University of Victoria Annual Review
February 2020
CURIOSITY BEGINS AT THE EDGE

UVic grads are career-ready and make major impacts on our planet—and beyond. Engineering alum Cambria Logan went from a co-op term at NASA’s Jet Propulsion Lab to leading a team that helped the Curiosity Rover operate on Mars. She’s currently at work on the Mars 2020 rover mission.

We acknowledge with respect the Lekwungen peoples on whose traditional territory the university stands and the Songhees, Esquimalt and W̱SÁNEĆ peoples whose historical relationships with the land continue to this day.

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“UVic is at the forefront of two global challenges—sustainability and reconciliation—and our achievements have been possible because of our drive to engage and partner with communities, researchers, governments, industry and funders around the world and in our own region.”

—Jamie Cassels, UVic President 2013-2020

Classroom under water
UVic’s scientific diving program has given three decades of students the tools, training and hands-on learning they need to safely and successfully conduct research underwater. “The course makes safety tasks second nature,” says second-year biology student Emie Woodburn. A partnership with the Malahat First Nation also ensures the community has the tools required to be stronger stewards of their territorial waters.
The MacLaurin Learning Commons is a new student-centred, multi-purpose work space reimagined for students by students. Its mix of formal and informal, group and individual spaces supports students' needs to meet, work and recharge while on campus. Thanks to the Jean Downie Dey Legacy Foundation, the commons also includes computer work stations, large electronic displays, a print station and technical support for users.
National teaching award for field school founder

Inspired by Nobel Laureate Elie Wiesel’s incitement to “think higher, feel deeper,” UVic Germanic and Slavic Studies professor Helga Thorson launched a field school to help students achieve precisely that kind of elevating experience, while grappling with the enormity of the Holocaust. The resulting I-witness field school has transformed students’ lives, and led to Thorson becoming the third UVic scholar in five years named a 3M National Teaching Fellow.

Victoria Hand Project extends its reach

A UVic initiative that provides 3D-printed prosthetic hands to amputees in developing countries will now also help people in underserved and remote communities in Canada and the US. Led by mechanical engineer Nick Dechev, the Victoria Hand Project received a $1-million award from the 2019 TD Ready Challenge. Funds will also support research trials on 3D-printed spinal braces to treat scoliosis in children.
RESEARCH EXCELLENCE AND IMPACT

UVic’s outstanding research advances human knowledge, improves and enriches lives, tackles global challenges and promotes the sustainability of the planet.

Concrete improvements in infrastructure safety

With start-up help from the Coast Capital Innovation Centre at UVic, civil engineering PhD candidate Harsh Rathod co-founded a drone-based infrastructure monitoring company which uses artificial intelligence and robotics to help detect and quantify defects like cracks and holes in public infrastructure such as bridges and dams.
Cancer research focused on sugars
“Cancer and immune cells are constantly in a fight for nutrients,” explains UVic immunologist Julian Lum, who is also a scientist with BC Cancer’s Deeley Research Centre. Lum received a major grant to support his research on CAR T-cell therapy, an immunotherapy that factors a patient’s diet as a means of engineering natural immune cells to win the “constant nutritional arms race for glucose,” in cancer treatment.

Shaping tomorrow’s transportation
Lin Cai, UVic professor of electrical and computer engineering, is developing technologies that will make today’s commuter-traffic snarls obsolete. Cai, a 2019 NSERC E.W.R. Steacie Memorial Fellowship recipient, designed an elegant solution to the complex challenges of creating a safe and seamless wireless network to connect vehicles, infrastructure and the cloud. Her next-generation networks will help avoid accidents, reduce congestion and air pollution, and improve fuel efficiency.
UVic’s focus on teaching excellence, supported by research-enriched and experiential learning, ensures an exceptional student experience that equips our students for personal success and contributions as global citizens.

On the road to extraordinary careers
Co-op students hired into work terms at BC Transit are revving up their careers and helping move the transit agency closer to its goals. Students working at BC Transit represent a wide range of academic programs including, from left to right, Sylvia Huang (commerce), Ivan Lin (economics), Alexander Sheppard (civil engineering), Michelle Anon-Bona (Master of Global Business) and Jamie Chan (health information science).
Designing new molecules
Chemistry students at UVic can now take part in an international program with Denmark-based pharmaceutical company LEO Pharma that will provide them with hands-on learning during their academic course work. Students design and synthesize molecules at UVic, screen them using LEO Pharma’s proprietary technologies, and send them to Denmark for further testing.

INCREASING CO-OP AND COMMUNITY SERVICE LEARNING PLACEMENTS

Mapping tool saves lives, skies and forests
When UVic geography grad Patrick Robinson (centre) parachuted into BC’s remote backcountry to fight forest fires last summer, he packed a valuable piece of equipment—his smartphone. The new mapping app Robinson developed during a co-op work term with GeoBC gave “smoke jumpers” more information than ever before about the fire they’re attacking—making their work safer and more effective.
Historic agreement finalized in traditional ceremony

A groundbreaking agreement between Kwakwaka’wakw/Coast Salish artist and Audain Professor of Contemporary Art Practice of the Pacific Northwest Carey Newman (Hayalthkin’geme) and the Canadian Museum for Human Rights governing the protection and use of Newman’s monumental art installation, the Witness Blanket, was finalized through traditional ceremony in October at Kumugwe, the K’ómoks First Nation Big House on Vancouver Island. The ceremony marks the first time in Canadian history that a federal Crown Corporation has ratified a legally binding contract through Indigenous traditions.

FOSTERING RESPECT AND RECONCILIATION

UVic’s goal is to be a global leader in creating better opportunities for Indigenous students, entering respectful educational and research partnerships with Indigenous communities, and advancing respect, reconciliation and mutual understanding with Indigenous peoples.
Transforming Indigenous Education

In 2018/19, Indigenous students made up more than 6% of the student population.

Indigenous languages on Google Earth

In 2019, Google featured a UVic initiative as part of a global unveiling of its new interactive Google Earth tool. This curated set of high-quality stories provides sound clips featuring the voices of speakers of threatened Indigenous languages from 27 countries. Indigenous languages teacher yutustanaat (pronounced “Yah-TUS-tuh-naught”), whose English name is Mandy Jones, is one of those speakers. Yutustanaat and UVic anthropologist Brian Thom led the local initiative.

Transforming the lawscape

Amanda Vick (Gitxsan), a second-year student in the world’s first Indigenous law program, plans to change the legal landscape in Canada. The UVic joint degree program in Canadian Common Law (JD) and Indigenous Legal Orders (JID) will help her shape the future.
Celebrating nature in IMAX

UVic visual arts professor Kelly Richardson was one of five filmmakers selected to present short works celebrating the 50th anniversary of the IMAX, a Canadian invention. Richardson’s “Embers and the Giants” brings old-growth forests on Vancouver Island’s wild west coast into sharp focus at the mammoth IMAX scale that has helped immerse theatre audiences in nature’s most impressive tableaux—reproducing a sense of wonder about the richness of our natural environment in cinema audiences around the world.

SUSTAINABLE FUTURES

UVic has become a global leader in social, environmental and institutional sustainability through research, partnerships and campus policies.
A rock-solid solution for CO2
The UVic-led Pacific Institute for Climate Solutions has assembled an international team of experts to advance sustainable, negative-emissions technologies with a new four-year feasibility study. They aim to permanently and safely sequester carbon dioxide (CO2) as rock—extracting CO2 directly from the air, and then injecting it into sub-seafloor basalt, where it will mineralize into solid carbonate rock.

Remote cameras key to documenting wildlife habits
Crawling through dense underbrush was just a normal part of Sandra Frey’s day as a graduate student in UVic’s School of Environmental Studies. Last year, she received the Mitacs Award for Outstanding Innovation in a master’s program for her breakthrough work with wildlife camera data collection, documenting how animal behaviour patterns change when people disturb their habitats.

DONATIONS POWER A BETTER FUTURE
A growing culture of philanthropy on campus and in the community is helping to ensure the financial sustainability of the university.

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Donations raised (in millions)

Number of donors

Fundraising (in millions)  Number of donors


3,000  3,200  3,400  3,600  3,800  4,000  4,200  4,400  4,600  4,800  5,000

$10  $11  $12  $13  $14  $15  $16  $17  $18  $19  $20
Connecting Indigenous peoples from Tanzania and Canada

Supported by a SSHRC Connections grant and UVic geography expertise, Maasai delegates from Tanzania came to Canada for two weeks to exchange cultural knowledge and Indigenous land management practices with First Nations from the T’souke and Tla-o-qui-aht on Vancouver Island and the Selkirk and Carcross-Targish peoples of the Yukon.
End-of-life care for people in poverty
A new mobile palliative care program is addressing a need for end-of-life care by providing care and dignity to people with life-limiting illnesses who are homeless and living in poverty in Victoria. The Palliative Outreach Resource Team (PORT) grew out of a three-year UVic nursing study which found that as the health of homeless and barely housed people declines, their ability to access support systems also diminishes. PORT is a collaboration of UVic, Island Health, Victoria Cool Aid Society and Victoria Hospice.

UVic entrepreneurs get a million-dollar boost from Coast Capital Savings
Campus innovators and entrepreneurs will benefit from a $1-million funding boost to the Coast Capital Savings Innovation Centre that will provide students with access to support, mentorship and financial skills required to contribute and thrive in BC’s economy—and beyond. The funds will help innovators and entrepreneurs develop business concepts from idea to investor-ready. This gift marks the largest philanthropic contribution given to a Vancouver Island organization by BC-based Coast Capital Savings.

40+ YEARS OF PARTNERING WITH INDIGENOUS COMMUNITIES ON LANGUAGE REVITALIZATION

UVIC’S GLOBAL PARTNERSHIPS THAT SUPPORT ACADEMIC AND RESEARCH CONNECTIONS SPAN 300 INSTITUTIONS AND ORGANIZATIONS IN 70 COUNTRIES

UVIC STUDENTS HAVE A WORLD OF LEARNING CHOICES, WITH 27 INTERNATIONAL FIELD SCHOOLS

Share Knowledge in the Community
UVic is home to Canada’s only university-wide Speakers Bureau, sharing knowledge with 19,000 people in Greater Victoria each year.
UVIC FACTS & FIGURES

- **22,000+** Students (undergraduate & graduate)
- **900** Full-time faculty members
- **535** Patents filed to date
- **1,080** Invention disclosures to date
- **169** Start-up companies to date
- **3.7 BILLION** UVic annual economic impact

**FIRST** UVic is ranked as Canada’s top comprehensive university for preparing career-ready students (2019 TIMES HIGHER EDUCATION GLOBAL UNIVERSITY EMPLOYABILITY RANKING)

UVIC FACTS & FIGURES

The 2019 QS World University Rankings by Subject place UVic in the global top 300 for research in:

- Computer science
- Earth & marine sciences
- Education
- English language & literature
- Environmental sciences
- Law
- Mathematics
- Philosophy
- Physics & astronomy
- Psychology

The 2019 Leiden University Rankings place UVic #169 worldwide for research impact across all sciences. UVic is also recognized as a global research leader in the following areas:

- **#53** IN MATH & COMPUTER SCIENCE
- **#140** IN SOCIAL SCIENCES & HUMANITIES
- **#107** IN BIOMEDICAL & HEALTH SCIENCES
- **#248** IN LIFE & EARTH SCIENCES

UVIC OPERATING BUDGET

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REVENUES BY SOURCE

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<tr>
<td>Sponsored research</td>
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EXPENDITURES BY FUND

- **$107.2m** RESEARCH INCOME
- **$36.2m** STUDENT SUPPORT
- **$635 m** TOTAL
- **$604 m** TOTAL

A CANADIAN RESEARCH LEADER

Total research income (in millions) 2018/19

- **$16.4m** Undergraduate scholarships, bursaries, graduate fellowships & work study
- **$7.6m** Fellowships and research grants

DONOR SUPPORT

UVic foundation scholarships & other donor-based scholarships

SPOONED RESEARCH

UVic is ranked as Canada’s top comprehensive university for preparing career-ready students (2019 TIMES HIGHER EDUCATION GLOBAL UNIVERSITY EMPLOYABILITY RANKING)

IN V THE TOP GLOBAL RANKINGS

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INVESTING IN THE FUTURE

Endowment funds (in millions)

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<tr>
<td>2019</td>
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HIGH LEVELS OF SATISFACTION

2018 graduate survey—two years after graduation

- **93%** of recent UVic grads satisfied or very satisfied
- **93%** of recent UVic grads satisfied or very satisfied

Overall program satisfaction
Satisfaction with quality of instruction

UVIC ANNUAL REVIEW
A digital edition of this publication, along with further information about each story, can be found online at uvic.ca/annualreview.

In keeping with the university’s commitment to sustainability, the UVic Annual Review is printed on FSC-certified paper containing 10 per cent post-consumer waste.

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