UNIVERSITY OF OREGON | Phil and Penny Knight Campus for Accelerating Scientific Impact

May 10, 2021

Co-Chairs Frederick and McLain and Members of the Education Subcommittee of the Joint Committee on Ways and Means, I am Bob Guldberg, the Vice President and Executive Director for the Knight Campus for Accelerating Scientific Impact at the University of Oregon. I would like to highlight the importance of Engineering Technology Sustaining Funds (ETSF) for the University of Oregon (UO) and our partnership with Oregon State University (OSU).

Overview

Funding for ETSF incentivizes growth and expands technology and engineering-related disciplines that are needed to grow Oregon's economy and maintains the strength of these academic programs within each public university. ETSF funds have allowed UO to offer undergraduate and graduate programs in engineering for the first time this year. These new programs create the opportunity for significant labor growth in Oregon's engineering and high-tech industries. This will greatly bolster the engineering workforce in Oregon that UO has been fostering in the Knight Campus Graduate Internship Program.

Knight Campus Graduate Internship Program

Originally founded in 1998, the internship program was adopted into the Knight Campus in 2017. By offering sector specific training, professional skills development and a nine-month paid internship, the program has built strong success metrics:

- 98 percent graduation rate
- 90 percent of graduates employed within three months
- $59,900 internship salary for the most recent cohort (2020 start)
- $25.5 million in industry supported internship compensation since 2011

The five Knight Campus Graduate Internship Program tracks, which offer degrees within physics, chemistry and biology supported 169 students in 2020. The 2021 incoming cohort represents the most diverse to date with 55 percent overall diversity (women and underrepresented minorities). Additionally, 25 percent of the 2021 cohort are 1st generation college students.

ETSF has been instrumental in expanding access and supporting students in Knight Campus Graduate Internship Program. Through investments in equipment and scholarships, the program has had continued success through the pandemic and is positioned to continue growing.

- Equipment**:** All tracks significantly benefited from ETSF funds used to purchase equipment. Bioinformatics and Sensors tracks fully outfitted new spaces with upgraded and expanded equipment, benefitting for the broader research community. For Bioinformatics & Genomics, we were able to fully outfit a new space for genomics research. Recent applications include precision medicine, Sars-Cov2 tracking, and environmental/fishery industry impacts. In the recapitalized Polymer and Semiconductor labs, the ETSF funds allowed the program to provide socially-distanced lab instruction while also updating outdated equipment. Lastly, ETSF funds were used to purchase capital equipment for Molecular Sensors & Probes track which launched in 2019.
- Scholarships: ETSF funds invested to make education more accessible and equitable while retaining OR talent and recruiting out-of-state talent. ETSF funds were used to waive application fees for all 2021 domestic applicants and provide around half of the 2020 cohort technology scholarships to support remote learning and promote equity.

UNIVERSITY OF OREGON | Phil and Penny Knight Campus for Accelerating Scientific Impact

UO/OSU Joint PhD Program in Bioengineering

ETSF support was critical to the launch of the joint bioengineering PhD program—the first ever engineering degree program at the UO. UO and OSU worked together, inspired by several other elite, joint bioengineering programs, to design and launch the degree program earlier this year. We received state approval and accreditation from Northwest Commission on Colleges and Universities (NWCCU) in January 2021. Although the program had only two months to recruit, together the two institutions recruited an exceptional inaugural student cohort of nearly 20 students. Nearly 60 percent of students accepted offers to the joint program in this initial year. Several of the students won prestigious fellowships, including one National Science Foundation Graduate Research Fellowship. ETSF funding was critical to the recruiting effort at UO. Continued growth of the faculty on the Knight Campus and establishment of larger research groups will lead to larger graduate enrollments and, in time, significantly more engineering graduates for Oregon's rapidly growing bioscience/biotech sector.

University of Oregon Undergraduate Bioengineering Program

ETSF funding has also helped launch UO's first undergraduate bioengineering program. A bioengineering major and minor have been approved at the state level and been accredited by NWCCU. Planning is underway for the launch of the minor this fall (2021). The minor presents an exciting opportunity for students who are pursuing a major in the natural sciences (chemistry, biochemistry, biology, physics, human physiology), but interested in engineering, to complement their major. The combination of the bioengineering minor along with these majors will prepare graduates to enter the workforce directly or to pursue graduate studies in engineering, thereby increasing the engineering pipeline.

I urge you to support a $29,000,000 allocation to the Engineering Technology Sustaining Funds program for the 2021-2023 biennium.

Sincerely,

Robert Guldberg, PhD
Vice President and Robert and Leona DeArmond Executive Director
Phil and Penny Knight Campus for Accelerating Scientific impact
University of Oregon