

1. The quality of our faculty and graduate students is reflected by:

- Strength in our externally sponsored dollars for research, outreach, and public service in the face of an increasingly competitive sponsored funding environment
- The number of prestigious awards and honors
- Graduate programs in Psychology, Biology, Geography, Special Education and Architecture, which are in the top ten percentile graduate programs in the country
- Licensing income per research dollar, which is in the top fifteen in the country
- 2. The UO stands out internationally in the following areas: Green Chemistry, Material Sciences, Neuroscience, Environmental Science, Molecular Biology/Genomics, Energy Sciences and Technologies, Sustainability, Prevention Science, Special Education and Assessment/Testing.
- **3.** Our hallmark is a collaborative approach beyond our own campus that includes other OUS campuses, nationally and internationally prominent universities and industry partners.
- 4. Graduate students are the engine of economic development. Nationally, about half of all graduate students take jobs outside of academia. Graduate students are often the glue who promote innovation by bringing new ideas and techniques into our laboratories and research projects. Our faculty work with Innovation Partnership Services to develop new private entities and those entities employ graduate and undergraduate students.
- **5.** The UO has a long history in moving its discoveries and innovations into the marketplace. A whole arm of the university works to commercialize our discoveries and technologies to the benefit of our community.
 - Spinout companies are employing Oregonians across the state from Eugene to Portland to Bend. UO related spinout/startups generated nearly \$40 million in revenue and employed 270 Oregonians in 2012.
 - <u>SupraSensor example</u> Researchers who are looking to take their ideas out of the lab and into the marketplace need to be able to translate their concepts into a language that entrepreneurs can understand. That's just what a University of Oregon research team led by chemists Darren Johnson and Michael Haley did when they won the top prize at a National Science Foundation–funded program designed to bring scientific innovation into the private sector. The group has patented its technology and established the company SupraSensor Technologies. The team has been working with the UO's Innovation Partnership Services office and is applying for additional grants and developing a prototype of the nitrate sensor, which promises to fulfill a need for real-time monitoring of fertilizer application in environmentally sustainable precision agriculture.





Research-Innovation-Graduate Education



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UO Mission

The University of Oregon is a <u>comprehensive</u> research university that serves its students and the people of Oregon, the nation, and the world through the creation and transfer of knowledge in the liberal arts, the natural and social sciences, and the professions. It is the Association of American Universities flagship institution of the Oregon University System.

RIGE accomplishments to date

Sponsored Expenditures: FY 1991 to 2012 \$140,000,000 \$120,000,000 \$100,000,000 \$80,000,000 \$60,000,000 \$40,000,000 \$20,000,000 \$0 66-866 2005-06 92-93 3-94 94-95 5-96 26-96 86-76 00-666 0000-01 2002-03 2003-04 2004-05 2006-07 91-92 2001-02 007-08 2008-09 009-10 990-91 2010-11 2011

- ✓ \$121.7M sponsored expenditures in FY12
- ✓ ~ \$175,000/yr per tenure-line faculty
- ✓ ~ 88% of awards originate from the federal government
- ✓ Major federal: DoEd (33%), HHS (26%), NSF (19%)

Current Faculty Honors & Awards

Guggenheim Fellows Fulbright **ACLS Fellows NEH Fellows** American Academy of Arts & Sciences Fellows American Association for Advancement of Science Fellows PECASE Howard Hughes Medical Institute Investigators Beckman / Getty / Pew Charitable Trust Sloan Foundation / Burroughs Wellcome Institute of Advanced Studies Fellow Columbia / Harvard / Radcliffe / Stanford University Fellows

Graduate Students



Measuring Success in Innovation Services

42 Innovations Disclosed (up from 27 in previous year)

47 Licenses >\$1000 (Same as last year)

24 US patent application filed and 7 US patents issued

\$1,165,201 Industry Sponsored Research (up from \$665K)

\$7,441,277 Licensing Revenue (down from \$7.8 million)

8.55% Yield (Licensing/Research)- Top 14 schools

\$ 6.6 M / 88% royalties returned to Inventors/Authors, Academic Units, State Treasury

\$235K invested in IP



Centers and Institutes Reporting to the Vice President for Research, Innovation and Graduate Education

Center for Brain Injury Research and Training (CBIRT)

CBIRT conducts research and training to improve the lives of children and adults with traumatic brain injury (TBI). CBIRT's research focuses on developing interventions to improve outcomes related to education, employability, and quality of life. Our training activities promote the use of best practices among educators and other professionals who serve individuals with TBI.

Center for High Energy Physics (CHEP)

The Center for High Energy Physics enhances the high energy physics research activities at the University of Oregon by sponsoring seminars on topics in high energy physics, hosting visiting scientists, supporting graduate student research, facilitating interaction between experimental activities and theoretical investigations of Oregon scientists, and fostering communication of research to a broader community.

Center for Teaching and Learning (CTL)

The Center on Teaching and Learning (CTL) is a community of scholars whose mission is to conduct, translate, and disseminate research that focuses on the solutions and resolutions to serious but practical problems in school systems. CTL seeks to advance the understanding and use of the most rigorous scientific evidence and research-based practices to prevent and intercept the academic difficulties that many school-aged children experience. The primary focus of this research group is the role of curriculum, instruction, and assessment as individual elements that interact in school systems.

Center for the Study of Women in Society (CSWS)

This multidisciplinary research center generates, supports, and disseminates research on gender and on all aspects of women's lives. A member of the National Council for Research on Women (NCRW), CSWS is one of 95 women's research and policy centers in the United States and among 300 centers in more than 80 countries.

Committee on the Advancement of women Chemists (COACh)

COACh works to increase the number and career success of women scientists and engineers in the US and internationally through innovative programs and strategies. In addition to providing avenues for networking and mentoring of scientists and engineers at all levels, COACh works closely in an advisory capacity with many institutions, government organizations and departments to create a professional workplace that provides an equal opportunity for discovery and innovation

Community Service Center (CSC)

The Community Service Center of Oregon is an interdisciplinary organization that assists Oregon Communities by providing planning and technical assistance to help solve local issues and improve the quality of life for Oregon residents. The role of the CSC is to link the skills, expertise and innovation of higher education with the economic development and environmental needs of communities and regions in the state of Oregon, thereby providing service to Oregon and learning opportunities to the students involved.

Environmental Science Institute (ESI)

The Environmental Science Institute (ESI) was founded in the recognition that solving complex environmental problems requires the knowledge and expertise from multiple traditional disciplines. ESI's mission is to promote interdisciplinary research and graduate education in the environmental sciences. Members come primarily from the departments of anthropology, biology, geological sciences, and geography. Research of the faculty and graduate students spans the gamut from the geophysical to the organismal, from microbial to global spatial scales, and from contemporary to geological temporal scales.

Institute for a Sustainable Environment (ISE)

The Institute for a Sustainable Environment is the center for innovative, interdisciplinary research at the nexus of ecological, economic, and social sustainability. The Institute helps resolve complex problems and enable people to sustain economies and environmental systems by engaging in research around natural resource management, land use, climate change, rural development, transportation, renewable energy, natural hazards, and environmental education.

Institute of Cognitive and Decision Sciences (ICDS)

The Institute of Cognitive and Decision Sciences is dedicated to exploring the workings of the mind and brain and how they affect human behavior and social interaction. Our goals are to advance the empirical study and theoretical understanding of cognition, culture, and communication from an interdisciplinary perspective.

Institute of Ecology and Evolution (IE²)

The Institute of Ecology and Evolution, established in 2002 (formerly the Center for Ecology and Evolutionary Biology CEEB), promotes and facilitates research and graduate education in ecology and evolutionary biology. The center encourages scientific interactions among its members and between members and the wider academic community.

Institute of Molecular Biology (IMB)

The University of Oregon offers a wide variety of research and training opportunities in contemporary molecular, structural, cellular, and developmental biology. IMB fosters research and training in contemporary biology at the molecular level by bringing scientists from biology, chemistry, and physics into a common intellectual and physical space.

Institute of Neuroscience (ION)

The Institute of Neuroscience is an interdisciplinary research group of scientists, with faculty and students drawn from the departments of Biology, Psychology, and Human Physiology. Our laboratories offer graduate and postdoctoral training in the neurosciences with projects that address the development of the nervous system to human cognitive processes.

Institute of Theoretical Science (ITS)

The Institute of Theoretical Science is a center for research in several interrelated disciplines that encompass mathematics, theoretical chemistry, and theoretical physics. Research interests of the institute's members include particle physics, astrophysics and cosmology, gravitational physics, condensed matter physics and statistical mechanics, group representation theory, geometric analysis, atomic physics, nonlinear dynamics, optical physics, biophysics, and the foundations of quantum mechanics.

Materials Science Institute (MSI)

The purpose of the Materials Science Institute is to study the structure and properties of materials, to educate in the sciences of materials, and to serve Oregon as a resource in these sciences. Since 1985 MSI has more than tripled the size of its research program, developed four new graduate programs in materials, and contributed to the State's prosperity through collaboration with more than 25 Oregon companies.

Neuroinformatics Center (NIC)

The Neuroinformatics Center's goal is to research the application of computer science and numerical computation to problems with brain modeling and imaging. High performance computing plays a significant role in the research at the NIC.

Northwest Indian Language Institute (NILI)

The Northwest Indian Language Institute provides Native language teachers, community members and UO students with training in language teaching and linguistics. With tribal partners, NILI supports and strengthens language preservation and restoration efforts by establishing collaborative, on-going projects which meet the specific needs and desires of each language community.

Oregon Center for Optics (OCO)

The Oregon Center for Optics encompasses research in basic and applied aspects of optics in physics and physical chemistry. Members of the OCO are faculty in physics and chemistry; Associate members are from these departments, as well as institutions outside of the university; Students—undergraduate, masters, and Ph.D.—are involved in all aspects of the research at OCO.

Oregon Humanities Center (OHC)

The Oregon Humanities Center is the sole interdisciplinary umbrella organization for the humanities at the University of Oregon. It seeks to promote and strengthen the humanities both on campus and in the broader community by supporting faculty research and teaching, by fostering collaboration among the disciplines, and by sponsoring a wide variety of public programs.

Oregon Institute of Marine Biology (OIMB)

Founded in 1930, Oregon Institute of Marine Biology is the third oldest marine laboratory on the Pacific Coast. The 130-acre campus located about two hours from Eugene maintains housing and research facilities for visiting investigators and students from other institutions. Resident faculty are members of the Biology department and conduct research on the development, ecology, evolution and physiology of marine organisms worldwide from the intertidal zone to the deep sea.

Prevention Science Institute

The Prevention Science Institute (PRI) engages in research on social and emotional processes among children, adolescents, and families in support of their mission to improve the lives and wellbeing of at-risk children, individuals, and families throughout their lifespan. PRI is a multi-disciplinary institute focused on understanding human development, preventing behavioral health problems, and implementing effective interventions in community settings. The institute also provides vital professional and research training for graduate and undergraduate students.

Research Core Facilities Reporting to the Vice President for Research, Innovation and Graduate Education

Animal Care Services (ACS)

Animal Care Services (ACS) is responsible for administering all activities related to the care and use of animals. Animal Care Services functions include procurement of all live vertebrates for research and teaching, supervision of animal technicians, control of animal holding facilities and provision of veterinary care. Animal Care Services also has the responsibility for developing and implementing a plan for obtaining AAALAC accreditation for the University of Oregon's animal care and use program.

Aquatic Animal Care Services (AQUACS)

Aquatic Animal Care Services is responsible for administering all activities related to the care and use of aquatic animals. Animal Care Services functions include procurement of all aquatic animals for research and teaching, supervision of animal technicians, control of animal holding facilities and provision of veterinary care.

Bowerman Sports Science Clinic (BSSC)

The Bowerman Sports Science Clinic (BSSC) is a regional outreach facility which aims to improve the health, fitness, and well-being of athletes in and around Eugene, OR. We offer a variety of services to provide physical assessments of current fitness levels, potential injury mechanisms, as well as provide sport-specific training advice to help you achieve your individual performance goals.

Center for Advanced Materials Characterization in Oregon (CAMCOR)

The Center for Advanced Materials Characterization in Oregon is a user facility housing a comprehensive array of materials characterization instrumentation and expertise aimed to serve the needs of researchers on the University of Oregon campus, regional industries, and academic institutions. The CAMCOR facilities provide enabling infrastructure for research in chemistry, nanoscience, engineering, physics, materials science, geology bioscience and optics.

Center for Assessment, Statistics and Evaluation (CASE)

The COE Center for Assessment, Statistics, and Evaluation (CASE) serves as a resource for faculty members and graduate students throughout the College of Education, the University of Oregon, and the larger community to provide technical support for statistical analysis and research design using a variety of models and software, assist researchers and practitioners in assessment and measurement issues generally around instrument development and specifically on e-assessments, and to serve as a contract unit to provide program evaluations and technical support for state and local educational agencies throughout Oregon as well as departments within the university.

Genomics and Cell Sorter Facility

The Genomics and Cell Sorter Facility provides genomic services, including Illumina high throughput sequencing. The facility houses other core pieces of genomics and

bioinformatics equipment such qPCR machines, shearing and sorting machines, cell sorters, and a computational cluster for DNA data processing.

Lewis Center for Neuroimaging (LCNI)

The mission of the Lewis Center for Neuroimaging is to support interdisciplinary, multifaceted research in cognitive neuroscience and biological imaging. LCNI has a Siemens Allegra 3T MRI unit and full capabilities for the design and fabrication of MR coils to support a broad range of research needs and applications.

Transgenic Mouse Facility (TMF)

The TMF goal is to be able to provide all the services necessary to produce and maintain genetically modified mice. These services range from designing projects to maintaining colonies.