

NATIONAL SCIENCE FOUNDATION AND THE UNIVERSITY OF OREGON

FY2020 FAST FACTS AROUND THE STATE

\$118.8 M

TOTAL NSF AWARDS
TO OREGON

\$13.2 M

INVESTED IN STEM EDUCATION
IN OREGON

\$80.7 M

INVESTED IN FUNDAMENTAL
RESEARCH IN OREGON

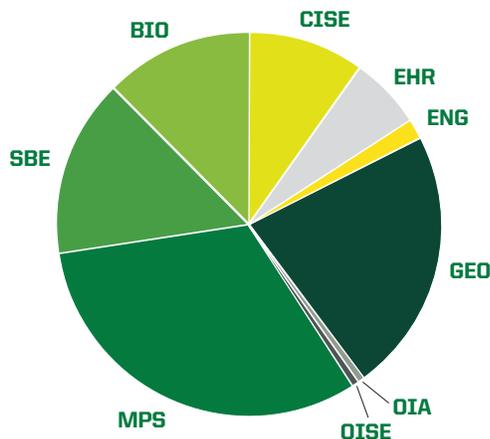
\$7.4 M

INVESTED IN OREGON STARTUPS
THROUGH NSF'S SMALL BUSINESS
PROGRAM

\$20,524,000

FY2020 NSF AWARDS TO
UO RESEARCHERS

184 TOTAL ACTIVE NSF
GRANTS AT THE UO



BIO	Biological Sciences - 24
CISE	Computer and Information Science and Engineering - 18
EHR	Education and Human Resources - 11
ENG	Engineering - 3
GEO	Geosciences - 41
OIA	Integrative Activities - 1
OISE	International Science and Engineering - 1
MPS	Mathematical and Physical Sciences - 58
SBE	Social, Behavioral, and Economic Sciences - 27

FACULTY EARLY CAREER AWARDS 2019-21

- **Lauren Hallett**, plant community ecologist (\$708 K)
Top-down and Bottom-up Controls on Species Coexistence in a Variable World
- **Scott Hansen**, biochemist (\$1 M)
Mechanisms Controlling Spatial Patterning of PIP Lipids in Eukaryotic Cell Polarity
- **Lei Jiao**, computer scientist (\$510 K)
Orchestrating Edge Infrastructures and Mobile Devices under Uncertainty to Provision Edge AI as a Service
- **Tien-Tien Yu**, physicist (\$400 K)
Searching for Dark Sectors from Earth to Sky

NSF-FUNDED RESEARCHER PROFILE



LUCAS SILVA, associate professor of environmental studies and geography

As a member of the UO Institute of Ecology and Evolution, Silva founded UO's Soil-Plant-Atmosphere (SPA) Research Laboratory. He directs a team of interdisciplinary scholars

specializing in quantitative analyses of ecological and biogeochemical processes to advance basic science while solving practical challenges for sustainability. His projects combine theory, experimentation, and modeling to enhance climate adaptation and mitigation efforts in natural and human-engineered ecosystems.

For example, his current NSF-funded projects will generate information needed to design conservation, management, and restoration efforts to improve the use of natural resources and the sustainability of managed and unmanaged landscapes. Specifically, Silva's team is testing scaling principles to predict and enhance carbon sequestration and water-use efficiency in forests, restore biodiversity in degraded lands, and promote sustainable development in urban areas and surrounding rural landscapes. Using baseline data from natural systems, Silva's team evaluates how managed forests, agricultural fields, and urban planning can be used to enhance ecosystem services and promote climate stability.

NSF FUNDING ALLOWS UO TO PREPARE SCIENCE MAJORS TO TEACH THOSE WHO HAVE BEEN TRADITIONALLY UNDERSERVED IN THE SCIENCES

“I think the arts and sciences are really important in schools.”

-Jordyn Mons '20, ESPRIT scholarship recipient, graduated from Crater Lake High School in Central Point (CD-02), now a physics teacher at Prospect Charter School (CD-02).

The University of Oregon Experiencing Science Practices through Research to Inspire Teaching (ESPRIT) Program is designed to recruit, prepare, and support UO science majors for K-12 science teaching careers in high-need school districts. The program addresses the need for highly qualified science teachers by supporting a summer science research experience, coursework in promoting equity and diversity in schools, and teacher community-building activities. ESPRIT is supported by the National Science Foundation's Robert Noyce Teacher Scholarship Program by a five-year \$1.2 million award.



ESPRIT'S PRIMARY GOALS ARE:

- to recruit University of Oregon science majors into K-12 teaching;
- to prepare science majors to effectively teach all students, including those who have been traditionally underserved in the sciences;
- to develop future science teachers who will engage their students in authentic and impactful research projects;
- and to support these science teachers in their first years of teaching.

ESPRIT is preparing UO students from across the state to have an impact for students in underserved communities.



“The group of five of us with the scholarships went to a conference in Arizona. It was really cool to learn about science teaching and have a small community of people I get to talk to about being a science teacher.”

-Elizabeth Bryan '20, ESPRIT scholarship recipient, graduated from Sunset High School (CD-01), now a teacher at Sutherlin High School (CD-04).

