

# Innovation@UCalgary

Linking discovery, creativity, invention and entrepreneurship to solve local, national and global societal challenges.

Innovation is critical to advancing society and addressing humanity's most important and emerging issues. Canadian research universities play an instrumental role in developing innovation and research systems to support Canada's social, economic and cultural development.

University innovation, knowledge engagement and commercialization deliver tangible impact that includes job and new venture creation, product and service sales, and new research opportunities. It creates economic impact through social and technical advances that lead to new technologies, policies and behaviors, and healthier societies. In Canada, research universities are responsible for 83% of all contracted private-sector research. Growing innovation at the University of Calgary aligns with federal and provincial Government and City of Calgary strategies for economic growth, builds upon our existing strategies for enhancing the value propositions of the university (Student Experience and Impact), and is derived from our commitment to excellence in Research and Teaching.

#### **Towards the 21st Century innovation university**

UCalgary is — like our city — a destination for people from around the world with ambitious dreams and the grit to fulfil them. We are pioneers and innovators and community-builders at heart. It's in our DNA.

Today, UCalgary is focused on enabling the innovation cycle from discovery to deployed solutions, by growing our innovation ecosystem and promoting a culture of innovation within our community.

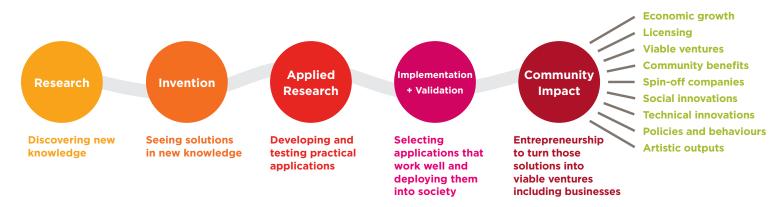
Innovation is part of the broad spectrum of research and application activity at UCalgary, and our ecosystem is one differentiator that will help us take our place amongst the world's leading research universities. Innovation can happen at any scale, from individual research groups, to major institutes, to faculty, student and staff initiatives. Innovation occurs at the intersection of broad domains of activity, and is inherently interdisciplinary.

We are resourcing, catalyzing and supporting our ongoing transformation to a 21st Century innovation university.

Our goal is to continue to grow innovation levels, engaging faculty and staff and enabling innovation experiences for undergraduate and graduate students and postdoctoral scholars.

#### Innovation@UCalgary

Innovation@UCalgary is the ecosystem that supports innovation activities at UCalgary, bridging the transition from discovery through to delivering solutions for society. We work with our on-campus community, the Calgary community, government, industry and other institutions to accelerate this process for the benefit of humankind. Solutions can take many forms, including via businesses, knowledge engagement networks, non-profit models, among others.



Innovators can enter or exit the Innovation@UCalgary ecosystem at any point, or even manage the process solo by leveraging the university's flexible intellectual property (IP) policy.

The innovation path is often not linear but is diverse in style and mode. Whether someone is already an active innovator or at the beginning of the process, the support ecosystem at UCalgary helps remove barriers, simplify processes and facilitate the journey. Should you need a lot of help along the way, just a bit here and there, or wish to be as autonomous as possible, tailored support is available. If you want to find out more or talk to some experienced university innovators and mentors — contact us!

#### Where do I go next?

## **1** Entry-level support and programs for students, faculty, staff, alumni and community members

The Hunter Hub for Entrepreneurial Thinking fosters innovation activity by students, staff, faculty, alumni and community members. As an interdisciplinary nucleus, it offers budding entrepreneurs – and those merely interested in exploring the possibilities – the opportunity for varied venture experiences and opens doors for them to move naturally into the development environment of Innovate Calgary. The Hunter Hub has generated over 100 projects and teams through our events and pitch competitions to date.

Support within the disciplinary domains 2 Innovation often occurs where individual research groups and interests of students, faculty and/or staff connect. Some faculties have established comprehensive supporting platforms for this process, including, for example, W21C Research and Innovation Centre and the Integrated Management Platform to Accelerate Clinical Trials (IMPACT). Several faculties have exemplary design courses, innovation support systems, innovation competitions and mentoring programs. Entrepreneurship support is available through the Haskayne School of Business. Guidance at this stage is best sought from the closest Associate Dean (Research). The Faculty of Science has a dedicated Associate Dean (Innovation). Some large research programs such as CFREF also offer Innovation Fellowships. For advice, contact Innovation@ UCalgary (innovation@ucalgary.ca).

## **3** Support with commercialization and solution delivery

Innovate Calgary is UCalgary's knowledge transfer and business incubator centre, helping deliver 2,200+ invention disclosures over the past three decades, which have yielded 901 patents, 549 revenue-bearing agreements and 92 UCalgary-generated start-up companies. In the past year alone, UCalgary has seen a 75% increase in the number of startup companies created. Innovate Calgary provides support in the areas of talent development, intellectual property management, licensing, company formation, technology/innovation marketing, supporting research partnerships and accelerator programs. Many of the venture teams passing through the Innovate Calgary programs will further develop their businesses and projects in the University Innovation Quarter. Innovate Calgary also actively supports social innovation.

## **4** Dedicated space to interact and work on innovation

Located adjacent to UCalgary, the University Innovation Quarter (UIQ) is a newly revitalized innovation and research cluster that will help drive innovation in the Calgary region by providing space for companies and startups to interact and work alongside UCalgary students and researchers. UIQ will provide the necessary resources to incubate innovation, cultivate talent and apply academic learnings to create beneficial solutions for our community. It houses the newly opened Life Sciences Innovation Hub (a physical space and support system for companies, ideas, and research across all lifecycle stages) and will soon advance development of new hubs for science, engineering, energy and social innovation. Projects or companies emerging from the Innovation@UCalgary ecosystem flow naturally to this or an accelerator, such as the Creative Destruction Lab Rockies.

## **5** For acceleration/mentoring of science-based companies

The <u>Creative Destruction Lab Rockies</u> at UCalgary's Haskayne School of Business is a regional seed-stage program for massively scalable, science and technology-based companies. It taps into the experience of entrepreneurs who have founded, scaled and executed high-growth ventures by creating mentorship partnerships and investment support with select start-ups. Last season, CDL-Rockies raised over \$14 million for the ventures in the program, several who hailed from the University of Calgary. A Social Innovation Accelerator is under discussion.

#### Notable recent start-up companies based on UCalgary research:

- **LivingWorks:** Suicide intervention training company that trains community members and professional caregivers to save lives.
- **Circle Cardiovascular:** Develops and markets cardiovascular postprocessing software that allows for the evaluation and analysis of MRI and CT images.
- **Gushor:** Developed and commercialized technologies for heavy oil and oil sands production challenges.
- **Trusted Positioning:** Developed navigation software for indoors based on microelectromechanical systems (MEMS) sensors.
- **Parvus Therapeutics:** Developed a platform for the treatment of autoimmune diseases.
- **Carbon Engineering:** Builds technologies to capture CO<sub>2</sub> directly from the atmosphere, and to use that CO<sub>2</sub> in the synthesis of clean transportation fuels that displace crude oil.
- **Running Injury Clinic:** Leaders in 3D gait assessment and technology for rehabilitation and injury prevention.
- **VizworX:** Applies AR, VR and interactive 3D solutions for immersive data visualization.
- Epimeron (now Willow BioSciences): Biotechnology company focused on delivering technologies that accelerate pharmaceutical development, making and deploying key discoveries in plant genomics and pathway biochemistry.
- **Neuraura:** Developed a brain platform that will help neurologists and neurosurgeons make better informed decisions through improved and more granular electrophysiological brain data.
- And many more!

### Innovation@UCalgary is:

- **Developing and promoting** an innovation culture together with our community.
- Transforming cultural models for research and teaching to enable enhanced innovation.
- Embedding innovation support functions within research teams and across our campuses.
- **Creating** on-campus innovation spaces for students, postdocs and staff.
- Actively developing innovative programs to promote diversity.
- Organizing, resourcing and promoting major campus-wide innovation events and competitions.
- Leveraging government support and creating support fellowships and programs for faculty, postdocs and graduate students.
- **Enabling** turnkey access for innovators to university research facilities.
- **Establishing** a cohort of role models for innovation and entrepreneurship.
- Nurturing a change in our culture and processes to help us all succeed.
- **Fostering** an ethos of assessment, ambition and continuous development.
- **Delivering** actual solutions and jobs through leadership and cultural change.

Interested in learning more or discussing any aspect of innovation at the university?

Contact the Office of the Vice-President (Research) at innovation@ucalgary.ca