State of Research 2019

1. Highlights of FY19
2. Investing in Research
3. Innovation
4. Looking Ahead
## FY19 Sponsored Project Metrics

<table>
<thead>
<tr>
<th>Description</th>
<th>FY19</th>
<th>% Change from previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Proposals Submitted</td>
<td>1,059</td>
<td>+ 3%</td>
</tr>
<tr>
<td>Dollar Amounts of Proposals Submitted</td>
<td>$171 M</td>
<td>+ 18%</td>
</tr>
<tr>
<td>Number of Awards</td>
<td>572</td>
<td>&lt; 1%</td>
</tr>
<tr>
<td>Value of Awards Received</td>
<td>$126 M</td>
<td>+ 2%</td>
</tr>
<tr>
<td>Total Expenditures</td>
<td>$125 M</td>
<td>+ 5%</td>
</tr>
<tr>
<td>Total Research Expenditures</td>
<td>$88 M</td>
<td>+ 11%</td>
</tr>
</tbody>
</table>
All values in millions of dollars. Amounts reflect total award value across all years of a project at the time it was funded.
ResearchStats

Sponsored Projects Overview
College of Education
FY2019

$199,170,083
152 Proposals

$51,847,947
105 Awards

$46,140,089
148 Active Projects

Proposals this Period
Awards this Period
Expenditures this Period

-1% Compared to Last Year

Total Amount Spent Each Fiscal Year

Number of Projects
Dollars Spent

Research
Non-Research

0 10 million 20 million 30 million 40 million 50 million

University of Oregon
Office of the Vice President for Research and Innovation
The College of Ed’s Kent McIntosh is co-director of a $32.6 million award — believed to be the largest grant ever received by the UO — from the U.S. Department of Education to support students with disabilities.
A team of faculty led by the Prevention Science Institute’s Leslie Leve was awarded $12.5 million from the National Institutes of Health to study child growth and development.
Biologists Karen Guillemin, Judith Eisen, and Brendan Bohannan and biophysicist Raghuveer Parthasarathy received a $7.6 million grant from the National Institutes of Health to study the potential health benefits of bacteria.
Earth scientists James Watkins, Leif Karlstrom and Amanda Thomas, biophysicist Mike Harms, and historian Melissa Graboyes received National Science Foundation CAREER Awards, which are among the most sought-after grants awarded by the agency.
FY19 Notable Awards

Other Junior Faculty Awards

- **Michelle Byrne**: NIMH — “The role of brain activity and connectivity in the association between immune function and depressive symptoms…”
- **Ashley Walker**: NIA — Large artery stiffness and cerebrovascular dysfunction: Implications for cognitive impairment and neuropathology
- **Laura Jeanty**: DOE — Early Career Award to fund research in high energy physics
- **Matt Barber**: NIGMS — “Adaptive Evolution of Bacteria in the Battle for Iron”
- **Daniel Grimes**: NIAMS — “The Role of Cilia and Cerebrospinal Fluid Flow in Spine Development and Human and Human Disease”
- **Julia Widom**: NIGMS — “Novel Tools to Investigate Local and Global RNA Conformations in the Splicesome”
- **Diana Libuda**: NIH — Recombination pathway and partner choices during meiosis.
FY19 Notable Awards

UO journalism professor Ed Madison and UO education professor Jenefer Husman received a $1.2 million grant from the National Science Foundation to address the student achievement gap for underrepresented groups in STEM courses. It allows researchers to pursue a creative, interdisciplinary solution to the problem.
FY19 Notable Awards

English professor Courtney Thorsson, received a grant from the National Endowment for the Humanities, for an interpretive cultural history of a group of African American women writers that met in the 1970s.

Stephanie Wood, a research associate in the College of Education, received a grant from the National Endowment for the Humanities, to research native histories along the Lewis and Clark Trail.
Top Read UO News Releases on EurekAlert!:

- **Sea pickles are settling into the Pacific NW**
  Kelly Sutherland, OIMB

- **UO postdoc solves mystery of isolated Atlantic island birds**
  Martin Stervander, IE2

- **UO team makes artificial atoms that work at room temp**
  Benjamín Alemán, Physics
Other Top Performing Stories Based on UO Research & Scholarship:

- "A Signal in Giant Earthquakes That Could Save Lives" — NY Times
  Diego Melgar, Earth Sciences

- “Imaginary Worlds of Childhood” — Wall Street Journal
  Marjorie Taylor, Psychology

- “Blind dates for zebrafish reveal ‘social’ cells in brain” — Spectrum
  Philip Washbourne, Biology
Nearly one-fourth of young adults are looking for love through dating websites and apps.

This relatively new form of courtship can give you access to a large pool of potential partners. It also presents a unique set of challenges.

For example, you’ve probably heard about – or have personally experienced – a dating profile that was posted online but didn’t go well for one of the following reasons: He was unattractive - his profile said he was, she looked different in person than she did in her photo, he was too talkative over text but it was like pulling teeth at dinner.

In other words, a person’s profile – and the messages sent before a date – may not capture who a person really is.

In a 2018 paper, my colleague Jeff Hancock and I wondered: How often do people who use dating apps lie? What sort of things are they prone to lie about?

The lies we tell on dating apps to find love
Dave Markowitz, SOJC

Kavanaugh's impact on the Supreme Court and the country may not be as profound as predicted
Ofer Raban, Law

Think you're bad at math? You may suffer from 'math trauma'
Jennifer Ruef, COE
Investing in Research

- Research equipment
- Research Development Services
- Seed funding for research
- Electronic Research Administration
Research Equipment

- Plasma Focused Ion Beam Instrument (PFIB) — through unique lease and research collaboration agreements with Thermo Fisher Scientific.

- Spinning Disc Confocal Microscope - Murdock Charitable Trust award – 50% UO match

- X-Ray Microscope – Murdock Charitable Trust – 50% UO match
Research Development

Aims to support and increase externally-funded research activity at the UO through:

- Proposal Development
- Pivot: External Funding Search Tool
- Internal Award Funding Programs
- Resources, Trainings, and Customized Assistance

RDS services are designed to meet the unique needs of faculty across disciplines and career stages.

Kate Petcosky-Kulkarni

Mara Fields

Catherine Jarmin Miller
A group of junior faculty members meets with Barbara Ransom, a program director at the headquarters of the National Science Foundation in September 2019.
“...The trip has helped me be able to submit proposals sooner and more strategically than I would have without this program.”

“It was great to see the “behind the scenes” at the funding agencies I visited and understanding that the agencies want to build relationships with you.”

“...This was by far the most valuable experience I’ve had for enhancing my grant writing in my entire career. I wish I had done a trip like this 8 years ago! “
Seed Funding Program

• Incubating Interdisciplinary Initiatives (I3)

• OHSU/UO joint research projects

• Data Science

• Social-Environmental Resilience

• VPRI Innovation Fund

Total investments in seed funding projects will exceed $1 million in FY20.
Research Administration Portal (RAP)

Modules Include:
- IRB
- IACUC
- COI
- Grants (pre & post award)
- Animal Operations
<table>
<thead>
<tr>
<th>Description</th>
<th>2018-2019</th>
<th>Change</th>
</tr>
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<tbody>
<tr>
<td>Licensing Revenue</td>
<td>$10 M</td>
<td>+10%</td>
</tr>
<tr>
<td>Disclosures/Faculty New Ideas</td>
<td>49</td>
<td>+14%</td>
</tr>
<tr>
<td>Science-Based Disclosures</td>
<td>20</td>
<td>+11%</td>
</tr>
<tr>
<td>Patent Filings</td>
<td>19</td>
<td>+12%</td>
</tr>
<tr>
<td>AAU Licensing Ranking (per $)</td>
<td>#5</td>
<td>N/A</td>
</tr>
<tr>
<td>Total # of Active Startups</td>
<td>26</td>
<td>+4%</td>
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Innovation Seed Fund Awardees

- **Ksana Health Inc**: Nick Allen: mobile assessment of suicide risk

- **Perceptivo, LLC**: Terry Takahashi and Avinash Singh: infant hearing assessment

- **New Sensor company (TBD)**: Mike Pluth, Darren Johnson, Michael Haley: sulfide sensing device

**Under Consideration:**
- **KeyBiome**: Karen Guillemin: screening for intestinal microbes and inflammatory response
Oregon Innovation Council Programs

- University Innovation Research Fund
  - $10 million matching fund for federal research awards

- SBIR/STTR Matching Grant ($2.1M)

- SBIR/STTR application support grant ($150k)

- Commercialization Gap Fund ($5 million)

- High Impact Opportunity Projects RFP ($3M)
Looking Ahead

Knight Campus
- Predicted $30M boost in research

Presidential Science Initiatives
- Materials Science
- Microbiome
- Data Science
- Neuroscience
- Environmental Resilience

Clusters of Excellence and other faculty hiring

New partnerships
- OHSU
- Industry: Thermo Fisher
Looking Ahead

- Nov. 21 – Congress must act to pass the FY20 budget
- Budget Control Caps are no longer a concern
- The clock is ticking – 2020 approaches

### Outlook for Federal Funding

<table>
<thead>
<tr>
<th>Agency</th>
<th>% Change from FY18 to FY19</th>
<th>% Change from FY19 to FY20 House</th>
<th>% Change from FY19 to FY20 Senate</th>
</tr>
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<tbody>
<tr>
<td>NSF</td>
<td>4%</td>
<td>7%</td>
<td>3%</td>
</tr>
<tr>
<td>NIH</td>
<td>5%</td>
<td>5%</td>
<td>7.6%</td>
</tr>
<tr>
<td>IES</td>
<td>0.3%</td>
<td>6%</td>
<td>0%</td>
</tr>
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Leslie Leve and Phil Fisher: $10.1 million NIH grant to address the opioid abuse epidemic

Monte Westerfield/ ZIRC: $8 million from NIH for expansion and modernization of zebrafish facilities

Douglas Toomey: $3.1 million grant from the USGS for support and improvement of Shake Alert