UNIVERSITY COUNCIL

RESEARCH, SCHOLARLY, AND ARTISTIC WORK COMMITTEE FOR INFORMATION ONLY

PRESENTED BY:	Marjorie Delbaere, Chair, Research, Scholarly, and Artistic Work Committee
DATE OF MEETING:	June 17, 2020
SUBJECT:	Research, Scholarly, and Artistic Work Committee Annual Report
COUNCIL ACTION:	For information only

ANNUAL REPORT OF THE RESEARCH, SCHOLARLY, AND ARTISTIC WORK COMMITTEE OF COUNCIL 2020-21

Terms of Reference

- 1) Recommending to Council on issues and strategies to support research, scholarly and artistic work.
- 2) Recommending to Council on policies and issues related to research integrity and ethics in the conduct of research, scholarly and artistic work.
- Recommending to Council and providing advice to the Vice-President Research on community engagement and knowledge translation activities related to research, scholarly and artistic work.
- 4) Providing advice to the Vice-President Research and reporting to Council on issues relating to the granting agencies which provide funding to the University.
- 5) Providing advice to the Vice-President Research, the Vice-Provost Teaching and Learning, and Dean of Graduate Studies and Research on the contributions of undergraduate and graduate students and post-doctoral fellows to the research activity of the University.
- 6) Examining proposals for the establishment of any institute or centre engaged in research, scholarly or artistic work at the University, and providing advice to the planning and priorities committee of Council.
- 7) Receiving an annual reports from the Vice-President Research and the Dean of Graduate Studies and Research.
- 8) Receiving and reporting to Council the University's research ethics boards' annual reports.

- 9) Designating individuals to act as representatives of the committee on any other bodies, when requested, where such representation is deemed by the committee to be beneficial.
- 10) Considering the priorities of the University community, such as Indigenization and internationalization, when assessing current and new research, scholarly, and artistic work activities.

Council Members

Marjorie Delbaere (Chair)	Management and Marketing	2021
Natasha Koechl	Drama	2023
Gordon Sarty	Psychology	2022
Cheryl Waldner	Large Animal Clinical Sciences	2021
DeDe Dawson	Library	2023

General Academic Assembly Members

Jon Bath	Art and Art History	2021
Sarah Buhler	Law	2021
Mathew Lindsay	Geology	2023
Jim Waldram	Archaeology and Anthropology	2022
Lori Bradford (Vice-chair)	College of Engineering/SENS	2022

Other Members (voting)

Karen Chad/Baljit Singh	Vice-President Research (ex of	ficio)
Deborah Burshtyn	Dean, College of Graduate and	Postdoctoral Studies (ex officio)
Charlene Sorensen	Acting Dean, University Library	y (ex officio)
Kiefer Roberts/Tauqeer Iftikhar	USSU designate	2021
Hadi Ramin/Tina Alexis	GSA designate	2021

Resource Members

Dion Martens	Director of Research Services and Ethics Office
Laura Zink	Director, Strategic Research Initiatives
Amanda Storey	Committee Secretary, Office of the University Secretary

The Research, Scholarly, and Artistic Work (RSAW) committee met 12 times during the 2020-21. At its meetings, the committee addressed many issues related to research, scholarly and artistic work at the University of Saskatchewan.

At its first meeting of the year, the committee received the annual report on breaches of the Responsible Conduct of Research policy and presented this report to University Council for information in October.

The committee reviewed its priorities for the coming year and noted the importance of discussing ways in which RSAW could become a more engaged body of Council and take on more responsibility with respect to the research agenda at the University of Saskatchewan. The committee agreed to begin this discussion by investigating similar committees at other institutions in Canada. One committee member volunteered to gather

information on these committees, including the governance structures. This report is included as an appendix to the RSAW annual report.

In November 2020, RSAW conducted its annual meeting with the chairs of the university's Research Ethics Boards (REB) and received their annual reports. The committee also discussed the review that was conducted of researchers' experience with the Research Ethics Boards. The REB reports were provided to University Council for information in December 2020.

The committee engaged in a discussion about the designation within TABBS of active/inactive researcher and the impact of the designation on resource allocation. This discussion including meeting with the Acting Provost and the Assistant Provost, Institutional Planning and Assessment (IPA) in November 2020. Ultimately, the committee voted to bring the issue to the floor of Council, where the recommendation to support in principle a rejection of the designation was approved in March 2021. Further to this, the committee engaged in discussions with IPA in May 2021 about metrics in TABBS related to research activity.

The committee provided review and comment on a number of initiatives impacting research, scholarly, and artistic activities on campus, such as the Publically Engaged Scholarship Initiative, the USask sustainability plan, International Indigenous Health Research and Training Centre, research data management

The committee also reviewed and commented on a number of new policies and policy revisions, such as the Postdoctoral Fellows Policy, the Inventions Policy, the Regulations on Student Academic Misconduct, and the Responsible Conduct of Research Policy and procedures. This final policy was discussed a number of times and the committee voted to recommend that Council approve the revisions. The committee also received information about a planned suite of intellectual property policies that the Office of the Vice President Research is seeking to develop and implement.

The committee met with representatives from the Clinical Trial Support Unit as well as VIDO/Intervac to discuss USask's response to the COVID-19 pandemic and the institution's ability to conduct and lead clinical trials and look forward to the anticipated changes in that area.

RSAW received a final report from the outgoing Vice-President Research on this history and impact of the Signature Areas of Research and looks forward to working with the current Vice-President on continuing the discussion around Signature Areas and USask's discovery mission.

The committee continued its engagement with the University Library on the Open Access priorities, and discussed the highlighted need for Open Access during this time of crisis. RSAW acknowledges that USask currently lacks an institutional statement of support for Open Access.

The RSAW committee received an annual update from the Tri-agency leaders Daen Wallin (SSHRC), Ron Borowsky (NSERC), and Darcy Marciniuk (CIHR) at its April 29

meeting. Committee members were interested in the success rate of applications of triagency funding and with the year over year trends. The varying success rates depending on granting agency were discussed and RSAW appreciated the work being done by all tri-council leaders to improve success rates through mentorship and internal review.

During the final committee meeting in May 2021, the committee discussed the importance of working with the OVPR and other groups on campus to develop an inclusive definition of research, scholarly and artistic works for the University of Saskatchewan. This definition will be important for future discussions of the research component of TABBS. The committee will resume discussions on this topic in the coming year.

The service of Lori Bradford as a representatives of RSAW on the Centres Subcommittee of Planning and Priorities Committee, Mathew Lindsay on the Joint Committee on Chairs and Professorships, DeDe Dawson as a representative on the New Researcher and Distinguished Researcher Awards Committee, and Jon Bath and the CFI Advisory Committee is recognized with appreciation. Appreciation is also extended to all presenters who attended the RSAW committee this year. I also want to thank Lori Bradford for her service as vice-chair this year and acknowledge the outstanding administrative support provided by Amanda Storey.

Attached as appendices to this annual report are the annual reports of the Office of the Vice-President Research and the College of Graduate and Postdoctoral Studies 2020-21.

ATTACHMENTS:

- 1. Annual Report of the College of Graduate and Postdoctoral Studies for 2020-21
- 2. Annual report of the Vice-President Research for 2020-21
- 3. Summary of RSAW committees at other U15 institutions



COLLEGE OF GRADUATE & POSTDOCTORAL STUDIES

Dean's Annual Report to Graduate Faculty

As dean, I offer heartfelt thanks to the USask community for welcoming me into the fold mid 2020 – a year of history making in every way.

I am grateful to have engaged this past year with the members of the GSA Executive and the SPS leadership. Their advocacy from the perspective of graduate students and postdoctoral fellows at all levels of the university was critical to adapting to the ever-changing landscape brought on by the pandemic and their service on college committees is invaluable to ensuring student-centered approaches remain in the foreground.

I want to acknowledge the incredible dedication of the graduate faculty who have supported students and fellows in their studies and research, adapting to the virtual environment and pivoting research to tackle the many aspects of the pandemic.

Our college priorities to enhance the student experience, foster a strong graduate community and develop flexibility to best support students, fellows and faculty are grounded in the institutional pillars of boundless collaboration, courageous curiosity, and inspired communities. Despite the challenges of the year, our college leadership team has pushed forward on projects and started new initiatives and our staff have been steadfast in delivering service through it all.

On behalf of CGPS, I submit the following report of the activities of the college for the 2020/21 academic year.

Enhancing Experiences

Enhancing our services

- Recruitment remains a key priority for our college as we work through partnership with Student Recruit (TSLE). While travel was not possible, under leadership of Danny Freire the team pivoted to participating in virtual recruitment fairs and delivering a pilot virtual recruitment event targeting our own undergraduate students. The virtual platform has opened possibilities to reach more potential students and may become a low-cost mainstay of our recruitment efforts. The agreement with the China Scholarship Council is in the final stages for renewal and we continue to explore new sponsorship agreements
- This year marks the culmination of the ICT-TSLE-CGPS collaborative project to implement the new graduate admissions system RMS Recruit, in a remarkable feat of being ahead of schedule and under budget. All programs (MPAcc set to come online August 2020) are now receiving applications through the system. We will be taking stock after first admissions cycle in Recruit concludes during a special June Graduate Administrator Forum that will focus exclusively on "RMS Recruit lessons learned". A few refinements are in the works and in August 2021, we will launch an innovative supervisor selection functionality for units who require students to identify a supervisor prior to application. As a recruitment tool, the new system provides a slick interface for applicants and enables reporting to make data informed decisions in real time. Thanks to the unit graduate administrator ambassadors that gave

their time to ensure the best system was built for our needs. As of April 20th, we have received a total of 8,610 complete applications for programs beginning in the 2021/22, an increase of 594 applications (7.41%) year over or year indicating healthy application pressure and a fully functional system.

- Applications from international applicants are up by 5.5% compared to this time last year, international admissions are down by 95 students (15.5%) while applications from domestic applicants are up by 17.3% compared to this time last year, and domestic admissions are also up by 22 students or 5.1%. To date 971 students have accepted offers of admission (down by 72 or 6.9% compared to this time last year).
- Converting forms into the Jira platform enables our staff to triage requests and provides tracking abilities. Between May 1, 2020 and April 20, 2021, we supported units by addressing 4,130 requests related to students in-program received through Jira and facilitated 1,223 admissions. We continue to work to encourage all units to make use of the <u>CGPS service desk</u> Jira platform that now includes Awards and Scholarships.
- Under the new leadership of Marc Usunier, Director of Programs and Operations, we are examining our workflows and practices with a view to balancing workloads and streamlining processes that will speed up our turn-around times for routine transactions.
- In collaboration with TSLE, we are developing robust graduate enrolment report for next fall that will present a complete picture of our student body from application to entrance to retention and time to completion.
- We invested in a term appointment to in the Awards and Scholarship team to improve the success of our students at Tri-Agency scholarships. We created recorded tips for successful applications, improved the website information and contacted high achieving eligible students to encourage them to apply. We received 3 Vanier Awards, 1 NSERC and 2 SSHRC pool improving over the single NSERC Vanier last year and improved our success for the CGS-D awards as detailed in the report from the Awards Committee.
- Our governance committees have engaged in thoughtful discussion about their mandates and composition, and we are embarking on a renewal of the governance over the coming year. At the same time, Associate Dean Ryan Walker and Committee and Programs Administrator Kelly Clement are members of the Program Approvals Process Review project team led by the Governance Office with a view to improving the efficiency and effectiveness of the academic program approval pathway. Walker is also a member of the Microcredentials Working Group led by Teaching and Learning Enhancement.

Professional Development

- On the postdoctoral front, you may have noticed the efforts from our Postdoctoral Studies Advisory Committee and Postdoctoral Studies Coordinator to feature our PDFs in the CGPS newsletter. Postponed last year due to the timing of the pandemic campus shutdown, the inaugural PDF Career Development Day was held virtually on March 4, 2021. 40 PDFs (~25% of all our PDFs) attended the successful synchronous event and as one of the benefits to the online platform, sessions were recorded and will become part of an online resource library.
- The 3MT competition provides a great opportunity to showcase our students research and ability for communicating their work to a public audience. Congratulations to the local 3MT winners: 1st Place: Ahmad Karimi, 2nd Place: Kayla Cropper; 3rd Place: Alivia Mukherjee; Honourable Mention: Ninu Kallingal Mohandas. Ahmad Karimi goes on to the western finals May 13, 2021 (https://fgs.athabascau.ca/news/events/3mt.php)
- As part of building a strong relationship with the Government of Saskatchewan, the CGPS had the opportunity to collaborate with government relations to present some exciting student and fellow research in the first inaugural *Celebration of Scholarship Event* with Saskatchewan Minister of Education Gene Makowsky (on April 1st, 2021). Two PDFs and three students shared their enthusiasm and demonstrated the impact of their research and gained valuable coaching and experience communicating to a broad audience. We intend to build upon the success of this event in future years and draw in more government and public stakeholders.
- The <u>Grad Hub</u> was introduced to the USask community. Building Paths of Self-Discovery & Development: Empowering Graduate Students Through a Digital Platform was presented at the CAGS virtual symposia April 29, 2021. The hub approach embraces the complexity of graduate students' roles within the institution by introducing development opportunities during the student life cycle, not only as students, but as influencers and as champions of graduate education. Our innovative platform leads students to self-discover their own unique independent learning plan while introducing academy norms.

Preparing our graduate students and fellows for employment outside of academia is paramount to their academic journey. This year we sponsored more than 100 students and PDFs to attend the "Beyond the Professoriate" annual conference. The results of <u>The Graduate Transformative Skills Project</u> (Loleen Berdahl) are now available on the GMCTL website. The study provided insight into the views of our students who want more integration of skills development into their programs and makes recommendations to address the needs of both students and faculty. CGPS and GMCTL will continue to collaborate to incubate and pilot new formats to deliver the necessary skills training.

Creating Community

The college continues development of a community of collaborators in the pursuit of excellence through a variety of activities and introduction of inclusive practices.

Celebrating and supporting mentorship of students and fellows

- We congratulate Jeanette Lynes, Director of the MFA in Creative Writing as this year's Distinguished Graduate Mentorship Awardee. As dean, I had the great pleasure to work with our Doctoral Mentorship Committee and meet several of our previous graduate mentorship awardees as we further modified the application and adjudication process for future to define of excellence in mentoring to be inclusive and to align with the national award to best position our nominations.
- Our graduate faculty membership has grown to over 1800. The New Graduate Supervision Handbook is now available Faculty Resources College of Graduate and Postdoctoral Studies University of Saskatchewan (usask.ca). Created by CGPS in collaboration with the Gwenna Moss Centre for Teaching and Learning and the Graduate Students' Association, creation of the resource marks an important step along the way to building a faculty community of practice centred on excellence in graduate supervision and mentorship. The Handbook provides a guide and is complemented by the Student Supervisor Agreement, a tool for a guided conversation with students to foster strong communication and transparency for expectations that was instituted as a requirement for all new students as of September 2020.
- After several months of CGPS consultation, a revised University level <u>Postdoctoral Fellows Policy</u> was approved by University Council and is scheduled to go to the Board of Governors for decision in June. The refreshed policy and parsed out procedures will bring our policy in line with the collective agreement and provides much needed clarity for fellows that are funded exclusively through external funds.
- CGPS continues to hold virtual forums with key stakeholders to deliberate about key topics in graduate and
 postdoctoral education and training. Monthly forums with Graduate Chairs enabled frequent touchpoints with the
 dean and each other to share information with particular focus on mitigating the impacts of the pandemic and to
 discuss and consult on new initiatives including the Pandemic Shift Project with Vice-President Debra PozegaOsburn and revisions to the Responsible Conduct of Research Policy led by Associate Vice President Research Darcy
 Marciniuk.

Indigenization and decolonization:

- We began to take steps to build an overt and explicit college strategy to support the success of Indigenous graduate students. To begin, the dean invited a small group of advisors to guide the initial work. The group has met twice to date and we are already forming a strong sense of where we can change and setting a priority list for actions to support Indigenous graduate students.
- As our college witness in the 4th annual māmowi āsohtētān Internal Truth and Reconciliation Forum in March, Associate Dean Walker will lead the CGPS team through important takeaways from the forum. We share his reflection here: "At the Forum we heard that racial literacy is not being learned in the western education system and remains a special interest topic. When race is discussed, the focus is mostly on disadvantage to racialized people, and almost never on the advantages bestowed by whiteness. We were given the understanding that we need to make racial literacy commonplace in teaching and learning at USask. And that

we need to tune-in to how the myth of cultural neutrality propping up white advantage in our university policies, structures, and norms is a barrier to reconciliation."

In partnership with the GMCTL and Library we launched the 4 Seasons of Reconciliation Pilot Course. The goal was to promote a renewed relationship between Indigenous Peoples and Canadians, through transformative and engaging learning and anti-racism education. It features award-winning films, slideshows, videos, quizzes, and a completion certificate issued through the University Library. Twenty spots were promoted and offered to graduate students for a four-week 4 Seasons of Reconciliation pilot project. The demand was great, with almost 100 students responding within 48 hours. The student group was diverse with students from the social science, humanities, and science backgrounds. Supervisors also expressed interest in their own version of the project.

Developing Flexibility and a Pandemic Response Update

All policies need regular review. The 455 theses successfully defended remotely (May 1, 2020 – April 20, 2021) is a testament to the power of technology and our ability to adapt our beliefs about what is acceptable academic practice to meet learning outcomes and standards. Associate Dean Walker recently put out a call to explore changes to the advisory and examination committee and thesis defence policy and we look forward to a refresh that respects the need for rigor while at the same time building flexibility to suit the needs of disciplinary and interdisciplinary programs, and the evolving understanding of what is in the best interest of our students and faculty. We have also embarked on a project to rethink the many streams of central funding for graduate students

The pandemic caused much disruption for graduate students including temporary shutdowns of laboratories, access to field sites and the need to redesign research projects that required face-to-face interactions. Students also faced challenging personal responsibilities and situations that interfered with making progress in research such as remote school for children and inadequate access to internet or suitable workspace at home. In addition, many types of part-time employment in service industries that graduate students rely on to support themselves were also disrupted. 121 students who were admitted to terms since the pandemic started deferred and the majority of these were international and first time Indigenous students. We know that the financial impact has been particularly severe for many international students. Providing flexibility for leaves we had 182 leaves compared to 159 for the same period last year suggesting a fair number of students took leave due to the pandemic. We suspect additional students who might have benefited from a leave were reluctant to take one. To address the known disruptions, extensions to programs will be barrier free.

Mental health is always a serious concern with graduate students known for higher rates of depression and the strain the pandemic could add. The graduate community was introduced to <u>Empower Me</u>, a remote counselling service offered to students coordinated by the GSA. Mental health initiatives continue to be offered to the graduate community through <u>USask's Wellness Centre</u>.

As we engaged with students and fellows through meet the dean events and other venues, a sense of isolation and disconnection from students outside Saskatoon became a clear theme. Over the last several months various opportunities have emerged, albeit virtually, allowing students to form a sense of community like <u>virtual cafés</u>, <u>wellness events</u>, <u>research</u> <u>expos</u> and other community enhanced events across campus. The table below summarizes the many issues and responses from the university to support graduate students through the pandemic.

Spring - Summer 2020	 Programs were put in place to support students during the summer of 2020 from agencies (Tri Agency) and from USask in addition to many students having access to other provincial and federal programs. Leaves of absence were granted based on the students' inability to make progress in research. CGPS allowed new students to defer the Dean's Scholarship beyond the regular 8-month time-limit. CGPS allowed new students to defer the Dean's Scholarship beyond the regular 8-month time-limit. CGPS informed units that "devolved funds" could be provided to students beyond normal time-in-program limits in 2020/21. Requests for financial supports were prominent in May-August 2020, Western Deans noted that requests for support had subsided by the fall. Increased campus activities were approved with graduate students prioritized to provide access to labs for those closest to finishing their programs.
Fall – Winter 2020	 From March to September almost \$1M was spent on student crisis aid. About half of that went to graduate students (they are 17% of the student population) and 2/3 of that half, or \$333,000, went to international graduate students. The average amount per student was approximately \$2000-\$2500. 2020 DSAE and APEF funds were used to replenish crisis funding together with other funding sources nearly a quarter of a million dollars was repurposed toward financial aid. In November 2020, the GSA received over 100 applications to their bursary program that provided \$1000 bursaries to 24 students. When COVID cases were high in late December and January new access to campus was suspended. Since then, new projects/graduate students continue to be approved while others have completed. CGPS commissioned GMCTL to provide workshops for faculty on "Remote Facilitation Strategies for Graduate Classes" – two sessions were held in December that were well attended. In fall 2020, CGPS informed units with devolved funding that they would be permitted to holdover funds more than 10% to next year and keep commitments to new students that deferred or could not take up the award fully 2020/21. New international students had increased times to obtain study permits and many started their programs from abroad while others deferred their starts to January 2021 or beyond. A mechanism was developed to assist new international students that hold a scholarship or stipend and who could not receive funds because they lack a Canadian bank account and SIN was created. This included students that were to be paid by Tri-Agency funds

Winter-Spring	 International graduate students could enter the country starting at the end of 2020, made possible because USask was a designated learning institution with a robust quarantine plan. Impacts on enrolment were less than anticipated, domestic student enrolment was up while new international and Indigenous student enrolment was slightly down (see <u>fall term census data</u>). CGPS released the COVID supplement made possible by repurposing funding that had not been taken up as well as a small surplus in the general scholarship fund. CGPS awarded \$172,500 in pandemic bursaries mid-April 2021 as seventy \$2500 bursaries were distributed to students whose need were determined by a lack of ongoing support either through a full stipend or scholarship; and whose research had been disrupted by the pandemic; and would likely to lead to a longer time in program.
Winter-Spring 2021	research had been disrupted by the pandemic; and would likely to lead to a longer time in program. Since the call did not exhaust the funding, a similar call will be made in the fall of 2021.
	 We are on par with 2020's convocation numbers. 529 students that have applied for spring convocation (2021) compared to 541 (2020) last year.

To close this report, I reflect upon the year that past and the one ahead. To be graduate students and postdoctoral scholars in this moment has forever linked our students and scholars to the biggest pandemic in the last century. A cohort of students worried about a low grade or a longer degree that might impact their competitiveness in the academic stream and yet so many applying their skills to pandemic related problems. The graduate education landscape has been forever changed; and paradoxically through enduring change we are exploring ways to adopt flexibility as a core value. I am enormously proud of the way our staff rose to the challenge and kept the wheels on the bus through enormous change. I commend the grad faculty who went that extra mile (virtually of course) to support students and to the many graduate faculty who volunteer their time for CGPS committees and working groups and are engaging with our consultations.

As we begin our 75th anniversary year (2021-22), CGPS is launching new initiatives and imagining the future of USask's graduate and postdoctoral programming. Through strengthened collaborations and consultation, we are exploring ways to streamline college managed funding models, embrace EDI, rebuild efficiencies through governance, build flexibility within our policies and more.

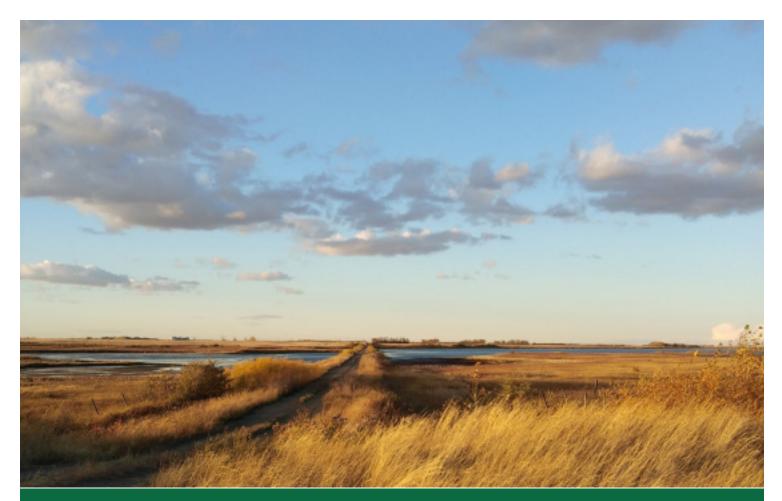
Our plan is bold and ambitious – and we are just getting started.

Reimagine Grad Funding Working Group

Angela Kalinowsky (SSHRC), Heather Lukey (CGPS), David Cooper (CIHR), Maureen Bourassa (Professional Programs), **Debby Burshtyn (Dean)**, Ian McQuillan (CGPS Executive), James Johnston (NSERC), Michael Szafron (Former Awards Chair)

Indigenous Advisory Group

Simon J. Lambert (Faculty Member in Indigenous Studies), Meika Taylor (Project Manager, Indigenous Initiatives, Office of the Vice-Provost Indigenous Engagement), Graeme Joseph (Team Leader, First Nations, Métis and Inuit Student Success), Stryker Calvez (Manager, Indigenous Education Initiatives), **Debby Burshtyn (Dean)**



Office of the Vice-President Research

2020-21 Annual Report

BE WHAT THE WORLD NEEDS

אוא "ס"א" את "אוע" את "איוע" את "מיח" את יסי*י את איינע" או*א יוויאי את אואיי את אייאי את יינעי לבי "ס"א" אלעה יועא געלאי "אני אוליה "לאי געלאי "אלי געלאי "ס"א אלט" אלט" אלא געלאי "אלי אלט



Images of Research

The Office of the Vice-President Research is pleased to include images by our researchers on the cover and through this annual report. These images are from our Images of Research Photo and Imaging Competition. <u>You can view all the submissions online</u>.

- **1. Lifeline.** The South Saskatchewan River is one of the most important river systems in Western Canada. It is home to 1.6 million people in Alberta and Saskatchewan.
- 2. Mama, Teach me Our Words. The maintenance of heritage language is essential to immigrant children's linguistic, cultural, and social development.
- **3.** Time to Go! Fledging or leaving the nest is an abrupt change in life during which some birds face their greatest challenges for survival.
- 4. Mistik Lodge. From the porch of the Mistik Lodge, Gary Carriere (I) and Julius Crane (r) keep an eye out for moose, waterfowl, and game that provides both sustenance and income for their community at Cumberland House.
- **5. Precious Freshwater**. Freshwater, not unlike other resources we use daily, is limited. Its availability is threatened by anthropogenic activity and climate change.
- **6.** The Collapse. Every time I visit my study site, Peyto Glacier in Banff National Park, it looks different. Everywhere I look, I see signs indicating the dramatic glacier retreat due to climate change.



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Office of the Vice-President Research

Discovery the World Needs

I am pleased to report on the success and many accomplishments of the Office of the Vice-President Research for the past academic year.

To begin, I want to thank Dr. Karen Chad for her distinguished and courageous leadership of the University of Saskatchewan's (USask) research enterprise for the past twelve years. I have had the pleasure of working with Karen for many years, and I am deeply honoured to be her successor.

The past academic year was characterized by tremendous change.

In March 2020, USask adjusted to the new reality of a global pandemic. Like others, we promptly shifted to remote delivery for our administrative, teaching, learning, and research activities. This shift required herculean efforts on the part of our faculty, staff, students, and broader community. Incredibly, this brought us closer together - while being physically apart - in new and previously unimaginable ways. In June 2020, the Office of the Vice-President Research (OVPR) implemented a series of budget adjustment measures which resulted in significant restructuring across the portfolio. Despite these adjustments, the OVPR remained steadfastly committed to supporting high-quality research, scholarly, and artistic work across the academy, and to fostering partnerships and innovation.

Four research support units - Research Excellence and Innovation, Research Acceleration and Strategic Initiatives, Research Profile and Impact, and the International Office - emerged from our organizational restructuring efforts. Much of this report speaks to the programs, services, and supports they provide to our campus community, and the impact they made over the past year.

In September 2020, President Stoicheff announced my appointment as Vice-President Research. At that time, I spoke of significant investments made by all levels of governments to our academy. They have trust, and expectations, that we will deliver some of the most advanced and applied technologies and solutions to combat complex societal issues and contribute to Canada's prosperity. We are doing exactly that, and I am excited to see this accelerate in the coming years.

In November 2020, President Stoicheff announced Dr. Airini's appointment as Provost and Vice-President Academic. She spoke about being in a place characterized by humility and boldness; of the university being at a point of history making and remaking; and of being part of a university defined by its high-value and impact. This could not be closer to the truth, and I am excited about enhancing collaboration between our offices.

In January 2021, the OVPR was deeply immersed in supporting my on-boarding as Vice-President Research. At the same time, Dr. Karen Chad prioritized leaving two documents - *Reflections* of a Vice-President Research, and a Report on our Signature Areas - which captured key aspects of USask's evolution as a research-intensive university.

In February 2021, I officially began my five-year term as Vice-President Research. Coming into the role, I knew much had changed since I departed USask in 2016. New programs were launched and many scholars joined our community. A new plan— *The University the World Needs*— was developed, and there had been several changes to our operating environment and institutional leadership. Therefore, I focused my attention on building relationships and learning deeply about USask's scholarly enterprise through hundreds of meetings.

I am grateful for the overwhelming support from so many colleagues during my transition to this exciting and inspiring role. I remain committed to do my best to serve and support all of the artists, scholars and researchers at USask.

The work done at USask is the work the world needs to solve some of the most complex problems and advance well-being of communities local and global. In this report you will read about some of our accomplishments. I thank you for your work to make USask the university the world needs.

Baljit Singh Vice-President Research University of Saskatchewan

USask Research By the Numbers

\$308,801,802 in total research revenue received by USask.

\$22.1M in total CIHR Funding, a **17%** increase from the previous year.

\$31.9M in total NSERC Funding, a **82%** increase from the previous year.

\$6.2M in total SSHRC Funding, a **54%** increase from the previous year.

758 newly funded research projects awarded in 2020-21.

1,192 faculty members and instructional staff engaged in impactful research, scholarly, artistic, and creative works.

293 Research Professionals and Post-Doctoral Fellows employed.

4,406 Graduate Students, including **915** in course-based programs, **1,917** in thesis or project-based programs.

 142 Chairholders and Professorships, including 32 Canada Research Chair allocations, of which 19 are currently filled.

 +\$100M invested in the Vaccine and Infectious Disease Organization (VIDO) in 2020-21.

 Home to **3** National Research Facilities, including the Canadian Light Source (CLS) VIDO, and SuperDARN.

 Only Canadian university to receive and hold 2 Canada First Research Excellence Funds (CFREF).



Research Excellence and Innovation

Supporting High-Quality Research

Research Excellence and Innovation (REI) has a twopart, interrelated mandate:

- **Research Excellence:** Supporting high-quality research activities, by helping researchers engage in strategic research partnerships, manage risk, and meet relevant ethics, legal and safety standards.
- **Innovation**: Creating significant and sustainable value for society, industry and the environment, by helping researchers turn their discoveries into solutions the world needs.

REI's programs, services, and supports span the lab-to-market spectrum. It is comprised of several teams, including: Animal Care and Research Support, Behavioural and Biomedical Research Ethics, Technology Transfer and Commercialization, as well as Partnerships and Legal Services.

Animal Care and Research Support

The Animal Care and Research Support (ACRS) team supports animal-based research in many ways, including management of animal use protocol (AUP) review, post-approval review, training, advising, and performing animal work.

Due to the global pandemic, there was a significant reduction in animal-based research performed on campus and therefore a decreased need for the office to provide direct animal care and support. However, other programming continued and training in particular increased significantly during the second half of 2020-21.

ACRS provided 85 training sessions for various animal research-related needs. Training sessions include animal handling, surgical skills, anesthesia, euthanasia, and research specific techniques. All training is provided by the Clinical Veterinarians, Animal Order Desk Technicians, Animal Technicians, and the Aquatics Manager. The ACRS team also trained four senior year veterinary students each spending two-week rotations with ACRS. The students are trained in laboratory animal medicine and learn about the specific processes used at USask for managing animal research, teaching, and testing.

The Canadian Council on Animal Care (CCAC) requires scientific merit review of all new and four-year renewal research animal use protocols (AUPs). For any research AUPs not funded by a peerreviewed agency, the AUP is reviewed by the OVPR Scientific Merit Review Committee for Animal-Based Research (SMRCABR). In 2020-21, 43 research AUPs were reviewed which represents a 23% increase from the previous year, and a 72% increase from two years ago.

Similarly, the CCAC requires pedagogical merit review of all new and four-year renewal teaching AUPs. All USask for credit courses which involve the use of animals require review by the Teaching, Learning and Student Experience (TLSE) Pedagogical Merit Review Committee (PMRC) prior to Animal Research Ethics Board (AREB) approval.

In 2020-21, the PMRC met several times to review the Pedagogical Merit Review Form for Use of Animals in Teaching and Training submitted by instructors. To date, pedagogical merit review is complete for four teaching AUPs. The PMRC is using a phased-in approach to review the 35 active teaching AUPs to ensure all teaching AUPs receive merit review within the next two to three years.

The Animal Order Desk (AOD) oversees the shipment and reporting of animals to USask and any animal shipments from USask to other institutions for collaborative research. In 2020-21, the Animal Order Desk facilitated \$550,000 in sales.

OVPR-managed facilities include the Laboratory Animal Services Unit (LASU) in the Health Sciences Building and the animal vivarium in the Collaborative Research Services Building (CSRB), which house 3,276 fish, 16 frogs, 19,050 mice, 980 rats, 36 ground squirrels, 30 tiger salamanders, 15 little skate, and 86 hamsters.

Altogether, 110,656 animals are used in USask research facilities and field stations.

Behavioural & Biomedical Research Ethics

The Behavioural and Biomedical Research Office supports scholars whose work involves living human participants, human biological materials, or secondary use of data or health information.

In 2020-21, this office played an integral role in ensuring the continuance of on campus and remote research activities. They:

- Engaged over 400 participants through outreach presentations and workshops, focusing on the application process, Tri-Council Policy Statement (TCPS2) principles, informed consent, and Indigenous engagement.
- Received and reviewed 285 biomedical ethics applications, which is a comparable volume from the previous year.
- Received and reviewed 619 behavioural ethics applications, which represents a 16% increase from the previous year.
- Expedited 94 ethics reviews for COVID-19 related research (34 biomedical applications, 60 behavioural applications). The majority of these reviews were delegated, and most received a Notice of Ethics Review within three weeks.

Despite increased activity during the pandemic, the Research Ethics Office continued prioritizing service delivery enhancement and reducing administrative burden on researchers. In 2020-21, they:

- Updated USask's reciprocity agreement with the Saskatchewan Health Authority by negotiating the addition of local ethics committees (LECs) to provide a local context regarding research ethics considerations for studies happening outside of Saskatoon and Regina.
- Modernized several administrative practices, such as providing exemptions via email rather than requiring full applications, issuing acknowledgments of research approved at other institutions, finalized implementation of fixed expiry dates for renewals, reviewed the behavioural application form, and undertaking a review of the CAREB ACCER N2 standard

operating procedures by which we operate. Much of this was in response to stakeholder feedback from within the academy.

In 2020-21, the Behavioural and Biomedical Research Ethics Office remained active at the national level. Notable examples include:

- The CHEER initiative: Clinical Trials Ontario (CTO) and the Maternal Infant Child and Youth Research Network (MICYRN) partnered with investigators and organizations across Canada to develop the Canadian Collaboration for Child Health: Efficiency and Excellence in the Ethics Review of Research (CHEER). The CHEER collaboration is developing a multi-province streamlined ethics review process for multi-site studies with the goal of achieving a single ethics review for child health studies. Biomedical REB Chair Gordon McKay as well as the Biomedical **Research Ethics Specialist Caitlin Prebble have** been taking part in meetings with leaders of the CHEER initiative to discuss the process of gualification of the USask Biomedical REBs.
- The Behavioural REB Chair, Diane Martz, is one of 12 members of the Inter-agency Advisory Panel on Research Ethics (PRE). Diane is also involved with creating the new TCPS2 CORE tutorial.

Technology Transfer

The process of technology transfer often begins with an innovation disclosure from a potential inventor, which is assessed by REI staff for commercial potential.

In 2020-21, REI received 17 new disclosures from eight different colleges or schools. They also received 19 pre-disclosure reports filed by innovators as an early notice of formal disclosure.

REI filed 21 new patents during the past fiscal year, contributing to a total of 146 patent families. A patent family is the collection of all patents that derive from a single invention, including separate patents and filings required globally.

While patent approvals are pending, work begins to find potential partners interested in licensing rights to use the invention. In 2020-21, REI secured 21 license agreements, an increase of 14 over the previous year. These are now part of the 77 active licenses under management at REI.

Commercialization and Innovation

In 2020-21, REI continued delivering a suite of programs and ecosystems supports aimed at fostering entrepreneurship and commercialization. Highlights include:

- Mitacs Business Strategy Internships. REI provides project-management support for the Mitacs Business Strategy Internships (BSI) program. A new Mitacs program in 2020, the program offers real world experience for undergraduate and graduate students through a four-month internship with a business or notfor-profit organization experiencing challenges or disruptions due to COVID-19. In 2020-21, REI facilitated 20 placements for students from six different colleges or schools. These placements included two internships under a specific call for Indigenous businesses or organizations. Each student received a \$10,000 award funded half by Mitacs and half by the host organization.
- Summer Entrepreneurs: The Summer Entrepreneurs (SE) program launched in May 2019. This program is a unique way of combining and leveraging several resources on campus – proprietary technologies and talented USask students with an interest in entrepreneurship – to bring innovations to market. During summer 2020, the SE program was presented for a shortened term in a virtual setting due to pandemic restrictions and budget reductions. Even with these limitations, one student start-up formed which continues to operate as Novita Medical Innovations.
- Co.Launch: REI continued to support the Co.Launch start-up program at Co.Labs, the province's first technology incubator. This program provides mentored learning opportunities for early-stage businesses and founders so they can fine tune business ideas and establish founding teams. Through the six

cohorts that moved through the Co.Launch program to date, REI support has contributed to training for over 50 start-ups, 10 of which are still actively working with Co.Labs to grow and scale their companies.

Research Partnerships

Each year, USask partners with governments, industry, non-profits and other post-secondary institutions to advance discovery the world needs. The lawyers and contract specialists within the OVPR negotiate and administer these partnership agreements. 2020-21 highlights include:

- 694 total research contracts valued at \$89,986,169
- 490 contract amendments valued at \$15,503,495
- \$28,037,526 in funding for COVID-related research

IP Mobilization Highlight

The process of commercialization often involves licensing rights to use patented inventions, however, there are other ways intellectual property can be mobilized. A perfect example is a disclosure received from the College of Pharmacy and Nutrition, which houses MedSask.

For over 45 years, MedSask has supported prescribing and medication safety by providing accurate, evidence-based information to residents and healthcare professionals in Saskatchewan. Their guidelines are accessed free of charge by Saskatchewan healthcare practitioners, and increasing interest from other provinces led MedSask to explore how to expand their offerings.

REI worked with MedSask to create a commercialization model that resulted in providing access to the guidelines for organizations across Canada. This resulted in seven access licenses to other organizations, and has ensured broader educational and commercial use of the guidelines while returning modest but recurring revenue to MedSask.

Activity By the Numbers

110,656 animals used in teaching and research.

\$550,000 in total sales facilitated through the Animal Order Desk.

• **96** New Animal Use Protocols, **308** Renewals, **287** Amendments processed.

285 New Biomedical Research Ethics Applications, **658** Amendments, **664** Renewals, **125** Closures.

619 New Behavioural Research Ethics Applications, 404 Amendments, 435 Renewals, 237 Closures.

 Engaged over **400** participants through research ethics outreach presentations and workshops.

694 new research contracts managed valued at \$89,986,169.

490 total contracts amendments managed valued at **\$15,503,495**.

\$28,037,526 in COVID-19 related research funding.

Received **17** new invention disclosures from **8** colleges/schools, and **19** predisclosure reports.

Filed **21** new patents, contributing to a total of **146** patent families.

 Secured 21 license agreements, which are now part of 77 active licenses under management.

Supported **1** new start-up, and excited to bolster commercialization supports going forward.



Research Acceleration and Strategic Initiatives

Full-Spectrum Research Grant Support

Research Acceleration and Strategic Initiatives (RASI) has a two-part interrelated mandate:

- **Research Acceleration**: Providing a full suite of strategic and practical supports across the application cycle to position researchers and research groups for success in individual, collaborative and institutional grants.
- **Strategic Initiatives:** Leading strategic institutional initiatives to support faculty research career and group development, as well as engagement of undergraduate students in the institution's discovery mission.

RASI provides full spectrum, research grant support to university researchers for individual, collaborative, and institutional grants. RASI's grant management includes intuitive research services for the lifecycle of a grant (pre- and post-award) and support for large-scale and institutional grant facilitation and management.

Rapid Response to COVID-19 Pandemic

The global pandemic impacted existing research projects, created funding opportunities, and demanded an institutional approach to emergency aid programs. In 2020-21, RASI:

- Led the response to the new Canada Research Continuity Emergency Fund (CRCEF) program which provided USask \$3.4M in wage support to help retain 2,273 research-related personnel impacted by the loss or decline in nongovernmental research funding. It also provided \$3.7M in funding for research ramp-up and maintenance costs for 415 research projects.
- Supported researchers in responding to rapidly emerging and time sensitive opportunities. These new programs led to \$11.5 M in COVID-19 related research funding.
- Processed 1,447 research project amendments, a 60% increase from the previous year as a result of pandemic-related grant extensions.

 Streamlined processes with Financial Operations to process 272 unique NSERC and SSHRC supplements provided to lessen the impact from COVID-19 on students, trainees and research support personnel.

Programming and Services

RASI's full range of programs and services can be viewed on its new website. In 2020-21:

- RASI provided specialized and strategic support for faculty, aiding in proposal development through Test Your Concept events (NSERC CREATEs and SSHRC Partnership), workshops to support proposal development (CFI Innovation Fund and NSERC CREATE), and virtual workshops and panels (CIHR Project Grant, NSERC RTIs, SSHRC Insight Grant, and SSHRC Insight Development Grant).
- 116 faculty participated in internal peerreview for SSHRC Partnership, Insight, Insight Development, and Partnership Development grants, NSERC CREATE, Alliance, Discovery and RTI proposals, CIHR Project applications, SHRF Establishment, and NFRF Transformation submissions. These internal reviews strengthen proposals and increase the likelihood of success.
- Members of USask's PEER (Pre-Eminent Expert Reviewers) community promoted a culture of research intensity, providing faculty mentorship and expertise as panelists at workshops and test your concepts, members on advisory committees and internal reviewers for draft research proposals.

Several new programs, services, and supports were launched in 2020-21, including:

- Improved communication and access to information through the new researchfocused website, weekly funding opportunities newsletter, grants and opportunities calendar, KnowledgeBase articles on key research administration topics.
- RASI Grants Repository now features testimonial videos speaking to their successful proposals.

 Strategies and supports to nominate USask faculty to key tri-agency panels and advisory committees. Efforts focused on nominations for CIHR's Institutes Advisory Board, Tri-Agencies Indigenous Reference Group, and Tri-Agencies Indigenous Advisory Circle in Research.

Support for Community Engaged Research

RASI provides institutional support to researchers for partnership development and community engagement. Highlights from 2020-21 include:

- RASI supported the development of 89 formal partnerships for large-scale grant proposals in 2020-21, across NSERC CREATE, NSERC Alliance and SSHRC Partnership programs. Strategic, large-scale proposals require tailored support for partnership engagement and development across academic institutions, government, Indigenous community, industry and nongovernmental agency (NGO).
- USask Indigenous Research Workshop Series launched in partnership with the Office of the Vice-Provost Indigenous Engagement. The first two events reached full registration capacity of 250 attendees/event.
- *Research Junction* facilitates partnership and collaboration between City experts and USask researchers. 2020-21 saw:
 - 4 new Research Junction Development Grants awarded;
 - Implementation of a Data Sharing License between the City of Saskatoon and USask;
 - The pilot of UrbanFYRE (First Year Research Experience) with students using city data in their course-based research projects.
- RASI is supporting the development of a cross-disciplinary and inter-sectoral research cluster, Pathways to Equity. In 2020-21, a 10 person working group, composed of university researchers and community members, formed to develop a community-engagement strategy focus on housing and homelessness.
- SSHRC Partnership Development Grant (PDG) pilot program launched to support a cohort of up to five faculty members to apply for a PDG.

Leading Practices for Equity, Diversity, and Inclusion (EDI) in Research

- Support for recruiting CRC's through a new EDI faculty champion program developed with Human Resources and the Provost's Office will ensure that EDI is considered throughout the recruitment process. USask is one of 17 institutions across Canada to receive a passing mark for its CRC EDI Action Plan.
- A new EDI in Grant Applications guide provides comprehensive, grant-specific information and practical tools and strategies for ensuring EDI in research teams and training.
- Inclusion of EDI principles and practices in internal program decision-making and committee development:
 - SSHRC Explore and Exchange program now has Unconscious Bias Training for Internal Reviewers and an updated application form with the option for Self-Declaration, and questions related to EDI and COVID-19 Impacts.
 - President's NSERC program incorporates EDI in the committee recruitment process.

Research Performance and Grants

Tri-Agency Performance: Individual-driven Grants

- 102 proposals (63% of eligible) participated in the Internal Peer Review program available for CIHR Project Grant, SSHRC Insight, Insight Development, and Partnership Development, and NSERC Discovery Grants and RTIs.
- Participation rates varied between competitions from 57% to 92%, an increase from a range of 39% to 69% in the previous year. 72% of awarded projects had participated in the peer-internal review program.
- In 2020-21, through these programs USask researchers were awarded \$16.5 M.

Strategic and Tri-Agency Large-Scale Grants

In 2020-21, RASI supported the submission of 19 proposals to Strategic and Tri-Agency Large-Scale

Grants. Almost all of these results are pending or embargoed. Some successful outcomes:

- SSHRC Partnership Grant Stage 2 Monitoring and Evaluation of Climate Change Education (MECCE) Partnership - \$2.5M (total project budget: \$4.9M)
- NSERC CREATE SOAR: Software Analytics Research- \$1.65 M (total project budget: \$13.6M. As well, an all-time high of 3 NSERC CREATE Full Proposals (invited from 5 Letters of Intent).
- The submission of USask's first large-scale, multisector NSERC Alliance application.
- The development of 5 LOIs for the New Frontiers in Research (NFRF) Transformation stream.
- Support for CIHR's Strategy for Patient Oriented Research via USask's SCPOR renewal.
- A Genome Canada Large-Scale Applied Research Project Full Proposal.

Canada Foundation for Innovation

In 2020-21, USask was awarded \$11.4M from the Canada Foundation for Innovation for research infrastructure (total project budgets of \$29M).

- \$615K for CFI-JELFs (5 awarded), and \$268K for CFI-JELFs, partnered with a CRC nomination (2 awarded).
- \$300K for the Exceptional Opportunity Fund COVID-19 (1 awarded).
- \$9.9M for Innovation Funds (2 awarded)
 - Integrated Genomics for Sustainable Animal Agriculture and Environmental Stewardship (IntegrOmes) - \$6.7 M – Total project budget - \$16.9 M.
 - The Canadian Agricultural Centre for Engineering Biology (CACEB) - \$ 3.2 M – Total project budget - \$9.2 M.
- USask received 3 CFI Major Science Initiative Fund awards, total value \$88.8 M to support our three national research facilities.

Canada Research Chairs Program

- The Canada Research Chair (CRC) Program invests in attracting and retaining the world's most promising minds. USask holds 32 CRC's -19 of which are active or filled. In 2020-21, RASI supported two new CRC nominations, one CRC renewal, and five CRC recruitments.
- In 2020-21, USask was awarded or renewed four CRCs, for a total award of \$4.8M.

Undergraduate Research Initiative

First Year Research Experiences (FYRE)

 Over 3000 students participated in FYRE courses 2020-21 year for a second year in a row. FYRE engages faculty to embed a mentored research experience into a first-year course; research coaches support students to experience the research cycle (question, investigate, share) and develop research confidence.

SURE: Student Undergraduate Research Experience

• Student Undergraduate Research Experience (SURE) is a co-curricular program supporting undergraduate students conducting coursebased, independent, or faculty-mentored research. In 2020-21, SURE had 685 students participating in 35 events since May 2020.

OVPR Undergraduate Student Research Assistantship

 In 2020-21, RASI provided \$116,625 funding for 36 OVPR USRA students and \$45,000 to support 10 SCPOR USRA students.

MentorSTEP

 In partnership with STC and funded by the IMII, MentorSTEP offers Indigenous women students mentorship in STEM, professional activities and research internships with a focus on the mining community. The program had 20 student participants and 32 mentors. In summer 2020, 7 research internships with industry leveraged \$49,500.

Activity By the Numbers

758 new research projects awarded leading to \$184M in new funding, including:

\$18.6M in COVID-19 relief funding;
\$9.9M for 2 CFI Innovation Fund projects;
\$88M for 3 CFI Major Science Initiatives Fund projects.

698 new project applications submitted to external agencies, including **19** Strategic and large-scale Tri-Agency proposals submitted.

1,447 research project amendments processed, a **60%** increase from the previous year.

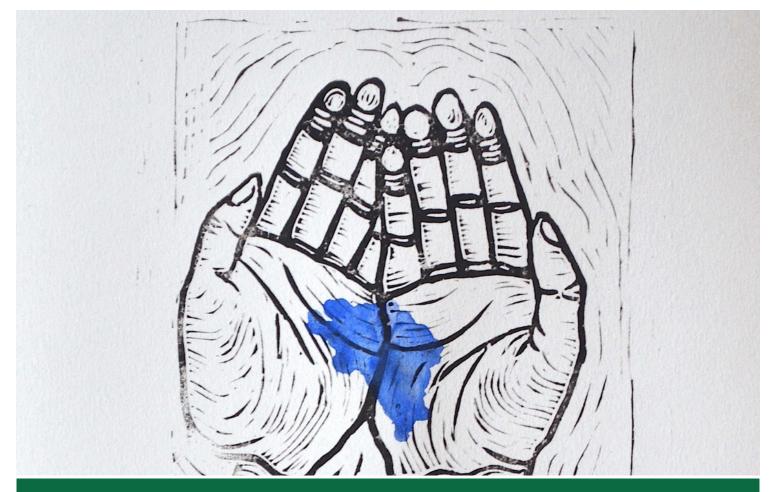
3,000 undergraduate students enrolled in a First Year Research Experience course.

• **685** students enrolled in the new cocurricular Student Undergraduate Research Experience (SURE).

 89 formal partnerships supported with academic institutions, government, Indigenous community, industry and nongovernmental agencies.

 102 tri-agency grant proposals internal grant applications underwent Internal Peer Review.

• **Multiple** new programs and services to support faculty across the full range of grants and priority areas.



Research Profile and Impact

Telling the University's Research Story

Research Profile and Impact (RPI) tells the university's research story to the world – through strategic communications involving print, video, web, social media, advertisements, speeches, op eds, and events.

RPI plays a critical role in building USask's reputation as a U15 institution for excellence in our research, scholarly and artistic work, which in turn helps attract top faculty and students, public and private investment, and support from alumni and partners.

As the university's liaison with federal and provincial research granting agencies, RPI ensures compliance with communications requirements and leading high-profile events to showcase our research funding successes. Working in co-ordination with University Relations and a network of USask college and research centre communicators, RPI helps researchers tell their research stories, whether in print, web or video.

Shift in Leadership

On January 4, 2021, award-winning journalist and editor Heather Persson joined the University of Saskatchewan as the new Director of Research Profile and Impact. Heather has a Bachelor of Science in Communications from Spring Arbor University in Michigan, and a Masters of Administration in Leadership studies from the University of Regina. Previously, she was Editorin-Chief of the Saskatoon StarPhoenix and Regina Leader Post—the first woman to hold this position at the StarPhoenix in the more than 100-year history of the paper.

Heather succeeded Kathryn Warden, who retired from this role on January 15th after an exceptional two decades at USask, providing a wide range of expert strategic communications advice, counsel and briefings to many senior leaders, and working closely with USask flagship institutes and centres to grow and strengthen their profile and reputation in Canada and globally.

Tracking our Progress

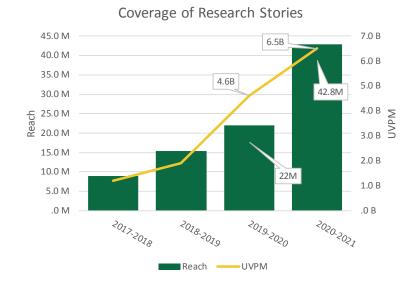
Total Coverage

In total, RPI published 91 news releases in the last year, a 30 percent increase from the previous year.

USask research stories have seen a steady increase in coverage in 2020-21, in part due to our COVID-19-specific stories, and interest in stories related to VIDO's pandemic response.

The "Reach" of USask stories increased by 95 percent from the previous year—from 22 million to 42.8 million. Of those viewers/listeners reached, nearly 15 million can be attributed to one event – the announcement of the \$59.2 million investment to VIDO in April 2021.

Coverage of USask stories through online news sources, such as MSN, Yahoo! Finance, and Science Daily, also increased from the previous year. Total readership/viewership increased by 41 percent from 2019-20, to over 6.5 billion.

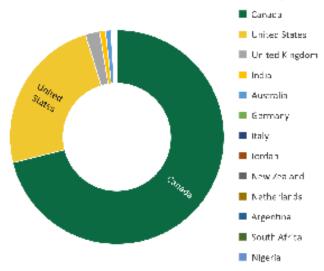


Metrics Explained

"Reach"—broadcast media coverage

"Unique visitors per month (UVPM)"--online news sources coverage, a self-reported number of unique visitors the website receives during one typical month. USask stories were seen by audiences throughout Canada, and across the world. More than two-thirds of our research story coverage came from Canada, and just over 23 percent of the coverage came from U.S. media outlets, with the remaining 10 percent coming from a variety of sources.

Canada and Global Coverage



Our most helpful booster—that is, which helped reach the most people – was MSN and its global network of subsidiary outlets. Each USask story posted to MSN earns over 69 million estimated viewers. MSN published stories about USask research 62 times, and accounted for over 36 percent of our total UVPM for the year.

Popular News Stories

While stories about COVID-19 research and vaccine development research dominated, our single most viewed story was "Last Meal of Armor-Plated Dinosaur That Died 110 Million Years Ago Revealed," which was covered by MSN News Canada, MSN UK, MSN Ireland, MSN Arabia, MSN India, MSN New Zealand, CNN Online, CNet, FOX News, Newsweek, and National Geographic Online. In 2020-21, the top three news stories were:

- Western Canadian scientists discover what an armoured dinosaur ate for its last meal, June 2, 2020.
- Promising pre-clinical results for USask VIDO-InterVac COVID-19 vaccine, May 25, 2020.
- Upcoming increase in COVID-19 cases, Imminent surge in wastewater, Oct. 30, Nov. 19, 2020.

COVID-19 Stories

COVID-19 research stories account for a substantial portion of the total number of stories written and published by RPI – 28 of 91. Stories came from across the campus, addressing the many ways USask researchers are helping to address the pandemic. These stories often focused on:

- New funding for virus and vaccine research and wastewater analysis.
- Innovative collaborations and targeted product development (ventilators, home testing kits).
- Mitigating harms associated with the pandemic and lockdowns (studying air quality and ventilation, social attitudes, online hatred toward Asian communities).
- Debunking myths (masks hindering exercise, using bleach alternative cleaning products).

EurekAlert!

RPI subscribes to EurekAlert, the science news website of the American Association for the Advancement of Science which publishes peerreviewed science news from around the world.

From May 2020 to April 2021, there were 26 news releases posted (up from 23 in the previous year). The releases were viewed 121,395 times, mainly by journalists who use the site as a source of news (a 33.5 percent increase over the previous year's 90,920 times).

By far, the most popular USASK story that was posted was "Stretching more effective than walking to lower high blood pressure: USask study," garnering over 25,000 views.

Major initiatives

Discovery Digest

Discovery Digest, our monthly newsletter highlighting USask research accomplishments, was to distributed to an average 5,800 people each month, including all faculty, lecturers, graduate students, post-doctoral fellows, as well as elected government officials and key federal and provincial partners.

On average, the newsletter was opened by 66 percent of recipients. This open rate is substantially higher than the 22.4 percent, which is the standard rate for newsletters in the education sector.

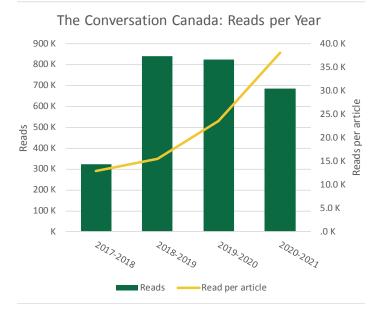
Of those recipients who opened the email, an average 16.6 percent clicked the links to read the stories on the website, spending an average of 3:42 reading stories on the research website.

2021 Images of Research Competition

Students, faculty, and staff from across campus seven colleges, one school, one research centre, and one administrative unit—submitted 74 images of research, scholarly, and artistic work.

Now in its seventh year, overall participation was lower than in previous years, likely due to COVID-19 impacting the ability of researchers to document their work. The contest website attracted over 14,000 visitors. More than 1,600 people cast a vote in the Viewer's Choice category. Seven judging panels (faculty, staff, students, and community members) awarded cash prizes for winning images.

Contest photos from the 2020 competition were used for USask's Be What the World Needs advertising campaign, with ad placements and supporting advertising supplements in the Globe and Mail. The images were also made available to communicators as part of a collection of brand assets, and are used extensively on the USask. ca homepage, banners, social media, templates, recruitment materials, and in this annual report. The winning images appeared prominently in a Saturday feature of the Saskatoon StarPhoenix on April 17, with the front page of the newspaper devoted to one of the winners, and three pages devoted to the images and their descriptions.



The Conversation Canada

While the total number of articles penned by USask authors fell this year as well as did the total number of readers, interest in articles by USask authors increased, evidenced by the average number of reads per article increasing 61 percent to nearly 38,000 per article.

Most of those reads are attributable to COVID-19 content, with nearly 20 percent of the reads generated by an article written by Dr. Alexander Wong in April 2021, answering questions related to the AstraZeneca vaccine.

Young Innovators Series with The StarPhoenix

After five years with Research Profile and Impact and writing the Young Innovators stories, graduate student intern Federica Giannelli left for a new role as a communicator in Teaching, Learning, and Student Experience.

Before Federica's departure, RPI published nine stories that highlight USask graduate student research achievements in signature areas. The stories were regularly picked up by major national media, and shared widely by government officials/ agencies, funding partners, and communicators across campus.

Activity By the Numbers

91 research news releases published, a30% increase from the previous year.

USask stories broadcasted **42.8M** times by media, a **95%** increase from the previous year.

• **28** COVID-19 related research stories produced by RPI, representing **31%** of total news releases.

26 news releases posted to EurekAlert!, which were viewed 121,395 times.

USask's single most popular
 research story: "Western Canadian
 scientists discover what an armoured
 dinosaur ate for its last meal."

5,800 subscribers to USask's Discovery Digest monthly newsletter.

74 images submitted through the **7th** annual Images of Research Competition, of which **1,600** people voted to select a winner.

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International Office

Supporting Internationalization

The International Office (IO) plays a pivotal role in advancing the university's internationalization goals, as well as supporting international research and partnership activities across the institution.

IO administers several programs, services, and supports for faculty, staff, students, and external partners, including:

- **Partnership development:** assisting with agreement preparation, facilitating review and renewal of agreements, identifying partnership opportunities, and making connections.
- **Delegation Management**: liaising with government officials and other agencies, and coordinating arrangements before, during, and after visits.
- International Research: facilitation of international research proposals and due diligence processes.

International Research

USask researchers actively explore opportunities for collaboration and meaningful research projects with global funding agencies.

International Research Projects

In 2020-21, USask partnered on 267 international projects, with total funding awarded at \$43,033,936. This contributed to the advancement of several aspects of the university's International Blueprint for Action, including:

- Pillar 3 Strengthening our Global Impact through Discovery, where our goal was to increase external international research funding by at least 20% from the 2017-18 baseline. USask has witnessed a 176.7% increase since this period.
- Pillar 4 Growing our Global Citizenship and International Community Service, where our goal was to increase international development

funding by at least 25% from the 2017-18 baseline. USask has witnessed a 658% increase since this period.

Of the 267 international projects, 27 involved partnerships with Low Middle Income Countries (LMIC) in the global south, with a total funding award value of \$5,348,023.

 Low middle income countries on these projects included Bulgaria, China, Democratic Republic of Congo, Cuba, Ghana, India, Jordan, Kenya, Lebanon, Nigeria, Russia, Rwanda, Senegal, South Africa, and Turkey.

International research has the potential to tap into new funding sources, share costly talent and rapidly accelerate research endeavors. Through its membership with CALDO, a Canadian consortium of nine U15 institutions, and the Canadian Embassy in Chile, Mexico, Ecuador, Colombia, and Panama, USask is well-positioned to promote graduate programs, recruit high-quality graduate funded students and drive partnerships with Latin American organizations, government and industry.

Internal Grants and Awards

IO administers International Travel and Project Grants as well as International Recognition Awards which serve as a catalyst for international research and academic collaborations.

- International Project Grants, which include Global Community Service Fund (GCSF), Global Innovation Fund (GIF), and International Research Fund (IRF).
- International Travel Grants, which include Global Ambassador Program (GAP)-Incoming and Outgoing, Internationalization Fund (IF), and International Travel Fund (ITF).
- Internationalization Recognition Awards, which include Global Research Leadership Award for Faculty, Global Research Leadership Award for Students, International Engagement Service Award for Staff, and J.W. George Ivany Internationalization Award for Faculty.

In 2020-21, IO received 13 Project Grant applications in one round, of which, 9/13 were awarded funding (69% success rate) with partner countries in China, South Africa, Israel, USA, Bangladesh, Australia, Uganda, Kenya, Tanzania, UK, Argentina, India and Sweden. In addition to project grants, 22 travel award applications have been received and are undergoing review.

To offset restrictions imposed by the COVID-19 pandemic, IO adapted by providing increased flexibility and leniency for grant applications, supporting virtual offerings, and taking advantage of the crisis to build stronger ties with the international community.

For example, extended end dates are being granted for 41 active grants (23 travel grants; 18 project grants). Travel grant parameters have been revised to include virtual mechanisms, telecommunications, materials and supplies to enable international partnership building activity during the Covid-19 pandemic. IO staff remain in active communication with grantees to support pandemic adaptation and community/partnership engagement strategies.

In 2020-21, IO organized two information sessions for USask faculty and staff to learn about the International Blueprint funding opportunities and programs, with approximately 30 individuals in attendance at each session.

International Delegations

The number of visiting scholars and international delegations has declined in 2020-21 due to the global pandemic, international travel restrictions, and a shift to remote operations at USask.

Alternative virtual mechanisms have been employed to augment collegial research partnerships abroad as well as open conversations on academic program collaboration. Faculty, researchers, and staff are now more familiar and comfortable than ever before hosting meetings and managing international projects using digital collaboration tools.

International Partnerships

Partnership Agreements

As of April 30, 2021, IO oversaw the administration of 387 active agreements with 201 entities in 61 countries.

- Top continents are Asia, Europe and North and South America followed by Africa and Oceania.
- Top partner countries are China (n=72), Japan (n=29), France (n=25), Mexico (n=18) and Germany (n=16).
- Top partner countries for student exchanges (network and consortia included) are China (n=26), France (n=22), Germany (n=10), Norway (n=9), Finland (n=8) and Japan (n=8).

In 2020-21, despite the global pandemic, 35 agreements with 27 entities in 22 countries were signed reflecting universities' efforts to solidify and expand research partnerships across borders. Much of these interactions have been facilitated through close working relationships with provincial, national and international governments.

Relationship Building

Revitalizing relationships requires universities working cooperatively together with all levels of governments to benefit students, staff, faculty and our wider society. IO and the Ministry of Advanced Education, Government of Saskatchewan, have developed a special relationship through the Saskatchewan Education Alliance and meet biweekly to discuss updates, strategies and opportunities. This enables us to put our distinctive strengths on the table, influence government directions and actions, and ensure that our communities and peoples are benefited. This mode of cooperation and ongoing dialogue is vital for Saskatchewan's social, economic, and cultural development as well as its International Education strategy and the Saskatchewan Growth Plan.

IO pursues strategic opportunities to promote USask, increase awareness of its advantages, and attract investments and partnerships with institutions abroad. In 2020-21, IO:

- Participated in 86 meetings with the Canadian government and 15 meetings with foreign governments overseas.
- Prepared a total of 29 international briefings (11 for government, 18 for senior leaders) covering a breadth of topics in different countries.
- Sent 6 institutional updates to our international partners during the COVID-19 pandemic
- Facilitated 103 exploratory partnership discussions with stakeholders from 32 countries.

Multi-Sectoral Engagement

IO continues to grow, embolden partnerships and embrace interdisciplinarity with well-renowned higher education institutions in the world to increase diversity of our own perspectives and craft solutions to adequately address global challenges.

USask recently signed agreements with Korea University, South Korea, and with Institutio Tecnológico de Estudios Superiores de Monterrey, Mexico, to strengthen academic and research mobilities to help students gain in-demand international skills and experience and enhance their pathways to employment.

Interactions between our faculty members and academics from Latin America has led to productive collaboration and distinguished learners.

For example, in 2020, Drs. Carlos Carvalho and Dr. Edel Perez-Lopez (University of Laval, Canada) participated in a webinar about graduate studies in Biology, Dr. Veronica Campanucci from the College of Medicine participated at the CONCYTEC Research Fair in Peru; Drs. Jim Robson, Tim Sharbel, Michelle Johnson-Jennings and Seokbum Ko participated at a virtual research table - SIIDETEY Mexico; and Dr. Greg Poelzer participated at the ANID and the Ministry of Energy in Chile called "Just transition into clear energy". In early 2021 a webinar on wastewater management was co-hosted by Drs. Jafar Soltan and Cesar Huilinir (Universidad de Santiago de Chile, Chile). These activities have enabled USask to deliver meaningful impact and receive global recognition abroad.

Addressing global challenges and building research capacities in countries of the Global South requires an understanding of the interdisciplinary and crosscutting research landscape, and identification of the challenges and solutions which can directly benefit local communities.

IO has paved the way by creating a research consortium, known as the "Magic 7" consisting of seven higher education institutions in the Philippines to advance research actions on Indigenous culture, food security, health and wellbeing. The objective of the Magic 7 consortium is to mobilize knowledge between Canada and the Philippines and develop tools to assist our communities and partners achieve their social, cultural and economic goals.

Research between Canada and the Philippines has been further enhanced by IO entering into a partnership with the Embassy of Canada and the Commission on Higher Education (CHED), in the Philippines, to create a EduCanada webinar series on the United Nations (UN) Sustainable Development Goals (SDGs).

To date, two webinars have been delivered by USask faculty, Dr. Anurag Saxena at the College of Medicine and Dr. Greg Poelzer at the School of Environment and Sustainability, on SDG3 (Good Health and Well-being) and SDG7 (Affordable and Clean Energy). These webinars were attended by over 200 individuals representing the higher education sector, colleges, not-for-profit organizations, government and the private industry at each session. Embarking on such initiatives helps USask deliver meaningful impact through knowledge mobilization which help address the goals of the university's new sustainability strategy.

Our expertise and proactive approach in engaging the USask community in Global North-South collaborations has led to the International Office being invited to participate at a national roundtable (as well as one to one meetings), facilitated by Academics Without Borders (AWB), an international funding agency to share our experiences and learnings implementing global development projects, with peers from U15 universities. In 2020-21, USask was awarded the Queen Elizabeth II Diamond Jubilee Scholarship Advanced Scholars West Africa, a prestigious scholarship managed through a unique partnership of Universities Canada, the Rideau Hall Foundation (RHF), and Canadian universities. Dr. Sabine Liebenehm (Agriculture and Bioresources) leads the project, to improve water security, gender equity as well as leadership and capacity building with multi-sector partners and advanced scholars in Canada, Ghana and Senegal.

People Around the World Conference

As an initiative of the USask's International Blueprint for Action 2025, the 4th annual People Around the World Conference (PAW 2021) brought together expert research, applied knowledge, and lived experiences to create a path forward for stronger, more resilient societies in the wake of COVID-19 and meeting the United Nations (UN) Sustainable Development Goals (SDGs). PAW 2021 had record attendance with more than 270 participants from around the world attending virtually from Bangladesh, Bolivia, Canada, the Cayman Islands, China, Colombia, Ghana, Guatemala, Iran, Italy, Mexico, Pakistan, the Philippines, the United States of America, Vietnam and more.

PAW 2021 keynote speakers included Dr. Jeffrey Sachs, Professor, Columbia University; President, UN Sustainable Development Solutions Network-(SDSN); The Honourable Karina Gould (Minister, International Development, Government of Canada); The Honourable Judge David Arnot (Chief Commissioner for the Saskatchewan Human Rights Commission); Dr. Livia Castellanos (Executive Lead, International Education and Jurisdictional Initiatives, Ministry of Advanced Education, Government of Saskatchewan); and, Dr. Phil De Luna (Director, National Research Council Canada (NRC); Member, Canadian Commission for UNESCO Working Group on Al Ethics and the Sustainable Development Goals).

In addition to five renowned keynote speakers, PAW 2021 included participation of over 40 expert presenters representing USask, government, international partners, private industry and more. Five thematic sessions held at PAW 2021 included health and wellbeing; food, land, and water

(security and sovereignty); education, gender, and inequality; sustainable, equitable, and diverse communities; and climate action and energy. The strong linkages and connections developed at PAW 2021, has opened the door to new relationships being created and fostered. For example, Dr. Phil De Luna (PAW keynote) presented at the USask Global Water Futures Young Professionals GWF-YP on "Job Hunting in Academia in a Pandemic." Additionally, Dr. Jeffrey Sachs (PAW keynote) was a featured guest on the series finale podcast 'Let's Talk About Water' entitled "Towards a Greener, Better World with Jeffery Sachs" — podcast is hosted by Dr. Jay Famiglietti (PAW emcee), Executive Director of the Global Institute for Water Security.

Sustainable Development Goals (SDGs)

The IO has been instilling local and global awareness on the SDGs by serving as both a convener and facilitator on topics related to the SDGs. It works closely with the Ministry of Advanced Education, Government of Saskatchewan, as part of the Saskatchewan Education Alliance, to chair a working group on international research and the SDGs to increase cross-sectoral partnerships and dialogue on the SDGs between and among postsecondary institutions in Saskatchewan and international entities.

In 2020, the International Office contributed to the development of a practical guide on "Accelerating Education for the SDGs in universities" by the UN Sustainable Development Solutions Network (SDSN). In partnership with SDSN Youth, the International Office oversees two international students at USask appointed as SDGs coordinators to develop a "SDGs student hub" on campus a platform to bring a community of students together to advance actions on the SDGs through empowerment and education. As a catalyst and connector between local and global, the International Office, has enhanced outreach and engagement activities with multi-sectoral audiences in Canada, China, Taiwan, and the Philippines by delivering lectures on the SDGs.

Activity By the Numbers

USask partnered on **267** international projects, with total funding awarded at **\$43,033,936.**

27 of these international projects involve partnerships with Low Middle Income Countries (LMIC) in the global south, with a total funding award value of **\$5,348,023**.

13 Project Grant applications received, of which, **9/13** were awarded funding (**69%** success rate).

22 travel award applications were received and are undergoing review.

 Organized 2 information sessions for USask faculty and staff to learn about the International Blueprint funding
 opportunities, approximately 30 individuals attended each session.

Managed **387** active agreements with **201** entities in **61** countries.

 5 new agreements with 27 entities in 22 countries were signed reflecting universities' efforts to solidify and expand research partnerships across borders.

Participated in **86** meetings with the Canadian government and **15** meetings with foreign governments overseas.

Facilitated **103** exploratory partnership discussions with stakeholders from **32** countries.

270 participants from across the global participated in the 4th annual People Around the World Conference.

RSAW VICE CHAIR: LORI BRADFORD MAY 2021

RSAW Committees in the U15

Reporting Structures:

RSAW at USASK Reviews and advises Council on issues related to research, scholarly and artistic work including advising on research grant policies and the establishment of research centres. This report conveys the findings of a research project¹ that examined the structure, role, and activity of RSAW committees in the U15 in December – April 2021. Institutional websites, policies, and procedures documents were scanned for reporting structure (Senate, Council, Board, and Internal Office), mandate, and membership (elected, appointed, roles) and followed up with phone calls to governance offices at each institute for verification.

Committee Reporting Structures

UNIVERSITY OF

Most Research, Scholarly, and Artistic Works (or similarly mandated) committees in the U15 were committees of Council (or Senate) that provided a review and advising services on policies. While 3 Universities have no committee, only one – UBC – has a committee that reports directly to the Board of Governors and has more say in resourcing research endeavors.

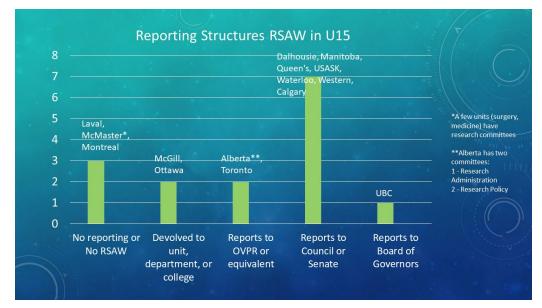


Figure-1: Number of RSAW committee by level of devolution and reporting pathway.

¹ Using the environmental scanning procedure laid out by: Choo, C. W. (2001). Environmental scanning as information seeking and organizational learning. *Information research*, 7(1), 7-1.

Recommending to Council on issues and strategies to support research, scholarly, and artistic work: policies and issues related to research integrity and ethics; providing advice to the VPR on community engagement and knowledge translation activities; advice to the VPR and reporting to Council on issues relating to the granting agencies: on the contributions of undergraduate and graduate students and post-doctoral fellows to the research activity: centers and institutes: reporting to Council the University's research ethics boards' annual reports: new activities as deemed relevant.

Common Mandates:

Each U15 RSAW committee administrator was asked about the mandate and membership of their committee. Mandates obtained through document review were validated by committee Chairs. The number of institutes that had common elements in their mandates is noted.

Reviews material in preparation for audits (7/15)

These audits could be internal/external in nature, and were focused on finding research efficiencies, or providing certification to external agencies.

Oversees research ethics (6)

Ethics policies were a common element of review by RSAW committees. Membership of ethics committees or invitations to reviewer pools were also validated by RSAWs in some cases.

Reviews research programs of centers and institutes (6)

Receives research activity reports from units, departments, colleges and Tri-Council representatives (5)

Considered strategic research directions of the institutes and in one case, had impact on financial allocations (UBC).

Provides forum for identifying, discussing and resolving research issues (5)

Ensures research programs align with strategic plans (4)

Membership:

Two styles:

A (2/15) – Administrative with	B (7/15) – Representative with
OVPR, Deans, Directors, Financial	nominated/elected faculty members,
Managers (Alberta, Toronto)	staff & student representatives

Common members:

- VPR or designate often is Chair (7)
- Senate/Council determines membership (7) (Calgary, UBC, USASK, Queen's, Dalhousie, Waterloo, Western)
- Deans or Vice-Deans Research (6)
- Students (6)

Unique Compositions:

- Waterloo combines Research and Graduate Studies
- Queens has five subcommittees of the Advisory Research Committee (health sciences, arts and humanities, engineering and applied science, physical/math/computing sciences, social science and professional schools)
- Alberta has two committees: research administration, and research policy neither of which have elected members or appointments from the general academic assembly