State of Research 2019

October 14, 2019

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State of Research 2019

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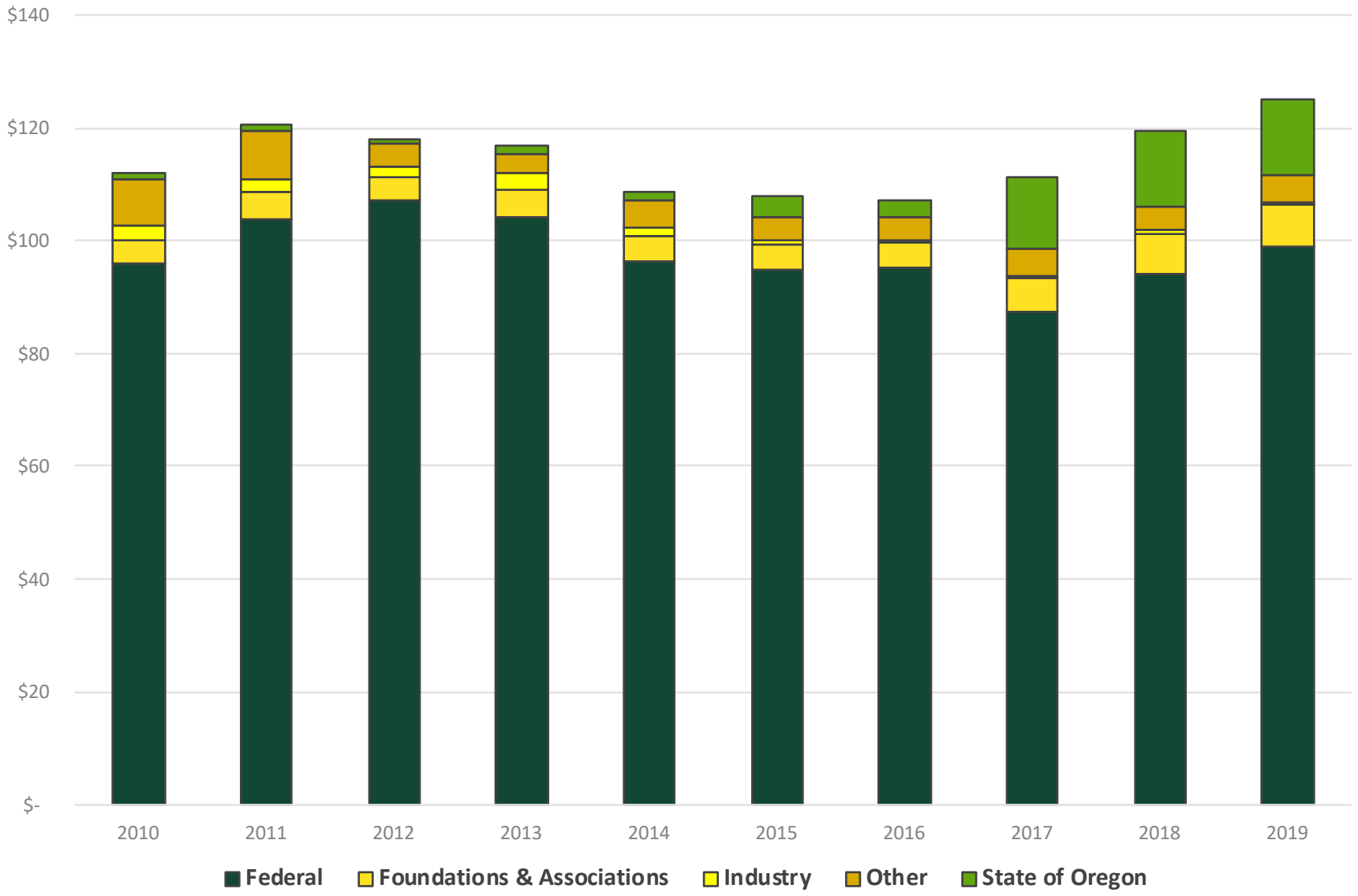
2. Investing in Research
3. Innovation
4. Looking Ahead

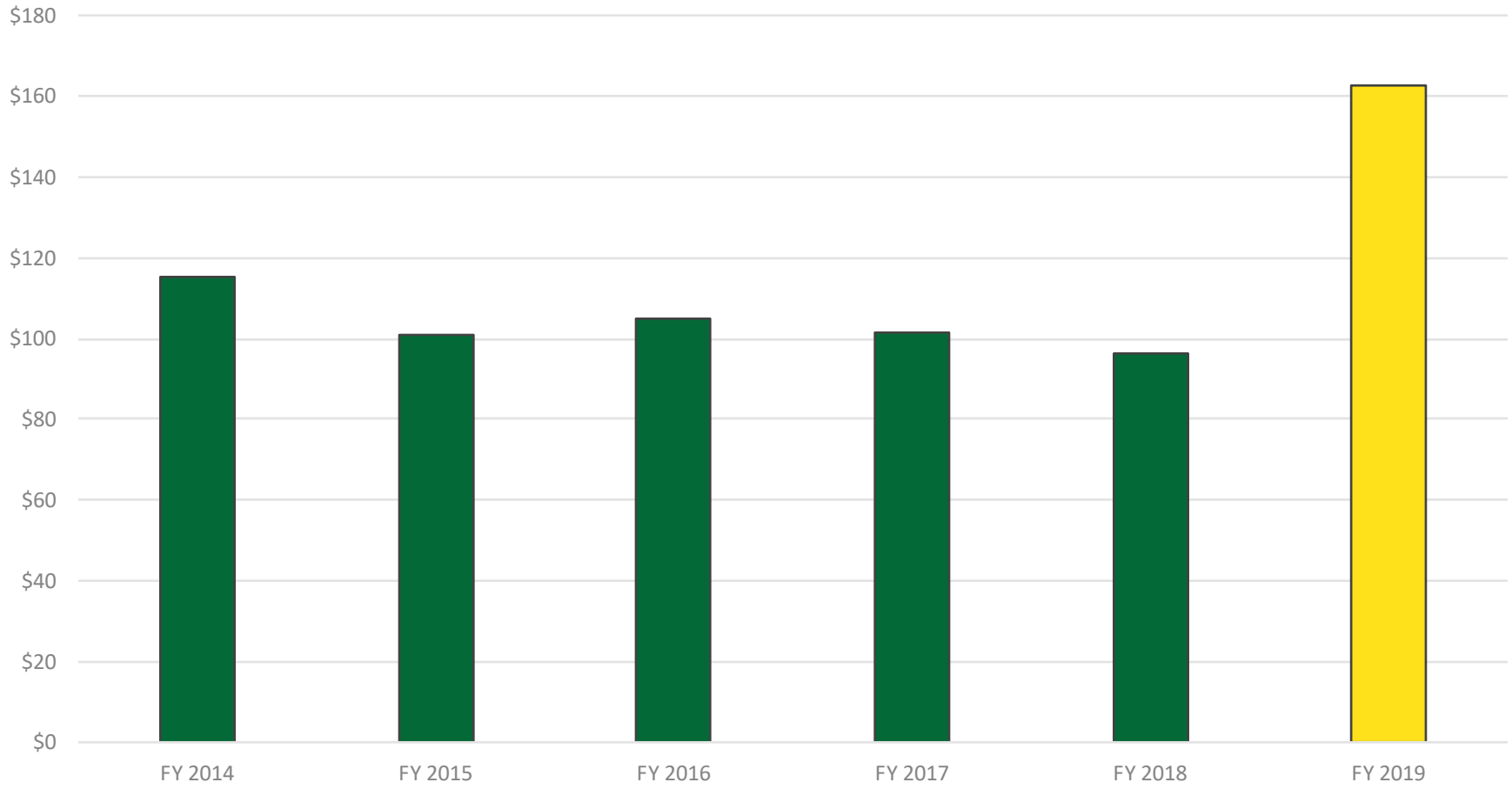
FY19 Sponsored Project Metrics

Description	FY19	% Change from previous year
Number of Proposals Submitted	1,059	+ 3%
Dollar Amounts of Proposals Submitted	$171 M	+ 18%
Number of Awards	572	< 1%
Value of Awards Received	$126 M	+ 2%
Total Expenditures	$125 M	+ 5%
Total Research Expenditures	$88 M	+ 11%

FY10-19 Total Expenditures



FY14-19 Multi-Year Award Commitments



All values in millions of dollars. Amounts reflect total award value across all years of a project at the time it was funded.

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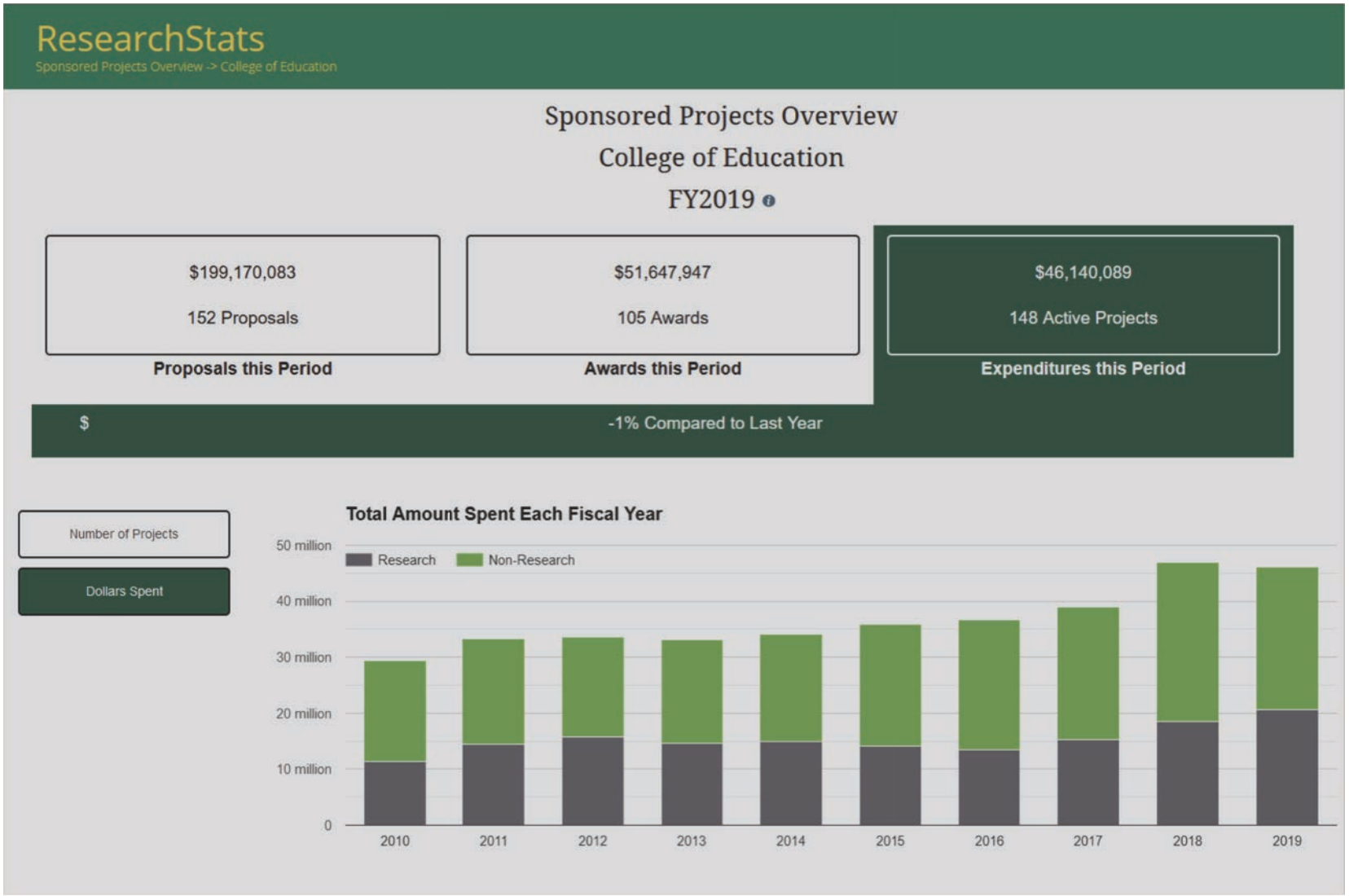
ResearchStats



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FY19 Notable Awards

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.

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FY19 Notable Awards

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.

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FY19 Notable Awards

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.

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FY19 Notable Awards

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.

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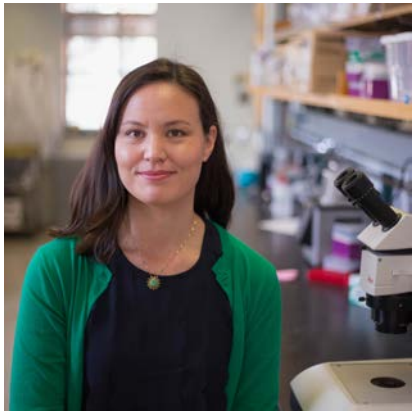
FY19 Notable Awards

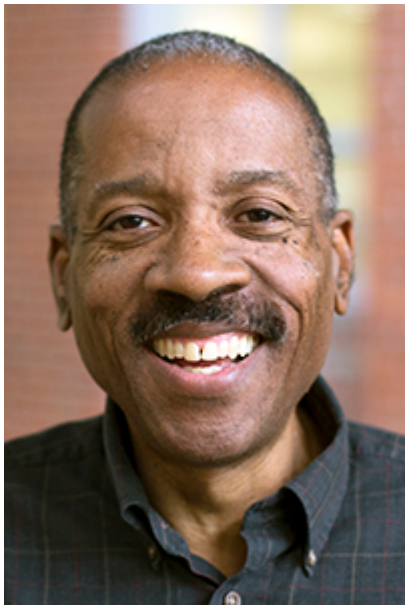
Other Junior Faculty Awards

Laura Jeanty (above) received a Department of Energy Early Career Award and Diana Libuda (below) received an NIH MIRA grant in FY19.



- **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.

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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.

Published Research

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

Media Impact

Rescue workers searched Balaroa village after a 7.5-magnitude earthquake Oct. 6. Ulet Ifansasti/Getty Images

The New York Times

TRILOBITES

A Signal in Giant Earthquakes That Could Save Lives

The full power of the biggest temblors could be determined in as little as 10 to 15 seconds after they begin, a new study finds, and long before it ends.

THE WALL STREET JOURNAL.

English Edition | October 2, 2019 | Print Edition | Video

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

Media Impact

Nearly one-fourth of young adults are looking for love through dating websi

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

For example, you've probably heard about – or have personally experienced
was planned online but didn't go well for one of the following reasons: He w
his profile said he was, she looked different in person than she did in her pho
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 – mi
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?

Top Read UO Stories on The Conversation:

- 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

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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

Kate Petcosky-Kulkarni

Mara Fields

Catherine Jarmin Miller

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.

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Research Development

Early Career Faculty – Group Travel to Washington, DC

A group of junior faculty members meets with Barbara Ransom, a program director at the headquarters of the National Science Foundation in September 2019.

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Research Development

Early Career Faculty – Group Travel to Washington, DC

"...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! "

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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.

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Research Administration Portal (RAP)

HURON

Modules Include:

- IRB
- IACUC
- COI
- Grants (pre & post award)
- Animal Operations

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Innovation

FY19 Innovation Metrics

Description	2018-2019	Change
Licensing Revenue	$ 10 M	+ 10%
Disclosures/Faculty New Ideas	49	+ 14%
Science-Based Disclosures	20	+ 11%
Patent Filings	19	+ 12%
AAU Licensing Ranking (per $)	#5	N/A
Total # of Active Startups	26	+ 4%

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Innovation Seed Fund Awardees

Ksana Health grew out of research by UO's Nick Allen.

- **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

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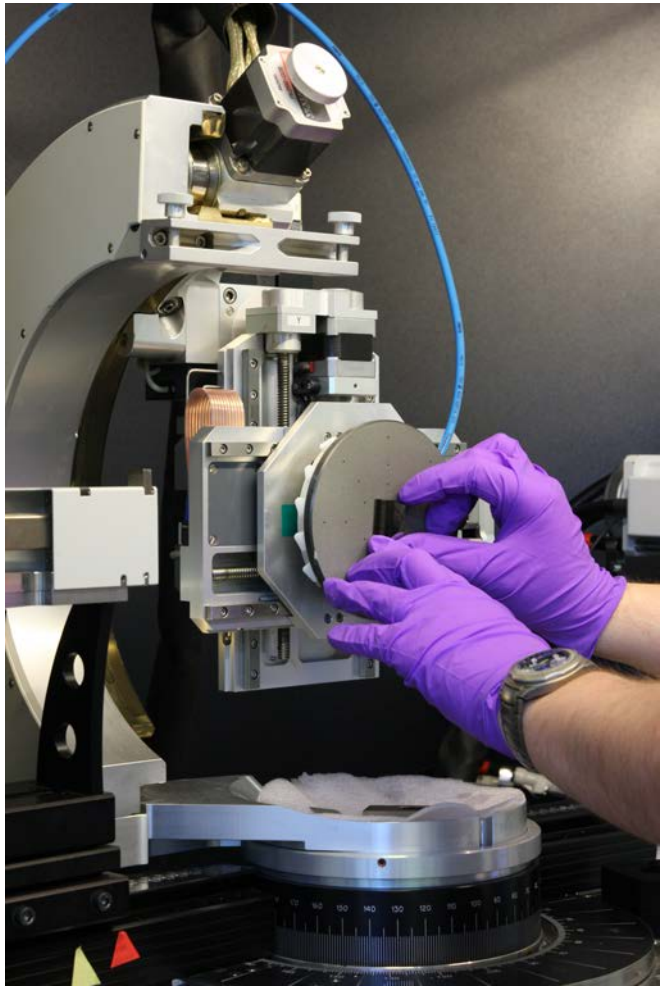
Oregon Innovation Council Programs

- 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

Agency	% Change from FY18 to FY19	% Change from FY19 to FY20 House	% Change from FY19 to FY20 Senate
NSF	4%	7%	3%
NIH	5%	5%	7.6%
IES	0.3%	6%	0%

Looking Ahead

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

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Thank You
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