

## University of Calgary 2018-23 Research Plan

The new knowledge we create through cutting-edge research results in societal impact, which produces an environment in which students can achieve their potential and flourish.

### The Research Plan

Our three Research Priorities — Matching Strengths with Opportunities, Increasing Research Capacity, and Driving Innovation — combined with a commitment to nurturing campus culture will propel the University of Calgary forward in our quest to achieve our refreshed **Eyes High** Strategy 2017-22.

We will demonstrate through discovery, creativity, and innovation the impact a research-intensive university can have on societal goals and aspirations, and we will create a student experience that will produce the next generation of leaders.

As with *Eyes High*, our Research Plan is an evolution of the previous plan that enabled us to advance on the national stage in almost all research competitions, including major programs such as Canada Excellence Research Chairs, Canada First Research Excellence Fund, Canada Foundation for Innovation, Banting Fellowship and Vanier Scholarship Competitions, and Tri-Council competitions. Our clear articulation of research priorities, reflecting our scholarly excellence, and our institutional investments in them, were key components in our success.



#### • Matching strengths with opportunities

- Ensure that our existing six Strategic Research Themes achieve their potential and evolve
- Identify potential and new cross-cutting Strategic Research Themes that meet our institutional criteria
- Establish seed funding mechanisms and mentorship to promote research leadership in building disciplinary and/or multidisciplinary research consortia for local, provincial, national, and international opportunities
- Engage external communities to identify emerging opportunities where our institutional research capacity could have a major impact by creating new knowledge

#### • Increasing Research Capacity

- Create cross-cutting initiatives on new research methodologies, modalities, and paradigms
- Create avenues to access shared major infrastructure across our university.
- Support a new round of Eyes High postdoctoral scholars and graduate students
- Create more time for discovery and creativity by streamlining processes while ensuring compliance

#### • Driving Innovation

- Create research competitions for prizes that solve major societal or community issues
- Create cross-campus programs to support entrepreneurial thinking and initiatives
- Explore the expansion of facilities that support the diverse needs of students and faculty for the development of ideas
- Create pathways and support mechanisms for knowledge translation and commercialization, and lead discussions about diversity of approaches that reflect the comprehensive nature of our scholarship
- Transform the university into an early adopter and test bed for research ideas and technologies

## Sharpen focus on research and scholarship

Society benefits when scholars focus their collective effort in areas of strength. We create synergies that energize our researchers around issues that are globally relevant and of great importance to our stakeholder communities. We demonstrate leadership in areas of strength and monitor all areas of the academy for emerging ideas. We will also refine the ways in which we measure the impact of our work and share our scholarship.

In our previous research plan, our university identified six priority areas where we had national and international scholarly excellence, and we could bring together scholars from many disciplines to tackle some very important research themes. By building a Confederation of Scholars from the ground up in each of the Strategic Research Themes, our scholars were able to identify grand challenges where they felt the University of Calgary could make big advances.

Each multidisciplinary team developed their own research strategy for achieving results and the strategies were endorsed through our processes.

Our scholars have made significant advances in each of these Strategic Research Themes, but we heard loud and clear via our consultations that while these themes have been and continue to be successful, there are new emerging research strengths across our university and new major opportunities that we must capture and nurture. Our expertise is evolving with the recruitment of new faculty, our faculties have identified new priorities that we can build upon, and we have new support systems that enable collaborations and efficiencies across our campus community. The updated priority 'Matching Strengths with Opportunities' addresses this changing research landscape.

## Research Themes

- **Energy Innovations for Today and Tomorrow**

Our researchers are aiming to transform the energy landscape, for a cleaner, more efficient energy future.

[Learn more](#)

- **Infections, Inflammation and Chronic Diseases**

Infections, inflammation, and chronic diseases are one of the greatest burdens to global health. Our researchers are creating solutions to ease the burden. [Learn more](#)

- **Human Dynamics in a Changing World**

UCalgary scholars are addressing our need to understand how we adapt to rapid change, to ensure our security and quality of life. [Learn more](#)

- **Engineering Solutions for Health: Biomedical Engineering**

We are advancing knowledge and solving problems in animal and human biology, medicine, and health-care - through technology, innovation, and translation. [Learn more](#)

- **New Earth-Space Technologies**

From the oldest science (astronomy) to the latest evolution of geomatics, University of Calgary researchers on the New Earth-space Technologies Research Strategy team are providing information that is constantly changing how we make decisions about our world. [Learn more](#)

- **Brain and Mental Health**

One in three Canadians will be affected by a brain or nervous system disorder or injury in their lifetimes. UCalgary researchers are positioned to unlock new discoveries and treatments for brain health in our community by working in interdisciplinary teams. [Learn more](#)

- **Child Health and Wellness**

The University of Calgary is driving science and innovation to transform the health and wellbeing of children and families. Led by the Alberta Children's Hospital Research Institute, top scientists across the campus are partnering with Alberta Health Services, the Alberta Children's Hospital Foundation, and our community to create a better future for children through research. [Learn more](#)

- **One Health**

One Health uses a transdisciplinary approach to address problems at the intersection of people, animals, and their environments. [Learn more](#)

## Research Platforms

- **Clinical, Health Services and Population Health**

Our vision is for an Alberta where evidence-informed policies promote healthy choices and prevent illness and injury; where health care is of high quality and its delivery is efficient, sustainable, personalized and equitable; and where novel, locally developed products and services capture health and economic benefits for citizens.

- **Commercialization**

UCalgary researchers have a tremendous capacity to bridge the gap between discovery and innovation. Innovate Calgary has emerged as the designated technology transfer agency for the university of Calgary, and together with Alberta Innovates, it aims to create a regional hub for commercialization that serves southern Alberta.

- **Knowledge Translation**

The Knowledge Translation platform is designed to promote university-community engagement and partnerships, for the mutual benefit of the community and the university. Ongoing collaborative partnerships provide opportunities for knowledge translation of research to practice through involvement of stakeholders in all aspects of the research process.

- **Research Stations**

Our research stations draw scholars from around the world to conduct research of the highest caliber, and to educate students from all levels. UCalgary continues to explore ideas for novel research stations that will provide opportunities for students and scholars to test their ideas in different settings and participate in courses across a wide range of disciplines.

- **Analytics and Visualization**

Our society is overwhelmed by data and information. Advances in many disciplines, using both qualitative and quantitative data, are limited by our abilities to make sense of this data; analysis and visualization allow us to synthesize knowledge from data and simulations

- **Research Enablers**

This platform ensures that the university continues to invest to improve our systems and facilities as well as advance research in areas such as animal care, ethics in human subject research, financial and conflict of interest compliance, and governance.

- **Policy Creation**

Championed by the School of Public Policy, this research platform involves synthesis and analysis of information from many disciplines to advance public discussions of policy and to promote critical evaluation of policy alternatives.

## EDI Practices in CRC Nominations

As stated in our [institutional action plan](#), the University of Calgary continues to strive for increased representation, inclusion, and advancement of equity-deserving groups including women, racialized/visible minorities, Indigenous peoples, persons with disabilities, and members of the LGBTQ2S+ communities. The EDI Action Plan describes our planning and approval processes, and sets out strategic objectives, actions, and indicators to increase equity targets, improve support systems and undertake recruitment and nomination of Canada Research Chairs with transparency and accountability.