Office of the Vice-Principal, Research & Innovation

2018 RESEARCH & INNOVATION TOWN HALL

April 1st 2019

DR. PHIL BARKER
VICE-PRINCIPAL & ASSOCIATE VICE-PRESIDENT, RESEARCH & INNOVATION
AUDIENCE Q&A

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RESEARCH
2019 RESEARCHERS OF THE YEAR

- **Dr. Jon Corbett**  Social Sciences & Humanities Researcher of the Year
- **Dr. Kasun Hewage**  Natural Sciences & Engineering Researcher of the Year
- **Dr. Rachelle Hole**  Health Researcher of the Year
- **Emily Giroux**  Student Researcher of the Year (Master’s Level)
- **Katrina Plamondon**  Student Researcher of the Year (PhD Level)
RESEARCH HIGHLIGHTS

• $21,919,558 in research funding (2017/18) – 90% increase in funding since 2014/15
• $1,906,133 in MITACS funding (2017/18) – 239% increase in funding since 2014/15
• High success rates at NSERC and SSHRC, exceeding national averages in 2018
  • 96% NSERC Discovery Grant success rate vs. 66% national average
  • 71% SSHRC Insight Development Grant success rate vs. 59% national average
  • 53% SSHRC Insight Grant success rate vs. 31% national average
• $33 million in research infrastructure funding since 2005
• 291 research faculty members (2017/18)
• 1,291 active research projects (2017/18)
• 9 designated research chairs and 7 Michael Smith scholars
EMINENCE CLUSTERS OF RESEARCH EXCELLENCE

• Funding to develop and support clusters of research excellence at UBC Okanagan

• Clusters of Research Excellence are defined as “an interdisciplinary network of researchers focused on solving key challenges facing society”

• Funding of $20,000 - $200,000 per year for three years

• Year 1 (2017/18) – 13 applications received; 5 clusters funded; $550K/yr; 3 years

• Year 2 (2018/19) – 23 applications received; 6 clusters funded; $662K/yr; 3 years

• Year 3 (2019/20) – To be launched later this year
2018/19 CLUSTERS OF RESEARCH EXCELLENCE

• **Agricultural Technologies and Bioproducts**  
  Led by: Dr. Soheil Mahmoud; 7 cluster team members

• **Biocomposites**  
  Led by: Dr. Abbas Milani; 9 cluster team members

• **Culture, Creativity, Health and Well-Being**  
  Led by: Dr. Virginie Magnat and Dr. Karen Ragoonaden; 8 cluster team members

• **Enhancing Ecosystem Sustainability**  
  Led by: Dr. Jeannette Armstrong; 8 cluster team members

• **Indigenous-Led Impact Assessment**  
  Led by: Dr. Kevin Hanna; 5 cluster team members

• **Wine and Grapes**  
  Led by: Dr. Wesley Zandberg; 8 cluster team members
RESEARCH INSTITUTES

• Collaboration amongst our 5 Institutes is increasing – Directors meet together regularly

• Institutes are provided with initial base budgets of $50K by UBCO VPRI; leveraging encouraged.

• Expectation of a significant return on institutional investment (eg. interdisciplinary research impacts, new funding, national and international profile).

• Annual reports available at research.ok.ubc.ca/about/institutes-centres

• One new UBCO Institute proposal is presently being advanced for Senate approval.
DEFINING OUR STRENGTHS
THE OKANAGAN OPPORTUNITY

• 2-page snapshot of present strengths for key internal and external stakeholders

• Extensive consultation with Deans and senior leadership undertaken to identify regional opportunities and define our core research strengths
CORE RESEARCH STRENGTHS, BACKED BY PROOF POINTS

• **Resilient Environments**
  Sustainability, Ecosystem Management, Restorative & High-Value Agriculture

• **Emerging Technologies**
  Materials & Manufacturing, Sustainable Infrastructure, Biomedical Engineering

• **Healthy People**
  Rural & Remote Health, Chronic Disease Prevention, Healthy Living and Aging

• **Thriving Communities**
  Arts & Creativity, Indigeneity, Social Innovation & Community Resilience
FUNDING & PROGRAM UPDATES
RECRUITMENT & RETENTION OF TOP TALENT

• Aspire program
  26 startup funding packages offered since the fund was launched in 2017
  100% success rate - every Aspire offered has resulted in a successful recruitment

• Canada Research Chairs
  Our allotment of 5 CRCs (all Tier II) has not changed since 2007
  Increasing our CRC numbers is a top priority

• Principal’s Research Chair Program
  In preparation – pilot likely to be launched this fiscal
  Tier I and Tier II-like
COLLABORATIVE RESEARCH MOBILITY AWARDS

• Intended to build or strengthen collaborative research partnerships between campuses
• **29** applications received, **14** proposals funded in 2018

• Family Engagement in Long-term Residential Care: A Cross-Campus Research Collaboration (PI: Jennifer Baumbusch)
• Youth mental health, identity, and intervention: A collaborative initiative (PI: Shelly Ben-David)
• Transforming women’s health through research and collaboration: A provincial research strategy (PI: Lori Brotto)
• UBC Network for Wine Grape Research (PI: Simone Castellarin)
• Cross-cutting UBC collaboration supporting healthy aging in adults with chronic conditions (PI: Jennifer Davis)
• Blockchain@UBC (PI: Chen Feng)
• Novel Treatment Strategies for Cardiovascular Disease in Sleep Apnea (PI: Glen Foster)
• Expanding CHES Frontiers to UBC Okanagan and the Southern Medical Program (PI: Cheryl Holmes)
• UBC Wine Research – A Dual-Campus Centre (PI: Murray Isman)
• Diabetes, Obesity, Nutrition, and Exercise (PI: Jonathan Little)
• Self-management in diabetes: Integrating Community Health Worker Models in Primary Care (PI: Lesley Lutes)
• Traumatic Brain Injury in Marginalized Populations: Connecting the Dots (PI: Paul Van Donkelaar)
• Research Cluster in Workplace Mistreatment (PI: David Walker)
• Development of an Antimicrobial Therapy for Colorectal Carcinoma (PI: Kirsten Wolthers)

research.ubc.ca/collaborative-research-mobility-awards#ov
PROGRAM FOR UNDERGRADUATE RESEARCH EXPERIENCE (PURE)

- Broadening and enhancing undergraduate research at UBC
- $1M in strategic funds committed over 2 years between the two campuses
- 29 applications received at UBCO; 2 funded

- Engaging Osoyoos’ Past and Present: Land, People, Industry
  PI: Catherine Higgs – Department of History and Sociology, in collaboration with the Osoyoos Museum

- Multidisciplinary Undergraduate Research Projects in Health (MURPH)
  PI: Mahdi Takaffoli - Materials and Manufacturing Research Institute, in collaboration with Nursing, Southern Medical Program, Health and Exercise Sciences
EXPANDING SUPPORT FOR HUMANITIES RESEARCH

• New Public Humanities Hub pilot project to provide support research among humanists and highlight and develop public-facing research in the Humanities.

• Shared initiative between UBCV and UBCO – to be launched this fiscal year
UBC SURVIVE AND THRIVE APPLIED RESEARCH (STAR)

• $2M in new research contracts through the Government of Canada’s new IDEaS (Innovation for Defence Excellence and Security) program

• 5 Competitive Projects awarded ($6K):
  • Profs. Zheng Liu, Kevin Golovin (x2), Gino DiLabio, Keith Culver
  • Partners: TerraSense (Vernon), PRE Labs (Kelowna), Epic Ventures (Victoria), Helios Global Technologies (Kelowna), Apparel Innovation Centre (Calgary)

• COMFORTS Micro-Net – Innovation Network in Advanced Materials ($1.5M)
  • Partners: UVIC, U of A, Epic Ventures (Victoria), PRE Labs (Kelowna), Helios Global Technologies (Kelowna), Apparel Innovation Centre (Calgary)
SUPPORT FOR COMMUNITY-LED INDIGENOUS RESEARCH

• The Indigenous Research Support Initiative (IRSI) was established at UBCV in 2017 to develop resources and support for Indigenous community-based research at UBC.
  • Enabling Collaborative Relationships
  • Better Practices of Engagement
  • Supporting Research Excellence

• Recruitment now underway for a UBCO Indigenous Community Liaison (VPRI) and a Business Development Specialist – Indigenous Community Engagement (Mitacs)

• The IRSI team from UBC Vancouver is hosting a workshop on Indigenous Data, Information and Records this week in Kelowna (April 3rd).
SUPPORTING ENTREPRENEURSHIP

• Launched new Innovation UBC Hub in the downtown Innovation Centre
• entrepreneurship@UBCO launched in 2018, in partnership with Accelerate Okanagan
• e@UBCO programs underway - Lean Launch Pad, committed mentors
• Space bookings for Innovation UBC Hub - ok.ubc.ca/entrepreneurship
INFRASTRUCTURE UPDATES

- **Upper Campus Health Building** – CFI-funded project
  Profs. Kathleen Martin Ginis, Mary Jung, Heather Gainforth (Health Behaviour Change) and Lesley Lutes (Obesity & Wellbeing) – official opening this month

- **Research Greenhouse** – completion anticipated March 2020

- **Statscan Research Data Centre** – funded as part of a multi-institutional CFI

- Several major infrastructure applications for **CFI Round 10** are in preparation
INFRASTRUCTURE DEVELOPMENTS

- **New Core Facilities**
  Large upfront costs
  Sustainability challenging on a small campus

- **Infrastructure Fund to be launched in FY20**
  Resources to explore feasibility of establishing of core and shared research facilities
  Small and large equipment acquisition/renewal/repair grants

- **Exploring Partnering Opportunities**
  Supra R&D have leased space on the top floor of the RHS building
  Will provide an Analytical Chemistry Core for UBCO as a 2-yr pilot project
INNOVATIVE PARTNERSHIPS
INTERIOR UNIVERSITY RESEARCH COALITION

• 2018 IURC Symposium
  Researchers, Deans and VPRs from all three universities attended the IURC’s first annual research symposium at UBCO on May 31, 2018

• Disaster PR3 (Prevention, Response, Recovery, Resilience) Collaborative Grants:
  
  **Stephen Dery** (UNBC – Environmental Sciences): Earth, Air, Water and Fire (EAWF): Western science and traditional knowledge perspectives on the nexus between land, droughts, floods, wildfires and the health of Elders in BC

  **Dwayne Tannant** (UBCO - Engineering): A study of landslides in the interior of British Columbia aided by using unmanned aerial vehicles

  **Adam Wei** (UBCO - Earth, Environmental and Geographic Sciences): Determining forest disturbance thresholds for managing cumulative hydrological effects in the BC Interior.
INTERIOR UNIVERSITY RESEARCH COALITION

- UBCO, TRU and UNBC are collaborating with the Cities of Kelowna, Kamloops and Prince George to propose that the Province of British Columbia develop 3 new Chairs in Disaster Management, 1 at each campus.
THE LEARNING FACTORY AND THE DIGITAL TWIN

• UBCO is proposing development of an advanced manufacturing training and research facility that will be developed as a collaborative project with the aeronautics industry.

• The Learning Factory will be located on the Innovation Precinct grounds and include:
  • laboratories, teaching space and materials workshops co-located adjacent to the factory floor
  • an industrial core production line that produces complex composite aeronautic components
  • a Digital Twin with a unique platform of sensors and cyberinfrastructure to enable data capture, analytics and simulations that optimize production and quality
The Learning Factory Digital Twin (LFDT) project will integrate advanced materials research with emerging manufacturing technologies to make products lighter, stronger, smarter, more durable and energy efficient, while minimizing production costs.
OTHER NEW PARTNERSHIPS

• Green Construction Research and Training Centre with Okanagan College
• FortisBC Smart Energy Chair (Prof. Kasun Hewage)

In development:
• UBC Wine Research Centre
• Interior Health and TRU – BC Southern Interior Academic Health Centre
• Industrial partner at Innovation Precinct Building One
EVENTS & ENGAGEMENT
VPRI–HOSTED EVENTS

• Over 800 people attended VPRI events in 2018

• Highlights include: Researcher of the Year Awards, Interior University Research Coalition Symposium, Michael Smith Foundation for Health Research Showcase of Scholars, Innovation UBC Hub grand opening, Community Water Forum (Fire & Flood), REB West Conference, CARA West Conference

• New Events & Engagement Officer (Jenny Matechuk) joined our team in January

• Many exciting events on the horizon, including an Innovation in Health event in October with Interior Health, BC Cancer Agency and Accelerate Okanagan
IN CLOSING …

• The VPRI Office and Office of Research Services are working to enable your research success

• Dedicated and highly competent team provides comprehensive research support from conception to completion
  • Research support, finance, compliance, ethics, intellectual property and beyond
  • Research infrastructure
  • Partnerships, MITACs, CFIs
  • Celebrating research (events, storytelling, promotion)

• Be on the look-out for our new website, launching soon

• Research Orientation Day – open to all
AUDIENCE Q&A

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RESEARCH
3 Votes  Mike D
Does UBCO have its fair share of CRCs? If not, what can be done about this? Thanks.

0 Votes
What is the name of the artist?