to play in delivering near term reduction of greenhouse (GHG) emissions. Investment in a new, grid-connected renewable energy resource reduces emissions indirectly through the displacement of energy generation from other carbon-emitting energy sources (such as coal and natal gas-fired generators). It will also deliver benefits in the form of avoided fuel and operating costs. Accurate estimates of these indirect impacts is an essential input into renewable energy policy design, implementation, and analysis.

With this research project, Meredith, her collaborator Duncan Callaway, and her research assistant Gavin McCormick, set out to improve upon the methods that are currently used to estimate the marginal returns (in terms of avoided emissions and operating costs) to incremental increases in renewable energy resource deployment. They use these methods to estimate the near term impacts of new wind power development across thousands of potential sites in the United States. Their research has shown that intra-regional variation in wind resource profiles generates only limited variation in site-specific benefits, whereas intra-regional variation in both wind resource profiles and incumbent electricity supply characteristics generates significant spatial variation in marginal benefits estimates.

The Hellman Fellowship provided invaluable support for this research project. Building on the foundations laid down in this study, these methods are now being more broadly applied in analyses of the marginal benefits of other renewable energy sources (such as solar energy) and other GHG emissions reduction strategies (such as improvements in residential energy efficiency).
University of California, Davis

Amber Boydstun  
Arne Ekstrom  
Christian Baldini  
Cynthia Lin  
Fu Liu  
Keith Baar  
Marusa Bradac  
Nina Claire Napawan  
Robert Faris  
Scott MacKenzie  
Siobhan Brady  
Stephanie Lee Mudge  
Zhiliang Fan  

Political Science  
Psychology  
Music  
Agricultural and Resource Economics  
Mathematics  
Neurobiology, Physiology & Behavior  
Physics  
Environmental Design  
Sociology  
Political Science  
Plant Biology  
Sociology  
Biological & Agricultural Engineering
With her training as an economist and with a background in both the natural sciences and the social sciences Dr. Lin, uses economics and econometrics to analyze policy and business strategy in the areas of energy, the environment, and natural resources. Policies that she has examined include gasoline taxes, driving restrictions and national ambient air quality standards. In terms of business strategy, Dr. Lin examines the role of economics, policy and strategic factors in the decision to invest in alternative energy and alternative fuels with the aim of designing policies that will incentivize oil companies and other investors to invest in alternative energy.

The Hellman Fellowship funded her research on the effects of policies, strategy, and economics on investment in biofuels. Results demonstrate that the competition between ethanol plants is enough to deter local investments. The availability of feedstock is also important in determining plant location. In terms of government policy, she found that in the United States, state producer tax credits and the federal MTBE ban have a positive effect on ethanol investment. Results of her research have important implications for the design of biofuel and energy policy. With a better understanding of what factors affect ethanol investment, policy-makers will then have more tools to engage and design policies to incentivize investment in alternative energy.
### 2011 Hellman Fellows Continued

#### University of California, Los Angeles

<table>
<thead>
<tr>
<th>Name</th>
<th>Field</th>
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</thead>
<tbody>
<tr>
<td>Aisha Finch</td>
<td>Women’s Studies</td>
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<tr>
<td>Allyson Field</td>
<td>Film, Television &amp; Digital Media</td>
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<tr>
<td>Anurima Banerji</td>
<td>World Arts &amp; Cultures/Dance</td>
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<tr>
<td>Aparna Sharma</td>
<td>World Arts &amp; Cultures/Dance</td>
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<tr>
<td>Brooke Scelza</td>
<td>Anthropology</td>
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<tr>
<td>James Lloyd-Smith</td>
<td>Ecology &amp; Evolutionary Biology</td>
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<tr>
<td>Jane Pizzolato</td>
<td>Education</td>
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<tr>
<td>Lara Dolecek</td>
<td>Electrical Engineering</td>
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<td>Lara Ray</td>
<td>Psychology</td>
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<tr>
<td>Lieba Faier</td>
<td>Geography</td>
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<tr>
<td>Ondine von Ehrenstein</td>
<td>Community Health Sciences</td>
</tr>
<tr>
<td>Shaily Mahendra</td>
<td>Civil &amp; Environmental Engineering</td>
</tr>
</tbody>
</table>
Project Title:
Biodegradation of Perfluorinated Compounds

The biodegradation of perfluorinated compounds (PFCs) used in commercial products such as fire-fighting foams, non-stick coatings, stain-resistant textiles, insulation, and surfactants cause cancer, reproductive, and immune system effects in humans, and bioaccumulate through the food chain.

The two most environmentally persistent and toxic PFCs are perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). With the support of her students, Dr. Mahendra has recently isolated novel bacteria and fungi that may biodegrade PFOA and PFOS. More experiments are underway to characterize these microorganisms and key enzymes, and to determine biodegradation products. These results could be used immediately by environmental professionals and researchers to determine the applicability of natural and engineered biodegradation processes at PFC-contaminated sites.

Thanks to the support received from the Hellman Fellowship, she was able to collect preliminary experimental data, which served as the basis for a successful $700,000 proposal submitted to US Air Force Center for Engineering and the Environment. Her graduate student, Nancy Tseng, also won the EPA Science to Achieve Results fellowship and best poster prize from Groundwater Resources Association.
University of California, Merced

Anna Song  
Asmeret Berhe  
Holley Moyes  
Irenee Beattie  
Michael Beman

Humanities and Arts

University of California, Riverside

Anastasios Mourikis  
Derick Fay  
Jason Weems  
Katharine Sweeny  
Muhamad Ali  
Richard Hooley  
Todd Fiacco

Electrical Engineering  
Anthropology  
Art History  
Psychology  
Religious Studies  
Chemistry  
Cell Biology and Neuroscience
Project Title:
“From One, Many, Frome Many, One”: A Contentious History of Religious Pluralism in Indonesia

Religious pluralism has been defined differently in different contexts and for different purposes. It is a contentious, multi-dimensional idea as attested by the case of Indonesia, today regarded as the most populous Muslim majority country in the world. Indonesia offers various modes of religious diversity and pluralism, which have been shaped by colonial, national, and global encounters.

Using some social theories such as identity and morality, Dr. Ali’s critical historical research poses a central question: how have the élite and people said about religious diversity in Indonesia? His work tests three hypotheses:

• First, religious pluralism is not uniquely a modern concept, although its “modern” definitions have become more diverse involving more sources of information and intellectual origins.

• Second, the diversity and change in religious pluralism are linked to various textual, historical, and global factors.

• Third, Indonesian history provides various interfaith spaces and approaches to religious pluralism, including theological, philosophical, and political.

His work is about construction and contestation of a discourse that shapes and is shaped by socio-political history. It deals with a timely question through a historical lens that contributes to religious and Islamic studies, Southeast Asian studies, history, and the Humanities in general.
## 2011 Hellman Fellows

### University of California, San Diego

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
</tr>
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<tbody>
<tr>
<td>Alison Coil</td>
<td>Physics</td>
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<tr>
<td>Ayse Saygin</td>
<td>Cognitive Science</td>
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<tr>
<td>Angela Yu</td>
<td>Cognitive Science</td>
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<tr>
<td>Davide Deportoli</td>
<td>Economics</td>
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<tr>
<td>Douglas Nitz</td>
<td>Cognitive Science</td>
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<tr>
<td>Eric Allen</td>
<td>Molecular Biology</td>
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<tr>
<td>Gabriel Mendes</td>
<td>Ethnic Studies</td>
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<td>Gabriella Caballero Hernandez</td>
<td>Linguistics</td>
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<tr>
<td>Jill Leutgeb</td>
<td>Neurobiology</td>
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<tr>
<td>Jong-sung You</td>
<td>International Relations &amp; Pacific Studies</td>
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<tr>
<td>Joseph Hankins</td>
<td>Anthropology</td>
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<tr>
<td>Junjie Zhang</td>
<td>International Relations &amp; Pacific Studies</td>
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<td>Kirstie Dorr</td>
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<td>Pamela Smith</td>
<td>Rady School of Management</td>
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<td>Pedro Cabales Arevala</td>
<td>Bioengineering</td>
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<td>Prashant Bharadwaj</td>
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<tr>
<td>Renkun Chen</td>
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<td>Sarah Creel</td>
<td>Cognitive Science</td>
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<tr>
<td>Scott Rifkin</td>
<td>Ecology, Behavior &amp; Evolution</td>
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<tr>
<td>Tara Knight</td>
<td>Theatre &amp; Dance</td>
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<td>Todd Henry</td>
<td>History</td>
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<td>Thomas Medvetz</td>
<td>Sociology</td>
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<tr>
<td>Ulrich Muller</td>
<td>Chemistry &amp; Biochemistry</td>
</tr>
</tbody>
</table>
Project Title: Open Molecular Systems Far from Equilibrium

The development of experimental techniques at the nanoscale has dramatically improved our ability to build, manipulate, control and operate quantum systems. Alternative energy sources and efficient energy converters (photovoltaic solar cell, thermoelectric devices, fuel cells) have greatly benefited from increased conversion efficiencies when operating at small scales. The goal of the research was to systematically pursue and solve these vastly open questions and to develop techniques, which connect molecular electronics with equilibrium quantum chemistry, molecular spectroscopy and Plasmonics. The work on this project generated the following outcomes:

1. Developed an exact many-body approach to inelastic transport in molecular devices.
2. Formulated a powerful methodology for purely quantum consideration of collective plasmon-molecule excitations in nanojunctions.
3. Demonstrated that taking into account the molecular contribution to the local field formation is crucial for proper description of photovoltaic devices.
4. Formulated an original nonequilibrium quantum methodology to describe Raman spectroscopy in current-carrying junctions.

The Hellman Fellows program provided pilot funds for initial research, allowing the team to apply and successfully obtain funding from the Department of Energy and the National Science Foundation. The fellowships also strengthened computational capabilities, funded travel for collaboration, provided the ability to disseminate results, and offered training for individuals in the group to build independent careers. During the fellowships, 8 publications in scientific journals were completed and the research laid a foundation for several ongoing projects currently pursued by Dr. Galperin’s team.
2011 Hellman Fellows Continued

University of California, San Francisco

Ana-Claire Meyer, MD, MSHS  Neurology
Angela Waldrop, PhD  Psychiatry
Denise Chan, PhD  Radiation Oncology
DorAnne Donesky, PhD, RN  Physiological Nursing
Katerina Christopoulos, MD, MPH  Medicine
Katja Brueckner, PhD, Dipl.Biol.  Cell & Tissue Biology
Maria Bleil, PhD, MS  Psychiatry
Mary Premenko-Lanier, PhD  Experimental Medicine
Neda Ratanawongsa, MD, MPH  General Internal Medicine
Quynh Bui, MD, MPH  Family & Community Medicine
Urmimala Sarkar, MD, MPH  General Internal Medicine

Williams College

Christopher Goh  Chemistry
Jessica Chapman  History
Paul K. MacDonald  Political Science
Vincent J. Schleitwiler  English
Kidney cancer is a particularly devastating diagnosis, in part because current treatment options are limited. If the cancer has spread beyond the kidney, there are limited options because kidney cancer is thought to be resistant to standard therapies, such as chemotherapy and radiation therapy. The prevailing notion is that kidney cancer is one of the most radiation resistant tumors. However, the data supporting this idea is quite limited. Challenging this widespread perception is the observation that radiotherapy has been used successfully to treat metastatic kidney cancer, to alleviate pain, or when patients are not good surgical candidates.

The goal of this project was to determine whether radiation therapy can be used to treat kidney cancer. Denise Chan and her team investigated the relative radiation resistance and sensitivity in the laboratory and in animals using established cell lines from tumors that have been grown in the lab for many years as well as fresh tumors directly from patients. Their studies indicate that there is a wide range of sensitivities of these tumor cells to radiation, suggesting that kidney cancer may in fact be sensitive to radiation.

The Hellman Fellows program provided pilot funds for Dr. Chan’s laboratory for this research. The data obtained from this grant has provided the preliminary data for additional grant applications to further investigate the role of radiation therapy in treating kidney cancer. The team anticipates that they will submit a manuscript on this project within 6 months.
University of California, Santa Barbara

Ann-elise Lewallen  East Asian Languages and Cultural Studies
Anne Torsiglieri  Theater/Dance
Javier Read De Alaniz  Chemistry & Biochemistry
John Cottle  Earth Science
Michael Emmerich  East Asian Languages & Cultural Studies
Michael Liebling  Electrical & Computer Engineering
Melissa Morgan  Counseling, Clinical & School Psychology
Moses Chikowero  History
Teresa Shewry  English
Syee Weldeab  Earth Science
Siaowei Zheng  East Asian Languages & Cultural Studies
Blood flow within the already beating (yet not full formed) embryonic heart plays an essential role for its proper development. To help uncover the relationships between flow and heart development, Dr. Liebling’s team aims at producing accurate volumetric maps of the three-dimensional blood flow in the heart of zebrafish larvae.

Standard microscopic imaging techniques do not allow estimating flow that is perpendicular to the imaging plane. Using the funding from Dr. Liebling’s Hellman Fellows award, the team has modified their microscope to acquire high-speed movies of the beating heart from multiple directions (specifically, by turning the embryo under the microscope) and different axial positions. Since the heart beats repetitively, they can acquire these movies one after another but must synchronize them to a single heartbeat afterwards. To this end, the team developed a computer program that combines all movies to build a three-dimensional volume of the heart improving the accuracy of the reconstructed volumes over previous, single direction, imaging methods. Additional raw data was also acquired from multiple angles and these reconstructions will allow them to directly estimate blood flow in three dimensions.
University of California, Santa Cruz

Christopher Aspen Gorry  Economics
Christine Hong  Literature
Dorian Bell  Literature
Eduardo Mosqueda  Education
Hector Perla  Latin American & Latino Studies
John Jota Leanos  Film & Digital Media
Kathleen Kay  Ecology & Evolutionary Biology
Matthew Wagers  Linguistics
Mayanthi Fernando  Anthropology
Neda Atanasoski  Feminist Studies
Victoria Auerbuch Stone  Microbiology & Environmental Toxicology
Yiman Wang  Film & Digital Media
Project Title: Grammatical Role Assignment in Chamorro Language Comprehension: Incorporating Underrepresented Languages in Dynamic Modals of Language Structure

Matt Wagers is a linguist who studies the mental processes that support our ability to understand language. Language comprehension involves identifying words in speech, linking them together into phrases and larger syntactic units, and assigning them a meaning appropriately situated in context. Our rich, detailed knowledge of language must be integrated rapidly and unconsciously to accomplish this. However, almost all we know about these processes is a based on a handful of familiar, major world languages, like English or German. Unfortunately only a very narrow slice of the world’s linguistic diversity is represented, which means our present understanding could well be biased to just those languages.

As a 2011 Hellman Fellow, Wagers was able to dedicate a significant new portion of his research program to improving linguistic diversity in the psychology of language. In summer 2011, he began a series of experiments on the comprehension of Chamorro, an Austronesian language of the Mariana Islands with around 40,000 speakers. Working jointly with Sandra Chung (UC Santa Cruz) and Chamorro researcher and author Manuel F. Borja, the participation of over a hundred speakers on the islands of Saipan, Tinian and Rota was recruited. This generated enough new data to allow the research team to submit a funding proposal to the National Science Foundation. On-site research continues in Summer and Fall 2012. The Hellman Fellows support has been crucial in launching this project.
2011 Hellman Fellows at Private Institutions

**American Academy of Arts & Sciences**
Nathan Yowziak  
*Public Health Policy*

**Harvard Business School**
Julie Battilana  
*Social Enterprise*

**Stanford University**
Bianxio Cui  
*Chemistry*
Jennifer A. Dionne  
*Mathematics Science and Engineering*
Marisa Galvez  
*Psychology and, by courtesy, of Linguistics*
Michael C. Frank  
*Psychology and, by courtesy, of Linguistics*
Vera Gribanova  
*Linguistics*
Christopher Lowe  
*Biology*

**Williams College**
Christopher Goh  
*Chemistry*
Jessica Chapman  
*History*
Paul K. MacDonald  
*Political Science*
Vincent J. Schleitwiler  
*English*
Dr. Frank’s project was a study to understand how children learn words. In partnership with the San Jose Children’s Discovery Museum, Stanford researchers showed young children a set of videos they had constructed to teach the meanings of new words. Children and their families accompanied researchers to a room off the floor of the museum, where children watched the video while an automated eye-tracking device recorded where they were looking. The researchers found that where the children looked—at the face of the speaker or at the object that the speaker was talking about—played an important role in whether they learned and remembered the new words. This research provides an important piece in the puzzle of how children learn their first words, and suggests reasons why learning can be difficult in noisy, distracting situations.

The Hellman fellows award provided funds for the purchase of the eye-tracker as well as support for a part-time research assistant to help out with testing children at the discovery museum. Without the award, this project would not have been possible.
2011 Grantmaking Activities

The Hellman Fellows program is made possible through funding from the Hellman Fellows Fund and the Hellman Family Foundation. In 2011, seven new multi-year grant commitments were made through the Hellman Fellows Fund. No new grants were made out of the Hellman Family Foundation.

Four multi-year grant commitments to establish new programs at the University of California Los Angeles, University of California Merced, University of California Riverside and University of California Santa Cruz were made by the Hellman Fellows Fund. Additionally, the Hellman Fellows Fund made three new multi-year grants to continue support of established programs at the University of California Berkeley, University of California San Francisco and University of California San Francisco. Commitments on these seven University of California grants total $11,945,000.

Existing multi-year grant commitments out of the Hellman Family Foundation total $8,000,000 and provide funding to the American Academy of Arts & Sciences, Harvard Business School, Stanford University, University of California Davis, University of California Santa Barbara and Williams College. Upon completion of these commitments, no new grants for the Hellman Fellows program will be considered by the Hellman Family Foundation. All new grants will be funded through the Hellman Fellows Fund. Total grant commitments to programs over the last seventeen years (since 1995) total $34,445,000.
## Hellman Fellows Grant History:

<table>
<thead>
<tr>
<th>Institution</th>
<th>Grant Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Academy of Arts &amp; Sciences</td>
<td>2007 - 2011</td>
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<tr>
<td>Harvard Business School</td>
<td>2002 - 2006</td>
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<tr>
<td>Harvard Medical School</td>
<td>2002 - 2006</td>
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<tr>
<td>Stanford University</td>
<td>2000 - 2011</td>
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<tr>
<td>University of California, Berkeley,</td>
<td>1995 - 2015</td>
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<tr>
<td>University of California, Davis</td>
<td>2008 - 2012</td>
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<tr>
<td>University of California, Los Angeles</td>
<td>2011 - 2015</td>
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<tr>
<td>University of California, Merced</td>
<td>2011 - 2015</td>
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<tr>
<td>University of California, Riverside</td>
<td>2011 - 2015</td>
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<td>University of California, San Diego</td>
<td>1995 - 2015</td>
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<td>University of California, San Francisco</td>
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<td>University of California, Santa Barbara</td>
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<td>University of California, Santa Cruz</td>
<td>2011 - 2015</td>
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<tr>
<td>Williams College</td>
<td>2007 - 2016</td>
</tr>
<tr>
<td>Yale Medical School</td>
<td>1997 - 2001</td>
</tr>
</tbody>
</table>
In 2011, the Hellman Fellows Program paid out $3,295,000 in grants to universities and colleges in the United States. The Hellman Fellows Program administrative expenses totaled $162,000, about 4.9% of total charitable expenditures.
2011 Investment Summary

The Hellman Fellows Program is funded through two private foundations: the Hellman Family Foundation and the Hellman Fellows Fund. Both foundations are funded annually to cover the grants and administrative expenses in the current year.

Audited financials for the Hellman Fellows Fund are provided on the program website: www.hellmanfellows.org. Audited financials for the Hellman Family Foundation are on file at the foundation office:

1714 Stockton Street Suite 400
San Francisco, CA 94133
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Biographical information about the founders, 2012 Board of Directors and 2012 Foundation Officers and staff are available at www.hellmanfellows.org
For more information about the Hellman Fellows Program contact:

Mary Kuehn

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