

GENERAL FACULTIES COUNCIL AGENDA

Meeting #601, November 5, 2020, 1:30-4:30 p.m.

By Zoom platform

Item	Description	Presenter	Materials	Estimated Time
1.	Conflict of Interest Declaration	McCauley	Verbal	1:30
2.	Remarks of the Chair	McCauley	Verbal	
3.	Remarks of the Vice-Chair	Marshall	Verbal	
4.	Question Period	McCauley	Verbal	
5.	Safety Moment	Dalgetty ¹	Document	2:00
	Action Items			
6.	Approval of the October 8, 2020 Meeting Minutes	McCauley	Document	
7.	Approval of Part A of the Academic Staff Criteria and Processes Handbook	Smith ² /Strzelczyk ³	Document	2:05
	Information Items			
8.	One Health at UCalgary Strategic Plan	Barkema⁴/Anholt⁵/ Ghali ⁶	Document + PowerPoint	2:15
9.	Fall 2020 Enrolment Report	Saweczko ⁷	Document	2:35
10.	Student at Risk Annual Report	Barker ⁸ /Wiens ⁹	Document	2:50
11.	Student Non-Academic Misconduct Annual Report	Barker/Quin ¹⁰	Document	3:05
12.	2020 Institutional Sustainability Report	Perdue ¹¹ /Gerlach ¹²	Document + PowerPoint	3:20
13.	Indigenous Research Support Team: Overview, Mandate and Framework	Thompson ¹³ /Bedard ¹⁴	Document + PowerPoint	3:40
14.	Industry Liaison/Solutions Office: Overview of Industry Engagement Initiative	Kubes ¹⁵ /Wilson ¹⁶	PowerPoint	4:00

Item	Description	Presenter	Materials	Estimated Time
15.	Standing Reports: a) Report on the October 21, 2020 GFC Executive Committee Meeting b) Report on the October 19, 2020 Academic Planning and Priorities Committee Meeting c) Report on the October 22, 2020 Research and Scholarship Committee Meeting d) Report on the October 20, 2020 Teaching and Learning Committee Meeting e) Report on the October 22, 2020 Senate meeting f) Report on the October 16, 2020 Board of Governors Meeting g) Policy Development Update	In Package Only	Documents	
16.	Other Business	McCauley		
17.	Adjournment Next meeting: December 10, 2020	McCauley	Verbal	4:20

Regrets and Questions: Elizabeth Sjogren, Governance Coordinator

Email: esjogren@ucalgary.ca

Susan Belcher, University Secretary Email: sbelcher@ucalgary.ca

GFC Information: https://www.ucalgary.ca/secretariat/general-faculties-council

<u>Presenters</u>

- 1. Linda Dalgetty, Vice-President (Finance and Services)
- 2. Francine Smith, Co-Chair of the Academic Staff Criteria and Processes Working Group
- 3. Florentine Strzelczyk, Co-Chair of the Academic Staff Criteria and Processes Working Group
- 4. Herman Barkema, Faculty of Veterinary Medicine and Cumming School of Medicine
- 5. Michele Anholt, Manager, Office of One Health
- 6. Bill Ghali, Vice-President (Research)
- 7. Angelique Saweczko, Registrar
- 8. Susan Barker, Vice-Provost (Student Engagement)
- 9. Kevin Wiens, Manager Student Wellness Support
- 10. Jennifer Quin, Senior Director Student Services
- 11. Joanne Perdue, Associate Vice-President (Sustainability)
- 12. Craig Gerlach, Academic Coordinator, Sustainability
- 13. Robert Thompson, Associate Vice-President (Research)
- 14. Amber Bedard, Manager, Indigenous Research Support Team
- 15. Jessie Kubes, Director, Industry Liaison Office, Innovate Calgary
- 16. John Wilson, President and Chief Executive Officer, Innovate Calgary



SAFETY MOMENT UCalgary's COVID-19 Response

The Emergency Management Department remains highly active and engaged in coordinating the University's operational response and activities related to COVID-19.

Since the initial Emergency Operations Group planning session on the 22nd of January and the further escalation of the pandemic in mid-March, the EM Team lead the formation of a COVID-19 Taskforce in order to efficiently support the University's multi-faceted COVID-19 response. The COVID-19 Taskforce is made up of 7 Working Groups that report into the Director of Emergency Management, reporting to the Crisis Management Team:

- International Travel & Visitors
- Campus Community Supports
- Cleaning & Infection Prevention
- Remote Workforce Administration
- Critical Functions & Business Continuity
- Foothills Campus Access
- Research & Animal Care

With facilitation and coordination support from the EM team, these Working Groups continue to be responsible for the development and completion of objectives, strategies and tracking of activities conducted within the group. They are also responsible for the escalation of potential issues to the EM Team for review and direction by CMT.

The EM Team has also been actively engaged with other jurisdictions in the province including Alberta Health Services (AHS) and the City of Calgary responding to requests regarding space allocation, personal protective equipment and volunteer support.

LOCATIONS AND DATES OF COVID POSITIVE PEOPLE ON CAMPUS

*No cases linked to on campus transmission.

Sept 25	Engineering Complex – G Block, Taylor Family Digital Library, Dining Centre
Sept 28	MacEwan Hall, MacEwan Student Centre, Engineering Complex E Block and G Block
Oct. 24	Dining Centre
Oct. 22	Kinesiology A.
Oct. 13	Engineering Complex and Education Classrooms.
Oct. 15	Multiple buildings.
Oct. 15	Engineering Complex and Taylor Institute.
Oct. 16	EEL building
Oct. 22	Biological Sciences and Social Sciences

For up-to-date information, please visit:

https://ucalgary.ca/risk/emergency-management/covid-19-response.

The draft Minutes are intentionally removed from this package.

Please see the approved Minutes <u>uploaded separately on this website</u>.



GENERAL FACULTIES COUNCIL ACTION BRIEFING NOTE

For Approval	 For Recommendation 	For Discussion

SUBJECT: Part A of the Academic Staff Criteria and Processes Handbook

MOTION:

That the General Faculties Council (GFC) approve the new Part A of the Academic Staff Criteria and Processes Handbook (the Handbook) in the form provided to the GFC with immediate effect, except in respect of applications for tenure and/or promotion that are currently under consideration, which applications will continue to be governed by the existing Handbook provisions.

PROPONENT(S):

Florentine Strzelczyk, Deputy Provost, Academic Staff Criteria and Processes (ASCP) Working Group, Administrative Co-chair

Francine G. Smith, Cumming School of Medicine Professor, ASCP Working Group, Academic Co-chair

REQUESTED ACTION

The General Faculties Council (GFC) is being asked to approve the proposed new Part A of the Academic Staff Criteria and Processes Handbook (the Handbook), which replaces those provisions in the existing Handbook (April 2019) that form the subject matter of Part A, and contains:

- a preamble;
- provisions regarding the creation and updating of Faculty Guidelines;
- definitions regarding the three major functions in which academic staff engage
 - i.e. research and scholarship, teaching, and service;
- expectations for academic staff in different ranks and streams;
- criteria for renewal, tenure and promotion;
- criteria for merit assessment.

Part A, referenced as Part I when presented to the GFC Executive Committee (EC), has been recommended by the EC to the GFC for approval. Upon approval by GFC, the new Part A of the Handbook will have immediate effect, with the exception of applications for tenure and/or promotion that are currently under consideration, which will continue to be governed by the existing Handbook provisions.

KEY CONSIDERATIONS/POINTS

Provisions of the current Handbook

The current Handbook, which was passed at General Faculties Council (GFC) in the spring of 2019, is largely made up of those portions of the Appointment, Promotion and Tenure (APT) and General Promotions Committee (GPC) manuals that remained after materials on processes related to tenure, promotion and assessment were removed and inserted into the Collective Agreement, with minor additions and deletions.

The current Handbook (dated April 2019):

- contains criteria for assessment, renewal, transfer, tenure, promotion and appointments (Part I), and academic appointments selection procedures (Part II); and
- authorizes Faculty Councils to develop Faculty Guidelines to ensure the distinctive aspects of various disciplines are addressed in the application of the criteria.

Provisions of the revised and updated Part A of the Handbook

The newly revised and updated Part A of the Handbook contains both new sections (e.g. Preamble), and largely revised sections (e.g. Faculty Guidelines). The general requirement section now includes a more detailed description of the different activities across the academy, that relate to the various forms of research and scholarship, along with expanded updated definitions of teaching and service. Ranks and streams have been more clearly delineated outlining expectations for an academic staff member within a stream and across different ranks. In addition, criteria for Renewal, Tenure and Promotion, have been expanded to include more definition regarding what is required for an academic staff member to move through the ranks. Finally, merit assessment more clearly articulates the ways in which an academic staff member should be assessed for the purposes of assigning merit.

The newly revised and updated Part A of the Handbook was discussed by GFC on October 8th with the plan to return for approval the following month.

RISKS

Faculties have not updated their guidelines for some time while the negotiations concerning the pieces of the Handbook were pending. It is important for this revised Part A of the Handbook to be approved in order to ensure that academic staff members can be tenured, promoted and assessed using clearly articulated criteria. It is also important to note that much of the current language in the existing Handbook relating particularly to research & scholarship and to teaching, is outmoded and outdated so that updating much of this language will improve interpretation of criteria, requirements and guidelines.

BACKGROUND

The Handbook working group has scheduled meetings every two weeks since its inception in summer of 2019, and continued meeting throughout the summer of 2020, to speed up the work on the new, updated Part A of the Handbook. Revisions to Part B of the Handbook, GFC Academic Appointment Selection Procedures, are well under way and will be brought forward in as timely a manner as possible.

The APT Ad Hoc Committee was established in 2011 in response to the negotiations occurring between the Board of Governors and the Faculty Association with regard to a) tenure and promotion procedures, and b) merit assessment procedures. The Committee was charged with "revamping the APT and GPC Manuals to revise and separate out the various processes in light of tentative agreements reached between the Governors and TUCFA regarding tenure and promotion processes" and with "preparing a first draft of a document specifying criteria for tenure and promotion, drawn primarily from the APT and GPC Manuals, for consideration by GFC." The APT Ad Hoc Committee completed its work and prepared a criteria document drawn primarily from the APT and GPC manuals, resulting in the recommendation of the creation of the Handbook in spring of 2019. Criteria for tenure, promotion, and assessment, in other words, remain under the authority of the GFC, whereas the processes related to tenure, promotion, and merit assessment were incorporated in the Collective Agreement. With the creation of the Handbook, an Academic Staff Criteria and Processes Handbook Working Group was established under GFC Executive to update the Handbook. Part A of the new Handbook is the item for approval today.

ROUTING AND PERSONS CONSULTED

Progress	<u>Body</u>	<u>Date</u>	Approval	Recommendation	Discussion	<u>Information</u>
	Associate Deans Teaching & Learning Roundtable	2020-01-30			X	
	Associate Deans Research Council	2020-02-05			X	
	Dean's Council	2020-09-05			Χ	
	Vice-President Research OPS	2020-09-14				
	GFC Executive Committee	2020-09-16			X	
	Associate Deans Teaching & Learning Roundtable	2020-09-19			X	
	General Faculties Council	2020-10-08			Χ	
	GFC Executive Committee	2020-10-21		X		
Χ	General Faculties Council	2020-11-05	Χ			

Persons and other groups consulted:

- Leslie Reid, Vice Provost Teaching & Learning /
 Susan Mide-Kiss, Project manager, Carnegie Project, November 15, 2020.
- Penny Pexman, Associate Vice President Research, December 13, 2020.
- Michael Hart, Vice-Provost Indigenous Engagement, April 27, 2020.
- Mary Jo Romaniuk, Vice Provost Libraries and Cultural Resources, June 8, 2020.
- John Brown, Dean of Architecture, Planning and Landscape, June 10, 2020.
- Sandra Davidson, Dean of Nursing, June 10, 2020.
- Baljit Singh, Dean of Veterinary Medicine, June 10, 2020.
- Faculty Association Executive, June 16, 2020.
- Dru Marshall, Provost, September 5, 2020.
- Malinda Smith, Vice Provost Equity, Diversity, Inclusion, September 14, 2020.

NEXT STEPS

If approved, the revised Part A of the Handbook will be made available to academic staff members for future use in tenure and promotion and merit assessment cycles. The changes do not apply to applications for tenure and promotion currently under consideration. Since the ASCP Working Group is a standing committee, the document can be revisited at any time for further revisions.

SUPPORTING MATERIALS

Newly revised and updated Part A of the Academic Staff Criteria and Processes Handbook [dated October 28, 2020].



GFC Academic Staff
Criteria & Processes
Handbook - Part A

October 28, 2020

Preamble

The University of Calgary is a research-intensive institution committed to discovery, creativity and innovation with aspirations for excellence, achievement, and high academic standards. To this end, the University provides leadership to society and guides the evolution of new ideas that contribute to quality of life for Albertans, Canadians, and people worldwide.

The University values the pursuit and creation of knowledge and diverse knowledge traditions. Striving for scholarly advancement in all disciplines, the University is committed to advancing innovation, discovery, entrepreneurship, and knowledge engagement, to the benefit of our communities. In its commitment to innovative teaching and learning, the University educates the next generation to tackle society's challenges in an increasingly complex world.

By creating and maintaining a positive and productive environment committed to equity, diversity and inclusion, the University promotes a culture where all members have the greatest potential to thrive and welcome the freedom to learn, experience, investigate, comment, critique, and contribute to society locally, nationally, or internationally.

The contents of this Handbook shall be applied in the spirit of addressing barriers that inhibit Indigenous peoples, racialized, queer, trans- and gender- nonconforming, women and other systematically disadvantaged scholars from achieving their full potential.

The Handbook's contents shall also be applied as consistent with the principles of due process and balance procedural transparency as well as the protection of an individual's right to privacy. As well, the Handbook's contents should allow for flexible interpretation in order to achieve fairness towards all academic staff members.

Table of Contents

PART A - Criteria for Appointment, Renewal, Transfer, Tenure, Promotion, and Merit Assessment

1	Aut	hority	5
2	Fac	ulty Guidelines	5
3	Crit	eria for Research and Scholarship, Teaching, and Service	7
	3.1	General Considerations	7
	3.2	Research and Scholarship	7
	3.3	Teaching	9
	3.4	Service	. 10
	3.5	Administrative Duties	. 11
4	Req	uirements for Academic Staff Ranks and Streams	. 11
	4.1	General Considerations	. 11
	4.2	Requirements for Assistant Professor	. 11
	4.3	Requirements for Associate Professor	. 12
	4.4	Requirements for Professor	. 13
	4.5	Requirements for Instructor	. 14
	4.6	Requirements for Senior Instructor	. 14
	4.7	Requirements for Teaching Professor	. 15
	4.8	Requirements for Academic Staff in Administrative and Professional Streams	. 16
		4.8.1 Librarians	. 16
		4.8.2 Counsellors	. 16
		4.8.3 Other (Administrative and Professional Academic Staff)	. 16
5	Crit	eria for Renewal, Tenure and Promotion	. 16
	5.1	General Considerations	. 16
	5.2	Tenure and Promotion in the Professorial Stream	. 17
	5.3	Tenure and Promotion in the Instructor Stream	. 17
	5.4	Promotion to Professor or Teaching Professor	. 18
	5.5	Transfer between Streams	. 18
	5.6	Additional Considerations for Renewal, Tenure and Promotion	. 18
	5.7	Renewal, Tenure and Promotion in Administrative and Professional Streams	. 19

6	Crit	Criteria for Merit Assessment	
	6.1	General Considerations	. 19
	6.2	Criteria for Assessing Research and Scholarship	. 20
	6.3	Criteria for Assessing Teaching	. 21
	6.4	Criteria for Assessing Service	. 22

PART A Criteria for Appointment, Renewal, Transfer, Tenure, Promotion and Merit Assessment

1 Authority

- 1.1 These criteria are established pursuant to Article 29.2 and Article 28.4 of the *Collective Agreement* between the Faculty Association of the University of Calgary and the Governors of the University of Calgary. In accordance with these Articles, the General Faculties Council (GFC) is empowered to establish criteria for Appointment, Renewal, Transfer, Tenure and Promotion, and Merit Assessment.
- 1.2 Criteria outlined in Part A of this Handbook shall also apply to criteria pertaining to the Appointment of academic staff members as outlined in Part B.
- 1.3 Criteria for appointment, reappointment, and assessment of members in Sessional Appointments shall be established in the *Collective Agreement*.
- 1.4 Only criteria established or authorized by the GFC or provided within the *Collective Agreement* shall be considered in matters relating to Appointment, Renewal, Transfer, Tenure and Promotion, as well as Merit Assessment.
- 1.5 For the purposes of Merit Assessment, changes made to criteria within this Handbook and/or the relevant Faculty Guidelines shall only apply from the approved date forward.
- 1.6 For the purposes of applying for Renewal, or for Tenure, as set out in Article 28 of the Collective Agreement, an academic staff member may choose to be evaluated under current approved criteria in both this Handbook and Faculty Guidelines, or those in place at the time of appointment. An academic staff member who applies for promotion not linked to an application for tenure may choose to be evaluated under current approved criteria in both this Handbook and Faculty Guidelines, or under criteria in effect three years prior to the promotion application date, or the date of hire, whichever is later.

2 Faculty Guidelines

- 2.1 Discipline specific criteria will be outlined in Faculty Guidelines for each Faculty or equivalent unit across the University. According to Articles 29.2 and 28.4 of the Collective Agreement, GFC has delegated the creation of Faculty Guidelines to the Faculty Councils to ensure that any discipline specific or distinctive aspects relevant to its faculty members are addressed when applying criteria for Appointment, Renewal, Transfer, Tenure and Promotion, and Merit Assessment.
- 2.2 Criteria outlined within this Handbook, may be refined and interpreted in Faculty Guidelines. Faculty Guidelines may not, however, create new criteria, or add to, contradict, or delete criteria, unless specifically authorized to do so within this Handbook.

- 2.3 Following approval by the Faculty Council, and completion of the steps outlined in A.2.5 (below), the Dean shall make available to all academic staff members in the Faculty such approved Faculty Guidelines on the manner in which criteria for Appointment, Renewal, Transfer, Tenure and Promotion, and Merit Assessment shall be applied within the Faculty.
- 2.4 Faculty Guidelines *must* include a statement or description:
 - a) of the relative importance that the Faculty attaches to University functions of research and scholarship, teaching, and service;
 - of how the Faculty interprets these functions (i.e. the various activities that the Faculty defines as legitimate and appropriate research and scholarship activities including creative and/or artistic activity);
 - c) of how the Faculty values knowledge engagement and transfer (the ways in which public and private sectors benefit from research), entrepreneurship, and innovation;
 - d) the relative weighting of the activities outlined in a), b), and c) as defined by the discipline or field, applicable to academic rank and stream;
 - e) that clearly articulates any expectations with regard to competitive and other types of funding;
 - f) of how the Faculty assesses other duties such as clinical or professional responsibilities, where applicable;
 - g) of how the Faculty assesses contributions to service as well as administrative duties;
 - h) of how the Faculty assesses the information supplied within a Teaching Dossier (see also Article 28A of the *Collective Agreement*);
 - i) that clearly articulates how and when the Faculty credits scholarly work in various stages of publication;
 - j) of expectations with respect to performance in each function by academic staff members, including the ways in which these expectations change within rank, and with seniority within a given rank (see Article 29.2.6 of the *Collective Agreement*);
 - k) of how academic and professional qualifications are applied in recommending Appointment, Renewal, Tenure and Promotion, as well as Merit Assessment;
 - that clearly articulates how accomplishments in research and scholarship, teaching, and service as well as any other assigned duties shall be translated into recommendations for Appointment, Renewal, Tenure and Promotion, and Merit Assessment within the respective streams present in the Faculty;
 - m) of how Faculty Guidelines address variations in applying criteria across units, where applicable, and consistent with Articles 29.5.6 and 29.7.5 of the *Collective Agreement*;
 - n) that clearly articulates the ways in which academic staff members shall be credited for activities carried out in other departments within the Faculty, and in other Faculties;
 - o) of the ways in which the Faculty recognizes the diversity of different career patterns and the implications of such patterns for career progression and evaluation of progress;
 - p) of the ways in which the Faculty recognizes systemic barriers that may prevent academic staff members of equity-seeking groups from achieving career milestones such as Tenure and Promotion at the same rate and speed, as well as achievements through Merit Assessment. Examples of such barriers may include explicit and implicit service expectations, implicit bias surrounding publication quality, community engagement as a

- pre-requisite for research and scholarship, and/or cognitive and implicit bias influencing application of criteria in Renewal, Tenure, Promotion, and in Merit Assessment;
- q) of the Academic Selection Committee Composition outlined in Part B of this Handbook.
- 2.5 Changes to Faculty Guidelines shall not take effect until:
 - a) approved by the Provost as being in compliance with this Handbook and the *Collective Agreement*;
 - b) a copy is provided to the Faculty Association; and
 - c) the changes are posted on the Provost's website.

3 Criteria for Research and Scholarship, Teaching, and Service

3.1 General Considerations

- 3.1.1 It is the responsibility of all academic staff members to contribute to a climate in which diversities of opinion and views are valued. This will enable all to participate in decision making and advancing the goals of the University.
- 3.1.2 The functions of the University include research and scholarship, teaching, and service and shall be evaluated as part of Renewal, Tenure and Promotion (see A.5), and included in Merit Assessment (see A.6). In some instances, academic staff members may undertake clinical responsibilities or other professional activities and/or duties that go beyond these three categories, reference to and assessment of which, may also be included in Faculty Guidelines (see A.2.4). General criteria for ranks and streams as well as Professional or Administrative appointments are set out in A.4 below.
- 3.1.3 Within the context of A.3.1.2 above, and the requirements of the *Collective Agreement*Article 29.2.2, it is recognized that the nature of research and scholarship, teaching, and service and the proportional distribution of expectations for fulfilling these functions shall vary from Faculty to Faculty. There shall be generally consistent application of these considerations within each Faculty.
- 3.1.4 It also recognized that activities within these functions may focus on ethical obligations to build and maintain community relationships in addition to the pursuit of research and scholarship.
- 3.2 Research and Scholarship
- 3.2.1 Research and scholarship are major University functions. The primary concern of academic staff members and the University shall be the importance of high-quality research and scholarship and/or other creative or professional activities.
- 3.2.2 Research and scholarship and/or other creative or professional activities may include:
 - a) fundamental research that creates new knowledge including research creation and creative practice;
 - b) integration of knowledge which involves the synthesis of information across disciplines, and across topics within a discipline;

- c) research that involves entrepreneurship and/or innovation;
- d) systematic study of teaching and learning processes, including the scholarship of teaching and learning;
- e) application of knowledge to critically analyze texts, identify or solve a compelling problem in the community-at-large or challenge in society including knowledge engagement and transfer (the ways in which public and private sectors benefit from research), patents, and commercialization;
- f) knowledge creation grounded in or engaged with Indigenous nations, communities, societies or individuals that embraces the intellectual, physical, emotional and/or spiritual dimensions of knowledge and interconnected relationships with people, places and the natural environment. It is committed to building respectful relationships with Indigenous communities, valuing their existing strengths, assets and knowledge systems, and striving to meet community needs, through ethically and culturally appropriate means.
- 3.2.3 Research and scholarship may take place individually or collaboratively and focus on one or more disciplines. High-quality research and scholarship will be measured by peer recognition and/or advancement to the discipline, and/or innovation, and/or creativity, and/or impact on society and community etc.
- 3.2.4 Activities in research and scholarship vary among Faculties, and across disciplines and fields, encompassing a number of different modes and activities, creative or professional achievements, in different ways consistent with disciplinary culture and practice and as delineated in the relevant Faculty Guidelines. Such activities shall normally be measured by the quality, originality, innovation, impact, entrepreneurial spirit, knowledge engagement and community impact, and the pattern of the academic staff member's work appropriate to the discipline, field, or community.
- 3.2.5 It is expected that academic staff members, as required by their rank and stream, shall actively participate in the evolution of their disciplines and professions, to remain current in their fields, and to disseminate the scholarly outcomes of their work in a variety of forms appropriate to their discipline or field.
- 3.2.6 In their particular fields of endeavor, academic staff members are expected to meet ethical standards for research and scholarship, to adhere to University policies with respect to ethical conduct, and to act with integrity and honesty in conducting and communicating their scholarly work.
- 3.2.7 Academic staff members are normally required to seek competitive funding to sustain their program of research and scholarship where applicable, as defined in the relevant Faculty Guidelines (see A.2.4 e).
- 3.2.8 The relative weighting of types of research and scholarship output may vary by discipline, or field (see A.2.4 d). For example, in some disciplines, publication of an article in a top-tier journal or a refereed book in a national or international press is the summit of scholarly achievement. Some fields may require extensive efforts in community building before research and scholarship can occur. Knowledge engagement, including Indigenous research and scholarship, or entrepreneurial activities, may result in different outputs, impact, and

innovation. In other disciplines, presentations, lectures, and/or keynote addresses at international conferences, publications in conference proceedings or editing a journal, carry greatest weight. In others, the number and value of external, competitive grants received, and/or research contracts awarded are important indicators of research and scholarly activity. Similarly, a patent, contributions to policy, or a juried exhibition of artistic work may indicate significant creative and/or professional achievement.

3.2.9 In Faculties that prepare students for professional practice, contributions to the discipline of that profession shall be deemed relevant to satisfying research and scholarship requirements provided that they are of high quality and are acknowledged contributions to the field, that they flow primarily from research and scholarship, and that they have been subject to an informed review process and enhance the professional reputation of the academic staff member and the University.

3.3 Teaching

- 3.3.1 Teaching is a major University function. The purpose of teaching is to facilitate learning. Teaching effectiveness is characterized by high-impact teaching and learning strategies to improve student learning and includes a demonstrated ability to apply evidence-based teaching and learning approaches, and to design learning experiences grounded in a clearly articulated teaching philosophy.
- 3.3.2 Teaching may take different forms such as direct or classroom instruction at undergraduate and graduate levels, competency-based education, or field and practicum supervision. Delivery of instruction may be face-to-face, on-line and blended. Learning may occur inside and outside of the classroom, on and off campus (including land-based education), in collaboration with other instructors, other faculties, associated institutions, community organizations or with Indigenous knowledge-keepers and communities. Teaching activities may consist of lectures, seminars, tutorials, laboratories, clinical sets, lesson plans, assessments, grading, and examinations. The supervision or co-supervision and mentoring of undergraduate or graduate students or other trainees, participation on supervisory committees, and/or serving as an external examiner, are other forms of teaching contributions of academic staff members.
- 3.3.3 Educational leadership is a dimension of teaching that advances innovation of teaching and learning with impact beyond the classroom, including contributions to curricular development and renewal, pedagogical innovations, evidence-based and/or practice-based educational activities including Indigenous teaching practices, the sharing of pedagogical expertise through publications, or formal educational leadership roles in the academic unit or beyond.
- 3.3.4 The University also recognizes the legitimate role of academics in collaborating with partners in knowledge creation and innovation, or as 'knowledge brokers' in transferring new knowledge and innovations to persons in government, business, industry, the professions, and broader communities through the organization and presentation of seminars, workshops, and short courses.

3.4 Service

- 3.4.1 Academic staff members have a responsibility to contribute through service to move the institution forward through collegial governance, to advance academic disciplines, and to impact communities and society. Service means active participation and shared responsibility in academic governance, and development in matters relevant to the progress and welfare of the academic staff member's Department, Unit, Faculty, Institution, discipline, and profession.
- 3.4.2 The degree and number of service activities to which an academic staff member contributes may vary depending on career stage, rank and stream. Appropriate levels of service shall be expected of each rank. Nevertheless, for individuals whose duties include research and scholarship as well as teaching, the normal expectations for these duties cannot be fulfilled by service activity in the absence of written agreements with the Dean. Meeting the expectation for service should normally require a smaller portion of effort than is required for the functions of research and scholarship as well as teaching.
- 3.4.3 Service to the University may include participation in Program or Unit-level, Department or Division, Faculty, and University committees, councils, task forces, *ad hoc* teams, and governing bodies, or other parts of the University including the Faculty Association.
- 3.4.4 Service to an academic staff member's disciplines or profession may include membership on committees or executive bodies of academic or professional organizations, editorial boards of disciplinary or interdisciplinary journals, national or international granting agency councils, on grant selection committees and adjudication panels of regional, provincial, national or international agencies, and similar professional activities. Service may also involve organization of conferences, seminar series, workshops or presentation of short courses within the University, the broader community, or within the national and/or international arena.
- 3.4.5 Service to the community and general public takes place in several forms. Public or community service involves the contribution of an academic staff member's professional and disciplinary expertise to the community and public-at-large in association with their University appointment. Academic staff members may contribute to general, professional, or cultural communities, the province, and the nation, as well as globally, by reciprocal application of their scholarly or professional expertise, knowledge engagement and transfer, thereby bringing recognition to the University. Other service to the community that flows from the discipline, or field, or that accrues through other distinguished service to the University and/or the community may be acknowledged when it brings distinction to the University and/or community.
- 3.4.6 With regard to all service activities as outlined above, serving as Chair/Co-Chair or Executive Membership, for example, could carry significantly more weight than that of membership. Serving as Editor or Associate Editor, or as a member of an Editorial Board for a journal or similar body, for example, could also carry significantly more weight than that of reviewing. It is the role of the Head or equivalent to take into account the time commitment and role that an academic staff member takes on in various service assignments.

- 3.4.7 Academic staff members may also contribute service to specific communities requiring significant time commitment in order to establish trust, depth and stability, thereby integrating the University with its communities. In some instances, such contributions may be a necessary element of their research and scholarship activities that should be recognized in considerations for Tenure and Promotion, and in Merit Assessment.
- 3.4.8 Formal and informal service commitments across the University are often disproportionally expected from academic staff members of under-represented groups. Their commitment to offer a diversity of perspectives and experiences on committees and other decision-making bodies supports the University in making the best possible decisions and to establish an inclusive campus for all. Such contributions shall be considered in Tenure and Promotion, and in Merit Assessment.

3.5 Administrative Duties

In accordance with Articles 28.3 and 29.2.3 of the *Collective Agreement*, the quality of administrative leadership shall be recognized when evaluating academic staff for Tenure and Promotion, and for Merit Assessment. Administrative duties can take the form of formal appointments or may occur informally.

4 Requirements for Academic Staff Ranks and Streams

4.1 General Considerations

- 4.1.1 The following paragraphs set out the requirements for academic staff members across ranks and streams for professorial and instructor as well as administrative and professional streams. These requirements describe the level at which academic staff members in each rank and stream are expected to contribute to research and scholarship, teaching, and service.
- 4.1.2 As a principle, expectations increase in relation to rank. As academic staff members progress through the ranks, they may take on a variety of roles in a University community and in their professions, and the vitality of the University community, the academic disciplines, and the broader community or society depends upon their commitment and involvement.
- 4.2 Requirements for Assistant Professor
- 4.2.1 Appointment to the rank of Assistant Professor normally requires completion of the highest rank of academic training in a discipline or field. Evidence or promise of original high-quality research and scholarship and future development as a scholar must be present. Where appropriate to the proposed program of research and scholarship, evidence or promise of the applicant's ability to obtain competitive funding may also be required (see also 3.2.7). Appointment to the rank of Assistant Professor may also require evidence or promise of teaching proficiency or professional activity.

- 4.3 Requirements for Associate Professor
- 4.3.1 Appointment at, or promotion to the rank of Associate Professor normally requires evidence of high-quality research and scholarly activities, evidence of teaching effectiveness (as outlined in A.3.3.1) and an appropriate record of service.
- 4.3.2 Appointment at, or promotion to the rank of Associate Professor normally requires evidence of an established academic program of a calibre equivalent to national recognition by peers. According to discipline or field, indicators may vary.

Some *examples* are as follows:

- a) evaluation by external referees as recognized authorities external to the University, who are qualified to evaluate the applicant;
- b) publication of high-quality peer-reviewed or equivalent juried creative work in highly ranked journals of the field and competitive peer-reviewed conference proceedings;
- c) creative or professional awards or prizes that bring distinction to the University;
- d) keynote address or invited speaker to conferences, seminars, or workshops, at the local, regional, national or international level, relevant to the discipline or field;
- e) service as an expert to a well-recognized organization;
- f) election or appointment as a member or leader of a reputable scholarly society;
- g) service as peer reviewer for journals or granting bodies including ad hoc reviewing;
- h) participation in research networks, consortia, or research teams.
- 4.3.3 For appointment at, or promotion to, the rank of Associate Professor, it is expected that a record of high-quality research and scholarship such as peer-reviewed or refereed presentations or publications in an academic, community or artistic forum suitable to the discipline or field has been achieved, or that other measurable contributions to professional practice, knowledge engagement, innovation, or entrepreneurship have been achieved. Evidence of ability to obtain competitive funding to sustain a research program is normally required (see also A.3.2.7).
- 4.3.4 In some disciplines or fields, and depending upon assigned duties, appointment at or promotion to the rank of Associate Professor may require the academic staff member to have successfully taught a variety of courses and provided evidence of teaching effectiveness (e.g. as part of a Teaching Dossier). This may be demonstrated by contributing to course and/or curricular development, serving as a member of graduate student supervisory committees, providing trainee mentorship, and/or demonstrating successful supervision or co-supervision of undergraduate or graduate students or other trainees. Teaching effectiveness also includes a demonstrated ability to apply evidence-based teaching and learning approaches, and to design learning experiences grounded in a clearly articulated teaching philosophy.
- 4.3.5 For appointment at, or promotion to, the rank of Associate Professor, a satisfactory record of and active involvement in University, professional or community service that has demonstrated commitment to the Department, Unit, Faculty, University or wider community is also expected, as defined in the relevant Faculty Guidelines.

- 4.3.6 When an academic staff member holds a tenure-track appointment at the rank of Assistant Professor, the granting of promotion to the rank of Associate Professor normally carries with it the granting of tenure.
- 4.4 Requirements for Professor
- 4.4.1 Appointment at, or promotion to, the rank of Professor is reserved for those whose academic achievements would normally be recognized by their peers within the University and beyond to be of a calibre equivalent to international standing and as outstanding in their community, discipline, or field. According to discipline or field, indicators may vary.

Some *examples* are as follows:

- a) evaluation by internationally recognized authorities external to the University, who are qualified to evaluate the applicant
- b) publication of high-quality peer reviewed articles in the top-ranked journals of the field or equivalent juried creative works and competitive peer-reviewed conference proceedings;
- c) internationally recognized or influential creative or professional awards or prizes that bring distinction to the University;
- d) keynote address or invited speaker to high-calibre or international conferences, seminars, or workshops, at leading venues;
- e) invitation to contribute to edited collections;
- f) service as peer reviewer or Editorial Board member for journals or granting bodies including *ad hoc* reviewing;
- g) participation in internationally known or influential research networks, consortia, or research teams;
- h) service as an expert to an internationally recognized organization;
- i) election or appointment as a member or leader of a world-class scholarly society.
- 4.4.2 Appointment at, or promotion to, the rank of Professor is a recognition of the highest quality of contributions to research and scholarship, teaching, and service including leadership contributions and/or impact or innovation within the relevant community, discipline, or field, resulting in distinguished recognition.
- 4.4.3 Whereas relative contributions in the areas of research and scholarship, teaching, and service may vary across the professorial stream, appointment at or promotion to the rank of Professor normally requires a sustained body of research and scholarship that has impacted the community, discipline, or field in a significant way, evidence of an on-going research program sustained by peer-reviewed competitive external or industry grants, where applicable and defined by the relevant Faculty Guidelines, or other contributions to professional practice, knowledge engagement, creative innovation, entrepreneurship. Notwithstanding the importance of teaching performance and effectiveness, appointment at or promotion to the rank of Professor shall only be recommended when the academic staff member is recognized to be of a calibre equivalent to international standing on the basis of research and scholarship, equivalent creative

- activity, or professional contributions to the relevant community, discipline, or field, as described in A.4.4.1.
- 4.4.4 Depending upon assigned duties, appointment at, or promotion to, the rank of Professor normally requires evidence of teaching effectiveness (e.g. as part of a Teaching Dossier) at the undergraduate and graduate levels and/or educational leadership and an established track record of supervising or co-supervising undergraduate or graduate students or other trainees, mentorship, and supervisory committee membership. Teaching effectiveness also includes a demonstrated ability to apply evidence-based teaching and learning approaches, and to design learning experiences grounded in a clearly articulated teaching philosophy.
- 4.4.5 Appointment at, or promotion to, the rank of Professor normally requires a distinguished record of service contributions to the institution, the appropriate discipline and profession, and/or broader community.
- 4.5 Requirements for Instructor
- 4.5.1 Where appropriate to the discipline or field, appointment to this rank may require completion of the highest rank of academic training or relevant professional designation. Evidence or promise of teaching effectiveness or competency in teaching and learning (e.g. as part of a Teaching Dossier), an awareness of how to apply scholarly approaches to teaching and learning practices, participation in professional learning activities related to teaching and learning, as well as commitment to or experience with defining learning goals, supporting student learning activities, and creating assessment strategies may also be required.
- 4.5.2 Appointment to the rank of Instructor requires engagement in the research and scholarship required to maintain currency in pedagogy and curriculum design of the relevant discipline or field as well as engaging in other scholarly professional or creative activities that strengthens and informs the academic staff member's knowledge base as an Instructor.
- 4.6 Requirements for Senior Instructor
- 4.6.1 In addition to the requirements for an Instructor, appointment at, or promotion to, the rank of Senior Instructor requires evidence of teaching effectiveness (e.g. as part of a Teaching Dossier), a demonstrated ability to apply scholarly approaches to teaching and learning, to design student learning experiences and assessment strategies grounded in a clearly articulated teaching philosophy, and to engage in scholarly, professional, or creative activities that inform and expand the academic staff member's knowledge base as a Senior Instructor.
- 4.6.2 Appointment at, or promotion to, the rank of Senior Instructor requires the continuous development of a scholarly foundation for designing and implementing innovative teaching and that supports student learning, an ability to create respectful and inclusive learning environments that promote student engagement, participation in professional learning, and engagement in reflective practice to strengthen one's teaching, learning and assessment practices.

- 4.6.3 Appointment at, or promotion to, this rank may also require a satisfactory record of and active involvement in educational activities such as engagement in professional, University or community service that has demonstrated commitment to advancing teaching and student learning within the Department, Faculty, Unit, University or broader community
- 4.6.4 When an academic staff member holds a tenure-track appointment at the rank of Instructor, the granting of promotion to Senior Instructor normally carries with it the granting of tenure.
- 4.7 Requirements for Teaching Professor
- 4.7.1 In addition to the requirements for Senior Instructor, the rank of Teaching Professor normally requires a demonstration of the highest quality of contributions to a research-informed practice of, and reflective inquiry into, teaching and learning. This rank is reserved for those who are outstanding in their discipline or field and recognized for their leadership contributions to teaching and learning.
 - Promotion to Teaching Professor requires documented evidence of distinguished achievement in three of the following four categories:
 - a) professional learning and development: engaging in professional development to improve teaching and student learning;
 - research and scholarship: consulting relevant scholarly sources to design and implement teaching and learning experiences, conducting and sharing research and scholarship on teaching and learning to advance knowledge in the teaching and learning community;
 - c) mentorship: supporting the teaching and academic development of faculty and students;
 - d) educational leadership: activities that advance teaching and learning communities by sharing expertise that helps others to strengthen their teaching practice.
- 4.7.2 Notwithstanding demonstrated distinction in teaching effectiveness, appointment at or promotion to, the rank of Teaching Professor shall normally only be recommended where the academic staff member has clearly established an outstanding reputation, demonstrated through educational leadership contributions to the theory and practice of teaching and learning, and by impact on, or innovation within, the relevant community, discipline or field, resulting in distinguished peer-recognition. According to discipline or field, indicators may vary. Some examples are as follows:
 - a) advanced innovations in teaching and learning with impact beyond the classroom;
 - b) participation in, and/or leadership of, professional learning activities (e.g. learning communities, workshops, seminars, peer evaluations) to share teaching and learning expertise with others;
 - c) dissemination of research and scholarship in the broader community (e.g. Department/Faculty/University presentations and workshops, conference presentations and proceedings, keynote addresses or invited speaker, white papers, journal articles);

- d) educational leadership responsibilities within Department, Faculty, Unit, University or broader community;
- e) recognition of teaching expertise across and/or beyond the University.
- 4.7.3 Appointment at or promotion to the rank of Teaching Professor also requires a distinguished record of service contributions to the institution, the appropriate discipline, and profession, and/ or broader community.
- 4.7.4 Requirements for Lecturer (Medicine)

Appointment as Lecturer (Medicine) shall require the completion of academic or professional qualification in Medicine or its associated disciplines. Appointment shall also require evidence of appropriate teaching or professional experience.

Note, this is an obsolete category but still present within the Collective Agreement; it may be removed from the Collective Agreement in the near future at which time 4.7.4 can be removed from the Handbook

4.8 Requirements for Academic Staff in Administrative and Professional Streams

4.8.1 Librarians

Criteria with respect to Librarians, Archivists, and Curators, shall be established by the Academic Council of Libraries and Cultural Resources.

4.8.2 Counsellors

Criteria with respect to counsellors in Student and Enrolment Services shall be established by the Council of academic staff in Student and Enrolment Services.

- 4.8.3 Other (Administrative and Professional Academic Staff)
- 4.8.3.1 Criteria with respect to administrative and professional academic staff members shall be established by the appropriate Vice-President or delegate with due regard to the historic duties of the position and after meaningful consultation with the academic staff member(s).
- 4.8.3.2 A review of these approved criteria may be initiated by either party prior to the commencement of a calendar year. The review and any modification of criteria and duties shall be carried out by the process outlined in A.4.8.3.1.

5 Criteria for Renewal, Tenure and Promotion

5.1 General Considerations

- 5.1.1 Renewal of a tenure-track appointment requires a determination that, given the quality and pattern of career performance of the academic staff member, there is a reasonable likelihood that they will be able to successfully apply for an appointment *With Tenure* at the University of Calgary within the time allowed.
- 5.1.2 Achieving tenure and promotion is a milestone in an academic career and an expression of a university's commitment to the academic staff member who is making the application.

Criteria applied in Tenure and Promotion processes have, however, been shown to be subject to implicit bias – the attitudes or stereotypes that can affect our understanding, actions, or decisions, in an unconscious manner. It is important for members of Faculty Tenure and Promotion Committees (FTPC) to recognize that bias may be present and to critically reflect on same when reviewing applications and referencing relevant criteria.

- 5.1.3 Advancement to a higher rank is not automatic. Continued growth in research and scholarship, teaching, and service is typically required for all ranks and streams according to assigned duties. Outstanding performance in one area normally cannot substitute for insufficient performance in another.
- 5.2 Tenure and Promotion in the Professorial Stream
- 5.2.1 Granting of an appointment *With Tenure* requires a determination that, given the quality and pattern of career performance of the academic staff member, there is a substantial likelihood that they will be able to sustain a career as a productive researcher and scholar, effective teacher, and active contributor to the University of Calgary community.
- 5.2.2 When an academic staff member applies for an appointment *With Tenure* in the Professorial Stream, the FTPC shall seek evidence that the academic staff member has been successful in meeting criteria for the rank, as set out in A.4 of this Handbook. To this end, the FTPC shall:
 - a) review evidence of the accomplishments of the academic staff member in research and scholarship, teaching, and service, or other assigned duties, both over their entire career and since appointment at the University of Calgary;
 - then consider the overall career pattern of the academic staff member, taking into account the time elapsed since completion of the highest degree, or professional designation, accomplishments in positions prior to employment at the University of Calgary, and other relevant factors; and
 - c) use criteria as set out in the relevant Faculty Guidelines in evaluating the evidence presented.
- 5.3 Tenure and Promotion in the Instructor Stream
- 5.3.1 When an academic staff member applies for an appointment *With Tenure* in the Instructor Stream, the FTPC shall seek evidence that the academic staff member has been successful in meeting criteria for the rank as set out above in A.4 of this Handbook.
- 5.3.2 The granting of an appointment *With Tenure and Promotion to Senior Instructor* requires a determination that, given the quality and pattern of career performance of the academic staff member, there is a substantial likelihood that they will be able to sustain a productive career as an effective teacher and active contributor to the University of Calgary community. To this end, the FTPC shall:
 - a) review evidence of the accomplishments of the academic staff member in teaching and learning, service, any other assigned duties, and engagement in other scholarly activities that inform and expand the academic staff member's knowledge base, both over their entire career and since appointment to the University of Calgary;

- consider the overall career pattern of the academic staff member, taking into account the time elapsed since completion of the highest degree or professional designation, accomplishments in positions prior to employment at the University of Calgary, and other relevant factors; and,
- c) use criteria set out in the Faculty's Guidelines in evaluating the evidence presented.
- 5.4 Promotion to Professor or Teaching Professor
- 5.4.1 Advancement to the highest rank in professorial and instructor streams is not automatic. Excelling in one area of criteria for ranks and streams normally cannot substitute for another. Rigorous standards are applied for evaluating research and scholarship, teaching, and service, or other assigned duties, in considering promotion to Professor or Teaching Professor to ensure that the academic staff member has achieved the recognition required for this rank as set out above in this Handbook (see A.4). An academic staff member considering promotion to Professor or Teaching Professor should be an exemplary member of the academy who consistently demonstrates a high standard of achievement in all areas and roles and demonstrates due diligence in meeting assigned duties.
- 5.4.2 When an academic staff member applies for Professor or Teaching Professor, the FTPC shall consider the complete career record of the academic staff member at the University of Calgary and elsewhere.
- 5.5 Transfer between Streams
- 5.5.1. In accordance with Articles 28.7.6 and 28.10 of the *Collective Agreement*, all provisions regarding promotion shall apply to the process of transfer between streams with the question being whether the academic staff member seeking the transfer meets criteria for the new rank. A tenured academic staff member may not apply for a rank that normally does not include tenure (e.g. Assistant Professor or Instructor).
- 5.5.2 In the event that an academic staff member wishes to apply to transfer from one stream to another (i.e. professorial stream to instructor stream or instructor stream to professorial stream), the same criteria as outlined above in this Handbook must be met. In the event that an academic staff member meets these criteria, the FTPC members shall evaluate them based upon the rank and stream to which they are transferring, ensuring that all criteria as set out above, and in Faculty Guidelines, have been met.
- 5.6 Additional Considerations for Renewal, Tenure and Promotion
- 5.6.1 Outside Professional Activity shall be considered in determining career advancement to the extent that any such activity contributes to fulfilling the obligations of the academic staff member to the University and to enhancing the stature of the University.
- 5.6.2 Notwithstanding the payment of administrative honoraria, the administrative role and the quality of academic administration and leadership provided shall be taken into account

- when considering the overall performance of the academic staff member where relevant to Tenure and Promotion.
- 5.6.3 With regard to Tenure and Promotion, materials in support of demonstrating teaching effectiveness shall be included in the Teaching Dossier of the academic staff member as laid out in Appendix 28A of the *Collective Agreement*.
- 5.7 Renewal, Tenure and Promotion in Administrative and Professional Streams
 - In Administrative or Professional streams, granting an appointment *With Tenure* requires a determination that, given the quality and pattern of the academic staff member's career performance, there is a substantial likelihood that they will be able to sustain a career as a productive and effective member of, and active contributor to, the University of Calgary community. To this end, the FTPC shall:
 - a) review evidence of the academic staff member's accomplishments since appointment to the University of Calgary;
 - b) then consider the academic staff member's overall career pattern taking into account the time elapsed since completion of their highest degree of professional designation, accomplishments in positions prior to employment at the University of Calgary, and other relevant factors; and,
 - c) in assessing the evidence presented to it, use criteria provided in the relevant Unit Guidelines or criteria referred to above within this Handbook.

6 Criteria for Merit Assessment

6.1 General Considerations

- 6.1.1 In assessing performance and assigning merit, the Head or equivalent shall base their assessments on the requirements set out in A.3 and A.4 of this Handbook and Faculty Guidelines.
- 6.1.2 Article 29.2.2 of the *Collective Agreement* states that criteria for assessing academic staff members shall be applied in a manner consistent with assigned duties as outlined under Article 12.
- 6.1.3 Article 29.2.2 of the *Collective Agreement* further states that merit shall be assessed on the full duties performed by the academic staff member.
- 6.1.4 Article 29.2.3 of the *Collective Agreement* states that notwithstanding the payment of administrative honoraria, the administrative role and the quality of academic administration and leadership provided shall be taken into account when considering the overall performance of academic administrators and others who serve in formally appointed administrative leadership positions. Academic staff members who serve their academic units, faculty or the University in administrative roles, including as Department Heads, Associate Deans, Program or Institute Directors, or other equivalent roles shall also be assessed on the quality of their leadership, e.g. how they have advanced the academic

- mission of their portfolio, displayed vision, implemented plans and strategies, advanced a culture of high quality research and scholarship, teaching and service, and created meaningful and relevant academic programs.
- 6.1.5 Article 29.2.5 of the *Collective Agreement* states that criteria for assessing academic staff members in positions outside the professorial, instructor, librarian, curator, archivist and counsellor streams shall be based on the duties assigned at the time of hiring, and as mutually amended by the academic staff member and supervisor over time, or as agreed to by the Provost and Faculty Association.
- 6.1.6 Article 29.2.6 of the *Collective Agreement* states that as an academic staff member progresses through a rank, the normal expectation of performance rises.
- 6.1.7 Article 29.3.9.2 of the *Collective Agreement* also states that the awarding of increments of any amount may not be indicative of success in applications for Renewal, Tenure and Promotion.
- 6.1.8 Heads or equivalents are uniquely qualified to assess the impact of the academic staff member's contributions in the particular community, discipline, or field, and are charged with the responsibility of preparing written performance assessments which are critical for Faculty Merit Committees (FMC). Written assessments should include comments on the quantitative and qualitative contributions an academic staff member has made during the reporting period. Evaluative comments should be included, in a concise format, wherever possible and appropriate, and summarize contributions in research and scholarship, creative and/or professional activities, teaching, and service, according to assigned duties.
- 6.1.9 In assessing performance and assigning merit, the Head or equivalent shall consider the possible inequities in workload and assigned duties affecting members of underrepresented groups as outlined in A.3.4.8.
- 6.1.10 Outside Professional Activity for remuneration shall not normally be counted as service for the purposes of Merit Assessment.
- 6.2 Criteria for Assessing Research and Scholarship
- 6.2.1 Research and scholarship are major functions in a research-intensive university. Through research and scholarship, academic staff members contribute to innovation and advancements in their discipline, field, and communities, and to the solving of challenges that societies face, both locally and globally. The assessment of research and scholarship shall be based upon expectations outlined in A.3 and across different ranks and streams in A.4, and the relevant Faculty Guidelines.
- 6.2.2 All research, scholarship, and other creative activities shall be assessed on the merits of the work, regardless of the form in which they appear, and subject to the same rigor of informed peer review or appropriate refereeing. It may be important for Heads and/or Deans to engage in post-publication review to assess value and impact where traditional peer review is not appropriate or applicable.

- 6.2.3 Faculties will articulate how and when the Faculty credits scholarly work in various stages of publication (see A.2.4.i).
- 6.2.4 In assessing research and scholarship activities, the Head or equivalent and the members of the FMC, should be attentive to the evolving and changing nature of research and scholarship, and the ways in which knowledge is produced and disseminated, as specified in the relevant Faculty Guidelines.
- 6.3 Criteria for Assessing Teaching
- 6.3.1 Teaching is a major function of the work academic staff members perform at the University. The development, renewal and delivery of undergraduate and graduate level courses, and the evaluation, supervision or co-supervision, and mentorship of trainees, are part of the teaching responsibilities of all academic staff members. The assessment of teaching is a critical step for constructively and continuously improving the quality of teaching and the student experience across the University.
- 6.3.2 Teaching performance and effectiveness shall be evaluated as part of the performance review for merit assessment purposes. Such evaluation should consider all ways academic staff members address their teaching responsibilities and interact with undergraduate or graduate students or other trainees. Evaluations of teaching should also consider the extent of innovation, preparation, reflection and integration of current knowledge, level of interest, direction, and encouragement demonstrated by the academic staff member. Participation in teaching development programs and/or seeking expert opinion to assist in improving teaching and learning shall be viewed as an indication of commitment to teaching. In some disciplines, seeking the advice of Indigenous knowledge keepers should also be considered.
- 6.3.3 Evaluations of teaching shall be multi-faceted and, in particular, shall not be based primarily on any one method of evaluation. No single tool or activity is sufficient to measure teaching performance and effectiveness. Multiple sources of evidence shall be used to obtain a holistic picture of the performance of the academic staff member. This may include self-reflection, student feedback, peer observation, course design materials, and educational leadership activities provided by the academic staff member as well as any other assessments available to the Head or equivalent.
- 6.3.4 Evaluations of teaching should state the basis for the assessment (e.g. student feedback, peer review, classroom or laboratory visits by the Head or equivalent). It is helpful to members of the FMC if the Head or equivalent outlines the academic staff member's time commitment to teaching, and the nature and significance of their involvement.
- 6.3.5 In assessing teaching, the Head or equivalent as well as the members of the FMC shall refer to criteria for teaching, as set out in A.3 of this Handbook, and criteria established for teaching for academic staff members in different ranks and streams, as set out in A.4 of this Handbook.

- 6.3.6 In assessing teaching, supervision or co-supervision of undergraduate or graduate students or other trainees, mentorship, the participation on supervisory committees, and/or serving as an external examiner, shall be considered where applicable.
- 6.4 Criteria for Assessing Service
- 6.4.1 Service is an important function of the work academic staff perform at the University. Service activities move the institution forward through collegial governance, advance academic disciplines, and impact communities and society. Academic staff members also perform important administrative tasks that may not be subject to a formal appointment; this work should be recognized and assessed as a contribution to service.
- 6.4.2 In evaluating service contributions, the Head or equivalent should assess the information provided by the academic staff member on the nature and type of service activities, the time commitment, significance and impact of these service activities, and include into the written assessment.
- 6.4.3 In assessing service, the Head or equivalent and the members of the FMC shall refer to criteria for service as set out in A.3, and criteria established for service contributions for academic staff members in different ranks and streams as set out in A.4.



GENERAL FACULTIES COUNCIL INFORMATION BRIEFING NOTE

SUBJECT: One Health at UCalgary Strategic Plan

PROPONENT(S)

Dr. Herman Barkema, One Health at UCalgary Theme Lead and Professor, Faculty of Veterinary Medicine

PURPOSE

To share the completed One Health at UCalgary Strategic Plan with the General Faculties Council (GFC).

OVERVIEW

The One Health at UCalgary (OH@UC) strategic plan has been developed through in-depth consultation by an interdisciplinary community of scholars over the past 18 months. We are sharing the completed research strategy.

The OH@UC Strategic Plan outlines how our researchers will work together to address grand challenges in the area of One Health.

KEY POINTS

- The goals of this strategic plan are to define OH@UC's priorities, demonstrate how we will allocate resources to pursue this strategy, and how we will measure success.
- The plan builds on existing and developing areas of excellence and resources and identifies the scientific and social challenges we will work to address (Grand Challenges).
- It defines the areas of work we will pursue to build human capacity and attract funding (Theme Areas), and the transdisciplinary, cross-sectoral approach that defines us (Implementation Strategy)

BACKGROUND

One Health at UCalgary was selected by the Vice-President (Research) (VPR) as an emerging cross-cutting research theme in 2019 and received an injection of funds from the VPR Office to support development of the strategy.

The One Health team, led by Dr. Herman Barkema, conducted consultation with the campus community in fall 2019 to assess capacity and potential for impact.

The resulting strategy and its four grand challenges reflects the information gathered in those consultations. The resulting strategic plan demonstrates the commitment to solving complex, global problems through inclusive collaboration, diverse world views and perspectives, research excellence, and a focus on sustainable, innovative solutions.

ROUTING AND PERSONS CONSULTED

Progress	<u>Body</u>	<u>Date</u>	Approval	Recommendation	<u>Discussion</u>	<u>Information</u>
	Executive Leadership Team	2020-10-02	Х			
	Research and Scholarship Committee	2020-10-22				Χ
X	General Faculties Council	2020-11-05				X
	Board of Governors	2020-12-11				Χ

NEXT STEPS

The completed strategy will go to the Board of Governors on December 11, 2020. The theme will them be launched publicly in January, 2021.

SUPPORTING MATERIALS

One Health at UCalgary Strategic Plan





One Health at UCalgary

Strategic Plan: 2020-2025

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 research paradigm aligns with UCalgary's three research priorities (Matching Strengths with Opportunities, Increasing Research Capacity, and Driving Innovation) thereby increasing UCalgary's capacity for solution-oriented research.

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. 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.

One Health uses a transdisciplinary approach to address problems at the intersection of the environment, people, plants, and animals. Transdisciplinary research is conducted by investigators with diverse backgrounds and perspectives, representing various branches of knowledge, collaborating and using novel, holistic approaches to solve a common issue. Combining diverse expertise has great potential to yield innovative adaptations that better address complex scientific and social challenges (Figure 1).

A diverse and transdisciplinary team is also able to examine upstream determinants of health that shape the health of both individuals and different populations. In public health, determinants of health are the social, economic, cultural, physical, built, and political environments that can either promote or inhibit wellness. Animal and environmental health and resilience are also impacted by characteristics of their physical environment and the anthropogenic imposition of social, cultural, and economic expectations. A One Health approach can identify and implement robust and meaningful solutions to improve the health and wellness of people, animals, and the environment within existing social, economic, cultural, and political contexts.

OH@UC aims to remove barriers to the One Health approach, as a prerequisite for tackling the world's complex problems; we will bring together people, expertise, and resources to inspire innovation through research, investing in the future through transdisciplinary training programs, and creating a better and more equitable future, based on community engagement and policy development.

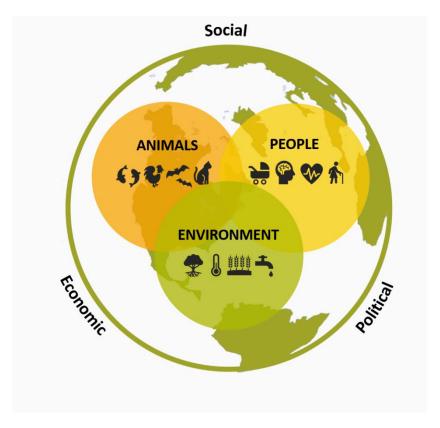


Figure 1. Representation of a One Health approach

Territorial Acknowledgement

We acknowledge that the traditional territories of the people of the Treaty 7 region in Southern Alberta, which includes the Blackfoot Confederacy (comprising the Siksika, Piikani, and Kainai First Nations), as well as the Tsuut'ina First Nation, and the Stoney Nakoda (including the Chiniki, Bearspaw, and Wesley First Nations). The City of Calgary is also home to Métis Nation of Alberta, Region 3. We would also like to note that the University of Calgary is situated on land adjacent to where the Bow River meets the Elbow River, and that the traditional Blackfoot name of this place is "Moh'kins'tsis", which we now call the City of Calgary.

Goals of OH@UC Strategic Plan

The goals of this strategic plan are to define OH@UC's priorities, demonstrate how we will allocate resources to pursue this strategy, and how we will measure success. The plan builds on existing and developing areas of excellence and resources and identifies the scientific and social challenges we will work to address (Grand Challenges). It defines the areas of work we will pursue to build human capacity and attract funding (Theme Areas), and the transdisciplinary, cross-sectoral approach that defines us (Implementation Strategy) (Figure 2).



Figure 2. OH@UC Strategic Plan Summary

Definition of One Health: One Health uses a transdisciplinary approach to address problems at the intersection of people, animals, and their environments.

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.

Core Values:

- **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*.

One Health at UCalgary (OH@UC) Equity – Diversity – Inclusion Statement

OH@UC believes in equity, diversity and inclusion. Specifically, OH@UC recognizes that equity, diversity and inclusion strengthen research communities and help to generate high-quality research and innovation that is socially relevant, impactful, and accessible to diverse populations. OH@UC is committed to working with our institutional partners to implement policies, processes, and initiatives that mitigate biases and remove barriers to inclusion.

Specifically, OH@UC recognizes that:

- Diverse members of our community must see themselves fairly represented in its governance
- Building and sustaining respectful, ethical relationships between Indigenous Peoples and the UCalgary research community must be based on a mutual understanding, shared respect, and the recognition of rights
- Incorporating equity and diversity considerations into recruitment processes for researchers, trainees and all team members enhances the inclusiveness of our research community
- Ensuring that research design is informed by equity, diversity, and inclusion-related considerations will generate research that is more rigorous and better serves the communities it is intended to benefit
- The creation of a respectful and inclusive culture that values a diversity of perspectives is the responsibility of all members of our research community

One Health at UCalgary Governance Structure

Operating under the Office of the Vice-President (Research), OH@UC serves as an institutional hub for collaborations that transcend artificial boundaries imposed by faculties and disciplines. To reflect our light governance vision, OH@UC has elected to adopt a constellation model of partnering (Figure 3). The model reflects the initiatives and research projects as of August 2020 but is expected to grow and expand over time.

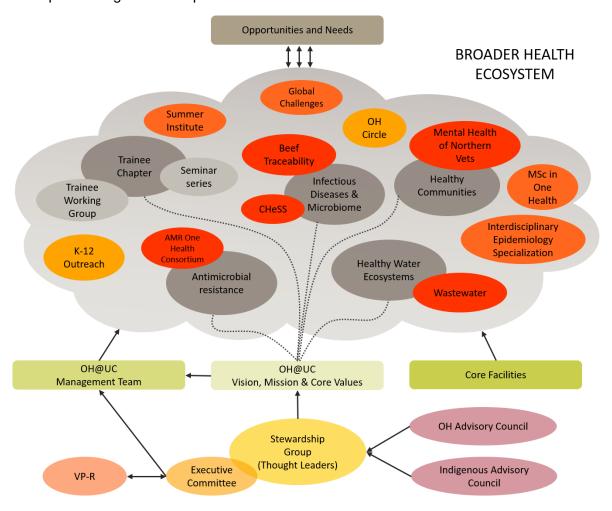


Figure 3. Organizational structure of One Health at UCalgary.

The cloud represents the sphere within which groups encompassing multiple disciplines within UCalgary and other academic institutions, and stakeholders from government, private sector, and the not-for-profit sector come together as **Work Teams** toward a joint outcome. It includes:

- Working Groups: Trainee Chapter, AMR, Healthy Water Ecosystems, Infectious Diseases and the Microbiome, and Healthy Communities
- Research projects that are under OH@UC management (August 2020)
 - o AMR One Health Consortium
 - Beef Traceability (Canadian Livestock Industry Traceability Movement Data)
 - CHeSS (Cattle Health Surveillance System)
 - Wastewater (A One-Health approach for monitoring, modelling and mitigating the evolution of antimicrobial resistance from wastewater in the environment)

- Mental Health of Northern Vets (Improving Access and Quality of Community Medicine by Addressing Mental Health of Northern Veterinary Service Providers)
- Training programs to be delivered by OH@UC
- Outreach programs to be delivered by OH@UC

Our research, training, and outreach activities are in self-organizing **Work Teams** with a focus on action. Work teams are formal research projects or initiatives focused on training, engagement or fundraising that are often partnered with a working group (Antimicrobial Resistance, Healthy Water Ecosystems, Infectious Diseases and the Microbiome, Healthy Communities, and Trainee Chapter).

The **OH@UC Management Team's** priority is to support the Work Teams at UCalgary. It provides day-to-day coordination of the teams with services that include networking, mentorship, internal peer review, research infrastructure, and knowledge engagement platforms. The OH@UC Team, together with Thought Leaders, Executive Committee, One Health Advisory Council and Indigenous Advisory Council provide strategic direction to the partnership. The governance structure provides for feedback processes to actively inform future directions

The **Executive Committee** (EC) members provide leadership for operational decision-making to the OH@UC Scientific Director and team on all matters. The EC is comprised of the OH@UC Scientific Director, OH@UC Manager, one lead from each working group (including the Trainee Chapter) and three members responsible for 'Indigenous Peoples', 'Policy', and 'Outreach', respectively.

A group of ~25 **Thought Leaders**, selected from the Confederation of Scholars, from all faculties and representing diverse perspectives, will serve as advocates for the program and increase its visibility at UCalgary. As an advisory group, it provides strategic directions to support OH@UC in development and implementation of plans and policies necessary to meet its objectives and commitments.

A **One Health Advisory Council** (OHAC) will be formed to provide timely advice on strategies that enable OH@UC to experience excellence in research, policy, training, outreach, and commercialization. Membership in this council will be shaped by the principles of the OH@UC Equity – Diversity – Inclusion (EDI) statement. Specifically, the role of the OHAC will be to:

- Provide strategic direction and advice with respect to research, training, outreach, policy, and commercialization;
- Provide feedback required for OH@UC to successfully meet its goals; and
- Identify new collaborators and opportunities, and help OH@UC members to expand their international networks.

An **Indigenous Advisory Council** (IAC) will be formed; its primary role will be to provide strategic direction, guidance and advice, imparting a unique perspective to the research and advancing issues of particular relevance and importance to Indigenous communities. The IAC will provide guidance on Indigenous ways of knowing, doing, connecting, and being for the OH@UC governance and membership.

Working Groups, Thought Leaders, Executive Committee, One Health Advisory Council, and the Indigenous Advisory Council will have documented Terms of Reference, outlining membership, key roles and responsibilities.

The OH@UC Management Team is comprised of a manager, an administrative coordinator, an events and trainee coordinator, and project managers and research associates for large projects within OH@UC. Currently, these large projects are: AMR – One Health Consortium and the Beef Cattle Traceability study. Our long-term objective is to grow the number of large research and education projects managed by the OH@UC team.

Partnerships Across UCalgary and Beyond

Transdisciplinary cooperation builds knowledge, research expertise, and infrastructure to tackle complex problems. As a research-intensive institution, UCalgary has invested in faculty, staff, students, and infrastructure that enhance our dynamic research capabilities. There are numerous research themes, assets and institutes that are important collaborative resources for OH@UC.

Strategic Research Themes at UCalgary

- Energy Innovations for today and Tomorrow
- Infections, Inflammation, and Chronic Disease
- Human Dynamics in a Changing World
- Engineering Solutions for Health
- New Earth-Space Technologies
- Brain and Mental Health
- Child Health and Wellness

Research Centres and Institutes

- School of Public Policy
- Centre for Health Informatics
- University of Calgary Biostatistics Centre
- Advancing Canadian Wastewater Assets
- Bamfield Marine Sciences Centre
- Arctic Institute of North America (Kluane Lake Research Station)
- Biogeoscience Institute (Barrier Lake Station and RB Miller Station)
- International Microbiome Centre
- O'Brien Institute for Public Health
- Snyder Institute for Chronic Diseases
- Alberta Children's Hospital Research Institute
- Calgary Prion Research Unit
- W21C
- Simpson Centre for Agriculture, Food Innovation, and Public Education
- WA Ranches

Institutional partnerships are about people. OH@UC's Thought Leaders and Working Group members are researchers and trainees from faculties across campus and are also associated

with many other UCalgary Research Themes, Centres, and Institutes. The affiliations of the OH@UC Thought Leaders are provided in Appendices 1 and 2. A list of all Working Group members and their disciplines is presented in Appendix 3.

OH@UC will also collaborate beyond our institutional boundaries. We will continue to build strong relationships with Indigenous communities, governments and leadership, regional and provincial non-Indigenous governments, and national and international universities and organizations. A partial list is provided and we will work to grow new partnerships.

Provincial

- City of Calgary
- Alberta Agriculture and Forestry
- Alberta Health
- Alberta Health Services
- Provincial livestock associations
- Alberta Jobs, Economy, and Innovation
- Regional Indigenous Organizations (e.g. Alberta Assembly of First Nations, Metis Council of Alberta)

National

- Provincial and Territorial Governments
- Indigenous Services Canada
- First Nations and Inuit Health Branch
- Infrastructure Canada
- Academic Institutions
- Public Health Agency of Canada
- Agriculture and Agri-Food Canada
- Canadian Food Inspection Agency
- Canadian AMR Network
- National Livestock Organizations
- Assembly of First Nations
- Inuit Tapiriit Kanatami

International

- Joint Programming Initiative on AMR
- AMR Insights
- World Health Organization
- United Nations Department of Economic and Social Affairs
- WHO Collaborating Centre for Research, Development, and Training on Antimicrobial Stewardship
- Food and Agriculture Organization
- World Organization for Animal Health (OIE)
- World Bank
- One Health Lessons

Strategic Directions

Research - Training - Engagement - Innovation

OH@UC will promote alignment of UCalgary's research, training, and engagement programs to optimize benefits of our partnerships while promoting diversity and inclusion. We will assess our performance using formal metrics. Baseline measures will be determined in 2021 and repeated in 2025 to evaluate our results.

Research. Our strategic research direction enables UCalgary researchers at all stages of their careers to build on their current research successes and address global challenges impacting health of people, animals, and the environment and the inequitable distribution health and well-being arising from these global challenges.

We will foster strong community-based partnerships through co-developed and co-drafted research programs with Indigenous communities. This will include the hiring of community-based research partners who will help guide the One Health research direction within the community and act as community Champions for the One Health initiative. Through the incorporation of Indigenous research methodologies, OH@UC will become a leader in the integration of diverse knowledge systems as a tool to solve complex problems.

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*. We will also remain nimble so as to quickly and effectively respond to changing research demands.

The objectives of our research plan are to:

- Build transdisciplinary research relationships among diverse UCalgary researchers
- Produce and disseminate high-quality transdisciplinary research
- Attract and attain the best and brightest talent via principles of EDI
- Build capacity for co-developed research with community partners, and
- Build capacity among researchers and trainees across disciplines to develop relationships with communities, government, the private sector, not-for-profit organizations and the general public to create and share knowledge

We will meet these objectives by creating and supporting transdisciplinary Working Groups within each research priority area. Working Group members will work collaboratively to develop research proposals that identify and address ambitious, important, and valuable research questions under each *Grand Challenge*. Research proposals will encompass and strengthen research interests of team members, benefitting from the creativity, innovation, and diverse perspectives inherent to transdisciplinary research.

Research projects associated with a Grand Challenge and a working group that are currently managed by OH@UC include: i) the AMR-One Health Consortium, a collaborative pan-Alberta

platform focused on antimicrobial use (AMU) and antimicrobial resistance (AMR) research, policy, training, outreach, and commercialization; ii) the Canadian Livestock Industry Traceability Movement Data, which will examine novel animal identification technologies; iii) the Cattle Health Surveillance system (CHeSS) of major infectious diseases and antimicrobial resistance in Alberta, using a comprehensive approach for surveillance and control of endemic diseases in dairy cattle; and iv) a One-Health approach for monitoring, modelling and mitigating evolution of antimicrobial resistance from wastewater in the environment. It is expected that OH@UC will manage additional research projects in the future.

As our research priorities are of national and international importance, our partnerships will extend beyond UCalgary. OH@UC is committed to community-engaged participatory research and we will ensure that there are organizational supports for co-developing research projects with local, regional, national, and international communities. We will ensure that our research practices and policies align with the UCalgary's Indigenous Strategy (ii'taa'poh'to'p) by building relationships, creating a culturally competent research agenda, and advancing reconciliation through strong partnerships.

Leveraging on UCalgary's expertise and assets, OH@UC will be able to provide One Health researchers with critical tools and resources required to move ideas and discoveries forward. As our research capacity increases, there will be opportunities for new researchers with a range of backgrounds and research interests to come to the UCalgary. Our international reputation for supporting excellence in research will attract and retain outstanding researchers.

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

Objectives of our training plan are to:

- Increase capacity in One Health-trained personnel in Alberta
- Build active participation in One Health research and practice
- Foster best practices for transdisciplinary and collaborative research and training, and
- Train culturally competent researchers

Our training programs will address gaps in technical training and 'soft skills' necessary to build successful One Health teams and programs and will be shaped by our EDI principles. One Health trainees will develop proficiency in systems thinking, project management, communication, informatics, leadership, diverse and transdisciplinary teams, collaboration, cultural competence, ethics and experience working with diverse groups, communities and organizations.

The Working Groups and our research-intensive approach will enrich the educational experience for students with research-inspired learning opportunities. We will align our research and engagement priorities with educational opportunities, including: i) a massive open online course (MOOC) in antimicrobial resistance; ii) a course teaching highly-qualified personnel (HQP) how to communicate effectively through enhanced knowledge translation tools; iii)

cultural awareness training and Indigenous research methodologies; and iv) a course on Entrepreneurial Thinking in One Health.

In collaboration with the Department of Community Health Sciences, and the Faculties of Kinesiology, Nursing, and Veterinary Medicine, we are creating an **Interdisciplinary Specialization in Epidemiology**.

We will develop a global, online **Non-thesis Masters in One Health (MSc One Health)**. This will be a transdisciplinary credit program for graduate students from across the world. It will include online course work and a course and project-based **Summer Program** at UCalgary. It will provide an overview and hands-on learning in systems thinking applied to (for example) emerging infectious diseases, food safety, water shortages and healthy communities.

We will host an **International One Health Challenge**, inviting interdisciplinary teams of graduate students and their supervisors to submit a research proposal that addresses a complex problem in a specified research area. Selected winning teams will travel to meet with UCalgary researchers and graduate students in a similar research area to refine their proposal and participate in the Summer Program with students in the MSc One Health program and other UCalgary graduate programs. Throughout the year, teams will meet to foster collaborations and strengthen student capacities in technical skills, innovation, and knowledge exchange. Visiting research supervisors will contribute to host institutions' learning environment with seminars and workshops.

Research and Training Targeted Outcomes

Metrics

- Best and brightest research talent that represents diverse backgrounds, addressing complex problems using a One Health approach
- Number of actively engaged faculty members
- Number of graduate students
- Number of postdoctoral scholars
- EDI data describing diversity of participants and inclusivity of the initiative
- Number of Indigenous faculty, research associates, graduate students, and postdoctoral scholars
- Partnerships and collaborations across UCalgary faculties
- Joint research projects and investigations
- Co-supervised HQP
- Joint publications, presentations, patents
- Indigenous community partnerships or memorandums of understanding
- Partnerships and collaborations across Canada and the world
- Joint research projects and investigations
- Proportion of publications with international collaborations
- Co-supervised HQP
- Joint publications, presentations, patents

	 Diverse cultural perspectives represented Diverse environmental considerations included Local community involvement Indigenous community/organization participation and collaborations
Community-based and community- driven research	 Number of research projects co-developed or co-drafted with communities
Research excellence	Normalized citation impactNumber of publications in top 1%
International leadership in One Health	 Funding from international sources Number of keynote presentations, lectures, plenary leads at international conferences focused on One Health EDI principles considered in selecting and inviting speakers and participants
Train culturally competent researchers	 Number of researchers that incorporate, respect, and elevate Indigenous ways of knowing, being, connecting, and doing Number of researchers completing cultural awareness training Number of researchers with OCAP® (Ownership, Control, Access, and Possession) training
Increased Indigenous community representation and involvement	 Number of First Nations, Métis, and Inuit students, community members or others engaged in our One Health community Participation of Indigenous students in training and enrichment opportunities Proportion of direct research with Indigenous communities Involvement of Indigenous communities in research process Number of Indigenous community-based researchers Number of Indigenous community partners included in publications

Training graduates

- Number of students with Specialization in Transdisciplinary Epidemiology
- Number of students in MSc One Health program, summer program, Grand Challenge
- Number of students with OCAP® designation
- Number of students completing cultural awareness training

Engagement. Our relationships and partnerships will cross boundaries of communities, scientific disciplines, academia, government, and the private sector, and will follow our EDI principles. 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 diverse stakeholders, rights-holders, and respecting the land, we will be better positioned to carry out a public purpose than could be accomplished by one organization alone. Our engagement plan will maximize the usefulness of our research.

Objectives of our engagement plan are to:

- Expand partnerships with diverse communities across Alberta, Canada, and the world
- Expand partnerships with Indigenous communities across Alberta and throughout Canada
- Develop our ability to mobilize knowledge to benefit people, animals, and the environment
- Develop strategies to incorporate research evidence into policy development for the benefit of all
- Develop methodologies for the integration of diverse knowledge systems into One Health approaches
- Inspire youth to recognize and embrace One Health principles
- Commit to advancing reconciliation with Indigenous communities across Canada

To meet these objectives, we will host regularly scheduled webinars for the public and encourage participation. On a monthly basis, the **One Health Circle** will meet with the wider community online to explore a relevant One Health problem. A regular seminar series with presentation by researchers from our Working Groups and for the UCalgary's research community, will also be developed.

With support of UCalgary's Knowledge Engagement Unit, we will develop **knowledge engagement** processes to increase the accessibility and impact of our research. Effective
knowledge mobilization between researchers and knowledge users recognizes the need for
learning on both sides; it is a two-way exchange of ideas, insights and perspectives. Early in the
research process, we will identify and engage relevant knowledge users and communities
affected by our research to ensure research outcomes will inform responsible and equitable
policy and decision making.

In collaboration with the Werklund School of Education, we will develop **One Health educational resources** for teachers (kindergarten to Grade 12) that will be freely available on our website. Our objectives for this program are to cultivate an interest in science and problem solving in young students, and to develop an understanding of the interconnectedness of the world and our responsibilities as citizens and stewards. Our trainees will be central to this program, both by helping to develop content and by visiting schools to talk to students about their research. Trainees will also benefit by improving their science communication skills.

Innovation. UCalgary is an entrepreneurial institution. The innovation outcomes will meet societal needs and be responsive to *Grand Challenges* within their existing social, economic, and political contexts. Through collaboration and mutual understanding, our researchers, trainees, and collaborators will plan research and integrate knowledge, research skills, and experiences to identify innovative solutions to complex problems.

Implement and Innovate Targeted Outcomes	Metrics
 Improved health and well-being of people, animals, and the environment 	 Provide quantitative and qualitative evidence of improved outcomes that are equitably distributed
Ability to mobilize knowledge to benefit people, animals, and the environment	 Number of publications, impact factor of those publications, and number of citations Number of community partners Number of invention disclosures Number of patents applied/ awarded Number of new licenses, start-ups
Contributions to national or regional strategic priorities	 Number of improved processes Number of new technologies and innovations Number of HQP placements in Alberta, Canada, globally and the extent to which those HQP reflect our EDI principles
Contributions to changes in policies and public perceptions	 Policy, technical, regulatory position papers Cumulative assessment studies completed Pilot and field-testing facilities operating Measured changes in public perception

Meaningful Engagement Within a Shared Space

The foundation of One Health is that the health of people, animals and the environment are intimately linked; therefore, working in a more integrated fashion will lead to meaningful and sustainable solutions to local and global challenges. This approach also aligns with the Indigenous perspective of transformation and renewal in the natural world and the inextricable interconnectedness of the nature and people. UCalgary's Indigenous Strategy is helping to shape how we frame these Grand Challenges within a shared ethical space, where 'disparate systems come together for meaningful engagement". With our Indigenous and non-Indigenous partners, our goals are to build a sustainable, healthy and resilient natural environment, and an equitable future for the planet, using inclusive, transdisciplinary and intercultural approaches to research, training, and engagement. Harmonization of the interconnected elements will lead to innovative approaches that inspire and cause positive change.

Grand Challenges

One of our strategic focus areas is to remove barriers to a One Health approach to research and to support and sustain a dynamic, cross-disciplinary, and inclusive research environment among faculty, research associates, and graduate students. To promote mutual understanding, collaborative activities, and transdisciplinary research, training, and engagement, we have created transdisciplinary working groups for each of our *Grand Challenges*: antimicrobial resistance, healthy water ecosystems, infectious diseases and the microbiome, and healthy communities.

Under each *Grand Challenge*, working groups will identify research questions that address a complex problem to be addressed using a One Health approach, and that is also informed by Indigenous ways of knowing, being, connecting, and doing. Working groups will develop research proposals, identify training needs, foster community engagement in research and advance new policy directions to address grand challenges. OH@UC will provide seed grants designed to provide early-stage funding for novel, transdisciplinary research. Funding guidelines are under development.

I. Antimicrobial resistance: Contain the threat of antimicrobial resistance

Antimicrobials are agents intended to kill or slow the growth of bacteria. Since the introduction and adoption of antibiotics, bacteria have been selected that can survive antimicrobials, i.e. AMR. As there are limited antimicrobials, the same active ingredients are often used in products intended for humans, animals, and agriculture. Not only can AMR arise due to use in humans or animals, but it can also develop in soil or water when antimicrobials are used for aquaculture or crops. Pollution from inadequate treatment of industrial, residential and farm waste is amplifying the resistome in the environment. The threat of AMR also has serious implications for our economy, work force productivity, and agricultural sector where antimicrobials are used to prevent and treat diseases in animals. As these vital tools lose their effectiveness, our food supply and economic security face increasing risks.

The ecological aspects of AMR and interrelationships among species and their environments can promote, impede, maintain or spread antimicrobial resistance genes. Therefore,

transdisciplinary and cross-sectoral approaches, encompassing expertise and decision-making in all sectors and communities impacted by antimicrobial use, is required.

UCalgary's research strengths including the AMR – One Health Consortium, collaborative research in the O'Brien Institute for Public Health, policy development in the W21C, International Microbiome Centre, Advancing Canadian Wastewater Assets, and AMR collaboration with Tanzania and other countries (e.g. China). In addition, UCalgary has been formally invited to develop a WHO Collaborating Centre on Antimicrobial Stewardship, using a One Health approach. Our expertise and resources allow us to address the following AMR-related challenges:

- a) **Transmission:** Better understanding of AMR transmission dynamics across species and in their shared environment.
- b) **Surveillance:** Development of improved AMU and AMR surveillance methods in all spheres (human, animal, and environment), recognizing the inequitable impact of AMR across various human and animal populations.
- c) Innovation: Development of new technologies that:
 - modify co-regulation of commensals in the microbiome, virulence factors and AMR:
 - discover new antimicrobials;
 - o create new early diagnostics; and
 - design new prevention and control systems.
- d) **Engagement**: Develop knowledge user engagement tools to improve:
 - o antimicrobial stewardship programs;
 - o antimicrobial prescribing practices and policies;
 - input of traditionally marginalized communities;
 - o infection and prevention control practices.

II. Healthy Water Ecosystems: Develop Strategies to Recover and Protect Global Water Ecosystems

People cannot live without water. Healthy aquatic ecosystems are essential to replenishing the supply of water and maintaining aquatic biodiversity. Resilient aquatic environments are essential for ensuring greater natural sustainability for the benefit of people and all life forms. Protection of water ecosystems is a complex global health and sustainability issue.

Water is a precious resource; consequently, access to safe water and sanitation is critical for health and security. This is particularly relevant for Indigenous communities in Canada, who are disproportionately impacted by a lack of access to safe, clean drinking water and adequate sanitation. Indigenous communities in Canada are more vulnerable to the impacts of climate change, and lack access to basic infrastructure, including safe, clean drinking water. Indigenous people across Canada, and globally, have distinct spiritual relationships with water.

Protecting aquatic ecosystems and providing clean water is essential for limiting the spread of contaminants, pathogens and antimicrobial resistant genes among humans and from humans to the environment. Changing hydrological conditions associated with climate change, intensification of agriculture and expanding industrial activities and water requirements threaten availability, sustainability and overall quality of clean water. Aquatic ecosystems are impacted

by development and land use changes, exploitation of underground aquifers and contamination by waste and discharges from humans, agriculture, and industry. It is expected that both water scarcity and flooding will lead to increased transboundary conflicts associated with water availability and contaminant transfer.

Watershed and hydrological monitoring are important for forecasting flow conditions and flooding (as undertaken by Global Water Futures) but alone they are not capable of achieving sustainability in the complex social-ecological systems of water; it is inherently a transdisciplinary problem. A One Health approach is very relevant to the imperative of protecting the quality of water and the health of animals and people dependent on it. UCalgary's researchers, in partnership with communities (e.g. First Nations or Inuit partners) will develop collaborative projects with interdisciplinary experts within the Arctic Institute of North America, and in the departments of: Ecosystem and Public Health; Geosciences; Chemical, Petroleum, Geomatics, Civil, and Environmental Engineering; Environmental Science; Geography (including FloodNet, Integrated Modelling Programme for Canada, and Global Water Futures); Biological Sciences; Chemistry; Environmental Physiology and Toxicology; Law; Integrated Sensor and Intelligence Systems; Environmental Design; School of Architecture, Planning, and Landscape; Sociology; and Molecular and Population Ecology. These areas are well positioned to strategically adopt a transdisciplinary, iterative One Health approach to develop treatment solutions to ensure food, water and wastewater safety. The availability of our research platforms, including globally leading field research stations that are sentinels for environmental change where these challenges occur (e.g. the Bamfield Marine Sciences Centre, Biogeoscience Institute and the Kluane Lake Research Station) as well as ACWA's infrastructure provides an opportunity to allow UCalgary to lead development of innovative solutions to emerging issues in municipal waste treatment and monitoring. We aim to address the following water-related challenges:

- a) **Innovation**: inventing and implementing technologies, developing policy frameworks, and advancing knowledge mobilization tools to ensure safe drinking water for all;
- b) **Impact**: limiting environmental impacts of municipal wastes and incorporating community-based approaches to holistic water management; and
- c) Monitoring: developing a sustainable, integrated, and community-relevant monitoring and management framework to improve the health of water and animals and people depending on it, particularly for Indigenous communities in Canada.

III. Infectious Diseases and the Microbiome: Create effective strategies against infectious diseases and exploit the protective benefits of the microbiome

The emergence of COVID-19 could not have been predicted, but it was not unexpected. According to the World Organization for Animal Health (OIE), 60% of human infectious diseases are of animal origin, 3 new diseases of animal origin appear annually and 20% of animal losses are due to infectious diseases. Despite huge advances in defenses against infectious diseases, human, animal, and environmental health continues to be threatened by emerging and neglected pathogens, environmental pollution, and development of multifactorial, chronic diseases. Future improvements in containment of infectious diseases will require better

knowledge of their causes and consequences, as well as development of novel diagnostics and therapies.

The composition of the microbiome and its function have huge impacts on human, animal and ecosystem health by influencing immunologic responsiveness and risks for a multitude of chronic inflammatory diseases, e.g. asthma, inflammatory bowel disease and allergies. Understanding the role of the microbiome and its dynamic interactions with hosts, pathogens and the external environment will play a key role in enabling the engineering of new diagnostic techniques and interventions. A better understanding of how non-pathogenic microbial transfer and microbiome interactions among humans, animals and their shared environment could lead to innovative interventions.

Using a One Health approach, transdisciplinary research teams will generate new understandings of the pathogen, microbiome, host, environmental, and social determinants that underlie the development of infectious and immune disease across species and ecosystems. UCalgary's strengths include the International Microbiome Center (IMC), Advancing Canadian Wastewater Assets (ACWA), collaborative research in the O'Brien Institute for Public Health, intensive collaboration of veterinary and human health researchers, and policy development in the W21C. These together make it possible to address the following issues:

- Microbiome: Create effective methods to prevent and manage disease by modifying and manipulating the microbiome;
- Prions: Deliver research outcomes and policy direction to minimize the risk to people and animals of prion and prion-like diseases;
- Gastrointestinal: Create strategies to reduce morbidity and mortality due to infectious diarrhea in people and livestock;
- Respiratory: Create strategies to reduce morbidity and mortality due to infectious pneumonia in people and livestock;
- Wildlife: Surveillance, mitigation and building infectious disease resilience in wildlife populations;
- Zoonoses: Deliver research and policy direction to minimize risks of vector-borne and emerging infectious diseases.

IV. Healthy Communities: Learn how to address complex issues that impact community health and well-being

Health and wellness are shaped by the places in which we live, our relationships and the circumstances as we work, learn, play, and age. One Health promotes integrated approaches to human and animal health while encouraging us to be cognizant of the broader social and environmental contexts. The OH@UC approach to healthy communities has a strong connection to Indigenous People in Canada. UCalgary has recently developed an Indigenous Strategy (ii'taa'poh'to'p), and a focus on Indigenous engagement is also prioritized by many faculties across campus. Indigenous People worldviews parallel the One Health approach, in ways of knowing, doing, connecting, and being. The recognition and understanding the interconnectedness of animals, people, and the environment, and the importance of this lens for healthy communities.

The One Health research approach is based on existing community-based projects with Indigenous People in Canada, including northern and Arctic Canada, as well as with local communities in Tanzania, Uganda and China. Using the One Health approach, in collaboration with communities, and guided by Indigenous ways of knowing, doing, connecting, and being, transdisciplinary research teams will seek to understand the importance of human-animal relationships to the mental and physical health, welfare, culture, and economy of Indigenous People in urban and rural communities.

Healthy communities link where and how we live to our health and wellbeing. Examples include: i) understanding the role of physical environment as a social determinant of health; ii) evaluating the effects of physical geography and environment on community mental health and resilience; iii) understanding the role of infrastructure in advancing community resilience and adaptability; iv) examining how anthropogenically-driven habitat loss and extinction of wildlife species can impact food security, culture, and the physical and mental health of people and whole communities; and v) undertaking research to better understand the geographically and culturally diverse interactions between people and animals.

Food security is also an important component of healthy communities, and a relevant food sovereignty and important component of healthy Indigenous communities. OH@UC will also focus on food security, investigating the four essential biological pillars: soil, water, climate, and biodiversity. Science and sustainability experts agree food production and consumption are contributing to global environmental crises, jeopardizing planetary health, and posing the biggest threat to human health. Economic and environmental sustainability and social expectations around food define the nature of public concerns. Lastly, food insecurity, connected to climate change, economic and social inequities, and the food-water-environment nexus – is amplifying social and political instability and undermining the health of communities, especially as their access to healthy, culturally appropriate and adequate diets is curtailed.

UCalgary's strengths in healthy communities, that distinguishes our research from other Canadian community health initiatives include work under the Human Dynamics in a Changing World research theme, by researchers in the Faculty of Veterinary Medicine, the O'Brien Institute for Public Health, the School of Public Policy, the Arctic Institute of North America, the Brenda Stafford Centre on Aging, the Canada Research Chair in Arctic One Health (decision pending), the Canada Research Chair in Integrated Knowledge, Engineering & Sustainable Communities, and also include collaborations of veterinary and human health researchers, and policy development in the School of Public Policy.

With these strengths, researchers are well positioned to address:

- a) Mental Health: enhance population-level mental health through a One Health approach to policies and practices in urban, rural, and wilderness settings globally;
- Infrastructure as a Social Determinant of Health: enhance understandings on the role
 of infrastructure in community health and wellbeing, advance community-driven policies
 and practices;
- Pets and Wildlife: elucidate and resolve pet and wildlife health issues important to the health, wellbeing, culture and economy of Indigenous and non-Indigenous communities; and

d) **Food systems and Food Sovereignty**: developing strategies for a substantial food system transformation towards healthy diets, and sustainable and regenerative food systems, and food sovereignty for Indigenous people, particularly in the far North.

Investing in One Health Research, Training, and Engagement

Funds provided by the Office of the VP (Research) will support the OH@UC Team's daily operations, including those required for training and engagement programs. Through priority-based budgeting, we will identify programs for which additional funding are necessary (Table 1).

•	Funding form Office of VP (Research) to 2024	\$200,000/year
•	Salaries and benefits	(\$150,000/year)
•	Supplies and services including conferences	(\$15,000/year)
•	Research support – grant writing (multiple projects)	(\$10,000/year)
•	Research support – seed funding (multiple projects)	(\$15,000/year)
•	Training – competitive stipends shared by several students	(\$10,000/year)

With assistance from the Office of VP (Advancement), we will create a development plan to secure the additional funds necessary to support our inclusive research, training, and engagement programs (Table 1).

Table 1. OH@UC: Investments and Impacts

What does financial success look like for OH@UC?	 Financial support from UCalgary has, by the end of the first 5-year term, resulted in a >15 times leverage in One Health research projects funding In 5 years, there will be an increase in research and outreach initiatives funded from sources outside UCalgary OH@UC has a secure source of funds to grow and maintain planned research, training, and engagement programs Administrative and operational costs are tied to anticipated return in the form of research funds from other sources and donor money Fundraising is connected to important strategic initiatives
Suggested high-level initiatives	 Increase revenue from diversified, large grant funding sources such as Tri-Council Funding Agencies and Genome Canada Establishment of at least two endowed, externally funded research chairs in One Health priority areas Identify donors through a number of strategies Explore opportunities for endowment with our funding partners to foster long-term sustainability Leverage UCalgary's VP Advancement donor contacts Large donation to OH@UC with naming rights Crowd sourcing

Strategy	Research	Training	Engagement
Investment from VP (Research)	 Administrative support to each Working Group Project management for grants led by OH@UC Grant writing support Strategic competitive seed grants Fundraising programs to identify private industry or individuals interested in supporting scientific research 	 Administrative support to Trainee Chapter and its initiatives (seminars, etc.) Administrative support to training programs Competitive stipend grants Fundraising programs to identify private industry or individuals interested in supporting training programs 	Administrative support to engagement programs One Health Circle One Health educational resources for public schools in collaboration with Werklund School of Education Support KT initiatives of team grants Administrative support to move research to innovation Fundraising programs to identify private industry, individuals and groups interested in supporting engagement programs
Impacts	 Indigenous research associate on the OH@UC team Create transdisciplinary teams across UCalgary and beyond Improved team grant success Secure large team grants OH@UC provides management for new projects Support for research projects that spark philanthropic interest Increase industry partnerships Increase community partnerships Enable innovative transdisciplinary research Increase number and quality of publications Drive innovation Improve wellness (people, animals, and environment) Build evidence for OH approaches to complex problems Increase reputation of UH@UC 	 Uphold a commitment to Indigenous education Train culturally competent researchers Train HQP in One Health Interdisciplinary Specialization in Epidemiology Non-thesis MSc in OH Summer Institute International Grand Challenge Competition Develop competent One Health researchers Drive recruitment Increase and sustain research capacity and productivity International trainee support 	Recognize and apply Indigenous knowledge and culturally responsive pedagogies and practices Increase community and industry communication, collaboration, and partnerships Increase funding by community and industry Sustainability Impact evaluation

Summary

Through the input of Thought Leaders, we identified the four *Grand Challenges* research areas of antimicrobial resistance, infectious diseases and microbiome, healthy water ecosystems, and healthy communities. Researchers within the Working Groups have proposed research questions that each represent a complex problem affecting health of people, animals, and the environment. These Grand Challenges cannot be resolved through a singular disciplinary approach. Rather, they demand an integrated and transdisciplinary One Health approach to develop solutions that are feasible for the present and sustainable for the future.

OH@UC is committed to contributing to solving complex, global problems through inclusive collaboration, diverse world views and perspectives, research excellence, and a focus on sustainable, innovative solutions. Serving as a hub for transdisciplinary research, training, and engagement, we are committed to addressing complex problems at the convergence of people, animals, and the environment and the underlying economic and social factors that determine opportunities for health across all ecosystems.

Appendix 1. Affiliations of OH@UC's Thought Leaders

Appendix 1. Anniations		O116	<i>y</i> • •		11100	19111																										
Name Discipline	ОН <u>@U.C</u> - AMR Working Group	ОН <u>@UC</u> - Healthy Water Ecosystems Working Group	ОН <u>@UC</u> – Infectious Diseases and Microbiome WG	OH@UC - Healthy Communities Working Group	ОН <u>@UC</u> - Trainee Chapter	Energy Innovations for Today & Tomorrow	Infections, Inflammation, & Chronic Disease	Human Dynamics in a Changing World	Engineering Solutions for Health	New Earth-Space Technologies	Brain and Mental Health	Child Health and Wellness	School Public Policy	Centre for Health Informatics	UCalgary Biostatistics Centre	Advancing Canadian Wastewater Assets	Bamfield Marine Sciences Centre	Arctic Institute of N. America (Kluane L. Research Stn)	Biogeoscience Institute	International Microbiome Centre	O,Brien Institute for Public Health	Snyder Institute for Chronic Diseases	Alberta Children's Hospital Research Institute	Hotchkiss Brain Institute	Libin Cardiovascular Institute	McCaig Institute for Bone and Joint Health	Arnie Charbonneau Cancer Institute	Brenda Stafford Centre	Calgary Prion Research Unit	W21C	Simpson Centre for Ag., Food Innovation, & Edu.	WA Ranches
Gopal Achari*																					_											
Engineering																																
Getachew Assefa Architecture																																
Herman Barkema																																
Vet Epidemiology Kerry Black																																
Engineering																																
Merilee Brockway																																
Nursing Andre Buret																																
Integrative Cell Biology																																
Sylvia Checkley Vet Epidemiology																																
John Conly																																
Infectious Diseases																																
Lindsay Crowshoe* Family Medicine																																
Raylene De Bruyn Kinesiology & Nutrition																																
Craig Gerlach																																
Anthropology William Ghali*																																
Internal Medicine																																
Lorian Hardcastle Health Law																																
Joe Harrison*																																
Microbiology																																
Michael Hart Social Work																																
Aidan Hollis																																
Economics Lee Jackson					<u> </u>				<u> </u>																							\vdash
Ecology / Evol. Biology																																
Mike Kallos																																
Engineering Susan Kutz																																
Veterinary Parasitology																																
Kelly Munkittrick Ecosystem Health Assess.																																
Ed Pajor																																
Animal Welfare						-							ļ	ļ				ļ	ļ							-						
Baljit Singh* Veterinary Anatomy																																
Guido Van Marle																																
Molecular Virology		<u> </u>		_		<u> </u>								<u> </u>												<u> </u>						
Warren Wilson Anthropology																																

Appendix 2. Affiliations of OH@UC's Thought Leaders

THOUGHT LEADERS	FACULTY	OH – WORKING GROUP(S)	STRATEGIC RESEARCH THEME(S)	OTHER UCALGARY RESEARCH CENTERS & INSTITUTES
Gopal Achari	Schulich School of Engineering	AMR; Healthy Water Ecosystems		
Getachew Assefa	School of Architecture, Planning and Landscape	Healthy Water Ecosystems; ID&M	Energy Innovations for Today & Tomorrow; Human Dynamics in a Changing World	
Herman Barkema	Faculty of Veterinary Medicine	AMR; Healthy Water Ecosystems; ID&M Healthy Communities; Trainee Chapter	Infections, Inflammation & Chronic Disease; Human Dynamics in a Changing World; Engineering Solutions for Health; Brain & Mental Health	Centre for Health Informatics; UCalgary Biostatistics Centre; O'Brien Institute; Snyder Institute; W21C; Simpson Centre; WA Ranches
Kerry Black	Schulich School of Engineering	Healthy Water Ecosystems; Healthy Communities	Human Dynamics in a Changing World	ACWA; Arctic Institute
Merilee Brockway	Faculty of Nursing	ID&M	Child Health & Wellness	AB Children's Hospital Research Institute
Andre Buret	Faculty of Science	AMR; Healthy Water Ecosystems; ID&M	Infections, Inflammation & Chronic Disease	ACWA; WA Ranches
Sylvia Checkley	Faculty of Veterinary Medicine	AMR; Healthy Water Ecosystems; ID&M Healthy Communities		ACWA; O'Brien; WA Ranches
John Conly	Cumming School of Medicine	AMR; ID&M	Infections, Inflammation & Chronic Disease; Engineering Solutions for Health	School of Public Policy; ACWA; O'Brien; Arnie Charbonneau Cancer Institute; Brenda Stafford Centre; W21C; WA Ranches
Lindsay Crowshoe	Cumming School of Medicine			
Raylene De Bruyn	Faculty of Kinesiology	ID&M	Infections, Inflammation & Chronic Disease; Child Health & Wellness	International Microbiome Centre; AB Children's Hospital Research
Craig Gerlach	Faculty of Arts	Healthy Water Ecosystems; ID&M		Arctic Institute of North America
William Ghali	Vice-President (Research)	ID&M	Engineering Solutions for Health	O'Brien; W21C
Lorian Hardcastle	Faculty of Law	AMR; Trainee Chapter		O'Brien Institute for Public Health
Joe Harrison	Faculty of Science	AMR; ID&M	Infections; Inflammation & Chronic Disease; Engineering Solutions for Health	International Microbiome Centre; Snyder Institute
Michael Hart	Vice-Provost (Indigenous Engagement)	Healthy Communities		
Aidan Hollis	Faculty of Arts	AMR; ID&M	Human Dynamics in a Changing World	O'Brien Institute for Public Health
Lee Jackson	Faculty of Science	AMR; Healthy Water Ecosystems	Human Dynamics in a Changing World	ACWA; Biogeoscience Institute
Mike Kallos	Schulich School of Engineering	ID&M	Engineering Solutions for Health	
Susan Kutz	Faculty of Veterinary Medicine	ID&M Healthy Communities	Infections, Inflammation & Chronic Disease; Human Dynamics in a Changing World	Arctic Institute; Biogeoscience Institute; Snyder Institute
Kelly Munkittrick	Faculty of Science	Healthy Water Ecosystems		ACWA
Ed Pajor	Faculty of Veterinary Medicine	AMR		WA Ranches
Baljit Singh	Faculty of Veterinary Medicine	ID&M		WA Ranches
Guido Van Marle	Cumming School of Medicine	ID&M	Infections, Inflammation & Chronic Disease; Engineering Solutions for Health	O'Brien Institute for Public Health
Warren Wilson	Faculty of Arts	ID&M	Child Health & Wellness	O'Brien; AB Children's Hospital Research Institute

Appendix 3A. Antimicrobial Resistance Working Group

Full Name	Faculty/ Department
Gopal Achari	Schulich School of Engineering
Marie-Claire Arrieta	Cumming School of Medicine
Herman Barkema	Faculty of Veterinary Medicine
Johanna Blaak	Cumming School of Medicine
Andre Buret	Faculty of Science (Biological Sciences)
Sylvia Checkley	Faculty of Veterinary Medicine, Provincial Laboratory for Public Health
Eduardo Cobo	Faculty of Veterinary Medicine
John Conly	Cumming School of Medicine
Susan Cork	Faculty of Veterinary Medicine
Tao Dong	Faculty of Veterinary Medicine
Rose Geransar	One Health at UCalgary
Lorian Hardcastle	Faculty of Law, Cumming School of Medicine
Joe Harrison	Faculty of Science (Biological Sciences)
Aidan Hollis	Faculty of Arts (Economics)
Leland (Lee) Jackson	Faculty of Science (Biological Sciences)
Jim Kellner	Cumming School of Medicine
Jenine Leal	O'Brien Institute for Public Health, Cumming School of Medicine
Myles Leslie	School of Public Policy
lan Lewis	Faculty of Science (Biological Sciences)
Tarah Lynch	Cumming School of Medicine
Kathy McCoy	Cumming School of Medicine
Dongyan Niu	Faculty of Veterinary Medicine
Karin Orsel	Faculty of Veterinary Medicine
Ed Pajor	Faculty of Veterinary Medicine
Alka Patel	Cumming School of Medicine
Dylan Pillai	Cumming School of Medicine
Johann Pitout	Cumming School of Medicine
Elissa Rennert May	Cumming School of Medicine
Alexei Savchenko	Cumming School of Medicine
Anthony Schryvers	Cumming School of Medicine
Ranjani Somayaji	Cumming School of Medicine
Laura Sycuro	Cumming School of Medicine
Raymond Turner	Faculty of Science (Biological Sciences)
Frank Van der Meer	Faculty of Veterinary Medicine

Appendix 3B. Healthy Water Ecosystems Working Group

Gopal Achari Getachew Assefa School of Architecture, Planning and Landscape Herman Barkema Faculty of Veterinary Medicine Kerry Black Schulich School of Engineering Andre Buret Faculty of Science (Biological Sciences) Edwin Cey Faculty of Science (Geosciences) Sylvia Checkley Faculty of Science (Biological Sciences) Edwin Cey Faculty of Science (Biological Sciences) Faculty of Science (Biological Sciences) Sylvia Checkley Faculty of Science (Biological Sciences) Gordon Chua Faculty of Science (Biological Sciences) Gordon Chua Faculty of Science (Biological Sciences) Faculty of Science (Biological Sciences) Faculty of Arts (Geography) Faculty of Arts (Geography) Faculty of Arts (Geography) Faculty of Arts (Geography) Faculty of Science (Biological Sciences) Fret Dunfield Faculty of Arts (Geography) Faculty of Science (Biological Sciences) Fret Else Faculty of Arts (Geography) Faculty of Science (Biological Sciences) Fret Bereit Gerach School of Architecture, Planning and Landscape Lisa Gieg Faculty of Science (Biological Sciences) Faculty of Science (Geosciences) Jianxun (Jennifer) He Faculty of Science (Geosciences) Faculty of Science (Biological Sciences) Faculty of	Full Name	Faculty/ Department
Getachew Assefa School of Architecture, Planning and Landscape Herman Barkema Faculty of Veterinary Medicine Kerry Black Schulich School of Engineering Andre Buret Faculty of Science (Biological Sciences) Edwin Cey Faculty of Science (Geosciences) Sylvia Checkley Faculty of Veterinary Medicine, Provincial Laboratory for Public Healt Angus Chu Schulich School of Engineering Gordon Chua Faculty of Science (Biological Sciences) Jan Ciborowski Faculty of Science (Biological Sciences) Jan Ciborowski Faculty of Science (Biological Sciences) Conny Davidsen Faculty of Veterinary Medicine Peter Dunfield Faculty of Veterinary Medicine Peter Dunfield Faculty of Science (Biological Sciences) Brent Else Faculty of Arts (Geography) Jeremy Fox Faculty of Science (Biological Sciences) Faculty of Veterinary Medicine Guazi Hassan Schulich School of Engineering Faculty of Science (Geosciences) Jianxun (Jennifer) He Schulich School of Engineering Joseph Hettiaratchi Schulich School of Engineering Faculty of Science (Biological Sciences) Faculty of Science (Biologic	Gopal Achari	Schulich School of Engineering
Kerry Black Andre Buret Faculty of Science (Biological Sciences) Edwin Cey Faculty of Science (Geosciences) Faculty of Science (Geosciences) Sylvia Checkley Faculty of Veterinary Medicine, Provincial Laboratory for Public Healt Angus Chu Schulich School of Engineering Gordon Chua Faculty of Science (Biological Sciences) Jan Ciborowski Faculty of Science (Biological Sciences) Faculty of Science (Biological Sciences) Faculty of Arts (Geography) Tao Dong Faculty of Arts (Geography) Faculty of Arts (Geography) Faculty of Arts (Geography) Jeremy Fox Faculty of Science (Biological Sciences) Faculty of Science (Biological Sciences) Faculty of Arts (Geography) Jeremy Fox Faculty of Science (Biological Sciences) Faculty of Science (Geosciences) Jianxun (Jennifer) He Schulich School of Engineering Joseph Hettiaratchi Schulich School of Engineering Faculty of Science (Biological Sciences) Faculty of Arts (Geography) Faculty of Science (Biological Sciences) Faculty of Scien	Getachew Assefa	School of Architecture, Planning and Landscape
Andre Buret Faculty of Science (Biological Sciences) Edwin Cey Faculty of Science (Geosciences) Sylvia Checkley Faculty of Veterinary Medicine, Provincial Laboratory for Public Healt Angus Chu Schulich School of Engineering Gordon Chua Faculty of Science (Biological Sciences) Jan Ciborowski Faculty of Science (Biological Sciences) Jan Ciborowski Faculty of Arts (Geography) Tao Dong Faculty of Veterinary Medicine Peter Dunfield Faculty of Science (Biological Sciences) Brent Else Faculty of Science (Biological Sciences) Brent Else Faculty of Science (Biological Sciences) Jeremy Fox Faculty of Science (Biological Sciences) David Hall Faculty of Veterinary Medicine Quazi Hassan Schulich School of Engineering Masaki Hayashi Faculty of Science (Geosciences) Jianxun (Jennifer) He Schulich School of Engineering Joseph Hettiaratchi Schulich School of Engineering Joseph Hettiaratchi Schulich School of Engineering Jeant (Jee) Jackson Faculty of Science (Biological Sciences) David Layzell Faculty of Science (Biological Sciences) Pavid Layzell Faculty of Science (Biological Sciences) Pavid Layzell Faculty of Arts (Geography) Yonne Martin Faculty of Arts (Geography) Faculty of Arts (Geography) Faculty of Science (Biological Sciences) John Post Faculty of S	Herman Barkema	Faculty of Veterinary Medicine
Andre Buret Faculty of Science (Biological Sciences) Edwin Cey Faculty of Science (Geosciences) Sylvia Checkley Faculty of Veterinary Medicine, Provincial Laboratory for Public Healt Angus Chu Schulich School of Engineering Gordon Chua Faculty of Science (Biological Sciences) Jan Ciborowski Faculty of Science (Biological Sciences) Jan Ciborowski Faculty of Arts (Geography) Tao Dong Faculty of Veterinary Medicine Peter Dunfield Faculty of Science (Biological Sciences) Brent Else Faculty of Science (Biological Sciences) Brent Else Faculty of Science (Biological Sciences) Jeremy Fox Faculty of Science (Biological Sciences) David Hall Faculty of Veterinary Medicine Quazi Hassan Schulich School of Engineering Masaki Hayashi Faculty of Science (Geosciences) Jianxun (Jennifer) He Schulich School of Engineering Joseph Hettiaratchi Schulich School of Engineering Joseph Hettiaratchi Schulich School of Engineering Jeant (Jee) Jackson Faculty of Science (Biological Sciences) David Layzell Faculty of Science (Biological Sciences) Pavid Layzell Faculty of Science (Biological Sciences) Pavid Layzell Faculty of Arts (Geography) Yonne Martin Faculty of Arts (Geography) Faculty of Arts (Geography) Faculty of Science (Biological Sciences) John Post Faculty of S	Kerry Black	Schulich School of Engineering
Sylvia Checkley Faculty of Veterinary Medicine, Provincial Laboratory for Public Healt Angus Chu Schulich School of Engineering Gordon Chua Faculty of Science (Biological Sciences) Jan Ciborowski Faculty of Science (Biological Sciences) Conny Davidsen Faculty of Arts (Geography) Tao Dong Faculty of Veterinary Medicine Peter Dunfield Faculty of Science (Biological Sciences) Brent Else Faculty of Arts (Geography) Jeremy Fox Faculty of Science (Biological Sciences) Faculty of Science (Geosciences) Janxun (Jennifer) He Schulich School of Engineering Joseph Hettiaratchi Schulich School of Engineering Faculty of Science (Biological Sciences) Faculty of Science (Biological Sciences) Faculty of Science (Biological Sciences) Werklund School of Engineering Faculty of Science (Biological Sciences) Faculty of Arts (Geography) Faculty of Science (Biological Sciences) Faculty of Science (Biologi	Andre Buret	Faculty of Science (Biological Sciences)
Angus Chu Gordon Chua Faculty of Science (Biological Sciences) Jan Ciborowski Faculty of Arts (Geography) Tao Dong Faculty of Veterinary Medicine Peter Dunfield Faculty of Science (Biological Sciences) Faculty of Veterinary Medicine Peter Dunfield Faculty of Science (Biological Sciences) Brent Else Faculty of Science (Biological Sciences) Faculty of Science (Geosciences) Janxun (Jennifer) Faculty of Science (Geosciences) Janxun (Jennifer) He Schulich School of Engineering Joseph Hettiaratchi Schulich School of Engineering Faculty of Science (Biological Sciences) Faculty of Science (Biological Sciences) Faculty of Science (Biological Sciences) Werklund School of Engineering Faculty of Science (Biological Sciences) Faculty of Arts (Geography) Faculty of Science (Biological Sciences) Faculty of Science (Biological Scie	Edwin Cey	Faculty of Science (Geosciences)
Gordon Chua Faculty of Science (Biological Sciences) Jan Ciborowski Faculty of Science (Biological Sciences) Conny Davidsen Faculty of Arts (Geography) Tao Dong Faculty of Veterinary Medicine Peter Dunfield Faculty of Science (Biological Sciences) Brent Else Faculty of Arts (Geography) Jeremy Fox Faculty of Science (Biological Sciences) Craig Gerlach School of Architecture, Planning and Landscape Lisa Gieg Faculty of Science (Biological Sciences) Hamid Habibi Faculty of Science (Biological Sciences) Hamid Habibi Faculty of Veterinary Medicine Quazi Hassan Schulich School of Engineering Masaki Hayashi Faculty of Science (Geosciences) Jianxun (Jennifer) He Schulich School of Engineering Leland (Lee) Jackson Faculty of Science (Biological Sciences) David Layzell Faculty of Science (Biological Sciences) Gregory Lowan-Trudeau Werklund School of Education Qingye Lu Schulich School of Engineering Shawn Marshall Faculty of Arts (Geography) Yvonne Martin Faculty of Arts (Geography) Bernhard Mayer Faculty of Science (Geosciences) Brian Moorman Faculty of Arts (Geography) Douglas Muench Faculty of Science (Biological Sciences) Brian Moorman Faculty of Arts (Geography) Douglas Muench Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Hamid Prenner Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences)	Sylvia Checkley	Faculty of Veterinary Medicine, Provincial Laboratory for Public Health
Jan Ciborowski Faculty of Science (Biological Sciences) Conny Davidsen Faculty of Arts (Geography) Tao Dong Faculty of Veterinary Medicine Peter Dunfield Faculty of Science (Biological Sciences) Brent Else Faculty of Arts (Geography) Jeremy Fox Faculty of Science (Biological Sciences) Brent Else Faculty of Arts (Geography) Jeremy Fox Faculty of Science (Biological Sciences) Craig Gerlach School of Architecture, Planning and Landscape Lisa Gieg Faculty of Science (Biological Sciences) Hamid Habibi Faculty of Science (Biological Sciences) David Hall Faculty of Veterinary Medicine Quazi Hassan Schulich School of Engineering Masaki Hayashi Faculty of Science (Geosciences) Jianxun (Jennifer) He Schulich School of Engineering Joseph Hettiaratchi Schulich School of Engineering Leland (Lee) Jackson Faculty of Science (Biological Sciences) David Layzell Faculty of Science (Biological Sciences) Gregory Lowan-Trudeau Werklund School of Education Qingye Lu Schulich School of Engineering Shawn Marshall Faculty of Arts (Geography) Yovnne Martin Faculty of Arts (Geography) Bernhard Mayer Faculty of Science (Biological Sciences) Ed McCauley Faculty of Science (Biological Sciences) Brian Moorman Faculty of Science (Biological Sciences) Brian Moorman Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Maribeth Murray Faculty of Arts (Geography) Faculty of Science (Biological Sciences) Maribeth Murray Faculty of Veterinary Medicine Ehsan Panjeshahi Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences)	Angus Chu	Schulich School of Engineering
Conny Davidsen Faculty of Arts (Geography) Tao Dong Faculty of Veterinary Medicine Peter Dunfield Faculty of Science (Biological Sciences) Brent Else Faculty of Arts (Geography) Jeremy Fox Faculty of Science (Biological Sciences) Jeremy Fox Faculty of Science (Biological Sciences) Craig Gerlach School of Architecture, Planning and Landscape Lisa Gieg Faculty of Science (Biological Sciences) Hamid Habibi Faculty of Science (Biological Sciences) David Hall Faculty of Veterinary Medicine Quazi Hassan Schulich School of Engineering Masaki Hayashi Faculty of Science (Geosciences) Jianxun (Jennifer) He Schulich School of Engineering Joseph Hettiaratchi Schulich School of Engineering Leland (Lee) Jackson Faculty of Science (Biological Sciences) David Layzell Faculty of Science (Biological Sciences) Gregory Lowan-Trudeau Werklund School of Education Qingye Lu Schulich School of Engineering Shawn Marshall Faculty of Arts (Geography) Yonne Martin Faculty of Arts (Geography) Bernhard Mayer Faculty of Science (Geosciences) Ed McCauley Faculty of Science (Biological Sciences) Brian Moorman Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Maribeth Murray Faculty of Science (Biological Sciences) Hario Veterinary Medicine Faculty of Science (Biological Sciences) Faculty of Science (Biological Sciences) Faculty of Science (Biological Sciences) Faculty of Veterinary Medicine Faculty of Science (Biological Sciences)	Gordon Chua	Faculty of Science (Biological Sciences)
Faculty of Veterinary Medicine Peter Dunfield Faculty of Science (Biological Sciences) Brent Else Faculty of Arts (Geography) Jeremy Fox Faculty of Science (Biological Sciences) Craig Gerlach School of Architecture, Planning and Landscape Lisa Gieg Faculty of Science (Biological Sciences) Lisa Gieg Faculty of Science (Biological Sciences) Hamid Habibi Faculty of Science (Biological Sciences) David Hall Faculty of Veterinary Medicine Quazi Hassan Schulich School of Engineering Masaki Hayashi Faculty of Science (Geosciences) Jianxun (Jennifer) He Schulich School of Engineering Joseph Hettiaratchi Schulich School of Engineering Joseph Layzell Faculty of Science (Biological Sciences) Braulty of Science (Biological Sciences) Gregory Lowan-Trudeau Werklund School of Engineering Shawn Marshall Faculty of Arts (Geography) Yvonne Martin Faculty of Arts (Geography) Pyvonne Martin Faculty of Arts (Geography) Bernhard Mayer Faculty of Science (Biological Sciences) Brian Moorman Faculty of Arts (Geography) Douglas Muench Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Maribeth Murray Faculty of Science (Biological Sciences) Maribeth Murray Faculty of Science (Biological Sciences) John Post Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences)	Jan Ciborowski	Faculty of Science (Biological Sciences)
Peter Dunfield Faculty of Science (Biological Sciences) Brent Else Faculty of Arts (Geography) Jeremy Fox Faculty of Science (Biological Sciences) Craig Gerlach School of Architecture, Planning and Landscape Lisa Gieg Faculty of Science (Biological Sciences) Hamid Habibi Faculty of Science (Biological Sciences) Hamid Habibi Faculty of Veterinary Medicine Quazi Hassan Schulich School of Engineering Masaki Hayashi Faculty of Science (Geosciences) Jianxun (Jennifer) He Schulich School of Engineering Joseph Hettiaratchi Schulich School of Engineering Leland (Lee) Jackson Faculty of Science (Biological Sciences) David Layzell Faculty of Science (Biological Sciences) Gregory Lowan-Trudeau Werklund School of Engineering Schulich School of Engineering Faculty of Science (Biological Sciences) Gregory Lowan-Trudeau Werklund School of Engineering Schulich School of Engineering Faculty of Arts (Geography) Yvonne Martin Faculty of Arts (Geography) Faculty of Arts (Geography) Bernhard Mayer Faculty of Arts (Geography) Faculty of Science (Biological Sciences) Brian Moorman Faculty of Arts (Geography) Douglas Muench Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Maribeth Murray Faculty of Arts (Garth Science) Faculty of Veterinary Medicine Ehsan Panjeshahi Faculty of Science (Biological Sciences) John Post Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences)	Conny Davidsen	Faculty of Arts (Geography)
Brent Else Faculty of Arts (Geography) Jeremy Fox Faculty of Science (Biological Sciences) Craig Gerlach School of Architecture, Planning and Landscape Lisa Gieg Faculty of Science (Biological Sciences) Hamid Habibi Faculty of Science (Biological Sciences) David Hall Faculty of Veterinary Medicine Quazi Hassan Schulich School of Engineering Masaki Hayashi Faculty of Science (Geosciences) Jianxun (Jennifer) He Schulich School of Engineering Joseph Hettiaratchi Schulich School of Engineering Leland (Lee) Jackson Faculty of Science (Biological Sciences) David Layzell Faculty of Science (Biological Sciences) Gregory Lowan-Trudeau Werklund School of Education Qingye Lu Schulich School of Engineering Shawn Marshall Faculty of Arts (Geography) Yvonne Martin Faculty of Arts (Geography) Bernhard Mayer Faculty of Science (Biological Sciences) Brian Moorman Faculty of Arts (Geography) Douglas Muench Faculty of Arts (Geography) Faculty of Science (Biological Sciences) Kelly Munkitrick Faculty of Science (Biological Sciences) Karin Orsel Faculty of Veterinary Medicine Ehsan Panjeshahi Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences)	Tao Dong	Faculty of Veterinary Medicine
Jeremy Fox Faculty of Science (Biological Sciences) Craig Gerlach School of Architecture, Planning and Landscape Lisa Gieg Faculty of Science (Biological Sciences) Hamid Habibi Faculty of Science (Biological Sciences) David Hall Faculty of Veterinary Medicine Quazi Hassan Schulich School of Engineering Masaki Hayashi Faculty of Science (Geosciences) Jianxun (Jennifer) He Schulich School of Engineering Joseph Hettiaratchi Schulich School of Engineering Leland (Lee) Jackson Faculty of Science (Biological Sciences) David Layzell Faculty of Science (Biological Sciences) Gregory Lowan-Trudeau Werklund School of Engineering Schulich School of Engineering Faculty of Science (Biological Sciences) Faculty of Science (Biological Sciences) Faculty of Arts (Geography) Faculty of Arts (Geography) Faculty of Arts (Geography) Faculty of Science (Biological Sciences) Faculty of Arts (Geography) Faculty of Science (Biological Sciences) Faculty of Arts (Geography) Faculty of Science (Biological Sciences) Faculty of Science (Biological Sciences) Faculty of Science (Biological Sciences) Faculty of Maribeth Murray Faculty of Science (Biological Sciences) Faculty of Veterinary Medicine Faculty of Science (Biological Sciences)	Peter Dunfield	Faculty of Science (Biological Sciences)
Craig Gerlach Lisa Gieg Faculty of Science (Biological Sciences) Hamid Habibi Faculty of Science (Biological Sciences) David Hall Faculty of Veterinary Medicine Quazi Hassan Schulich School of Engineering Masaki Hayashi Faculty of Science (Geosciences) Jianxun (Jennifer) He Schulich School of Engineering Joseph Hettiaratchi Eland (Lee) Jackson Faculty of Science (Biological Sciences) David Layzell Faculty of Science (Biological Sciences) Gregory Lowan-Trudeau Werklund School of Education Qingye Lu Schulich School of Engineering Shawn Marshall Faculty of Arts (Geography) Yvonne Martin Faculty of Arts (Geography) Faculty of Science (Biological Sciences) Ed McCauley Faculty of Science (Biological Sciences) Brian Moorman Faculty of Arts (Geography) Douglas Muench Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Karin Orsel Faculty of Veterinary Medicine Ehsan Panjeshahi Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences)	Brent Else	Faculty of Arts (Geography)
Lisa Gieg Faculty of Science (Biological Sciences) Hamid Habibi Faculty of Science (Biological Sciences) David Hall Faculty of Veterinary Medicine Quazi Hassan Schulich School of Engineering Masaki Hayashi Faculty of Science (Geosciences) Jianxun (Jennifer) He Schulich School of Engineering Joseph Hettiaratchi Schulich School of Engineering Leland (Lee) Jackson Faculty of Science (Biological Sciences) David Layzell Faculty of Science (Biological Sciences) Gregory Lowan-Trudeau Werklund School of Engineering Shawn Marshall Faculty of Arts (Geography) Yvonne Martin Faculty of Arts (Geography) Bernhard Mayer Faculty of Science (Biological Sciences) Brian Moorman Faculty of Arts (Geography) Douglas Muench Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Arts (Earth Science) Karin Orsel Faculty of Science (Biological Sciences) John Post Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences) Ron Read Cumming School of Medicine	Jeremy Fox	Faculty of Science (Biological Sciences)
Hamid Habibi Faculty of Science (Biological Sciences) David Hall Faculty of Veterinary Medicine Quazi Hassan Schulich School of Engineering Masaki Hayashi Faculty of Science (Geosciences) Jianxun (Jennifer) He Schulich School of Engineering Joseph Hettiaratchi Schulich School of Engineering Leland (Lee) Jackson Faculty of Science (Biological Sciences) David Layzell Faculty of Science (Biological Sciences) Gregory Lowan-Trudeau Werklund School of Education Qingye Lu Schulich School of Engineering Shawn Marshall Faculty of Arts (Geography) Yvonne Martin Faculty of Arts (Geography) Bernhard Mayer Faculty of Science (Biological Sciences) Ed McCauley Faculty of Science (Biological Sciences) Brian Moorman Faculty of Arts (Geography) Douglas Muench Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Maribeth Murray Faculty of Arts (Earth Science) Karin Orsel Faculty of Science (Biological Sciences) John Post Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences) Ron Read Cumming School of Medicine	Craig Gerlach	School of Architecture, Planning and Landscape
David Hall Guazi Hassan Schulich School of Engineering Masaki Hayashi Jianxun (Jennifer) He Schulich School of Engineering Joseph Hettiaratchi Leland (Lee) Jackson Faculty of Science (Biological Sciences) David Layzell Faculty of Science (Biological Sciences) Gregory Lowan-Trudeau Werklund School of Engineering Schulich School of Engineering Werklund School of Education Werklund School of Education Qingye Lu Schulich School of Engineering Shawn Marshall Faculty of Arts (Geography) Yvonne Martin Faculty of Arts (Geography) Bernhard Mayer Faculty of Science (Biological Sciences) Ed McCauley Faculty of Science (Biological Sciences) Brian Moorman Faculty of Arts (Geography) Douglas Muench Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Maribeth Murray Faculty of Arts (Earth Science) Karin Orsel Faculty of Veterinary Medicine Ehsan Panjeshahi Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences)	Lisa Gieg	Faculty of Science (Biological Sciences)
Quazi Hassan Schulich School of Engineering Masaki Hayashi Faculty of Science (Geosciences) Jianxun (Jennifer) He Schulich School of Engineering Joseph Hettiaratchi Schulich School of Engineering Leland (Lee) Jackson Faculty of Science (Biological Sciences) David Layzell Faculty of Science (Biological Sciences) Gregory Lowan-Trudeau Werklund School of Education Qingye Lu Schulich School of Engineering Shawn Marshall Faculty of Arts (Geography) Yvonne Martin Faculty of Arts (Geography) Bernhard Mayer Faculty of Science (Geosciences) Ed McCauley Faculty of Science (Biological Sciences) Brian Moorman Faculty of Arts (Geography) Douglas Muench Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Maribeth Murray Faculty of Arts (Earth Science) Karin Orsel Faculty of Veterinary Medicine Ehsan Panjeshahi Faculty of Science (Biological Sciences) John Post Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences) Ron Read Cumming	Hamid Habibi	Faculty of Science (Biological Sciences)
Masaki Hayashi Faculty of Science (Geosciences) Jianxun (Jennifer) He Schulich School of Engineering Joseph Hettiaratchi Schulich School of Engineering Leland (Lee) Jackson Faculty of Science (Biological Sciences) David Layzell Faculty of Science (Biological Sciences) Gregory Lowan-Trudeau Werklund School of Education Qingye Lu Schulich School of Engineering Shawn Marshall Faculty of Arts (Geography) Yvonne Martin Faculty of Arts (Geography) Bernhard Mayer Faculty of Science (Geosciences) Ed McCauley Faculty of Science (Biological Sciences) Brian Moorman Faculty of Arts (Geography) Douglas Muench Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Maribeth Murray Faculty of Arts (Earth Science) Karin Orsel Faculty of Veterinary Medicine Ehsan Panjeshahi Faculty of Science (Biological Sciences) John Post Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences) Ron Read Cumming School of Medicine	David Hall	Faculty of Veterinary Medicine
Jianxun (Jennifer) He Joseph Hettiaratchi Joseph Hettiaratchi Leland (Lee) Jackson Faculty of Science (Biological Sciences) David Layzell Faculty of Science (Biological Sciences) Gregory Lowan-Trudeau Werklund School of Engineering Shawn Marshall Faculty of Arts (Geography) Yvonne Martin Faculty of Science (Giological Sciences) Ed McCauley Faculty of Science (Biological Sciences) Brian Moorman Faculty of Arts (Geography) Douglas Muench Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Karin Orsel Faculty of Veterinary Medicine Ehsan Panjeshahi Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences) Cumming School of Medicine	Quazi Hassan	Schulich School of Engineering
Joseph Hettiaratchi Leland (Lee) Jackson Faculty of Science (Biological Sciences) David Layzell Faculty of Science (Biological Sciences) Gregory Lowan-Trudeau Werklund School of Education Qingye Lu Schulich School of Engineering Shawn Marshall Faculty of Arts (Geography) Yvonne Martin Faculty of Science (Geosciences) Ed McCauley Faculty of Science (Geosciences) Brian Moorman Faculty of Arts (Geography) Douglas Muench Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Maribeth Murray Faculty of Veterinary Medicine Ehsan Panjeshahi Faculty of Science (Biological Sciences) John Post Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences) Cumming School of Medicine	Masaki Hayashi	Faculty of Science (Geosciences)
Leland (Lee) Jackson Faculty of Science (Biological Sciences) David Layzell Faculty of Science (Biological Sciences) Gregory Lowan-Trudeau Werklund School of Education Qingye Lu Schulich School of Engineering Shawn Marshall Faculty of Arts (Geography) Yvonne Martin Faculty of Arts (Geography) Bernhard Mayer Faculty of Science (Geosciences) Ed McCauley Faculty of Science (Biological Sciences) Brian Moorman Faculty of Arts (Geography) Douglas Muench Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Maribeth Murray Faculty of Arts (Earth Science) Karin Orsel Faculty of Veterinary Medicine Ehsan Panjeshahi Faculty of Science (Biological Sciences) John Post Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences) Ron Read Cumming School of Medicine	Jianxun (Jennifer) He	Schulich School of Engineering
David Layzell Faculty of Science (Biological Sciences) Gregory Lowan-Trudeau Werklund School of Education Qingye Lu Schulich School of Engineering Shawn Marshall Faculty of Arts (Geography) Yvonne Martin Faculty of Arts (Geography) Bernhard Mayer Faculty of Science (Geosciences) Ed McCauley Faculty of Science (Biological Sciences) Brian Moorman Faculty of Arts (Geography) Douglas Muench Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Maribeth Murray Faculty of Arts (Earth Science) Karin Orsel Faculty of Veterinary Medicine Ehsan Panjeshahi Faculty of Science (Biological Sciences) John Post Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences) Cumming School of Medicine	Joseph Hettiaratchi	Schulich School of Engineering
Gregory Lowan-Trudeau Werklund School of Education Qingye Lu Schulich School of Engineering Shawn Marshall Faculty of Arts (Geography) Yvonne Martin Faculty of Arts (Geography) Bernhard Mayer Faculty of Science (Geosciences) Ed McCauley Faculty of Science (Biological Sciences) Brian Moorman Faculty of Arts (Geography) Douglas Muench Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Maribeth Murray Faculty of Arts (Earth Science) Karin Orsel Faculty of Veterinary Medicine Ehsan Panjeshahi Faculty of Science (Biological Sciences) John Post Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences) Ron Read Cumming School of Medicine	Leland (Lee) Jackson	Faculty of Science (Biological Sciences)
Qingye LuSchulich School of EngineeringShawn MarshallFaculty of Arts (Geography)Yvonne MartinFaculty of Arts (Geography)Bernhard MayerFaculty of Science (Geosciences)Ed McCauleyFaculty of Science (Biological Sciences)Brian MoormanFaculty of Arts (Geography)Douglas MuenchFaculty of Science (Biological Sciences)Kelly MunkittrickFaculty of Science (Biological Sciences)Maribeth MurrayFaculty of Arts (Earth Science)Karin OrselFaculty of Veterinary MedicineEhsan PanjeshahiFaculty of Science (Biological Sciences)John PostFaculty of Science (Biological Sciences)Elmar PrennerFaculty of Science (Biological Sciences)Ron ReadCumming School of Medicine	David Layzell	Faculty of Science (Biological Sciences)
Shawn Marshall Faculty of Arts (Geography) Yvonne Martin Faculty of Arts (Geography) Bernhard Mayer Faculty of Science (Geosciences) Ed McCauley Faculty of Science (Biological Sciences) Brian Moorman Faculty of Arts (Geography) Douglas Muench Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Maribeth Murray Faculty of Arts (Earth Science) Karin Orsel Faculty of Veterinary Medicine Ehsan Panjeshahi Faculty of Science (Biological Sciences) John Post Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences) Ron Read Cumming School of Medicine	Gregory Lowan-Trudeau	Werklund School of Education
Yvonne Martin Faculty of Arts (Geography) Bernhard Mayer Faculty of Science (Geosciences) Ed McCauley Faculty of Science (Biological Sciences) Brian Moorman Faculty of Arts (Geography) Douglas Muench Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Maribeth Murray Faculty of Arts (Earth Science) Karin Orsel Faculty of Veterinary Medicine Ehsan Panjeshahi Faculty of Science (Biological Sciences) John Post Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences) Cumming School of Medicine	Qingye Lu	Schulich School of Engineering
Bernhard Mayer Faculty of Science (Geosciences) Ed McCauley Faculty of Science (Biological Sciences) Brian Moorman Faculty of Arts (Geography) Douglas Muench Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Maribeth Murray Faculty of Arts (Earth Science) Karin Orsel Faculty of Veterinary Medicine Ehsan Panjeshahi Faculty of Science (Biological Sciences) John Post Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences) Ron Read Cumming School of Medicine	Shawn Marshall	Faculty of Arts (Geography)
Ed McCauley Faculty of Science (Biological Sciences) Brian Moorman Faculty of Arts (Geography) Douglas Muench Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Maribeth Murray Faculty of Arts (Earth Science) Karin Orsel Faculty of Veterinary Medicine Ehsan Panjeshahi Faculty of Science (Biological Sciences) John Post Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences) Ron Read Cumming School of Medicine	Yvonne Martin	Faculty of Arts (Geography)
Brian Moorman Faculty of Arts (Geography) Douglas Muench Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Maribeth Murray Faculty of Arts (Earth Science) Karin Orsel Faculty of Veterinary Medicine Ehsan Panjeshahi Faculty of Science (Biological Sciences) John Post Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences) Ron Read Cumming School of Medicine	Bernhard Mayer	Faculty of Science (Geosciences)
Douglas Muench Faculty of Science (Biological Sciences) Kelly Munkittrick Faculty of Science (Biological Sciences) Maribeth Murray Faculty of Arts (Earth Science) Karin Orsel Faculty of Veterinary Medicine Ehsan Panjeshahi Faculty of Science (Biological Sciences) John Post Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences) Ron Read Cumming School of Medicine	Ed McCauley	Faculty of Science (Biological Sciences)
Kelly Munkittrick Faculty of Science (Biological Sciences) Maribeth Murray Faculty of Arts (Earth Science) Karin Orsel Faculty of Veterinary Medicine Ehsan Panjeshahi Faculty of Science (Biological Sciences) John Post Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences) Ron Read Cumming School of Medicine	Brian Moorman	Faculty of Arts (Geography)
Maribeth Murray Faculty of Arts (Earth Science) Karin Orsel Faculty of Veterinary Medicine Ehsan Panjeshahi Faculty of Science (Biological Sciences) John Post Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences) Ron Read Cumming School of Medicine	Douglas Muench	Faculty of Science (Biological Sciences)
Karin Orsel Faculty of Veterinary Medicine Ehsan Panjeshahi Faculty of Science (Biological Sciences) John Post Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences) Ron Read Cumming School of Medicine	Kelly Munkittrick	Faculty of Science (Biological Sciences)
Ehsan Panjeshahi Faculty of Science (Biological Sciences) John Post Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences) Ron Read Cumming School of Medicine	Maribeth Murray	Faculty of Arts (Earth Science)
John Post Faculty of Science (Biological Sciences) Elmar Prenner Faculty of Science (Biological Sciences) Ron Read Cumming School of Medicine	Karin Orsel	Faculty of Veterinary Medicine
Elmar Prenner Faculty of Science (Biological Sciences) Ron Read Cumming School of Medicine	Ehsan Panjeshahi	Faculty of Science (Biological Sciences)
Ron Read Cumming School of Medicine	John Post	Faculty of Science (Biological Sciences)
	Elmar Prenner	Faculty of Science (Biological Sciences)
Edward (Tad) Pohorts School of Engineering	Ron Read	Cumming School of Medicine
Lawara (16a) Roberts School of Engineering	Edward (Ted) Roberts	Schulich School of Engineering
Sean Rogers Faculty of Science (Biological Sciences)	Sean Rogers	Faculty of Science (Biological Sciences)
Cathryn Ryan Faculty of Science (Geoscience)	Cathryn Ryan	Faculty of Science (Geoscience)
Michael Sideris Schulich School of Engineering	Michael Sideris	Schulich School of Engineering

Full Name	Faculty/ Department
Judit Smits	Faculty of Veterinary Medicine
Raymond Turner	Faculty of Science (Biological Sciences)
Steven Vamosi	Faculty of Science (Biological Sciences)
Matt Vijayan	Faculty of Science (Biological Sciences)
Fred Wrona	Faculty of Science (Biological Sciences)
John Yackel	Faculty of Arts (Geography)
Orly Yadid-Pecht	Schulich School of Engineering

Appendix 3C. Infectious Diseases and the Microbiome Working Group

Full Name	Faculty/ Department
Shelley Alexander	Faculty of Arts (Geography)
Rebecca Archer	Faculty of Veterinary Medicine
Getachew Assefa	School of Architecture, Planning and Landscape
Herman Barkema	Faculty of Veterinary Medicine
Sandra Black	Faculty of Veterinary Medicine
Gwendolyn Blue	Faculty of Arts (Geography)
Merilee Brockway	Faculty of Nursing
Andre Buret	Faculty of Science (Biological Sciences)
Niamh Caffrey	Faculty of Veterinary Medicine
Faizal Careem	Faculty of Veterinary Medicine
George Chaconas	Cumming School of Medicine
Sylvia Checkley	Faculty of Veterinary Medicine, Provincial Laboratory for Public Health
Eduardo Cobo	Faculty of Veterinary Medicine
John Conly	Cumming School of Medicine
Susan Cork	Faculty of Veterinary Medicine
Jennifer Davies	Faculty of Veterinary Medicine
Raylene De Bruyn	Faculty of Kinesiology, Cumming School of Medicine
Jeroen De Buck	Faculty of Veterinary Medicine
Rebekah DeVinney	Cumming School of Medicine
Tao Dong	Faculty of Veterinary Medicine
Peter Dunfield	Faculty of Science (Biological Sciences)
Peter Facchini	Faculty of Science (Biological Sciences)
Jeremy Fox	Faculty of Science (Biological Sciences)
Angelica Galezowski	Faculty of Veterinary Medicine
Paul Galpern	Faculty of Science (Biological Sciences)
Craig Gerlach	School of Architecture, Planning and Landscape
William Ghali	Cumming School of Medicine
Lisa Gieg	Faculty of Science (Biological Sciences)
Sabine Gilch	Faculty of Veterinary Medicine
John Gilleard	Faculty of Veterinary Medicine
David Hall	Faculty of Veterinary Medicine
Joe Harrison	Faculty of Science (Biological Sciences)
Rita Henderson	Cumming School of Medicine
Aidan Hollis	Faculty of Arts (Economics)
Casey Hubert	Faculty of Science (Biological Sciences)
Michael Hynes	Faculty of Science (Biological Sciences)
Craig Jenne	Cumming School of Medicine
Mike Kallos	Schulich School of Engineering
Jim Kellner	Cumming School of Medicine
Cameron Knight	Faculty of Veterinary Medicine
Paul Kubes	Cumming School of Medicine
Susan Kutz	Faculty of Veterinary Medicine, Arctic Institute of North America
David Layzell	Faculty of Science (Biological Sciences)

Full Name	Faculty/ Department
Michel Levy	Faculty of Veterinary Medicine
lan Lewis	Faculty of Science (Biological Sciences)
Karen Liljebjelke	Faculty of Veterinary Medicine
Thomas Louie	Cumming School of Medicine
Mark Lowerison	Faculty of Veterinary Medicine
Alessandro Massolo	Faculty of Veterinary Medicine
Ed McCauley	Faculty of Science (Biological Sciences)
Christopher Mody	Cumming School of Medicine
Doug Morck	Faculty of Veterinary Medicine, Faculty of Science (Biological Sciences)
Douglas Muench	Faculty of Science (Biological Sciences)
Greg Muench	Faculty of Veterinary Medicine
Marco Musiani	Faculty of Veterinary Medicine, Faculty of Science (Biological Sciences)
Christopher Naugler	Cumming School of Medicine
Dongyan Niu	Faculty of Veterinary Medicine
Karin Orsel	Faculty of Veterinary Medicine
Nathan Peters	Faculty of Veterinary Medicine, Cumming School of Medicine
Dylan Pillai	Cumming School of Medicine
Johann Pitout	Cumming School of Medicine
Jocelyn Poissant	Faculty of Veterinary Medicine
Elmar Prenner	Faculty of Science (Biological Sciences)
Ron Read	Cumming School of Medicine
Carl Ribble	Faculty of Veterinary Medicine
Sean Rogers	Faculty of Science (Biological Sciences)
Jamie Rothenburger	Faculty of Veterinary Medicine
Kathreen Ruckstuhl	Faculty of Science (Biological Sciences)
Cathryn Ryan	Faculty of Science (Geoscience)
Alexei Savchenko	Cumming School of Medicine
Hermann Schaetzl	Faculty of Veterinary Medicine
Anthony Schryvers	Cumming School of Medicine
Baljit Singh	Faculty of Veterinary Medicine
Douglas Storey	Faculty of Science (Biological Sciences)
Laura Sycuro	Cumming School of Medicine
Karen Tang	Cumming School of Medicine
Tuan Trang	Faculty of Veterinary Medicine
Steven Vamosi	Faculty of Science (Biological Sciences)
Frank Van der Meer	Faculty of Veterinary Medicine
Guido Van Marle	Cumming School of Medicine
Otto Vanderkooi	Cumming School of Medicine
Peter Vize	Faculty of Science (Biological Sciences)
Hans Vogel	Faculty of Science (Biological Sciences)
Amy Warren	Faculty of Veterinary Medicine
James Wasmuth	Faculty of Veterinary Medicine
Ashley Whitehead	Faculty of Veterinary Medicine
Doug Whiteside	Faculty of Veterinary Medicine
Warren Wilson	Faculty of Arts (Archaeology)
Claire Windeyer	Faculty of Veterinary Medicine
Robin Yates	Faculty of Veterinary Medicine

Full Name	Faculty/ Department		
Samuel Yeaman	Faculty of Science (Biological Sciences)		
Kunyan Zhang	Cumming School of Medicine		

Appendix 3D. Healthy Communities Working Group

First Name	Faculty/ Department			
Jennifer Adams	Werklund School of Education			
Cindy Adams	Faculty of Veterinary Medicine			
Tessa Baker	Faculty of Veterinary Medicine			
Herman Barkema	Faculty of Veterinary Medicine			
Kerry Black	Schulich School of Engineering			
Sylvia Checkley	Faculty of Veterinary Medicine, Provincial Laboratory for Public Health			
Michael Hart	Provost and Vice-President (Academic)			
Jennifer Hewson	Faculty of Social Work			
Susan Kutz	Faculty of Veterinary Medicine, Arctic Institute of North America			
Tanya Mudry	Werklund School of Education			
Melanie Rock	Cumming School of Medicine			
Marit Rosol	Faculty of Arts (Geography)			
Ann Toohey	Cumming School of Medicine			
Vanessa Vegter	Werklund School of Education			
Jean Wallace	Faculty of Arts (Sociology)			

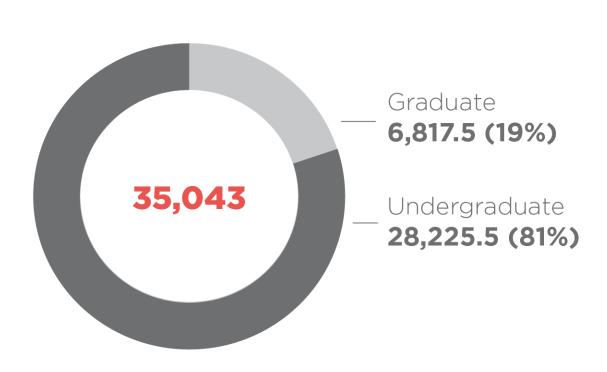


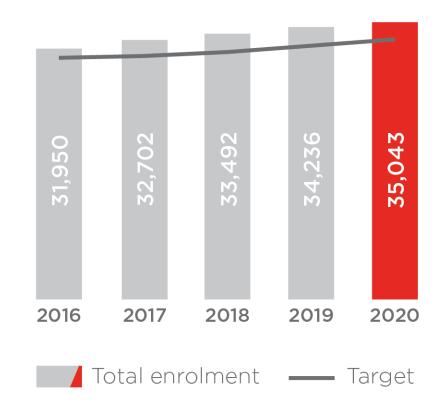
Fall 2020 registrations compared to fall 2019

Overall	+2.4%
Undergraduate	+2.9%
Graduate	+0.4%
International undergraduate	+8.4%
International graduate	-4.5%
Indigenous	+16.4%

ENROLMENT TO TARGET: +2.4%

ENROLMENT SNAPSHOT





HIGH SCHOOL RETENTION

All high school students 91%

Indigenous students

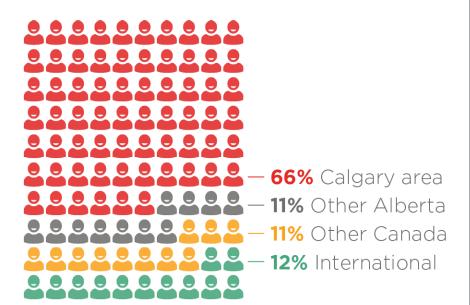
83%

International students

87%

DEMOGRAPHIC AND **DIVERSITY SNAPSHOT**

New undergraduate students by location



Students from 139 countries

Top countries of origin

GRADUATE

UNDERGRADUATE





China



Iran



India



China



Bangladesh



Nigeria



Pakistan



Nigeria

Gender diversity

Female 54%

Male 45.9%

Non-binary 0.1%

Not disclosed 0.03%

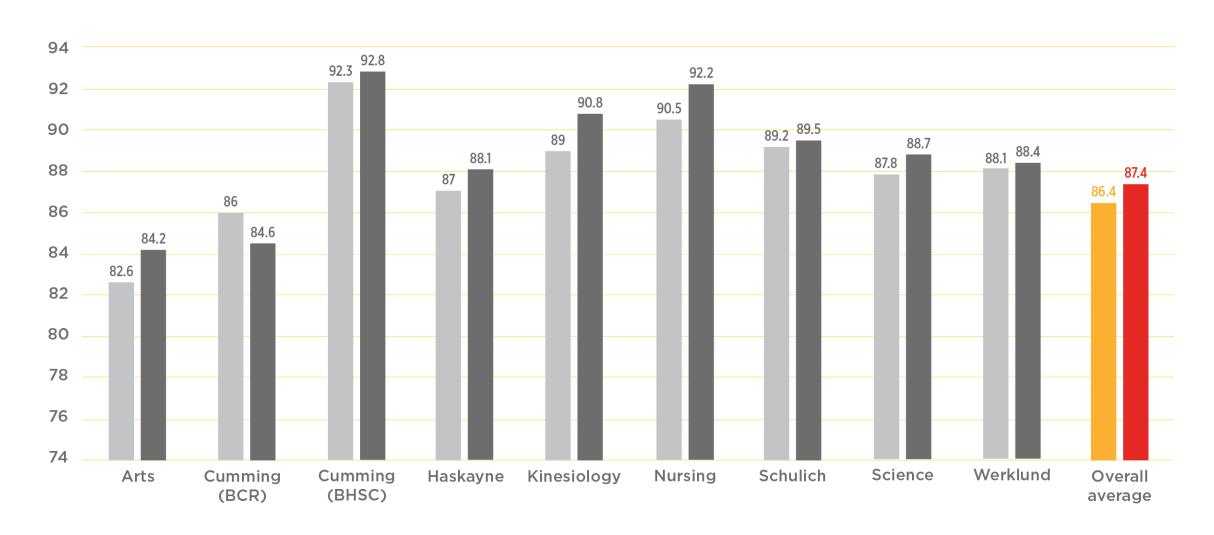
Indigenous students

3.2% of the student population

MEAN ADMISSION AVERAGES









UNIVERSITY OF CALGARY | Student-at-Risk Policy

ANNUAL REPORT July 1, 2019 – June 30, 2020

Prepared for:

General Faculties Council

Date:

October 12, 2020

This report summarizes activities related to the <u>Student-at-Risk Policy</u> during the reporting period of July 1, 2019 – June 30, 2020.

A key focus of the Student-at-Risk policy is to increase capacity on campus to recognize and respond to early indicators of distress as well as indicators of more serious distress. In support of the Campus Mental Health Strategy, members of the Student at Risk team work with campus stakeholders to:

- Enhance and promote a student case management strategy to ensure needs of individuals are being met and concerns are monitored (Recommendation 3.3)
- Establish supportive response mechanisms to check in with students in cases of concern or unreported absences (Recommendation 3.4).
- Strengthen targeted mental health supports for vulnerable populations or at-risk subgroups, considering specific mental health issues at key transition points (Recommendation 4.2)

The Student-at-Risk Policy defines at-risk behavior and outlines the process for reporting Student-at-Risk concerns. As defined in the policy, "At-Risk Behaviour" means threats or behaviour exhibited by a student that may indicate a physical or mental state that could result in a threat to themselves or others, including but not limited to: the disclosure of suicidal thoughts to one or more individuals, or the demonstration of other signs of suicidality; violent acts including patterns of fear inducing behaviour; paranoia; and expressions of violent ideation (e.g., violent thoughts, images or plans).

Both Campus Security and the Student-at-Risk team receive Student-at-Risk concerns in accordance with the Student-at-Risk Policy. Campus Security manages concerns requiring immediate response or investigation, and forwards concerns to the Student-at-Risk team when supportive outreach or team review is required.

Student-at-Risk Concerns

During the reporting period (July 1, 2019 to June 30, 2020), the Student-at-Risk Team received **151** initial reports of concern. This is 29% lower than the number of reports received during the last reporting period (2018-19). Of consideration for the decreased number of reports, is the move to online course delivery due to COVID-19 from mid-March through the end of the reporting period. March to June 2020 had 40% fewer reports of concern as compared to March to June 2019. Reports are received from students, faculty, staff, and concerned community members.

The following categories of concerns were reported in this reporting period, and 2017-18 & 2018-19 data are included for reference:

Concern	2017-18	2018-19	2019-20
Worrisome behavior/ situational	105	120	102
concern			
Risk of harm to self	49	58	32
Support required following incident	11	24	13
Possible violence/ harm from others	8	5	3
Risk of harm to others	9	6	1

The most common response to reported student-at-risk concerns is supportive outreach to identified students. Student Support Advisors at Student Wellness Services work with the Student Support and Case Management Coordinator to provide outreach and support to identified students. Outreach typically occurs by phone or email. In some cases, multiple outreach attempts are made using more than one method. Students usually respond positively to supportive outreach.

In this reporting period, initial response to Student-at-Risk concerns included the following:

- 101 instances of supportive outreach
 - In this reporting period, 43% of the students who were reached declined support. In some cases, students reported they were already connected to relevant supports and in other cases students did not feel that they needed additional support.
- 32 consultations with concerned individuals, including faculty, staff, students, and others
- 0 Student-at-Risk Team reviews
 - In situations where there is an ongoing concern related to the potential for violence to others, the concern is forwarded to the Student-at-Risk Team for review and violence risk assessment. The team uses structured professional judgment to identify appropriate resources and strategies to minimize risk of violence. The outcome of this assessment varies based on circumstances and may include offer of additional support; referral to the Threat Assessment Committee (TAC), and implementation of risk management strategies.

Capacity Building on Campus

Members of the Student-at-Risk Team facilitate capacity building sessions designed to increase helping skills on campus. The following sessions were offered during this reporting period to help members of our community identify and respond to signs of distress:

- Question, Persuade, Refer (QPR)
- Applied Suicide Intervention Skills Training (ASIST)
- Responding to Students in Distress
- The Working Mind
- ~ The Inquiring Mind

The Responding to Students in Distress document is available in print form or accessed online https://ucalgary.ca/wellnesscentre/how-do-i-help-others.

Student-at-Risk Team

Membership includes the following positions:

- Senior Director, Student Wellness, Access and Support (Chair)
- Manager, Student Wellness Support
- Student Support and Case Management Coordinator, Student Wellness Services
- Senior Director, Student Services
- Chief of Campus Security (or designate)
- Associate Director, Counselling, Student Wellness Services
- Associate Director, Residence Services
- Director, Student Accessibility Services

For more information contact:

Debbie Bruckner, Senior Director, Student Wellness, Access & Support - dbruckne@ucalgary.ca **Kevin Wiens,** Manager, Student Wellness Support - klwiens@ucalgary.ca

Report Submitted by:

Dr. Susan Barker, Vice-Provost (Student Experience)



UNIVERSITY OF CALGARY | Student Non-Academic Misconduct Policy

ANNUAL REPORT July 1, 2019 – June 30, 2020

Prepared for:

General Faculties Council

Date:

October 15, 2020

The purpose of the <u>Student Non-Academic Misconduct Policy</u> and <u>Procedure</u>, is to communicate the university's expectations with regard to student behavior and to provide a clear and transparent process for managing and addressing student non-academic misconduct in a manner that is equitable, educational, and follows the principles of natural justice.

The Student Conduct Office (SCO) works with all members of the university community to facilitate the resolution of alleged student non-academic misconduct as governed by University of Calgary policy. The response to complaints focuses on student development and accountability, and the promotion of a safe and caring campus community. These goals are achieved through responsive case management, including adjudication of alleged policy violations, facilitation of informal resolution when possible, direct referrals, and the provision of prosocial training and programming to all members of the campus community.

Policies Administered

The University of Calgary communicates its expectations for appropriate behaviour of students through university policies, including the Student Non-Academic Misconduct (SNAM) policy. It is the enabling policy of the SCO, and Student Non-Academic Misconduct (SNAM) Procedures are invoked when students are alleged to have violated this or an affiliated university policy.

The Student Non-Academic Misconduct Policy is not applied if alleged misconduct is being, or has been, investigated as potential Academic Misconduct in accordance with the <u>Student Academic Misconduct Policy</u>.

Policies administered by the Student Conduct Office when respondents are students include:

- Harassment Policy
- Sexual Violence Policy
- Cannabis Policy
- Smoking Policy

- Alcohol Policy
- Acceptable Use of Material Protected by Copyright Policy
- Acceptable Use of Electronic Resources and Information Policy

Misconduct in University Residences

Student Non-Academic Misconduct that occurs in University residences is dealt with under <u>Residence</u> <u>Community Standards</u> with more serious cases considered under the SNAM policy. In the reporting year a new full-time position (Coordinator, Residence Conduct) was implemented and they reviewed 240 incident reports, 33 of which were considered under the policy.

2019/20 Complaints

The Student Non-Academic Misconduct Policy's <u>Appendix 1: Prohibited Conduct</u> defines eight categories of prohibited conduct under the headings: Protection of Individuals; Protection of Property; Protection of University Functions, Activities and Services; False Information and Identification; Possession or Use of Dangerous Objects, Drugs or Alcohol; Aiding in the Commission of an Offence; Contravention of Other Laws and University Policies, and Failure to Comply with a Sanction.

During the reporting period (July 1, 2019 to June 30, 2020), a total of **112** complaints were reviewed. Of these complaints, **78** were considered "actionable" and **34** were considered "information only."

"Actionable" complaints require some action pursuant to the policy and procedures. This could include initiating an investigation and proceeding to adjudication and decision, meeting with impacted parties to come to an informal resolution or issuing an educational warning letter.

Table 1: Actionable Complaints*, 2019/2020

Action taken	Number of Complaints
Hearing – Hearing Officer	42 (48 hearings held)
Hearing – Co-adjudication with Residence Services	1
Educational letter issued	17 (*35 letters issued)
Informal resolution – change in accommodation (residence)	2
Informal resolution – meeting with student	5
Informal resolution – no-contact order issued	5
Informal resolution - hold on account	1
Investigation commenced, complaint withdrawn	5

^{*}A complaint may involve multiple respondents

"Information Only" complaints are filed for a variety of reasons. Complainants may at the outset indicate the complaint is only for information, or they may feel the situation has been resolved appropriately through informal measures but that the complaint should be on record in case a pattern of behavior exists or emerges involving the same student. "Information Only" complaints may

also involve individuals who are currently non-students, or incidents that fall outside the scope of university policy. Complaints received and securely filed as "Information Only" are retained according to the established record retention rule.

Table 2: Information Only Complaints, 2019/2020

Complaint type	Number of Complaints
Complainant submitted incident for information - no desired or required action	8
Referral (no jurisdiction)	16
Informal resolution (through Campus Security/other reporting department)	5
Insufficient information to proceed to investigation	5

Sources of Complaints

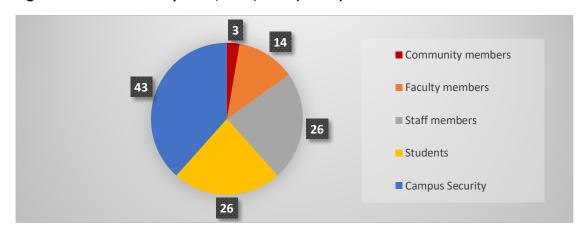
Complaints of student non-academic misconduct are received directly through the following channels:

Web form: www.ucalgary.ca/conduct/misconduct/reporting

Email: conduct@ucalgary.ca Phone: 403-210-3868

Complaints are also received in-person, via campus stakeholders including Campus Security, the Office of Protected Disclosure, Residence Services, and could be received through the Confidence Line at 1-800-661-9675.

Figure 1: Sources of Complaints, 2019/2020 (n=112)



Actionable Complaints – Hearing Process

A Notice of Hearing is issued to respondents after it is determined a hearing is warranted. The notice explains the purpose of the hearing and provides the respondent with a summary of the complaint, all facts and evidence that are being considered and that will be discussed during the hearing, and the specific policy provisions that relate to the alleged misconduct. The respondent is advised whether the hearing will take place before a Hearing Officer or before a Hearing Board, who the Hearing Officer or Board members will be, and the date, time, and location scheduled for the hearing. The respondent is notified of any applicable interim measures (e.g. temporary no-contact order). Finally, the respondent is informed of their right to be accompanied by an advisor during a hearing and is provided a referral to the Student Ombuds. Additional information about wellness supports are provided within this letter; in more serious cases, a direct referral to the Manager, Student Wellness Supports is provided.

The purpose of a hearing is to allow the respondent the opportunity to explain the extent of their involvement in an allegation of Student Non-Academic Misconduct. A hearing may take place before a Hearing Officer or a Hearing Board giving consideration to a variety of factors including the seriousness of the allegation. The composition and membership of the Hearing Board is established by Student Non-Academic Misconduct Procedure Appendix 1: Hearing Board Composition.

Hearings are not open to the public and the proceedings are kept confidential by the Officer/Board.

The following allegations of policy violation(s) were considered in 48 adjudicated hearings:

- 8 allegations under SNAM, Protection of Individuals
 - 8 findings of responsibility
- 17 allegations under SNAM, Protection of Property
 - 15 findings of responsibility
 - o 2 findings of not responsible
- 4 allegations under SNAM, Protection of University Functions, Activities and Services
 - 3 findings of responsibility
 - o 1 finding of not responsible
- 6 allegations under SNAM, False Information and Identification
 - 6 findings of responsibility
- 24 allegations under SNAM, Contravention of Other Laws and University Policies
 - 21 findings of responsibility
 - 3 findings of not responsible

- 2 allegations under SNAM, Failure to Comply with a Sanction
 - o 1 finding of responsible
 - o 1 finding of not responsible
- 5 allegations under the Sexual Violence Policy
 - 4 findings of responsibility
 - o 1 finding of not responsible
- 13 allegations under the Harassment Policy
 - o 11 findings of responsibility
 - o 2 findings of not responsible
- 4 allegations under the Cannabis Policy
 - 4 findings of responsibility
- 1 allegation under the Alcohol Policy
 - 1 finding of responsibility
- 1 allegation under the Copyright Policy
 - 1 finding of responsibility

120
100
80
60
40
20
2016/2017
2017/2018
2018/2019
2019/2020

Complaints Received Hearings Held Findings of Responsible Findings of Not Responsible

Figure 2: Complaints reviewed and adjudicated, 2016 - 2020

Educational Letters

There were 17 complaints during the reporting period in which an educational letter was issued in lieu of formal adjudication process. In total, 35 letters were issued to students, which cited 41 sections of policy. This process is primarily utilized when Campus Security demonstrates that a

meaningful conversation occurred between the student and responding Campus Security personnel that promoted learning and accountability. In the case of the Cannabis Policy, these letters were used to inform students of restrictions on cannabis use on campus. Letters are formal in nature and include details about the allegation as outlined in the complaint, provide students with a link to the related policies, and remind them of their obligations under those policies. Students are also invited to attend a meeting with Student Conduct Office staff should they have any questions. Students are informed that the letter does not represent a finding of responsibility, and they are asked to familiarize themselves with the policy in question.

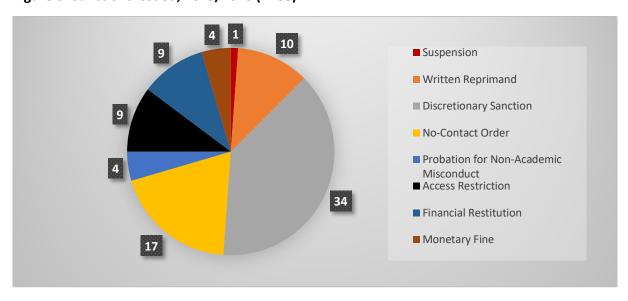
Table 3: Educational Letters Issued, 2019/2020

Policy/Section	# of policy citations in educational letters
Cannabis Policy (Consumption)	9
Harassment Policy (Personal Harassment)	9
SNAM, Protection of Individuals	10
SNAM, Protection of Property	4
SNAM, Protection of University Functions,	5
Activities and Services	
Residence Community Standards	3
Smoking Policy	1

Sanctions

The Student Conduct Office derives its authority to sanction respondents from the <u>Student Non-Academic Misconduct Policy Appendix 2: Sanctions</u>. Whenever possible, sanctions are educational in nature and intentionally designed to ensure they encourage learning and accountability as relates to the policy violation(s).

Figure 3: Sanctions Issued, 2019/2020 (n=88)



Appeals

Students may appeal a Hearing Officer or Hearing Board decision via procedures established through the <u>Student Misconduct and Academic Appeals Policy</u> and the <u>University Appeals Committee</u> <u>Procedure</u>.

During the reporting period, there was one appeal of a decision of a Hearing Officer. The University Appeals Committee denied permission to appeal. Therefore, the Student Conduct Office's decision was upheld.

University of Calgary - Qatar

Two complaints were actioned at the University of Calgary, Qatar and administered locally. These complaints are not included in the data above.

Related Education

Offered since 2016, the Bystander Intervention Training Program encourages a caring university community by preparing community members to intervene while witnessing bullying, hazing, situations of power-based violence, or signs of distress in others. During the reporting period, 726 community members were trained.

Two new workshops were offered this year in response to identified issues. 47 students participated in 'The Comments Section' which explores how to identify, address, combat and prevent online harassment. 63 students have participated in 'Conflict Management 101' which provides an introduction to conflict styles and explores how to meaningfully resolve conflict. In addition, 1:1 conflict coaching is offered to further explore conflict resolution with students and provide them the support and tools to address conflict they may be experiencing.

These workshops are components of the Upstanders program. A partnership between the Student Conduct Office and Student Wellness Services, this co-curricular program is administered by student staff within the SCO, and requires students to complete 20 hours of harm-reduction training to earn the "Upstanders" designation, which is recognized through the Taylor Institute badging credential program, as well as on the co-curricular record. In the reporting period, 49 students registered in the program. Of note, the Upstanders program was recently recognized provincially as one of 11 "promising practices" in student mental health.

For more information contact:

Jennifer Quin, Senior Director, Student Services – jequin@ucalgary.ca

Report Submitted by:

Dr. Susan Barker, Vice-Provost (Student Experience)



GENERAL FACULTIES COUNCIL INFORMATION BRIEFING NOTE

SUBJECT: 2020 Institutional Sustainability Report

PROPONENTS

Dru Marshall, Provost and Vice-President (Academic)

PURPOSE

To inform the General Faculties Council on the release of the University of Calgary's 2020 Institutional Sustainability Report (ISR) highlighting the University's annual progress towards the Institutional Sustainability Strategy (ISS).

OVERVIEW

The 2020 ISR showcases progress made on the ISS over the 2019-20 Academic year within the areas of research; teaching, learning and student experience; and campus and community impact. The attached summary of outcomes provides select progress highlights on the institution's continued progress on all ISS goals. The ISS is structured to align with the United Nations (UN) Sustainable Development Goals (SDGs) and includes select examples of UCalgary's leadership under each of the 17 SDGs. Highlights on the University's progress towards the ISS are outlined below, as well as key points on how the 2020 ISR will help to raise the profile and reputation of the University of Calgary.

KEY POINTS

The 2020 ISR highlights the University's progress on our ISS and our positive social impact through an online report that is aligned with the SDGs. The report provides readers with an introduction to sustainability at the University of Calgary, at-a-glance progress highlights, and showcases our positive impact on each SDG at local, regional, national and international levels. This format enables the University of Calgary to:

- o Present a compelling narrative on our positive impact at multiple community scales while concurrently demonstrating progress against the ISS;
- Create a stronger line-of-sight between our sustainability efforts and the efforts of the many leading private sector organizations, governmental organizations, Non-Governmental Organizations (NGOs) and other research institutions that are also working to advance the SDGs; and
- More closely align our reporting with the increasing number of sustainability rankings and awards programs that evaluate sustainability leadership through an SDGs lens.

The University of Calgary continues to demonstrate steady progress towards the goals of the ISS. This progress was externally affirmed through a top 30 global ranking from among close to 800 institutions under the Times Higher Education (THE) University Impact Ranking. A few additional metrics of note in 2019-2020 include:

 Sustainability Tracking and Assessment System (STARS) Gold and #2 ranking among Canadian U15 schools (as of October, 2020);

- Over 3200 sustainability related research publications;
- 46 sustainability related start-ups launched;
- Over 500 sustainability courses for graduate and undergraduate students;
- o Greenhouse gas emissions were reduced by 33% over our 2008 baseline despite campus growth; and
- 49% of daily waste produced on campus was diverted from landfill.

The 2020 ISR will form part of a larger communications strategy to increase awareness about the University of Calgary's positive social impact. The exclusively online report is more sustainable and responds to data gathered on past sustainability reports that showed greater levels of interest in an online report. The report release will mark the beginning of a year-long online communications strategy that will be designed to:

- o Focus on our highest areas of impact in sustainability;
- o Reach new and increased numbers of readers locally, nationally and globally; and
- o Align with select national and global awareness campaigns.

The University has shifted its sustainability ranking and reporting focus to the THE University Impact Ranking (UIR). The Times Higher Education UIR evaluates the progress of universities in advancing the UN SDGs and provides participating universities with the ability to benchmark their efforts. Our current Gold ranking under the STARS, which is a North American centric tool, will expire in December 2021 and will not be renewed. This change in focus enables the University to:

- o Benchmark our progress within a larger international cohort of universities;
- o Provide a stronger framework to highlight the work of our research community; and
- Align with the direction of our U15 peer institutions.

BACKGROUND

The University of Calgary's Sustainability Policy (2010) communicates the commitment to the pursuit of excellence and leadership in advancing sustainability in all aspects of the institution. Following approval by the Board of Governors in October 2015, the ISS was launched in February 2016 to provide a road map for continuous improvement in our ongoing pursuit of excellence and leadership in sustainability within research and teaching, engagement and operational sustainability practices. The SDGs were adopted by all UN member states in 2015 and are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030.

ROUTING AND PERSONS CONSULTED

Progress	<u>Body</u>	<u>Date</u>	<u>Approval</u>	Recommendation	Discussion	<u>Information</u>
	Environment, Health, Safety & Sustainability Committee	2020-09-29				Х
	Board of Governors	2020-10-16				X
Х	General Faculties Council	2020-11-05				X

SUPPORTING MATERIALS

1. 2020 Institutional Sustainability Report Summary of Outcomes

2020 Institutional Sustainability Report Summary of Outcomes

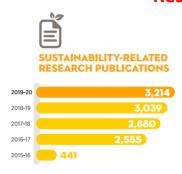
Institutional Rankings







Research



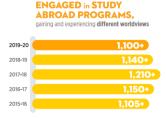


Teaching, Learning and Student Experience

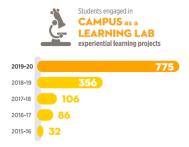








STUDENTS





Campus and Community Impact

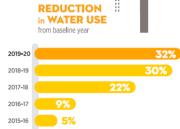


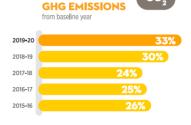












REDUCTION of

KEY CTOBER 2020 **ACTIVITIES OVERVIEW** NDIGENOUS EARCH RESEARCH SERVICES



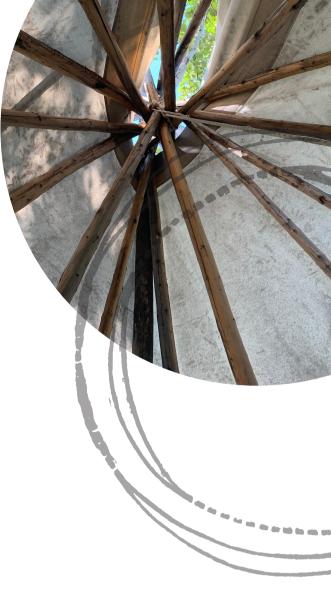
INTRODUCTION

The Indigenous Research Support Team (IRST) is a pilot project launched within Research Services to further the Indigenous Research enterprise at the University of Calgary (UCalgary) through key offerings and support. IRST commenced in late 2019 with the identification of several challenges associated with research conducted in Indigenous environments, and barriers being overcome by Indigenous faculty members at the UCalgary. The overarching intention of the project is to strengthen and identify existing resources for Indigenous communities and stakeholders, university researchers, and additional partners to promote collaborative, reciprocal, and culturally responsive research.

The project affirms the UCalgary's Indigenous Engagement Strategy, ii' taa'poh'to'p, which was launched in 2017. ii'taa'poh'to'p seeks to implement and communicate commitment to the Truth and Reconciliation Commission of Canada's Calls to Action, and to provide pathways for transformation that advance the deep learning required for reconciliation.

This report documents the IRST's activities between January and October 2020.

WE AIM TO FURTHER THE INDIGENOUS RESEARCH MANDATE AT THE UNIVERSITY OF CALGARY



MISSION STATEMENT

The Indigenous Research Support Team (IRST) seeks to promote reciprocal, ethical, community-driven research within the Indigenous landscape, and to be the single point of contact for all UCalgary researchers working within that landscape – including with Indigenous communities and on Indigenous lands. We aim to create an environment at UCalgary where Indigenous leadership, researchers, and scholars can interface with a broader research network, help to strengthen and facilitate meaningful partnerships, and provide opportunities to produce collaborations that reflect the needs and ambitions of community.



01

·ADVISORY ENTITY



STEWARD CULTURAL UNDERSTANDING & CONTEXT

03

•FACILITATING PARTNERSHIPS & COLLABORATIONS



•ETHICS & DATA MANAGEMENT CONSIDERATIONS

05

SUPPORTING INDIGENOUS FACULTY MEMBERS

KEY AREAS FOR SERVICE AND SUPPORT

ADVISORY ENTITY

IRST is an advisory entity that can provide guidance to researchers and scholars on the processes to consider when entering research collaborations with Indigenous peoples

IRST promotes opportunities for culturally responsive, collaborative research whereby community interests and perspectives are affirmed and there is mutual benefit throughout the partnership

FACILITATING PARTNERSHIPS & COLLABORATIONS

As a single point of contact, IRST can help facilitate collaborations that are better equipped for success by understanding the unique needs of both researchers and communities

IRST can provide background information and context so that researchers can enter Indigenous research partnerships in a good way

STEWARD CULTURAL UNDERSTANDING & CONTEXT

IRST can assist with providing information that promotes cultural understanding and context, helping to prepare parties for engagement

IRST can act as a mediator in negotiation, and help resolve tensions where necessary

IRST is in the development phase of creating program resources and toolkits, specifically aimed toward education and creating pathways for deep learning



KEY AREAS FOR SERVICE AND SUPPORT

ETHICS & DATA MANAGEMENT CONSIDERATIONS

IRST can assist with providing guidance on ethics, advising, and data management considerations - we want to strengthen and build capacity in engagement

An Ethics and Process Specialist position has been created to strengthen internal processes in this area

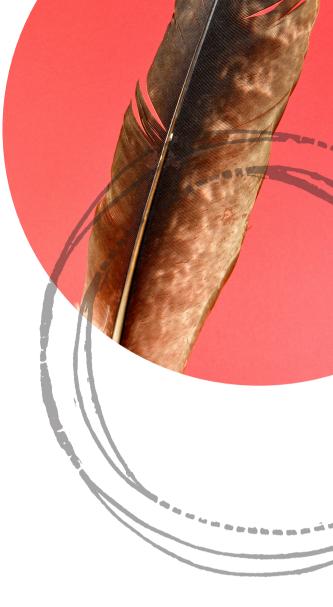
IRST can assist with administrative work, including funding negotiations, application processes, the development of research agreements, and engagement protocols

SUPPORTING INDIGENOUS FACULTY MEMBERSHIP

Two Research Coordinator positions have been created and will be responsible for managing administration and research support for Indigenous faculty members, including coordination and contributions to grant and manuscript writing, application processes, and the development of research agreements

The Research Coordinator positions are designed to reduce the workload burden and barriers that Indigenous Faculty may experience, and to help contribute to retention and advancement of Indigenous scholars

Identifying possible funding sources, contract negotiations, and strategic long-term research objectives



ENGAGEMENT STRATEGY

Research collaborations at all stages of engagement should be premised on fundamental principles, such as respect, transparency, openness, acceptance, and accountability. This approach may guide us to mutual understandings, and to create a path forward together. Engagement is about helping communities and leadership interface with a broader research network, facilitating meaningful partnerships and opportunities to produce collaborations that reflect the needs and ambitions for both community and the university.



Indigenous Engagement

Lens on community-driven and responsible engagement and efforts



UCalgary Community

Internally strengthening existing relationships, capacity, and support for broader research community

"IRST IS A BRIDGE BETWEEN THE UCALGARY AND INDIGENOUS COMMUNITIES, PROVIDING ADVICE, SUPPORT, AND SERVICES FOR STRENGTHENING RESEARCH COLLABORATIONS"



KEY ACTIVITIES

Connecting with Community

- Tribal Councils of Treaty 7
- First Nations Technical Advisory Group Inc.
- Alberta First Nations Information Governance Centre
- Red Crow College
- Circle of Advisors
- Indigenous Academics
- Faculty Administrators and Heads
- Cumming School of Medicine (GRIP, AIM-HI, Patient Engagement Platform, AbSPORU)
- National Engagement with Indigenous Support Programs (UBC, Ryerson, Griffith, Blue Quills)
- University REB's

Committee Work

- Social Innovation Cohort
- Knowledge Engagement Community of Practice
- Indigenous Working Circle
- Indigenous Strategy Sub-Committees
- Research and Data Management Committee
- Research Plan/Indigenous Strategy Steering Committee
- Reference Group for the Appropriate Review of Indigenous Research (CIHR, NSERC, SSHRC, and Canada Research Coordinating Committee)

Guidance

- Researcher Advising/Consultation
 - Manuscript review
- REB Support
 - Consultation on application, processes
- Banting Postdoctoral Fellowships (Research Prizes and Awards, RSO)
- NFRF-Transformation Grant Support
- NEIHR Research Committee
- SSHRC PDG 2020
- Indigenous Research Seed Fund Concept + UCeed Social Impact



Workshop Facilitation

- Indigenous Graduate Student Focus Groups
- Drawing Change session with CFREB and OCAP training
- Ethics workshop to graduate students in the Werklund School of Education

UPCOMING RESOURCE DEVELOPMENT

- Legal Resources for Indigenous communities or organizations in the negotiation of research contracts
- Seed funding for Indigenous researchers
- Funding for Indigenous training opportunities such as OCAP training
- Educational Video Series, "How to Engage" series for RSO
- External Indigenous Research Needs Assessment
- IRST on Best Practices and Building Research
- Guide to IRST
- Survey on Post-Secondary Indigenous Research Initatives









GENERAL FACULTIES COUNCIL EXECUTIVE COMMITTEE Report to General Faculties Council for the meeting held October 21, 2020

This report is submitted on behalf of the General Faculties Council (GFC) Executive Committee (EC).

Naming of the Academic Program Subcommittee Academic Co-Chair

The EC named Jocelyn Hayley, Schulich School of Engineering, as the Academic Co-Chair of the Academic Program Subcommittee (APS), effective immediately, for a three-year term or until her term on the APS ends if that is sooner.

Recommendation of the Academic Staff Criteria and Processes Handbook - Part I

The EC was reminded that the new Academic Staff Criteria and Processes Handbook is comprised of what remains from the Appointment, Promotion and Tenure Manual and General Promotions Committee Manual after the processes related to tenure, promotion and assessment were removed and inserted into the Collective Agreement in 2019. The EC was reminded that its working group is now bringing forward a first set of Handbook revisions, relating to the criteria for merit assessment, renewal, transfer, tenure, and promotion, and that it is expected that a second set, relating to the criteria for academic appointment, will be brought forward later this academic year.

The proponent provided an overview of the changes being proposed, and specifically explained the use of the words "where applicable" and "normally". The proponent reported that sections 4.8.1 and 4.8.2. have been revised to correct that the councils of the Librarian and Counsellor academic staff groups will establish the criteria for these groups.

The EC discussed:

- The use of the words "where applicable" and "normally", and that this is necessary to reflect the diversity in some units and does not lessen the criteria and requirements
- The statement in section 5.5 that a tenured academic staff member may not apply for stream transfer to a position at the Assistant Professor or Instructor rank in another Faculty. It was reported that transfer of an academic staff member from one Faculty to another is an unusual occurrence and is negotiated by the Deans and the Provost and Vice-President (Academic), and not part of this Handbook.
- That section 4.3.2.b should be revised to read "publication of high-quality peer reviewed or equivalent juried creative work in highly ranked journals of the field and competitive peer-reviewed conference proceedings" rather than "and/or"

The EC then voted to recommend to the GFC the Academic Staff Criteria and Processes Handbook - Part I as set out in the document provided to the Committee with the reported and requested amendments, and authorized the proponents to make non-substantive changes to the document prior to its submission to the GFC.

Growth Through Focus Vision

The EC received an update on the development of the Growth Through Focus (GTF) plan, and was advised that the feedback received through the October town hall and other consultation is being incorporated. It was noted that the feedback received from the October town hall is different from the feedback received from the June town hall, and that ideas are being honed over time. It was reported that the specifics of GTF will be discussed by the University community at smaller meetings starting in December, that consultation with stakeholder groups such as the Faculty Association, Graduate Students' Association, Students' Union, Alberta Union of Provincial Employees, Management and Professional Staff, and Postdoctoral Association will take place, that another town hall will likely be held in the future, and that any decisions will move through the University's governance system in due course.

The EC discussed:

- The connection of GTF to University budgeting
- That the three foundational commitments of the *Eyes High Strategy 2017-2022* (sharpen focus on research and scholarship, enrich the quality and breadth of learning, and integrate the University with the community) remain in GTF
- That the University community will need guidance in operationalizing GTF
- That some disciplines, such as Fine Arts, Humanities and Social Sciences, are not obviously located in GTF, and that the names of the plan's four transdisciplinary areas of focus and examples should be more inclusive

In response to questions, it was reported that:

- Faculties will be evaluating their departmental structures
- Deans have been given parameters for budget cuts
- Any changes to programs will move through the governance system following normal process, and students in any eliminated programs will be supported
- The provincial government is developing a new process to accelerate the approval of program proposals
- Incentive structures are being developed to encourage GTF endeavours. GTF is evolving and being improved every day by further consultations and taking into account feedback. The four transdisciplinary areas at present represent very broad inclusive areas that will be defined by scholars' active participation.

Review of the Draft November 5, 2020 GFC Agenda

The EC reviewed the draft agenda for the November 5, 2020 GFC meeting.



ACADEMIC PLANNING AND PRIORITIES COMMITTEE Report to General Faculties Council (GFC) for the meeting held October 19, 2020

This report is submitted on behalf of the Academic Planning and Priorities Committee (APPC).

Approval of the 2020-2021 Academic Program Subcommittee Work Plan

The APPC reviewed the role of the Academic Program Subcommittee and approved its work plan for the 2020-2021 year.

Revisions to the Sexual and Gender-Based Violence Policy

The draft Sexual and Gender-Based Violence Policy was presented to the APPC for feedback. The APPC learned that the proposed changes include a change to the title, clarification of the Policy's philosophical underpinnings, and a shift in language away from "alleged" or "allegation."

The APPC discussed how facilities and field stations are distinguished in the document, consent and abuses of power beyond the faculty-student relationship, the rationale for the shift away from the terms "alleged" and "allegation," best practices for keeping parties informed on the progress of an investigation, and the Graduate Students' Association's contributions to the Policy.

The APPC provided some grammatical corrections in the Definitions section of the Policy.

Quality Assurance Mid-Term Unit Review Report for the Faculty of Arts

The APPC was provided with an overview of the quality assurance (QA) unit review process for the Faculty of Arts.

The Provost and Dean highlighted some of the Faculty's top priorities resulting from the review, noting that reviewers focused on operational elements of the Faculty rather than high-level strategic feedback.

The APPC discussed the recommendations for the Faculty, including streamlining processes in the Dean's Office, providing support and mentorship to faculty members and Department Heads, increasing staffing in the Arts' Student Centre, and the Faculty's commitment to responding to issues of equity, diversity and inclusion.

Dru Marshall, Co-Chair Tara Beattie, Academic Co-Chair



RESEARCH AND SCHOLARSHIP COMMITTEE

Report to General Faculties Council

for the meeting held October 22, 2020

This report is submitted on behalf of the Research and Scholarship Committee (RSC).

One Health at UCalgary Strategic Plan

The RSC learned that One Health is the second of two emerging cross-cutting research themes selected by the Vice-President (Research) following a competitive process. The RSC received a presentation on the One Health at UCalgary Strategic Plan, which has been developed over the past year, and leaned about its vision, mission, strategic directions, grand challenges, implementation and engagement strategies, and funding received.

The RSC discussed:

- The concept of "thought leaders" and that this ties to the language in the University's Research Plan and the call-for-proposals for emerging research themes
- The three components of One Health transdisciplinary study (people, animals, and the environment), and that some disciplines such as Nursing, Psychology and Kinesiology are not obviously represented in the Healthy Communities grand challenge, and the presenter confirmed that all persons who identify with One Health are welcome to connect
- How researchers across disciplines will be brought together
- That the involvement of undergraduate students in One Health can be grown over time, such as through the Program for Undergraduate Research Experience (PURE)

Industry Liaison Office

The RSC received a presentation on the Industry Liaison/Solutions Office, and learned about its role in connecting industry and research partners, and that this is done through functions including maintaining a website and database of contacts and opportunities, maintaining marketing material, producing partnership and areas of interest maps, strategic outreach through conferences and trade shows, coordinating the development of project proposals and budget plans, and assisting with the execution of contracts.

The RSC discussed:

- That intellectual property and related matters are negotiated
- That social innovation is a focus in addition to science and technology innovations
- That care must be taken to ensure that any partnerships do not have a negative impact on the University's reputation
- That, as the Office's name is finalised, consideration be given to using the phrase "Knowledge Transfer" as this is inclusive and generally understood

Indigenous Research Support Team

The RSC received a presentation on the Indigenous Research Support Team, which has been established to support the Indigenous research enterprise at the University, and learned about its mandate, key functions, composition, and framework.

In response to questions, it was reported that:

- The Team's webinars and events are open to all persons with interest, and that persons who wish to engage can contact the Team
- The Team may or may not be able to assist in connecting persons with Indigenous communities, as this will be dependent on a community's needs, interest and history

Prepared by the University Secretariat on behalf of Robert Thompson, Co-Chair and Andy Knight, Academic Co-Chair



TEACHING AND LEARNING COMMITTEE Report to General Faculties Council

for the meeting held October 20, 2020

This report is submitted on behalf of the Teaching and Learning Committee (TLC).

Teaching and Learning Awards and Recognition

The TLC learned about the External Teaching and Learning Awards Committee, including its membership, mandate, and activities. It was reported that information such as award success rates will be set out in a forthcoming annual report.

The TLC discussed the adjudication process for the University's Teaching Awards program, including that:

- The updated rubrics for adjudication, to be more reflective of process, and the removal of the numerical scoring from categories, as these implied weighting, are positive changes
- The teaching dossier, which is now part of the tenure and promotion process, can be adapted for the awards package
- Nominating/applying for the Teaching Awards is time consuming and levels of support are different between units, and this impacts willingness to participate
- The shift in deadline from January to February will be helpful
- Once COVID-19 restrictions are over, staff from the Taylor Institute could visit other campuses to
 offer information sessions

The TLC was asked to consider possible ways to recognize people who have enhanced teaching and learning during the challenging time of COVID-19, and the TLC agreed that these persons could be recognized as part of the 2021 Teaching Awards celebration.

Student Success Centre: Supports for Students in Online Learning

The TLC received a presentation on supports for students during online learning, including workshops, 1:1 appointments, online learning modules, interactive resources, virtual study halls, and meet-and-greets. The TLC learned that Student Success Centre staff can be invited to speak to a class about supports for students, and that presentations will be done at orientation sessions.

The TLC learned that common concerns expressed by students include: having difficulty in accessing learning materials and resources, managing their time and staying motivated, knowing if and how they are permitted to interact with other students and what they can use during an exam, and developing the skills to excel in online assessments.

The TLC discussed:

 That online invigilation platforms are being explored, and that instructors are asked to consider their assessment practices

- The virtual study hall model, and that this appears to benefit students, but that it can be difficult to connect students if they are unsure or resistant to online interaction
- That the TLC members can help to make students aware of the supports offered by the Student Success Centre

Role of TLC in Feedback on Curriculum Reviews

The TLC was reminded that, two years ago, the University's Curriculum Review Handbook was revised and the TLC is now the committee designated to discuss the units' curriculum review reports. The TLC was advised that the curriculum review report for the Faculty of Kinesiology will be discussed by the TLC at its November meeting, and the Co-Chair reviewed the approach that the TLC should take to this, emphasising that the purpose is to focus on the action plan and to support and learn from each other.

USRI Working Group Update

The TLC received an update on the work of the Universal Student Ratings of Instruction (USRI) Working Group, and learned that surveys for students and staff will soon be launched and then, after analysis of these, a report with recommendations will be brought for discussion by the TLC, likely in the first quarter of 2021, and which will then move through the governance system as appropriate.

Standing Reports

The TLC received reports on the current initiatives of the Taylor Institute, Students' Union, and Graduate Students' Association.

COVID-19 Updates in Teaching and Learning and Updates from TLC Members

The TLC discussed matters relating to COVID-19 and teaching and learning, including the volume of information for people to access and digest, the new regulation requiring a 24-hour window for timed assessments and reactions to this, and signs that some students and instructors are feeling overwhelmed and isolated.

Prepared by the University Secretariat on behalf of Leslie Reid, Co-Chair, and Amy Warren, Academic Co-Chair

Senate Report for General Faculties Council

Meeting date: 22 October 2020

Report prepared and submitted by: Rachel Lauer, GFC Elected Representative

4:00 p.m. – 6:00 p.m. MST

- 1. Welcome.
- 2. Approval of the Senate meeting agenda.
- 3. Consent agenda and approval of the meeting minutes of September 22, 2020.

Update/Report from several Standing Senate Committee Chairs and student representatives:

- Graduate Student Association (Christine Chao)
- Student's Union (Marley Gillies, SU VP External)
- Alumni Association (Helen Sunderland, President)
- Senator Development Committee (Wesley Ernst)
- Community Engagement Committee (Aaron Park)
- Honors/HD/OTUC Committees (Diane Field)
- Governance (Sarah Eaton)
- Communications (Mark Salkeld)
- Student Working Group (Jonah Secreti)

4. Remarks of the Chancellor

Deborah Yedlin acknowledged that it has been a challenging few months, and we are still in the process of finding our footing during a time of uncertainty. In her remarks she also discussed the decision to cancel convocation, which was delayed as long as possible, and the President's plan for "Growth Through Focus".

5. Remarks from JT Clode

Unfortunately, JT will undergo major surgery on November 9th, and will be recuperating until January 4th. He will be missed during his absence and we wished him a safe and speedy recovery.

6. Senate reelection/voting process discussion

Senators were placed in breakout rooms in small groups led by committee chairs, and asked to evaluate the current system of reelecting Senators and identify areas for improvement.

7. Report back to the full group, a delegate appointed for each breakout group summarized the discussion

- 8. Other business and round table- no items were brought forward
- 9. In the interest of time, we decided to push through without scheduled break.
- 10. Presentation: Philanthropy and Development Andrea Morris, Associate VP, Development. Andrea introduced the Development leadership team and highlighted the success of the Energize campaign, which was the third largest fundraiser in Canadian history (!!). The presentation also highlighted donations for the Hunter Hub and Taylor Institute, as well as the seed funding program UCeed. Susan Wessels, Director of Development-Student Awards, also spoke about the Chancellor's Scholarship program: the Chancellor's Circle (formerly the Chancellor's Club). This program is designed to attract students of excellence and bring the best students from across Canada to the University of Calgary.
- 11. Q&A discussion and questions arising from presentation with Andrea Morris and Susan Wessels
- 12. Adjournment- Meeting adjourned at 6:02, following a reminder that Senators fill out the Survey circulated via email.

Report to the General Faculties Council on the Meeting of The Board of Governors (Open Session), October 16, 2020 (8:00 am) From the Member of the Board nominated by GFC

The Chair of the Board, Geeta Sankappanavar, called the meeting to order at 8:08 am with a welcome to external guests and approval of the meeting agenda. Following the call for identification of any existing conflicts of interest amongst the Board Members, the meeting opened with **remarks from the Chair**.

Linda Dalgetty presented the safety moment encouraging the board to get their flu shots as well as noting that the campus is providing flu shots through mass clinics.

Following the safety moment, the discussion moved directly to the four information items

 Budget process, principles, planning parameters and levels of control for the University Annual Consolidated and Capital Budgets.

The discussion on this topic focused on changes to this process that have occurred in response to changes to Provincial expectations and delays as well as to accommodate the Growth through Focus process. The Budget Planning Parameters were explained and those that are being tracked and updated were noted (e.g., Foreign Exchange).

Main Campus Landscape Plan

Several Board members noted appreciation for the efforts made in developing this plan including the incorporation of both the indigenous and settlers' perspectives. There were questions related to lighting on campus and the process to ensure safety throughout the campus.

2020 Institutional Sustainability Report

Several Board members applauded the achievements due to the leadership from the Institutional Sustainability Strategy including a top 30 global ranking from among close to 800 institutions under the Times Higher Education University Impact Ranking and STARS Gold and #2 ranking among Canadian U15 schools (as of August 21, 2020).

Child Health and Wellness Strategic Research Theme

Board members commented and asked questions related to the most recent research theme. Board members remarked on the strength of the research theme including the unique opportunities due to the five decades of partnership between UCalgary, AHS, ACH and ACHF.

The board member reports in this meeting included:

- Report from the Chancellor and Board Member nominated by the Senate
- Report from the Board Member nominated by the Alumni Association
- Report from the Board Member nominated by the University of Calgary Faculty Association.
- Report from the Board Member nominated by the General Faculty Council
- Report from the Board Member nominated by the Students' Union
- Report from the Board Member nominated by the Graduate Students' Association
- Report from the Board Member nominated by the Alberta Union of Provincial Employees, Local 52

There being **no other business**, the Open Session of the Board Meeting was then adjourned at 10:00 am.

Sincerely,

Joule Bergerson

POLICY DEVELOPMENT PLAN (PDP) REPORT

as of 2020-10-26

Below is a list of all University Policies and Procedures currently in Consultation or recently Approved by the applicable Approval Authority.

Title	Stage	Drafting Team
Sexual Violence Policy	Consultation	Deborah Book; Carla Bertsch; Susan Barker; Michael Van Hee; Chris Stanley;
Student Non-Academic Misconduct Policy	Consultation	Deborah Book; Susan Barker; Jennifer Quin;