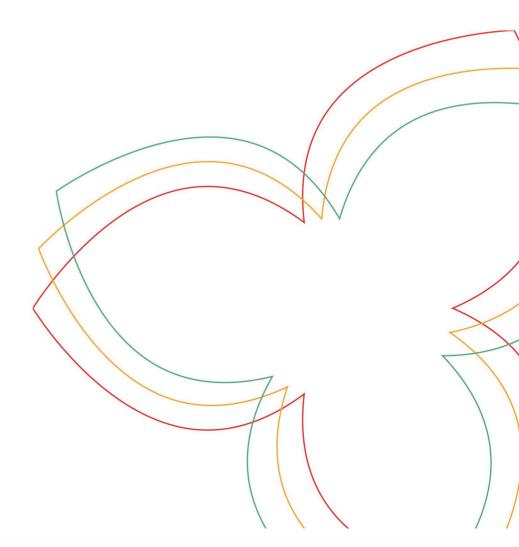




# One Health at UCalgary Executive Summary



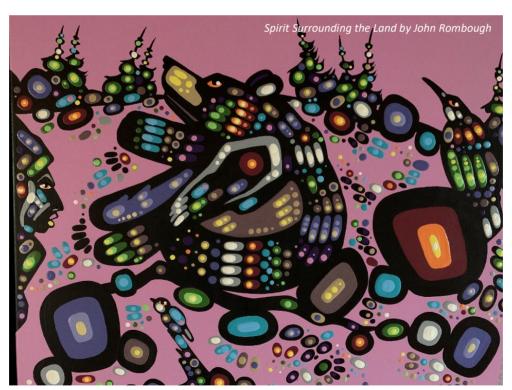


One Health at UCalgary (OH@UC) was founded in 2019 as an emerging, cross-cutting research theme with support from the Office of the Vice-President (Research).

One Health takes a systems view of complex problems, recognizing interconnections of people and animals in their shared environments. The One Health lens also encompasses the social, economic, cultural, physical, built, and political environments that can either promote or inhibit wellness. To meet the needs of todays and future generations, we need innovative strategies to address complex problems while respecting nature, environmental limits, and social justice. We assemble transdisciplinary teams around complex problems to identify and implement robust and sustainable solutions.

Complex problems include global challenges such as emergence of COVID-19, climate change, loss of biodiversity, antimicrobial resistance, food and water insecurity, and the infrastructure gap. Sometimes referred to as wicked problems, knowledge and understanding of complex problems are often incomplete or contradictory, people with diverse perspectives are involved, and the problem, and its potential solutions, often impose a substantial initial economic burden.

Due to system qualities inherent in complex problems, a One Health approach with solutions co-developed from various disciplinary spheres and cultural perspectives, is necessary for effective and sustainable change.



The concepts embraced by One Health date back thousands of years. Indigenous peoples have held the relationships between human beings, non-human animals, and the environment as central to health and wellbeing since time immemorial. These Indigenous worldviews and epistemologies precede and inform the origins of One Health (Jennifer Markides, PDF Werklund School of Education).





# Vision

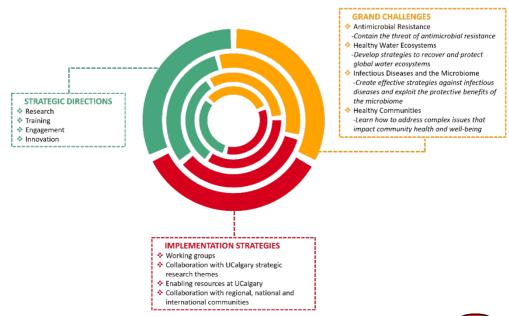
Improved health and wellbeing for people, animals, and the environment.

## Mission

Using a One Health approach, OH@UC will create partnerships across UCalgary, our communities, and the world to improve our understanding of connections among people, animals and the environment, and to solve complex problems for the benefit of all.

## Our core values are to:

- Collaborate: We deliver better outcomes through inclusive partnerships, shared goals, and
  integrated co-developed approaches that draw on diverse expertise in research, practice, and
  policy; together we go further.
- Excel: We embrace challenging work and achieve excellence in research, teaching, and knowledge
  engagement and mobilization that promotes meaningful improvements in human, animal, and
  environmental well-being in ways that are shared, equitable and fair; excellence creates progress.
- **Innovate**: Pushing boundaries is risky. We promote innovation through an environment of trust, respect, inclusiveness, and creativity; *innovation pushes boundaries*.
- Inspire: We believe that building supportive transdisciplinary relationships that facilitates the
  exploration of interesting and complex questions from various perspectives inspires researchers
  and trainees; inspiration requires new perspectives.

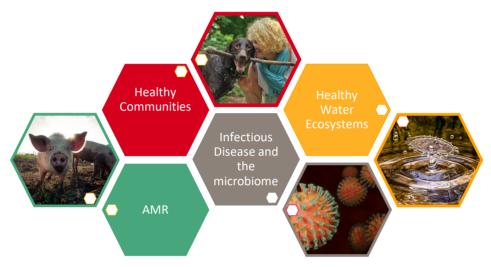






# Inspiration and impact

Our strategic research direction enables UCalgary researchers to build on their current research successes and address global challenges impacting health of people, animals, and the environment. OH@UC is committed to being a transdisciplinary hub for research excellence. We identified four Grand Challenges of our time, ambitious but achievable goals that harness science, technology and innovation to solve important national or global problems. We will focus our research efforts on: i) antimicrobial resistance, ii) healthy water ecosystems, iii) infectious diseases and the microbiome, and iv) healthy communities.



# Invest in the future

OH@UC is committed to involving trainees as our partners. We provide valuable research opportunities and training initiatives that address the technical skills and the social and communication competencies necessary for transdisciplinary research, learning, and engagement.







One Health Summer
Institute 2022. Students
perform water
sampling in the
Kananaskis, participate
in an Indigenous tea
ceremony, tour beef
cattle production at
W.A. Ranches, and
discuss regenerative
agriculture at Simon
Farm.





# Make things better

Our relationships and partnerships will cross boundaries of communities, scientific disciplines, academia, government, and private industry. These relationships and our connections to land and place will support development of innovative policies, procedures, and practices. Our roles as stewards will be emphasized. By engaging stakeholders and respecting the land, we will be better positioned to carry out a public purpose than could be accomplished by one organization alone.



Children are our future. If we aspire to live in a more collaborative and connected world in which One Health is commonly understood and operationalized, then, we must start educating children today about One Health (OH@UC and Werklund School of Education Partnership).





# Measuring impact

OH@UC will be critically examined to demonstrate progress and as a tool to help us improve. As a new program, we will conduct a formative assessment in 2021 by collecting appropriate metrics and analyzing information about our inputs, activities, and outcomes.



# nputs

# Transdisciplinary Partnerships

- UCalgary
- Faculties
- •Research Themes
- Research Centres
- Institutions
- •ii'taa'poh'to'p
- Facilities
- Indigenous
  - Communities
  - Governments
  - $\bullet Leadership$
- •Non-Indigenous
  - Communities
  - Governments
  - Leadership
- •National & International

#### Investment

- •Competitive Grants
- Funding priorities



#### Research

- Attract best and brightest
- TD/Joint research across UCalgary
- TD/Joint research across Canada/world
- Community-driven research
- Community-based research
- Research excellence
- Increased Indigenous representation
- Equity, Diversity, Integration & Decolonization

#### **Training**

- Attract brightest and best
- Graduate students and Postdocs
- TD co-supervised
- Indigenous students
- Culturally competent students
- Equity, Diversity, Integration & Decolonization

#### **Engagement**

- TD publications/presentations
- Outreach with community
- OH@UC and Werklund School of Education Partnership



Jutcome Impact

#### **Decision Makers**

- Cumulative assessments
- Position papers
- Changes in policy

#### **Public**

- Changes in perceptions
- Changes in practices

#### Industry

- Field stations operating
- Improved processes
- Invention disclosures
- Patents
- New licenses and start-ups

#### All Ecosystems

- Improved health/wellbeing
- Equitable distribution
- Respect for environment

\*TD - Transdisciplinary

# **Summary**

One Health at UCalgary's Strategic plan recognizes the strength of UCalgary's researchers and research infrastructure. This is the perfect time for UCalgary to embrace One Health research, training, and outreach. As the world struggles to adapt to living during a pandemic, it begins to recognize the consequences of not respecting natural limits and acknowledges the impact of social injustice. We can offer the best innovative ideas and solutions for sustainable solutions today and for the next generations.

