OREGON

FAST FACTS FOR POLICY MAKERS NATIONAL SCIENCE FOUNDATION AND THE UO

The National Science Foundation is an independent federal agency established in 1950 by Congress to promote the progress of science, advance the national health, prosperity, and welfare, and secure the national defense. The agency fulfills its mission chiefly by making grants to support solutionsoriented research with the potential to produce advancements for the American people.

FY2023 FAST FACTS AROUND THE STATE

\$148.8 Million TOTAL NSF AWARDS

TO OREGON

\$83.7 Million

INVESTED IN FUNDAMENTAL RESEARCH IN OREGON \$27.6 Million INVESTED IN STEM EDUCATION IN OREGON

> \$4 Million INVESTED IN OREGON BUSINESSES

\$32.1 Million FY2023 NSF AWARDS TO UO RESEARCHERS



GRANTS BY DIRECTORATE

EDU	STEM Education	.7 grants, \$9.4 million
MPS	Mathematical and Physical Sciences	.28 grants, \$8.4 million
NA	Not assigned to a directorate	.19 grants, \$6.8 million
CISE	Computer and Information Science	
	and Engineering	.8 grants, \$4.5 million
BIO	Biological Sciences	.3 grants, \$930,000
GEO	Geosciences	.7 grants, \$708,000
ENG	Engineering	.2 grants, \$683,000
OIA	Integrative Activities	.1 grant, \$372,000
SBE	Social. Behavioral and Economic Sciences	.3 grants. \$249.000



CRESCENT

In 2023, the National Science Foundation awarded \$15 million to establish the nation's first subduction zone earthquake hazards center-a nexus for earthquake science and hazards research. The Cascadia **Region Earthquake Science Center,** or CRESCENT, housed in the Department of Earth Sciences at the UO, is uniting scientists from 16 institutions around the U.S. studying the possible impacts of a major earthquake along the Cascadia subduction zone, the offshore tectonic plate boundary that stretches more than 1000 kilometers from southern British Columbia to northern California. The center is advancing earthquake research, fostering community partnerships, and diversifying and training the next generation geosciences work force.

UNIVERSITY OF **OREGON**

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The Oregon Pathways to Industry Research

Careers (OPIRC) program, funded by a \$4.3 million National Science Foundation grant, is supporting 64 Pell grant-eligible students as they move through community college and the UO to high-wage science and engineering careers. Students start at Central Oregon, Lane, and Umpgua CCs and transfer to UO to earn physics, chemistry, or biochemistry degrees, and then pursue an industry-focused master's degree through the Phil and Penny Knight Campus for Accelerating Scientific Impact and its Knight Campus Graduate Internship Program (KCGIP). The accelerated master's degree program includes a required nine-month paid internship, which

provides graduates with strong work experience, paving the path for long-term industrial careers in much needed sectors such as semiconductor chip manufacturing, optical materials, polymer science, biological data science, and molecular sensors.

The first cohort of students have transferred to UO and have received honors such as the Knight Campus Undergraduate Scholars Research Award.

Through a \$1M Workforce Ready Future Ready Oregon grant, the NSF OPIRC program has expanded its impact and support of low-income students from 64 to 96. Highlights, all which prioritize low-income Oregonians, include:

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The program builds on three previous NSF-funded scholarship programs for community college students that have boosted the number of and diversity of community colleges studying physical science and transferring to the UO:

TUTORS HIRED TO

SUPPORT OPIRC SCHOLARS

- Scholarships for Oregon Scientists I
- Scholarships for Oregon Scientists II
- Undergraduate Catalytic Outreach and Research Experience (UCORE program)



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UO STUDY ENGAGES RURAL, INDIGENOUS GROUPS ON CLIMATE ISSUES

Thanks to a \$3 million National Science Foundation grant, a UO team, led by Professor of Environmental Studies and Biology Lucas Silva, is working with Indigenous and rural communities in Oregon to find ways of reducing climatechanging carbon in the atmosphere in ways that build trust with historically marginalized groups.

The five-year grant focuses on what are known as the "rules of life" to better address societal challenges such as climate change, clean water, carbon capture and sustainability.

The research is being coproduced with the Coquille Indian Tribe to explore social, ecological and genomic controls to limit the release of carbon into the air as well as the potential for increasing the amount of carbon being stored in environments from temperate forests to the estuaries of the Pacific Northwest.

By focusing on working landscapes of the Pacific NW, the UO team will devise and test new ways of reducing atmospheric carbon-through, for example, new and "rediscovered" Indigenous technologies that could improve land management, ecosystem restoration and conservation—in ways that engage diverse communities and can be presented as a range of options rather than a single, mandatory path.

The National Science Foundation hopes the overall program, known as "Using the Rules of Life to Address Societal Challenges," will lead to new ways to address climate change and other largescale issues.

Additional research project partners include Oregon State University, the Lawrence Berkeley National Laboratory, the Nature Conservancy, and Eugene Water and Electric Board.

OREGON NATIONAL SCIENCE FOUNDATION RESEARCH AWARDS AT THE UO, 2022-23

\$32.1 Million



UO RESEARCH BY THE NUMBERS FY23

\$180.6 Million Total awards, federal and other \$145.8 Million 81% Ederal awards Ederal awards Tederal awards Stem undergraduate Degrees conferred 354 MCNAIR SCHOLARS, 1999-2023 \$8.3 Million

31 LICENSE-BASED INVENTION DISCLOSURES

#1 • #5 NATIONALLY IN APPLIED PHYSICS, CHEMISTRY MS DEGREES

319 FULBRIGHT SCHOLARS, 1950-2023 Our legacy of TRANSFORMATIVE RESEARCH

is built on nearly 150 years of inspired collaborations.

We've gathered our collective strengths to answer the call of tomorrow. Our research ADVANCES SOCIETY SERVES HUMANITY DRIVES INNOVATION and BUILDS A BETTER FUTURE