



# Phil and Penny Knight Campus for Accelerating Scientific Impact



A bold new effort designed to speed the pace of biotechnology and scientific discovery and development

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## TABLE OF CONTENTS:

- 03 [Media Fact Sheet](#)
- 09 [History](#)
- 10 [Key Team Bios](#)
- 12 [Faculty Bios](#)
- 13 [Student Bios](#)
- 14 [Key Stories](#)

Learn more about the Phil  
and Penny Knight Campus for  
Accelerating Scientific Impact at  
[Accelerate.uoregon.edu](https://Accelerate.uoregon.edu).





# Media Fact Sheet:

## **PHIL AND PENNY KNIGHT CAMPUS FOR ACCELERATING SCIENTIFIC**

The [Phil and Penny Knight Campus for Accelerating Scientific Impact](#) is a new campus designed to accelerate the cycle of moving discoveries to impacts for the greater good. Rooted in the University of Oregon's 60-year history of interdisciplinary collaboration, it is training new generations of scientists, forging tighter ties with industry and entrepreneurs, and creating new opportunities for graduate and undergraduate students. The Knight Campus celebrated its grand opening in December 2020 and is led by Robert Guldberg, Executive Director.

Photo credit: Bruce Damonte



## FACT SHEET

# Knights Give Second \$500 Million Announcement - July 2021

**\$500  
MILLION**

LEAD GIFT FROM PENNY  
AND PHIL KNIGHT,  
OCTOBER 2016

**\$500  
MILLION**

SECOND GIFT FROM THE  
KNIGHTS, JULY 2021

The second \$500 million gift announced in July 2021 enables the Knight Campus to shift into phase two of its planning process, which includes a second building for research and innovation. The current plan is for a 175,000-square-foot, multi-story bioengineering and applied science research building to support expanded research programs and facilities. The second building is slated to be built north of the first Knight Campus building, on two acres along Riverfront Research Parkway. It will create new core research facilities and flexible lab spaces that support bioengineering and applied science research. Portland-based [ZGF Architects](#) has been selected for programming and concept design services.

In addition to funding design and construction, the gift will support faculty, academic and innovation programming, as well as support operations through an endowment. The next phase calls for 14 to 16 additional faculty and their teams in bioengineering, regenerative medicine, biomedical data science, and other applied interdisciplinary sciences to lead research programs, bringing the total number of Knight Campus tenure-related faculty to 30.



## FACT SHEET



### Phase two continued:

#### **MORE OPPORTUNITIES FOR STUDENTS**

Over the coming decade, the Knight Campus will train hundreds of postdoctoral scholars and students to become the next generation of engineering and applied citizen-scientists.

Every year, the [Knight Campus Graduate Internship Program](#) enrolls 80 to 100 students who are pursuing master's degrees while specializing in areas of materials science, bioinformatics and genomics, with an emphasis on hands-on training.

This fall, the Knight Campus [bioengineering doctorate program](#), a joint effort with Oregon State University, will grow to nearly 20 Ph.D. students. Also this fall, the Knight Campus will launch a minor in bioengineering, the first undergraduate program in the Knight Campus and the UO's first undergraduate engineering offering. The minor has been designed to complement the work of STEM majors in biology, chemistry and biochemistry, human physiology, and physics.



## FACT SHEET



# 90%

OF ALUMNI LAUNCH CAREERS IN THEIR FIELDS WITHIN THREE MONTHS OF GRADUATING FROM THE KNIGHT CAMPUS INTERNSHIP PROGRAM

### SUPPORTING A CYCLE OF IMPACT

This world-class facility was designed to support the impact cycle, a foundational idea of the Knight Campus best represented by the concepts of discovery, development, and deployment. The building will be the home of discovery at the lab bench; the development of biomedical devices and therapies; and the deployment of new technologies to the marketplace, where products, innovations, or cures impact people's lives.

The building's design accelerates the impact cycle by bringing people together and encouraging collaboration. Teams of scientists, researchers and students blur lines between disciplines and pursue discovery in research neighborhoods with open work spaces and labs that encourage interaction. Research then moves to the development stage, with cutting-edge equipment for rapid prototyping and finally to the deployment phase, with an innovation center to maximize the commercial potential and ensure the product, therapy or treatment reaches as many people possible.

Knight Campus faculty members have already entered the deployment stage, with start-up companies focused on 3D-printing of patient-specific orthopedic implants, implantable screws, and other devices with built-in sensors to monitor healing.

## FACT SHEET

### A NEW STANDARD IN LAB DESIGN

The Knight Campus celebrated the opening of its first building in December 2020. Designed by internationally acclaimed architecture firm [Ennead Architects](#) in New York and [Bora Architects](#) in Portland, Ore., the \$225 million project was intentionally designed to bring people together and encourage collaboration, integrating insights drawn from visits to leading research facilities. The signature characteristic is research neighborhoods that are light-filled, double-height lab spaces that are truly unique in a wet-lab environment. They feature flexible open bench spaces that enable teams to do related work together, using cutting-edge equipment for rapid prototyping.

### PHILANTHROPY AND FUNDING

The Knight Campus is made possible by a \$500 million lead gift from Penny and Phil Knight—in 2016, at the time, the largest gift ever made to a public flagship institution—and \$70 million in state bonds.

In July 2021, the UO announced an unprecedented second \$500 million gift from the Knights, fueling the next phase of development, including doubling the number of faculty and constructing a second building, just north of the first.

Generous gifts from other donors continue to help fulfill the vision. Funds not used on building projects directly support faculty, equipment startup and operations and go into an endowment to support operations.

## FACT SHEET

### ECONOMIC IMPACT

The Knight Campus, and its focus on biotechnology, sets the UO on a path to the future, taking the community, region and state along with it. The Knight Campus is a partner in reshaping Oregon's statewide economy and have a major, long-term impact on economic development, creating new businesses and jobs in Eugene, the state's third-largest city. In addition to the benefits of large scale capital projects, our state will feel the longterm collective momentum as students are trained, faculty signed and companies launched—a biotech incubator that is unlike any other that exists today. Oregon has always been an innovative state, with inventions ranging from the oscilloscope, to chips powering the most advanced supercomputers, to the waffle sole.

### SUSTAINABILITY

The Knight Campus anticipates LEED Gold certification. The university, in collaboration with the design and construction teams, sought to meet rigorous energy-efficiency standards under the [Oregon Model for Sustainable Development](#), restoring the site for the benefit of the larger ecosystem and enrichment of the campus while providing opportunities for human engagement and the landscape. The facility supports a workplace that fosters social equity, occupant health, and inspiration to support the highest quality of research.

**THE OCTOBER 2016** announcement of Phil and Penny Knight's gift of \$500 million to initiate the Knight Campus for Accelerating Scientific Impact was a defining moment in the University of Oregon's history—one shaped by the UO's culture of innovation and collaboration but given impetus on a warm August night in 2015. Less than a month after taking office, UO President Michael Schill invited a few guests to dinner to talk science.

Bill Cresko, a professor of biology; Jim Hutchison, the Lokey-Harrington chair in chemistry; and Brad Shelton, formerly the UO's chief research officer, were key players in the university's scientific community.

Schill asked them to put their heads together, asking the question: "What could we be if we could be anything in the world?" He was looking for a huge, gutsy idea that he could take to the UO's best donors as an investment to provide the university's academic profile with a turbo boost. He was asking

the scientists for their moon shot. What emerged was a definition not restricted to any one outcome, but rather an overarching approach to results-driven research guided by a mission to improve health and well-being. The group envisioned a campus where entrepreneurs, marketers, law students, and product designers were embedded along with scientists, post-docs and their support teams; the most significant result could well be the mountain of new ideas.

The vision was there—now the UO team needed to figure out how to bring it to life.

Over the last 20 years, Phil Knight and key donors dared the university to be great. They backed up the challenge with extraordinary investments in innovative facilities and personnel that propelled the institution.

Four months after the original dinner, President Schill's team, including Vice President for

Advancement Mike Andreasen and Cresko, Hutchison and Karen Guillemin, also a biology professor, made the drive to Beaverton, Ore., to deliver their pitch to Phil and Penny Knight.

The result was the largest gift ever to a public flagship university at the time, \$500 million to launch the Knight Campus. Less than five years later, the university celebrated the grand opening of the first building. The Knight Campus today is home to amazing faculty, staff and students, who push the envelope of possibility every day.

And on July 6, 2021, the university announced a second, generous \$500 million gift from the Knights. The second \$500 million gift sets the stage for the next phase of expansion at the Knight Campus, shaping more students, creating opportunities for many more students, twice as many faculty and increasing the potential for life-changing impacts.

## KNIGHT CAMPUS KEY TEAM

### Michael H. Schill, President, University of Oregon

[president.uoregon.edu/biography](http://president.uoregon.edu/biography)

Michael Schill has served as president of Oregon's flagship public university since 2015 and has focused on three priorities to advance the UO's mission: enhancing academic and research excellence, supporting student access and success, and improving campus experience and diversity. In support of these priorities, in 2016 Schill announced the launch of the Phil and Penny Knight Campus for Accelerating Scientific Impact, a significant initiative to transform innovation at the UO, the first phase of which was anchored by a \$500 million gift from the Knights. Under Schill's leadership, the UO partnered with Oregon Health & Science University to seed new academic opportunities to benefit society and create a biomedical data science center focused on finding treatments and cures for cancer.

### Robert E. Guldberg, Vice President and Robert and Leona DeArmond Executive Director

[accelerate.uoregon.edu/robert-guldberg](http://accelerate.uoregon.edu/robert-guldberg)

Following a national search, Robert Guldberg was hired in 2018 to lead the Knight Campus as its inaugural Executive Director and serves on the President's Executive Leadership team as Vice President of the University of Oregon. Engaging internal and external stakeholders, he led the creation of the [Knight Campus Strategic Plan](#) and has forged new partnerships with Oregon's research universities, [health care providers](#) and institutions around the country. He's overseen recruitment of the Knight Campus faculty and launch of the University of Oregon's [first engineering degree program](#). A serial entrepreneur and internationally renowned bioengineer, Guldberg's research program devises new medical devices and regenerative therapies for musculoskeletal tissues damaged by traumatic injury or degenerative diseases such as osteoporosis and osteoarthritis.



## KNIGHT CAMPUS KEY TEAM

**Patrick C. Phillips**, Provost and Senior Vice President, University of Oregon

[provost.uoregon.edu/provost-and-senior-vice-president](http://provost.uoregon.edu/provost-and-senior-vice-president)

As chief academic officer, Patrick Phillips serves as steward of the university's academic mission, working with faculty and staff members, students, and other stakeholders to ensure the university maintains the highest-possible quality of scholarly activity and educational programs. Prior to this role, Phillips served as the acting executive director of the Phil and Penny Knight Campus for Accelerating Scientific Impact, where he led the design and construction process, established governance and educational policies for the new campus, and initiated and supported new graduate internship and entrepreneurship programs. A noted biologist, Phillips has a long history at the UO, beginning in 2000 when he became a faculty member in the Department of Biology.

### Architecture Team

#### PHASE ONE:

[Ennead Architects](#), New York City  
[Bora Architects](#), Portland, Ore.

#### PHASE TWO:

[ZGF Architects](#), LLP, Portland, Ore.

### General Contractor

#### PHASE ONE AND TWO:

[Hoffman Construction](#), Portland, Ore.



Photo credit: Bruce Damonte

## KNIGHT CAMPUS FACULTY BIOS



To get an idea of how Knight Campus researchers are focused on impact through biotechnology, here are links to their faculty bios:

**Jim Hutchison**, Senior Associate Vice President and Lokey-Harrington Chair in the Department of Chemistry and Biochemistry  
[accelerate.uoregon.edu/jim-hutchison](https://accelerate.uoregon.edu/jim-hutchison)

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**Bala Ambati**, Research Professor  
[accelerate.uoregon.edu/bala-ambati](https://accelerate.uoregon.edu/bala-ambati)

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**Paul Dalton**, Associate Professor  
[accelerate.uoregon.edu/paul-dalton](https://accelerate.uoregon.edu/paul-dalton)

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**Felix Deku**, Assistant Professor  
[accelerate.uoregon.edu/felix-deku](https://accelerate.uoregon.edu/felix-deku)  
Slated to start at the Knight Campus in March 2022

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**Tim Gardner**, Associate Professor and Robert and Leona DeArmond Chair in Neuroengineering  
[accelerate.uoregon.edu/tim-gardner](https://accelerate.uoregon.edu/tim-gardner)

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**Marian Hettiaratchi**, Assistant Professor  
[accelerate.uoregon.edu/marian-hettiaratchi](https://accelerate.uoregon.edu/marian-hettiaratchi)

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**Parisa Hosseinzadeh**, Assistant Professor

**Gabriella Lindberg**, Assistant Professor  
[accelerate.uoregon.edu/gabriella-lindberg](https://accelerate.uoregon.edu/gabriella-lindberg)  
Slated to start at the Knight Campus in October 2021

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**Couros Meharian**, Research Associate Professor  
[accelerate.uoregon.edu/parisa-hosseinzadeh](https://accelerate.uoregon.edu/parisa-hosseinzadeh)

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**Keat Ghee Ong**, Professor  
[accelerate.uoregon.edu/keat-ghee-ong](https://accelerate.uoregon.edu/keat-ghee-ong)

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**Calin Plesa**, Assistant Professor  
[accelerate.uoregon.edu/calin-pleasa](https://accelerate.uoregon.edu/calin-pleasa)

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**Jonathan Reeder**, Assistant Professor  
[accelerate.uoregon.edu/jonathan-reeder](https://accelerate.uoregon.edu/jonathan-reeder)

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**Nick Willett**, Associate Professor  
[accelerate.uoregon.edu/nick-willett](https://accelerate.uoregon.edu/nick-willett)  
Slated to start at the Knight Campus in August 2021

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## KNIGHT CAMPUS SELECT STUDENT BIOS

### Samuel Lester, Harper, Texas

Bachelor of science in  
Mechanical Engineering and  
Material Science from Duke  
University, 2020

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**KNIGHT CAMPUS PROGRAM:**

Joint UO-OSU Doctorate  
Program in Bioengineering

.....  
**MENTOR OR LAB:** Robert

Guldberg, Guldberg  
Musculoskeletal  
Research Lab

**LESTER SAYS:** “The hands-on training in the midst of world-class research sets apart the Knight Campus from anywhere I’ve experienced. There is a deep-rooted emphasis in exploring the state-of-the-art facilities available and identifying what’s possible. Each project I am working on already requires a versatile approach, and the expert training I am receiving is jumpstarting me to take advantage of every aspect of the campus.”



### Demi Glidden Tacoma, Washington

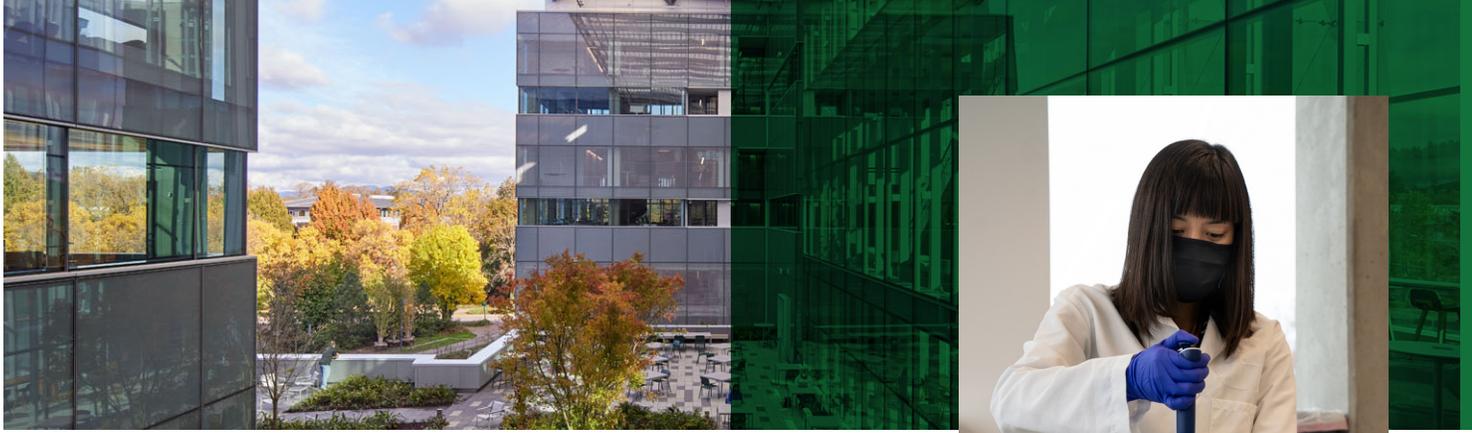
Bachelor of science in Biology from  
Lewis & Clark College, 2016

.....  
**KNIGHT CAMPUS PROGRAM:**

Knight Campus Graduate  
Internship Program  
Bioinformatics Track

**GLIDDEN SAYS:** “The Knight Campus Graduate Internship Program is exactly what I was looking for to launch my career. Even through remote learning, I have been able to cultivate the technical and soft skills needed to be successful in my field. The program’s emphasis on teamwork and collaboration make me feel confident and prepared.”





## KEY STORIES

# Scientific Discovery

The Knight Campus is a bold new model that accelerates the cycle of scientific discovery and development through world-class research, training and entrepreneurship in a collaborative cross-disciplinary environment.

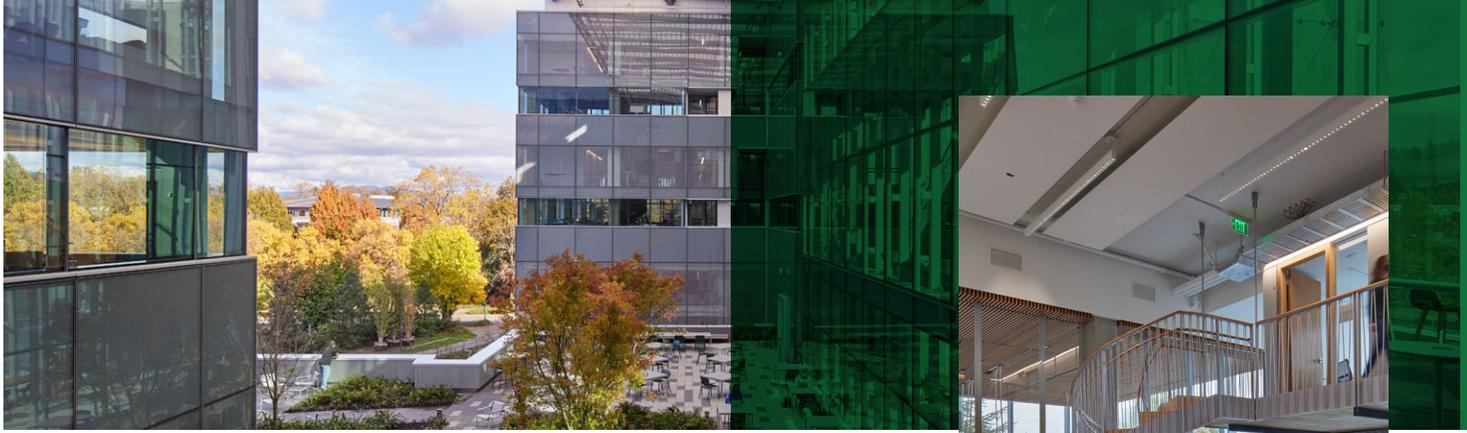


It creates new opportunities for students, attract the highest-caliber faculty members and scientists, spur partnerships and economic breakthroughs for the state, and yield significant benefits for society.

The Knight Campus sets a new standard for lab design and construction. Diverse teams of scientists, researchers, and students are set up in four research neighborhoods in the same building as cutting-edge facilities for imaging, 3-D-printing and rapid prototyping. Situating researchers in close proximity to collaborate on related work allows teams to problem solve and shorten the time from discovery to deployment.

Designed by architecture firm [Ennead Architects](#) in New York and [Bora Architects](#) in Portland, Ore., and built by [Hoffman Construction](#) in Portland, Ore., the first phase of the Knight Campus earned design accolates from the Society for College and University Planning and the American Institute of Architects. The second phase is set to be designed by [ZGF Architects, LLP](#) in Portland, Ore.

# Designed for Discoveries



## KEY STORIES

# Research and Entrepreneurship

Knicht Campus researchers are tackling challenges such as spinal injuries and strokes, rheumatoid arthritis, diabetes, gene synthesis, bone repair and regeneration, and more.

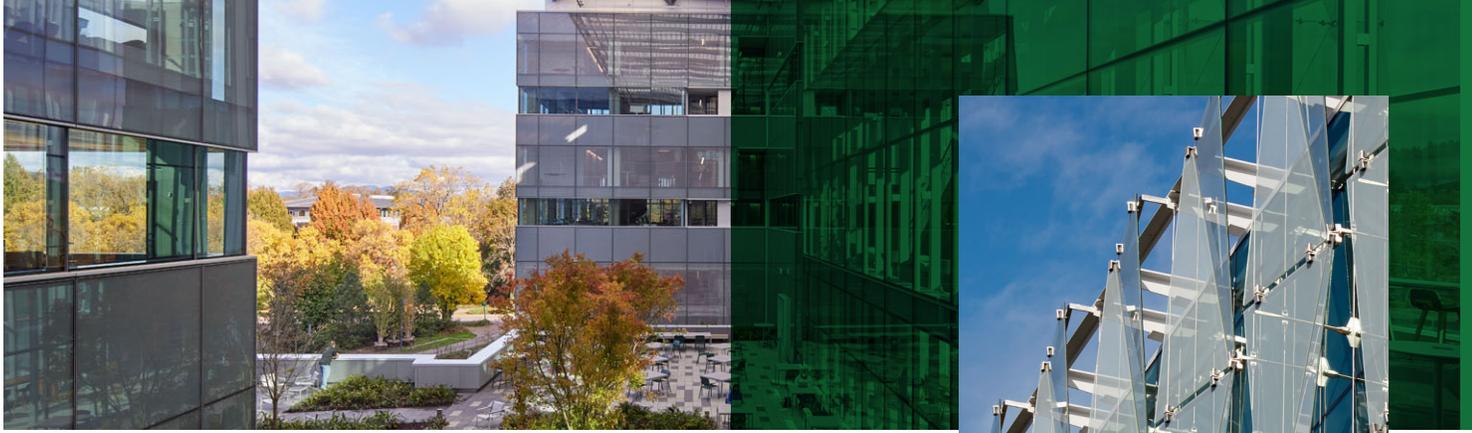
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Even before opening the building, Knight Campus faculty were initiating start ups. One company is 3-D-printing patient-specific orthopedic implants, shortening the innovation timeline from years to weeks. A second startup is creating implantable screws and other devices with built-in sensors to monitor healing. And a third company, formed by a faculty member who is both a physician and a scientist, is commercializing a molecule to treat vision disorders such as macular degeneration.

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The cross-disciplinary design of the campus, along with cutting-edge facilities for imaging, 3-D-printing and rapid prototyping, supports researchers in reducing the 10-year time period that it takes to move the average biotechnology discovery to market.

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## KEY STORIES

# Economic Impact

Photo credit: Bruce Damonte

In addition to large construction projects, the Knight Campus raises the collective profile of the state in the biotechnology sector, especially among companies that could be attracted to many aspects of the Eugene community.

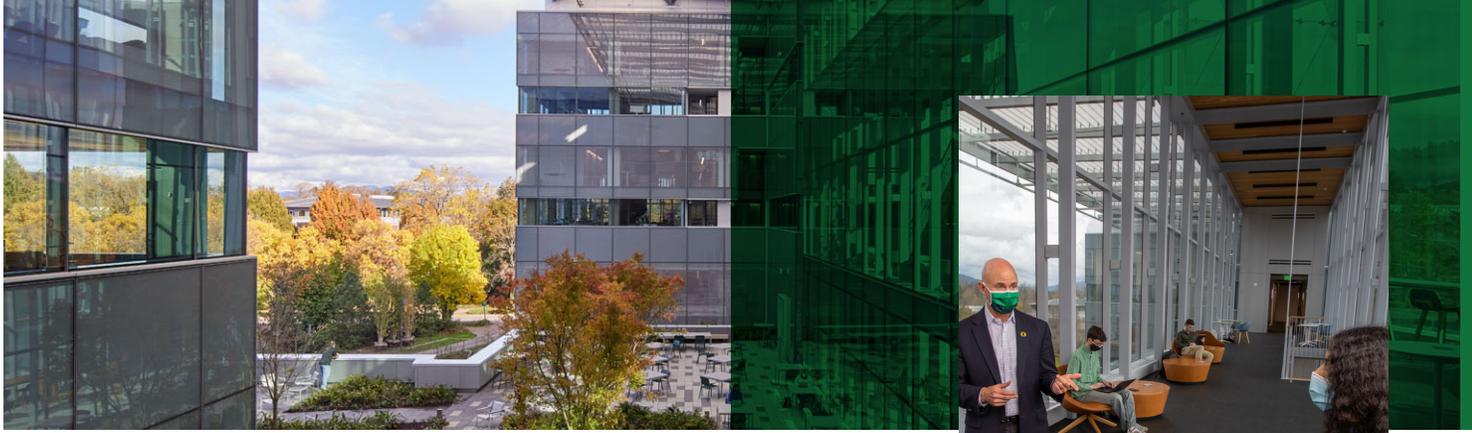
The focus on biotechnology has the potential to reshape Oregon's statewide economy and have a major, long-term impact on economic development by creating new businesses and jobs in Eugene, the state's third-largest city.

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The Knight Campus Graduate Internship Program's strong ties to industry inform relationships with industry, both to train students and to adapt its curricula to meet the evolving demands of industry.

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## KEY STORIES

# The Next Generation of Applied Scientists

The Knight Campus offers a doctoral program in bioengineering, in partnership with Oregon State University—the first engineering degree offered by the UO.

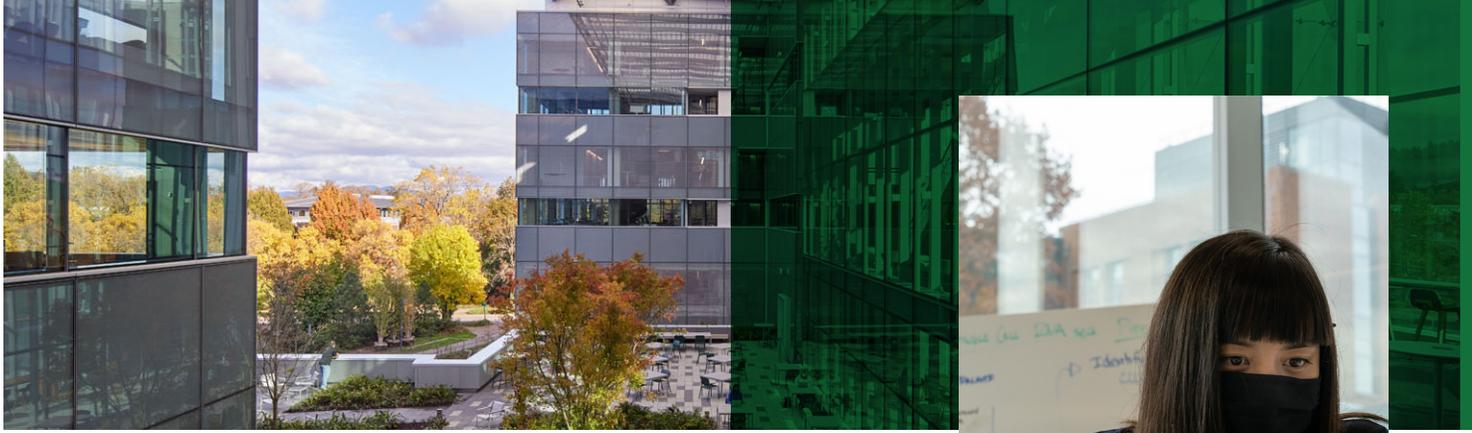
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The Knight Campus serves graduate students with a graduate internship program that provides a career-focused accelerated master's degree, with a nine-month hands-on internship; 90% of graduates launch careers in their fields within three months of graduating.

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The Knight Campus Undergraduate Scholars Program offers select undergrads a rare opportunity to be immersed in comprehensive research, pairing promising young scientists with mentors in campus-affiliated labs.

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## KEY STORIES

# Impact of a Private Benefactor

The Knight Campus was made possible by a \$500 million lead gift in 2016 from UO alumnus and Nike co-founder Phil Knight and his wife, Penny. Phil Knight earned his business degree at the UO in 1959. The Knight Campus contribution was at the time the largest gift ever to a public flagship institution and has since been augmented by \$70 million in state bonds and additional philanthropy. On July 6, 2021, the university announced an additional \$500 million gift from the Knights for the campus. Their extraordinary acts of philanthropy redefine a public university's role in scientific discovery and societal impact and have ripple effects across the state, country and world.

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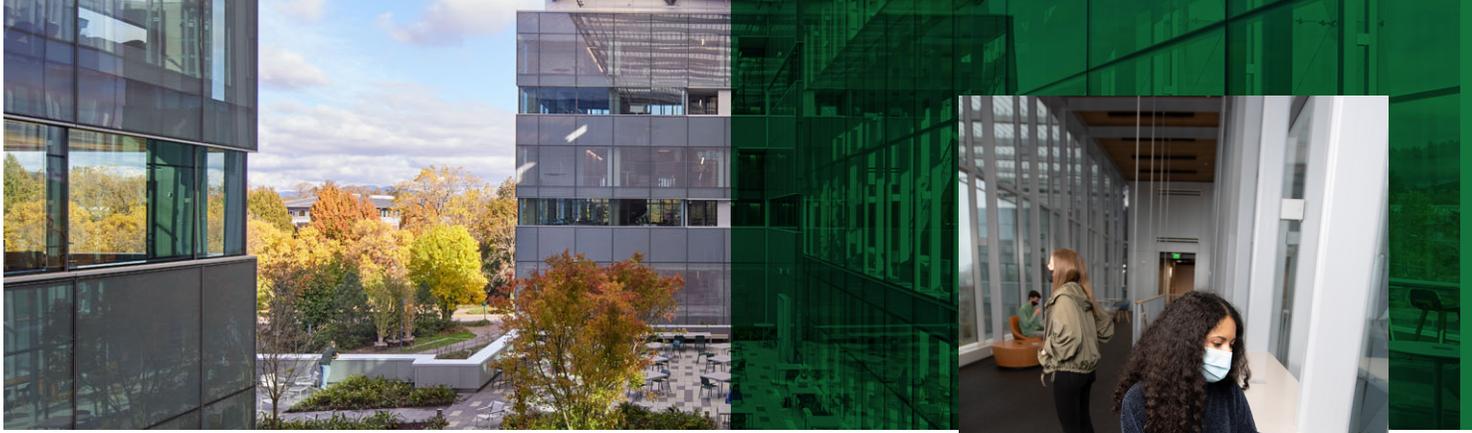
## KEY STORIES

# Regional Partnerships

The collaborative potential of the Knight Campus is already fostering regional partnerships. In 2019, the UO and Oregon Health & Science University launched a joint center for biomedical data science, designed to tackle cancer and other complex diseases with big data. Additionally, the UO recently launched the Center for Translational Biomedical Research with PeaceHealth. And the Knight Campus and Oregon State University (OSU)'s College of Engineering have combined strengths on a joint bioengineering doctorate program that will provide students access to courses, facilities and faculty at both institutions. The program, which marks the first degree program in an engineering discipline at the UO, pairs the entrepreneurial drive of the UO's Knight Campus with OSU's strong legacy in engineering.

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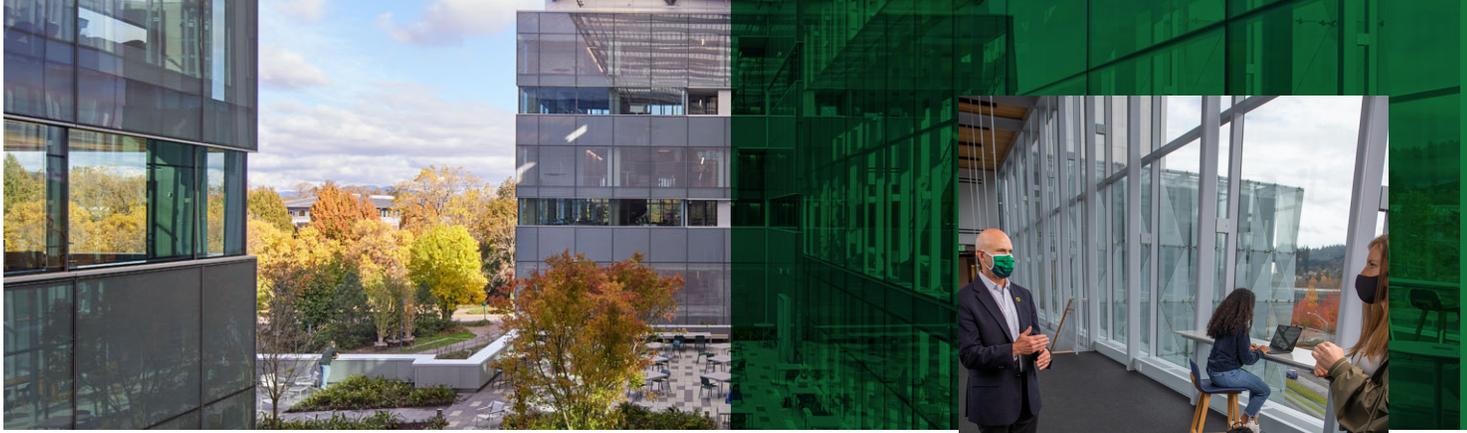


## KEY STORIES

# Research Neighborhoods in Action

The Knight Campus features four research neighborhoods, combining researchers whose work aligns with focus areas in areas such as biomaterials, medical sensors and devices and neural engineering. A neighborhood focused on protein engineering and synthetic biology houses offices and labs of Marian Hettiaratchi, Parisa Hosseinzadeh and Calin Plesa. They work to develop new bio-inspired methods to build biological parts (proteins, peptides, and nucleic acids) and systems with designed properties and predictable behaviors. They repurpose biological cells as factories allowing simple large-scale low-cost manufacturing of complex macromolecules. Together, this allows them to tackle some of society's biggest challenges, including cancer and other serious diseases.

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## KEY STORIES

# A Personal Mission for Robert Guldberg, Vice President and Executive Director of the Knight Campus

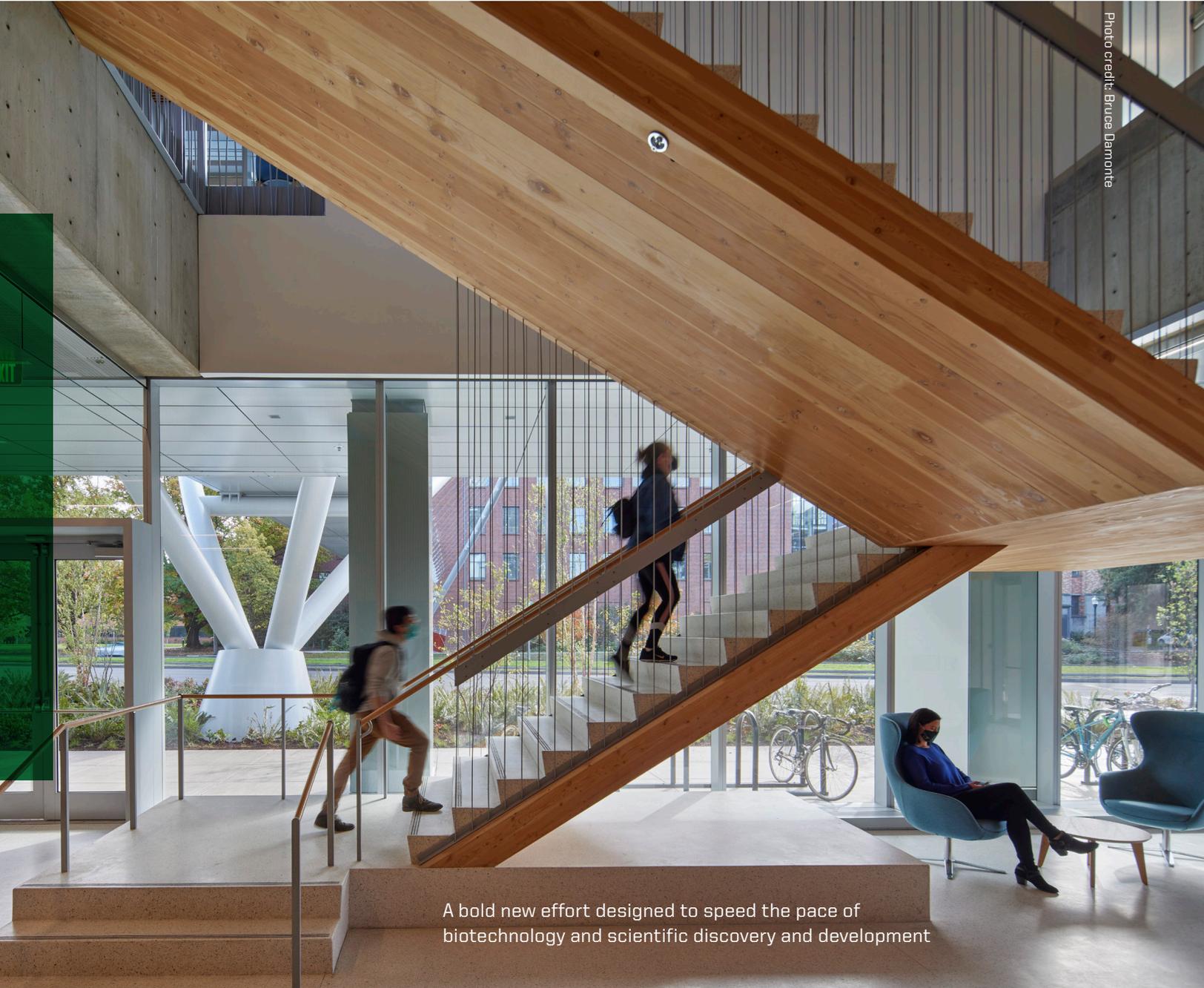
Robert Guldberg's work became personal several years ago when his daughter, then a 14-year-old emerging-competitive tennis player, complained of back pain. She was diagnosed with spondylolisthesis—a condition similar to scoliosis in which one vertebra slides over another, usually in the lower back. She underwent spinal fusion surgery to repair the condition. Nine months later, the fusion failed and a second surgery followed.

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Guldberg, along with collaborator Ken Gall of Duke University, who is a member of the Knight Campus External Advisory Board, designed a novel spine-fusion cage. The cage's scaffolding had a porosity to the surface that encouraged much faster bone growth, creating fusion. The cage was acquired by a major medical device company in 2017 and is now helping thousands of patients.

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Photo credit: Bruce Damonte



A bold new effort designed to speed the pace of biotechnology and scientific discovery and development