

Science & Justice Research Center

2013-2014 Annual Report



Collaboration is key!

University of California, Santa Cruz

Our Center

The Science & Justice Research Center at the University of California, Santa Cruz, is a globally unique endeavor that innovates experimental civic spaces and collaborative research practices for exploring the places where questions of science meet questions of justice. The Center is home to the Science & Justice Working Group, graduate training programs and sponsored research projects. The initiative builds on the UCSC campus' historic commitments to social justice and strengths in science studies and interdisciplinary research.

The 2013-2014 academic year for the UCSC Science & Justice Research Center was marked by significant institution building, achievements and external recognition of our growing influence. We published an account of our graduate training program in a prominent science journal, received significant local and international press attention, established a graduate Certificate Program and awarded Certificates to current and past cohorts of students, and made significant strides toward securing stable funding of our endeavors going forward, all in addition to a calendar full of stimulating events. In this document we details these accomplishments and more, and provide an outline of our plans for next year.

*Visit the Center on the second floor
of the Oakes College
Administration Building*



Who We Are

DIRECTOR | Jenny Reardon, Professor of Sociology

Co-DIRECTOR | Andrew Mathews, Associate Professor of Anthropology

Co-DIRECTOR for GRADUATE PROGRAMS | Karen Barad, Professor of Feminist Studies

ASSISTANT DIRECTOR | Jacob Metcalf

ADMINISTRATIVE ASSISTANT | Colleen Massengale

GRADUATE STUDENT RESEARCHER | Lizzy Hare, Anthropology

Accomplishments

Training Program

The Graduate Council and Vice Provost for Academic Affairs approved our application to award Graduate Certificates in Science & Justice, a formal recognition that our graduate students have received training in interdisciplinary research methods. In a year-end ceremony, we officially awarded Certificates to 19 current students who completed the requirements, in addition to 5 honorary certificates to former students who had graduated in prior years. To earn a Certificate students are required to enroll and pass the Science & Justice seminar course *Science & Justice: Experiments in Collaboration*, attend six Working Group events, attend one group mentoring meeting per term, organize and plan a public event related to their research and produce a written analysis of the event for public posting.

To make the program sustainable after the expiration of the NSF grant, we paired down the Training Program to one course and reconstructed the syllabus to maximize time spent collaboratively developing their projects.

The Spring 2014 Science & Justice seminar (ANTH 267A, BME/FMST/SOCY 268A) had 14 students from 10 departments.



Directors Jenny Reardon and Karen Barad issued 24 certificates at a reception held in the Digital Arts Research Center in June

Certificate Recipients

Arts Division

Digital Arts and New Media: Gene A. Felice II, Elaine Gan

Humanities Division

Literature: Sophia Magnone

Jack Baskin School of Engineering

Biomolecular Engineering/Informatics: Tracy Ballinger

Physical and Biological Sciences Division

Ecology and Evolutionary Biology: Kate Richerson

Social Sciences Division

Anthropology: Celina Callahan-Kapoor, Zachary Caple, Lizzy Hare, Colin Hoag, Katy Overstreet, Micha Rahder
 Environmental Studies: Jennifer Liss Ohayon, Costanza Rampini, Tiffany Wise-West
 Politics: Felicia Peck
 Psychology: Kelly Gola
 Sociology: Andrew Murray, Miriam Olivera



Publications, Recognition, and other Activities

Publication of a collaboratively-written journal article describing the pedagogical innovations of the Science & Justice Training Program in *PLoS Biology*, a prominent science journal. This article has circulated internationally as an exemplar of cross-disciplinary collaboration and been taught in courses at other universities.

Martha Kenney, a former S&J Fellow, and Ruth Müller, a former S&J Visiting Scholar, published a paper in the prominent journal *Science as Culture* reporting on their collaborative project developed in the Training Program.

SJRC directors also continued to be asked to talk about the work of the Center as an exemplar of working collaboratively across the natural and social sciences, engineering and the arts.

Publications

Science & Justice Research Center (Collaborations Group). "Experiments in Collaboration: Interdisciplinary Graduate Education in Science and Justice." *PLoS Biology* 11, no. 7 (2013): doi:10.1371/journal.pbio.1001619

Mueller, Ruth LU and Kenney, Martha. Agential Conversations. On Interviewing Life Scientists and the Politics of Mundane Research Practices. *Science as Culture* 23. (2014)

Talks

Reardon, Jenny and Karen Barad. "Luncheon on Gender Bias in Sciences", UCSC Women in Science and Engineering (WiSE). Moderated by Reardon with Barad as a panelist. 2/6/14

Reardon, Jenny. "Science and Justice: Experiments Across the Natural and Social Sciences, Engineering and Arts." Institute of the Arts and Sciences: LASER (Leonardo Art/Science Evening Rendezvous). 4/8/14

Core Activities

The Working Group held nine colloquia and symposia this year (listed below). We also held ten 'Cocktail Hour' meetings, mostly centered on graduate student research. Our graduate students continue to provide a significant amount of programming for the Center.

Two of our events received significant attention for their contributions to important ethics and policy conversations about biodata and justice. On January 22, 2014 we hosted "Science & Justice In the Age of Big Data," a conversation between Peter Yu (incoming President of the American Society of Clinical Oncology and Director of Cancer Research (ASCO) at the Palo Alto Medical Foundation) and David Haussler (Director of the UCSC Center for Biomolecular Sciences and Engineering). This event focused on the many challenges of responsibly handling sensitive biomedical records in the age of big data. In a second event on a similar theme, on April 16, 2014 we hosted an event titled "Trust in Genomics: A challenge for scientists and ethicists alike." This conversation between Barbara Koenig (professor of medical anthropology and bioethics in the UCSF School of Nursing and co-Director of The Center for Transdisciplinary ELSI Research in Translational Genomics) and Wylie Burke (Professor of Bioethics and Humanities at the University of Washington and Principal Investigator of the University of Washington Center for Genomics and Healthcare Equality) emphasized the need to make trust between patients, clinicians and researchers a priority in translational genomics research. Together, these events provided important venues for cross-disciplinary dialog about topics of critical public interest. Biodata and justice will continue to be a major theme of S&J programming in the future.

The SJRC also hosted and supported two major events about the future of conservation. In April, The Science & Justice Working Group hosted the half-day symposium "De-Extinction: Building Future Worlds with Extinct Organisms?." The speaker line-up included important figures in the fields of conservation genomics, ancient genomics and environmental ethics. This conversation advanced discussions of de-extinction

beyond just questions of "should we do it" to questions of "what future worlds do we want to help create." We also contributed support to the conference "Anthropocene: Arts of Living on a Damaged Planet." This multi-day conference organized by S&J Advisory Board member Anna Tsing included a number of important scholars in environmental history and theory, anthropology, literature and conservation science. S&J supplied support behind the scenes, including extensive note-taking as a pilot project for our "critical listening" research methodology. How to live and die well in the Anthropocene will continue to be a major theme of S&J programming in the future.

We hosted two meetings of internal advisors, fellows, and members to begin developing the intellectual agenda of science and justice. We asked attendees to reflect in advance on the reasons that conjoining those two concepts is productive and surprising, and we gathered to brainstorm about our responses. The results will be used to inform our themes and programming going forward.

The first Science & Justice Research Center newsletter was distributed in January 2014. This semi-annual newsletter features interviews with selected guests, highlights important events and profiles our Fellows and Visiting Scholars. The newsletter was distributed to our regular community, Advisory Board members, campus leadership and an array of international scholars interested in the Center's work.

We began planning for an inaugural Science & Justice Lecture next year, which will feature a prominent scholar in science and technology studies whose work has emphasized issues of justice. The event will have regional draw and highlight the increasingly visible intellectual agenda of science and justice. Reardon collected informal support for the lecture and we identified a short list of possible invitees. A final candidate will be chosen in Summer 2014.

Calendar of Events

- October 2** **Cocktail Hour: Meet & Greet**
- October 7** **Cocktail Hour: Book Talk**
Alex Soojun-Kim Pang
Sr. Consultant (Strategic Business Insights), Visitor (Peace Innovation Lab, Stanford),
Associate Fellow (Saïd Business School, Oxford)
- October 16** **SJWG Event: Frozen Justice**
Joanna Radin, Department of History, Yale
- October 23** **Cocktail Hour: NanoEngineering**
Emily York, S&J Visiting Scholar, UC San Diego
- November 2** **SJWG Event: Transacademics: Making Use of Interdisciplinary Research Methods Outside of the Academy**
Stanford, UC Berkeley, UC Davis, UC San Francisco, UC Santa Cruz
- November 6** **Cocktail Hour: Oceanic Scales**
Gene Felice, SJTP Fellow
- November 13** **SJWG Event: Investigative Justice**
Sally Lehrman, Knight Ridder/Mercury News Professor in Journalism, Santa Clara University
- January 8** **Cocktail Hour: Exploring Science and Justice in Colombia**
Javier Aguirre and Rachel Tillman, SJRC Visiting Scholars
- January 22** **SJWG Event: Science and Justice in an Age of Big Data: A Conversation with Peter Yu and David Haussler**
Dr. Peter Yu, President of the American Society of Clinical Oncology and Director of Cancer Research (ASCO) at the Palo Alto Medical Foundation
David Haussler, Director of CBSE Department, UCSC
- February 3** **Cocktail Hour: Black, White and Green: Food Justice, Farmers Markets and the Green Economy**
Alison Alkon, University of the Pacific
- February 12** **Cocktail Hour: The Truth About Cancer Research**
Tracy Ballinger, SJTP Fellow

Calendar of Events

Continued...

- February 18** **Cocktail Hour: Intergenerational Justice and Issues in Ecosystem Management**
Allen Thompson, Philosophy Department, Oregon State University
- February 20** **SJTP Event: Informational Meeting on Science & Justice Seminar Course**
- February 26** **SJTP Event: Justice in the More-than-Human World: Fostering Care and Affinity in Emergent Collaborations**
Amy Youngs, Visiting Artist, Ohio State University
Helen and Newton Harrison, UCSC
- February 28** **SJTP Event: Bioengineering and Meat Cultures**
Oron Catts, Director of Symbiotica
Aristea Fotopoulou, SJRC Visiting Scholar
Jake Metcalf, SJRC Assistant Director
- March 12** **Cocktail Hour: Rethinking Dementia Treatment: A Conversation with Kathleen Johnson**
Kelly Gola, SJTP Fellow
- April 16** **SJWG Event: Trust in Genomics: A Challenge for Scientists and Ethicists Alike**
Barbara Koenig, Center of Public Health, UC San Francisco
Wylie Burke, University of Washington
- April 23** **SJTP Event: De-Extinction: Building Future Worlds with Extinct Organisms?**
Panel I: Conservation and Biotechnology: For Whose Good?
Oliver Ryder, Director of Genetics and Kleberg Chair at San Diego Zoo's Institute for Conservation Research
Paul Koch, Dean of Physical and Biological Sciences, UCSC
Beth Shapiro, Ecology and Evolutionary Biology Department, UCSC
- Panel II: Science, Media and Spectacle: How Does Media Support, Threaten or Change the De-extinction Agenda?**
Allen Thompson, Philosophy Department, Oregon State University
Brian Switek, Science Writer and Author, Phenomena-National Geographic
Jake Metcalf, Assistant Director, SJRC, UCSC
Commentator: Donna Haraway, Dist. Prof. Emerita, Hist./Con, UCSC
- April 30** **Cocktail Hour: Do good fences make good lifeworlds?**
Katy Overstreet, SJTP Fellow

Calendar of Events

Continued...

- May 1** **Screening: FIXED - The Science/Fiction of Human Enhancement**
 Foster Andersen, Founding President of Shared Adventures
 Regan Brashear, *Fixed* Producer/Director/Editor and UCSC Soc/Doc Alum
 Nancy Chen, Medical Anthropologist and Professor of Anthropology, UCSC
 Eric Zigman, CEO at Pomeroy Recreation & Rehabilitation
 Moderated by Lizzy Hare, SJRC GSR and SJTP Fellow
- May 14** **SJWG Event: Broadening Participation – Science and Engineering**
 Faye Crosby, Provost of Cowell College, Dist. Prof. of Psychology, UCSC
 Barbara Gee, VP of Programs, Anita Borg Inst. for Women and Technology
 Joan Haran, Research Fellow at Cesagene
 Melissa Jurica, Director of Jurica Lab, Biology Dept, UCSC
 Moderator: Ruth Müller, Visiting Scholar, Lund University
- May 28** **SJWG Event: “Preventing cervical cancer in Nicaragua. Can vaccines and screens be means of solidarity?”**
 Kaye Edwards, Associate Professor, Haverford College
- June 4** **Cocktail Hour: Toxic Matter: How to Care for Toxic Ecologies in the Era of the Anthropocene**
 Emilie Dionne, Postdoctoral Researcher, Feminist Studies Department
- June 10** **SJTP: Certificate Program Reception**



Science & Justice Training Program Fellows

Tracy Ballinger

Engineering

Luz Cordoba

Sociology

Gene A. Felice II

Digital Arts and New Media

Kelly Gola

Psychology

Elizabeth (Lizzy) Hare

Anthropology

Sophia Magnone

Literature

Andrew (Andy) Murray

Sociology

Institution Building & Collaborations

In the fall of 2103, the SJRC hosted a regional workshop on interdisciplinary institution building. This regional network has rotated between Bay Area campuses and the ground-work for an NSF application as well as other future grant-writing opportunities focused on building regional capacity for cross-disciplinary research and graduate student education.

We also hosted a number of national and international visitors who were seeking advice on starting collaborative, science and justice-oriented research centers at their home universities. These visits have led to the establishment of a collaborative research with the Universidad Industrial de Santander in Columbia, and a reading group that will begin meeting in Spring of 2015 to develop the meaning of 'science and justice' across North/South divides.

Locally, and very importantly, in Spring of 2014 we received approval from the Division of Social Sciences, with co-funding from many other campus units, to hire a full-time Assistant Director. The AD will focus on raising the public policy and research profile of the Center, continue outreach to science and engineering programs, teach courses for the Training Program and Sociology, and contribute to the Center's regular programming. The position will be a one-year appointment with the possibility of renewing up to three years.

Our external advisory board met in May. The primary topics of discussion were the Assistant Director position, the future of the Training Program and plans for next year's inaugural Science & Justice lecture. Building on the success of our internal advisory board and our external advisory board, we hope to expand our external advisory board to include non-academics, with the goal of supporting fundraising.

Lizzy Hare, our Graduate Student Researcher for this year provided substantial support for refining the Center's vision going forward and elaborating on our unique institution-building and memory practices.

The Center's facilities were used regularly for informal research groups formed by our members, including a reading group preparing for the Anthropocene conference and a reading group discussing representations of race and genetics in the media.

Assistant Director Jacob Metcalf continued organizing and hosting the Responsible Conduct of Research Second Experience (RCR2) training meetings with graduate students from the Molecular, Cellular and Developmental Biology Department. This unique program is funded by an NIH Training Grant, and gives biology grad students opportunities to discuss ethics leadership with prominent scientists and ethicists in conjunction with Science & Justice Working Group events. Three meetings were held this academic year. We also held discussions with Chemistry about expanding the reach of this program to include their students and other departments in the PBSE tracks.



Visiting Professors and Scholars

Visiting Professors

Sally Lehrman, Science Journalist, Visiting Adjunct Professor, Science & Justice Training Program

Visiting Scholars

Javier Aguirre, Associate Professor, Universidad Industrial de Santander (UIS), Bogotá, Colombia

James Battle, UC President's Postdoctoral Fellow

Aristea Fotopoulou, Postdoctoral Research Fellow, Centre for Material Digital Culture University of Sussex, UK

Ruth Müller, Postdoctoral Research Fellow, Research Policy Institute, Lund University, Sweden

Rachel Tillman, Ph.D. Candidate in Philosophy, Universidad Industrial de Santander (UIS), Bogotá, Colombia

Emily York, Ph.D. Student in Communications and Science Studies, UC San Diego

Goals For The 2014-2015 Academic Year

In the next academic year the Science & Justice Research Center will capitalize on our increasingly visible profile in national and international discussions about the role of science and technology in society. The SJRC is well placed to positively influence a number of conversations about matters of critical public importance. Additionally, we will focus on building our reputation as a site for innovative methodologies and institutional change.

Hiring a full-time Associate Director will provide substantial new capacity for program building, especially our efforts to expand the Center's research and public policy profile and our search for sustainable foundation support. Having this new staff member will enable us to pursue many more research grants and support ongoing collaborative work with our campus partners.

We have identified a number of opportunities to provide greater research and pedagogical support to our science and engineering colleagues. Expansion of the RCR2 program has been discussed with several departments. We will also begin coordinating closely with the new Broader Impacts support program in the Office of Research. Both of these initiatives will be the responsibility of the Associate Director.

We also aspire to disseminate our model of sustained, deliberate conversation to a much larger audience and thereby provide avenues to improved public policy and dialogues about science and society. Our first such effort will to convene a multi-city series of public conversations across the USA about the intersection of race and genomics, focused on matters of equity. In coordination with colleagues in those cities, Reardon is pursuing opportunities to fund these open meetings with foundation support.

Critically, even while expanding the scope of our projects, we have maintained a focus on building experimental civic spaces that generate collaborative research and teaching about the most pressing social and scientific problems of our day. The next stages in our agenda will require new support to sustain our established programming and extend the scope of our participation in public dialogue. Building cohorts of graduate students in conversation with faculty, industry leaders and the broader community will remain a significant driver of our energy and innovative spirit.

Reardon, Metcalf, Barad and Kenney are in the process of publishing a scholarly article in a major journal that details the institutional context and pedagogical theory that informs the Science & Justice Training Program.

In August 2014, Reardon will present at the Society for the Social Studies of Science annual conference on two panel sessions, "Building Bridges: Science and Justice in Institutional Contexts" and "Genomics and Justice: Meaningless or Revolutionary?"

We have selected two visiting scholars for next year, Tala Khanmalek a Ph.D. Candidate in the Ethnic Studies Department at the University of California, Berkeley will join the SJRC for the academic year through the UC Exchange Program and Ricardo Ventura Santos an Anthropologist affiliated with the National School of Public Health and the Department of Anthropology, National Museum in Rio de Janeiro will visit in spring.

In addition to continuing to host Science & Justice Visiting Professor Sally Lehrman and UC Presidential Postdoctoral Fellow James Battle, the SJRC will host Postdoctoral Fellow Melissa Eitzel from the Department of Environmental Science, Policy, and Management at the University of California, Berkeley.

Funding and Co-Sponsors

Over the last year, we significantly accelerated our efforts to secure outside funding. Reardon personally met with a number of individuals and foundations interested in funding the SJRC. Center staff also worked with Associate Vice Chancellor of Strategic Planning Jeff Shilling and Joan Springhetti, University Relations' Development Writer and Campaign Communications Specialist to identify potential foundation targets to build fund-raising strategies. Additionally, Reardon applied for several grants. These included: a NSF grant entitled, "Open Data/Private Persons: Forging a New Social Contract for Biomedicine in an Age of Genomics and Big Data"; a Multi-Campus Research Program initiative entitled "UC North Bioethics Collaboratory" (written in conjunction with Mark Yarborough at the UC Davis Medical School, Barbara Koenig from the UC San Francisco School of Nursing, and UC Berkeley's David Winickoff); and with Melissa V. Eitzel as a Science, Engineering and Education for Sustainability (SEES) postdoctoral fellow research project whose project entitled "SEES Fellows: Understanding Resilience in a Complex Coupled Human-Natural System: Integrating Qualitative and Quantitative Information and Community-Based Action Research" through the U.S. National Science Foundation.

Major Sponsors

Center for Biomedical Science and Engineering
CBSE Research Mentoring Institute
Chemistry Department
Division of Graduate Studies
Division of Physical & Biological Sciences
Division of Social Sciences
Jack Baskin School of Engineering
Molecular, Cell, and Developmental Biology
Department

Co-Sponsors of SJWG Programming and Events

Anthropology Department
Center for Biomedical Science and Engineering
CBSE Research Mentoring Institute
Digital Arts & New Media Department
Office of Research
Women in Science and Engineering (WiSE)

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