Module 1
Diversifying Your Portfolio: Non-NIH Sources of Funding

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Leader, Pilot and Collaborative Translational and Clinical Studies Program

www.ctsi.ucla.edu
THE HARD REALITY

- 10-15 years ago, one could expect to apply for one's first NIH R01, directly after completing a postdoctoral fellowship. Today, the average age for someone to receive their first R01 grant award is age 42 for Ph.D.s and 44 for M.D.s.

- In 2005, 15-18% of grants were funded, depending on the NIH institute. For FY 2013 less than 8% will be funded. For the past ten years funding for NIH itself has been flat which means in real dollars the NIH budget has gone down for seven years.
How do you get started?

- Understand what is expected.
- Set realistic goals.
- Explore your opportunities.
- Get ready early.
- Take advantage of internal review.
THE HIGH COSTS OF RESEARCH

- Personnel 60-85% of total costs
- Lab assistant (college graduate) $30,000+
- Staff research associate I (college grad + experience) $35,000+
- Research nurse >$100,000
- Postdoctoral fellow $38-46,000
- Portions of P.I.’S and co-P.I.S’ salary
- All salaries must provide benefits (+20-30%)
- Graduate student $27,000 + tuition
THE COSTS OF RESEARCH

• Supplies
  – Bench science ~ 20-40% total
    • High costs: animal colonies
  – Clinical/social science ~10-15%

• Equipment maintenance

• But: physical plant and administration costs usually charged to “overhead”

• Shared instrumentation grants
Major Sources:

Investigator Initiated Grants (RO1)
- NIH – National Institutes of Health ($32B*)
- NSF – National Science Foundation ($7.4B*)
- ACS – American Cancer Society (~$0.1B)
- AHA – American Heart Association

Program Project Grants (PO1, UO1, NIRT etc..)

Other Government
- AHQR, DOD, DOE, DARPA…

Large Foundations (HHMI ($0.8B), Keck, etc…)

Small Foundations (Disease specific)
- CF, MS, Breast cancer, etc.
OTHER USEFUL TYPES OF FUNDING

• California
  – CIRM (stem cell)
  – Tobacco
• Training Grants (Graduate Students, Post-Docs)
• Industry
• Private Donors (Clinical Departments)
• UCLA - Intramural Programs
MIXED GRANT PORTFOLIOS DESIRABLE

• NIH funds subject to cutbacks
• Restrictions on NIH funds (salary cap, foreign travel)
• Restrictions on training grants (US residents or citizens)
• The effects of recession on funding by private foundations
# PRIVATE FOUNDATIONS

## Top 20 U.S. Foundations Awarding Grants for Medical Research

<table>
<thead>
<tr>
<th>Foundation Name</th>
<th>State</th>
<th>Dollar Amount</th>
<th>No. of Grants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bill &amp; Melinda Gates Foundation</td>
<td>WA</td>
<td>$270,976,718</td>
<td>26</td>
</tr>
<tr>
<td>The Starr Foundation</td>
<td>NY</td>
<td>33,075,000</td>
<td>14</td>
</tr>
<tr>
<td>Burroughs Wellcome Fund</td>
<td>NC</td>
<td>25,804,239</td>
<td>83</td>
</tr>
<tr>
<td>Flight Attendant Medical Research Inst, Inc.</td>
<td>FL</td>
<td>20,461,776</td>
<td>143</td>
</tr>
<tr>
<td>Avon Foundation</td>
<td>NY</td>
<td>16,216,577</td>
<td>16</td>
</tr>
<tr>
<td>The Dana Foundation</td>
<td>NY</td>
<td>15,506,843</td>
<td>50</td>
</tr>
<tr>
<td>W. M. Keck Foundation</td>
<td>CA</td>
<td>14,970,000</td>
<td>16</td>
</tr>
<tr>
<td>The Picower Foundation</td>
<td>NY</td>
<td>13,198,221</td>
<td>8</td>
</tr>
<tr>
<td>Eli &amp; Edythe L. Broad Foundation</td>
<td>CA</td>
<td>12,689,219</td>
<td>45</td>
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<tr>
<td>The Robert A. Welch Foundation</td>
<td>TX</td>
<td>10,960,000</td>
<td>37</td>
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<tr>
<td>Doris Duke Charitable Foundation</td>
<td>NY</td>
<td>10,748,600</td>
<td>26</td>
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<tr>
<td>The Rockefeller Foundation</td>
<td>NY</td>
<td>10,701,679</td>
<td>9</td>
</tr>
<tr>
<td>The Abramson Family Foundation</td>
<td>FL</td>
<td>10,300,000</td>
<td>4</td>
</tr>
<tr>
<td>The G. Harold &amp; Leila Y. Mathers Foundation</td>
<td>NY</td>
<td>9,114,200</td>
<td>44</td>
</tr>
<tr>
<td>The Robert Wood Johnson Foundation</td>
<td>NJ</td>
<td>8,999,782</td>
<td>29</td>
</tr>
<tr>
<td>The Sidney Kimmel Foundation</td>
<td>PA</td>
<td>8,050,000</td>
<td>3</td>
</tr>
<tr>
<td>James S. McDonnell Foundation</td>
<td>MO</td>
<td>7,558,779</td>
<td>43</td>
</tr>
<tr>
<td>F. M. Kirby Foundation, Inc.</td>
<td>NJ</td>
<td>7,210,500</td>
<td>32</td>
</tr>
<tr>
<td>Irene Diamond Fund</td>
<td>NY</td>
<td>6,490,495</td>
<td>13</td>
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<tr>
<td>Charitable Leadership Foundation</td>
<td>NY</td>
<td>6,434,695</td>
<td>1</td>
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Circa 2005, Modified from Foundation Center Statistical Services
Industry Funded Research

Forming partnerships with industry

– Standard research grants and contracts
  (to be discussed by Dr. Wang)

– Federal Grant Programs
  • SBIR and STTR
The Small Business Innovation Research (SBIR) program is a Federal set-aside program for domestic small business concerns to engage in Research/Research and Development (R/R&D) that has the potential for commercialization.

Federal agencies with extramural research and development budgets over $100 million are required to administer SBIR programs using an annual set-aside of 2.5% for small companies to conduct innovative research or research and development that has potential for commercialization and public benefit.

To date, over $12 billion has been awarded by the SBIR program to various small businesses.
The unique feature of the STTR program is the requirement for the small business concern applicant organization to formally collaborate with a research institution.

Differences between SBIR and STTR. Under SBIR Program, the PI must have primary employment with the small business concern. The STTR Program requires research partners at universities and other non-profit research institutions to have a formal collaborative relationship with the small business concern. At least 40 percent of the STTR research project is to be conducted by the small business concern and at least 30 percent of the work is to be conducted by the single, "partnering" research institution.
# Overview of Pilot Programs

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<thead>
<tr>
<th>Pilots</th>
<th>Team Building</th>
<th>Proposal Development</th>
<th>Proof-of-Concept</th>
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<tbody>
<tr>
<td><strong>Catalyst Grants</strong></td>
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<td><strong>Team Science Awards</strong></td>
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<td><strong>CTSI Scholars Awards</strong></td>
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<td><strong>Prototype Grants</strong></td>
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<td><strong>Novel Methods &amp; Technologies Award</strong></td>
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<td><strong>Rapid Response Team</strong></td>
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## Early Career Awards

### KL2 Awards

<table>
<thead>
<tr>
<th>Opportunity Funds</th>
<th>Grant Amount</th>
<th>Duration of Award (Years)</th>
<th>Application Due Date</th>
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<tbody>
<tr>
<td>KL2 Awards</td>
<td>Up to $125,000 in salary and research support</td>
<td>1 year at 75% effort (renewable for up to 3 years)</td>
<td>RFA to be released Jan 2014</td>
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<td></td>
<td></td>
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<td>Full application: late Feb 2014</td>
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[site: http://www.ctsi.ucla.edu/opportunities/pages/](http://www.ctsi.ucla.edu/opportunities/pages/)
KA2 Award Cycle
Save the date for the UCLA CTSI K to R Workshop!

Thursday, December 12, 2013
8-5 PM (tentative)
LOCATION: TBA at UCLA Westwood

All-day workshop for K awardees at the CTSI partnered institutions to learn about how to prepare successful R grant applications. Presentations about submitting R grant applications, faculty review and discussion of draft proposals, feedback on preparing successful R grant applications on an individual basis.

Lisa Chan
Program Administrator
UCLA Clinical and Translational Science Institute
Research Education, Training, and Career Development
10940 Wilshire Blvd. Ste 700
Los Angeles, CA 90024
Tel: 310-206-3706
Fax: 310-794-0723
Email: LChan@mednet.ucla.edu
## Prioritized for Early Career

<table>
<thead>
<tr>
<th>Opportunity Funds</th>
<th>Grant Amount</th>
<th>Duration of Award (Years)</th>
<th>Application Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vouchers</strong></td>
<td>Up to $10,000</td>
<td>1</td>
<td>RFA released; applications due Oct 6, 2013</td>
</tr>
<tr>
<td><a href="http://www.ctsi.ucla.edu/opportunities/pages/">site</a></td>
<td></td>
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<tr>
<td><strong>CTSI Junior Faculty Mentored-Research Awards</strong></td>
<td>Up to $30,000</td>
<td>Up to 1 year</td>
<td>RFA to be released Jan 2014</td>
</tr>
<tr>
<td><a href="http://www.ctsi.ucla.edu/opportunities/pages/">site</a></td>
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</table>
## Other Collaborative Funding Opportunities

<table>
<thead>
<tr>
<th>Opportunity Funds</th>
<th>Grant Amount</th>
<th>Duration of Award (Years)</th>
<th>Application Due Date</th>
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</thead>
<tbody>
<tr>
<td><strong>Team Science Awards</strong></td>
<td>Up to $200,000</td>
<td>1-2 years</td>
<td>CFAR/Aids Institute Team Science RFA to be released in Fall 2013</td>
</tr>
<tr>
<td>site: <a href="http://www.ctsi.ucla.edu/opportunities/pages/">http://www.ctsi.ucla.edu/opportunities/pages/</a></td>
<td></td>
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</tr>
<tr>
<td><strong>Catalyst Awards</strong></td>
<td>$100 to $5,000</td>
<td>Up to 1 year</td>
<td>Applications due April 1, August 1 &amp; December 1</td>
</tr>
<tr>
<td>site: <a href="http://www.ctsi.ucla.edu/opportunities/pages/">http://www.ctsi.ucla.edu/opportunities/pages/</a></td>
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CTSI Research Funding

First Year Accomplishments

- **Pilot awards** – 53 awards totaling $1.8 million
- **Team Science Awards** - melanoma, community mental health training, ovarian cancer and stroke
- **CTSI Scholars** - program for new faculty
- **KL2 Training Program** - 3 trainees chosen from among 28 applicants
- **Shared Resources Consortium (SRC)** - contributed to SRC funding to support instrumentation for existing and proposed cores
- **Vouchers** - 174 applications received and at least 44 will be funded
Examples of translational research funding for new investigators

Scholar Awards:

• “Fibrosis, Stress, and Ventricular Arrhythmias”

• “The role of neuronal nitric oxide synthase (nNOS) in the pathophysiology of COPD skeletal muscle dysfunction”

• “Development of a Peer-Led Smoking Cessation Intervention for Individuals with Severe Mental Illness”

• “Immunophenotyping to Differentiate Infection from Rejection in Intestinal Transplantation”

• “Investigating the Potential of Reprogrammed Pluripotent Stem Cells for Patient-Specific Cellular Therapies”
How do you get information?

- Agency Sources (NIH, NSF, ACS web sites)
- University of California – Office of Technology Transfer
  [http://www.ucop.edu/ott/welcome.html](http://www.ucop.edu/ott/welcome.html)
- UCLA Sponsored Research - Funding Opportunity Databases
  [http://www.research.ucla.edu/ocga/funding.htm](http://www.research.ucla.edu/ocga/funding.htm)
- UCLA School of Medicine, Deans Office
  [http://research.mednet.ucla.edu](http://research.mednet.ucla.edu)
- UCLA Clinical and Translational Science Institute
  [www.ctsi.ucla.edu](http://www.ctsi.ucla.edu)
**EVENTS**

**OCT 10**
Grant Preparation and Submission (Part 2)

**OCT 16**
Introduction to Corporate and Foundation Opportunities

**OCT 18**
UCLA-USC-Caltech Nanotechnology & Nanomedicine Symposium: Nanotechnology Innovations in Cancer, Infectious Diseases and Regenerative Medicine

**OCT 23**
Hong Wu, MD, PhD, "PTEN controlled signaling in stem cells and cancer metastasis"

**DEADLINES**

**OCT 30**
Submit LOIs for the CTRC Seed Grant Program

**OCT 31**
Solicitation of Applications for Interdisciplinary Workshops, Planning Meetings, and Symposia

**NOV 04**
A.P. Giannini Fellowship Application

**NOV 07**
Registration Opens for all-day UCLA CTSI K to R Workshop

**NOTICE**

NHLBI Awards UC CTSAs $12 million for Center for Accelerated Innovation

Interested in Clinical Research Networking?

CTSI Biostatisticians Collaborate with UCLA Dentistry to Receive $5 Million NIH Award

Collaborate with NCATS Scientists

Scientists Find Disease Clues in Saliva
Funding Opportunities

In order to strengthen current research aims, UCLA CTSI offers opportunities through assistance with grants and career openings to doctors and researchers who align themselves with the goals and methodologies of translational research. Learn more about those services and opportunities below and by viewing this presentation.

UCLA CTSI is committed to encouraging research by providing various funding opportunities for those who are interested in conducting research. By encouraging the growth of independent research and supporting translational team science, UCLA CTSI hopes to fortify the research community with new discoveries designed to deliver practical bedside applications.

See what Funding Opportunities are currently available below.

- Westwood CTRC Seed Grant
- Core Voucher
- Catalyst Award
- How to co-fund a Team Science Award

Open Nov 1, 2013
School of Medicine Research Website:
http://research.mednet.ucla.edu
In order to complete your search through the UCLA David Geffen School of Medicine, please click on one of the images below.

UCLA VCR
Vice Chancellor for Research

Information on resources on the following
- Limited Submission Opportunity
- External Funding Opportunity Databases
- UCLA Funding Opportunity Newsletters
- Transdisciplinary Seed Grants

Grant, Award and Fellowship Opportunities for the UCLA Health Sciences Community

Clinical and Translational Science Institute
Accelerating Discoveries Toward Better Health

2014 DGSOM Seed Grant Program
SOM Internal Award