COUNCIL COMMITTEE ON RESEARCH

AGENDA

Date: Thursday, March 7 Time: 2:00 – 3:30 pm Location: AH 527

	Agenda Items	Materials
1	Introductions	
2	Approval of Agenda	
3	Approval of the Meeting Minutes of January 8, 2019	Appendix A
4	Chair's Report (Raymond Blake)	
		Appendix B
5	Business Arising – External Relations Research & Communication Strategy	
6	Vice-President (Research) Report (D. Malloy) (Regrets)	Appendix C
7	Terms of Reference for CCR committee – standing item	
8	Review performance of the emerging cluster Identity/Living	
	Heritage/Communities (Kathleen Irwin)	
9	NSERC- Research Revenue Theme – Comprehensive yearly report (S.Gray)	Appendix D
10	Research Challenges – updated – need to priortize	Appendix E
11	Direct Open Access Publishing (Yost, Bradley)- Tabled for May 8 meeting	
12	Resource Research Impact preliminary report (Jones, Al-Anbagi, Irwin)	
13	Volunteers for CIF-JELF review committee (Infrustracture Grants) Call by	
	email— if no one responds bring it up at CCR meeting	
14	New Business	
	Adjournment	

CCR Sub-Committees					
Standing	Ad-hoc				
- CFI	- Research Impact				
- NSERC Research Tools and Instruments	- Research Space Allocation				
- Research Trust Fund/Sabbatical Research	- Terms of Reference				
Grant					

Distribution	
Dave Malloy, VPR	Miguel Sanchez, Social Work
Kathy McNutt, AVPRD	Cara Bradley, Library
Sally Gray, Director of Research Office	David Meban, Campion College
Nicholas Jones, Arts	Andrew Miller, First Nations University of Canada
Adrian Pitariu, Business Administration	Yvonne Harrison, Luther College
Twyla Salm, Education	Ian Germani, Director HRI
Amr Henni, Engineering & Applied Science	Sandra Zilles, CRC Rep.
Kathleen Irwin, Media, Art, and Performance	Raymond Blake, Chair - Arts
Darren Candow, Kinesiology & Health Studies	Chris Yost, Council Member, Science
Glenn Donnelly, Nursing	Raghavi Kemala Rajakumar, GSA
Cory Butz, Science	Irfan Al-Anbagi – Council Member, Engineering & Applied
Ken Rasmussen, Johnson Shoyama Graduate School	Science



MINUTES

COUNCIL COMMITTEE ON RESEARCH

Minutes of the Meeting of Tuesday, January 8, 2019 AH 527

Present: R. Blake (Chair), D. Malloy, K, McNutt, C. Bradley, N. Jones, I. Al-Anbagi, C. Yost, S. Gray, T. Salm, K. Irwin, Y. Harrison, C. Butz, K. Rasmussen, D. Meban, A. Miller, A. Henni, M. Sanchez

Resource: P. Splett (Research Office), recorder

Regrets: D.Candow, Raghavi Kemala Rajakumar, A. Pitariu, I. Germani, S. Zilles

1. Introductions

2. Approval of Agenda

Jones/Al-Anbagi - moved approval of the agenda CARRIED

3. Approval of the Minutes from November 6, 2018

Irwin/Rasmussen – moved approval of the minutes CARRIED

4. Chair's Report (Raymond Blake)

The Chair's report is attached. The chair reported that he had acted on the decision from previous meeting that the agenda be set by the Chair and the two other elected members of Council. We will continue to issue a call to Committee members for agenda items to consider at the upcoming meetings.

5. Business Arising – None.

6. Vice-President (Research) Report – Attached

The VPR's written report was circulated with the Agenda package and members had the opportunity to peruse the report before the meeting. During discussion, the VPR noted:

Decision on cluster leaders to be announced soon.

In the discussion, the VPR asked if the materials presented were of the nature that the CCR Members found useful and pertinent to their work. He pointed out that the report is similar to the one that is presented to the Board of Governors and it attempts to gauge how the University is meeting the objectives included in the Strategic Research Report. It was asked of the VPR if the Strategic Research Plan Performance Measures report might be broken down into various categories, such as funding by the Tri-Council Granting agencies of NSERC, SSHRC, and CIHR, and with funding for research from Contracts noted in a separate category. Such data would allow CCR members to gauge both the number and dollar value of Tri-Council grants received by the University and monitor the success rate of applicants over a period of time. It was noted that combining Tri-Council research funding and contract research into a global number might give misleading information and

hide significant trends in the research enterprise at the university. Mutli-year funding from the Tri-Council needs to be identified and kept separate from contracts for research from a government department or a corporate entity. It was noted too that CCR appreciates the research highlights included in the report.

7. Terms of Reference for CCR committee – Tabled carried forward.

8. External Relations Presentation (K. Baliko, E. Limacher)

An invitation had been issued to Lisa Mitchell, VPA, External Affairs, after the 6 November 2018 meeting of CCR to attend the January Meeting to discuss the apparent reduction of the number of research stories that appear on the URegina homepage. External Affairs decided that it was most effective to have, Erin Limacher, Director, Communications & Marketing, and Research Communications Strategist, Krista Baliko attend the meeting. The Chair expressed thanks to Ms. Limacher and Ms. Baliko for their presentation which noted the following:

- New trends in communications with social media, particularly Twitter;
- There will be fewer stories on the U of R homepage as External Relations believes it allows more time to be spent on content, though it was noted that the feature stories are varied;
- From the use of analytics, it is clear that more informed information is being re-twitted to unique viewers;
- External Relations are Profiling researchers in various national magazines such as University Affairs, the University's own research magazine (Discourse), and in Degree Magazine; and
- External Relations is using new communication tools, particularly through Conversation Canada, that
 bills itself as an independent news and views site from the academic and research community at
 Canada's universities. It is funded by universities throughout Canada, including the University of
 Regina.

Discussion followed the presentation which was well-received by CCR members. The message that came from the presentation was that research stories are now being incorporated as part of the university's overall communication strategy rather than simply getting research stories out to wider communities which was the case for the past several years. The presentation made clear that the communications strategy for the University is about creating a certain narrative of the university that emphasizes, for example, the University of Regina as diverse and inclusive – attributes that members of CCR welcome and share. It was not clear, however, what such an approach means for communicating the work and accomplishments of researchers on campus and how research stories will be impacted as the university administration more effectively manages the message that it wants and having that message controlled by External Relations. The period of presenting as many stories of the output of researchers as possible has been replaced with a more targeted communications strategy.

9. Direct Open Access Publishing – (C. Yost, C. Bradley)

C. Bradley and **C.** Yost provided an update on their work and announced that a draft report will be submitted for the next meeting on March 7, 2019.

10. Resource Research Impact preliminary report (N. Jones, I. Al-Anbagi, K. Irwin)

The Subcommittee has begun work on their report and highlighted the following:

• Finding the mechanism to capture Research Impact;

APPENDIX A

- Expanding reporting mechanism to include community-based research (funded/unfunded) and thematic areas;
- Communicate to the Board of Governors the importance of community based research;
- Noted the importance of Communication:
 - o Encourage people to share their stories
 - o Flow of information from faculties to researchers
 - o Flow of information from Research Office to Financial Services for reports
 - o Host a showcase of community based research.

A discussion followed the presentation. There was also considerable discussion on how the Board of Governors might understand and interact with the research data and the general research culture at the University. It was noted that there might exist among the Board of Governors a lack of knowledge with the range and diversity of research at the University. It was noted in general discussion that CCR would like to work with the VPR to showcase research activities of faculty and students to the Board. It was noted too that the discussion of research performance presented to the Board was more quantitative than qualitative.

It was also agreed that C. Yost would use the CCAM Moodle site which will reach all council members to canvas members to identify challenges that Council members feel are impacting their pursuits of scholarly work. The post would note that CCR is particularly interested in identifying challenges that have common themes among faculties and departments. Dr. Yost was to point out in the message that CCR will use this information to create a summary of the common challenges affecting Council members, and to present a summary report to Executive of Council. It is hoped that this initial report will provide a basis for CCR to begin formulating recommendations that address research challenges and then advise the VPR on how to mitigate the challenges that are identified. It was noted too that CCR would subsequently monitor how challenges identified are being addressed.

11. Relationship between CCR and Research Office – Tabled for March meeting.

12. Research Challenges. FOR INFORMATION ONLY.

List of challenges that were identified and will guide CCR in its discussion throughout the academic year. The list will be update at subsequent meetings.

13. New Business

Adjournment

Meban/Salm – moved to adjourn.

Chair's Report:

Since the last meeting of CCR, I have attended several meetings in the capacity of CCR Chair.

- Living Heritage: Identities, Communities, and Environment Cluster. The meeting was well-attended and addressed an important gap in the University's Strategic Research. 24 January 2019
- Evaluation of Letters of Intent for new Canadian Research Chairs. All of the LOI were assessed carefully and ranked by members of the Committee with a final decision on recommendations to the VPR by a show of hands. Two points stood out from the meetings: 1 February 2019
 - The quality of the LOI varied, with those from the Faculty of Science to be particularly strong in my view; and
 - Participants in the meeting were permitted to vote on LOIs from their own units of Faculty;
- Discourse Story Working Group. This committee was to advise on changes pending to Discourse Magazine. The Committee included Emmett Boyle, Director, Maintenance and Utilities; D. Malloy; Sally Grey; Krista Baliko, editor, Discourse Magazine; Greg Campbell, editor, Degrees Magazine; Mark Butikofer, Director of Development; and Katherine Cormack, Strategic Communications. The committee engaged in a wide-ranging discussion on communications, especially the University's strategic communications process. I pointed out the importance of communicating the activities of researchers (faculty and students) to the university community and beyond, and to prioritize research as the External Relations develops its strategic communications strategy. It was noted throughout the meeting that communicating research has improved recently, noting Discourse magazine and *The Conversation* initiative in particular.

Council members on CCR met with Sally Gray and Pam Splett on 15 February 2019 to prepare the agenda for the March meeting.

UNIVERSITY OF REGINA

Board of Governors

Item for Information

Subject: Report on Research at the University of Regina

1. Status report on the response to the Provincial Auditor's Report on Research at the University of Regina (PARR) (until implementation is complete)

The draft report from the Provincial Auditor indicates that the University of Regina has implemented the three remaining recommendations from the 2013 audit. Copies of the final version of the report will be distributed to the University's Executive Team and the Audit and Risk Committee of the Board.

Going forward, this section will be removed from the VPR's report on research.

2. Report on the status of action plans to actualize the Strategic Research Plan identified in response to PARR Recommendation 4

Research Strategy Implementation. The VPR's portfolio includes change initiatives that will contribute to achieving research-related objectives within the University's 2015-2020 Strategic Plan and the Strategic Research Plan 2016-2021. Representatives from the following units contribute initiatives to the portfolio: Archer Library, External Relations, Faculty of Graduate Studies and Research, Government Relations, Office of Indigenization, Office of Vice-President (Research), Research Office and UR International.

The quarterly portfolio review meeting led by the Vice-President (Research) was held on February 20. The full quarterly portfolio status report is appended.

There are currently 28 change initiatives within the portfolio distributed as follows: 18 internal changes, 4 funding opportunities, 3 research-related events and 3 research-related programs. While the majority of the initiatives most directly link to the Research Impact strategic priority, linkages also exist to the other two strategic priorities: Student Success and Commitment to Our Communities as well as to the two overarching themes, Indigenization and Sustainability.

Achievements highlighted in the February 2019 report include:

- Development of a new certificate in Indigenous Research Methods has been completed.
- The contribution agreement between Public Safety Canada and the University related to the CIPSRT funding announced in Budget 2018 has been finalized.
- A total of 38 internal and external stakeholders attended a one-day research and innovation impact symposium presented in February.

3. Research highlights since the last report: funding, awards, recognition, major publications, partnerships, etc.

- The Government of Canada announced its \$2.95 million commitment to support 22 one-year research projects through the Canadian Institutes of Health Research (CIHR) Post-Traumatic Stress Injury (PTSI) Catalyst Grants competition. The University of Regina's Dr. Gordon Asmundson, Dr. Ronald Camp, Dr. R. Nicholas Carleton, Dr. Alec Couros, Dr. Amber Fletcher, and Dr. David Malloy will undertake research in varying capacities on 12 of the CIHR-PTSI Catalyst projects. The federal government, having identified PTSIs among our nation's public safety personnel as a priority in Budget 2018, also invested \$20 million over 5 years to support the CIHR CIPSRT National Research Consortium for Post-Traumatic Stress Injuries among Public Safety Personnel. For its part, CIPSRT serves as the Consortium's Knowledge Exchange Hub. All of the researchers involved in the 22 projects, who work at 17 research institutions from across Canada, will become part of the CIHR CIPSRT National Research Consortium. Their research will help to build the Knowledge Exchange Hub.
- Dr. Heather Hadjistavropoulos and Dr. Swati Mehta, Psychology were awarded \$385K USD by the Craig Neilsen Foundation to help promote mental health and well-being using internet cognitive behavior therapy (ICBT).
- Dr. Andrew Cameron and Dr. Keith MacKenzie, Biology, received funding from Saskatchewan Agriculture's Agriculture Development Fund to develop diagnostic tools for Johne's disease, a contagious disease affecting cows that results in economic losses for cattle farmers.
- A partnership between University of Regina researchers and Indigenous Works, a national not-for-profit organization, recently received federal funding to strengthen the research capacity of Indigenous organizations. The aim is to assist with addressing the issue of Indigenous exclusion in the wider Canadian economy. Funding for this collaborative project was announced on Monday by the Honourable Kirsty Duncan, Minister of Science and Sport. The support comes from the Social Sciences and Humanities Research Council (SSHRC) through their inaugural Indigenous Research Capacity and Reconciliation Connection Grants. Dr. Peter Moroz, associate professor of entrepreneurship at the University of Regina is one of the researchers on the project. This funding will allow University researchers to help strengthen the research capacity of Indigenous organizations so the organizations can address the disconnect in the market themselves.
- The research of Dr. Gordon Pennycook (Levene School of Business) on the role of critical thinking and fake news has been featured recently in the New York Times as well as on the PBS NewsHour.
- Dr. Kerri Finlay (Biology) and Dr. David Sauchyn (Geography) participated in a roundtable discussion on fresh water management with Prime Minister Justin Trudeau and the Honourable Ralph Goodale in Regina in January.
- Dr. Peter Leavitt (Biology) was part of a groundbreaking study on carbon cycles of global river ecosystems and climate change. The study involves 153 researchers from 40 countries conducting a global-scale field experiment in great than 1000 river and riparian sites. The study was published in the journal *Science Advances* in January.
- Dr. Rozzet Jurdi-Hage's innovative research using big data to predict fires and save lives was featured recently on the Universities Canada web site. The research is a collaboration

- between Jurdi-Hage and Regina Fire and Protective Services and is unique in North America. Cooking fires are the leading cause of fires in Regina. The research looks at what is causing the fires and what people are doing to interact with the fire to make it better or make it worse. The results will help Regina's fire department develop educational programming to target those people who are having the most fires.
- The Centre on Aging and Health Public Distinguished Lecture, held January 24, 2019, featured University of British Columbia's Dr. Eli Puterman, Canada Research Chair in Physical Activity and Health.
- According to University of Regina psychology researcher at Campion College Dr.
 Katherine Arbuthnott and her students, even five minutes in the great outdoors can
 improve your emotional well-being. The study recently published in the *Journal of Positive Psychology* has been featured on the CTV news and in several online
 publications.
- The Office of the Vice-President (Research) hosted a one-day symposium on research and innovation impact assessment in February. The goals of the symposium were to increase knowledge of research and innovation impact assessment and highlight the importance of communicating impact to inform practice and policy decisions to ultimately benefit the public. It was attended by researchers, research administrators and external stakeholders including policy analysts from three provincial ministries and provincial funders. The symposium was presented by Dr. Kathryn Graham from Alberta Innovates. Dr. Graham is an expert in research and innovation impact assessment invited to present nationally and internationally.

Can we use the framework (five buckets) described the Federation for the Humanities and Social Sciences' 2014 Working Paper "The Impacts of Humanities and Social Science Research" to categorize the research highlights we report in the VPR's Report on Research for the Board of Governors?

Summary

HSS research has impacts on

SCHOLARSHIP

that can be measured using indicators such as:

- Bibliometric indicators
- Downloads from Open Access repositories
- Citations in grant applications
- Acknowledgements
- Prizes and awards
- Reputation as measured by survey
- Post-publication peer-review (book reviews, dedicated symposia)
- Juried exhibitions and performances

HSS research has impacts on

CAPACITY

through teaching and mentoring at the graduate and undergraduate levels

that can be measured using indicators such as:

- Number and quality of experiential learning/ research opportunities for students
- Surveys of students and alumni
- Employer surveys
- Integration of research as a learning outcome in courses

HSS research has impacts on the

ECONOMY

that can be measured using indicators such as:

- Advisory roles and board memberships
- Revenue opportunities and cost savings in the public, private and not-for-profit sectors resulting from research applied in practice
- Income derived from patents, patent licensing, copyright and trademarks
- Consulting contracts

HSS research has impacts on

SOCIETY AND CULTURE

that can be measured using indicators such as:

- Number and quality of partnerships between researchers and community groups
- Requests for consultancy/advice from community groups
- Media coverage of research (newspapers/ TV/ online)
- Requests for media appearances
- Engagement of the public at events
- Research-related social media
- Public use of research-based web resources on social and cultural issues

HSS research has impacts on

PRACTICE AND POLICY

that can be measured using indicators such as:

- Invitations to participate as an expert witness, an advisor, on an expert panel or committee
- Citations in government documents
- Consulting for governments or think tanks
- Commissioned reports

Note: for the purposes of this exercise, highlights describing research funding will be listed within the "Economy" bucket.

To answer this question, in part, research highlights reported in 2018 were categorized into one or in some cases two of the five impact buckets described above.

Summary of findings

		2018 VPR's Report on Research							
Impact Bucket	December	September	July	May	March				
		Number of highlights							
Scholarship	1	1	2	0	4				
Capacity	1	3	0	0	0				
Economy	2	3	3	3	3				
Society and Culture	2	2	0	4	0				
Practice and Policy	0	0	0	0	1				

Observations

- Economy had the most highlights attributed. This isn't surprising given our current approach is to focus on highlights pertaining to research revenue.
- Practice and Policy had the fewest highlights; this type of research doesn't typically get reported as a feature story the current main source of our highlights.

Conclusion

• The five FHSS impact buckets could be used as a framework for reporting research highlights in the VPR's Report on Research to the Board if we can come up with a new, effective and efficient way to gather them.

Next Step

Develop a new effective and efficient method for gathering highlights covering all five FHSS
categories and obtain the alignment of and commitment from those we will depend upon to
provide them.

Research highlights extracted from 2018 VPR's Report on Research for the Board of Governors

December 2018

- **ECONOMY** In October, the Honourable Ralph Goodale, Minister of Public Safety and Emergency Preparedness, on behalf of Minister Duncan, announced more than \$4 million in funding in support of 18 U of R science and engineering scholars and researchers through the NSERC Discovery Grant and Scholarship program.
- **ECONOMY & CAPACITY** The University welcomed two new Canada Research Chairs. Research focused on truth and reconciliation education and women's mental health has received a boost thanks to more than \$1 million in recent federal funding to the University of Regina through the Canada Research Chairs Program. The research of Dr. Michelle Coupal, whose Canada Research Chair (CRC) is in Truth and Reconciliation Education, will help respond to the educative Calls to Action of the Truth and Reconciliation Commission of Canada by providing educators with both the theories and practical strategies for bringing Indigenous materials into the classroom. The work of Dr. Jennifer Gordon, the new CRC in Biopsychosocial Determinants of Women's Mental Health, will inform the prediction, prevention, and treatment of reproductive mood disorders, with her focus on depression in the menopause transition which affects one in three women

- and costs the Canadian health-care system approximately \$45 million annually. The Canada Research Chairs Program is part of a national strategy to make Canada one of world's top countries in research and development.
- **SCHOLARSHIP** University of Regina historian Raymond Blake and environmental biologist Peter Leavitt have been elected to the prestigious Royal Society of Canada (RSC). They join more than 3,700 distinguished Canadian scholars, artists, and scientists from all branches of learning who have made remarkable contributions in the arts, humanities, and sciences, as well as in Canadian public life since the first society meeting in 1882.
- **SOCIETY AND CULTURE** The annual Indigenous Research Showcase Week, a celebration of diversity, innovation, and connections to community was held in September. The week-long event is another way in which the University is acting on the Calls to Action laid out in the Truth and Reconciliation Commission's (TRC) Final Report helping to make concrete changes in society, redressing the legacy of residential schools and advancing the process of Canadian reconciliation.
- **SOCIETY AND CULTURE** The Fall 2018 / Winter 2019 edition of *Discourse*, the University of Regina's research magazine was released and is available for reading online.

September 2018

- ECONOMY & CAPACITY Dr. Kara Fletcher, Faculty of Social Work, has been awarded a grant of \$117,213 from the Saskatchewan Health Research Foundation. The co-occurring nature of mental health issues and problematic substance use is an emerging area of study. Dr. Fletcher will be combing through existing data to examine how effective treatment programs are in Saskatchewan. The money will be used to hire and train graduate student researchers, pay for research equipment, remunerate study volunteers, and pay for knowledge translation to the community.
- ECONOMY & CAPACITY Dr. Shadi Beshai, Department of Psychology, is doing research to see if
 one way to reduce depression may come from self-compassion. Dr. Beshai has been awarded a
 grant of \$117,539 from the Saskatchewan Health Research Foundation to conduct his work. The
 money for the three-year research project will be used mostly to hire and train graduate student
 researchers, compensate participants, and create a website for the study.
- **ECONOMY** Dr. Helen Pridemore, Media, Art and Performance was awarded a \$13,900 grant from the Canada Council. The funding is in support of Dr. Pridemore's "Whale" project, an interdisciplinary site specific performance piece that took place in New Brunswick in August.
- CAPACITY The Indigenous Summer Research Institute was held at the University of Regina in August. The Institute, a first for the University, was a partnership between the Faculty of Graduate Studies and Research and the Office of Indigenization. The goal of the Institute was to enhance the writing and research skills of undergraduate students and provide them with a taste of graduate school. The programming focused on Indigenous-centred research methods, methodologies, and ethics. The Institute, which awarded a \$3,000 scholarship for each student, drew 19 undergraduate students from a variety of disciplines from Saskatchewan, across Canada, and as far away as Mexico and Norway. The international students were from University of Regina partner institutions in Mexico and Norway. Ten Indigenous students were enrolled in the Institute and nine non-Indigenous students attended.
- SOCIETY AND CULTURE A three-day institute of practical, intensive learning and skill-building
 was offered for those well-versed or brand new to the principles and potential of communitybased research. The Change Makers: Tools, Techniques and Strategies for Community-Based

- Research Summer Institute, held from August 20 22, 2018 at the University of Regina, put members of the community together with experts in the field. It was put on by Faculty of Arts' Community Research Unit (CRU), a group that connects community groups with U of R faculty and students to seek answers to community questions to foster positive action and change.
- SCHOLARSHIP & SOCIETY AND CULTURE Dr. Ranjan Datta has joined the University of Regina research community after winning a prestigious Banting Postdoctoral Fellowship. The award is funded for two years through the federal government. Datta's project focuses on working with Indigenous communities to learn how to best mitigate the negative impact that pipeline leaks have on their communities. He will work with Indigenous communities to generate and share knowledge about the impacts of energy exploration, extraction, and pipeline leaks on Indigenous people and their resiliency. The project, entitled Indigenous energy philosophy creating a collaborative resilient energy transition, will also focus on creating better energy management strategies and policies. Datta will work out of the University's Johnson Shoyama Graduate School of Public Policy (JSGS) with Dr. Margot Hurlbert, professor at the Centre for the Study of Science and Innovation Policy at JSGS. Datta's Banting Postdoctoral Fellowship application ranked 13 out of 178 and only 23 fellowships were offered across the country.

July 2018

- **ECONOMY** The Honourable Ralph Goodale, Minister of Public Safety and Emergency Preparedness, announced more than \$10.6 million for 14 projects in Saskatchewan through Western Economic Diversification Canada. The announcement was made on behalf of the Honourable Navdeep Bains, Minister of Innovation, Science and Economic Development and Minister responsible for Western Economic Diversification Canada. The funding will support two projects at the University. The University received \$348,831 to develop a next generation Bio Positron Emission Tomography (PET) system, considerably expanding the capabilities of an existing PhytoPET device that was used for studying plants. The new BioPET is a real-time imaging detector that allows University physicists to study plants and soil microbiome without using destructive harvesting methods. Using this powerful new tool, University of Regina scientists will be able to conduct research into plant adaptation to environmental stresses, disease, efficient nutrient and water use. La Cité universitaire francophone will receive \$135,785 to purchase French educational resources and audio-visual equipment, and to renovate an outdated language lab into a multifunctional space for the new bilingual option of the Saskatchewan Collaborative Bachelor of Science in Nursing program, a partnership between the University of Regina, La Cité and Saskatchewan Polytechnic.
- **ECONOMY** At Congress 2018, the Honourable Kirsty Duncan, federal Minister of Science and Minister of Sport and Persons with Disabilities, announced \$158.4 million for 808 research projects across Canada. Funded through the Social Sciences and Humanities Research Council (SSHRC), the projects being supported range from education and immigration to Indigenous arts leadership and climate change. Three grant recipients are from the U of R. Dr. Margo Hurlbert received \$245,045 for her project titled, *Implementing community citizen engaged best management practices through adaptive management*. SSHRC's support will help the research team focus on reducing vulnerability to climate change, specifically in relation to a community's decisions respecting water management issues. Dr. Sheila Petty, a professor in the Faculty of Media, Art, and Performance (MAP), was awarded \$79,167 for her project, *A cinematic history of the origins and legacy of la marche pour l'egalite et contre la racisme in France*. MAP's Dr. Francesco Freddolini (Luther College) received \$78,805 for his project, *Regal alterities: imagining exotic rulers and ambassadors in early modern Europe*.

- **SCHOLARSHIP** U of R Press received 13 nominations and won four awards at the 2018 Saskatchewan Bood Awards. Three of the four winning books took top spot for excellence publishing: Claiming Anishinaabe, by Lynn Gehl Ministry of Parks, Culture and Sport Publishing Award; Speaking in Cod Tongues, by Lenore Newman Publishing in Education Award; and Aaniih/Gros Ventre Stories, compiled and edited by Terry Brockie and Andrew Cowell. The fourth award went to Kathleen Carlisle for Fiery Joe: The Maverick Who Lit Up the West. Her book was nominated in three categories and won the Jennifer Welch Scholarly Award. Carlisle's book tells the story of the meteoric rise and fall of Joe Phelps, a cabinet minister who played a pivotal role while serving under Premier Tommy Douglas.
- **ECONOMY** The University announced its newest Canada Research Chair (CRC), Dr. Allyson Stevenson, a Tier 2 Canada Research Chair in Indigenous Peoples and Global Social Justice. Stevenson is focused on raising the profile of Indigenous human rights in a global context. She is a member of the Department of Politics and International Studies.
- **SCHOLARSHIP** Dr. Thomas Hadjistavropoulos, Professor in the Psychology Department, is the recipient of the Distinguished Contribution Award for Pain in Older Persons. The prestigious award will be presented at the 17th World Congress on Pain September 12 18 in Boston. The recognition is a culmination of Hadjistavropoulos' more than two decades of top-notch research on campus and in the community that continues to make a positive difference for older adults suffering from pain.

May 2018

- **ECONOMY** Research funding awarded in fiscal year 2017-18 was \$26.7M; up significantly over last fiscal year (\$13.3M). A summary of research funding awarded in 2017-18 compared to 2016-17 is attached to this document.
- **ECONOMY** One of the President's objectives for 2017-18 was to increase the number of faculty applications for Tri-Agency funding by 10%. The number of Tri-Agency applications increased from 97 in 2016-17 to 130 in 2017-18, or 34%. Revenue from Tri-Agency grants increased from \$5,676,288 in 2017-17 to \$7,047,782 in 2017-18, or 24%.
- **ECONOMY** In March, the Honourable Ralph Goodale, Minister of Public Safety and Emergency Preparedness, highlighted a recent federal investment of \$937,000 for the University of Regina. This funding, through the Canadian Institutes of Health Research (CIHR), is centred on the health of people with substance use issues, as well as the health of older adults and those who care for them. Randy Johner, Faculty of Social Work, received \$451,350 for her research project that will harness the power of technology to help people with substance use addictions. Shanthi Johnson, Faculty of Kinesiology, received a CIHR grant of \$485,775 to implement and study the impact of a home exercise program developed for older adults receiving home care, and their home care staff.
- **SOCIETY AND CULTURE?** JoLee Sasakamoose has assumed leadership of the Indigenous Peoples' Health Research Centre as the new director, under the guidance of the Johnson Shoyama Graduate School of Public Policy. Sasakamoose is an associate professor of Educational Psychology and Indigenous Counselling in the University of Regina's Faculty of Education and a methodologist with the Saskatchewan Centre for Patient Oriented Research. Sasakamoose's research explores the intergenerational effects of historical trauma with Indigenous Peoples and the use of traditional healing methods in the promotion of health and wellbeing.
- **SOCIETY AND CULTURE** The Spring / Summer issue of *Discourse*, the University of Regina's research magazine was released. In this issue: Raven Sinclair (Faculty of Social Work) and her

team who are examining the Indigenous child removal system, including the Sixties Scoop and beyond; Queering the Queen City, a seven-stop audio walking tour that shines a light on Canada's queer past and present; a group of Prairie researchers and community partners that is delving into what it takes to age well; and how André Magnan (Faculty of Arts) is seeking to understand the corporatization of farming and what impact it will have on food, communities and the future of family farms.

- SOCIETY AND CULTURE Danielle Martin, a Toronto physician who launched to prominence following her strong defence of Canada's health care system before a U.S. Senate committee, spoke on campus on Thursday, March 1. Martin was the guest speaker at the U of R's Centre on Aging and Health's annual Distinguished Lecture. Her talk is titled Better Now: How we can Improve Healthcare for Seniors. Martin is the Vice-President Medical Affairs and Health System Solutions at Women's College Hospital, Toronto and the founder of Women's College Hospital Institute for Health System Solutions and Virtual Care, where she is also a Senior Innovation Fellow.
- **SOCIETY AND CULTURE** Carrie Bourassa, a former professor of Indigenous Health Studies at First Nations University of Canada, was a speaker at the U of R's Centre on Aging and Health's speaker series. Bourassa is one of the country's top researchers examining the health of Indigenous communities. Bourassa is Chair of Northern and Indigenous Health and Senior Scientist at the Health Sciences North Research Institute in Sudbury. She is also the Scientific Director of the CIHR Institute of Aboriginal Peoples Health.

March 2018

- **ECONOMY** In its 2018-19 Federal Budget, the Government proposes to invest \$20 million over five years for a new national research consortium to address Post-Traumatic Stress Disorder (PTSD) among public safety officers. The consortium is between the Canadian Institutes for Health Research (CIHR) and CIPSRT, a national network operating within the governance structure of the Collaborative Centre for Justice and Safety at the University of Regina. A further \$10 million over five years is also being proposed for Public Safety Canada to work with CIPSRT to develop an Internet-based cognitive behavioural therapy pilot for public safety officers.
- ECONOMY In December, the Honourable Ralph Goodale, Minister of Public Safety and Emergency Preparedness, announced that a contract has been awarded to the University of Regina to conduct a study on the effects of policing on the mental health of RCMP officers. Its purpose is to identify psychological and physiological signs of trauma and stress-related disorders, including post-traumatic stress. The contract is valued at up to approximately \$8.9 million.
- **ECONOMY** The University of Regina is a Participating Member of the Protein Industries Supercluster, one of the five successful superclusters from the Innovation Supercluster Initiative that will share the federal investment of up to \$950 million which will be matched dollar for dollar by the private sector. The Honourable Navdeep Bains, Minister of Innovation, Science and Economic Development announced the successful superclusters in February. Based in the Prairies, the Protein Industries Supercluster will use plant genomics and novel processing technology to increase the value of key Canadian crops, such as canola, wheat and pulses that are coveted in high-growth foreign markets, such as China and India, as well as to satisfy growing markets in North America and Europe for plant-based meat alternatives and new food products. Building on Canada's worldwide reputation as a leader in agricultural production, this supercluster will make Canada a leading source for plant proteins and, ultimately, feed the

- world. As a Participating Member, University of Regina faculty researchers, post-doctoral fellows, research associates and graduate students will have the opportunity to propose and conduct research contributing to the Protein Industries Supercluster's strategic objectives.
- **SCHOLARSHIP** The Saskatchewan Health Research Foundation has awarded Swati Mehta the 2017 Santé Award for Top Research Fellowship in Socio-Health Research. Mehta is one of six recipients of the award, handed out at a special event in December. The Excellence Awards, now into their 14th year, recognize the top-ranked applications from researchers and teams in the past year's funding competitions. Mehta ranked tops in the category of Research Fellowship in Socio-Health Research. Mehta, working under the supervision of Heather Hadjistavropoulos, is a post-doctoral research fellow in the Department of Psychology. Mehta is working to improve mental health services for people with spinal cord injuries.
- SCHOLARSHIP Gordon Asmundson, Psychology is being honoured with the Distinguished Career Award from the Canadian Pain Society. Asmundson specializes in the areas of fear, anxiety and related disorders, and chronic pain, and the association of these with each other, maladaptive coping, and disability. He is known for his pioneering work on fear and avoidance in chronic pain. Most recently, his efforts to revitalize exercise as a treatment option for PTSD and other anxiety-related disorders are receiving increasing attention in the scientific community and popular media. Asmundson is a Fellow of the Royal Society of Canada, and in 2014 he received the Canadian Psychological Association Donald O. Hebb Award for outstanding contributions to the science of psychology.
- SCHOLARSHIP Mohan Babu, associate professor in the Department of Chemistry and Biochemistry, is the lead and senior author of a research paper published in a prestigious and influential journal, Nature Biotechnology. Babu is leading an international team looking into how to understand and combat antibiotic resistance. Funding for the five-year research project, which totals more than \$1,500,000, comes from National Institutes of Health in the U.S., the Natural Sciences and Engineering Research Council of Canada, Canada Foundation for Innovation, and the Canadian Institutes of Health Research. Publication in Nature Biotechnology means that this important research will be disseminated to biomedical researchers as a potential resource to improve public health.
- PRACTICE AND POLICY Miguel Sanchez, Associate Dean in the Faculty of Social Work, has coauthored a report on child and family poverty in Saskatchewan, with Garson Hunter, Associate Professor in the Social Work Faculty. The report using the latest numbers from Statistics Canada (Annual Income Estimates for Census Families and Individuals Final Estimates 2015), states that 24.1 per cent of children in Saskatchewan live below the poverty line, compared to the national average of 17.1 per cent. Released in November, Child and Family Poverty in Saskatchewan: November 2017, is part of a national report produced by Campaign 2000, an organization that vows to eliminate poverty in Canada. The report was produced through the Social Policy Research Centre, housed within the Faculty of Social Work. It supports social justice and equity-focused research that addresses issues faced by vulnerable, marginalized, and oppressed groups. Campaign 2000 (campaign2000.ca) coordinated the preparation of the 2016 national and provincial poverty report cards.
- SCHOLARSHIP The Department of History celebrated its successes by hosting a special event Book Launch and a Celebration of Research in December. The event celebrated new book
 releases by Raymond Blake, Professor and Head of the History Department, John Meehan,
 Professor and President of Campion College, and Katrina Ackerman, post-doctoral scholar.

To date

Successful Applications	Fiscal Year						
AGENCY	2014-15	2015-16	2016-17	2017-18	2018-19		Grand Total
Canadian Institutes of Health Research (CIHR)		2	3	6	5	1	17
Natural Sciences and Engineering Research Council (NSERC)		38	35	29	44	4	150
Social Sciences and Humanities Research Council (SSHRC)		9	18	9	22	7	65
Grand Total		49	56	44	71	12	232

Note - subgrants are entered into the database only if successful. If amounts are transferred by a new letter each year, they could be entered as a successful application in more than one year, because of current database limitations.

Sum of AMOUNT AWARDED	Fiscal Year					
AGENCY	2014-15	2015-16	2016-17	2017-18	2018-19	Grand Total
Canadian Institutes of Health Research (CIHR)	\$49,000.00	\$31,474.00	\$3,977,289.00	\$977,125.00	\$15,000.00	\$5,049,888.00
Natural Sciences and Engineering Research Council (NSERC)	\$3,151,484.00	\$2,338,620.00	\$2,607,305.00	\$4,364,780.00	\$87,090.00	\$12,549,279.00
Social Sciences and Humanities Research Council (SSHRC)	\$425,124.00	\$1,311,706.00	\$426,171.00	\$1,382,543.00	\$67,291.00	\$3,612,835.00
Grand Total	\$3,625,608.00	\$3,681,800.00	\$7,010,765.00	\$6,724,448.00	\$169,381.00	\$21,212,002.00

AGENCY Natural Sciences and Engineering Research Council (NSERC)

to date

Sum of AMOL	JNT AWARDED	Fiscal Year					
Portfolio	PROGRAM	2014-15	2015-16	2016-17	2017-18	2018-19	Grand Total
Discovery	Discovery Development Grant	\$100,000	\$140,000	\$40,000	\$80,000		\$360,000
	Discovery Grant	\$1,553,900	\$1,049,000	\$1,997,600	\$2,373,500		\$6,974,000
	PromoScience	\$10,200	\$120,000				\$130,200
	Subatomic Physics - Discovery Grants	\$405,000	\$535,000		\$554,000		\$1,494,000
Discovery Tot	al	\$2,069,100	\$1,844,000	\$2,037,600	\$3,007,500		\$8,958,200
Infrastructu	Research Tools and Instruments (RTI)	\$70,994			\$142,360		\$213,354
	Subatomic Physics - Major Resources Support Program	\$0					\$0
Infrastructure	Total	\$70,994			\$142,360		\$213,354
Innovation	Collaborative Research & Development (CRD)	\$198,845	\$157,000	\$183,000	\$509,860	\$32,100	\$1,080,805
	Collaborative Research and Training Experience (CREATE)						
	Collaborative Research and Training Experience (CREATE) LOI						
	Connect				\$4,935	\$4,990	\$9,925
	Engage Grants	\$49,500	\$300,000	\$199,280	\$198,500	\$50,000	\$797,280
	Engage Plus	\$25,000	\$22,500		\$25,000		\$72,500
	Engage Plus - Partner Contribution				\$15,625		\$15,625
	Partnership Workshops Program	\$11,425					\$11,425
	SAPPJ Project			\$187,425	\$433,000		\$620,425
	Strategic Network		\$0				\$0
	Strategic Project Grant	\$616,620	\$15,120				\$631,740
	Subatomic Physics - Project	\$110,000			\$28,000		\$138,000
Innovation To	tal	\$1,011,390	\$494,620	\$569,705	\$1,214,920	\$87,090	\$3,377,725
Grand Total		\$3,151,484	\$2,338,620	\$2,607,305	\$4,364,780	\$87,090	\$12,549,279

Discovery	\$2,069,100	\$1,844,000	\$2,037,600	\$3,007,500	\$0
Infrastructure	\$70,994	\$0	\$0	\$142,360	\$0
Innovation	\$1,011,390	\$494,620	\$569,705	\$1,214,920	\$87,090
Ratio of Discovery to Total	66%	79%	78%	69%	

Dear CCR Colleagues,

This document represents an amalgamation of the comments I received following the call on the CCAM moodle site to Council Members to submit their thoughts on research challenges occurring at the university (appendix 1). I have tried to keep the comments in the original narrative so to not introduce any bias on my part. In some cases I had to paraphrase to protect confidentiality. I did break the comments into sections in hopes that it would help with digesting the material- there is a fair bit.

I think the exercise was a success and has captured comments that can be useful in guiding CCR activities to address research challenges. I think CCR can play an important role in mitigating the sense of frustration, feelings of burnout and of disengagement that I heard from many colleagues.

Below are the specific categories I selected and the respective quotes from colleagues:

Graduate Student and Post-Doctoral Fellow Support:

Preamble: Our non-competitive support for graduate students relative to comparable comprehensive universities was a consistent issue that was raised by several council colleagues across multiple faculties. This was emphasized by some as the most critical challenge impeding research activities.

"A significant challenge that I am faced in my research is the non-competitive financial support package that we can offer to full-time research students. I am required to find the extra funds from my external research grants, causing a significant financial strain on the research I can do, and making it harder to recruit good students."

"The single greatest challenge to my research is recruiting and retaining excellent graduate students to my program. We are not only challenged by our geography, but also our lack of entrance scholarships, provincial graduate student funding, tuition waivers, and high tuition fees for international students."

"we have no (or insufficient) policies, procedures, and standards for post docs and graduate students with respect to funding, space, and resources - we should have minimums and some mechanisms for ensuring equity, even if that means we are going to limit what we can do or who we can accept; could we please create some policies and plans that focus on quality, sustainability, and equity?"

"Another significant barrier is lack of base funding for graduate students. We simply cannot attract high-quality graduate students without the ability to offer competitive funding relative to our comparator institutions. We should find a way to ensure such funding is fairly distributed across faculties, departments, and researchers — especially for new faculty who may not have research funds to support their own students yet."

"Although FGSR funds have increased since 2013, I would best qualify the

improvement as "minor progress". This is made worse by the fact that the CUPE TA contract has not been renewed since 2016, and to the best of my understanding, the proposed wage increases by the administration are minimal at best. My suggestion would be to offer all graduate students performing 120 hrs/semester of TA a scholarship equal to 50% of their tuition in that semester, in addition to their salary and vacation pay. This would bring the grad TA stipends to an amount more competitive to other universities."

Support for a Research Culture:

Preamble: There were several specific challenges specified, but they all could be categorized under a unified theme that we could improve the research culture on campus. I broke these into sub-headings.

Improving research policy processes:

This was a very common theme among the comments submitted to me. There is a faculty wide sense that paper-work and reporting is a threat to sustaining research activities:

"There are bureaucratic processes that are becoming barriers for applications, such as the processes associated with the Research Office form - I understand the rationale behind the processes, but in practice that process (and others) appear to be inhibiting success and unnecessarily taxing professors; could we create an independent professorial committee to review and revise the processes?"

"The Research Office's (RO) Funded Research Approval Form (FRAF) is a major bureaucratic barrier to research grant applications. Often through no fault of our own, researchers will be applying for grants on a very tight timeline (e.g., government contracts that are only open for a month or two; opportunities we've just learned about recently but which are closing soon). The FRAF requires multiple levels of approvals: Dept Head, Dean, RO. Hypothetically, if the Dept Head needs 2 weeks to review and approve, and the Associate Dean needs 2 weeks to review and approve, and then the RO needs a few days to approve, I am already looking at having a well-developed proposal and final budget prepared more than 1 month before the deadline. This is often not possible and actuallyserves to discourage applications. Plus, the archaic PDF form only allows hard-copy signatures, which means I'm spending valuable grant-writing hours physically running around for signatures or scanning things, which seems ridiculous.

I do understand that these approvals are needed, especially when we are asking for contributions from our depts/faculties. My suggestion is to simplify the process: have researchers fill out a simple form, which provides a basic summary of the project and funds/contributions requested from dept and/or faculty. Simple and straightforward, this can be done while researchers are still fine-tuning their applications and developing the rest of their budgets. And it should allow electronic signatures"

"The red tape of doing research is getting more and more - inside the University things - e.g., animal e.g., ... care and other innumerable time gobbling things but also outside - permits keep getting more and more onerous."

"I did get a substantial tri-council grant and completed the research stage now, feeling overwhelmed by the work that needs to be done. Since funding is used up, this is my weekend/nighttime joy for the next couple of years I believe."

"We have no (or insufficient) policies, procedures, and standards for large-scale research projects and the required supports (before and during funding being awarded) that might be under consideration and might broadly impact the University community; could we please create some policies and plans that focus on planning processes as well as quality, sustainability, and equity?"

Communicating Research Activities:

The challenges here are broadly recognized across the faculty submissions and relate to both communication strategies by ER but also how communication occurs with the VPR office.

"There appears to be a problematic series of disconnects in communications between PIs and the UET; could we find some way to ensure communications with UET are more direct or at least processes to protect fidelity?"

"There appears to be confusion among professors regarding the broad research strategy for the University, potentially driven inn part by my concerns listed in points 1 through 5, but I think we need a priori strategic direction(s) going forward as to what the University wants to do for research; could we please get some clarification regarding the planned long- and short-term commitment(s) of the University to one or more research strategies as well as the tactical plans to action those strategies?"

"At least 75% of the stories on the landing page should be about original research being conducted at the UofR. These stories should showcase the research of undergraduate Honours students, graduate students, and faculty across campus. There should be a story for every single new research grant awarded at our institution. The top institutions in Canada all showcase their research on their homepages quite prominently, this is lacking on the UofR homepage and is negatively impacting our reputation"

Measuring Research Outcomes:

These comments were focused on the concept that reporting structures are currently not designed to identify challenging areas and we are lacking in an honest assessment of research challenges. Example quote:

"The VPR must commit to providing an accurate assessment of the health of the research enterprise, even when that assessment is not wholly positive. Data must be reported completely, and non-selectively such that they provide an accurate picture of the current state of research at our institution."

Research Resources:

There were common concerns across the faculties regarding the space challenges for conducting research and the challenges in balancing other duties with research. Example quotes:

"The allocation of space on our campus is totally mysterious to me. Some researchers seem to have large labs and significant space for their students and post-docs while others have no such space. The process for allocating space should be made transparent for researchers. How many dollars in research grants do I need to earn before I can have work space for my students and post-docs?"

"We do not have a consistent policy or approach to providing space for post-docs on our campus. While some post-docs are provided with offices of their own, others are stuffed into shared offices with the sessionals (as mine currently is)."

"We have no (or insufficient) policies, procedures, and standards for research space and resource access from the "central" university capacities; as it currently stands there appears to be a great deal of inequity or at least inconsistency with respect to how space and resources are allocated; could we please create some policies and plans that focus on quality, sustainability, and equity?"

"Having to teach outside my field due to the need to support a small, struggling program can remove time for research activity."

"Increased time on teaching with the increase in international students who need a lot more support."

"our resource investments in the research office and more broadly in the VPR office are insufficient or need reconsideration if we are going to provide the necessary supports for research development going forward,"

Equity, Diversity and Inclusion:

I did receive two comments that gave me pause for concern and is paraphrased for the request of confidentiality by the individual submitting the comment:

Comment 1: It was stated that biggest barrier facing my research these days is gender discrimination, and that the research successes are not being acknowledged and diminished relative to male colleagues. The greatest concern to me was the concluding statement: "Other women faculty feel the same way; it's not just me."

Comment 2: Another female colleague felt that she was not receiving acknowledgement for the accomplished successful research activities. "I never had the impression that our Dean acknowledged my research work as relevant, let alone meritorious."

Appendix 1:

CCR Call for Comments on Research Challenges by <u>Christopher Yost</u> - Friday, 25 January 2019, 12:52 PM

Dear Council Colleagues,

I am emailing in my role as a Council elected member to the Council Committee on Research. A 2018-2019 CCR initiative is to identify challenges that Council members feel are impacting their pursuits of scholarly work. CCR is particularly interested in identifying challenges that have common themes among faculties and departments.

CCR will use this information to create a summary of the common challenges affecting Council members. A summary report will be presented to Executive of Council. It is hoped that this initial report will provide a basis for CCR to begin formulating recommendations that address these challenges, and progress to mitigate the challenges can be subsequently monitored.

Please submit your thoughts on research challenges either through this discussion thread or by direct reply to my email address (chris.yost@uregina.ca). I will collate the responses and include them in the next CCR agenda package. Submission for agenda items for CCR is Feb. 11, so please respond to this request by Feb. 8.

Thank you for taking the time to consider this request and in engaging with the activities of CCR.

Regards, Chris Yost

Research Challenges:

- 1- Limited resources (physical space, financial support to our grad student, and personnel and facilities/equipment).
- 2- The Faculty of Engineering and Applied Science does not have dedicated research technicians or assistants for ensuring equipment is operating properly or for any supervision or training of HQP. The principal investigator is the sole person who is responsible for recruiting, sourcing funds, safety training, project training and management.
- 3- No resources are readily available for establishing and developing networks or research teams with other facilities or with other agencies or research institutes. Some faculties do not foster the sharing of resources between graduates and undergraduates.
- 4- The research communication system in the university appears to be between VPR and Research Office and Board of Governors. Information from VPR and ADR is not shared at the faculty level.
- 5- Need more support to our researchers. Hire more people in our research office, and provide more internal grants for the researcher.
- 6- Research challenges for Indigenous Research.

FEBRUARY 19, 2019

OPEN ACCESS PUBLISHING AT THE UNVERSITY OF REGINA

A DISCUSSION PAPER FOR THE COUNCIL COMMITTEE ON RESEARCH

Open Access improves the pace, efficiency and efficacy of research, and heightens the authors' visibility, and thus the potential impact of their work. It removes structural and geographical barriers that hinder the free circulation of knowledge and therefore contributes to increased collaboration, ultimately strengthening scientific [which includes humanities] excellence and capacity.

By enabling re-use and computational analysis of published material, Open Access sparks innovation and facilitates interdisciplinary research, as well as scholarly exchange on a global scale, not only for the benefit of the research community but also for the economy and society as a whole (2015)

Science Europe Working Group on Open Access

Universality is a fundamental principle of science (the term "science" as used here includes the humanities): only results that can be discussed, challenged, and, where appropriate, tested and reproduced by others qualify as scientific. Science, as an institution of organised criticism, can therefore only function properly if research results are made openly available to the community so that they can be submitted to the test and scrutiny of other researchers. Furthermore, new research builds on established results from previous research. The chain, whereby new scientific discoveries are built on previously established results, can only work optimally if all research results are made openly available to the scientific community.

Publication paywalls are withholding a substantial amount of research results from a large fraction of the scientific community and from society as a whole. This constitutes an absolute anomaly, which hinders the scientific enterprise in its very foundations and hampers its uptake by society. Monetising the access to new and existing research results is profoundly at odds with the ethos of science (Merton, 1973). There is no longer any justification for this state of affairs to prevail and the subscription-based model of scientific publishing, including its so-called 'hybrid' variants, should therefore be terminated. In the 21st century, science publishers should provide a service to help researchers disseminate their results. They may be paid fair value for the services they are providing, but **no science should be locked behind paywalls!**

Marc Schiltz, President of Science Europe

Introduction

The goal of this paper is to give University of Regina faculty, students, and staff an overview of the broader open access publishing landscape, as well as insight into the Canadian and University of Regina contexts, in order to generate discussion and debate about how we will respond, and ideally lead, in a rapidly changing scholarly publication ecosystem.

"Open access" was most famously defined by the 2002 Budapest Open Access Initiative and this definition, which is still the most widely cited, describes open access as used in this paper:

By "open access" to this literature, we mean its free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of

these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited.¹

Open access may have arisen from the simple convergence of the technological innovation of the Web and the willingness of researchers to share their work, but it has increasingly become a complex and contested movement with cultural, political, social, and economic elements. Researchers, academic institutions, funders, librarians, publishers, and the public all have (at times conflicting) stakes in access to academic research. Several recent developments, including the stand against journal price increases in Germany, Sweden, and California, as well as the publication of "Plan S" in Europe, have raised the debate to a fevered pitch, and led to some to describe 2018 as the tipping point in the balance of power in scholarly communications. It is time for the University of Regina to engage with and respond to open access in a thoughtful and planned manner to maximize the impact of our research.

Part I of this paper provides an overview of the open access landscape, especially major open access developments that give some indication of worldwide trends that have, or will, impact University of Regina researchers. It then describes significant open access initiatives in Canada, including Tri-Agency funding stipulations and noteworthy responses to open access by Canadian universities. Part II describes activities and resources that the University of Regina has directed towards supporting open access publishing thus far. Part III proposes a range of strategies to ensure the success of University of Regina researchers in an open access publishing environment.

Part I: Open Access Landscape

Open Access: Background Information

Open access is not intended to replace scholarly journals, nor does it aim to tamper with the peer review process, which is vital to scholarly communication. Instead, it aims to ensure reasonable publication costs are covered while also providing free access to research results. There are many open access models, but the two dominant approaches have been described as "gold" and "green" open access:

Gold open access refers to work that is immediately available free of charge at the site of publication, to any member of the public. This immediate access is typically achieved in one of two ways: 1) the journal's operations are subsidized by an academic institution or non-profit organization so that authors can publish at no cost; or 2) the journal collects an Article Processing Charge (APC) from the article authors to off-set the cost of publication (and in some cases recoup subscription revenue lost when the article is made openly available). The APC is only collected once the article is accepted for publication and does not compromise the peer review process. APCs range widely by journal and discipline, most commonly falling between \$1000 - \$4000 USD, and are considered grant-eligible expenses by Canada's Tri-Agency funders. "Hybrid" journals have also emerged, which are subscription-based, but allow authors to pay an APC to make their article openly available immediately upon publication.

Green open access describes work made publicly available in an online repository after an embargo period. The repository can be institution-based (oURSpace is the University of Regina's repository) or discipline-based (examples include PubMed Central, arXiv, and SSRN). Many publishers will permit deposit of an article (though they vary on which version—pre-print, post-print, etc.) after the embargo period has elapsed. Canada's Tri-Agency funders currently require that this embargo period not exceed 12 months, requiring authors to negotiate with publishers in instances where their standard embargo exceeds one year.

Open Access: Worldwide Trends

The concept of open access has been around in various forms since the late 1990s, with the term open access coined in the early 2000s. The movement slowly gained momentum throughout the 2000s, but has grown exponentially in the 2010s. Key trends in recent years include:

- Increasing funder requirements to make funded research openly available. These requirements
 have in some instances allowed for an embargo period (for example, the U.S. Federal Agencies'
 2015 announcement and Canada's 2015 Tri-Agency Open Access Policy on Publications both
 allow for a one year embargo).
- Increasing funder requirements to make funded research openly available without an embargo period. Europe has emerged as a leader in the push for open access, as is evident in decisions such as the UK Higher Education Funding Council for England's 2013 requirement that all UK Research Excellence Framework (REF) journal articles be published in an institutional repository immediately upon publication and the European Union's 2016 announcement that "all scientific articles in Europe must be freely accessible as of 2020."3
- Funders disallowing publication in hybrid journals. One of the recent developments to garner the most attention has been the launch of "Plan S" in Europe. The plan is an initiative of "cOAlition S," a consortium launched by the European Research Council and major national funders from twelve European countries. The plan consists of ten principles, but those gaining the most attention are that, "Open Access publication fees are covered by the Funders or universities, not by individual researchers" and that "the 'hybrid' model of publishing is not compliant with the above principles" (Appendix A). This last statement has generated considerable discussion among researchers and publishers, as it will bar funded researchers from publishing in certain journals which, in some cases, are the major journals in their fields.
- Taking a stand against high journal prices and APCs, and redirecting library journal subscription budgets to fund open access initiatives. Several large university consortia (including Germany's Project DEAL, representing approximately 200 universities and research centres, and Sweden's Bibsam Consortium with 85 member institutions) have attempted to negotiate new deals with Elsevier that are both more financially viable and combine publishing articles open access and reading paywall articles into one fee. Negotiations have broken off between Elsevier and both countries, Elsevier access suspended, and funds re-directed to other means of access and open publishing initiatives. The University of California (which publishes nearly 10% of research in the United States) is in the midst of negotiations with Elsevier, "seeking not only to constrain the runaway costs of journal subscriptions, but to make it easier and more affordable for UC authors to publish their research open access."

Open Access in Canada

Open access has been slower to take hold in Canada than in other (particularly European) countries. The most significant Canadian development to-date has been the development and implementation of the *Tri-Agency Open Access Policy on Publications* in 2015.⁶ After a lengthy consultation phase, NSERC, SSHRC, and CIHR introduced a harmonized policy (largely based on CIHR's pre-existing policy) requiring that peer-reviewed journal articles produced from funded research be made openly available within 12 months of publication. The full impact of this policy is just beginning to be felt as it applied only to grants received after May 2015, and it is only recently that articles from this funding period are being published, with few having yet reached the 12 month open access deadline specified in the policy. Although it is still too early to see the full impact of the policy, it has caught the attention of researchers and raised the profile of open access in Canada. It has also influenced the open access policies of numerous other funders.⁷

In addition to requiring open access to journal articles arising from funded researchers, the Tri-Agency has also signaled an interest in encouraging open access to research data. The *Tri-Agency Open Access Policy on Publications* is explicit in requiring that CIHR-funded researchers "deposit bioinformatics, atomic, and molecular coordinate data into the appropriate public database . . . immediately upon publication of research results." The draft *Tri-Agency Research Data Management Policy* stops short of requiring that researchers share their data but states that "research data collected with the use of public funds should be responsibly and effectively managed and belong, to the fullest extent possible, in the public domain and available for reuse by others."

Several Canadian institutions have issued formal statements or developed policies in support of open access. These policies encourage researchers to make their research outputs openly available, though at this point they stop short of requiring it. Several of the policies (including Concordia University, Simon Fraser, Acadia University, UBC, and University of Windsor) have been endorsed by institutional senates.⁹

Part II: Open Access at the University of Regina

The University of Regina Library, recognizing the unsustainability of rising journal prices in recent years, has been engaged in open access advocacy and development of infrastructure to support open access since approximately 2007. Activities have included:

- Organizing advocacy and education events during Open Access Week.
- Speaking to interested campus groups (including Faculty Councils, professional development days) about open access.
- Paying Article Processing Charges through a dedicated fund (2013-2015, suspended as part of University of Regina's 2015 Expenditure Constraint Program initiative). There is a currently a small fund managed by the AVP Academic that covers a very limited number of APCs per year.
- Paying membership fees for certain publishers/organizations (for example, BioMed) to reduce APCs paid by U of R researchers (2013-2015, suspended as part of University of Regina's 2015 Expenditure Constraint Program initiative)

- Establishing and maintaining oURspace, an institutional repository for the University of Regina. Researchers can deposit journal articles in oURspace to make them openly available and meet the requirements of the *Tri-Agency Open Access Policy on Publications*.
- Establishing and maintaining the University of Regina Dataverse, a data repository where researchers can store and share (when appropriate) research data.

Several University of Regina faculty members have decided either privately or through a public pledge, not to publish in closed journals or review papers for these journals. It is difficult to get a sense of the extent of these activities.

Part III: Strategies for Moving Forward

The University of Regina needs to proactively engage with open access and changes to the scholarly publishing and funding landscapes. There are many options, some conservative and some transformational, for moving ahead with open access. The following are proposed for discussion at the University of Regina:

- Leading discussions on transitions to open access, particularly in the unique context of Canadian small and medium comprehensive universities, at the Alliance of Canadian Comprehensive Research Universities (ACCRU).
- Raising open access publishing and APC challenges when meeting with representatives from CIHR, NSERC, SSHRC, and other funders.
- Communicating open access publishing and APC challenges to the Provincial Government, and seek financial assistance in covering APCs in order to bring University of Regina research to all Saskatchewan residents and the rest of the world.
- Drafting and seeking endorsement for an open access publishing statement from relevant University of Regina bodies (faculties, Executive of Council, Senate).
- Developing a new service to assist University of Regina researchers in understanding copyright
 agreements, negotiating with publishers, and depositing appropriate versions of articles in
 oURspace.
- Allocating a percentage of the Indirect Costs of Research funding received from the Tri-Agencies to off-set Article Processing Charges.
- Redirecting some of the library's journal subscription budget to off-set open access publishing costs (APCs, etc).
- Encouraging researchers to include publication costs (for APCs) in research funding applications as a matter of course.
- Encouraging (or requiring) that researchers make research publications openly available whenever possible.

Conclusion

Open access publication has begun to have a significant impact on the scholarly publishing landscape, and is gaining momentum, both worldwide and in Canada. Now is the time for the University of Regina

to act, in order to guarantee that our researchers remain compliant and competitive in pursuit of funding, and to ensure that our research continues to have high impact and reach the widest possible audience.

Key Questions for Discussion

What is our approach to open access and how can we support our researchers' success?

What will be the impact on our researchers if we are not aligned with the Europeans?

How much of an investment would be required to ensure we remain competitive?

How will we get buy in and commitment from senior administration?

What (if any) is the role of various levels of Government in funding the shift to open access?

¹ Chan, L., Cuplinskas, D., Eisen, M., Friend, F., Genova, Y., Guédon, J. C., ... & La Manna, M. (2002). *Budapest open access initiative*. Retrieved from: https://www.budapestopenaccessinitiative.org/read

² Stuart, D. (2018). *The scholarly publishing research cycle 2018: Perspectives and recommendations from the publishing, library and research sectors*. Retrieved from: https://www.researchinformation.info/news/2018-saw-rebalancing-power-scholarly-comms-%E2%80%93%C2%A0report

³ Hendrikx, M. (2016, 27 May). "All European scientific articles to be freely accessible by 2020." The Netherlands: Ministry of Education, Culture and Science. Retrieved from: https://www.government.nl/topics/european-union/the-netherlands-eu-presidency

⁴ Science Europe. (2018). "10 principles." Retrieved from: https://www.coalition-s.org/10-principles/

⁵ Smith, M. (2018, 28 Nov). "Potential changes to UC's relationship with Elsevier in January 2019." Retrieved from: https://www.library.ucdavis.edu/news/potential-changes-to-ucs-relationship-with-elsevier-in-january-2019/

⁶ *Tri-Agency open access policy on publications*. (2015). Retrieved from: http://www.science.gc.ca/eic/site/063.nsf/eng/h F6765465.html?OpenDocument

⁷ Information about funder open access policies is available in the Sherpa Juliet database at http://v2.sherpa.ac.uk/juliet/

⁸ Draft Tri-Agency research data management policy for consultation. (2018). Retrieved from: http://www.science.gc.ca/eic/site/063.nsf/eng/h 97610.html

⁹ Information about Canadian universities' open access policies is available at https://ospolicyobservatory.uvic.ca/canadian-university-open-access-statements/. ROARMAP (http://roarmap.eprints.org/) provides information on open access policies at universities worldwide.

Appendix A

Plan S--Key Principles

The key principle is as follows:

"After 1 January 2020 scientific publications on the results from research funded by public grants provided by national and European research councils and funding bodies, must be published in compliant Open Access Journals or on compliant Open Access Platforms."

IN ADDITION:

- Authors retain copyright of their publication with no restrictions. All publications must be
 published under an open license, preferably the Creative Commons Attribution Licence CC BY. In
 all cases, the license applied should fulfil the requirements defined by the Berlin Declaration;
- The Funders will ensure jointly the establishment of robust criteria and requirements for the services that compliant high quality Open Access journals and Open Access platforms must provide;
- In case such high quality Open Access journals or platforms do not yet exist, the Funders will, in a coordinated way, provide incentives to establish and support them when appropriate; support will also be provided for Open Access infrastructures where necessary;
- Where applicable, Open Access publication fees are covered by the Funders or universities, not
 by individual researchers; it is acknowledged that all scientists should be able to publish their
 work Open Access even if their institutions have limited means;
- When Open Access publication fees are applied, their funding is standardised and capped (across Europe);
- The Funders will ask universities, research organisations, and libraries to align their policies and strategies, notably to ensure transparency;
- The above principles shall apply to all types of scholarly publications, but it is understood that
 the timeline to achieve Open Access for monographs and books may be longer than 1 January
 2020;
- The importance of open archives and repositories for hosting research outputs is acknowledged because of their long-term archiving function and their potential for editorial innovation;
- The 'hybrid' model of publishing is not compliant with the above principles;
- The Funders will monitor compliance and sanction non-compliance.
 - reproduced from Science Europe. (2018). "10 principles." https://www.coalition-s.org/10-principles/