# TABLE OF CONTENTS

I. ACKNOWLEDGEMENTS ................................................................................................................... 1

II. NOTE FROM THE VICE CHANCELLOR FOR RESEARCH .......................................................... 2

III. STRUCTURE AND ACCOMPLISHMENTS OF THE OFFICE OF THE VICE CHANCELLOR FOR RESEARCH ........................................................................................................... 2

A. Organizational Structure of the Office of the Vice Chancellor for Research ............... 2
B. Accomplishments ................................................................................................................. 3

IV. OVERVIEW OF UCLA RESEARCH FUNDING SUPPORT ..................................................... 4

V. UCLA GRAND CHALLENGES ................................................................................................. 5

A. Overview .......................................................................................................................... 5
B. Key Personnel ..................................................................................................................... 6
C. Sustainable LA Grand Challenge Project ........................................................................ 6
D. Brain Grand Challenge Project ........................................................................................ 10

VI. RESEARCH SAFETY, COMPLIANCE & OVERSIGHT ............................................................. 11

A. Introduction to Research Safety, Compliance, & Oversight ........................................ 11
B. Laboratory Safety ............................................................................................................... 13
C. Chemical & Physical Safety Committee ....................................................................... 16
D. Radiation Safety Committees ......................................................................................... 17
E. Institutional Biosafety (IBC) .............................................................................................. 19
F. High Containment Facilities .............................................................................................. 21
G. Human Pluripotent Stem Cell Research Oversight (hPSCRO) .................................... 22
H. Research Involving Animals .............................................................................................. 24
I. Research Involving Humans ............................................................................................. 25
J. Conflict of Interest Review Committee ........................................................................... 28
K. Native American Graves Protection and Reparation Act (NAGPRA) Unit ............... 29
L. Research Policy and Compliance .................................................................................... 33

VII. RESEARCH DEVELOPMENT & SUPPORT ...................................................................... 35

A. Introduction to Research Development & Support ...................................................... 35
B. Role of VCR Cabinet .......................................................................................................... 35
C. Advancing Diversity at UCLA Research ....................................................................... 36
D. Transdisciplinary Seed Grants ......................................................................................... 40
E. Shared Resources Consortium ......................................................................................... 44
F. Research Informatics Strategic Planning (RISP) .............................................................. 46

OVCR Annual Report FY 2013-14 Table of Contents
G. Clinical and Translational Science Institute (CTSI) ................................................ 48
H. Other Research Enhancement Activities ........................................................................ 52

VIII. ENTREPRENEURSHIP, TECHNOLOGY TRANSFER, & INDUSTRY SPONSORED RESEARCH .......................................................... 57
A. Introduction to Entrepreneurship, Technology Transfer, and Industry ......................... 57
B. UCLA Entrepreneurial Ecosystem ............................................................................... 57
C. Office of Intellectual Property & Industry Sponsored Research (OIP-ISR) ..................... 63

IX. RESEARCH ADMINISTRATION OPERATIONS AND SERVICES ................................................. 67
A. Office of Research Administration ............................................................................... 67
B. Office of Contract & Grant Administration .................................................................. 73
C. Extramural Fund Management ..................................................................................... 77
D. Office of Animal Research Oversight (OARO) & Support for Faculty Research Safety Committees ................................................................................................................. 81
F. Office for Research Information Systems .................................................................... 87
G. Office of Research Data Management ......................................................................... 91
H. Business & Finance Office ........................................................................................... 94

X. CONCLUDING REMARKS .......................................................................................... 96

XI. GLOSSARY ................................................................................................................ 97

XII. APPENDICES ............................................................................................................ 113
Appendix 6-L
Appendix 8-C
I. ACKNOWLEDGEMENTS

I would like to acknowledge the hard work of the many members of the Office of the Vice Chancellor for Research team. I would also like to draw attention to the many people who worked diligently to produce this Annual Report.

Contributors

- Kenneth Bradley
- Kevin Cook
- Rory Constancio
- Kenneth Dorshkind
- Bruce Dunn
- Steve Dubinett
- Robert DuWors
- James Economou
- Denise Gellene
- Hilary Godwin
- Natasha Griffith
- Shady Hakim
- Sylvia Hurtado
- Jackson Jeng
- Kip Kantelo
- Emily Loughran
- Nigel Maidment
- Patti Manheim
- Otoniel Martinez-Maza
- Vickie M. Mays
- William McBride
- Craig Merlic
- Jeff F. Miller
- Arash Naeim
- Steve Peckman
- Jennifer Perkins
- Ann Pollack
- Michelle Popowitz
- Casandra Rauser
- Brendan Rauw
- Angela Riley
- Brian Roe
- Mike Roth
- Anne K. Skinner
- Marcia Smith
- Jill Sweitzer
- Wendy Teeter
- Nancy Wayne
- Jerome Zack

Editors

Editor: Jazmin Barajas

Guest Editors:

- Michelle Popowitz
- Marcia Smith
- Amy Hawkins
- Sarah Wyman
II. NOTE FROM THE VICE CHANCELLOR FOR RESEARCH

I would like to commend the staff and faculty who contribute to the successful programs housed in the Office of the Vice Chancellor for Research. The Office of Research Administration, a large and complex organization, has continually improving performing metrics, and we have received many compliments from faculty. Over the last four years, Research Safety, Compliance, and Oversight functions have been completely reorganized to provide coordinated administrative oversight over these important activities. Another notable change for this year is the transition of the reporting relationship of the Office of Intellectual Property & Industry Sponsored Research to a board of directors housed in Westwood Technology Transfer, a 501(c)(3) nonprofit serving the campus. [The name of this new entity is likely to be amended in the next 12 months.] Finally, all of the research development initiatives—UCLA Grand Challenges, Diversity and Research Informatics Office—can be credited to our creative and hard-working staff and faculty cabinet members.

The 2013-14 Annual Report is organized in the following sections:

- Structure & Accomplishments of the Office of the Vice Chancellor for Research
- UCLA Grand Challenges
- Diversity
- Research Safety, Compliance & Oversight
- Other Research Development & Support
- Entrepreneurship, Technology Transfer & Industry Sponsored Research
- Research Administration Operations & Services

To learn more about our activities, I encourage you to continue reading this 2013-2014 Annual Report and to visit our website at https://vcr.ucla.edu.

III. STRUCTURE AND ACCOMPLISHMENTS OF THE OFFICE OF THE VICE CHANCELLOR FOR RESEARCH

The purpose of the UCLA Office of the Vice Chancellor for Research is to support research activity on this campus.

A. Organizational Structure of the Office of the Vice Chancellor for Research

The general organization structure is shown on the next page.
B. Accomplishments

The accomplishments, listed below, are described in greater detail in this Annual Report:

- Another stellar year in terms of extramural funding: nearly $1B awarded.
- Public launch of UCLA Grand Challenges initiative, reveal of Sustainable LA, the first UCLA Grand Challenge Project, and building the foundation for success for the initiative.
- Continued refinement of the laboratory safety programs and committees.
- Enhanced efficiency of the relatedness review process required for conflict of interest reviews of financial interests.
- A number of plans and activities to advance diversity-related research at UCLA.
- Awarding of 13 Transdisciplinary Seed Grants from the 5th cycle.
- Third cycle of funding for shared resources which resulted in the distribution of nearly $1.1M to eleven applicants.
- Distribution of the draft research informatics strategic plan for campus comment and solicitation of nominations for a new Research Informatics Strategic Planning Board.
Robust activities led by the Clinical and Translational Science Institute including activities related to career development, child health, discovery-to-products and related innovation, healthy aging and building capacity for dissemination and implementation.

Continuation of research enhancement activities related to distribution of funding opportunities (including limited submissions), targeted matching services and initiation of frequent research workshops to enhance capacity and competitiveness of UCLA proposals.

Planning for and implementation of new governance structure for technology transfer, entrepreneurship and industry sponsored research.

New programming and activities to promote the creation of startups centered on UCLA technologies and inventions.

Productive year for campus with 490 invention disclosures, 266 provisional patent filings, 97 issued patents, 22 startups created around UCLA technologies, 1,620 agreements related to industry sponsored research, and more than $39M in royalty income and nearly the same amount in industry sponsored research.

Processed 5,400 funding proposals requesting more than $3.7 billion, accepted 5,300 award transactions representing $972.5 million of new research funds, and ongoing implementation of operational improvements for efficiency and effectiveness.

Refinements to proposal processing in the Office of Contracts and Grants Administration including the Proposal and Award Tracking System (PATS) which continues to improve workload management, electronic processing, electronic storage and data capture.

Rollout of campus pilot of Post Award Management System (PAMS) by Extramural Fund Management to facilitate more effective and efficient financial management of sponsored awards from activation to close-out.

Expansion of IRB reciprocity with other institutions including RAND Corporation, CTSI partners, other UC campuses and several private IRBs.

IV. OVERVIEW OF UCLA RESEARCH FUNDING SUPPORT

Details about UCLA research funding support may be found online at http://portal.research.ucla.edu/. Some quick statistics for FY14 include the following:

- $972.5M in awarded funding in FY14, which represented an 8.8% increase in funding over FY13
- 59% of funding was from Federal sources
- 47% of funding was brought in by School of Medicine
- 5,400 proposals submitted requesting $3.72B, which represented a 9% increase in number of proposals over FY13 and a 12% increase in requested dollars over FY13.
V. UCLA GRAND CHALLENGES

A. Overview

About UCLA Grand Challenges

UCLA Grand Challenges is a campus-wide initiative to define solutions to some of society’s greatest challenges through cross-campus, “mega-research” collaborations called Grand Challenge Projects.

There are two Grand Challenge Projects currently in progress:

- Sustainable LA Grand Challenge Project
- Brain Grand Challenge Project (not yet announced)

Big Goals, Big Impact

The driving force behind UCLA Grand Challenges is the conviction that we can amplify our impact by setting ambitious goals. These big goals will serve to:

- More strategically organize our efforts;
- Keep us focused on important issues; and
- Accelerate progress toward solutions.

Anatomy of a Grand Challenge Project

Grand Challenge Projects represent a new way of doing research on campus. This new approach requires investment of time and resources dedicated to creating a team, facilitating collaboration, pursuing funding for the cutting edge work, and conducting ongoing evaluation of and reporting on progress.

At its core, each Grand Challenge Project has an ambitious goal and an incredible team dedicated to pursuing its solution. But these are more than research initiatives—each project has a research action plan, a commitment to student immersion experiences and strategies for engaging the public in the effort.

UCLA Grand Challenges: A Unique Approach

- UCLA Grand Challenge Projects represent a meeting of a bottom-up and top-down approach. While the initiative was driven from campus administration, the project ideas come directly from the faculty members who are engaging in the research.
- As a campus, we are committing to dedicate our resources and efforts to a specific outcome. This shared goal and its promised impact serves as an inspirational and unifying driver for the team members who recognize that by working together that we can have a greater impact than previously imagined.
- The Grand Challenge Projects that we are taking on are ambitious and to be successful they require expertise and support from across the campus, our stakeholders, our communities and our collaborators.
The initiative provides a means to truly integrate our teaching, research and service missions; as we pursue solutions to the grand challenges of our time we are doing so with our students who are concurrently obtaining the tools they need to be the problem-solvers of the future.

B. Key Personnel

The UCLA Grand Challenges initiative is based in the OVCR but success depends on collaboration with staff members in all units within External Affairs, researchers from across the campus and academic department stakeholders. The initiative is run out of the Research Enhancement Office [see Section VII-H], with primary support provided by co-founders, Michelle Popowitz and Jill Sweitzer, with team members Amy Hawkins and Jazmin Barajas. Each Grand Challenge Project also has its own project director (Cassie Rauser for Sustainable LA and Sue Fuhs for the Brain Grand Challenge Project) and governance structure.

Securing financial support for the projects is a critical success factor, with approximately one-half of the project support is expected to come from philanthropic giving. [Please see “Funding the Sustainable LA Project” subsection below for more details about the team supporting the development efforts.]

C. Sustainable LA Grand Challenge Project

Overview of Sustainable LA Grand Challenge Project

Goal: Create the World’s First 100% Sustainable Megacity

Sustainable LA unites dozens of UCLA’s scientists and scholars with public and private stakeholders around a common goal: full sustainability in the LA region by 2050. By 2020, we will create a roadmap to transition the Los Angeles region by 2050 to sustainable energy, water, and biodiversity. This means that the region will obtain our energy and water from local and renewable sources in a way that’s economical, socially equitable, and supportive of the LA region’s unique biodiversity. The roadmap will include the required actions to modernize energy, water, and transportation systems, enhance the built and natural environment, define new policy and legal frameworks, and heighten social responsibility, thereby transforming the urban fabric and mitigating the effects of climate change.

By achieving sustainability in energy and water in harmony with the region’s ecosystems and cultural identity, we will not only ensure our own access to these critical resources, we’ll ensure our future prosperity. Our work will serve as a model and inspiration for similar transformations in urban areas across the globe and create worldwide demand for local expertise and products.

Evolution of Sustainable LA

This first Grand Challenge Project was created by UCLA faculty who met regularly over a 30-week period of time beginning in late 2012. Their charge was to determine what UCLA could accomplish if our experts in the fields of environment and sustainability worked together.

Sustainable LA was publicly announced in November 2013 at an event with participation from UCLA Chancellor Block, Los Angeles Mayor Eric Garcetti, LA City Councilmember Paul Koretz,
then-LA County Supervisor Zev Yaroslavsky, Entrepreneur/Philanthropist Tony Pritzker, and Cristin Dorgelo, then Assistant Director for Grand Challenges within the White House Office of Science and Technology Policy.

Work has continued since the reveal with specific focus dedicated to building a supportive infrastructure.

**Approach to the Sustainable LA Grand Challenge Project**

In designing our approach to this ambitious project, we have aligned our efforts along the UCLA mission priorities (research, teaching and service) as described in greater detail below.

**Research Action Plan & Investment in Infrastructure**

The first phase of the Sustainable LA Project is to develop the research action plan, which will map out the steps to be taken over the next few years. This plan will define the research priorities, required funding and knowledge gaps. This preliminary research action plan is expected to be completed by July 2015. [For more information about the research plan, please see http://bit.ly/UCLASustainableLArap.]

**Student Immersion into Sustainable LA**

UCLA has a student body that is very engaged in environmental issues. This community is eager to be involved with the Sustainable LA Grand Challenge Project. The signature student immersion program for Sustainable LA is the Grand Challenges Undergraduate Research Scholars Program (GC-URSP), chaired by Rachel Kennison, PhD, which began in Fall 2014. The campus community positively responded to this course with 250 applicants vying for 55 slots in this year-long program, which includes students from across the campus. The enrolled students were each matched with faculty members from the Sustainable LA Project, and throughout the year will engage weekly in that faculty member’s research setting. Concurrent with this research experience, the students meet once weekly as a group for mini-lectures and practical exercises designed to enhance their fluency in the Sustainable LA project, build their research skills, provide varied teamwork experiences and refine their communication skills. [For more information about the course, please see https://vcr.ucla.edu/GC/URSP.]

**Public Engagement**

In the first year following the launch, Sustainable LA was the feature of a DC tour, UCLA stakeholder and alumni events, meetings with local, state, and national elected officials, several public-facing events and a social media campaign. In the coming years, we anticipate greater engagement of the public with speaking engagements, events and the use of citizen science/crowd-sourcing to gather required data.

**Meet the Sustainable LA Team**

**An Unmatched Team of Experts**

Approximately 150 UCLA faculty members are committed to the goals of Sustainable LA. Among these are some of the world’s top experts in sustainability: climate change, water
quality and supply, smart grid technology, renewable energy, public policy, law, environmental justice, air quality, and more.

**Interdisciplinary Research Committees to Organize the Research Plan**

With so many people to coordinate such an ambitious goal, it is critical that there is a structured approach. We considered several approaches for the planning effort and opted to use four Interdisciplinary Research Committees: (1) Energy, (2) Water, (3) Biodiversity, and (4) Spatial and Discipline Integration. The first three committees will each produce a research plan by June 30, 2015, while the role of the Spatial and Discipline Integration Committee is to ensure that the three plans integrate with one another.

### Energy Committee

<table>
<thead>
<tr>
<th>Member</th>
<th>Relevant Research Expertise</th>
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</thead>
<tbody>
<tr>
<td>Ann Carlson</td>
<td>Energy Systems, Climate Change &amp; Environmental Law &amp; Policy</td>
</tr>
<tr>
<td>JR DeShazo</td>
<td>Energy &amp; Water Economics &amp; Policy</td>
</tr>
<tr>
<td>Rajit Gadh</td>
<td>Energy Management &amp; Delivery</td>
</tr>
<tr>
<td>Gregory Okin</td>
<td>Physical Geography, Soil, Dust &amp; Renewable Energy</td>
</tr>
<tr>
<td>Suzanne Paulson</td>
<td>Particulate Effects on Human Health and Climate</td>
</tr>
<tr>
<td>Richard Wirz</td>
<td>Alternative Energy Generation &amp; Storage</td>
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### Water Committee

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<tr>
<th>Member</th>
<th>Relevant Research Expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mark Gold</td>
<td>Water Policy &amp; Coastal Resource Management</td>
</tr>
<tr>
<td>Alex Hall</td>
<td>Climate Change</td>
</tr>
<tr>
<td>Eric Hoek</td>
<td>Nano-membranes, Sewage Treatment &amp; Recycled Water</td>
</tr>
<tr>
<td>Dennis Lettenmaier</td>
<td>Hydrology and Hydrology Climate Interaction</td>
</tr>
<tr>
<td>Steve Margulis</td>
<td>Hydrologic Processes &amp; Climate Change</td>
</tr>
<tr>
<td>Maite Zubiaurre</td>
<td>Cultural Representations of Trash</td>
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### Biodiversity Committee

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<tr>
<th>Member</th>
<th>Relevant Research Expertise</th>
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<tbody>
<tr>
<td>Richard Ambrose</td>
<td>Coastal Environmental Assessment and Restoration</td>
</tr>
<tr>
<td>Tom Gillespie</td>
<td>Biogeography and Remote Sensing</td>
</tr>
<tr>
<td>Ursula Heise</td>
<td>Biodiversity and Environmental Humanities</td>
</tr>
<tr>
<td>Cara Horowitz</td>
<td>Environmental Law &amp; Policy</td>
</tr>
<tr>
<td>Michael Jerrett</td>
<td>Geographic Exposure Modeling &amp; Land Use Characterization</td>
</tr>
<tr>
<td>Brad Shaffer</td>
<td>Applied Ecosystem Conservation</td>
</tr>
</tbody>
</table>

### Spatial & Discipline Integration Committee

<table>
<thead>
<tr>
<th>Member</th>
<th>Relevant Research Expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dana Cuff</td>
<td>Urban Design, Sensing Technologies &amp; Architecture</td>
</tr>
<tr>
<td>Hilary Godwin</td>
<td>Green Chemistry &amp; Public Health Impacts</td>
</tr>
<tr>
<td>Juan Matute</td>
<td>Sustainable Transportation &amp; Land Use</td>
</tr>
<tr>
<td>Member</td>
<td>Relevant Research Expertise</td>
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</tr>
<tr>
<td>Ted Parson</td>
<td>Environmental Law &amp; Science Policy</td>
</tr>
<tr>
<td>Stephanie Pincetl</td>
<td>Energy &amp; Water Use &amp; Policy</td>
</tr>
<tr>
<td>Gaurav Sant</td>
<td>Sustainable Construction Materials</td>
</tr>
<tr>
<td>Eui-Sung Yi</td>
<td>Architecture &amp; Strategic Urban Design</td>
</tr>
</tbody>
</table>

**Steering Committee to Think Beyond the Research Plan**

To guide the planning and the Interdisciplinary Research Committees, there is also a Project Steering Committee with representation from a breadth of departments and disciplines participating in the Grand Challenge Project. In addition to guiding the research planning effort, this team will be actively involved with other groups working on education, development, communications and outreach plans. Also, it is anticipated that these leaders will ultimately be assisted in this effort by one or more boards with specific functions. Steering Committee members have made a two-year commitment to serve, and each member will also serve on one of the Interdisciplinary Research Committees described above.

**Project Steering Committee**

Hilary Godwin  
Mark Gold  
Alex Hall  
Cara Horowitz  
Brad Shaffer  
Richard Wirz  
Michelle Popowitz (ex officio)  
Cassie Rauser (ex officio)

**Project Management Team for Day-to-Day Progress**

To ensure that the various committees stay on track and to ensure that the campus makes progress towards its commitment, Casandra (Cassie) Rauser, PhD, was hired to serve as the Project Director. She began in Summer 2014. Also providing strategic direction, particularly with external partners, is Mark Gold, who was appointed as the Assistant Vice Chancellor for Research for the Sustainable LA Grand Challenge Project.

**Funding the Sustainable LA Project**

The preliminary estimate for the work leading to the delivery of a blueprint for Sustainable LA is $150M. The effort requires investment from a combination of sources including government, philanthropy and industry. The UCLA Office of the Vice Chancellor for Research has provided financial resources to accelerate the development of the project. These funds come from three generous supporters: The Dream Fund, the Goldhirsh Foundation, and Norman Powell. The funds have been allocated to the Sustainable LA leaders to invest as (1) research seed funding; 2) capacity-building with a proposal development professional; and (3) Sustainable LA Graduate Fellows.
Fundraising efforts are ongoing with support from numerous campus units and a home base within the Campus-Wide Initiatives development group led by Executive Director Deborah Miller. The Sustainable LA project is directly supported by Development Directors Todd Thaxton and Nick Middlesworth, with Corporate and Foundation Relations support provided by Christine Lanoie. It is estimated that approximately $70M of the $150M budget will need to come from philanthropic sources.

Selection of Sustainable LA Achievements to Date
This was a year for building the foundation for success. Notable highlights include:

- Lead gift of $15M from philanthropists Tony and Jeanne Pritzker.
- Recognition from the Office of Science & Technology Policy (within the White House) and from other campuses for UCLA Grand Challenges initiative.
- Expressions of interest in participation from approximately 150 faculty members.
- Recruitment of a full-time project director and development team.
- Design of and initiation of Grand Challenges Undergraduate Research Scholars Program (GC-URSP) with 54 scholars and 33 faculty mentors.
- Refinement of organizational and committee structure for the research planning activity.
- Establishment of a relationship with Los Angeles-based Goldhirsh Foundation after winning the most public votes in the foundation’s grant scholars program.

D. Brain Grand Challenge Project

Overview
The Brain Grand Challenge Project has been under development since Fall 2012. This project is expected to be publicly announced in 2015. An abbreviated update is provided below.

Meet the Brain Grand Challenge Project Team
The project is being led by UCLA faculty members Kelsey Martin, Larry Zipursky, Nelson Freimer and Michelle Craske and directed by program director Susan (Sue) Fuhs, who was hired in 2014 to serve as a dedicated project manager. There are more than 40 researchers from across the campus and more than 20 departments represented including DGSOM, Psychology (Life Sciences), HSSEAS, Economics (Social Sciences), Business (Anderson) and Public Policy (L-SPA).

Selection of Achievements to Date
- Recruitment of members for a Leadership Council.
- Recruitment of members for a Scientific Advisory Board.
- $5M investment from DGSOM.
- New Project Director position created and hired.
- Creation of and solicitation of proposals for two seed funding mechanisms for basic, translational and clinical projects related to the Brain Grand Challenge Project.
Funding of two projects through the NIH BRAIN Initiative. A team led by X. William Yang with Larry Zipursky as a Co-PI received a $1.9M grant. A team led by Dan Geschwind was awarded $2M.

Next Steps
The leaders continue to develop the research agenda, foster collaboration and identify external stakeholders for the Brain Grand Challenge Project. The team looks forward to sharing its ambitious goals with the public.

VI. RESEARCH SAFETY, COMPLIANCE & OVERSIGHT

A. Introduction to Research Safety, Compliance, & Oversight

The Vice Chancellor for Research serves as the Institutional Official for a number of research safety, policy and compliance issues. To fulfill these obligations, there are many faculty-driven committees and initiatives. This section of the Annual Report provides an overview, list of key personnel, summary of accomplishments and future plans for the following areas:

<table>
<thead>
<tr>
<th>Area</th>
<th>Key Roles or Personnel Representing OVCR or Serving as Chair in FY14</th>
</tr>
</thead>
</table>
| Laboratory Safety          | OVCR Lead: Associate Vice Chancellor Nancy Wayne  
                           OVCR Safety Oversight Committee (OSOC):  
                           Chair (through Winter FY14): Kenneth Bradley  
                           Chair (beginning Spring FY14): Nancy Wayne  
                           UC Center for Laboratory Safety:  
                           Executive Director: Craig Merlic  
                           Chair of Advisory Board: Nancy Wayne  
                           Occupational Health & Safety Coordinating Council  
                           Chair: Nancy Wayne                                                                 |
| Chemical & Physical Safety Committee (CPSC) | Chair:  
                           (through Winter FY14): Kenneth Bradley  
                           (beginning Spring FY14): Craig Merlic  
                           Staff Support: Jennifer Perkins |

---

1 Kenneth Bradley was chair of the committee formerly known as the Laboratory Safety Committee
<table>
<thead>
<tr>
<th>Area</th>
<th>Key Roles or Personnel Representing OVCR or Serving as Chair in FY14</th>
</tr>
</thead>
</table>
| Radiation Safety                         | OVCR Lead: William McBride  
*Supported by ORA Office of Radiation Safety Committees (ORSC)*  
Radiation Safety Committee (RSC)  
  Chair: Christian Schiepers  
Academic Radiation Safety Committee (ARSC)  
  Chair: Magnus Dahlbom  
Clinical Operations Radiation Safety Committee (CORSC)  
  Chair: Barbara M. Kadell  
Medical Radiation Safety Committee (MRSC)  
  Chair: Jorge Barrio  
Radioactive Drug Research Committee (RDRC)  
  Chair: Jorge Barrio  
Staff Support: Dina Bokter                                                               |
| Institutional Biosafety                  | Institutional Biosafety Committee (IBC)  
  Chair: Jerome Zack  
  Staff Support: Alyse DiStefano                                                         |
| High Containment Facilities              | High Containment Facilities  
  Staff Director: Natasha Griffith  
  Scientific Director of MIMG Lab: Jeff F. Miller  
  Scientific Director of GBL Lab: Hilary Godwin  
  Scientific Director of MRL Lab: Marcus Horwitz                                          |
| Human Pluripotent Stem Cell Research Oversight (hPSCRO) | hPSCRO Committee  
  Chair: Otoniel Martinez-Maza  
  Staff: Maria Dominguez of Broad Stem Cell Research Center                                |
| Research Involving Animals               | OVCR Lead: William McBride  
Office of Animal Research Oversight (OARO)  
  Staff Director Lead: Jennifer Perkins                                                  |
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<tr>
<th>Area</th>
<th>Key Roles or Personnel Representing OVCR or Serving as Chair in FY14</th>
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<tr>
<td>Research Involving Humans</td>
<td>ORA Office of Human Research Protection Program (ORA-OHRPP):</td>
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<td></td>
<td>Staff Director: Kip Kantelo (preceded by Alison Orkin, who served</td>
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<td></td>
<td>as Interim Director)</td>
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<td>Medical Institutional Review Board 1 (MIRB1):</td>
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<td>Chair: Daniel Clemens</td>
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<td>Medical Institutional Review Board 2 (MIRB2):</td>
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<td>Chair: Fairooz Kabbinavar</td>
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<td>Medical Institutional Review Board 3 (MIRB3):</td>
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<td>Chair: James McGough</td>
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<td>North General Campus Institutional Review Board (NGIRB):</td>
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<td>Chair: Todd Franke</td>
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<td>South Campus General Institutional Review Board (SGIRB):</td>
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<td>Chair: Alison A. Moore</td>
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<td>Conflict of Interest Committee (CIRC)</td>
<td>Conflict of Interest Review Committee (CIRC):</td>
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<td>Chair: Michael Roth</td>
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<td></td>
<td>Staff Support: Assistant Vice Chancellor Ann Pollack (Research</td>
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<td></td>
<td>Policy &amp; Compliance Office)</td>
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<td>Native American Graves Protection and</td>
<td>UCLA NAGPRA Advisory Committee</td>
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<tr>
<td>Repatriation Act (NAGPRA) Unit</td>
<td>Chair: Angela Riley</td>
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<td>UC NAGPRA Advisor Group</td>
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<td>UCLA Representative: Angela Riley</td>
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<tr>
<td></td>
<td>Fowler Museum NAGPRA Designee &amp; Curator of Archeology</td>
</tr>
<tr>
<td></td>
<td>Wendy Teeter</td>
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<tr>
<td>Research Policy &amp; Compliance</td>
<td>Research Policy &amp; Compliance (RPC) Office</td>
</tr>
<tr>
<td></td>
<td>Assistant Vice Chancellor Ann Pollack</td>
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<tr>
<td></td>
<td>RPC Coordinator: Claudia Modlin</td>
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</table>

**B. Laboratory Safety**

**Overview & Key Personnel**

One of the areas in which the Vice Chancellor for Research serves as the Institutional Official is in laboratory safety. In recognition of the importance of this responsibility, the position of Associate Vice Chancellor for Research with laboratory safety oversight was created in 2010 with Nancy Wayne appointed to serve in this capacity. Her primary function is to be a faculty liaison with the offices responsible for interpreting and enforcing applicable laboratory safety regulations.
The responsibility for management of safety programs for staff, faculty, patients, and visitors at UCLA lies with three primary responsible entities: 1) the Vice Chancellor for Research, who holds delegated authority for executive management of safety programs 2) the Safety Officers within Environmental Health and Safety along with the Campus Veterinarian, and 3) the Faculty Safety Committees.

These groups function as a team whose success is dependent on the contributions of each element. The regulatory constraints vary with each potential hazard, but the general “management triangle” concept applies generally across safety programs. In general terms, the VCR has ultimate responsibility for the effectiveness of the safety programs, the Safety Officers and the Campus Vet provide technical expertise and most of the day-to-day program management, while the Safety Committees represent executive management in the formulation of policy and protocol review.

The management triangle is in place to provide guidelines, a framework, and a safety culture, but day-to-day, the campus depends on PIs and other staff who are in the research setting in the various offices that support the research to ensure the safe use of materials and machines and for maintaining safe local working environments.

The laboratory safety structure is depicted in the organizational chart below.

It is guided by the following principles:

- One Safety Officer for each area (Radiation, Chemical/Physical, Biosafety) with the Campus Veterinarian performing this role for the Animal Research Committee.
- Faculty Safety Committees for each area
- An OVCR Safety Oversight Committee staffed with the Chairs of the Safety Committees, the Director of EH&S (as a single representative for the Safety Officers),
Activities
A number of activities representing ongoing responsibilities and special projects took place during the year.

Continued Collaboration with Office of Environment, Health & Safety (EH&S)
The OVCR continues to collaborate with EH&S. Associate VCR Wayne serves as a liaison with this office on issues of lab safety involving the UCLA research community.

UC Center for Laboratory Safety
UCLA continues to have an active role in the UC Center for Laboratory Safety. Associate VCR Wayne provides collaborative leadership for the UC Center for Laboratory Safety as Chair of the Advisory Board. The Center’s mission is to: (a) support and conduct research in laboratory safety practices; (b) use that information and current understanding to develop best practices; and (c) document and analyze outcomes in order to optimize lab safety practices. For more information about the UC Center for Laboratory Safety, please refer to its website at http://cls.ucla.edu/.

Occupational Health & Safety Coordinating Council
The OVCR continued its involvement with the Occupational Health & Safety Coordinating Council. The purpose of this council is to improve coordination between the different units on campus that deal with issues associated with human health & safety of researchers and staff working with animals (DLAM, OARO, EH&S, Occupational Health Facility, OVCR). This Council meets quarterly.

UCLA Biosafety Professional Training Program
The Office continues to have a role in the creation of the new Biosafety Professional Training Program, which was created in recognition of the national shortage of biosafety specialists and officers for research programs involving biological hazards. The program provides courses and internship training (2-year program), preparing students in the areas of microbiology and immunology with sufficient experience to gain employment as beginning biosafety officers. The program is being administered through the Department of Environmental Health Sciences in the Fielding School of Public Health (FSPH). Visit the website for more information: http://biosafetytraining.cls.ucla.edu/

Future Plans
The focus for the next year is to continue the current programs and initiate several new ones:

- Expand the reach of the UC Center for Laboratory Safety.
- Increase the number of funded laboratory safety research projects.
- Develop extramural grant applications to support lab safety research.
- Publish research papers in the area of laboratory safety.
C. Chemical & Physical Safety Committee

Overview
The Chemical and Physical Safety Committee (CPSC) was created at the end of FY13 with the reorganization and renaming of the former Laboratory Safety Committee. The CPSC focuses on chemical and physical hazards involved with research in laboratories. The faculty chair of this committee also serves as a member of the OVCR Safety Oversight Committee.

The mandate of the committee is to develop, recommend, update and maintain policies and procedures applicable to chemical and physical health and safety practices at UCLA in order to promote safe research practices.

The key committee activities include: 1) receive and review summary reports from the Office of Environment, Health and Safety (EH&S) based on laboratory safety inspections and incident reports involving chemical and physical hazards, 2) receive and review safety reports from Departmental Health and Safety Committees, 3) establish and review strategies to ensure ongoing and adequate surveillance, hazard identification, and risk evaluation of laboratory activities, and 4) annually review and revise the campus Laboratory Safety Manual and the Chemical Hygiene Plan.

Key Personnel
In Spring 2014 Craig Merlic from the Department of Chemistry and Biochemistry was appointed as the faculty chair of this committee to succeed founding chair Kenneth Bradley. The committee has representation from the School of Medicine, the School of Dentistry, the School of Engineering, EH&S, and the Office of Legal Affairs. The committee’s activities are supported by staff members from the Office of Research Administration.

Activities
Some of the highlights from the last year include the following:

- Established the committee and recruited members from across the laboratory sciences.
- Clarified procedures for oversight of biological toxins not covered through procedures for Select Agents.
- Initiated discussions on implementation of the three-tiered policy for the Laboratory Safety Compliance Procedure.
- Created a committee webpage to communicate activities and information to campus researchers.

Future Plans
The principal goals of the CPSC for FY15 include the following:

- Continue to strengthen the campus biosafety programs.
- Continue to refine the faculty committee structures to meet campus research needs.
- Implement the 3-tiered policy for the Laboratory Safety Compliance Procedure.
- Revise the Chemical Hygiene Plan.
- Revise the campus Laboratory Safety Manual.
- Review annual laboratory safety training requirements for PIs and researchers and make recommendations to EH&S.
- Review safety incident reports from EH&S and provide guidance for follow-up procedures.

D. Radiation Safety Committees

Overview & Key Personnel

The structure of the UCLA Radiation Safety Program is depicted in the diagram below.

Radiation Safety Program

As indicated in the diagram, the UCLA Radiation Safety Committee (RSC) operates with four integrated subcommittees each with a specific focus. The RSC is chaired by Christiaan Schiepers. The four subcommittees and their chairs are listed below:

<table>
<thead>
<tr>
<th>Subcommittee</th>
<th>Faculty Chair</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Radiation Safety Committee (ARSC)</td>
<td>Magnus Dahlbom</td>
</tr>
<tr>
<td>Clinical Operations Radiation Safety Committee (CORSC)</td>
<td>Barbara M. Kadell</td>
</tr>
<tr>
<td>Medical Radiation Safety Committee (MRSC)</td>
<td>Jorge Barrio</td>
</tr>
<tr>
<td>Radioactive Drug Research Committee (RDRC)</td>
<td>Jorge Barrio</td>
</tr>
</tbody>
</table>
These committees are supported administratively by the Office of the Radiation Safety Committees (ORSC), which is housed within the Office of the Human Research Protection Program (OHRPP). The RSC, as well as all of the subcommittees, work closely with the Radiation Safety Officer (RSO) within EH&S to develop programs that support the safe use of ionizing radiation at UCLA.

**Activities**

- Among the RSC achievements for FY14 are the following:
  - **Machine Database** — Integration of several disparate databases housing information about radiation-producing machines into a centralized database. The database is designed to capture information regarding all diagnostic radiation-producing machines owned by UCLA. This system will help ensure regulatory compliance and appropriate oversight.
  - **New Workflow** — MRSC/RDRC proposed a collaborative workflow with UCLA’s Departments of Radiology, Radiation Oncology and Nuclear Medicine. Once implemented, this proposed workflow would create a synchronized review process, shorten review time and mine essential data during simultaneous submissions.
  - **Human-Use Review** — MRSC/RDRC reviewed nearly 300 human-use studies involving radiation.
  - **Authorized User Review** — Continued review by the ARSC of Authorized User applications.

**Future Plans**

RSC goals for FY15 include the following:

- **Policy Implementation**: Implement the following three UCLA administrative policies: 1) Outlining restrictions for volunteers and visitors in non-clinical radiation use area; 2) Defining the regulatory requirements for radiation-producing machines; and 3) Clarifying the handling of research protocols containing radiological procedures at non-UCLA sites. All of these policies will be published in order to ensure radiation safety and regulatory compliance.
  - **Maintenance of Machine Database**: The new machine database will be used to capture data for new machines, acquisitions and relocation as well as maintain existing data.
  - **Implementation of New MRSC/RDRC Workflow**: See above.
  - **Fluoroscopy Data**: The CORSC will continue to explore collaborative solutions throughout UCLA Health Systems that would allow the committee to mine essential data regarding fluoroscopy procedures. This data will assist in safety training, occupational worker monitoring and estimated dose analysis used for protocol review.
  - **Committee Member Education**: The development of training materials, policies and guidelines specific to the RSC and each of the four sub-committees is planned.
- **Web-based Information:** Education and the provision of web-based information will continue to evolve through the joint efforts of the ORA-Office of Radiation Safety Committees (ORSC), the RSC, and the RSO. An effective system will be integrated with other safety programs at UCLA to provide effective training and relevant information for personnel potentially exposed to radiation sources, and to inform patients on possible negative aspects and positive advantages of clinical radiation procedures.

- **webIRB Enhancements:** Enhance the MRSC/RDRC application in the webIRB electronic application intake system. These changes will improve data collection and increase efficiency in administering applications and in reporting.

### E. Institutional Biosafety (IBC)

#### Overview

As required by the *NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules (NIH Guidelines)*, the UCLA Institutional Biosafety Committee (IBC) was designated by the VCR as the local review body responsible for oversight of all research and teaching activities involving the use of hazardous biological material. The IBC’s purview includes the use of recombinant DNA, human and nonhuman primate materials, infectious agents and select agents and toxins. The criteria assessed by the IBC during application review includes: inherent risks and safety of the biologicals and research procedures; training; written standard operating procedures; laboratory infrastructure appropriate to the risk; and other appropriate institutional approvals. IBC approvals are issued for a three-year period.

#### Key Personnel & Committee Structure

Jerome Zack started his first term as Chair for the IBC in FY14. He was supported by former Chair David Campbell, who served in the Vice Chair capacity in FY14 to ensure a smooth transition. April Pyle was added as a second Vice Chair, effective March 2014. The IBC consists of 16 voting members and 4 alternate voting members, including scientists, technical staff, representatives of campus administrative units, community members, and Environmental Health & Safety staff members. To date, the membership slots have been allocated as follows:

- Scientists account for ten of the committee member slots, and they come from the Departments of Medicine (Digestive Diseases, Infectious Diseases, Internal and Occupational Medicine, Hematology & Oncology, Surgery), Microbiology Immunology & Molecular Genetics, and Molecular Cell & Developmental Biology. These members have expertise in gene therapy, infectious agent use, plant manipulation, recombinant DNA research, stem cell use, and viral vector use. One of the 10 is a staff scientist, while the remaining scientists all hold faculty appointments at UCLA.

- There are eight representatives from campus administrative units. These representatives come from the Division of Laboratory Animal Medicine, Environment, Health & Safety, and the Occupational Health Facility. These members communicate with other campus regulatory committees and offices.
There are two community members who are non-affiliated scientists from the Los Angeles area, one of whom represents the L.A. County Public Health Laboratory. These community members provide external input into the IBC review.

Finally, the administration of the IBC is handled by Ms. Alyse DiStefano, a staff member in the Office of Research Administration (ORA).

The IBC convenes bimonthly to evaluate applications and discuss biological safety issues. This committee is supported by the Office of Research Administration.

Accomplishments
The operational support for the IBC was transferred from EH&S to ORA in July 2013. This reorganization was designed to enable the EH&S Biosafety staff to concentrate their efforts on laboratory inspections, and to enable the ORA staff to apply standard processes, practices, and systems to streamline IBC administration. In line with the reorganization, modifications were made to the conduct of IBC meetings and member expectations. For example, the committee members are now expected to play a more active role by having assigned members review and provide the rest of the committee with a summary of each protocol submission along with a risk assessment. Further accomplishments include the following:

- ORA-IBC updated several IBC policies and implemented new IBC policies on reporting and investigating allegations of non-compliance.
- ORA-IBC developed a website to provide guidance to researchers who work with biohazardous materials and recombinant DNA (http://ora.research.ucla.edu/SafetyCommittee/IBC). This website is currently being expanded to include the new and updated IBC policies, a News section, and additional guidance documents.
- The IBC application forms have been updated to reduce the amount of pre-review needed by prompting researchers to provide pertinent information prior to protocol submission.
- ORA-IBC, in collaboration with the EH&S Biosafety Office, has developed a new training on IBC Compliance.
- ORA-IBC started to host monthly webinars that are presented through various groups, including the American Biological Safety Association (ABSA), and has encouraged IBC members to attend as part of their continuing education.

Future Plans
The plans for FY15 include the following:

- Develop better collaboration and communication between ORA-IBC and OHRPP for research that requires both IBC and IRB review.
- Select and implement an online system for IBC protocol submission and tracking. This will help to further streamline the review and approval process and increase ORA-IBC staff efficiency.
- Re-evaluate IBC composition, with potential addition of new members from departments that are not currently represented.
- Improve communication and outreach efforts to inform faculty of the NIH Guidelines and the requirements for IBC registration.
- Evaluate and update current policies.
- Develop new policies which cover: the use of select toxins; IBC review of human gene therapy amendments; dual use research of concern (DURC).

F. High Containment Facilities

Overview
The last decade has seen a surge in research on high-risk, Biosafety Level 3 (BSL3) microorganisms, particularly the Select Agents that have the potential for use in bioterrorism. There are approximately 1400 BSL3 laboratories in the United States. Rules and regulations surrounding high containment (BSL3 and BSL4) select agent facilities are both extensive and comprehensive and address a wide array of issues related to the physical space, engineering requirements, biosafety and biosecurity requirements, risk assessment, administrative, standard operation procedures and personal protective equipment requirements. These rules and regulations are established at the institutional, state and federal level and include but are not limited to: UCLA Laboratory Design Guide, Cal OSHA regulations, Biosafety in Microbiological and Biomedical Laboratories (BMBL) 5th edition, NIH Guidelines (BSL3 Certification Guidelines) and 42 CFR Part 72 and 73 (Select Agent Rules and Regulations). For the majority of the UCLA BSL3 (select agent) facilities on UCLA campus, the BMBL recommendations and 42 CFR Part 72 and 73 are followed.

“Select Agents” are those biological agents or biological toxins that have been declared by the U.S. Department of Health and Human Services or by the U.S. Department of Agriculture to have the “potential to pose a severe threat to public health and safety.” Consequences of a potential laboratory exposure to one of these agents could be devastating not only for the individual(s) but also for the organization and beyond. Furthermore, institutional and personal fines associated with breaches in compliance with Federal Select Agent Program regulations can be substantial and can impact research funding. These events underscore the need for rigorous safety oversight of these laboratories.

Currently, there are three high containment facilities at UCLA; two that are operational and a third pending commissioning. All three are at Biosafety Level 3 (BSL3) and collectively occupy a total of more than 7,000 sq. ft. A number of pathogens are studied in these laboratories; all projects are federally funded.

Key Personnel
Early in 2012, a single Director for High Containment Facilities was appointed to coordinate BSL3 research on campus. As Director of High Containment Facilities, Natasha Griffith oversees biosafety and biosecurity, the Select Agent program, medical and incident surveillance, and operations and maintenance of all campus BSL3 facilities. Each facility also has a Faculty
Director that oversees all research activities. All research and support personnel with access to the high containment facilities receive training on an annual basis as required by current institutional (EHS), state (Cal OSHA) and government regulations (42 CFR 72 and 73). Training is delivered by an NIH-recognized biosafety consultant and the UCLA Director of High Containment Facilities. Furthermore, all personnel with access to Select Agents are cleared by the Department of Justice.

Activities
Some of the highlights from this year include the following:

- Continuation of the campus High Containment Program to foster a uniform approach for BSL3 facilities. Currently, all UCLA High Containment Facilities are following the same structure and compliance requirements.
- Ongoing maintenance of the Personnel Suitability Program (pre-access and ongoing) to satisfy CDC DSAT Tier 1 Select Agents regulatory requirements.
- Final steps to obtain accreditation and the official opening of the Global BioLab, a high-volume automated laboratory for infectious-disease surveillance, monitoring and research.
- Hiring of a Global BioLab Laboratory Manager in anticipation of the official approval and opening on the Global BioLab in FY15.
- Creation and implementation of UCLA High Containment Training Program for researchers and support personnel as well as emergency response training for institutional, local, state and federal first responders.
- Preparation for renewal inspection of all UCLA High Containment Facilities by the Centers for Disease Control and Prevention Division of Select Agents and Toxins (CDC DSAT) program.

G. Human Pluripotent Stem Cell Research Oversight (hPSCRO)

Overview
The UCLA Human Pluripotent Stem Cell Research Oversight (hPSCRO) committee ensures that UCLA human pluripotent stem cell (hPSC) research meets the highest scientific and ethical standards as well as compliance with California law. These goals are achieved in collaboration with UCLA administration, UCLA Institutional Review Boards (IRBs), other applicable campus compliance committees, and with the participation of the research community.

The UCLA hPSCRO committee, previously known as the Embryonic Stem Cell Research Oversight (ESCRO) committee, was formed in 2006 in response to a call from the National Academy of Sciences and the California Institute for Regenerative Medicine (CIRM) for oversight of the derivation of and research with human embryonic stem cells (hESC). The name was later changed to hPSCRO as its charge expanded to include all hPSC, when the field was revolutionized with the reprogramming of human somatic cells and the derivation of induced pluripotent stem cells.
The committee reviews protocols for new research, modifications to currently approved research (called amendments), and continuing research or renewals, when such research:

- uses or creates human pluripotent stem cells;
- proposes to collect and use germ or other cells designed to generate pluripotent stem cells; or
- proposes to use “covered cells” as required by State or Federal law.

In addition to conducting reviews, the committee is also required to track the derivation and use of hPSC at UCLA. The UCLA Broad Stem Cell Research Center (BSCRC) website hosts information regarding the hPSCRO, including policies and forms: [https://www.stemcell.ucla.edu/oversight-review](https://www.stemcell.ucla.edu/oversight-review).

Key Personnel

In FY14, the committee was chaired by Otoniel Martinez-Maza, PhD (Department of Obstetrics and Gynecology), and included two non-scientific, non-affiliated patient advocates. The committee was staffed in the second half of the year by BSCRC Administrator Maria Dominguez. The staff is supervised by BSCRC Associate Director Steven Peckman.

Activities

Committee Review Activities

The hPSCRO devotes most of its effort to the review of new, amended, and renewal research applications submitted by UCLA faculty. Meetings also serve as a vehicle for addressing policy and ethical issues. There are two types of review:

**Expedited Review:** Expedited review policy gives authority to one or more sufficiently expert members to review, request modifications to achieve approval, and approve specific types of research without a convened meeting of the full committee. New and renewal projects may be eligible for expedited review if the investigator proposes to use stem cell lines that are currently approved at UCLA and/or techniques for creating hPSC previously approved by the hPSCRO. Expedited review may also be conducted for amendments that do not substantively modify the currently approved research.

Expedited reviews are conducted by the Chair or Vice-Chair. For new projects or when amendments include scientific changes, the protocol is reviewed by two members of the committee who have appropriate scientific expertise. Any protocol that raises controvertible questions or novel concerns is then brought to a convened committee meeting for review. When expedited review is not approved, the proposed research is forwarded for convened committee review.

**Convened Committee Review:** Proposed research that is not eligible for expedited review is reviewed by the convened committee. Applications reviewed by the convened committee commonly include new derivation techniques, interactions/interventions with donors of biological materials, e.g., embryos, gametes, or somatic cells for reprogramming, and/or research in which stem cells or neuro-progenitor cells are
introduced into the brains of non-human subjects. The committee also reviews projects in which the provenance of the biological material has not been previously vetted by the committee or the NIH.

Volume of Reviews and Current Approved Protocols

In FY14, the hPSCRO reviewed 77 applications for new projects, as well as renewals and amendments to approved research. As evidenced in the tables below, only 22% of the applications required convened committee review.

<table>
<thead>
<tr>
<th>Review of New Protocols (FY14)</th>
<th>Review of Renewals (FY14)</th>
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<tbody>
<tr>
<td>Total # New Protocol Applications</td>
<td>4</td>
</tr>
<tr>
<td>Convened Committee Review</td>
<td>2</td>
</tr>
<tr>
<td>Total # of Renewal Applications</td>
<td>45</td>
</tr>
<tr>
<td>Convened Committee Review</td>
<td>8</td>
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</table>

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<tr>
<th>Review of Amendments (FY14)</th>
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<tbody>
<tr>
<td>Total # of Amendment Applications</td>
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<tr>
<td>Convened Committee Review</td>
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Future Plans

In FY15, the hPSCRO will continue to streamline processes, revise and simplify its application forms and initiate discussions with the ORA-OHRPP to extend the webIRB application to include the hPSCRO application. The web-based, shared application will streamline the process for investigators and the committees. Professor Marie-Francoise Chesselet returns as chair of the hPSCRO in FY15.

H. Research Involving Animals

Overview

The adjacent diagram shows the campus groups that oversee and support research involving animals.

Animal Research Committee (ARC)

The Chancellor’s Animal Research Committee (ARC) is an independent animal research review committee mandated by the federal Animal Welfare Act and the PHS Policy on Humane Care and Use of Laboratory Animals. The ARC, through the experience and expertise of its members, is charged with the responsibility to oversee the entire animal care and use program at UCLA. A selection of the Committee’s functions include:
Review and approve, require modifications in, or withhold approval of proposed activities related to the care and use of animals.
Inspect all of the institution's animal facilities.
Review the institution's program for humane care and use of animals.
Evaluate the qualifications of research personnel and provide appropriate training and education.

Office of Animal Research Oversight (OARO)
The Office of Animal Research Oversight (OARO) is the administrative division in the Office of Research Administration that supports the ARC. OARO serves as the institutional office of record and regulatory resource for the ARC. The OARO coordinates protocol monitoring and ARC facilities inspection, and provides administrative support to the ARC. [See Section IX-D for more information about OARO.]

Key Personnel
The ARC is composed of 14 members plus one category-specific alternate. Of the members, there are nine scientists, two veterinarians, and three nonscientists, two of whom are not affiliated with the University; the alternate is a veterinarian.

The OARO functions and personnel are described in greater detail in Section IX-D.

Activities
The ARC meets twice monthly to assess policies, assess practices and make recommendations.

I. Research Involving Humans
Overview
For research involving human subjects, UCLA has five Institutional Review Boards (IRBs) that are formally designated to review, approve, require modifications to, or disapprove such studies. Additional responsibilities include review of unanticipated problems, investigations of allegations of noncompliance and prompt reporting to Institutional Officials and governmental agencies if required. The IRBs are functionally located within and administered by the Office of the Human Research Protection Program (OHRPP) in the Office of Research Administration (ORA). [See Section IX-E for more detail about OHRPP.]

The IRBs operate under strict guidelines promulgated by the Department of Health and Human Services (DHHS) Office for Human Research Protection (OHRP), and the Food and Drug Administration (FDA), state and local laws, and University policies. Additionally, as required by the terms of UCLA assurance with DHHS, the IRBs follow written procedures developed by OHRPP that assure its compliance with the regulations and support the maintenance of UCLA’s accreditation with the Association for Accreditation of Human Research Protection Programs, Inc. (AAHRPP).
Key Personnel

Overall UCLA policy related to protecting human subjects involved in research is set by the UCLA Human Research Policy Board (HRPB). HRPB is advisory to and its members are appointed by the Executive Vice Chancellor. Voting members include chairs of each of the five Institutional Review Boards, the Vice Chancellor for Legal Affairs, the Vice Chancellor for Research, six Distinguished faculty representatives (three with experience in clinical human subjects research; one with experience in non-clinical human subjects research, one from the general medical campus who is not involved in human subjects research, and one-at-large member who is not involved in human subjects research), and a member of the Academic Senate. The Academic Senate representative is specifically responsible for consulting with the Senate and bringing Senate leadership comments to the HRPB for consideration. Nonvoting members include the Director of OHRPP, the Assistant Vice Chancellor for Research Policy and Compliance, and the Associate Vice Chancellor for Research Administration.

The review of protocols for proposed research involving human subjects is conducted by five IRBs, each specializing in a particular type of research:

The North General Campus IRB (NGIRB) reviews research from the College of Letters & Science and the Professional Schools (Chair: Todd Franke).

The South General Campus IRB (SGIRB) reviews social-behavioral research from South campus researchers who conduct health services research in areas such as public health, quality of care, quality of life, health prevention and health education research (Chair: Alison A. Moore).

Medical IRB1 (MIRB1) reviews general and internal medicine, infectious diseases, and dental and ophthalmologic research (Chair: Daniel Clemens).

Medical IRB2 (MIRB2) reviews oncology and hematology research (Chair: Fairooz Kabbinavar).

Medical IRB3 (MIRB3) reviews neuroscience, neurology, psychiatric, drug abuse, and related behavioral science research (Chair: James McGough).

The average number of members on the Medical IRBs is 15; the average number for the General Campus IRBs is 10. Membership rosters are posted online. Members of the committees are appointed by the Vice Chancellor for Research for one to two years with an option to renew. Members and membership are formally evaluated on a yearly basis. The Vice Chancellor also appoints a Chair for each committee as well as one to two Vice Chairs; their appointments may be longer than member appointments.

The majority of IRB members are UCLA faculty, appointed at the Associate Professor level and above, who conduct human research. Additionally, by law, at least one non-affiliated member and one non-scientist must serve on each IRB. Members are expected to adhere to established performance standards, which includes attendance at least 75% of the IRB meetings.
Chairs and Vice Chairs are asked to perform additional duties. They review expedited studies in addition to full committee studies. They also review unanticipated problems, subject complaints, and allegations of noncompliance, as well as attend annual chair meetings. The IRBs are supported by OHRPP. Associate Director Alison Orkin served as Interim Director for the bulk of FY14 (until March 2014). Since then, the office has been under the leadership of Director Kip Kantelo.

Activities
There are currently over 5,000 active human research studies at UCLA. As shown in the bar graph below, the number of studies has been increasing every year.

The OHRPP has continued to improve operations in support of the IRBs and the UCLA research community. Major improvements over the past year have included the expansion of reciprocity arrangements and the deployment of several enhancements to webIRB. [See Section IX-E for more information.]

Future Plans
Below are the goals for the upcoming year:

- **Continue to Implement webIRB Enhancements:** Further simplifications are planned to improve the user experience as well as to prepare for integration with the School of Medicine’s upcoming Clinical Research Management System.
- **Continue Developing and Expanding Use of Reliance Agreements:** The OHRPP will continue to identify opportunities to eliminate redundant IRB reviews of multi-site research and streamline the process for creating such arrangements.
- **Implement Regular and Routine Training:** Continue to develop and refine training programs for IRB members, OHRPP staff and the research community.
- **Expand Internal Quality Improvement Activities:** There will be more frequent internal audits of IRB activities to confirm that the office is meeting compliance requirements and established performance standards.
- **Improve Data Collection and Reporting:** Evaluation of how data points are defined, collected and analyzed. This is needed to ensure proper functioning of the review process, assess the effectiveness of innovations, and provide useful information about UCLA’s human research portfolio.
J. Conflict of Interest Review Committee

Overview

Originally established by the Chancellor in the mid-1980s to advise the Vice Chancellor for Research, the Conflict of Interest Review Committee (CIRC) is a peer review panel composed of faculty from a cross section of academic disciplines. Its goal is promoting faculty interests and research progress while helping to assure research objectivity and public trust in our accomplishments.

The Committee serves the campus by (a) reviewing outside personal financial interests disclosed by University researchers; (b) making determinations about whether those outside financial interests constitute conflicts of interest; and (c) making recommendations about how those conflicts of interest may be eliminated, reduced, or managed so that external support for research, research training, and other sponsored projects can be accepted and work can commence. The CIRC is the independent substantive review committee required under the State of California Political Reform Act. The CIRC also serves as the “designated official(s)” required under federal policy/regulation on financial conflicts of interest related to research.

Key Personnel

The CIRC is chaired by Michael Roth, a Professor from the School of Medicine, and is supported by the office for Research Policy and Compliance (RPC) whose senior staff includes Ann Pollack, Assistant Vice Chancellor for Research, and Claudia Modlin, Research Policy and Compliance Coordinator. [For more information about RPC, see Section VI-L.] Current CIRC members include:

<table>
<thead>
<tr>
<th>CIRC Members</th>
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<tbody>
<tr>
<td><strong>Member</strong></td>
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<tr>
<td>Michael Roth Chair</td>
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<tr>
<td>Tara Aghaloo</td>
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<tr>
<td>Greg Carman</td>
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<td>Joseph Doherty</td>
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<td>Caius Radu</td>
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<tr>
<td>Sarah Tolbert</td>
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<td>Todd Yeates</td>
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</table>

Activities

A continuous focus of the committee has been to enhance the efficiency of the process and support for faculty. Techniques employed to achieve these goals include: (1) conduct preliminary review; (2) triage cases; (3) include faculty members at the meeting; and (4) increased collaboration with campus units such as OIP-ISR and the IRBs.
A focus during FY14 was refinement of the “relatedness review” process which resulted from the revised Public Health Service (PHS) regulations on Objectivity in Research which became effective on August 24, 2012. As was described in the FY13 Annual Report, these revised rules shifted the burden of responsibility from the investigator to the institution with respect to determining which, if any, financial interests disclosed by an investigator may be related to the PHS activity for which funding is being sought. This determination, and the new level of review associated with it, dramatically increased the burden of work for RPC staff. A critical element of the campus’s successful implementation of the revised regulations was the implementation of the electronic Disclosure Gateway (eDGE), a web-based disclosure database designed to reduce the reporting burden on investigators.

In spring 2013, RPC, in conjunction with Huron Consulting, analyzed the first seven months of experience in using eDGE, as well as RPC’s ability to conduct the required “relatedness” reviews more efficiently. Based on that analysis, several high-impact, low cost changes were put into place including: streamlining the user interface and creating reporting functions. On the technical side, eDGE was enhanced to make it easier for investigators to submit their disclosures. Nevertheless the mandated reviews are still time consuming, and like last year have resulted in identifying only a small number of investigators with otherwise unidentified financial conflicts of interest.

During FY14, a total of 1,948 investigators completed annual disclosures in eDGE. This is a decrease from the 2,331 investigators who disclosed the prior year. The theory for the decrease in disclosures is that in FY13, Principal Investigators had been over-inclusive with their disclosures and now, with greater fluency about the process, the number of disclosures is more consistent with what is expected going forward.

**Future Plans**

- Continued enhancement of eDGE.
- Participation by the CIRC chair and RPC senior staff on a UCLA Conflict of Interest/Conflict of Commitment Advisory Committee being established to identify gaps in current policies and make recommendations for improving the disclosure and reporting requirements for faculty.

**K. Native American Graves Protection and Reparation Act (NAGPRA) Unit**

**Overview**

The Native American Graves Protection and Repatriation Act (NAGPRA) is a federal law requiring inventories of human remains and funerary objects, and summaries of potentially eligible cultural material for the purpose of repatriation. The statute also sets forth and mandates extensive consultation with descendant tribes and tribal communities on the part of subject institutions. Pursuant to NAGPRA, in 1995, any UCLA department with potentially NAGPRA eligible human remains and objects transferred them to the Fowler Museum at UCLA in preparation for notice publications. Accordingly, the Fowler currently houses, inventories, and manages approximately 2,000 sets of human remains and 1,000 cubic feet of related NAGPRA materials.
The UCLA NAGPRA unit ensures UCLA compliance with NAGPRA by:

- Completing all inventories, summaries, notices, and policies related to NAGPRA within the mandated time frames;\(^2\)
- Managing the repatriation of NAGPRA eligible materials, initiating and/or responding to tribal requests for consultation, garnering expert testimony, preparing documentation for Notices of Inventory Completion and Notices of Intent to Repatriate, reviewing notices;
- Continually reviewing collections for eligible materials; and,
- Providing access to NAGPRA materials for tribal consultation and research purposes.

**Key Personnel**

The Vice Chancellor for Research appoints the UCLA NAGPRA Advisory Committee (UCLA Advisory Committee) on a yearly basis based on the recommendation and nomination of the designated Committee Chair. In addition to nominating the Committee members, the Chair represents the campus on all NAGPRA matters to the UC Office of the President. The Chair also works closely with the Fowler Museum NAGPRA designee to ensure statutory compliance. This Committee reviews and votes on all UCLA NAGPRA Notices before they are sent to the University Advisory Group on Cultural Affiliation and Repatriation of Human Remains and Cultural Items (UC Advisory Group) for review and recommendation to the UC President or their designee, who provides the final decision on all UC NAGPRA claims. This structure is reflected in the diagram below.

**Flow of Tribal Claims**

Professor Angela R. Riley is the Chair of the UCLA Advisory Committee and the UCLA Representative to the UC Advisory Group.\(^3\) All requests for information and access, as well as

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any partnerships and grants pertaining to UCLA NAGPRA eligible materials, are fulfilled by the Fowler Museum NAGPRA designee and Curator of Archaeology, Dr. Wendy G. Teeter.

Activities

Accomplishments

- **Submitting Notices and Pending Notices**: The UCLA Advisory Committee did not complete any Notices of Intent to Repatriate or Notices of Inventory Completion. There are two outstanding sections to be completed, one with the Southern Utah collections and one with the Chumash collections. The Southern Paiute, Colorado River Indian Tribes, Navajo and Pueblo Tribes have begun consultation, but funding for tribal visits is needed.

- **Repatriation Completion**: The UCOP NAGPRA Coordinating Committee met once through a conference call this year to discuss the repatriation of a Karuk ceremonial item request to UC Berkeley’s Phoebe Hearst Anthropology Museum. Angela Riley and Wendy Teeter were in attendance and participated in discussions regarding the grounds for repatriation of the item.

- **Consultations**: In the last fiscal year, the Fowler Museum consulted with the Organized Village of Kasaan from Alaska and Jim Enote (A:shiwi A:wan Museum and Heritage Center) over NAGPRA eligible materials.

- **UCLA began consultation with Chumash, Gabrieliño/Tongva, and Tataviam community leaders over the final disposition of ancestral remains and NAGPRA eligible items housed at the Fowler Museum. This consultation supports and is a required part of our completion of the last outstanding NAGPRA section, the Santa Ynez Chumash Section. Our first meeting was hosted by Phil Rundel at Stunt Ranch and had over 20 people in attendance, with Vice Chancellor Carole Goldberg and Dr. Wendy Teeter leading the discussions. A follow-up meeting is scheduled for September.**

- **Outside Funding**: The Fowler Museum, through Dr. Teeter, received funding from the Bureau of Indian Affairs to complete NAGPRA notices on collections gathered from BIA trust lands and curated at the Fowler Museum. This work continues through the end of 2014.

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The UCLA Advisory Committee includes: Professor Angela Riley, Law and Director, American Indian Studies Center (Chair); Professor Jeanne Arnold, Anthropology; Marla Berns, Director, Fowler Museum; Associate Professor Mishuana Goeman, Gender Studies; Professor Felicia Hodge, Public Health; Dr. Rebecca Rosser, Assistant Director, American Indian Studies Center; Associate Professor Greg Schachner, Anthropology; Laura Miranda, Adjunct Clinical Professor of Law; Danielle Reppen, student representative; Cindi Alvitre, community liaison; Dr. Wendy Teeter, Curator of Archaeology, Fowler Museum (ex officio).
- Supporting Research: In order to foster student research and support future research partnerships, the Fowler Museum offers volunteer opportunities for matriculating and non-matriculating UCLA and UCLA Extension students to learn more about NAGPRA compliance and related research.

- Building Relationships: The UCLA Advisory Committee maintains a consistent and respectful relationship with tribes throughout the United States and indigenous groups from around the world. The Committee continues to enhance relations with local and U.S.-based tribes, and also engages with indigenous peoples outside the U.S. in regards to repatriation issues. The Committee’s partnerships are an essential part of the consultation process and assist in gathering critical information regarding NAGPRA eligible materials and in determining the most appropriate tribes to consult with regarding such materials. This year Rhonda Paku, Senior Curator Mātauranga Māori & Deputy Kaihautū, Museum of New Zealand Te Papa Tongarewa was part of the Fowler Museum program entitled, “Conversations on the Contemporary: Exhibiting Cultures: A Pacific Rim Dialogue.” Her participation allowed the Fowler to consult with her on the care, representation, and any potential repatriation eligible materials of our Maori collections. Consultation and support between the Fowler Museum and the Ka Haka Hoki Mai Te Mana Tupuna (Rapa Nui Repatriation Organization) continue as well.

- Providing NAGPRA Compliance Training: The Fowler Museum consulted and assisted in NAGPRA training for tribes, universities, small museums, and federal entities as requested during 2014.

- Supporting Education and Outreach: The Fowler Museum collaborated with Rigo 23, a Portuguese artist based in San Francisco, to forefront ongoing Native American issues including repatriation through the exhibition, *Rigo 23: From the Heart of Santa Madera*. As part of this exhibition, the Fowler Museum and the American Indians Studies Center held an exhibition walkthrough and panel discussion entitled, “Reflections on Water” that discussed the intersections of water, cultural survival, and artistic expressions. Repatriation is a large component of these conversations. Speakers included Craig Torres (Gabrielino/Tongva), Brian Tripp (Karuk), Cheryl Seidner (Wiyot), George Blake (Yurok), Annelia Hillman (Yurok), and Tom Poor Bear (Oglala Dakota).

- Maintaining Interdisciplinary Membership: The 2013-2014 Committee includes staff, faculty, and community representatives from a wide range of disciplines and backgrounds. This multi-disciplinary membership approach ensures that UCLA’s NAGPRA notices are well developed by effectively addressing the wide range of disciplines that can be referenced when determining eligibility for repatriation.

**Challenges**

- Centralized Decision-Making: The current centralized decision-making process for repatriation claims impedes individual campus’ efforts to comply with deadlines as mandated by the statute.
Absence of Clear Internal Deadlines: The UCLA Advisory Committee would greatly benefit from clear internal deadlines for Notice comments from the UC Advisory Group members and timelines from the UCOP in order to ensure that tribal claims are responded to within the statutorily mandated 90-day deadline.

Providing Legal Support: When no clear permit or deed is available to determine control for the purpose of completing notices and consultation for NAGPRA eligible materials, the UCLA Advisory Committee would greatly benefit from receiving legal advice from UCLA legal representatives.

Future Plans

Updating Inventory

The Fowler Museum will continue to update the last outstanding section of the UCLA NAGPRA inventory, the Santa Ynez Chumash Section. The ultimate date of completion depends on the number of new tribal claims, which receive priority, and the ongoing consultations with the Chumash tribal communities.

Facilitating Future NAGPRA Claims

The Fowler Museum is dedicated to negotiating future NAGPRA claims and maintaining cooperative relationships with tribal governments and communities to identify and repatriate NAGPRA eligible materials.

Continuing to Educate Students

The Fowler Museum will continue offering volunteer opportunities for matriculating and non-matriculating UCLA and UCLA Extension students to learn more about NAGPRA compliance and related research.

L. Research Policy and Compliance

Overview

The Office of Research Policy and Compliance (RPC) is the steward of UCLA’s statutory responsibilities for handling conflicts of interest in research, allegations of research misconduct, other research integrity issues, and implementation of Export Control regulations. It is also heavily involved in the local, university-wide and national development of regulations and policies in those areas.

One of RPC’s primary responsibilities is supporting the campus Conflict of Interest Review Committee (CIRC), a faculty panel that reviews financial interests. [See Section VI-J for more details about the Conflict of Interest Review Committee.]

A second key area is support for the Vice Chancellor for Research in his role as the campus Research Integrity Officer. In this capacity, RPC receives and evaluates allegations of research misconduct and coordinates formal assessments, inquiries, and investigations when warranted.

Furthermore, RPC serves as a campus resource for interpreting and implementing federal export control regulations, providing advice to the campus and applying for export licenses.
from the U.S. Departments of Commerce, State, and Treasury. Staff also conduct the Export Compliance Certification reviews required by the Department of Homeland Security for all H-1B and O-1 visa applications, and upon request, screen other foreign visitors who will be working on campus.

The office also provides leadership in shaping, interpreting, implementing, and updating UC and UCLA research-related policies, procedures, and guidance. Senior staff members continue to represent the Office of the Vice Chancellor for Research (OVCR) and work collaboratively with the Office of the Vice Chancellor for Academic Personnel, Deans, the Office of the Deans of Students, the Graduate Division, and the Office of Legal Affairs in resolving highly complex, case-specific situations that lie at the nexus of policy and law.

Key Personnel
The RPC office operates under the direction of Ann Pollack, Assistant Vice Chancellor for Research in accordance with the organization chart below.

Activities
During FY14 there was a spike in the volume of research misconduct allegations, many made anonymously. A significant amount of time was dedicated to investigating these allegations. In recognition of the time required to effectively investigate claims, the staff leadership initiated a collaboration with other UC campuses to share best practices in responding to allegations of research misconduct. This collaboration was the catalyst for a meeting hosted by UC San Diego at which Research Integrity Officers and their designees were able to meet with key staff of the federal Office of Research Integrity (ORI).

During FY14, significant energy was devoted to assuring compliance with export control regulations. Prompted by a request from the Vice Chancellors for Research from several of the other UC campuses, the UC Office of the President is assessing long-held university policies prohibiting the conduct of export controlled research on campus. In response, the RPC Senior staff interviewed UCLA faculty and campus leaders in order to prepare a white paper on the subject. This white paper summarizes key regulatory issues, existing UC policy, and campus
perspectives on the possibility of change. [See Appendix 6-L for a working discussion draft of the document.]

Future Plans
The plans for FY15 include the following:

- Assess and refine sequestration processes for electronic data in research misconduct cases.
- Enhance campus communication regarding export control issues and penalties.
- Actively participate in a new campus Conflict of Interest Advisory Workgroup.
- Refine and enhance the RPC website.

VII. RESEARCH DEVELOPMENT & SUPPORT

A. Introduction to Research Development & Support

Research development refers to a broad array of activities designed to facilitate individual faculty members, teams of researchers, and the campus as a whole in attracting extramural research funding, creating research relationships, and developing and implementing strategies that increase institutional competitiveness.

A number of initiatives from the Office of the Vice Chancellor for Research, often in conjunction with the VCR Cabinet, and occasionally in partnership with other campus organizations, may be characterized as “research development,” including UCLA Grand Challenges. [See Section V for more details about UCLA Grand Challenges.] In this Section of the Annual Report is a description of the VCR Cabinet and a selection of programs and activities designed to foster research including:

- Diversity Research
- Transdisciplinary Seed Grants (TSG)
- Shared Resources Consortium (SRC)
- Research Informatics Strategic Planning (RISP)
- Clinical and Translational Science Institute (CTSI)
- Other Research Enhancement Activities

B. Role of VCR Cabinet

In recognition of the need for broad campus representation in making strategic investments to enhance research scholarship across the campus, VCR Economou assembled a cabinet of faculty and administration members from across the campus, some of who have other responsibilities within the Office of the Vice Chancellor for Research organization. This VCR Cabinet meets twice monthly. The Cabinet is responsible for or has provided strategic direction for most of the research development related activities coming from the Office. The Cabinet members include the following:
The OVCR recognizes that, as one of the leading public research universities in the nation, a key element in the path to achieving excellence and success in research is to provide the support, education and tools to faculty to achieve cutting edge research, performance and creative products. One method for increasing faculty members’ ability to offer successful solutions for some of society’s most serious challenges is the creation of a transformative research climate that facilitates research on diversity and assessment at the highest level of excellence. In embracing diversity as a “core value” and fostering its infusion in all activities, including research, the OVCR has created a plan for ensuring that research opportunities and scholarly dialogue on diversity are a part of the campus research enterprise.

Key Personnel
The diversity initiative began with the Cabinet and from that group, two members have taken the lead: Professors Sylvia Hurtado and Vickie Mays. [See Section VII-B above for a description of the Cabinet.]

Sylvia Hurtado is a Professor in the Graduate School of Education and Information Studies at UCLA, in the Division of Higher Education and Organizational Change. She is the Director of the Higher Education Research Institute, which houses the Cooperative Institutional Research Program (CIRP).
Activities

The OVCR has invested in fostering Diversity Research at UCLA through a number of activities including the following:

- A monthly newsletter service, provided in partnership with the Office of Diversity and Faculty Development, featuring funding opportunities and diversity-related events. There are more than 900 subscribers to this service. This is the longest standing diversity research-related service of the office, which was initiated in late 2012. The purpose of the newsletter is to both broaden and increase UCLA’s participation in research on diversity.

- Funding of diversity research, inequality and cultural awareness transdisciplinary seed grants in partnership with the Academic Senate’s Council on Research (COR), DGSOM and the Office of Diversity and Faculty Development. These funding tracks were added to the existing Transdisciplinary Seed Grant program beginning in Cycle 3.

  **Cycle 3:**
  - Graham-Juvonen-Phillips: Transition to High School in Los Angeles: Opportunities and Risks
  - Lawrence-Handcock: Lifting the Fog: Networks of Career Opportunity for Minorities

  **Cycle 4:**
  - Philip-Gee-Shih: Racial Identity, Burn-Out, and Attrition, in New Teachers of Color
  - Mayne-Eisenman-Derby-Yi: Community Resilience through Culture: Strategy for Reconstruction in Haiti
  - Taub-Jarrah: Facing the Future: Changing Paradigms in Global Health Delivery

  **Cycle 5:**
  - Graham-Ghavami-Coker-Chiasson: Understanding disparities in health and academics of LGBQ youth in urban middle schools
  - Lawrence-Handcock: Lifting the Fog: Networks of Career Opportunity for Minorities (Renewal)

- A new funding mechanism, the Research Initiative for Diversity and Equity (RIDE), was initiated in FY14 by the Cabinet in recognition that there was a gap in funding for research about understanding or studying interventions related to the campus climate. The first call for proposals was published in spring 2014 and it was open to any member of the campus community to apply (students, faculty, and staff),
making it a unique initiative for advancing diversity research and assessment on
campus. The response to the call exceeded expectations with more than 80
submissions. Additional funds were made available to accommodate many excellent
ideas generated by the campus community. While decisions were made in FY14, the
funding distribution and reporting for the 16 projects will occur in FY15 and FY16.
While it is still early, RIDE is deemed to be a success, as there was great interest and
dialogue across units, disciplines and community members.

Future Plans
The OVCR has plans for more diversity research initiatives in FY15, as described below:

Announcement of RIDE Recipients
In FY15, the OVCR will publicly announce the projects that were selected for the first round of
RIDE funding. The recipients include the following:

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Project Team</th>
<th>Lead PI Status</th>
<th>Funded Amount</th>
</tr>
</thead>
</table>
| Achievement in Context: An Intervention that Promotes Academic Competence and Success for Latino College Students During the First Year in College | Gerardo Ramirez (*Life Sciences--Psychology/ GSE&IS--Education*)
Yolanda Vasquez-Salgado                                                      | Faculty                      | $24,990        |
| Advancing Campus Identity Diversity                                         | Jerome Rabow (*Social Sciences--Sociology*)
Lital Slobodsky
Sharlene Golshirazian                                                        | Faculty                      | $5,000         |
| Diversity University: A Symposium on Mobilizing Diversity Research and Advocacy at UCLA | Grace K. Hong (*Social Sciences--Asian American Studies/Gender Studies*)
Kareem Elzein
Patricia Nguyen                                                              | Faculty                      | $10,000        |
| "Do I Belong Here?" Examining the Experiences of Low-SES Students at an Elite University | Brianna Mae Goodale
H. Wenwen Ni
Dr. Phillip Atiba Goff
Dr. Yuen Huo                                                                  | Student                      | $13,800        |
| Examining Diverse Learning Experiences: Analysis of the UCLA College Senior Survey | Leobardo Estrada (*LSPA--Urban Planning*)
Marc Levis-Fitzgerald
Brit Toven-Lindsey                                                           | Faculty                      | $15,000        |
<table>
<thead>
<tr>
<th>Project Title</th>
<th>Project Team</th>
<th>Lead PI Status</th>
<th>Funded Amount</th>
</tr>
</thead>
</table>
| Faculty and Staff Intergroup Dialogue (IGD) Professional Development Pilot Program | Tiffani Garnett *(Student Affairs--Bruin Resource Center)*
Laura Paulson
Jane Pizzolato                                                                 | Staff                        | $24,986        |
| iCount: A Data Quality Campaign for AAPIs at UC                              | Robert Teranishi *(GSE&IS--Education/Social Sciences--Asian American Studies)*
Mike Hoa Nguyen
Dolly Nguyen                                                                   | Faculty                     | $25,000        |
| Improving Campus Climates Through Online Diversity Dialogues                 | Yen Ling Shek *(Student Affairs--Office of Residential Life)*
Suzanne Seplow                                                                | Staff                        | $8,000         |
| In Their Own Words: A Qualitative Understanding of Racial Campus Climate among Ethnic Minority Undergraduates at UCLA | Darnell Hunt *(IAC--Bunche Center for African American Studies/Social Sciences--Sociology)*
Ana-Christina Ramon                                                           | Faculty                     | $24,991        |
| Project SPELL - Technology Curriculum Development                             | Stephanie Youngblood *(External Affairs--UCLA Volunteer Center)*
Juliet Falce-Robinson
Jack Powazek                                                                    | Staff                        | $15,000        |
| R.I.S.E.: Research Initiatives for Student Empowerment                        | Patrick Rock *(Life Sciences--Psychology)*
Zita Dixon
Saeromi Kim
Sandra Graham
Rashmita Mistry
Ivuoma Onyeador
Jenessa Shapiro                                                                | Student                      | $20,320        |
| Reframing What It Means to be a True Bruin: A Psychological Intervention to Increase Support for Diversity and Inclusion at UCLA | Yuen Huo *(Life Sciences--Psychology)*
Christopher Begeny
Felix Danbold
Hua Wenwen Ni
Vanessa Zavala                                                                | Faculty                      | $23,995        |
<table>
<thead>
<tr>
<th>Project Title</th>
<th>Project Team</th>
<th>Lead PI Status</th>
<th>Funded Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>The JANRAH Program</td>
<td>Samarah Blackmon (GSE&amp;IS--Education) Tyrone Howard</td>
<td>Student</td>
<td>$5,905</td>
</tr>
<tr>
<td>The Social Justice Academy at UCLA: An Evaluation of Pre-College Diversity Interventions &amp; Community Outreach</td>
<td>Franklin D. Gilliam, Jr. (LSPA) Marcia V. Fuentes</td>
<td>Faculty</td>
<td>$25,000</td>
</tr>
<tr>
<td>UCLA BruinCorps</td>
<td>Janina Montero (Student Affairs) Justyn Patterson Jody Priselac</td>
<td>Staff</td>
<td>$25,000</td>
</tr>
<tr>
<td>Women Engaged in Science, Technology Engineering and Mathematics (WE-STEM)</td>
<td>Andrea M. Kasko (HSSEAS--Bioengineering)</td>
<td>Faculty</td>
<td>$17,350</td>
</tr>
</tbody>
</table>

Plans are being developed for an evaluation of the ways in which the RIDE funding contributes to campus climate solutions, offers innovation in higher education for campus climate change and creates new scholarship and creative products for use and distribution to address climate issues in higher education.

**Diversity Grant Support Team (DIGST)**

In late FY15 or early FY16, the Cabinet and Diversity leadership will launch a new effort designed to increase participation of a broad group of faculty in garnering support for extramural funding in support of diversity. The working title for this program is Diversity Grant Support Team (DIGST). It is designed bring together faculty teams to pursue extramural funding that will benefit diversity. Under DIGST, the Office of the Vice Chancellor for Research will provide the infrastructure to support and assemble both large and medium sized grant applications that require significant effort and expertise. One area that we plan to pursue is pipeline funding, both as a way of addressing campus diversity but also in response to the breadth of disciplines that have indicated an interest in pipeline scholarship.

**D. Transdisciplinary Seed Grants**

**Overview**

University research and scholarship traditionally has been driven by individual faculty members, perhaps influenced by the academic promotion process in which faculty members are judged by the demonstration of “independence.” In recognition that discoveries and new approaches often occur at the intersection of disciplines, a priority for the Office of the Vice Chancellor for Research is to foster transdisciplinary research. The Cabinet introduced the Transdisciplinary Seed Grant (TSG) program in Spring 2011 to stimulate north-campus driven transdisciplinary collaborations. The program has been very well received and continued through FY14.
To qualify for funding, a project seeking funding under TSG must meet the following criteria:

- The lead PI must be a UCLA faculty member with a primary appointment in a “north campus” department or unit.
- The proposal must represent a collaboration of at least two distinctly different disciplines.
- In addition to these requirements, the solicitation of proposals expresses the following preferences:
  - Proposals featuring new areas of inquiry or at least new areas of inquiry at UCLA.
  - Proposals featuring new working relationships.
  - Proposals featuring novel/innovative questions.
  - Research and creative projects. This funding mechanism is not designed to fund seminars, courses or conferences.
  - Projects that employ UCLA graduate students over projects that hire outside personnel.

Key Personnel
The program is administered by Michelle Popowitz and Jill Sweitzer. The review committee includes members of the VCR Cabinet, Academic Senate Council on Research with the addition of reviewers for specific topics such as diversity, health and welfare, poverty/inequality, and collaborative informatics.

TSG Cycle 5 Recipients
Below please find the recipients of TSG Cycle 5. Please refer to the OVCR website for recipients for previous cycles: https://vcr.ucla.edu/ovcr-initiatives/tsg/recipients.

<table>
<thead>
<tr>
<th>Collaboration Team</th>
<th>Project Name</th>
<th>Track</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jeanne Arnold (Social Sciences Division-Anthropology)</td>
<td>Investigating Prehistoric Jade Circulation in Northeast Eurasia using Geochronometric Sourcing Methods (Renewal)</td>
<td>Open TSG</td>
</tr>
<tr>
<td>Axel Schmitt (Physical Sciences Division-Earth and Space Sciences)</td>
<td></td>
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<tr>
<td>Ben Shepard (Social Sciences Division-Anthropology)</td>
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<tr>
<td>Collaboration Team</td>
<td>Project Name</td>
<td>Track</td>
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<td>------------------------------------------------------------------------------------</td>
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<td>---------------------------------</td>
</tr>
<tr>
<td>Kathlyn Cooney (Humanities Division-Near Eastern Languages and Cultures)</td>
<td>Below the Surface: Terahertz Technology and Coffin Reuse in Ancient Egypt</td>
<td>Open TSG</td>
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<tr>
<td>Frank Chang (HSSEAS-Electrical Engineering)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elsbeth Geldhof (The Limburg Conservation Institute) (Conservation of Paintings, Painted Objects, and Historic Interiors)</td>
<td></td>
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<tr>
<td>Remy Hiramoto (Boeing Space &amp; Intelligence Systems) (Advanced Microelectronics Research and Development)</td>
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<tr>
<td>Adrian Tang (Jet Propulsion Laboratory) (RF(IC) Design Engineer)</td>
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</tr>
<tr>
<td>Sandra Graham (GSE&amp;IS-Education)</td>
<td>Understanding disparities in health and academics of LGBQ youth in urban middle schools</td>
<td>Diversity Health &amp; Welfare Inequality</td>
</tr>
<tr>
<td>Negin Ghavami (GSE&amp;IS-Human Development and Psychology),</td>
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<tr>
<td>Tumaini Cocker (DGSOM-Pediatrics)</td>
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<tr>
<td>Judy Chiasson (LAUSD) (Equity, Diversity and Inclusion)</td>
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<tr>
<td>Tim Groeling (Social Sciences Division-Communication Studies)</td>
<td>Neuron Highway Rehabilitation Software</td>
<td>Health &amp; Welfare Collaborative Informatics</td>
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<tr>
<td>Linda Liau (DGSOM-Neurosurgery)</td>
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</tr>
<tr>
<td>Joan Harp (Neuron Highway)</td>
<td></td>
<td></td>
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<tr>
<td>Martie Haselton (Social Sciences Division-Communication Studies)</td>
<td>Using Scientific Awe to Promote Interest in Science, Technology, Engineering, and Mathematics (STEM) Disciplines</td>
<td>Open TSG</td>
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<tr>
<td>Jean Turner (Physical Sciences Division-Physics and Astronomy)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Janet Tomiyama (Life Sciences Division-Psychology)</td>
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<tr>
<td>Darnell Hunt (Social Sciences Division-African-American Studies)</td>
<td>Hollywood Advancement Project: Diversity and the Bottom Line</td>
<td>Diversity</td>
</tr>
<tr>
<td>Allyson Field (TFT-Cinema and Media Studies)</td>
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<tr>
<td>Barbara Lawrence (Anderson, Management and Organizations)</td>
<td>Lifting the Fog: Networks of Career Opportunity for Minorities (Renewal)</td>
<td>Diversity Collaborative Informatics</td>
</tr>
<tr>
<td>Mark Handcock (Physical Sciences Division-Statistics)</td>
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</tbody>
</table>

OVCR Annual Report FY 2013-14 Research Development & Support | 42
<table>
<thead>
<tr>
<th>Collaboration Team</th>
<th>Project Name</th>
<th>Track</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timothy Malloy (School of Law) Patrick Allard (F-SPH-Environmental Health Sciences)</td>
<td>Predicting Environment Impacts: Integration of Emerging Science into Public and Private Decision-Making</td>
<td>Open TSG</td>
</tr>
<tr>
<td>Timothy Malloy (School of Law) Yoram Cohen (HSSEAS-Chemical &amp; Biomolecular Engineering) Hilary Godwin (F-SPH-Environmental Health Sciences)</td>
<td>Law, Science and Decisions: Design and Evaluation of Regulatory Alternatives Analysis Methods</td>
<td>Open TSG</td>
</tr>
<tr>
<td>Rashmita Mistry (GSE&amp;IS-Education) Bernard Weiner (Life Sciences Division-Psychology) Frederick Zimmerman (F-SPH Health Policy &amp; Management)</td>
<td>Social Justice in the Classroom: Teaching Young Children about Inequality and Poverty</td>
<td>Inequality</td>
</tr>
<tr>
<td>Ellen Pearlstein (GSE&amp;IS-Information Studies) Joseph Loo (DGSOM-Biological Chemistry) Rachel Loo (DGSOM-Biological Chemistry) Joy Mazurek (Getty Conservation Institute) Michael Nshanian (Physical Sciences Division-Chemistry &amp; Biochemistry)</td>
<td>Identification and measurement of photochemically induced amino acid changes in bird feathers as early markers of light induced degradation (Renewal)</td>
<td>Open TSG</td>
</tr>
<tr>
<td>Olga Yokoyama (Humanities Division-Applied Linguistics) Eran Zaidel (Life Sciences Division-Psychology)</td>
<td>Hemispheric contributions to syntactic and pragmatic control of shifts in point of view</td>
<td>Open TSG</td>
</tr>
</tbody>
</table>

**Outcomes**

We have collected final reports from the recipients of prior funding cycles. It is evident from reviewing these reports that the mechanism has not only stimulated new conversations and collaborations but has also catalyzed publications, applications to external funding mechanisms and in some cases new funding from external mechanisms.
Next Steps
Given the OVCR investment in the new RIDE funding mechanism [see Section VII-C for more information] and UCLA Grand Challenges [see Section V for more information], we do not anticipate announcing a new TSG cycle in FY15.

E. Shared Resources Consortium

Overview
There are approximately 135 shared resources (SRs) at UCLA that support research-related activities. These SRs operate independently, and their financial responsibility is “owned” or “co-owned” by the administering unit (school, department, division, or organized research unit). UCLA SRs reside in the School of Medicine, the School of Engineering, and the College. To review a subset of the SRs, please refer to the CTSI webpage at: http://www.ctsi.ucla.edu/research/pages/ucla_westwood.

The Shared Resources Consortium (SRC) was created following the 2010 analysis of UCLA shared resources. This study made a number of observations including the absence of a campus-wide system to track research-related shared resources, the operation of some SRs with significant deficits, the lack of standardization, opportunities for improvement, and the need for a mechanism to provide capital input for new goods, services, and equipment. The SRC represents a funding source for shared resources. Funding is provided by the OVCR and additional academic partners. As described in the following sections, these funds are administered by a SRC steering committee that issues an annual Request for Applications (RFA), reviews the proposals, and administers the funding.

Key Personnel
The SRC is chaired by Kenneth Dorshkind (DGSOM) and co-chaired by Bruce Dunn (HSSEAS) and Robert DuWors (OVCR). Additional members of the steering committee include Diana Huffaker (HSSEAS), Harley Kornblum (DGSOM), Tom Mason (College of Letters and Science), Stephen Smale (DGSOM), and Anna Wu (DGSOM). Drs. Kornblum and Smale became members of the steering committee in 2013 and 2014, respectively. The remaining members were appointed in 2012 when the SRC was established.

FY14 Funding Cycle
Sources of Funding (FY14)
SRC funding for FY14 was obtained from the OVCR, DGSOM, the CTSI, UCLA Jonsson Comprehensive Cancer Center, the Broad Stem Cell Research Center (BSCRC), and the Division of Physical Sciences in the College of Letters and Sciences. The combined amounts, along with a carry-over of funds from the previous year, totaled $1,133,623.
Application and SRC Review Process

The SRC issued a request for applications (RFA) April 1, 2014 with submissions due on May 15, 2014. The SRC considered requests for the purchase of new instrumentation between $25,000 and $200,000. Applications were submitted electronically through an established SRC website (https://ccle.ucla.edu/course/view/SRC?section=4). The short application requested a description of how SRC funds would be used, how this instrumentation would enhance research at UCLA, and a summary of the business operations supporting the shared resource. In addition, established shared resources were required to document that the services they provided supported the publication of high impact papers and had been instrumental in the receipt of grants awarded to the campus.

Twenty-eight applications were received in response to the RFA, and these proposals underwent a three-step review process. [See adjacent flowchart.] First, an administrative review was conducted by K. Dorshkind, B. Dunn, and R. DuWors to ensure that the application met administrative and eligibility criteria. Of the 28 applications received, 21 passed the administrative review.

The remaining 21 applications were assigned to at least three members of the steering committee. Note that in past years, applications were sent to multiple UCLA faculty members who served as external reviewers. However, this proved to be an inefficient and time consuming process. In order to increase efficiency, we increased the size of the steering committee so that sufficient expertise was in place to review the vast majority of applications. As a result, the 2014 steering committee functioned like an NIH study section. In addition, we solicited reviews from UCLA faculty members when additional expertise was needed.

Each reviewer numerically scored the assigned applications using the NIH system of 1-9. A score of 1 designates a highly meritorious application. The numerical scores were averaged and the applications were rank ordered. The SRC steering committee then discussed each application at its meeting held on June 30, 2014. Following input from the reviewers and other steering committee members, the application was assigned a final priority score using the 1-9 scale.

Funding Decisions & Distribution of Funding

The SRC received 28 applications requesting $3,124,375 in funding. A total of $1,098,886 was allocated to the following 11 applicants from DGSOM, HSSEAS, Life Sciences Division and Physical Sciences Division:
### FY14 SRC Funded Projects

<table>
<thead>
<tr>
<th>Applicant</th>
<th>Shared Resource</th>
<th>Request</th>
<th>Funding Provided ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freimer, Nelson</td>
<td>Neuroscience Genomics Core</td>
<td>Robotic liquid handling platforms</td>
<td>108,000</td>
</tr>
<tr>
<td>Gimzewski, James</td>
<td>Nano and Pico Characterization Lab</td>
<td>Dimension FastScan AFM microscope</td>
<td>175,000</td>
</tr>
<tr>
<td>Jacobsen, Steve</td>
<td>BSCRC Sequencing Core</td>
<td>Agilent Bioanalyzer</td>
<td>30,000</td>
</tr>
<tr>
<td>Jamieson, Beth</td>
<td>JCCC Flow Cytometry Core</td>
<td>Computer upgrades</td>
<td>40,000</td>
</tr>
<tr>
<td>Kakoulli, Ioanna</td>
<td>Molecular and Nano Archaeology Lab</td>
<td>Raman Spectrometer upgrades</td>
<td>150,000</td>
</tr>
<tr>
<td>Pajonk, Frank</td>
<td>Experimental Radiation Therapy Service</td>
<td>Small animal radiation platform</td>
<td>175,000</td>
</tr>
<tr>
<td>Pridhodko, Sergey</td>
<td>Molecular and Nano Archaeology Lab</td>
<td>Thermal/electrical stage for in situ SEM</td>
<td>76,106</td>
</tr>
<tr>
<td>Reed, Elaine</td>
<td>Immune Assessment Core</td>
<td>xCelligence system to monitor cellular events</td>
<td>50,000</td>
</tr>
<tr>
<td>Rosenzwieg, James</td>
<td>P&amp;A Mechanical Shop</td>
<td>High precision wire EDM system</td>
<td>175,000</td>
</tr>
<tr>
<td>Weiss, Shimon</td>
<td>Advanced Light Microscopy/Spec Center</td>
<td>High speed confocal microscope upgrade</td>
<td>51,500</td>
</tr>
<tr>
<td>Zhou, Hong</td>
<td>Electron Imaging Center for Nanomachines</td>
<td>Upgrade for Zeiss Scanning Electron Microscope</td>
<td>68,280</td>
</tr>
</tbody>
</table>

Total Awarded: $1,098,866

### F. Research Informatics Strategic Planning (RISP)

**Overview**

In 2011, a strategic planning process was initiated by the Office of Information Technology (OIT) and the Office of the Vice Chancellor for Research (OVCR), in recognition of the need to specifically identify current and future research directions and to anticipate the types of data that people will be using, and how it is collected, processed, accessed, analyzed, leveraged and shared. The term “research informatics” may be used in different contexts. We use the term to mean the application of information science, information processing, and the engineering of information systems to support and enable research activities, such as data collection, processing, analyses and sharing.

The goals of this Research Informatics Strategic Planning (RISP) project are as follows:

- Develop a 10-year vision for UCLA and the strategic principles that will guide planning for investment in infrastructure supporting informatics.
- Develop a 5-year detailed roadmap that defines priorities and critical paths.
- Scope effort and develop a cost estimate for the 5-year initiative.
- Develop a 1-year project and implementation plan.
Define the governance process for research informatics on campus.

**Key Personnel**
RISP has been co-led by Arash Naeim, M.D., Ph.D., faculty in the Department of Medicine Division of Hematology/Oncology (representing the Office of the Vice Chancellor for Research), Jim Davis, Ph.D., Vice Provost for Information Technology & Professor of Chemical & Biochemical Engineering (representing the Office of Information Technology), and Warren Mori, Ph.D., Director of Institute for Digital Research and Education (IDRE).

**Activities**
To ensure the development of a tangible action-oriented plan, the planning process was divided into three phases. In FY14 we were in Phase 3, but for context, a description of the previous phases is described below.

**Phase One**
The goal of Phase One was to define research informatics needs, barriers, and obstacles that currently exist for faculty. It was structured around five discipline-oriented committees involving over 70 faculty and staff. Through their deliberations the committees identified a series of foundation level informatics services and support needs for researchers, such as expertise in data design and collection, analysis and interpretation, manipulation, reporting and presentation, and statistical modeling. The needs were divided into four categories, based upon the immediacy in which they could be addressed. Implementation of many of these needs and services began in November 2012, and include a newly developed Research Resource Portal that is being coordinated with the already existing campus Knowledge Base and FacTech (Faculty Technology Awareness) programs.

During this first phase, the RISP process was brought to the attention of the entire campus through the Research Informatics Visioning Contest, through which all students, researchers, and staff were invited to share their most innovative ideas for using data to achieve new capabilities in research, and for collecting, processing, analyzing, sharing, and leveraging research data within the campus community and beyond.

**Phase Two**
The goal of Phase Two was to identify a vision of themes that not only set the context for first actions but also, if pursued, would enable UCLA to differentiate itself as a leader in research informatics in the next 5-10 years. It involved individual discussions about the future and vision with over 60 additional faculty members, through the course of one-on-one interviews and small group meetings with IDRE, the IDRE Board, the Humanities, Arts, Social and Information Sciences Research Group (HASIS), the Clinical Translation Science Institute (CTSI) Board, and additional faculty in the Social Sciences Division. In addition, an external advisory board with expertise in research informatics, big data, and other related fields, was organized in order to review the draft plan. [See https://vcr.ucla.edu/ovcr-initiatives/risp for the published draft plan.]
Phase Three (FY14 Activity)

Solicit Campus Feedback: The Draft RISP document was circulated for open campus comment. Numerous responses were received that both affirmed the themes and recommendations of the RISP, but also suggested additional areas worthy of focus and attention. The summary of this open campus feedback, in addition to individual recommendations from faculty involved in the first and second phases of RISP process, will be presented to a newly formed RISP Board.

Create RISP Board: Preliminary nominations for the board were solicited. The charge to the RISP Board as reviewed and approved by the Provost is as follows:

- Resolve the findings in the RISP into an actionable set of priorities, recommendations and actions for the entire campus and ensure that the stakeholders in informatics work together.
- Provide recommendations on mechanisms for the spectrum of entities on campus to interface effectively.
- Identify informatics areas that are transformative and can capture the imagination of private and public donors and corporate partners.
- Identify, investigate, and propose campus policies and practice that are currently unaddressed through existing campus structures, for example data sharing plans, practices around meta data, etc.
- Validate, plan and support the implementation of the immediate direction-setting actions.
- Establish and hand off a review process in which the status and impact of informatics actions are measured against an annually reviewed strategic direction plan.

Future Plans

The RISP Board will meet in FY15 to commence its efforts to complete the following:

- Develop actionable recommendations with time frames.
- Align existing capabilities, resources and collaborations.
- Define areas where the plan requires campus resources and make investment recommendations through the ITPB (Information Technology Planning Board), CITI (Committee on IT Infrastructure) and the Dean's Council.
- Target potential opportunities for development, industry partnerships, and alignment with UCLA Grand Challenges.

G. Clinical and Translational Science Institute (CTSI)

Overview

The Clinical and Translational Science Institute (CTSI) is a partnership of UCLA, the Burns and Allen Research Institute at Cedars-Sinai Medical Center, Charles Drew University of Medicine and Science, and Los Angeles Biomedical Institute at Harbor-UCLA Medical Center. The CTSI
belongs to a prestigious, NIH-supported network of 62 institutes focused on translating academic discoveries into tools, therapies, and interventions that improve health. CTSI received a five-year Clinical and Translational Science Award (CTSA) in June 2011. This Institute is included in the OVCR Annual Report due to the close collaboration between the OVCR and CTSI, and in recognition of the fundamental role that the Institute plays in supporting campus research.

Key Personnel

Dr. Steven Dubinett, Associate Vice Chancellor for Translational Science, is the CTSI Executive Director. He is assisted by the following four Senior Leaders, all of whom are DGSOM assistant deans for translational science: Dr. John Adams, Vice Chair for Research, Department of Orthopaedic Medicine, DGSOM; Dr. Leslie Raffel, Associate Director, Common Diseases Genetics Program, Cedars-Sinai Medical Center; Dr. Christina Wang, Professor of Medicine, Los Angeles Biomedical Institute at Harbor-UCLA Medical Center; and Dr. Mayer Davidson, Charles Drew University of Medicine and Science.

Dr. Eugene Washington, Vice Chancellor for Health Sciences and Dean of DGSOM, and Dr. James S. Economou, Vice Chancellor for Research, co-chair the Institutional Steering Committee. Other committee members are Dr. David Carlisle, President and Chief Executive of Charles Drew University for Medicine and Science; Dr. Shlomo Melmed, Cedars-Sinai Medical Center Senior Vice President for Academic Affairs and Dean of the Medical Faculty; and Dr. David Meyer, President and Chief Executive of Los Angeles Biomedical Institute at Harbor-UCLA Medical Center.

Organization of CTSI

The CTSI is organized into nine program areas, which together provide the cross-institutional infrastructure and support for translational research. The nine areas are described below:

The Pilot and Collaborative Translational and Clinical Studies Program (Pilot Program)

The Pilot Program provides seed funding for collaborative research, team-building activities, and development of novel technologies. The program administers the following competitive mechanisms:

- **Catalyst Grants**: ($1,000 to $5,000) to support team-building activities, including seminars, symposia, meetings related to development of courses, proposals or partnerships, and interdisciplinary projects (other than pilot projects)
- **Team Science Awards**: ($25,000 to $100,000) to enable multidisciplinary teams to develop preliminary data for extramural funding

The Clinical and Translational Science Research Centers (CTRCs)

CTRCs located at Cedars-Sinai Medical Center, Charles Drew University of Science and Medicine, Los Angeles Biomedical Institute at Harbor-UCLA Medical Center and UCLA-Westwood support and supervise human studies and clinical trials. The CTRCs provide competitive seed grants and training in conduct of translational clinical research. Other resources and services available at
the CTRCs include bio-nutrition services, clinical research management, laboratory services, clinical education, and training opportunities.

The Research Education and Training, and Career Development Program (CTSI-ED)

CTSI-ED houses most of the CTSI education and training activities. The program ensures CTSI trainees acquire the core competencies needed to conduct multidisciplinary research and to integrate community priorities and input into research across the T1 to T4 spectrum.

- KL2 Translational Scholar Awards
- TL1 Translational Science Summer Fellowships for Health Professional Students
- TL1 Translational Science Fellowships for Pre-doctoral Students
- Training Program in Translational Science (TPTS)
- Grant Writing Workshops

The Community Engagement in Research Program (CERP)

CERP facilitates research collaborations between academics, clinicians, public health officials, patient groups, and community-based organizations to improve health and health care in Los Angeles. Services include assistance with dissemination of research results, advice on study design and implementation, community-investigator connection, grant preparation, and training.

The Center for Translational Technologies (CTT)

CTT links scientific teams with core technologies. The program provides access to cores through an RFA mechanism, supervises the use of existing cores, and supports the development of new technologies. Services include access to cores through an application process that provides vouchers worth up to $10,000 each, consulting services to help investigators select and use cores, and core workshops to facilitate multidisciplinary collaborations and increase knowledge about existing core resources.

The Regulatory Knowledge and Support and Ethics Program (Regulatory)

Regulatory ensures that CTSI-related research is in full regulatory compliance and meets the highest quality assurance standards. The program offers ethics counseling and research. Services include reliance-review IRB, regulatory compliance, data-safety monitoring, post-approval regulatory oversight, research subject advocacy, quality assurance, regulatory requirements, and research ethics and education.

The Biostatistics Program

The Biostatistics Program provides integrated services and biostatistical support. Services include contemporary data analysis methodology consultation, implementation, and epidemiology expertise; the best available clinical data management software; study design, and grant preparation assistance; bioinformatics/computational biology data analysis; and educational programs.
The Biomedical Informatics Program (BIP)
BIP provides databases, tools, resources and infrastructure for the acquisition, storage and analysis of data. It was instrumental in the development of two cohort-finding tools: the University of California Research eXchange (UC ReX), which contains de-identified data from more than 12 million patients from UC medical center databases; and the Los Angeles Data Resource (LADR), which contains de-identified patient data from medical centers and clinics affiliated with the CTSI. BIP consults and provides assistance with consulting and assistance with complex databases, clinical data access, email-prompted online surveys, terminology systems, online systems to support research, and informatics tools.

The Evaluation Program
The Evaluation Program helps CTSI leaders set goals, measure outcomes, improve decision-making, and identify opportunities for improvement. Services include database searches for grant and pilot funding, leadership and organizational development, implementation, and analysis and reporting.

Activities
Highlights from FY14 include the following:

- CTSI enhanced its career development efforts by expanding the CTSI KL2 Awards program to include 23 junior faculty scholars and sponsoring grant-writing workshops to prepare junior faculty to seek NIH K Awards.
- Through a new “discovery-to-products” initiative, CTSI provides consultations on business development of therapeutics, devices and diagnostics. CTSI has assisted faculty with patent filings, industry-sponsored research contracts, and negotiations for venture investment in UCLA technology.
- The CTSI Child Health Initiative provided career development awards to junior faculty and pilot awards to investigators new to the child health field to further research in this important area.
- CTSI supported the UC Center for Accelerated Innovation, an NHLBI-funded center to speed the translation of UC discoveries to commercial products. CTSAs at the UC medical campuses at Davis, Irvine, Los Angeles, San Diego and San Francisco are participating.
- CTSI and Los Angeles County Department of Health Services are piloting improvements in health care delivery that don’t increase costs.
- CTSI partnered with the Los Angeles Department of Public Health to launch a “Healthy Aging” initiative, which will fund pilot projects and develop a scorecard to assess healthful aging.
- Completed a redesign of the CTSI website to create a user friendly catalog of research resources available to biomedical investigators, to better serve the research community. www.ctsi.ucla.edu
A CTSI Dissemination and Implementation (D&I) Research Initiative provided investigators with education and training, as well as technical assistance, to build capacity for D&I research at UCLA and within Los Angeles.

Noteworthy Statistics
- Awarded 280 pilot grants for a total of $10.5 million ($5 M in CTSI funds; $5.5 M institutional funds). Pilot awards have generated $46 million in subsequent grant funding.
- Provided biostatistical consultations to more than 1,000 investigators working on 1,700 projects.
- Awarded nearly $3 million for 290 vouchers to use core resources at CTSI institutions. Voucher awards have generated $5.6 million in subsequent grant funding.
- Outpatient visits to the CTRCs exceeded 9,000, driven in part by new infrastructure to support novel community-based and outpatient studies. More than 650 publications.
- Recruited 22 translational science faculty to UCLA.
- Provided grant submission facilitation to more than 40 separate PCORI, NIH and DoD grant application proposals, 17 of which were awarded. CTSI administrative, editing and graphic design support has helped generate more than $60 million in new funding since 2012.
- Sponsored the CTSI Seminar Series, featuring weekly lectures from thought leaders and innovators in science and medicine.

H. Other Research Enhancement Activities

Overview
The staff members based within the groups formerly referred to as “VCR Administration” and the “Strategic Research Initiatives” group have combined into one office, now referred to as the Research Enhancement Office. In addition to supporting many of the other research development activities (including UCLA Grand Challenges) this group provides the following tactical and strategic services:

- Broadcast service promoting general funding opportunities & targeted matching service for selected funding opportunities
- Management of internal selection process for limited submission opportunities
- Research development-related workshops
- Selective proposal development and new collaboration support

Key Personnel
The full-time members of the Research Enhancement Office include:
The full-time members of the office receive incredible support from a team of student workers. Listed below are the students who worked with the Office during FY14 and the new members who joined the office in summer 2014.

**New & Continuing* Student Workers:**
- Samantha Cardoso
- Michael Elliott*
- Guy Lau
- Lindsey Muzzio
- Trisha Nguyen
- Zhihao (“Hao”) Wang
- Justus Winn-Howard*
- Sarah Wyman

**Former Student Workers:**
- Andrea Cabrera
- Paul Cleland
- Roxana Moya
- Kim Nguyen
- Zachary Robinson

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**Funding Opportunity Broadcast Services & Targeted Matching**

In recognition of the fact that one of the ways to enhance and diversify UCLA research is to make sure that faculty members are aware of the broad range of available funding opportunities, Jill Sweitzer, MFA commenced a newsletter service in 2011. The OVCR learns about funding opportunities through our subscriptions to two funding opportunity notification services, which are also open for access by the UCLA community. While few people take advantage of the external subscription services, quite a few members of the UCLA community avail themselves of the discipline-specific subscription newsletter services offered by the office. There are 11 newsletters distributed on a monthly basis. We have more than 4100 subscribers. [*See graph above for the list of newsletters and the number of current subscribers for each one.*]
The success of the newsletter service is due to our collaborations with DGSOM, the CTSI and the Office of Diversity and Faculty Development as well as our incredible student workers. During FY14, this service was provided by Andrea, Paul, Zach and Justus. During FY15, Justus is overseeing the service and it is being provided by Guy, Lindsey and Hao.

The newsletters are published on a particular schedule so when the students finish creating their newsletters, they turn to matching opportunities with faculty members. In FY14, this service was primarily performed by Kim but in FY15, Guy, Lindsey, Hao and Sarah seek to match opportunities with faculty members’ research interests. In FY14 there were nearly 3,200 targeted opportunities sent out.

In addition to the general funding opportunity newsletters, the Office also publishes a subscription-based Limited Submission Opportunity newsletter, which is designed for deans and their designees, but it is open to subscription by the general campus community.

**Limited Submission Opportunity & Award Program**

A second way in which the Research Enhancement Office promotes applications for funding is through the Limited Submission Opportunity (LSO) & Award program. This program is overseen by Mr. Shady Hakim, MA. LSOs are opportunities when the funding organization limits the number of applications that may be submitted by UCLA. Since 2011, the OVCR has continued to refine its approach to LSOs to enhance communication, improve transparency and ensure that it obtains relevant information for the Deans making consensus decisions for each of the competed LSOs.

LSOs represent an important opportunity for UCLA. Since the number of applications submitted by a university to the funding agency is limited, the applicant pool should be smaller and hence our chances greater. The LSO internal review process is designed to identify the most competitive applications for each opportunity. Materials are gathered from internal applicants and then reviewed by Deans who have applicants under review. The Deans then come to a consensus about which applicants are most competitive for the particular opportunity.

The OVCR makes a concerted effort to announce all the LSOs, and it appears that more funding agencies are relying on this mechanism of a campus internal selection process to reduce the number of applications being submitted to any given funding opportunity. During FY14, there were 126 LSOs announced. [See graph above for the distribution of LSO opportunity announcements by month.]
The LSO process is successful due to the commitment of Deans to participate in this important process. During the past year, significant assistance was provided by student workers Michael and Kim.

In addition to LSOs, the OVCR also disseminates high-profile award and prize opportunities, and coordinates nominations of faculty on behalf of the university and Chancellor Block. These opportunities are sent on a regular basis to Deans and Vice-Provosts. In FY14, 24 award and prize opportunities were sent to the deans and our office coordinated more than ten faculty nominations.

In the coming year we anticipate implementing a new web-based program for managing the selection process for LSOs and other campus funding opportunities. We are optimistic that this will improve our communication and efficiency.

Research Development-Related Workshops

The OVCR is committed to investing in the foundation of the UCLA research enterprise. In FY14, the office initiated the Research Enhancement Workshop series. As with the newsletters, this service was conceived and organized by Jill Sweitzer with assistance during FY14 from Julie Skrupa. The purpose of these events and trainings was as follows:

- Strengthen proposals and enhance grant-making skills
- Facilitate access to funding for research and other scholarly activities
- Promote easier access to campus resources
- Encourage team scholarship
- Foster creativity and inspire big ideas

In its inaugural year, the series consisted of 19 events with 1,259 registrations. All events were free for participants and open to the entire campus. Below is a list of the events:

<table>
<thead>
<tr>
<th>Research Enhancement Series Offerings in FY14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
</tr>
<tr>
<td>Webinar for New Faculty: Funding Your Research - How to Get Started</td>
</tr>
<tr>
<td>Competing for Funding from the National Science Foundation</td>
</tr>
</tbody>
</table>

4 This series was initially referred to as the “Research Escalator Series.”
<table>
<thead>
<tr>
<th>Title</th>
<th>Format</th>
<th>Date</th>
<th>Registrant Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Corporate and Foundation Opportunities</td>
<td>Workshop</td>
<td>10/16/2013</td>
<td>50</td>
</tr>
<tr>
<td>How to Write Successful Grants for Instrumentation</td>
<td>Webinar</td>
<td>10/29/2013</td>
<td>45</td>
</tr>
<tr>
<td>Competing for Funding from the NIH</td>
<td>Webinar</td>
<td>11/5/2013</td>
<td>90</td>
</tr>
<tr>
<td>Pursuing Funding in the Humanities and Humanities-Related Social Sciences</td>
<td>Webinar</td>
<td>11/12/2013</td>
<td>32</td>
</tr>
<tr>
<td>Finding Funding Opportunities - South Campus Disciplines</td>
<td>Workshop</td>
<td>11/19/2013</td>
<td>44</td>
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<tr>
<td>UCLA Grand Challenges Information Session</td>
<td>Workshop</td>
<td>11/20/2013</td>
<td>82</td>
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<tr>
<td>Finding Funding Opportunities - North Campus Disciplines</td>
<td>Workshop</td>
<td>12/3/2013</td>
<td>41</td>
</tr>
<tr>
<td>White Papers and Concept Papers for DOE, DoD and Others</td>
<td>Webinar</td>
<td>1/7/2014</td>
<td>63</td>
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<tr>
<td>How to Write Successful Proposals for NSF CAREER, DoD Young Investigator</td>
<td>Webinar</td>
<td>1/21/2014</td>
<td>95</td>
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<tr>
<td>Strategies for Planning, Developing, and Writing Large Team Grants</td>
<td>Webinar</td>
<td>2/18/2014</td>
<td>68</td>
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<tr>
<td>How to Find and Compete for Graduate Fellowships (for grad students)</td>
<td>Webinar</td>
<td>2/25/2014</td>
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<tr>
<td>Introduction to UCLA Federal Relations - Conveying University Priorities to Federal Policymakers (POSTPONED)</td>
<td>Workshop</td>
<td>3/18/2014</td>
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<tr>
<td>Mentoring Graduate Students in Finding and Competing for Fellowships</td>
<td>Webinar</td>
<td>3/25/2014</td>
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<tr>
<td>Working with UCLA Corporate and Foundation Relations – Health Science Focus</td>
<td>Workshop</td>
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<td>How to Write Proposals to the Department of Education and Other Education Funders</td>
<td>Webinar</td>
<td>4/8/2014</td>
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<td>Developing Outreach and Broader Impacts Components for NSF Proposals</td>
<td>Webinar</td>
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<td>Introduction to Crowdfunding with UCLA Spark</td>
<td>Workshop</td>
<td>5/16/2014</td>
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<tr>
<td>Pump Up Your Podium Power</td>
<td>Workshop</td>
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<td><strong>Total Registrants</strong></td>
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</tbody>
</table>

Presenters for the Workshops were all representatives from UCLA campus organizations. Webinars were provided by an external consultant: Lucy Deckard of Academic Research Funding Strategies, [http://academicresearchgrants.com/](http://academicresearchgrants.com/). All Webinars were recorded, and the recording and presentation materials from past events posted on this CCLE site: [https://ccle.ucla.edu/course/view/UGC?section=3](https://ccle.ucla.edu/course/view/UGC?section=3). Materials are accessible for up to one year after the event and are available to individuals with a UCLA logon ID.
The series was promoted via a Bruin Post from VCR Economou, through the Funding Opportunity Newsletters and on the OVCR webpage dedicated to the series: https://vcr.ucla.edu/ovcr-initiatives/escalator. The UCLA Library, DGSOM, CTSI, Graduate Division, and other campus units also co-promote the events.

The series was well-received in its inaugural year, and based on the level of participation and the feedback received from participants, was a worthwhile undertaking. The series will continue in future years, but with fewer events so that it may be more easily managed while still providing essential skills development related to grant making.

VIII. ENTREPRENEURSHIP, TECHNOLOGY TRANSFER, & INDUSTRY SPONSORED RESEARCH

A. Introduction to Entrepreneurship, Technology Transfer, and Industry

UCLA enjoyed decades of financial support through federal and state tax revenues as part of its two-fold social contract: first, providing broadly available and affordable higher education to students and second, to create new knowledge and discoveries to be delivered to society. The investment allocated from federal and state tax revenues is insufficient to fully support leading research universities. Preeminent research universities that wish to remain preeminent need to understand, adapt, and function effectively—indeed thrive—in multiple highly competitive arenas in ever changing global academic and commercial ecosystems.

This is especially critical in our current economic climate. Significant reductions in endowment, erosion of federal grant support and reduced state funding for public universities have placed significant pressures on faculty, staff and especially our students.

One way in which we challenge ourselves to excel is through innovation. It makes no sense for research universities to make discoveries, invent new technologies and create innovation unless there is an efficient way to deliver these to society. This requires a pathway of entrepreneurship. It is important to recognize that entrepreneurship is not synonymous with business, nor commercialization or finance. A 19th century French economist (J.B. Say) defined an entrepreneur as one who “shifts resources out of an area of lower into an area of higher productivity.” Entrepreneurship is a way of thinking that involves change, risk, uncertainty, competition and ambiguity, all with the goal of translating a good idea into reality.

UCLA strives to support a culture of innovation and entrepreneurship. There are interrelated activities discussed in the following pages focused on the UCLA Entrepreneurial Ecosystem and the Office of Intellectual Property and Industry Sponsored Research (OIP-ISR).

B. UCLA Entrepreneurial Ecosystem

Overview

Nearly four years ago, the Office of the Vice Chancellor for Research took on the task of evaluating UCLA’s approach to entrepreneurship. This examination included a review of our current successes, an analysis of approaches taken by peer institutions, and recommendations for enhancement. This evaluation produced two pivotal reports authored by Professor Bill...
Ouchi of the Anderson School: *An Ecosystem for Entrepreneurship Part I* and *An Ecosystem for Entrepreneurship Part II: Transition to a New Technology Transfer Process*. (All reports are available on the OVCR website at: [https://vcr.ucla.edu/ovcr-initiatives/Entrepreneurship](https://vcr.ucla.edu/ovcr-initiatives/Entrepreneurship))

These two reports catalyzed a new entrepreneurial culture at UCLA; they provided a strategic framework to advance university-based innovation and introduced progressive views of the roles and responsibilities of academic institutions to encourage and foster an entrepreneurial environment.

The third and final installment, *UCLA Ecosystem for Entrepreneurs, Part III: A strategic Blueprint for Entrepreneurship at UCLA*, was released on March 5th, 2014. The report synthesized the perspectives from over 100 faculty interviews conducted over the last four years about what entrepreneurship means to them, and the desirable effects of continued expansion of this entrepreneurial culture. There was not always clear agreement, and this report reflects the diversity of those opinions. It is the hope and expectation that this final report will not end this dialogue, but will, instead, encourage continued discussion.

**A New Governance Structure for the 21st Century**

The result of the three reports was a proposal for a new governance structure—a separate 501(c)(3) nonprofit organization to provide guidance and initiate greater opportunities for entrepreneurship across the UCLA campus. This proposed framework garnered enthusiastic support and was brought before the UC Regents for consideration.

In May 2013, the UC Regents unanimously approved the adoption of the proposed new entity. This nonprofit organization is to be led by a Board of Directors comprised of individuals possessing extensive experience in bridging the worlds of academia and business; these individuals are equipped to make the most informed decisions about the best way to manage the wealth of creative scholarship being produced at UCLA.

The first step following Regental approval was to empanel a Nominating Committee to solicit and review nominations for the Board of Directors for the new entity (temporary title: Westwood Technology Transfer or WTT). The Chancellor appointed the following individuals to serve on this important Nominating Committee:

**WTT Nominating Committee**

<table>
<thead>
<tr>
<th>Tom Carmichael</th>
<th>Luisa Iruela-Arispe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Judith Gasson</td>
<td>Richard Kaner</td>
</tr>
<tr>
<td>Frank Gilliam</td>
<td>Sherie Morrison (Chair)</td>
</tr>
<tr>
<td>Josh Green</td>
<td>Kevin Reed</td>
</tr>
<tr>
<td>Linda Griego</td>
<td>Ralph Shapiro</td>
</tr>
</tbody>
</table>
The members of the WTT Board of Directors were publicly announced in Fall 2014 and include the following individuals:

**WTT Board of Directors**

- Norman Abrams
- Michael Cleare
- Shannon Hansen
- Paul Hudson
- Betsy Wood Knapp
- John Mazziotta
- William Mitchell
- Judy Olian
- William Ouchi
- Tom Unterman
- Stephen Yslas

These individuals are free from disqualifying financial interests and are serving without compensation. Importantly, they are being held to the same conflict of interest standards as
the Chancellor, the Regents and the President of the University of California. The Board will have the ultimate authority for decisions made OIP-ISR.

In recognition that the public and campus might be concerned about the operations of the WTT Board and OIP-ISR, a new committee was created: the Chancellor’s Oversight Committee. The Chancellor’s Oversight Committee will annually report to the Chancellor. There are 18 members of this committee, with six types of members:

- Direct Appointees of the Academic Senate
- Additional Senate Faculty
- Deans
- Administration
- Private sector Friends of UCLA
- Students

The Chancellor’s Oversight Committee members are as follows:

**Chancellor’s Oversight Committee**

<table>
<thead>
<tr>
<th>Committee Member</th>
<th>Type of Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sherie Morrison</td>
<td>Senate Appointee</td>
</tr>
<tr>
<td>Richard (Ric) Kaner</td>
<td>Senate Appointee</td>
</tr>
<tr>
<td>Ali Behadad</td>
<td>Faculty</td>
</tr>
<tr>
<td>Evelyn Blumenberg</td>
<td>Faculty</td>
</tr>
<tr>
<td>Thomas Carmichael</td>
<td>Faculty</td>
</tr>
<tr>
<td>Carla Hayn</td>
<td>Faculty</td>
</tr>
<tr>
<td>Barbara Herman</td>
<td>Faculty</td>
</tr>
<tr>
<td>Ann Karagozian</td>
<td>Faculty</td>
</tr>
<tr>
<td>Alessandro Duranti</td>
<td>Dean</td>
</tr>
<tr>
<td>Joseph Rudnick</td>
<td>Dean</td>
</tr>
<tr>
<td>Eugene Washington</td>
<td>Dean</td>
</tr>
<tr>
<td>Steve Olsen</td>
<td>Administration</td>
</tr>
<tr>
<td>Kevin Reed</td>
<td>Administration</td>
</tr>
<tr>
<td>Julia Gouw</td>
<td>Friend of UCLA</td>
</tr>
<tr>
<td>Josh Green</td>
<td>Friend of UCLA</td>
</tr>
<tr>
<td>Charles Holloway</td>
<td>Friend of UCLA</td>
</tr>
<tr>
<td>Samuel Wang</td>
<td>Undergraduate Student</td>
</tr>
<tr>
<td>Brian Bender</td>
<td>Graduate Student</td>
</tr>
</tbody>
</table>

**Key Personnel**

The Entrepreneurship Ecosystem necessarily includes people and units from across the campus. As described in the New Governance Structure section above, during FY14, the WTT
Nominating Committee played an important role, and in FY15 the WTT Board of Directors and Chancellor’s Oversight Committee assume their responsibilities.

From the OVCR, the key personnel who were involved in FY14 include Bill Ouchi, Ornah Medovoi and the staff of OIP-ISR, with Lillian Smith from OIP-ISR assuming the critical role of liaison and problem-solver during the implementation of the new OIP-ISR governance structure.

The ecosystem is so robust that an Entrepreneurship Council was created as a resource for enhancing communication and coordination amongst campus stakeholders involved in the UCLA entrepreneurial ecosystem. The council now includes over 15 different campus groups (including OIP-ISR) and meets on a monthly basis. One of the initiatives of this Council is the relaunch of BRUINcubate.com, a pilot project from OIP-ISR. It is a web-based portal listing all entrepreneurial groups, resources, and events on campus, as well as additional resources off-campus to help the UCLA entrepreneurial community get the information they need to start a business or connect with talent.

**Activities**

In FY14, the following actions and activities were performed in support of the Entrepreneurial Ecosystem initiative:

**Business Advisory Boards**

One of the strategies for enhancing our impact is to better target and translate our discoveries for the benefit of society. Business Advisory Boards help with this priority. There are several existing Business Advisory Boards, among them a new Accelerator Business Advisory Board was established in the medical school. The board is led by Bill Ouchi, Randy Wall, Larry Souza, Judy Gasson and John Mazziotta, and it will focus on identifying and researching platform technologies to commercialize.

**OIP-ISR Startups and New Ventures Team**

As part of the campus-wide emphasis on entrepreneurship, OIP-ISR established a business development team to help foster the success of UCLA licensees. Led by Thomas Lipkin, Assistant Director, Entrepreneurship & New Ventures, Sarah Honig (before she left to enroll in business school) and Shaina Oake, Entrepreneurship Associate, the New Ventures team was established specifically to serve the needs of UCLA startup companies. In order to promote startup creation, funding and success in the market, the UCLA New Ventures Team organized a number of events and launched several initiatives over the last year, including the following:

- **Startup in a Box (SIAB):** The SIAB program was created to equip UCLA entrepreneurs with the tools they need to found and grow prosperous companies. Modeled after QB3’s program (a collaboration between UCB, UCSF, and UCSC), current offerings include pre-negotiated packages with local law firms and banks, with further partnerships to be added over time.

- **Entrepreneurs-in-Residence (EIR) Program:** The EIR program aims to connect UCLA technologies with industry executives, serial entrepreneurs, and the large investor community. EIRs lend their own industry and startup experience to help guide and
bolster entrepreneurial efforts across campus. There are currently six EIRs at UCLC representing several industry verticals, including therapeutics, diagnostics, medical devices, cleantech, and finance.

- **Faculty Entrepreneurs Seminar Series:** The series featured four lectures covering the basic steps involved in starting a company and raising money. Each seminar was presented by law firms with extensive experience in the startup arena.

- **SBIR / STTR Workshop:** OIP-ISR will host a workshop on how to secure funding from Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs and aid those entrepreneurial faculty members applying this fall.

- **First Look Los Angeles:** In collaboration with The Los Angeles Venture Capital Association (LAVA) and five other Southern California institutions, UCLA OIP-ISR co-hosted a successful First Look LA 2014, for the second year in a row. First Look LA is a technology showcase event during which selected inventions from technology transfer programs present pitches to investors and entrepreneurs looking for their next startup opportunity. Eight UCLA technologies were featured at First Look LA in 2014, resulting in many fruitful conversations with potential investors and industry partners.

### New Entrepreneurial Educational Programs & Competitions

Another factor critical for the entrepreneurial ecosystem is providing relevant education experiences for UCLA students and fostering UCLA’s participation in competitions outside of campus. UCLA has seen a significant expansion in the number of entrepreneurial educational programs offered on campus.

**Courses:** Listed below is a sample of some of the new courses being taught by various departments and schools across the University:

- UCLA Anderson School of Management added five new courses to their Undergraduate Entrepreneurship Program in FY14.

- The Department of Economics offered the Social Enterprise Academy for the second year, which provides hands-on experience to students interested in becoming entrepreneurs for a good cause. Forty undergraduates worked with ten local not-for-profit organizations to develop business plans for growth, competing for $30,000 in prizes to start up their business ideas.

- The BSC offered the Advancing Bioengineering Innovations (ABI) program for the second year. ABI is a two-quarter long course designed to teach students about the medical device design process through lectures, guest speakers, and a hands-on project.

Additional entrepreneurship courses may be found through [www.bruincubate.com](http://www.bruincubate.com).

**Competitions & Other External Relations:** As a related endeavor, the OVCR is supporting student and faculty entrepreneurship by providing support in connection with several entrepreneurial competitions, including the First Look LA competition and Startup UCLA. In
addition to these competitions, FY14 featured the launch of the UCLA Falling Walls Lab and the first annual Code for the Mission App Competition.

- **UCLA Falling Walls Lab**: The UCLA Falling Walls Lab is a fast-pitch innovation competition open to anyone 35 years and younger. Fourteen contestants presented at the UCLA Falling Walls Lab competition, with three securing invitations to participate in the international competition in Berlin. UCLA Falling Walls Lab was part of UCLA Innovation week, which took place in October 2013 to focus on entrepreneurship and innovation in development of new technologies.

- **Code for the Mission App Competition**: OIP-ISR and OIT hosted the first annual Code for the Mission App Competition. The goal of the competition was to encourage and engage the community in the development of apps that help further the UC mission of education, research and public service. [See https://codeforthemission.ucla.edu/mission/ for more information about the competition.]

- **Blackstone LaunchPad Grant**: In FY14, UCLA, USC, UCI, and the Los Angeles County Economic Development Corporation were awarded a $3.5 M Blackstone LaunchPad grant. The LaunchPad will have a physical presence on campus to foster entrepreneurship at UCLA.

**Future Plans**

Many of the above activities and actions are in preliminary stages and they will continue to develop over the coming year.

**C. Office of Intellectual Property & Industry Sponsored Research (OIP-ISR)**

**Overview**

The Office of Intellectual Property and Industry Sponsored Research (OIP-ISR), is an integrated unit or "one-stop shop" to support the academic industry interface for the management of intellectual property, technology transfer and industry sponsored research.

In their roles, the OIP-ISR staff members carry out a number of functions, including:

- Working with inventors to identify potential inventions
- Conducting commercial and legal evaluations of technologies
- Marketing technologies and research partnerships
- Managing patent prosecution
- Providing guidance to faculty and students
- Negotiating legal and commercial terms for a wide range of agreements
- Interfacing with corporate stakeholders to drive industry-sponsored research
- Introducing startup companies and entrepreneurial faculty to the larger investor community.
Key Personnel

OIP-ISR currently has 48 FTE positions, of which 13 were filled in FY14. This addition of talent has proven advantageous, particularly since the Office has been able to seek out individuals with specific skill sets and experience to match current strategic priorities. OIP-ISR’s workforce is aligned with leadership’s vision for excellence, and represents a diversity of experience and expertise.

The current organizational structure of the office (including the new governance structure) is shown in the figure below.

![OIP-ISR Organizational Structure](image)

Activities

FY14 was successful for OIP-ISR, with an increase in most metrics. Below are some statistics about licensing and industry sponsored research activities at UCLA.

<table>
<thead>
<tr>
<th>Activity (FY14 unless stated otherwise)</th>
<th>Volume/$</th>
</tr>
</thead>
<tbody>
<tr>
<td>OIP Activities</td>
<td></td>
</tr>
<tr>
<td>Invention Disclosures</td>
<td>490</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity (FY14 unless stated otherwise)</th>
<th>Volume/$</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISR Activities</td>
<td></td>
</tr>
<tr>
<td>Funded Sponsored Research Agreements</td>
<td>239</td>
</tr>
</tbody>
</table>
### Activity (FY14 unless stated otherwise) | Volume/$
---|---
**OIP Activities**
Provisional Patent Applications Filed | 266
US Patents Issued | 97
Startup Companies Created Around UCLA Technology | 22
Executed Licenses, Options and Letters of Intent | 183
Royalty Income\(^5\) | $39,170,673
Active Inventions (all years) | 2468
Active US & Foreign Patents (all years) | 1648

### Activity (FY14 unless stated otherwise) | Volume/$
---|---
**ISR Activities**
Unfunded Sponsored Research Agreements | 108
Nondisclosure, Visiting Scientist and Teaming Agreements | 208
Material Transfer Agreements | 1065
Total Agreements | 1620
ISR Income | $38,844,503

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### Industry Sponsored Research Awards
The Industry Sponsored Research and Material Transfer group secured $38,844,503 in “new” research funding awards from for-profit sponsors in FY14. These contracts provided support for research across the campus. [*See Appendix 8-C for examples of research awards.*]

### Increasing Outreach to Campus
OIP-ISR has several ongoing initiatives to increase the amount and effectiveness of its campus outreach, as well as to bolster its campus presence. Below are some highlights from the past year.

- Development of a series of brochures with responses to frequently asked questions (FAQ) about Technology Transfer, Patenting and SBIR/STTR Programs. All of these are available on the OIP website.

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\(^5\) At the time of publication, UC numbers had not been finalized, so reports coming from the UC Office of the President may have small variance.
Ongoing outreach through department and lab meeting presentations. There were 39 presentations in FY14.

In May, 2014 OIP-ISR hosted an event at the Faculty Center entitled Pathways to Commercialization. The event centered around a panel discussion of UCLA faculty startups that have reached some level of success on the path toward commercialization of their ideas.

Industry Partnering Events

To enhance connections with industry, there has been a concerted effort to host more events that attract industry to the campus and encourage engagement with our researchers. OIP-ISR organized a successful Cleantech and Advanced Materials Partnering Conference on September 27th, 2013, drawing over 150 attendees, with plans for another event in FY15. On March 11, 2014, OIP-ISR hosted its Second Annual Medical Device Partnering Conference, which attracted close to 200 attendees, including faculty, industry representatives, investors, entrepreneurs, startups, and representatives from Children’s Hospital - Los Angeles, LABioMed, UC-Irvine, and USC. In 2015, it is anticipated that OIP-ISR will continue to organize and host such events to attract industry representatives to campus, thereby promoting and facilitating greater interactions between UCLA researchers and the commercial sector.

Identified Needs for Startups

There is frequently a challenge in obtaining internal or external funding for early-stage projects and startups. We believe that fostering early stage projects at the University could lead to more licenses as well as to higher value realization at licensing. However, models for doing so have not yet been defined. In addition to these funding challenges, our nascent startups often require entrepreneurial and scientific talent and the University may be able to play a role in this area as well.

The rescinding of a 1989 policy against taking equity by campus incubators or accelerators by President Napolitano opens the door to more creative approaches to our startups. Defining the best approaches to addressing these unmet capital and talent needs for our startups is a key challenge and opportunity going forward.

Future Plans

The future plans for OIP-ISR include the following:

- Continuing to enhance customer service: The office has implemented IT solutions to track faculty satisfaction, and is continuing to refine them. We also want to provide visibility and transparency to all stakeholders. Towards this end, OIP-ISR plans to have a new portal in place to improve faculty service by the end of the year.

- Increasing the disclosure of inventions: Given time and appropriate staffing, OIP-ISR thinks a disclosure rate of 500+ disclosures per year is sustainable. In FY14, we achieved a 20% increase in the number of disclosures to four hundred and ninety. For FY15, the goal is to continue to raise the bar in identifying valuable assets while
we continue to improve our processes and resources for assessment and licensing evaluation.

- **Enabling startups**: OIP-ISR is working with entrepreneurial organizations across campus to raise the visibility of the services UCLA offers, negotiate preferential rates on legal services for entrepreneurs, and to provide clear and simple agreements for startups. In FY14, we made strides in this direction by implementing Startup-In-A-Box. In FY15, we believe 24 startups are achievable, which would be 6-times the average for US universities and exceed the numbers reported by Stanford and MIT.

- **Improving patent filings**: The current patent filing practices can be improved. OIP-ISR continues to evaluate its use of counsel, tracking, and approval of expenses, and potentially engaging additional expertise in managing its legal portfolio. Increasing the quality of patent filings will drive up legal costs, which will not be realized in reimbursements or increased revenues in FY15.

IX. **RESEARCH ADMINISTRATION OPERATIONS AND SERVICES**

A. **Office of Research Administration**

**Overview**

The Office of Research Administration (ORA) provides operational infrastructure, regulatory assistance, and administrative services in support of UCLA faculty and other members of the campus research community. ORA is the UCLA office of record for research administration activities and data. ORA staff members are the central points of contact for Principal Investigators and staff members seeking guidance with regard to research administration and compliance matters. ORA staff serve as the authorized institutional officials for UCLA in communications with research sponsors and regulatory agencies.

In FY14, ORA:

- Processed 5,400 funding proposals requesting more than $3.7 billion;
- Accepted 5,300 award transactions representing $972.5 million of new research funds;
- Reported and accounted for $880 million in research expenditures;
- Processed more than 16,000 protocol transactions related to human, animal, biosafety and radiation safety studies;
- Facilitated more than 200 meetings of 16 faculty compliance committees; and
- Managed innumerable research administration-related requests and queries.

ORA organizational units work together to support the full life-cycle of a research project. ORA support may begin when an investigator starts to develop a research protocol or a proposal for extramural funding, and continue through proposal submission, protocol approval, award acceptance, financial performance reporting, project completion, financial close-out, and renewal.
ORA collaborates with research faculty, staff, extramural sponsors, federal regulators, other central campus organizations and campus leadership to develop and deploy increasingly effective processes, procedures and systems to facilitate research administration and regulatory compliance. Long-term initiatives of our Research Administration Process Improvement and Deployment (RAPID) project continue to develop, and new challenges lead to new projects on the RAPID work plan. In FY15 RAPID advancements will continue to provide systematic, innovative and effective performance improvements in research administrative operations.

ORA Team
The Office of Research Administration is led by Associate Vice Chancellor for Research Marcia Smith. As shown in the organizational chart below, ORA is made up of seven operating units. A total of 175 staff members, including six highly-professional and dedicated operational directors, provide a broad range of services, manage large volumes of transactions and work continuously to improve service to faculty and staff. A detailed description of each of the operating units, including our accomplishments, challenges and goals, is included on the following pages.

RAPID Steering Committee and RAPID Faculty Advisory Committee
The ongoing success of ORA initiatives undertaken through the RAPID project has been made possible by the leadership and strong support of Vice Chancellor for Research James Economou. RAPID Project Director and AVC Marcia Smith and senior members of the RAPID team continue to meet annually with the RAPID Steering Committee, chaired by EVC and Provost Scott Waugh, to review accomplishments, discuss priorities and ensure coordination with other campus initiatives. Members of the Steering Committee are listed on the next page.
### RAPID Steering Committee Roster

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scott Waugh</td>
<td>Executive Vice Chancellor &amp; Provost</td>
<td>Chancellor’s Office</td>
</tr>
<tr>
<td>(Chair)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>James Davis</td>
<td>Vice Provost</td>
<td>Information Technology</td>
</tr>
<tr>
<td>James Economou</td>
<td>Vice Chancellor for Research Professor of Surgery</td>
<td>Vice Chancellor for Research Surgery-Oncology, DGSOM</td>
</tr>
<tr>
<td>Andrew Leuchter</td>
<td>Professor</td>
<td>Psychiatry &amp; Behavioral Sciences, DGSOM</td>
</tr>
<tr>
<td>Steven Olsen</td>
<td>CFO &amp; Vice Chancellor</td>
<td>Vice Chancellor, Finance, Budget &amp; Capital Programs</td>
</tr>
<tr>
<td>Edwin Pierce</td>
<td>Director</td>
<td>Audit &amp; Advisory Services</td>
</tr>
<tr>
<td>Kevin Reed</td>
<td>Vice Chancellor for Legal Affairs</td>
<td>Chancellor’s Office-Legal Affairs</td>
</tr>
<tr>
<td>Judy Gasson</td>
<td>Senior Associate Dean Director</td>
<td>DGSOM</td>
</tr>
<tr>
<td>Marcia L. Smith</td>
<td>Associate Vice Chancellor &amp; RAPID Project Director</td>
<td>Office of Research Administration</td>
</tr>
<tr>
<td>Victoria Sork</td>
<td>Dean</td>
<td>Life Sciences Division, College of Letters &amp; Science Ecology &amp; Evolutionary Biology</td>
</tr>
<tr>
<td></td>
<td>Professor</td>
<td>Institute of the Environment &amp; Sustainability</td>
</tr>
<tr>
<td>Lynne Yorita</td>
<td>Audit Manager</td>
<td>Audit &amp; Advisory Services</td>
</tr>
</tbody>
</table>

The RAPID project has benefitted tremendously from the ongoing participation of a Faculty Advisory Committee (FAC), chaired by Andy Leuchter, Professor of Psychiatry & Behavioral Sciences. The FAC gives the RAPID team extraordinary insight to the greatest needs and highest priorities of the research faculty we serve. Their active collaboration in the development of the PI Portal has been critical to the success of that initiative. FAC members continue to inform ongoing enhancements to the PI Portal and other RAPID initiatives. RAPID FAC members, who serve as volunteers, are listed below.

### RAPID Faculty Advisory Committee Roster

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrew F. Leuchter, RAPID FAC Chair</td>
<td>Professor</td>
<td>Psychiatry &amp; Behavioral Sciences, David Geffen School of Medicine</td>
</tr>
<tr>
<td>Bruce Dunn</td>
<td>Professor</td>
<td>Material Sciences &amp; Engineering</td>
</tr>
<tr>
<td>Todd Franke</td>
<td>Associate Professor and Chair</td>
<td>Social Welfare, School of Public Affairs</td>
</tr>
<tr>
<td>Robin L. Garrell</td>
<td>Vice Provost, Dean, Professor</td>
<td>Graduate Education, Graduate Division, Chemistry &amp; Biochemistry</td>
</tr>
</tbody>
</table>
### ORA Accomplishments

In FY14 ORA continued to address operational challenges within ORA units and among ORA units and other campus organizations. We achieved additional improvements in operational efficiency and effectiveness in supporting research administration compliance across campus.

Our priorities have included:

- Operational integration within ORA, and ORA outreach and support to other campus organizations and programs supporting research program needs or requirements;
- Expansion and refinement of research administration data collection, reporting and distribution to campus users, including the new Award Data Download Tool and advanced Award Search capabilities;
- Ongoing development and pilot deployment of the Post Award Management System (PAMS) to streamline financial management and reporting for central and campus fund managers;
- Development of administrative infrastructure to support faculty safety committees for Safety Oversight, Radiation Safety, Biosafety and Chemical and Physical Safety; and
- Enhancement of the PI Portal.

Notable accomplishments have involved all components of the ORA organization and include:

- Establishment of joint meetings of ORA’s Contracts and Grants (OCGA) and Fund Management (EFM) teams to better integrate pre- and post-award transactions and to tackle cross-functional problems;
- Expanded outreach to individual Schools, Divisions and Departments to collaborate in addressing specific operational challenges;
- Collaboration with the Clinical Research Management System (CRMS) team led by Arash Naeim, Chief Medical Officer for Clinical Research, to provide system integration points to pass critical data related to IRB protocols, grant and contract awards, and research fund accounts to the CRMS;

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<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carol Mangione</td>
<td>Professor</td>
<td>Health Services Medicine &amp; General Internal Medicine, David Geffen School of Medicine</td>
</tr>
<tr>
<td>Alison A. Moore</td>
<td>Professor in Residence</td>
<td>Geriatrics, David Geffen School of Medicine</td>
</tr>
<tr>
<td>Anne R. Pebley</td>
<td>Professor</td>
<td>Community Health Sciences, School of Public Health</td>
</tr>
<tr>
<td>Marcia L. Smith</td>
<td>Associate Vice Chancellor &amp; RAPID Project Director</td>
<td>Office of Research Administration</td>
</tr>
</tbody>
</table>
- Development of enhanced data warehouse led by our information systems team (ORIS) that will enable our data management team (ORDM) to provide integrated reporting of transactional data across all ORA organizations;
- Pilot deployment of the PAMS system to 100 campus and central users to test enhanced fund management capabilities that will dramatically streamline financial management processes and eliminate shadow systems;
- Integration of faculty committees for Safety Oversight, Radiation Safety, Biosafety and Chemical/Physical Safety within the well-established administrative structures supporting human research (OHRPP) and animal oversight (OARO);
- Expansion of the PI Portal to include upcoming technical reporting deadlines (“My Deliverables”), “My Inventions,” and “My PHS COI Disclosures”; and
- Successful support for the campus-wide audit by the NSF Office of Inspector General and the annual A-133 federal audit.

ORA Challenges
ORA continues to face challenges from frequent changes in federal regulations, policies and procedures, as well as from unique requirements of State, County, City and foundation sponsors. The increasing complexity of transactions within all ORA operational units requires that we shift our operational strategies, resource allocations and customer expectations. Given the volume of transactions processed by ORA, we work to standardize procedures for common requirements. One-of-a-kind or frequently changing requirements require dedicated resources and limit the effectiveness of operational efficiencies.

Variability in the quantity and quality of departmentally-based research administration resources, particularly to support large, complex research projects, is an ongoing challenge for ORA. Additional improvements in service to faculty, compliance assurance and operational efficiency would be possible with more specialized departmental support in some areas. Where support is lacking, ORA staff are deployed to bridge the gap, and this strains limited central resources that could be focused on processing volume transactions.

The increasing pace of implementation of new campus and external systems pose a significant challenge for ORA systems maintenance. In order to streamline processes, enable data sharing and eliminate duplicative procedures and data collection, ORA systems are designed to integrate with major campus systems, as well as federal and UCOP systems. The replacement of major campus systems, such as payroll and financial systems; implementation of new federal systems; and modification of UCOP research systems require ongoing monitoring and analysis of effects on ORA data and systems, as well as nimble development and deployment of changes in data feeds or system integration points.

ORA Priorities
In FY15, ORA priority initiatives will include the following:

- Implementation of new federal “Uniform Guidance” (UG) for administrative requirements, cost principles and audits of Federal Grant Awards. The new federal
guidelines integrate all prior guidance for administration of federal awards into a single new guidance document. Changes in the organization and description of the guidelines have led to hundreds of questions about the interpretation and intention of the new federal requirements. One requirement is well established: the new guidance necessitates a focus on organizational, systematic and procedural controls to ensure compliance. A campus work group was formed and began meeting in September to identify the needs for successful campus implementation of the UG. The work group has created an action plan for deployment of necessary changes in UCLA policies and procedures, for campus training and support, and for campus communication. This work will continue throughout FY2015 and beyond.

- **Continued collaboration with the CRMS team.** Specifications for enabling data transfer from ORA to the CRMS are in development and will be delivered by our ORIS team in the spring of 2015. ORA data on human protocols, contract and grant awards, and fund accounts are included in the data set to be made available to the CRMS.

- **Continued integration of ORA-managed regulatory committees and campus safety committees.** Integration of the safety committees in ORA will improve administrative support to committees, enable centralized collection and integration of data and committee actions, and facilitate centralized access to safety committee approvals for PIs. It is our goal to eliminate duplicative submission or review requirements, enhance compliance and data collection, and improve service to faculty.

- **Deployment of Post Award Management System (PAMS) “Work List” across campus.** One significant benefit of PAMS is its Work List feature that allows campus and EFM fund managers to track current, upcoming and past-due financial reports and invoices. The next phase of PAMS roll-out is to deploy this feature broadly across campus. A training and deployment schedule is in place to begin in the first calendar quarter of 2015. This will enable greater accountability in timely financial reporting.

- **Continue to develop and deploy enhancements to PI Portal.** Future PI Portal enhancements may enable on-line invention disclosure and/or tracking of clinical research studies.

- **Continue to monitor and improve performance metrics in all ORA units.** All ORA organizational units share goals to:
  - Provide extraordinary customer service to research faculty;
  - Provide support to ensure compliance with all relevant research regulations and requirements;
  - Provide outreach to campus research units and deliver training to central and distributed research administrators; and
  - Integrate processes, policies and systems to enable greater efficiency and productivity in research administration.
B. Office of Contract & Grant Administration

Overview

Under delegated authority from the University of California Office of the President, and the UCLA Chancellor, the Office of Contract and Grant Administration (OCGA) has institutional authority to solicit, accept, and execute research agreements for government and non-profit sponsored project activities. OCGA supports and provides guidance to UCLA faculty and staff in proposal development and award management, reviews and authorizes the submission of electronic and paper proposals, and negotiates, accepts and executes all contract and grant awards from government and non-profit sponsors. OCGA has primary responsibility for the interpretation of University-wide and campus policy, sponsor guidelines, and applicable federal and state laws and regulations related to sponsored activities.

OCGA’s goal is to support sponsored project activities and assure compliance by providing expertise, assistance, and education to the UCLA campus community. OCGA facilitates research compliance for faculty, staff, and trainees by providing quality research support services to guide investigators through the complex requirements of request, receipt, and management of extramural funding.

Key Personnel

The organizational structure of OCGA is depicted below. The OCGA team is led by Director Patti Manheim with additional leadership support from Assistant Directors and Managers, including Assistant Director Kim Duiker, Grants Team; Assistant Director Sharon Lam, Outgoing Subaward Team; Assistant Director Cindy Gilbert, Electronic Research Administration; Assistant Director Heather Winters, Contracts Team; Assistant Director TBD, Training and Development;
Manager Joe Gibbs, Records Management Team; Manager Harveen Kukreja, Award Intake Team; and Manager Johanna Haraway, Proposal Intake Team.

Activities
OCGA processes three broad categories of transactions: proposals, awards, and outgoing sub-agreements. Transaction volumes for OCGA in Fiscal Year 2014 are shown below.

<table>
<thead>
<tr>
<th>Transaction Type</th>
<th>OCGA Count</th>
<th>OCGA Dollar Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposals</td>
<td>5,030</td>
<td>$3,643,672,261</td>
</tr>
<tr>
<td>Award Transactions</td>
<td>4,382</td>
<td>$879,445,477</td>
</tr>
<tr>
<td>Outgoing Sub-agreements</td>
<td>718</td>
<td>$86,007,225</td>
</tr>
</tbody>
</table>

Highlights of OCGA accomplishments in FY14 include:

Standard OCGA Operating Procedures and Training
- Reviewed and updated training materials for the Proposal and Award Tracking System (PATS) to standardize procedures and ensure data integrity.
- Formed an OCGA workgroup to review problematic terms and conditions, develop formal guidance and ensure consistent practices and communications.
- Finalized the Master Training Calendar to provide monthly, process-focused training sessions to the campus research community.

System and Organizational Integration
The full implementation of Proposal and Award Tracking System (PATS) continues to be a priority for OCGA. The benefits include workload management and process improvements, electronic processing and storage, and improved data capture. Accomplishments in FY14 include the following:
- Developed daily workload and management reports to track staff workload, transaction progress and status of pending proposals and awards with real time status.
- Converted approximately 7,500 hard copy files to electronic records stored in PATS.
- Reclaimed approximately 600 square feet of office space by eliminating on-site file carriages and provided contiguous workspace for Proposal and Award Intake Teams.
- Developed data quality assurance reports resulting in timely analysis and/or correction of critical data elements.
- Established regular joint meetings with EFM and ORDM to review transactional procedures, develop coordinated process hand-offs, and document data collection procedures in order to improve services to faculty and campus administrators.

Improved Award Set-Up Process
New award processing procedures in OCGA improved award setup by expediting unilateral awards, providing faculty timely notice of award receipt, establishing a centralized point of contact, and capturing critical data elements. In FY14, we reduced award processing times by
improving procedures for interacting with Research Policy and Compliance (RPC) in managing PHS Financial Conflict of Interest disclosures.

**Improved Proposal Intake Process**

OCGA continues to focus on improving tracking and processing for receipt, review, and submission of proposals. Objectives include a single point of receipt for proposals, real-time status tracking of all proposals received by OCGA, improved proposal workload management, and common understanding of minimum submission requirements. In FY13, 40% of all awards required additional information from the Department or PI before set-up.

- Implemented Minimum Submission Requirements for all proposals submitted to OCGA to enable OCGA review while faculty continue to work on programmatic components.
- Implemented proposal intake process to identify missing proposal elements that could delay proposal approval and submission.

**Campus and External Outreach**

- Presented at various campus meetings to diverse audiences including Deans, Chairs, faculty, trainees and departmental administrators.
- Conducted second annual full-day training conference at the School of Engineering, which was co-presented with EFM.
- Presented at international, national, and UC systemwide conferences.

**New Federal “Uniform Guidance”**

- OCGA has been actively involved in planning for implementation of the “Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards” issued by The federal Office of Management and Budget (OMB) and effective in calendar year 2015. The Uniform Guidance includes multiple changes in long-standing
policies and procedures for the request, award and management of federal grants. OCGA has been supporting both the UCOP and ORA workgroups to review the new guidance, identify needed changes in policy and procedure, outline changes of greatest importance to research faculty, and develop a communication and training plan for Calendar Year 2015 and beyond.

**OCGA Challenges**

- 39% of all proposals in FY14 (1,671 proposals) were received by OCGA the day of or the day before the sponsor deadline.
- Review of proposals that are submitted on time is delayed because late proposals must be processed urgently.
- Without time for OCGA review, late proposals have been submitted with errors that resulted in unsuccessful electronic submission, rejection by sponsor for violation of proposal guidelines, and delayed or problematic award conditions. OCGA cannot be held responsible for problems associated with proposals submitted fewer than four days before the sponsor deadline.

**Timing of Submission of Proposals in Relation to Sponsor Deadline for FY14**

(raw counts & percent of submissions)

- With decreases in federal funding levels, UCLA’s research sponsor mix has become increasingly diverse and complex. OCGA staff must manage new policies and
procedures for a greater number of sponsors and must process larger numbers of smaller proposals and awards.

- The increasing complexity of the research portfolio requires staff with advanced skills and experience, who are in very high demand. OCGA must devote increasing effort to training and developing staff

- New Federal “Uniform Guidance”: OMB issued final guidance in FY14, entitled “Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards” effective in calendar year 2015. The Uniform Guidance includes multiple changes in long-standing policies and procedures for the request, award and management of federal grants. ORA has formed a workgroup including representatives from EFM, OCGA, Internal Audit, Costing Policy, Purchasing and campus administrators to review the new guidance, identify needed changes in policy and procedure, outline changes of greatest importance to research faculty, and develop a communication and training plan for Calendar Year 2015 and beyond.

Future Plans
OCGA’s future plans include the following:

- Continue to develop a clear and sustained career track to enable and encourage talented staff to grow and advance within the organization.

- Recruit Assistant Director for Training and Development to 1) lead efforts to formalize standard operating procedures; 2) design, develop, and implement a comprehensive OCGA Training and Skill Development Program; and 3) lead outreach efforts to campus to identify campus training needs and formalize a program for preparing, monitoring and assessing Departmental Research Associates (DRAs).

- Fully Deploy Award/Proposal Intake Teams as central points of contact for receipt of all incoming proposals and awards, including automating standard campus communications.

- Implement a focused and sustained effort to develop standard template contracts with state, county and city agencies so as to reduce the administrative burden of negotiating contracts de novo.

- Continue to support the implementation of federal Uniform Guidance at UCLA.

- Continue campus outreach to enhance processes and communication.

- Continue to build and strengthen relationships with EFM, ORDM and other ORA operational units with a goal of strengthening integration points, simplifying processes and improving communications.

- Deploy redesigned OCGA website in coordination with ORIS staff.

C. Extramural Fund Management
Overview
Extramural Fund Management (EFM) provides financial management services in support of more than 3,700 sponsored awards for the UCLA research community. EFM responsibilities
include: financial reporting, invoicing, cash management, accounts receivable management, audit support, and compliance oversight for effort reporting, cost transfers, and unallowable expenses. In addition, EFM provides expertise and assistance to UCLA faculty and staff and serves as a liaison with research sponsors with respect to financial management of sponsored awards.

EFM strives to be an industry leader in the financial management of research to support UCLA’s top tier research program. EFM’s mission is to:

- Provide high-quality customer service to faculty, staff and sponsors.
- Promote and monitor financial compliance of research activities to reduce risk and protect the University’s interests.
- Invest in developing and growing EFM staff to be professional experts in the industry.

Key Personnel

A national recruitment process is underway to select an EFM Director. Kevin Cook is serving as the Interim Director until a permanent Director is identified. He is supported by Associate Director Yoon Lee and Assistant Director Maurice Taylor. The organizational structure is depicted below.

![EFM Organizational Structure Diagram]

Activities

In FY14, EFM prepared and submitted 9,725 invoices and financial reports to sponsors, and completed 689 Federal cash draw-downs, managing total research expenditures of $880 million. For additional details, see the table, right.

<table>
<thead>
<tr>
<th>EFM FY14 Transactions</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invoices submitted to sponsors</td>
<td>8,006</td>
</tr>
<tr>
<td>Financial reports submitted to sponsors</td>
<td>1,719</td>
</tr>
<tr>
<td>Federal Draw-downs completed</td>
<td>689</td>
</tr>
<tr>
<td>Audits and reviews supported</td>
<td>22</td>
</tr>
</tbody>
</table>
Post Award Management System (PAMS)

PAMS is a central web-based system that facilitates more effective and efficient financial management of sponsored awards from activation to close-out. PAMS automates manual processes, enables improved compliance management, streamlines workflow and approval processes, standardizes the fund closeout process, and increases transparency of financial management status in real time. With these features, PAMS improves communication and collaboration among EFM, campus departments, and faculty resulting in more efficient and accurate financial reporting.

- In February 2014, in collaboration with ORIS, EFM deployed the Post Award Management System (PAMS) to the UCLA research community in a pilot involving over 100 campus users spanning 62 departments.
- The new invoicing and reporting functionality in PAMS is expected to be live by the end of FY15 with over 400 departmental and central research administrators expected as users.
- Based on the average 800 invoices and reports EFM generates per month, EFM is expected to save approximately 250 hours each month by using PAMS instead of current systems. EFM will utilize these saved hours to place increased focus on financial compliance monitoring to keep pace with increasingly complex sponsor requirements.

Other Activities in FY14

- **UCPath Implementation Project**: EFM actively participated in the UCPath project to provide the team with business requirements specifically related to sponsored fund management. EFM attended numerous functional work group sessions and workshops and reviewed functional design specification documents.
- **Financial Invoicing and Reporting**: During FY14, EFM placed increased focus on improving operating efficiency in the invoicing and reporting processes. EFM reviewed and revised procedures to streamline the existing invoicing and reporting processes to achieve higher productivity while maintaining sound risk management practices.
- **Collaboration with OCGA and ORDM**: EFM, OCGA and ORDM established regular joint meetings to review transactional procedures, develop coordinated process hand-offs, and document data collection procedures in order to improve services to faculty and campus administrators.

Challenges

There have been significant successes during the year, yet the following challenges remain:

- **Campus awareness and training in procedures and processes**: Although EFM continues to develop and document internal procedures to improve the efficiency of its internal operations, these changes alone are not sufficient to ensure 100% on-time submission of financial reports and invoices and to eliminate backlogs. EFM is
actively promoting awareness of the importance of on-time submissions through regular involvement in the Research Administrator Forum and other targeted outreach opportunities.

- **Increasingly complex compliance requirements:** Research sponsor rules and regulations are continually changing and becoming increasingly complex. It is a challenge to keep abreast of changing regulatory requirements and to adapt our business procedures and processes as required.

- **NIH transition to subaccounting:** The process for requesting reimbursement (i.e. drawing funds) via the NIH web-based Payment Management System (PMS) is changing and requires multiple process changes for EFM, OCGA and campus administrators. While the draw has been a cumulative process with no detailed financial data required at the time of the draw, the new “subaccounting” process will be much more detailed and complex, requiring that funds be requested on an award-by-award basis. This change, to be implemented in FY16, will require changes in cash management procedures, as well as in fund set-up, management and close-out processes.

- **New Federal “Uniform Guidance”:** OMB issued final guidance in FY14, entitled “Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards” which will be effective in calendar year 2015. The Uniform Guidance includes multiple changes in long-standing policies and procedures for the request, award and management of federal grants. EFM is participating in the campus workgroup with representatives from EFM, OCGA, Internal Audit, Costing Policy, Purchasing and campus administrators to review the new guidance, identify needed changes in policy and procedure, outline changes of greatest importance to research faculty, and develop a communication and training plan for Calendar Year 2015 and beyond.

**Future Plans**

EFM has a number of plans for the coming year including the following:

- Conduct more targeted outreach to campus research departments to increase awareness of financial procedures and processes, and to conduct tailored training based on academic department performance metrics.

- Continue to support implementation of the Federal Uniform Guidance at UCLA.

- Continue to build and strengthen relationships with OCGA, ORDM and other ORA operational units with a goal of strengthening integration points, simplifying processes and improving communications.

- Continue to strengthen relationships with other central offices including Corporate Financial Services, Capital Programs, Financial Aid Office, and Facility Management Services to improve processes related to research activities that cross departmental boundaries.

- Enhance account receivable monitoring to categorize causes of delays in collection in a more structured way to help us evaluate and determine the corresponding next
steps. The goal is to reduce account receivable turnover time and to improve research cash flow.

D. Office of Animal Research Oversight (OARO) & Support for Faculty Research Safety Committees

Overview

OARO Functions

The Office of Animal Research Oversight (OARO), within ORA, works with the UCLA institutional animal care and use committee, known locally as the Chancellor’s Animal Research Committee (ARC), to oversee the care and use of animals in research, teaching, and testing. [See Section VI-H for more information about ARC.] To ensure the humane treatment and proper care of animals at UCLA, OARO provides administrative support to the ARC for activities including the following:

- Animal protocol submission, review, and approval
- Required animal user trainings
- Interpretation and application of policies and regulations
- Post-approval compliance checks of research activities
- Semi-annual facility inspections
- Semi-annual animal care and use program evaluations
- Reports of noncompliance and/or mistreatment

OARO serves three audiences: the public, by upholding the highest legal and ethical standards of animal care; the University, by ensuring institutional compliance with federal, state, and local regulations governing the use of animals; and the research community, by facilitating thorough and balanced reviews of protocols designed to better mankind and improve the understanding of science.

Support to Research Safety Oversight Committee, Institutional Biosafety Committee and Chemical & Physical Safety Committee

In addition to supporting animal research administration, members of this team provide administrative support to the OVCR Safety Oversight Committee and two other faculty research safety committees: the Institutional Biosafety Committee (IBC) and the Chemical and Physical Safety Committee (CPSC).

Key Personnel

As shown in the adjacent organizational chart, OARO and Faculty Research Safety Committee support is led by Director Jennifer Perkins. Her
team consists of 6 FTEs and 1 part-time student clerk. Staff responsibilities are ARC protocol- (3 FTE) or compliance- (2 FTE) oriented, with one FTE responsible for all Institutional Biosafety Committee (IBC) support activities. One FTE will be hired in FY15 to handle administrative duties for the Chemical and Physical Safety Committee (CPSC) and OVCR Safety Oversight Committee (OSOC).

Activities
The OARO, IBC and CPSC team supports activities that provide service to faculty, ensure institutional compliance, and deliver system/organizational integration that promotes efficiency. Accomplishments in the last year include the following:

- Established administrative structure to support the IBC, CPSC, and OSOC.
- Worked with ORIS and Faculty Committee representatives to review vendor systems to provide integrated administrative support for ARC and IBC.
- Funded three animal research pilot studies via the Vice Chancellor for Research 3Rs Grant Program.
- Renewed MOU between UCLA and Loma Linda University for oversight of the animal care and use program at the UCLA-managed White Mountain Research Center in Bishop, CA.
- Assisted with preparation of MOU for shared animal research resources for the four Clinical and Translational Science Institute (CTSI) partners: UCLA, Cedars-Sinai Medical Center, LA BioMed, and Charles Drew University.
- Developed websites for IBC and CPSC.

Metrics
In FY14, UCLA received over $200 million in extramural funding to support research projects involving animals. In support of the ARC, OARO staff processed close to 1,450 applications for new and continuing animal activities, including changes to previously approved protocols. In addition, staff performed approximately 1,350 animal program room inspections and post-approval monitoring visits. During the same period, approximately 160 new and renewal IBC registration applications, and over 200 amendments to previously approved registrations, were submitted to the IBC, with 78% and 97% of those applications, respectively, approved to date.

Future Plans
The future plans for OARO, and IBC and CPSC support teams, include the following:

- Work with ARC and DLAM to investigate solutions and implement corrections based on findings from the 2014 animal program accreditation site visit from AAALAC.
- Move the animal protocol tracking system known as “RATS” from obsolete technology to a modern platform.
- Implement online system for IBC protocol tracking and review.
- Continue to work with OHRPP and RSC to fully integrate safety and compliance committee activities, communications and systems to ensure coordinated support for research faculty.
- Commence regular OARO, EH&S, and DLAM staff meetings.
- Offer quarterly presentations on topics of interest to the research community.

E. Office of Human Research Protection Program & Radiation Safety Committees

Overview

The Office of the Human Research Protection Program (OHRPP), within the Office of Research Administration, is the administrative arm of the UCLA Human Research Protection Program (HRPP) and the five UCLA Institutional Review Boards (IRBs). OHRPP oversees the safety and welfare of participants in human subjects research projects in accordance with all applicable federal regulations, state laws and institutional policy.

The mission of the OHRPP is to: (1) promote and facilitate the protection of rights and welfare of human research participants; (2) help ensure compliance with federal regulations, state laws and University policies as well as national standards for research involving human research participants; and (3) provide timely high-quality education, review and monitoring for human research projects.

UCLA is accredited by the Association for the Accreditation of Human Research Protection Programs, Inc. (AAHRPP). OHRPP is the unit responsible for maintaining this accreditation. OHRPP communicates and coordinates with other units in ORA as well as the broader campus research community to ensure that UCLA meets the rigorous standards of AAHRPP.

OHRPP leadership also oversees the Office of the Radiation Safety Committees (ORSC), which provides administrative support to the Radiation Safety Committee (RSC) and its four subcommittees: the Academic Radiation Safety Committee (ARSC), the Clinical Operations Safety Committee (CORSC), the Medical Radiation Safety Committee (MRSC) and the Radioactive Drug Research Committee (RDRC).

The responsibilities of the OHRPP and ORSC are:

- Coordinate and support the activities of the five federally-mandated Institutional Review Boards (IRBs) responsible for reviewing and approving all human research protocols.
- Through ORSC, coordinate and support the activities of the four radiation subcommittees.
- Provide and coordinate education and training for the UCLA human research community, including IRB members.
- Review and manage adverse events and protocol violations and incidents; conduct regular and for-cause on-site reviews, including investigations of allegations of noncompliance; and monitor and measure the effectiveness and quality of the HRPP.
Key Personnel

The OHRPP team is led by Director Kip Kantelo and is organized into three units, each reporting to an assistant director. One unit supports the three Medical IRBs. Another unit supports the two General Campus IRBs. A third unit carries out education and quality improvement activities for OHRPP staff, IRB members and the broader campus research community. In addition, a manager coordinates the activities of the Office of the Radiation Safety Committees. The assistant directors and the manager report to the OHRPP Director.

FY14 saw two significant personnel changes, with the retirement of Assistant Director Better Okeya, Pharm.D., and the appointment of Director Kip Kantelo.

The structure of the OHRPP is featured below.

Activities

The chart on the next page illustrates extramural awards with research involving human subjects at UCLA in FY14 and prior fiscal years.
The OHRPP oversees over 5,000 active human research protocols. In the last 12 months, OHRPP staff and IRB Committees reviewed:

<table>
<thead>
<tr>
<th>Type of Protocol Reviewed</th>
<th>Full Board Review</th>
<th>Expedited Review</th>
<th>Exempt Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Protocols</td>
<td>409</td>
<td>761</td>
<td>105</td>
</tr>
<tr>
<td>Continuation</td>
<td>982</td>
<td>2,934</td>
<td>0</td>
</tr>
<tr>
<td>Amendment</td>
<td>629</td>
<td>4,233</td>
<td>1</td>
</tr>
</tbody>
</table>

Below are some highlights from the year.

- **Continued to Improve IRB Review and Approval Times:** As indicated in the bar graph below, the average time for full committee review and approval for FY14 was 41 days, down from a peak in 2004–05 of 72 days. The average time for expedited review was reduced to 15 days, a level last seen in 2009-10.

- **Expanded IRB Reciprocity with Other Institutions:** UCLA and its sister campuses have been at the forefront of the national trend of relying on a single IRB review for multiple sites. UCLA has existing arrangements with RAND, the CTSI partners, the UC campuses and several private IRBs. In FY14, UCLA entered into several new reciprocal arrangements for specific protocols and for new NIH-funded networks. UCLA also expanded the menu of private IRBs available to review selected clinical trials.
- **Enhanced webIRB**: Over the course of FY14, OHRPP and ORIS collaborated in completing a major upgrade of webIRB to a newer version and in implementing several significant changes to the SmartForm. These deployments improved stability and performance for all users, while simplifying the application procedure for research teams by eliminating redundancies and simplifying questions.

- **Transformed OHRPP Structure**: The functions of the prior Compliance Unit have been divided among the IRB support units and the Education and QI Unit. This division of functions is designed to improve handling of post-approval reports. In addition, the new structure creates a feedback loop that will allow OHRPP to better evaluate and improve its operations and to better identify and respond to educational needs of the research community.

- **Machines Database**: ORSC led the integration of several disparate databases into a centralized database of radiation-producing machines. The database is designed to capture information regarding all diagnostic radiation-producing machines owned by UCLA. This system will help ensure regulatory compliance and appropriate oversight.

**Future Plans**
The goals for OHRPP and ORSC in the upcoming year include the following:

- **Continued webIRB Enhancements**: Further simplifications are planned to improve the user experience as well as to prepare for integration with the School of Medicine’s upcoming Clinical Research Management System.

- **Continue Developing and Expanding Use of Reliance Agreements**: The OHRPP will continue to identify opportunities to eliminate redundant IRB reviews of multi-site research and streamline the process for creating such arrangements.

- **Implement Regular and Routine Training**: Continue to develop and refine training programs for IRB members, OHRPP staff and the research community.

- **Expand Internal Quality Improvement Activities**: The OHRPP will conduct more frequent internal audits of IRB activities to confirm that the office is meeting compliance requirements and established performance standards.

- **Improve Data Collection and Reporting**: The OHRPP is re-evaluating how data points are defined, collected and analyzed. This is needed to ensure proper functioning of the review process, assess the effectiveness of innovations, and provide useful information about UCLA’s human research portfolio.

- **Improve ORSC Workflow**: Implement new workflow to improve the efficiency of the radiation safety review process and enhance the MRSC/RDRC application in the webIRB application intake system to improve data collection and reporting.

- **Develop ORSC Policy**: Continue developing the policy framework for various aspects of radiation use, and use the new database of radiation-producing machines to improve data quality and regulatory compliance.

- **Integrate Faculty Research Safety Committees**: OHRPP and ORSC staff will continue to work closely with OARO, IBC and CPSC teams to develop processes that provide
faculty with coordinated research safety support, through integrated management, systems and communications.

F. Office for Research Information Systems

Overview

The Office for Research Information Systems (ORIS), within ORA, supports multiple business units within UCLA’s Office of the Vice Chancellor for Research. With principal responsibility for supporting the strategic and operational needs of ORA, its operating units and RAPID workgroups, ORIS also works integrally with other VCR organizations, including RPC and OIP-ISR to design, develop, maintain, and operate campus-wide enterprise systems critical to UCLA’s research community. [See http://ora.research.ucla.edu/ORIS/Pages/SystemsWeSupport.aspx.] In addition, ORIS’ expertise and services are regularly called upon by campus leadership to support important campus-wide projects, such as the CTSI, OPUS and CRMS initiatives.

ORIS strives to be an efficient, effective and professional IT organization, leading in research administration solutions, business processes, and technology. Its mission is to:

- Deliver strategic technological solutions to achieve the business objectives of UCLA’s research leadership.
- Improve service, compliance, and efficiency in research administration processes to meet the goals of operational directors.
- Design and operate the technology infrastructure for ORA.

ORIS Organizational Structure

...
Key Personnel
The ORIS team, shown on the previous page, is led by Director Jackson Jeng.

Activities
The adjacent diagram depicts our holistic systems strategy for the collection, integration, and presentation of research-related data to central and campus consumers. Data is collected from individual transactional systems and aggregated in central data warehouses. ORIS makes this information available to PIs, ORA operational teams, research administrators and other campus users via intuitive web interfaces such as PI Portal and ORA Research Portal, which are built around familiar research administration processes. These applications and tools are tailored to fit our audiences through continual collaboration with ORA leadership and the campus research community to understand their service needs, compliance requirements, and operational priorities and challenges.

Service Scope and Transaction Volume:
ORIS provides overall IT infrastructure and desktop support for 200+ staff in ORA and RPC. The extent of support includes the following:

- 3,200 service desk requests per year
- 9 campus-wide research applications
- 500 network connected devices
- 6,000+ enterprise application users
- 140 servers
- 50 transactional & warehousing DB’s
- 40 desktop applications and websites
- 99.9% system uptime; < 0.1% outages

ORIS also provides services such as project management, technology solution delivery, business data aggregation, and budget planning for the research enterprise applications shown on the next page.

<table>
<thead>
<tr>
<th>Research Enterprise Systems</th>
<th>Average Annual Transaction Volume</th>
<th>No. of Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposal and Award Tracking System (PATS)</td>
<td>6,000 Proposals; 5,500 Awards; 100,000+ Tasks and Approvals</td>
<td>150</td>
</tr>
<tr>
<td>Faculty Research Portal (PI Portal)</td>
<td>10,000 Funds; 7,700 Profiles</td>
<td>1,200</td>
</tr>
<tr>
<td>Research Enterprise Systems</td>
<td>Average Annual Transaction Volume</td>
<td>No. of Users</td>
</tr>
<tr>
<td>-----------------------------------------------------------------</td>
<td>--------------------------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Research Administration Portal (ORA Portal)</td>
<td>30,000 Inquiries</td>
<td>2,500</td>
</tr>
<tr>
<td>Post-Award Management System (PAMS) (Pilot)</td>
<td>2,000 FSRs; 11,000 Invoices</td>
<td>700</td>
</tr>
<tr>
<td>Effort Reporting System (ERS)</td>
<td>28,000 Effort Reports</td>
<td>3,000</td>
</tr>
<tr>
<td>Human Research Protocol Management (webIRB)</td>
<td>4,500 Protocols; 12,000 Reviews</td>
<td>4,800</td>
</tr>
<tr>
<td>Animal Research Protocol Management (RATS)</td>
<td>1,400 Protocols; 3,100 Reviews</td>
<td>1,800</td>
</tr>
<tr>
<td>Material Transfer Agreement Management (onlineMTA)</td>
<td>1,000 Agreements</td>
<td>700</td>
</tr>
<tr>
<td>Electronic Financial Conflict of Interest Disclosure (eDGE)</td>
<td>2,200 Disclosures</td>
<td>2,200</td>
</tr>
</tbody>
</table>

**Highlights of FY14 Accomplishments**

(A = Enhance Faculty Service, B = Facilitate Compliance, C = System/Organizational Integration)

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Project Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>PATS – major version upgrade (v13), integration with PAMS, new management reports</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>PAMS Phase 1 – system testing, user training, pilot roll-out</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>PI Portal – “My Deliverables,” “My Inventions,” “My COI Disclosures” tabs</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>ORA Portal – Enhance award data delivery tools (ASSR, ADDT, Award Snapshots)</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>ORA Data Warehouse Phase 2 – Optimize data structure, enable metrics and reports, improve data analysis</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Vendor product evaluation for IBC and IACUC systems</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>webIRB – “Smartform” simplification, performance enhancements, major version upgrade (6.0.4)</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>New websites for OARO, OIBC, CPSC, OBFS, and PAMS</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>IT Operation – Knowledgebase, enterprise storage upgrade, database backup standardization and UC Ready participation</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Decommissioned legacy systems: CARE, Inventor Portal, CIRC management</td>
</tr>
</tbody>
</table>
Challenges

- **Increased Complexity in Systems Environment:** New campus and UCOP systems initiatives such as UCPath, Financial Systems Replacement Project (FSRP), OPUS, REMS, and CRMS, increase the complexity of the University’s overall systems environment. Due to data or process interdependencies among research, clinical, and academic functions, existing ORA systems must be updated to integrate with these new campus systems.

- **Prioritizing Resources:** New ORA responsibilities for administering campus Laboratory Safety Committees, new high-profile campus initiatives such as CRMS, and ongoing development and enhancement of existing ORA, RPC and OIP-ISR systems require frequent adjustment of resource priorities. Deploying staff to new development projects limits the resources that are available for optimal maintenance and enhancement of existing systems. In addition to supporting recently implemented systems such as eDGE, RSC management, IRB Reliance database and PAMS, ORIS anticipates new development projects such as replacing the 14-year-old ARC management system, and ongoing needs to expand the ORA data warehouse, PI Portal, and ORA Research Portal.

- **Continuous Staff Training:** The rapid advancement of technology directly impacts ORIS and our ability to provide technology services to research administration. A new generation of technology is typically developed every 12-18 months, and IT staff must stay abreast of these developments to keep their skills current and remain relevant. On-going technical training is a critical element of our professional growth.

Future Plans

(A = Enhance Faculty Service, B = Facilitate Compliance, C = System/Organizational Integration)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th>Project Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Build custom integration between new Clinical Research Management System (CRMS) and existing ORA systems</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Replace 14-year-old ARC management system (RATS)</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Implement protocol management system for Institutional Biosafety Committee (IBC) (If funding is available.)</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Add new features to PI Portal: Invention disclosure intake form, “My Protocols,” “My Portfolio View”</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Enhance PATS – data entry automation, document storage, electronic proposal intake, system integrations (UCPath, S2SGrants)</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>ORA Data Warehouse phase 3 – evaluate and implement business intelligence tools and industry-standard “OLAP” business analytics</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>ORA Portal Enhancement: COI certification look-up, secure proposal data reports, UX/UI redesign</td>
</tr>
</tbody>
</table>
(A = Enhance Faculty Service, B = Facilitate Compliance, C = System/Organizational Integration)

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Project Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Implement ORA, OCGA websites</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
<td></td>
<td>Expand enterprise application for mobile-device compatibility</td>
</tr>
<tr>
<td>✓</td>
<td></td>
<td></td>
<td>Modernize ORA’s infrastructure, platform, and software into appropriate cloud-based solution</td>
</tr>
</tbody>
</table>

G. Office of Research Data Management

Overview

The Office of Research Data Management (ORDM) supports maintenance of the official institutional record of proposal and award information about sponsored activities, including more than $972 million in awards in FY14. ORDM provides services to and shares data stewardship responsibilities with the Office of Contract and Grant Administration (OCGA), Extramural Fund Management (EFM), Clinical Trials Administration Office (CTAO), and Industry Sponsored Research (ISR) Office. Over the last five years, ORA has devoted considerable effort to expanding our data set, documenting data definitions and improving the timeliness, accuracy and completeness of data collection. ORDM has played a key role in the success of this effort, ensuring data integrity and consistent collection and update of essential financial, compliance and administrative information throughout the life cycle of a contract or grant.

ORDM is also responsible for setting up research fund accounts in the campus financial system in order to make contract and grant funding available to Principal Investigators. In addition, ORDM has primary responsibility for responding to ad hoc requests for reports of research administration data. ORDM staff generate data and validate reports in coordination with ORA subject matter experts to respond to a growing number of requests from central operational units, academic departments, campus senior management, UCOP, external sponsors, auditors and National organizations.

Key Personnel

ORDM is led by Director Rory Constancio. The structure of the team is shown in the organizational chart above.
Activities

Below is a summary of the volume of account set-up and maintenance transactions for awards in FY14.

<table>
<thead>
<tr>
<th>Transaction Type</th>
<th>Total # of Transactions</th>
<th>Dollar Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>New/Renewal Awards</td>
<td>1,972</td>
<td>$356M</td>
</tr>
<tr>
<td>Award Modifications/Amendments</td>
<td>2,413</td>
<td>$616M</td>
</tr>
<tr>
<td>No Cost Extension</td>
<td>1,001</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5,385</strong></td>
<td><strong>$972M</strong></td>
</tr>
</tbody>
</table>

This table shows the volume of proposals and awards processed in FY14 by Program Type.

<table>
<thead>
<tr>
<th>Program Types</th>
<th>Distinct Award Count</th>
<th>Award Transactions</th>
<th>Awarded Dollars</th>
<th>Proposals</th>
<th>Proposal Transactions</th>
<th>Requested Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research</td>
<td>2,894</td>
<td>3,714</td>
<td>$691,164,813</td>
<td>4,184</td>
<td>10,710</td>
<td>$3,276,821,771</td>
</tr>
<tr>
<td>Training</td>
<td>419</td>
<td>502</td>
<td>$62,160,374</td>
<td>531</td>
<td>1,087</td>
<td>$145,695,174</td>
</tr>
<tr>
<td>Public Service</td>
<td>335</td>
<td>388</td>
<td>$154,339,812</td>
<td>345</td>
<td>388</td>
<td>$220,355,184</td>
</tr>
<tr>
<td>Clinical Trials</td>
<td>443</td>
<td>519</td>
<td>$56,352,282</td>
<td>221</td>
<td>290</td>
<td>$69,356,891</td>
</tr>
<tr>
<td>Other Program Types</td>
<td>252</td>
<td>263</td>
<td>$8,449,778</td>
<td>104</td>
<td>243</td>
<td>$11,873,818</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,343</strong></td>
<td><strong>5,386</strong></td>
<td><strong>$972,467,059</strong></td>
<td><strong>5,385</strong></td>
<td><strong>12,718</strong></td>
<td><strong>$3,724,102,838</strong></td>
</tr>
</tbody>
</table>

ORDM accomplishments include the following:

- **Award Documentation and Set-up**: ORDM consistently completed full data entry and fund number assignment for awards within three business days of receipt from OCGA, ISR, and CTAO. This includes utilizing the new Post-Award Management System (PAMS) implemented in February 2014 for documenting financial deliverables and sending notifications to PIs and department administrators.

- **Proposal Data Collection**: ORDM consistently completed final data entry of proposals within 3-5 business days of receipt from OCGA or ISR. This effort makes secure proposal information more immediately accessible to faculty through the PI Portal.
- **PAMS Financial Deliverables:** Participated in EFM’s and ORIS’s successful implementation of PAMS in February 2014. ORDM focused on establishing new business processes to record financial deliverables in PAMS.

- **Data Governance Team:** Continued to manage the Data Governance Team and customized report requests from campus, UCOP, national organizations and sponsors (n = 56 for FY14). Created fiscal year data sets for each campus organization to be accessible through the new web-based Award Data Download Tool (ADDT) developed by ORIS.

- **Data Warehouse:** With OCGA, ORDM supported the first phases of ORIS’s development of the PATS data warehouse that will enhance reporting capabilities and consistency. The warehouse and a Business Intelligence Tool will support ORDM data analytics and simplify queries for non-technical users.

- **ORA Fiscal Year Report of Research Proposals and Awards:** Developed an enhanced format and generated data for ORA’s fiscal year report on UCLA proposals and awards. The FY14 report includes new content on proposal counts and requested dollars as well as views of awarded dollars and expenditures by sponsor, transaction type, and campus organization.

- **Collaboration with OCGA and EFM:** EFM, OCGA and ORDM established regular joint meetings to review transactional procedures, develop coordinated process hand-offs, and document data collection procedures in order to improve services to faculty and campus administrators.

### Challenges

The following factors present challenges to ORDM.

- **Need to Streamline Business Process & Procedure:** We need to continue to maintain and improve data collection processes and data consistency working with business owners in OCGA, EFM, ISR, and CTAO.

- **Need to Integrate PATS Data with Emerging Campus Systems:** PATS data is used extensively by other ORA and campus systems. We will continue to face the complexities of mapping proposal and award data to emerging campus systems.

### Future Plans

The future plans for ORDM are as follows:

- **Improve Data Deployment to Campus:** Continue collaborative work with ORIS to develop improved mechanisms for delivering relevant data sets to support the data analysis and ad hoc reporting needs of campus leadership and academic departments.

- **Data Warehouse:** Continue collaboration with ORIS to establish data structure and reporting capabilities of the data warehouse. Participate in the review and evaluation of vendor Business Intelligence tools.
- **Participate in ORA Initiative to Develop an On-line EPASS Submission Tool:** An on-line EPASS would provide data validation to ensure complete submissions and reduce data entry time for all proposals. It would also provide a mechanism for uploading proposal documents not currently accommodated by S2S, Grants.gov or NSF FastLane.

- **Ongoing Collaboration:** Continue to build and strengthen relationships with OCGA, ORDM and other ORA operational units with a goal of strengthening integration points, simplifying processes and improving communications.

### H. Business & Finance Office

#### Overview

The Office of Business and Financial Services (OBFS) provides the business services infrastructure for the Vice Chancellor for Research organization, including the seven units within the Office of Research Administration, and assists OIP-ISR as needed. The OBFS supports an annual budget of approximately $30 million for an organization that includes over 240 staff members in multiple locations on campus and 30,000 square feet of office space in the Kinross Building on two floors. The primary responsibilities of OBFS include human resources and payroll, financial reporting, monitoring, and analysis, purchasing and reimbursements, and building operations. The vast majority of OBFS efforts are focused in support of ORA.

OBFS’s primary goal is to manage business and financial requirements in support of the OVCR organization with efficiency, the highest levels of professionalism, and solution-oriented customer service.

#### Key Personnel

The OBFS team is led by Director Rory Constancio. The team is organized as set forth in the adjacent organizational chart.

#### Activities

Below is a summary of some of the transactions performed by the OBFS during FY14:

<table>
<thead>
<tr>
<th>Transaction Type</th>
<th>Total Transactions</th>
<th>Dollar Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchases</td>
<td>837</td>
<td>$2,566,000</td>
</tr>
<tr>
<td>Reimbursements</td>
<td>196</td>
<td>$94,000</td>
</tr>
<tr>
<td>Maintenance/Renovations/Repairs</td>
<td>752</td>
<td>$142,000</td>
</tr>
<tr>
<td>Reception Desk - Intake</td>
<td>1,169</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Accomplishments

- **Kinross Space Renovations:** Successfully managed changes in space allocations within the Kinross building to enable ORA and OIP-ISR to have contiguous space for their respective operations. ORA built, consolidated, relocated, and transformed various areas involving four of its seven departments to maximize space for staff, locate related units in close proximity to each other, and create contiguous space for each department. As a result, 1,300 square feet of office space was made available to OIP-ISR adjacent to their existing second floor space. For the OVCR organization as a whole, the investment was cost-effective and addressed significant space challenges for both ORA and OIP-ISR.

- **New OBFS Website:** Launched a new website with the goal of providing all OVCR staff with easy access to frequently used OBFS information. The website is organized around the core business services delivered by OBFS involving human resources and payroll, financial monitoring and analysis, purchases and reimbursements, and building operations. The primary focus of the content is on internal operational procedures and best practices to help navigate within University policy.

- **Operations Trouble-call System:** Implemented an iSupport software system as an incident management tool for managing, monitoring, and seeing through to completion a high volume of maintenance and service requests made to OBFS. A centralized email box manages requests from receipt to completion enabling a higher level of customer service and overall efficiency. The system acknowledges receipt of requests, provides status updates, and reports completion status back to the requestor along with how it was resolved. Reporting features help identify recurring patterns and trends, and metrics will assist with continuous improvement of the overall quality of OBFS services.

Future Plans

- **Services to ORA Operational Units:** We are focused on continuous improvement in providing business services to ORA functional directors and staff. We will continue to work with ORA leadership and central campus units to ensure effective coordination of staff services.

- **Continue to Support Elimination of Off-site Document Storage:** There has been significant progress in reducing paper-based processes in ORA through implementation of electronic document storage solutions. This has enabled savings in supplies and storage costs and has improved space utilization. We will work with operational units to help manage and reduce off-site storage costs consistent with document retention requirements.
X. CONCLUDING REMARKS

Our office is privileged to serve the faculty, student, staff, and external stakeholders of the UCLA community. As is evident from the previous paper, there is significant activity in our organization, all designed to enhance UCLA research, scholarship, diversity and contributions to society.
<table>
<thead>
<tr>
<th>Acronym or Term</th>
<th>Full Name and/or Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>3Rs Grant Program</td>
<td>UCLA grant program to examine Replacement, Refinement and/or Reduction in use of animals in research activities.</td>
</tr>
<tr>
<td>AAALAC</td>
<td>AAALAC stands for the &quot;Association for Assessment and Accreditation of Laboratory Animal Care.&quot; AAALAC is a non-profit organization established by scientific and educational organizations to ensure high standards of laboratory animal care and use. The accreditation process involves periodic inspections in which the animal program and facilities are evaluated for compliance with the requirements and recommendations of PHS Policy, the Guide for the Care and Use of Laboratory Animals, and USDA Animal Welfare Act Regulations. UCLA has maintained continuous AAALAC accreditation since 1976.</td>
</tr>
<tr>
<td>AAHRPP</td>
<td>Association of Accreditation of Human Research Protection Programs. UCLA had a successful AAHRPP site visit in February 2012.</td>
</tr>
<tr>
<td>ABI</td>
<td>Advancing Bioengineering Innovations program. ABI is a two-quarter long course (offered by the Business of Science) to teach students about the medical device design process through lectures, guest speakers, and a hands-on project.</td>
</tr>
<tr>
<td>ARC</td>
<td>Animal Research Committee. This is the UCLA independent animal research committee charged with the responsibility of overseeing the entire animal care and use program. It is a Chancellorial committee.</td>
</tr>
<tr>
<td>ARRB</td>
<td>Animal Research Resources Board. This is a newly formed faculty committee that is responsible for evaluating the status of animal resources available at UCLA. This board replaces the former vivarium research resources advisory committee.</td>
</tr>
<tr>
<td>ARSC</td>
<td>Academic Radiation Safety Committee. One of the four radiation safety subcommittees. The ARSC is responsible for ensuring the safe conduct of radiological procedures in non-human indications.</td>
</tr>
<tr>
<td>AVC</td>
<td>Associate Vice Chancellor or Assistant Vice Chancellor</td>
</tr>
<tr>
<td>BIA</td>
<td>Bureau of Indian Affairs</td>
</tr>
<tr>
<td>Acronym or Term</td>
<td>Full Name and/or Definition</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>BIP</td>
<td>Biomedical Informatics Program. One of nine programs in the UCLA Clinical and Translational Science Institute. This program leverages expertise and resources in data management to provide databases, tools, resources and infrastructure for the acquisition, storage and analysis of data. It provides the online infrastructure and support for the Office of Investigator Services.</td>
</tr>
<tr>
<td>BMBL</td>
<td>Biosafety in Microbiological and Biomedical Laboratories.</td>
</tr>
<tr>
<td>BSC</td>
<td>The Business of Science Center.</td>
</tr>
<tr>
<td>BSCRC</td>
<td>UCLA Broad Stem Cell Research Center. This center is referenced due to its role as the administrative home for the Human Pluripotent Stem Cell Research Oversight committee.</td>
</tr>
<tr>
<td>BSL-3, BSL-4 (or BSL2, BSL3)</td>
<td>Biosafety Level 3, or Biosafety Level 4. This is an official designation used for laboratories to indicate the level of the biocontainment precautions required to isolate dangerous biological agents in an enclosed facility. UCLA has 2 accredited BSL-3 facilities and an additional BSL-3 facility pending accreditation.</td>
</tr>
<tr>
<td>Cal OSHA</td>
<td>California Division of Occupational Safety and Health (also known as Cal/OSHA) responsible for protecting workers and the public from safety hazards. This agency is referenced in the high containment facility section [Section V-F] of this report in the context of required trainings.</td>
</tr>
<tr>
<td>CDC</td>
<td>Centers for Disease Control &amp; Prevention. CDC establishes one set of guidelines that the Institutional Biosafety Committee follows in determining the type of review that is required for research involving specific materials or techniques.</td>
</tr>
<tr>
<td>CERP</td>
<td>Community Engagement in Research Program. One of the nine program areas of the UCLA Clinical Science Translational Institute. This program serves as the primary link to the diverse Los Angeles community helping the scientists identify research relevant to community needs.</td>
</tr>
<tr>
<td>Acronym or Term</td>
<td>Full Name and/or Definition</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>CIRC</td>
<td>Conflict of Interest Review Committee. UCLA committee that is responsible for reviewing the personal financial interests reported by Investigators to determine whether those financial interests, and occasionally certain institutional interests, constitute conflicts of interest that might compromise, or potentially compromise, the objectivity of the work to be conducted. The Committee functions as an administrative board advisory to the Vice Chancellor for Research. Committee members are appointed by the Chancellor.</td>
</tr>
<tr>
<td>CIRM</td>
<td>California Institute for Regenerative Medicine. State agency established in 2009 responsible for the oversight of the derivation of and research with human embryonic stem cells.</td>
</tr>
<tr>
<td>COR</td>
<td>Council on Research. An Academic Senate Committee. The VCR and VCR Cabinet have worked closely with COR on several initiatives this year including the Transdisciplinary Seed Grants.</td>
</tr>
<tr>
<td>CORSC</td>
<td>Clinical Operations Radiation Safety Committee. One of the four radiation safety subcommittees. The CORSC is the newly formed subcommittee responsible for ensuring the safe conduct of radiological procedures in clinical care.</td>
</tr>
<tr>
<td>CPSC</td>
<td>Chemical and Physical Safety Committee. This committee was previously referred to as the Laboratory Safety Committee. It focuses on chemical and physical safety hazards in research laboratories.</td>
</tr>
<tr>
<td>CRMS</td>
<td>Clinical Research Management System. Investment in infrastructure to ensure that UCLA remains at the forefront of clinical research. A decision regarding the enterprise-wide system was made at the beginning of FY15.</td>
</tr>
<tr>
<td>CTAO</td>
<td>Clinical Trials Administration Office. Office in DGSOM responsible for execution of industry-sponsored clinical trial agreements.</td>
</tr>
<tr>
<td>CTRC</td>
<td>Clinical and Translational Research Centers</td>
</tr>
<tr>
<td>Acronym or Term</td>
<td>Full Name and/or Definition</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>CTSA</td>
<td>Clinical and Translational Science Award. An award from the National Institutes of Health created to enhance the “bench-to-bedside” sentiment of translational research and encourage researchers to conduct their work in a manner that leads to practical results. UCLA was awarded a CTSA in 2011. There are 59 other participating universities and medical centers.</td>
</tr>
<tr>
<td>CTSI</td>
<td>Clinical and Translational Science Institute also known as UCLA CTSI. Partnership of Cedars-Sinai Medical Center, Charles Drew University of Medicine and Science, Los Angeles Biomedical Research Institute at Harbor-UCLA Medical Center, and the University of California, Los Angeles to work together to uncover solutions for the health problems that are most prevalent to the diverse population of Los Angeles County. UCLA is honored with funding along with 59 other participating universities and medical centers, with a Clinical and Translational Science Award (CTSA) from the National Institutes of Health (NIH). The NIH created the CTSAs to enhance the “bench-to-bedside” sentiment of translational research and encourage researchers to conduct their work in a manner that leads to practical results.</td>
</tr>
<tr>
<td>CTSI-ED</td>
<td>Research Education, Training and Career Development. One of nine programs in the UCLA Clinical and Translational Science Institute. This program houses most of the education and training activities. It builds on collaborations with other CTSI programs to identify training and education needs and opportunities. It ensures CTSI trainees acquire the core competencies needed to conduct multidisciplinary research, and to integrate community priorities and input into research.</td>
</tr>
<tr>
<td>CTT</td>
<td>Center for Translational Technologies. One of nine program areas of the UCLA Clinical and Translational Science Institute. This program links scientific teams with online core technologies.</td>
</tr>
<tr>
<td>D&amp;I Research Initiative</td>
<td>Dissemination and Implementation (D&amp;I) Research Initiative. A new initiative from the CTSI to provide investigators with education and training, as well as technical assistance, to build capacity for dissemination and implementation research at UCLA and within Los Angeles.</td>
</tr>
<tr>
<td>DGSOM</td>
<td>David Geffen School of Medicine at UCLA.</td>
</tr>
<tr>
<td>Acronym or Term</td>
<td>Full Name and/or Definition</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>DHHS</td>
<td>United States Department of Health and Human Services. The United States government's principal agency for protecting the health of all Americans and providing essential human services. DHHS is one of several agencies that provides specific guidelines for conducting research involving humans.</td>
</tr>
<tr>
<td>DIGST</td>
<td>Diversity Grant Support Team. A new program that will initiate in FY15 to increase participation of a broad group of faculty in garnering support for extramural funding in support of diversity. Through this program the OVCR provide the infrastructure to support and assemble both large and medium sized grant applications that require significant effort and expertise.</td>
</tr>
<tr>
<td>DLAM</td>
<td>Division of Laboratory Animal Medicine: This is the campus unit that is responsible for the care of research animals.</td>
</tr>
<tr>
<td>DSAT</td>
<td>Division of Select Agents and Toxins. Division under the Centers for Disease Control and Prevention (CDC). The DSAT administers the CDC’s Select Agent Program that regulates the possession, use, and transfer of certain biological agents and toxins that pose a severe threat to public health and safety, and the importation of etiological agents and vectors of human disease.</td>
</tr>
<tr>
<td>eDGE</td>
<td>Electronic Disclosure Gateway. The new web-based disclosure system for conflicts of interest that was launched in summer 2012.</td>
</tr>
<tr>
<td>EFM</td>
<td>Extramural Fund Management. EFM is one of 7 departments falling under the Office of Research Administration. It is responsible for providing financial management services to support the sponsored research program (&gt;$1B per year).</td>
</tr>
<tr>
<td>EH&amp;S (EHS)</td>
<td>UCLA Office of Environment, Health &amp; Safety. This office is within the reporting structure of the Vice Chancellor for Administration. Among various responsibilities, this office oversees a comprehensive training and inspection program aimed at ensuring lab safety.</td>
</tr>
<tr>
<td>EIR</td>
<td>Entrepreneurship-in-Residence Program. A new program originated by the Office of Intellectual Property &amp; Industry Sponsored Research that brings experienced entrepreneurs to campus to serve as mentors for faculty.</td>
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</tr>
<tr>
<td>EPASS</td>
<td>Extramural Proposal Approval and Submission Summary. This UCLA form is used for the review and approval of applications or proposals to be submitted to extramural funding agencies by the Office of Contract and Grant Administration (OCGA), Office of Intellectual Property – Industry Sponsored Research (OIP-ISF), and/or the DGSOM Clinical Trial Contract Unit (CTCU).</td>
</tr>
<tr>
<td>ERS</td>
<td>Effort Reporting System. UCLA’s system for certifying to the granting agencies that the effort required as a condition of the award has actually been completed. Federal regulations require that any individual committing effort on a federal or federal flow-through contract or grant certify that the salary charged or cost shared by the institution is reasonable in relation to the effort expended on that project.</td>
</tr>
<tr>
<td>ESCRO</td>
<td>UCLA Embryonic Stem Cell Research Oversight (ESCRO) committee. This committee was formed in 2006 in response to a call from the National Academies of Science and the California Institute for Regenerative Medicine (CIRM) for oversight of the derivation of and research with human embryonic stem cells (hESC). The name of the committee was recently changed to hPSCRO to reflect the changing scope as a result of the research advancement that enables reprogramming of human somatic cells and the derivation of induced pluripotent stem cells.</td>
</tr>
<tr>
<td>EVC</td>
<td>UCLA Executive Vice Chancellor (Scott Waugh)</td>
</tr>
<tr>
<td>FAC</td>
<td>Faculty Advisory Committee for the RAPID project. This committee was formed to provide the RAPID team with insight to the greatest needs and highest priorities of the research faculty.</td>
</tr>
<tr>
<td>FDA</td>
<td>Food &amp; Drug Administration. The FDA is one of several agencies that provides specific guidelines for conducting research involving humans.</td>
</tr>
<tr>
<td>FSPH</td>
<td>UCLA Jonathan and Karin Fielding School of Public Health.</td>
</tr>
<tr>
<td>FTE</td>
<td>Full Time Equivalent. A unit that indicates the workload of an employed person as a percentage.</td>
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<tr>
<td>GC-URSP</td>
<td>Grand Challenges Undergraduate Research Scholars Program. A new undergraduate course chaired by Rachel Kennison, PhD, which began in Fall 2014 as part of the Grand Challenges Initiative. The enrolled students were each matched with faculty members from the Sustainable LA Project, and throughout the year will engage weekly in that faculty member’s research setting. Concurrent with this research experience, the students meet once weekly as a group for mini-lectures and practical exercises designed to enhance their fluency in the Sustainable LA project, build their research skills, provide varied teamwork experiences and refine their communication skills.</td>
</tr>
<tr>
<td>GSE&amp;IS</td>
<td>Graduate School of Education and Information Studies</td>
</tr>
<tr>
<td>HASIS</td>
<td>Humanities, Arts, Architecture, Social and Information Sciences Collaborative a group within the Institute of Digital Research and Education (IDRE).</td>
</tr>
<tr>
<td>hESC</td>
<td>Human Embryonic Stem Cells.</td>
</tr>
<tr>
<td>hPSC</td>
<td>Human Pluripotent Stem Cells.</td>
</tr>
<tr>
<td>hPSCRO Committee</td>
<td>Human Pluripotent Stem Cell Research Oversight Committee. The UCLA Human Pluripotent Stem Cell Research Oversight committee ensures that UCLA human pluripotent stem cell (hPSC) research meets the highest scientific and ethical standards as well as compliance with California law. This committee replaced ESCRO.</td>
</tr>
<tr>
<td>HRPB</td>
<td>Human Research Policy Board. This board is advisory to and its members are appointed by the Executive Vice Chancellor. The board is responsible for overall policy review related to protecting human subjects involved in research.</td>
</tr>
<tr>
<td>HRPP</td>
<td>Human Research Protection Program. UCLA’s Human Research Protection Program which is administered by the Office of Human Research Protection Program.</td>
</tr>
<tr>
<td>HSSEAS</td>
<td>Henry Samueli School of Engineering &amp; Applied Sciences.</td>
</tr>
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<tr>
<td>IAC</td>
<td>Institute of American Cultures. A collaborative institute established to foster and advance intellectual development in ethnic studies at UCLA. The IAC produces innovative scholarship, supports graduate study, promotes interdisciplinary research and training in ethnic studies, and promotes diversity in student and faculty outreach and recruitment to UCLA.</td>
</tr>
<tr>
<td>IBC</td>
<td>Institutional Biosafety Committee. This UCLA committee fulfills the commitment to ensure that biological research on the UCLA campus, and by UCLA faculty, is performed according to approved standards of safety and ethics. The committee is appointed by the Vice Chancellor for Research.</td>
</tr>
<tr>
<td>IDRE</td>
<td>UCLA Institute of Digital Research and Education. IDRE is cooperative of faculty and technologists working to advance the existing body of computing knowledge and expertise at UCLA.</td>
</tr>
<tr>
<td>IRB</td>
<td>Institutional Review Board. The IRB is the group formally designated by UCLA to review, approve, require modifications to, or disapprove human subjects research conducted under the aegis of UCLA. Additional responsibilities include review of unanticipated problems, investigations of allegations of noncompliance and prompt reporting to the Institutional Officials and governmental agencies if required. UCLA has five separate IRBs. The IRBs are supported by the Office of Human Research Protection Program within the Office of Research Administration.</td>
</tr>
<tr>
<td>ISR</td>
<td>Industry Sponsored Research. Research funded by industry pursuant to a written agreement. These agreements are negotiated by the Office of Intellectual Property &amp; Industry Sponsored Research.</td>
</tr>
<tr>
<td>JCCC</td>
<td>UCLA Jonsson Comprehensive Cancer Center</td>
</tr>
<tr>
<td>LSO</td>
<td>Limited Submission Opportunity. A funding opportunity where the sponsor limits the number of applications that may be submitted by UCLA. Most LSOs are coordinated by the Office of the Vice Chancellor for Research.</td>
</tr>
<tr>
<td>L-SPA</td>
<td>Luskin School of Public Affairs</td>
</tr>
<tr>
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</table>
| MIRB1, MIRB2, MIRB3, | Three of the five UCLA Institutional Review Boards.  
Medical IRB1 (MIRB1) reviews general and internal medicine, infectious diseases, and dental and ophthalmologic research.  
Medical IRB2 (MIRB2) reviews oncology and hematology research.  
Medical IRB3 (MIRB3) reviews neuroscience, neurology, psychiatric, drug abuse, and related behavioral science. |
<p>| MOU | Memorandum of Understanding. |
| MRSC | Medical Radiation Safety Committee. One of the four radiation safety subcommittees. The MRSC is responsible for evaluating proposals that involve radiological procedures in medical research. |
| MT | Mycobacterium Tuberculosis. Pathogen currently under study at the two approved high containment facilities. |
| NAGPRA | Native American Graves Protection and Repatriation Act. A federal law requiring inventories of human remains and funerary objects, and summaries of potentially eligible cultural material for the purpose of repatriation. UCLA has a NAGPRA unit which ensures compliance with the law. |
| NGIRB | North Campus General Institutional Review Board. One of the five UCLA Institutional Review Boards. The NGIRB reviews research from the College of Letters &amp; Science and the Professional Schools. |
| NHLBI | National Heart, Lung, and Blood Institute. The NHLBI is within the National Institutes of Health (NIH) |
| NIH | National Institutes of Health. |
| NSF | National Science Foundation |
| OARO | Office of Animal Research Oversight. One of 7 departments within ORA. This office provides support to the three committees involved with animal research so they may carry out their federally-mandated functions. |</p>
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<th>Acronym or Term</th>
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<tr>
<td>OBFS</td>
<td>Office of Business &amp; Financial Services. One of 7 departments within ORA. This office provides business services to ORA and other units falling under the Office of the Vice Chancellor for Research.</td>
</tr>
<tr>
<td>OCGA</td>
<td>Office of Contract &amp; Grant Administration. One of 7 departments falling under the Office of Research Administration. It is responsible for supporting proposal development, submitting proposals, negotiating contracts, accepting and processing award documents and interpreting sponsor guidelines.</td>
</tr>
<tr>
<td>OHRP</td>
<td>Office for Human Research Protection. Federal office within the United States Department of Health and Human Services. This office is one of several agencies that provides specific guidelines for conducting research involving humans.</td>
</tr>
<tr>
<td>OHRPP</td>
<td>Office of the Human Research Protection Program. One of 7 departments within ORA—this UCLA office, is the administrative arm of the UCLA Human Research Protection Program. It oversees the safety and welfare of participants in human subject research projects in accordance with all applicable federal regulations, state laws and institutional policy.</td>
</tr>
<tr>
<td>OIP-ISR</td>
<td>Office of Intellectual Property &amp; Industry Sponsored Research. This UCLA office joined the Office of the Vice Chancellor for Research in July 2011. It is responsible for management of invention disclosures from all parts of campus; protection of intellectual property through patenting and copyrighting; licensing and optioning UCLA intellectual property to existing or startup companies; contracting with industry for sponsored research; contracting for incoming and outgoing research materials under material transfer agreements; and contracting for non-research activities (such as fellowships and fellowship programs, seminars and other programming, etc.) and unfunded contracts (such as non-disclosure or confidentiality agreements).</td>
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<tr>
<td>OIT</td>
<td>Office of Information Technology. The Office of the Vice Chancellor for Research and OIT have worked together to initiate a strategic planning process for research informatics in recognition of the need to specifically identify current and future research directions and to anticipate the types of data that people will be using, how it is collected, processed, accessed, analyzed, leveraged and shared.</td>
</tr>
<tr>
<td>OMB</td>
<td>The federal Office of Management and Budget. This office publishes the “Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards,” which control the requirements associated with federal grant funds.</td>
</tr>
<tr>
<td>OPUS</td>
<td>OPUS is the term used to describe the faculty information system that is currently under development for the campus.</td>
</tr>
<tr>
<td>ORA</td>
<td>Office of Research Administration. This is the office of record for UCLA research administration, which in FY14 supported more than $972M in contract and grant awards, $880 million in sponsored project expenditures, more than 16,000 human, animal and safety protocols, and tens of thousands of transactions related to proposal submission, award administration, financial management, compliance monitoring, external audit and reporting. ORA staff members are the central points of contact for Principal Investigators and staff members seeking assistance with research administration matters, and ORA staff serve as authorized institutional officials for UCLA in communications with research sponsors and regulatory agencies.</td>
</tr>
<tr>
<td>ORDM</td>
<td>Office of Research Data Management. One of 7 departments within Office of Research Administration. This office maintains the official institutional record of proposal and award information and provides data analytical services to ORA and the campus community.</td>
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<tr>
<td>ORIS</td>
<td>Office of Research Information Systems. One of 7 departments within the Office of Research Administration. The Office of Research Information Systems provides information technology support and business analysis services to the departments within the UCLA Office of Research Administration, Office of Intellectual Property-Industry Sponsor Research, and Research Policy and Compliance. It works with these functional units to design, develop and deploy systems to support research administration requirements and research system users campus-wide.</td>
</tr>
<tr>
<td>ORSC</td>
<td>Office of the Radiation Safety Committees. This office was recently created to provide administrative support to the Radiation Safety Committee and its four subcommittees. The ORSC is a unit within the Office of the Human Research Protection Program (OHRPP), which is one of the 7 departments within the Office of Research Administration (ORA).</td>
</tr>
<tr>
<td>OSOC</td>
<td>OVCR Safety Oversight Committee. A committee staffed with the Chairs of the Safety Committees, the Director of EH&amp;S (as a single representative for the Safety Officers), a delegate from the Office of the Vice Chancellor for Legal Affairs, and the delegate of the VCR.</td>
</tr>
<tr>
<td>OVCR</td>
<td>Office of the Vice Chancellor for Research. Term used to refer to the organization falling under the responsibility of the Vice Chancellor for Research. This office encompasses the following functions described in greater detail in this Annual Report: (1) Research, Safety, Policy &amp; Compliance; (2) Research Development &amp; Support; (3) Entrepreneurship, Technology Transfer &amp; Industry Sponsored Research; and (4) Office of Research Administration.</td>
</tr>
<tr>
<td>PAMS</td>
<td>Post Award Management System. This is a web-based post-award management tool developed by ORA under the RAPID project to support fund management and reporting campus-wide.</td>
</tr>
<tr>
<td>PATS</td>
<td>Proposal &amp; Award Tracking System. This system supports tracking proposals, awards, workflow and workload metrics in OCGA.</td>
</tr>
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<tr>
<td>PHS</td>
<td>U.S. Public Health Service. A primary division within the U.S. Department of Health &amp; Human Services. This division is responsible for promulgating and ensuring compliance with policies and laws that are designed to protect, promote, and advance the health and safety of the Nation.</td>
</tr>
<tr>
<td>PI</td>
<td>Principal Investigator. This term is to refer to the lead scientist for a particular funded project, study or trial. In the case of federal funding, it is the person who takes direct responsibility for completion of a funded project, directing the research and reporting directly to the funding agency.</td>
</tr>
<tr>
<td>PI Portal</td>
<td>UCLA web-based tool that provides real-time research financial information to Principal Investigators.</td>
</tr>
<tr>
<td>Pilot/Collaborative Program</td>
<td>Pilot and Collaborative Translational and Clinical Studies Program. One of nine programs in the UCLA Clinical and Translational Science Institute. This program is designed to drive research within UCLA CTSI. It assembles new transdisciplinary teams of senior and junior investigators; provides seed funding; fosters collaborations among basic, clinical and community researchers; provides funding for development of novel methodologies; assists the transition of research from preclinical to Phase I clinical trials; and recruits new translational faculty.</td>
</tr>
<tr>
<td>RAPID</td>
<td>Research Administration Process Improvement &amp; Deployment. This is a long-term project led by the Office of Research Administration that has delivered comprehensive, systematic, innovative and effective performance improvements in research administration. Marcia Smith, Associate Vice Chancellor, is the Project Director.</td>
</tr>
<tr>
<td>RATS</td>
<td>Research Application Tracking System. This system was developed to facilitate and enhance the animal research protocol approval process for the research community at UCLA. RATS empowers investigators with the ability to create, submit, and manage their protocols via a web browser.</td>
</tr>
<tr>
<td>RDRC</td>
<td>Radioactive Drug Research Committee. One of the four radiation safety subcommittees. The RDRC is responsible for evaluating basic research proposals involving the use of radioactive drugs in humans without an Investigational New Drug Application.</td>
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<tr>
<td>REMS</td>
<td>Research Enterprise Management System.</td>
</tr>
<tr>
<td>RFA</td>
<td>Request for Applications. One of several terms used to describe solicitation of proposals or applications.</td>
</tr>
<tr>
<td>RIDE</td>
<td>Research Initiative for Diversity and Equity. A new internal funding mechanism from the OVCR Cabinet to promote research related to understanding or improving the campus climate.</td>
</tr>
<tr>
<td>RISP</td>
<td>Research Informatics Strategic Planning. Strategic planning process initiated by OVCR and the Office of Information Technology, in recognition of the need to specifically identify current and future research directions and to anticipate the types of data that people will be using, how it is collected, processed, accessed, analyzed, leveraged and shared. This project is being led by Arash Naeim and Jim Davis.</td>
</tr>
<tr>
<td>RPC</td>
<td>Research Policy &amp; Compliance. One of the departments administratively falling under the Administrative &amp; Research Development division of the Office of the Vice Chancellor for Research. The staff members provide leadership in shaping, interpreting, and implementing UC and UCLA research-related policies, procedures and guidance. They work with, and support the Vice Chancellor for Research in his role as the campus Research Integrity Officer in responding to, investigating and reporting allegations of research misconduct and maintaining federal assurance in this area by compiling and submitting an annual report to the federal Office of Research Integrity. They also work collaboratively with other UC and campus officials and units to resolve complex and sensitive issues related to research integrity and compliance, including participation in the campus Investigations Workgroup.</td>
</tr>
<tr>
<td>RSC</td>
<td>Radiation Safety Committee. This committee and its subcommittees were reorganized in summer 2011 to enhance the governance structure for research, clinical and academic activities involving radiation exposure.</td>
</tr>
<tr>
<td>RSO</td>
<td>Radiation Safety Officer. A position within the Radiation Safety Division of UCLA Department of Environment Health &amp; Safety.</td>
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<tr>
<td>S2S Grants</td>
<td>Also known as Cayuse. A web-based alternative for preparing, validating, and submitting proposals via Grants.gov that does not require use of PureEdge or Adobe Forms.</td>
</tr>
<tr>
<td>SBIR</td>
<td>Small Business Innovation Research</td>
</tr>
<tr>
<td>SGIRB</td>
<td>South General Campus Institutional Review Board. One of the five UCLA Institutional Review Boards. SGIRB reviews social-behavioral research from South campus researchers who conduct health services research in areas such as public health, quality of care, quality of life, health prevention and health education research.</td>
</tr>
<tr>
<td>SIAB</td>
<td>Startup in a Box. A program initiated by OIP-ISR to provide UCLA entrepreneurs with the tools they need to found and grow prosperous companies.</td>
</tr>
<tr>
<td>SOAA</td>
<td>UCLA School of the Arts and Architecture.</td>
</tr>
<tr>
<td>SR</td>
<td>Shared Resource. Goods, services and equipment that support research-related activities. UCLA has approximately 135 shared resources [See Section VI-E].</td>
</tr>
<tr>
<td>SRC</td>
<td>Shared Resources Consortium. New consortium formed in recognition of the need for a more contemporary model for shared research resources. Shared resources may be classified as either “members” or “affiliates” with varying benefits.</td>
</tr>
<tr>
<td>STEM</td>
<td>Science, Technology, Engineering, and Mathematics. The Office of the Vice Chancellor for Research plans to assemble members of the UCLA community interested in STEM education research and/or programs.</td>
</tr>
<tr>
<td>STTR</td>
<td>Small Business Technology Transfer. Government-funded program to facilitate innovation research and development. This program requires a small business to formally collaborate with a research institution.</td>
</tr>
<tr>
<td>TFT</td>
<td>UCLA School of Theater, Film and Television</td>
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<tr>
<td>TSG</td>
<td>Transdisciplinary Seed Grants. A new seed grant funding opportunity initiated by the Vice Chancellor for Research Cabinet in conjunction with the Academic Senate Council on Research. There are two funding cycles per year. Projects must have at least two co-investigators from different disciplines and address novel research questions. To date, 26 projects have been selected for funding.</td>
</tr>
<tr>
<td>UCOP</td>
<td>University of California Office of the President</td>
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<tr>
<td>UCPATH</td>
<td>The name for the system-wide effort to move all UCs to a single, system for processing payroll and capturing human resources information.</td>
</tr>
<tr>
<td>UG</td>
<td>New federal “Uniform Guidance” (UG) for administrative requirements, cost principles and audits of Federal Grant Awards. The new federal guidelines integrate all prior guidance for administration of federal awards into a single new guidance document. Changes in the organization and description of the guidelines have led to hundreds of questions about the interpretation and intention of the new federal requirements.</td>
</tr>
<tr>
<td>VCR</td>
<td>Vice Chancellor for Research. The current Vice Chancellor for Research is James Economou.</td>
</tr>
<tr>
<td>WebIRB</td>
<td>webIRB is the tool used for submission, review and approval of research protocols involving human subjects. As of October of 2011 all studies, including renewals of previously approved studies, were completed in webIRB. There are no longer any active studies in paper form. IRB review takes place using webIRB.</td>
</tr>
<tr>
<td>WTT</td>
<td>Westwood Technology Transfer. Temporary name for the new nonprofit entity established to provide guidance and initiate greater opportunities for entrepreneurship across the UCLA campus. The Board of Directors for WTT was appointed during early FY15.</td>
</tr>
</tbody>
</table>
XII. APPENDICES

Appendix Materials for Section VI: Research Safety, Compliance, & Oversight

- Appendix 6-L: Research Policy and Compliance: Discussion Draft of Restricted Research at the University of California

Appendix Materials for Section VIII

- Appendix 8-C: Examples of Industry Sponsored Research Awards
Appendix Materials for Section VI:
Research Safety, Compliance, & Oversight
Restricted Research at the University of California

Ann Pollack
Assistant Vice Chancellor – Research

Claudia Modlin
Research Policy & Compliance Coordinator

January 17, 2014
Issue

Several months ago, several UC Vice Chancellors for Research suggested that the UC system re-examine its position regarding the conduct of restricted research with a view toward permitting faculty to participate in research that may contribute to national security.

Overview of Export Control Laws

U.S. export control laws and regulations are intended to serve various government objectives, among them to protect national security, advance U.S. foreign policy and economic goals, and prevent the proliferation of weapons of mass destruction. Since September 11, 2001, export controls have been used as anti-terrorism tools. This has resulted in an increase in concern about enforcement and a greater focus on life sciences and biological materials.6

The following federal regulations are collectively known as Export Control regulations:

- International Traffic in Arms Regulations (ITAR) administered by the Department of State control munitions and defense services;
- Export Administration Regulations (EAR) administered by the Department of Commerce control dual (commercial and military) use items; and
- Office of Foreign Asset Control (OFAC) regulations administered by the Department of the Treasury, control economic and trade sanctions.

In general, export control regulations cover four main types of University activities:

1. transfers of controlled information, including technical data, to persons and entities outside the United States;
2. shipment of controlled physical items, such as scientific equipment, that require export licenses from the United States to a foreign country;
3. verbal, written, electronic, or visual disclosures of controlled scientific and technical information related to export controlled items to foreign nationals (“deemed exports”), even when it occurs within the United States; and
4. travel to certain sanctioned or embargoed countries for purposes of teaching or performing research. 7

UC campuses routinely seek licenses to permit researchers to export ITAR and EAR controlled equipment or information. Licenses from OFAC are frequently requested so that researchers can attend conferences, conduct research, enter into collaborations with, or transfer money to support research in Cuba, Iran, North Korea, Sudan, and Syria.

It is important to note the Department of Commerce “deemed export” rule, which states that the transfer, release, or disclosure to foreign persons in the US of technical data about controlled commodities is deemed to be an export to the home country of the foreign person and depending on the home country, may require an export license. Although the State Department does not use this term, the same concept can be applied for ITAR purposes.

There is an exception to the requirement of obtaining licenses for deemed exports. Research conducted without restrictions at an accredited U.S. institution of higher education – that is, basic and applied research in science and engineering that is not subject to access, dissemination, or participation restrictions – qualifies for the Fundamental Research Exclusion (“FRE”). This research is distinguished from proprietary research and industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary or national security reasons. Fundamental research conducted in the US is excluded from export control regulations. NSDD 189 provides for products of fundamental research to remain unrestricted. However, the protection afforded by staying with the FRE is lost whenever the university or the researcher agrees to allow any restrictions on the publication, dissemination, or access to the research by foreign nationals. Also note that the protections of the FRE are not available to industry.

To date, staying with the FRE has been part of the UC’s strategy for export control compliance. This allows the University to avoid issues associated with “deemed exports.”

The penalties for violations of export control regulations are onerous. Violations of EAR, ITAR, and OFAC regulations can lead to sanctions both criminal and civil with fines of up to $1,000,000 for each violation for Universities. Penalties for individuals include imprisonment for up to 10 years and fines of up to $250,000 per violation.

**Overview of University of California’s Position on Restricted Research**

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The University of California’s decision to prohibit the conduct of “restricted research” is based on several long-standing principles including a commitment to open communication.

“The University of California is committed to upholding and preserving principles of academic freedom. The freedom to publish; the freedom to select research topics based on intellectual interest; to select investigative teams based on merit; and the free access by all interested persons to the results of research are basic principles to which the University of California adheres. These freedoms enable the University to further its mission by advancing knowledge and transmitting it to its students and to the public.”

UC policy also states that “freedom to publish or disseminate results is a major criterion of the appropriateness of a sponsored project and particularly of a research project.” Contracts and grants are generally considered unacceptable if the sponsor wants:

- Assignment of the ownership of results.
- The final decision about what may be published.
- An unreasonably long or unlimited delay on publication or dissemination of information resulting from the project.

Additionally, UC policy requires that its employees be selected solely on the basis of merit. Thus, within the limits of law (hiring only those who may legally be employed in the US), the UC campuses have been advised that restrictions on access to and participation in research activities based on citizenship, resident status or visa category is unacceptable. Exceptions are limited. These include fellowships and workforce development, and activities that involve the handling of select agents.

**Interviews with UCLA faculty, deans, high level research administrators at several UC campuses, colleagues at the UC Office of the President, including the University Export Control Officer, and Export Control Officers at a number of non-UC institutions**

- **Support for change:**
  - Some support (not unanimous) for considering ways of permitting faculty to engage in research that contributes to national security. Argument that contributing to matters of national security is a public benefit compatible with the Morrill Land Grant Act and UC service mission.

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10 The Academic Senate resolution on Academic Freedom was initially adopted in 1934 and updated in 2003.
11 UC Contract and Grant Manual, Chapter 1, section 410.
12 UC Contract and Grant Operating Guidance Memo 00-05 (October 30, 2000) “Unacceptable Controls Based on U.S Citizenship Status.”
Times have changed. As a forward-thinking University, UC should consider what is best for the future, not just consider the way things have been done in the past.

Best and brightest within the academic community should be able to contribute to national defense/national security.

Important to be able to engage in research where DARPA and other federal agencies are seeking academic expertise.

Some UCLA faculty already hold personal security clearances and/or consult for aerospace and other defense industry organizations and are already exposed to restricted/proprietary data. They are aware of issues and already are involved in classified or restricted research activities as consultants (outside personal activities). They believe it should be made easier for them to do this work and that a site on or close to campus should be identified.

Should be allowed as part of scope and course of UC activities so postdocs, staff, and students can also participate.

Faculty who want to engage in restricted research should have the opportunity.

UC permits acceptance of ITAR-restricted background information on an exception basis. This and other permissible practices now allowed only on an exception basis, such as permitting faculty and staff who are US nationals to go to restricted facilities (i.e. military bases, aerospace industry) for background briefings, inspection of controlled equipment, etc. should be more widely publicized as acceptable.

UC policy prohibits the conduct of restricted research but not the conduct of “engineering tasks,” activities that are tangential to the “intellectually significant” aspects of the project, and which can be partitioned off to permit the remaining research activities to be conducted within the FRE. The “engineering tasks” can either be accomplished by US nationals at UC, or subcontracted to an outside entity.

**Support for maintaining the status quo:**

- Time honored commitment to open communication and nondiscrimination in choosing research participants is important.
- Increased risk (individual and institutional).
- Will invite higher scrutiny from federal agencies such as FBI and Homeland Security.
- Would presumably preclude students from involvement in some projects.
- Allowing restricted research will be complicated. Primary concern is restricting flow of information.
- Concern that risks are underestimated.
Concerns about where resources required to create necessary export control infrastructure will come from and whether they will divert resources from other important activities.

- Departure from UC academic culture.
- Not all faculty are good at compartmentalizing.
- Belief that openness leads to the best research.
- Concern that protecting students by excluding them from participating in restricted research does not support UC’s commitment to students.
- Not a guaranteed stream of additional research support.

- No support from UCLA faculty for conducting classified research.

- Decision making:
  - Consensus that decision should be based on academic considerations and not on the prospect of additional revenue streams.
  - Decision about allowing ITAR-controlled research should be made based on faculty interests, research thrusts, expertise and decisions about whether doing work that is restricted is important, not on the possibility that it will bring in additional revenue.

- Students:
  - Educating students (undergraduate and graduate) is important part of UC mission. Want them to acquire skills sets that will support career development. Some exposure to export controlled research may be good and might help students acquire a competitive edge.
  - Some think it is unfair to conduct some research in which students cannot participate.
  - Students should not be involved in restricted research.
  - All MA and dissertations must be publishable.
  - Consensus that students should be protected and should not be permitted to engage in restricted research projects for MA theses or Ph.D. dissertations.

- Risks:
  - Allowing restricted research will be complicated. Primary concern is restricting flow of information.
  - Potential risks to individuals and institution.
  - Acceptance of restrictions based on federally mandated national security considerations will create a “slippery slope” and allow other sponsors to impose
restrictions based on sponsor preference, misunderstanding of policy, or regulatory requirements.

- Concern about how to assess and control risks.
- All participants must be made aware of risks. Primary burden and responsibilities put on PIs.

- **Need to establish an export control infrastructure and program:**
  - A decision to permit restricted research on or off campus requires a commitment to create robust export control infrastructure and program that goes beyond existing capacities.
  - Must identify and commit to spending money needed to create export control infrastructure.
  - Export Control infrastructure must include a strong technology management program that includes assessing all situations in advance to determine whether manageable technology control plans (“security protocols”) can be put in place. It also includes screening and training participants; ensuring space is secure; creating IT firewalls; establishing record keeping and monitoring systems; creating a prepublication review process; ensuring participants don’t take restricted materials with them when they travel outside of the US; and more.
  - Need to create firewalls in IT systems. Need dedicated computers and separate servers. IT staff who have access to these computers/servers must be US nationals.
  - Permitting restricted research on campus in the midst of fundamental research projects creates higher risk and is more complicated to manage but is possible. Easier to manage program by identifying an off-campus facility.
  - Hard to make a quantum leap from the current UC position (staying in the FRE) to permitting ITAR-controlled research. Will take time to ramp up program.
  - ITA identified as a possible site where UCLA faculty can conduct restricted research.

- **Peer institutions:**
  - Assumption that faculty at many other institutions can conduct restricted research at campus or at an affiliated DoE or DoD lab (i.e., MIT/Lincoln Labs, CalTech/JPL, Berkeley/Lawrence Berkeley Lab) or University Affiliated Research Centers (i.e., Johns Hopkins/Applied Physics Lab) or other affiliated research institutes where classified or restricted research (i.e., USC/ICT and ISI) is conducted not confirmed.
  - Caltech does not permit ITAR-restricted research. Does occasionally permit companies to “lease” recharge facilities in order to perform tasks required under…
ITAR-restricted research being conducted elsewhere. Requires badge access, closing windows/drawing blinds, hanging signs on outside of locked doors that say “restricted access,” logging all materials in and out.

- Yale and Stanford do not permit restricted research to be conducted.
- Berkeley Space Science Center does not conduct academic research. Dedicated staff (not Berkeley faculty) conducts engineering type work.
Appendix Materials for Section VIII: Entrepreneurship, Technology Transfer & Industry Sponsored Research
Appendix 8-C  Examples of Industry Sponsored Research Awards

The Industry Sponsored Research and Material Transfer group secured $38,844,503 in “new” research funding awards from for-profit sponsors in Fiscal Year 2014. These contracts provided support for research across the campus, including:

- Continued support for a world-class, multidisciplinary research center to address the national needs of the advanced semiconductor industry through development of new nanoscale materials and structures.
- Examining the function and process of molecular memory systems to identify potential treatment options for stroke patients suffering from functional deficits.
- Developing structural design changes and examining and synthesizing novel materials for use in high-performance solar cells.
- Identifying biomarkers and developing genetic modifications to deliver novel, patient-specific cellular therapies.
- Assessing and improving foster youth initiatives for local and state child welfare programs.
- Development of a cutting-edge microfluidic-based fluorescence activated cell sorter targeting rare tumor and cancer stem cells.
- Exploring the development of home monitoring systems and other devices to facilitate remote monitoring of vital signs and other health-related biomarkers.
- Building a comprehensive Science, Technology, Engineering and Mathematics (STEM) software learning platform for implementation in scholastic aptitude testing and intelligent tutoring systems.
- Investigating regional traffic congestion through the assessment of regional express lane networks and the crafting of alternative solutions.
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