

IMPACT

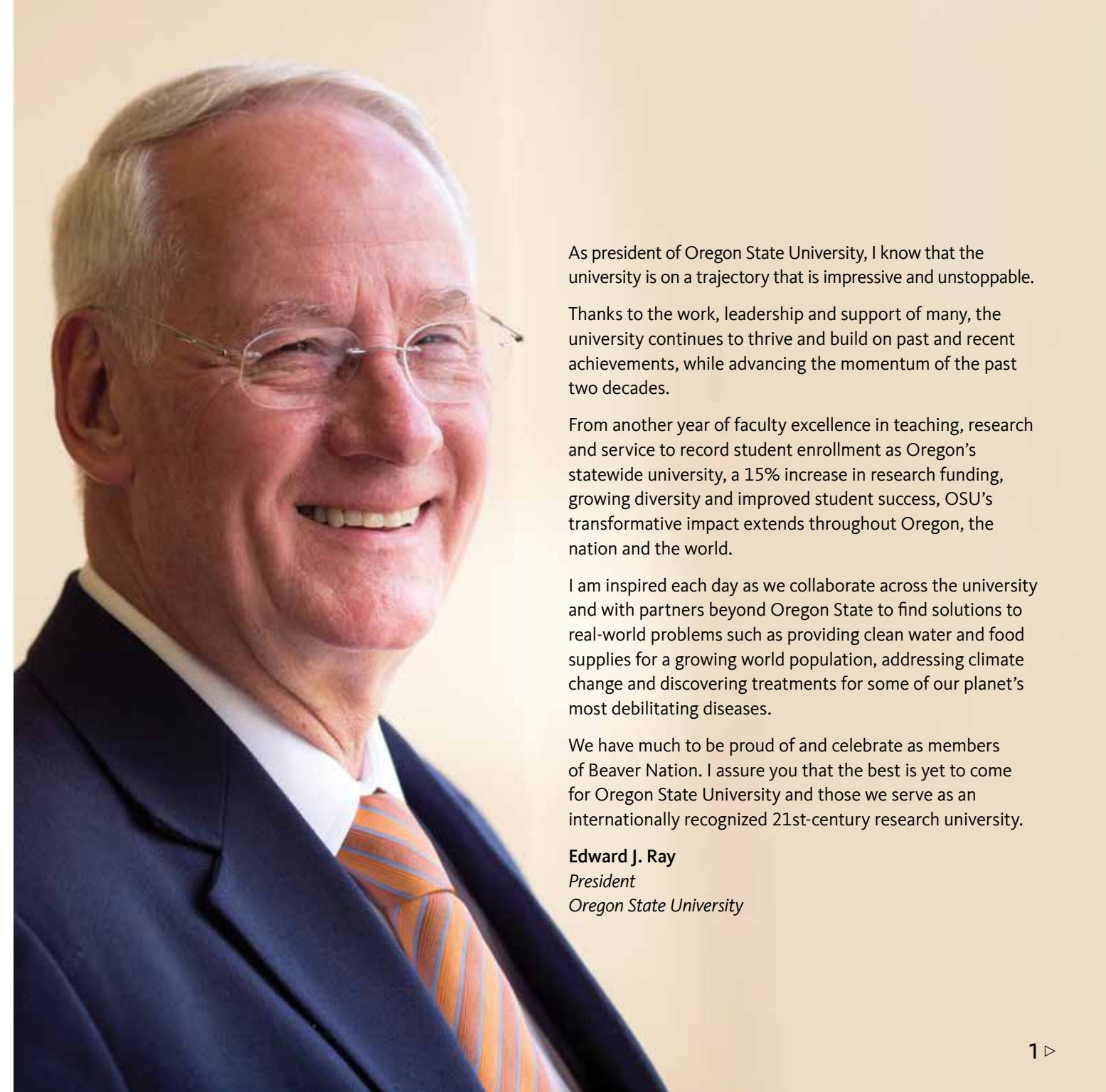
2020



Oregon State
University

Our momentum advances with each step forward.

Everything Oregon State University does has impact. Two units of data can trigger a ripple effect of global discovery. An act of support or collaboration can help a person move ahead and succeed in school, career or community. An idea or ingenious breakthrough may alter climate change, help feed the world or cure disease. The momentum and impact provided by our faculty, staff, students and alumni continue to produce innovation and enduring change across Oregon, the nation and the world.



As president of Oregon State University, I know that the university is on a trajectory that is impressive and unstoppable.

Thanks to the work, leadership and support of many, the university continues to thrive and build on past and recent achievements, while advancing the momentum of the past two decades.

From another year of faculty excellence in teaching, research and service to record student enrollment as Oregon's statewide university, a 15% increase in research funding, growing diversity and improved student success, OSU's transformative impact extends throughout Oregon, the nation and the world.

I am inspired each day as we collaborate across the university and with partners beyond Oregon State to find solutions to real-world problems such as providing clean water and food supplies for a growing world population, addressing climate change and discovering treatments for some of our planet's most debilitating diseases.

We have much to be proud of and celebrate as members of Beaver Nation. I assure you that the best is yet to come for Oregon State University and those we serve as an internationally recognized 21st-century research university.

Edward J. Ray
President
Oregon State University

Only Oregon State offers so many opportunities to learn.

Oregon State University offers more paths to an affordable, transformative education than anyone in Oregon. There is the traditional college experience in Corvallis and a smaller, more personal educational setting at OSU-Cascades in Bend. Top-ranked degrees online anywhere in the world through Ecampus. Hybrid online/in-person programs in Portland. Hands-on marine studies on the Oregon Coast in Newport. Oregon State draws students from everywhere — including all 50 states and more than 100 countries — empowering them with knowledge and skills. And when they graduate, they are ready to go out there to make a better world.

ENROLLMENT EXCELLENCE: BY THE NUMBERS

32,774
STUDENTS

Corvallis: 24,203
OSU-Cascades: 1,311
Ecampus: 7,467



5,978

FIRST-GENERATION STUDENTS
22.8% OF ALL UNDERGRADUATES



1,253

U.S. VETERANS
3.8% OF ALL STUDENTS



8,327

STUDENTS OF COLOR
25% OF ALL STUDENTS



158

FIRST-YEAR STUDENTS RANKED
NO. 1 OR 2 IN THEIR HIGH SCHOOL CLASS



3,492

INTERNATIONAL STUDENTS
11% OF ALL STUDENTS



7,202

GRADUATES IN THE CLASS OF 2019
A NEW RECORD



5,472

GRADUATE STUDENTS
16.7% OF ALL STUDENTS

SOURCE: Fall 2019 Enrollment Summary. Totals include students who are enrolled at Corvallis and OSU-Cascades and within Ecampus.

Some of the best classrooms have no walls.

Powered by the belief that academics are best made tangible through lived experience, Oregon State University's strategic plan makes it a priority that students take on learning experiences outside the classroom. Examples include a capstone project to design and build a market-savvy prototype or capturing data alongside veteran ocean

scientists on a research cruise. Nothing is out of the realm of possibility for a Beaver engaged in experiential learning.

Learning by doing makes a lasting impression. When students return to the classroom, they come back more skilled, more accomplished, more inspired — ready to use their knowledge and take on the world.

Marisol Camacho will have no trouble coming up with evidence of her engineering prowess when she walks into job interviews after graduation. As part of her energy systems engineering capstone project, Camacho and her student colleagues at OSU-Cascades partnered with David Robson, founder of E::SPACE Labs in Bend, to design, build and test air quality monitors installed throughout Central Oregon.

"It was great to work with a customer, gain real-world engineering experience and deliver a product. I'm so glad I got to do this."

Marisol Camacho '19
College of Engineering



When Samantha Lonie boarded the research vessel Sikuliaq on spring break last year, the senior majoring in earth sciences didn't just get her sea legs — she stepped into another world. For five days, Lonie worked as a full-fledged ocean scientist, capturing the unique organic signature of mud pulled from the sea floor and recording data that will help marine researchers better understand our ancient seas.

"I learned about this stuff in a classroom setting, but it's completely different than actually going out and seeing where this sample comes from."

Samantha Lonie
College of Earth, Ocean, and Atmospheric Sciences





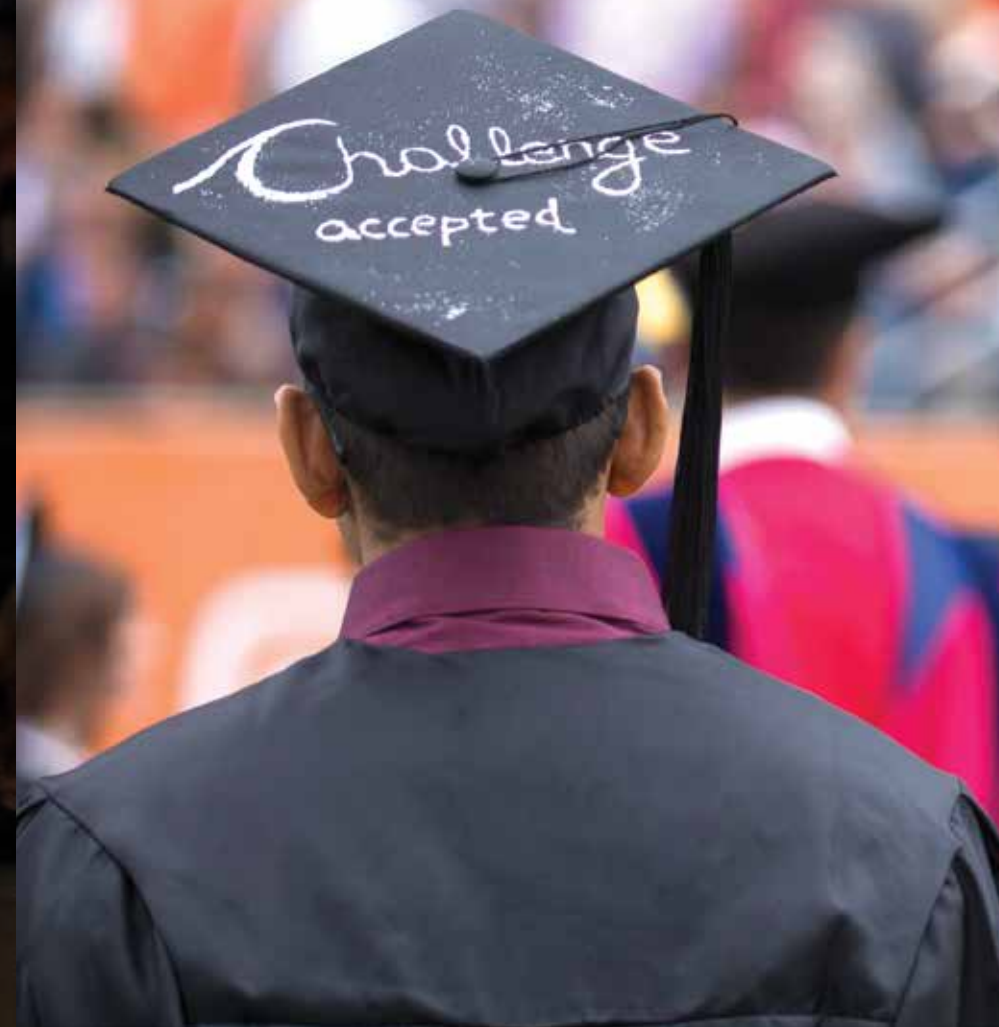
Doing good work can uncover the possibility to do even more.

Oregon State basketball star Mikayla Pivec '19 found her opportunity to do more while volunteering at a women's shelter in Corvallis. With support from the donor-funded SURE Science award, the biohealth sciences major decided to focus her Honors College thesis on the barriers that keep those who experience homelessness from receiving services.

Pivec conducted multiple interviews to learn how people use resources such as food and housing vouchers. She and her faculty mentor, Assistant Professor Kelly Chandler in the College of Public Health and Human Sciences, aim to improve access to local support services while reducing homelessness through prevention and awareness.

Known for generating impressive stats on the basketball court, Pivec's record of assists in the community is equally inspiring.

THOUSANDS OF DONORS. Millions of steps forward.




Donors advance Oregon State University's mission through their philanthropy. Gifts to the OSU Foundation totaled \$144.5 million in 2019. This includes \$28.5 million for OSU's Undergraduate Student Success Initiative, which has raised 85% of its \$150 million goal in just five years.

Donor-funded scholarships make an immediate impact on students' lives, providing opportunities they might not have otherwise. Last year, over 4,200 students received \$10.9 million in scholarships from the OSU Foundation.

Donors created five new endowed position funds in 2019, which help Oregon State attract and retain talented teachers, researchers and mentors. This includes OSU's first endowed coaching position, named for three-time College World Series champion Baseball Coach Pat Casey.

Oregon State's campuses continue to grow, thanks to donor support. In Corvallis, an expansion of Magruder Hall for the Carlson College of Veterinary Medicine and the A.A. "Red" Emmerson Advanced Wood Products Laboratory opened in 2019, with a new Arts and Education Complex in the works. A second academic building at OSU-Cascades in Bend will open in fall 2021.



Oregon State's formula for research breakthroughs: **COLLABORATION THAT CROSSES ALL BOUNDARIES.**

Oregon State University earned \$439.7 million in research grants and contracts in 2019, up 15% over last year and just below our record high in 2017. That total reflects confidence in a research enterprise built on collaborative relationships between faculty researchers, students, businesses, communities and other stakeholders. The power of Oregon State collaboration and the open exchange of ideas consistently yield results.

This dynamic derives from Oregon State's commitment to probe and seek solutions to some of the world's most vexing

issues: water and food for a growing population, infectious diseases, disaster response and climate change. Much of this work occurs at the intersection of diverse disciplines, including science and liberal arts, engineering and human health, technology and music.

Together, we inspire new ways of thinking, make lives better, drive economic and social progress and ensure responsible stewardship of natural resources. It's been Oregon State's mission and way of doing business since 1868 and always will be.

2019 research by the numbers

\$439.7 MILLION

IN RESEARCH GRANTS AND CONTRACTS, **UP 15%**

\$36 MILLION

IN RESEARCH FUNDING FROM BUSINESS AND INDUSTRY, **UP 16%**

80

INVENTION DISCLOSURES

\$4.4 MILLION

IN LICENSING REVENUE FROM UNIVERSITY INNOVATIONS

124 COMPANIES

COMPLETED THE OSU ADVANTAGE ACCELERATOR PROGRAM FROM 2013 THROUGH JUNE 2019

Source: 2019 Research Annual Report. All comparisons relate to 2018.

Bio Heroes

You might not think alpacas have superpowers, but at Oregon State, incredible solutions show up in unexpected places.

Alpacas are some of the most charming animals around. But their value to the Carlson College of Veterinary Medicine goes far beyond their role as hands-on teaching companions.

Researchers in the college believe alpacas (and their camelid cousins) possess a biological superpower that could have life-saving implications for cancer patients: an unusual mini-antibody with an exceptional talent for taking down corrupt cells.

Following in the footsteps of a long lineage of global scientists, researchers at Oregon State are synthesizing these tiny antibodies to block the shielding mechanism that tumor cells use to evade a body's natural immune system.

This work might sound like it came straight out of a sci-fi novel. But then again, nature surprises us every day.



**Dealing with data:
It's like drinking from a fire hose.**



The volume of data coming from cancer research worldwide is overwhelming. Organizing that data so researchers and doctors can better access, use and share it could lead to improved cancer treatments and possibly even a cure.

Melissa Haendel, director of translational data science in OSU's Linus Pauling Institute, is leading a collaboration between researchers from Oregon State University, Oregon Health & Science University, the University of

Chicago, Johns Hopkins University and the University of North Carolina. Funded by an \$8.8 million grant, the collaborators will develop the Center for Cancer Data Harmonization, a cloud-based portal that uses data modeling, ontologies and other techniques to collect, analyze and share data from basic science studies, clinical trials and treatments.

At Oregon State, we believe in data-driven solutions. And we are helping point the way to find them.



More science, less fiction.

Wellness solutions that might have once seemed far-fetched are moving closer to reality at Oregon State — like growing replacement body parts in a Petri dish for people who have suffered a debilitating injury or illness.

Unlocking the genetic code that tells cells to build muscles, bones and blood vessels takes diverse expertise from Oregon State's colleges of Pharmacy and Engineering. Molecular biologist Chrissa Kioussi, pharmacologist Theresa Filtz and computational systems biologist Stephen Ramsey have confirmed that Pax3⁺ cells can serve as the building

blocks for generating multiple organs at embryonic stages. They are conducting research using mice, which share 92% of human genes. In addition, medical ethicist Courtney Campbell in the College of Liberal Arts is examining the costs and risks of regenerating organs derived from a person's own cells.

Kioussi emphatically believes that lab-grown organs will become commonplace in her lifetime. Her team is steadily pursuing that vision.

You could say we had a GUT FEELING.

A healthy gut equals a healthy dog. And according to Nicole Kirchoff, a microbiology Ph.D. student in Oregon State's College of Science, it might also be part of what makes an amiable pet.

Inspired to help unravel the mysterious connection between the gut and the brain, Kirchoff set out with her research team to answer a single burning question: Does the presence of particular microbes in the gut modulate the levels of aggression displayed by dogs?

As the team discovered, Kirchoff's inkling was on target; there is definitely a correlation.

This potential link has all sorts of positive implications — for dogs and dog lovers alike. If aggression is a trait as biological as it is behavioral, it is possible that aggression could be more carefully controlled, reducing the number of people and pets who have a run-in with a hostile dog.

And — just like any science that creates good in the world — we're all for that.





20 years of impact across Oregon and beyond



2000

Oregon State enrolls 16,788 students, earns \$102 million in research grants and contracts, and raises \$40 million from donors.

2001

OSU-Cascades opens in Bend, enrolling 487 students in upper-level and graduate programs.

2002

Oregon State Ecampus begins offering degree programs 100% online.

2004

Historic Weatherford Hall reopens after a \$20 million renovation, the first in a building boom of 46 new buildings and major renovations.



2007

The Campaign for OSU, the university's first-ever capital campaign, launches with a goal of raising \$625 million.

2012

The OSU Extension Service launches the OSU Open Campus program, Juntos, to promote high school graduation, college attendance and family engagement. By 2019, the program serves 4,800 youth and families in 35 communities statewide.

2014

Ecampus is ranked Top 10 in the nation by U.S. News & World Report, a ranking it will repeat for seven consecutive years.



2014

The Campaign for OSU concludes having exceeded its original goal. The campaign raises \$1.12 billion to fund 600+ new scholarships, 79 new endowments and 30 new or renovated facilities.

2015

OSU-Cascades expands to a four-year university, a first for Central Oregon.

2015

The Marine Studies Initiative launches, building on Oregon State's world-renowned reputation and offering an unparalleled living-learning laboratory on the Oregon Coast.

2016

OSU-Cascades opens its 10-acre campus in Bend, serving 1,122 students.



2017

Oregon State earns a record \$441 million in research grants and contracts.

2018

Oregon State expands in Portland, offering academic programs in a hybrid online/in-person format at the new OSU Portland Center near Pioneer Square.

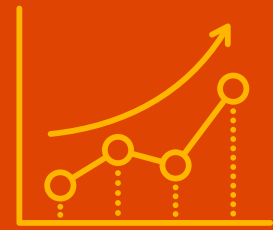
2019

Oregon State continues to grow with 77 capital projects and renovations in progress in Corvallis, Bend and Newport.

2019

Oregon State enrolls 32,774 students, earns \$439.7 million in research grants and contracts, and raises \$144.5 million from donors.

BUILDING MOMENTUM



Oregon State University has never stood still. This is especially true over the past two decades. Thanks to

exceptional leaders, faculty, staff and students, Oregon State is constantly adapting, improving and growing to better fulfill its mission.

Throughout his 17 years as president, Ed Ray has been instrumental in moving the university forward. With appreciation for his efforts, we are determined to continue building on that momentum.

For Oregon State, growing an industry from the ground up comes naturally.

Decriminalized in the 2018 Farm Bill, hemp is projected to expand to a \$26.6 billion global market by 2025. And Oregon State University is planting the seeds — literally — to play a major role in that market.

The new Global Hemp Innovation Center in the College of Agricultural Sciences is the nation's largest research center devoted to the study of hemp. Oregon State is also the first university in the U.S. to certify hemp seed for planting. More than 40 OSU faculty in 19 academic disciplines, in 10 locations across Oregon and four regions in Asia and Europe, are involved in hemp research, teaching and OSU Extension Service activities.

Oregon's location along the 45th parallel is optimal for cultivating hemp, and the university had the nation's only hemp research center from the 1880s to the 1930s. We are perfectly positioned, once again, to make it grow.

What can you make with hemp fiber or seed oil?

- » Clothing
- » Construction materials
- » Packaging
- » Paper products
- » Biofuels
- » Plastics
- » Pharmaceuticals
- » Cosmetics
- » Foods
- » Nutraceuticals

The benefits of hemp are right in your hands.

Feel the cover of Impact 2020. It is printed on paper stock made from hemp. Compared to trees, hemp is a much more sustainable source for paper. Hemp stalks grow in just four months, and 1 acre of hemp can produce as much paper as 4 to 10 acres of trees over a 20-year cycle. Compared to wood, hemp has a higher concentration of cellulose, the principal ingredient for making paper. Paper made from hemp is also stronger and more durable. Expect to see many more products globally to be printed on hemp in the future.

Serving Oregon's tribal communities.

Oregon State Ecampus has always been about meeting students where they are — providing flexibility in learning when it is needed most. Now, Ecampus is going a step further, customizing its offerings to provide greater access to one of Oregon's most underserved populations: the Native American student community.

Following the guidance of Oregon's nine federally recognized tribes, Oregon State has taken distinct steps to ensure Ecampus works well for Native American students. First priority: helping first-generation students navigate the complexities of higher education.

“Coaches meet with our students on a regular basis to set goals and work on navigating hurdles that could otherwise derail them,” says Marleigh Perez, director of student success for Ecampus. “It's like having a friend in your corner.”

Students are also immediately linked to resources, like the Native American Longhouse Eena Haws, to help them develop a strong sense of belonging despite their physical distance from campus.

“We place a lot of emphasis on relationship and connection,” says Perez. “Our students know that we have their backs — that this is a community they can count on.”



BEAVER HANGOUTS: A virtual way to make connections to OSU.

Prospective students who visit Oregon State University are more likely to enroll. But not everybody can come visit. So OSU is going to them.

Beaver Hangouts is a one-on-one video conferencing program for K-12 students living in rural Oregon. An Oregon State student coach brings the university to K-12 schools, providing virtual tours, guidance and real-life examples of how post-secondary education — whether or not it is at Oregon State — can open the door to new opportunities.

Beaver Hangouts help turn the possibility of higher education into reality by giving students what they are missing: a relatable mentor who can show them what college is like, explain their options and help them find a path forward. Because everyone deserves a chance at success in school and in life.



► Oregon State University is located within the traditional homelands of the Marys River or Ampinefu Band of Kalapuya, who were forcibly removed to reservations in Western Oregon following the Willamette Valley Treaty of 1855. Today, living descendants of these people are a part of the Confederated Tribes of Grand Ronde Community of Oregon and the Confederated Tribes of Siletz Indians.

Creating a place for everyone in fashion.



Navigating through a chronic pain condition with the use of crutches and canes, College of Business student April Davenport had one wish: to see clothing for people with disabilities represented in the fashion industry.

So she designed a trendy prom dress with matching crutch accessories and entered it into a contest — which earned

her a trip to New York Fashion Week, a \$5,000 scholarship and multiple opportunities to advance her career. Davenport has started a business, Crutch'n It, which sells fashionable crutch and cane accessories, and she will soon display those accessories in an elite Los Angeles trade show. Davenport also has a job lined up designing adaptive footwear after she graduates.

Thanks to Davenport's creations, people with disabilities can see clothes designed for them in fashion magazines. And when they get dressed every day, they have options, allowing them to dress like their peers and confidently express who they are.





His big idea?

Think small.

Industrial wind turbines towering 300 to 400 feet high have become a familiar sight worldwide. Raj Oak sees a bigger solution on a much smaller scale — a wind turbine that could fit in your backyard.

The College of Engineering graduate student developed a high-torque, low-speed turbine that can generate power even in low wind speed conditions. At just 10 meters tall (about 32 feet), the wind turbine could be used in a residential setting to supplement utility power with a renewable source. It could also power homes in remote locations with limited or no access to the electric grid.

Oak's design is in the patent application process, and with guidance from entrepreneurship experts and his Oregon State advisors, he is launching a startup, PowerZest Energy Solutions. The business is based in Oak's home country, India, and he plans to ship his turbines around the world. Soon, they will join their giant counterparts in contributing to a sustainable global energy supply. That's big.

Food insecurity is real.

But Oregon State is working on a solution.

Nationwide, 2 in 5 college students report they felt food insecure in the past 30 days. Determined to ensure that every student has a safety net they can count on, Oregon State University is ramping up support for programs that help meet students' most basic needs.

On the front lines is the Human Services Resource Center, which manages OSU's Corvallis campus food pantry, textbook lending and dining food share program, as well as a host of other services that help offset the financial burden of college. The OSU Foundation is leading fundraising efforts to support this work and supplement university support for the HSRC.

In Bend, the Associated Students of Cascades Campus deliver similar support, providing access to healthy food and self-care items through its food pantry to students and non-students alike.

Because when challenges arise, we don't turn away. We step up.



FRUIT/FRUTA



FRUIT/FRUTA

It's only human to want compassion and empathy from your doctor.

Unfortunately, it is not a given. In part, that's because medical training focuses mostly on the science of treating illness or injury. Oregon State's Courtney Campbell emphasizes the human element of treating patients.

Campbell established the medical humanities certificate program in the College of Liberal Arts to add critical skills in compassion, empathy, cultural literacy and diversity for students preparing for medical careers. They will be better doctors, nurses and health care professionals, Campbell believes, if they can connect with the people they are charged with helping.

Oregon State's program is the largest of its kind in the U.S., with 150 students enrolled and nearly 200 graduates since 2012. The program is also now available entirely online via Oregon State Ecampus.

Keeping the humanity in medicine makes sense. Which is why Oregon State is making it happen.



When Beavers take action, it expands into **SOMETHING GREATER.**

College of Education alumna and 2019 Oregon Teacher of the Year Keri Pilgrim Ricker '07 is someone willing to take risks, generate innovative ideas and fight for change.

At Churchill High School in Eugene, she is stepping up to help her students see themselves as problem solvers. Her courses, including anatomy and physiology, focus not only on biological diversity but the diversity of people and ideas. She also leads Churchill's Health Services Pathway program

where students can learn hands-on in real-world settings, giving them an edge in future health care careers.

Programs like these and teachers like Pilgrim Ricker help more students graduate, increase representation in health care fields and build a community of culturally competent leaders who are prepared to treat a diverse population of people.

That's something greater.



Turning the world right side up for children in foster care.

For children whose lives have been turned upside down, OSU-Cascades alumna Jessica Mose '16 works to provide something stable and reassuring: a family connection.

Mose, who earned her degree in human development and family sciences, is the family find coordinator for CASA of Central Oregon. Using public records, databases and social media tools, she reaches out to relatives of foster children and invites them to connect by making phone calls, sending letters and going on outings.

When extended family members are a part of their life, children in foster care feel less alone in the world and have the support they need to navigate life's challenges into adulthood.

Family needs are constantly changing. OSU ensures they are met.

Many parents seek guidance in raising children, but don't know who to trust. Assistant Professor Shauna Tominey and her team are making Oregon State the go-to source for credible, research-based parenting information.

As one of the leaders of the Oregon Parenting Education Collaborative — also known as OPEC — Tominey supports a statewide network of parenting hubs that offer evidence-based workshops and classes for parents with children of all ages. OPEC programs give parents and caregivers answers, help manage their stress and make them feel heard.

Because Tominey and her colleagues have opened the door wider to university and community collaboration, other states are looking to Oregon State as they build their own parenting education models.

Tominey has built workshops and written a book informed by her research in children's social emotional skills and the parent-child connection, tapped into her expertise and seized the opportunity to create OPEC. Now families are benefiting throughout Oregon — and beyond.



► *Shauna Tominey is leader of OPEC and assistant professor of practice and parenting education specialist in the College of Public Health and Human Sciences. OPEC is a partnership between Oregon State University, the Oregon Community Foundation, the Ford Family Foundation, Meyer Memorial Trust and the Collins Foundation.*

A photograph of a forest fire. In the foreground, there are several tall, thin pine trees. The ground is covered in low-lying vegetation, and a fire is burning through it, with bright orange and yellow flames. In the background, a firefighter in a yellow jacket and helmet is visible, walking through the fire. The sky is blue with some smoke or mist in the air.

OREGONIANS TRUST OREGON STATE

because we partner
with them to solve
tough problems.

Oregon State University has worked collaboratively with Oregonians for more than 150 years as the state's land grant university.

To reduce the threat of catastrophic wildfires, the College of Forestry and OSU Extension Service are partnering with property owners statewide to implement consistent forest and range management plans. In Lake and Klamath counties, for example, work on 60,000 to 70,000 acres of public and private lands aims to lessen fire risk by reducing fuel loads, improving forest health and restoring wildlife habitats.

In addition, with funding from the Oregon Legislature, Oregon State's Forestry and Natural Resources Extension program will hire a director, a state fire specialist and six regional fire specialists. Strategically placed in high-risk areas, these specialists will build on existing partnerships and expand outreach and education efforts in those communities.

We never forget that Oregon is our campus — and that Oregonians are our most important partners.

Building pathways to success can include creating new spaces. **And tearing down walls.**

Oregon State University is doing both to attract more African American students and create a stronger sense of community. New for fall 2020, the Nia Living-Learning Community offers a residential experience for students with a shared interest in centering black people and people of the African diaspora. This new space will provide opportunities to explore racial identity and the history of black and African American people in Oregon and beyond.

Meanwhile, OSU's Black Student Access and Success Initiative is breaking down barriers to encourage first-generation and underrepresented students to apply to Oregon State. Through events, high school visits and college information sessions in Portland, students and their families can learn about all the resources available.

Such initiatives are seeing results. Over the last year, there has been a 33% jump in college applications from African American students, along with increases in first-year retention and overall graduation rates.

That's progress, but much more work is needed. Oregon State will not stop until all students receive the support they need to achieve their goals.





We've shared our stories.

NOW IT'S YOUR TURN TO SPREAD THE WORD.

Put the enclosed pop-up on your desk. Use it as a conversation starter. Share a fun fact. Tell your friends and colleagues about what's happening at Oregon State. Be proud. The way we see it, it's not bragging when you've got proof.



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