

**University of Windsor
Senate**

5.10: **Report of the Vice-President, Research and Innovation**

Item for: **Information**

Forwarded by: **Chris Houser**

Research, scholarship, and creative activity are critical to the reputation of the University of Windsor and have a significant influence on our ability to recruit and retain undergraduate and graduate students. Reports from the Office of the Vice-President, Research and Innovation will include quarterly statistics on research activity including new awards and submissions (October), publications (this meeting), the activity of ORIS (December) and creative performances and exhibitions (January).

PUBLICATIONS

The number of publications is based on data from Scopus and Web of Science. Unfortunately, this does not capture the whole of the University's research enterprise and may under-represent research, creative, and scholarly work in the areas of arts and humanities, and law. Law especially is not well represented, as many of the Canadian law journals are not captured in either Scopus or Web of Science. In this respect, the information below is a simple baseline.

University of Windsor, Total Publications as of October 28th, 2022

Publication Type	2020	2021	2022	
Journal Paper	626	756	813	We are on track to have 1120 publications in 2022, with a 7.5% increase in journal papers over 2021
Conference Paper	169	138	71	
Chapter	67	58	24	
Review	40	50	50	
Book	8	6	3	
Grand Total	1070	1178	961	

Top 5 Windsor cited articles for 2020 and 2021 as of October 28, 2022

Title	Journal	UWindsor Author	Citations
A genomic catalog of Earth's microbiomes	Nature Biotechnology	McKay GLIER, Science	142
Plastic wastes to construction products: Status, limitations, and future perspective	Case Studies in Const. Materials	Adesina Engineering	125
Transfer and transport of microplastics from biosolids to agricultural soils and the wider environment	Science of the Total Environment	Crossman Science	105
Failure Prognosis and Applications - A Survey of Recent Literature	IEEE Trans. On Reliability	Kordestani, Saif Engineering	102
China's carbon emissions trading and stock returns	Energy Economics	Wen Engineering	100

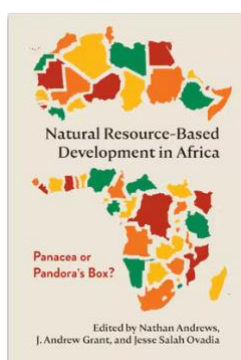
Top Cited Articles by Faculty for 2020 and 2021 as of October 28, 2022

Faculty	Title	Journal	UWindsor Author
FAHSS	Integrating Sexual Assault Resistance, Bystander, and Men's Social Norms Strategies to Prevent Sexual Violence on College Campuses: A Call to Action	Trauma, Violence & Abuse	Senn

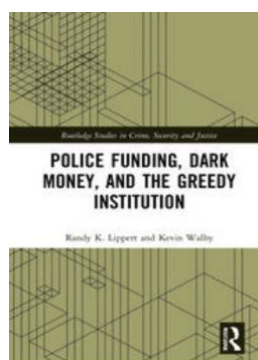
Education	Centering complexity in 'educators' data literacy' to support future practices in faculty development: a systematic review of the literature	Teach. in Higher Ed.	Stewart
Engineering	Plastic wastes to construction products: Status, limitations, and future perspective	Case Studies in Const.Materials	Adesina
Human Kinetics	Stress, physical activity, and screen-related sedentary behaviour within the first month of the COVID-19 pandemic	Applied Psychology	Woodruff, Coyne
Law	Good Enough for Government Work? Life-Evaluation and Public Policy	J.I of Happiness Studies	Semple
Nursing	Simulated patient scenario development: A methodological review of validity and reliability reporting	Nurse Ed. Today	Mirza
Science	A genomic catalog of Earth's microbiomes	Nature Biotechnology	McKay

Books published in 2022 as of October 28, 2022

Natural Resource-Based Development in Africa: Panacea or Pandora's Box?
Jesse Salah Ovadia



Police Funding, Dark Money, and the Greedy Institution
Randy K. Lippert



Corporate Governance and Economic Development Identifying Critical Institutional Reforms
Anna Lanoszka



CANADA RESEARCH CHAIR (CRC) SEARCHES AND NEW STRATEGIC ALLOCATION MODEL

Please see the attached outline of the new CRC allocation strategy and institutional competition. Proposals are due to the OVPRI by December 15, 2022 and they require the approval of the Dean of the respective Faculty or Faculties.

EPICENTRE REVIEW

The EpiCentre is the hub for all entrepreneurial endeavors on the University of Windsor campus. Following the approach used for the VPRI review completed last academic year, we will be initiating a review of the EpiCentre. There will be an opportunity for input from faculty, staff, and students.

PLANNING FOR NEXT CFI ALLOCATION

The Innovation Fund from the Canada Foundation for Innovation (CFI) is an opportunity for the institution to invest in infrastructure from fundamental research to applied research and technology development. Our most recent envelope (~\$6.1 million) was recently allocated to several projects on campus (e.g., CANS Neutron Scattering) and as commitments to proposals led by other institutions (e.g., Guelph Freshwater Network). The last envelope of funding was announced in 2021, proposals were due in 2022, and announcements will be made in 2023. CFI is hoping to make this funding bi-annual, with the next envelope being announced sometime in the next year. We have historically been reactionary, and we have scrambled to identify projects and allocate the envelope. Moving forward I would like to be proactive in identifying strategic needs for research infrastructure so that we start proposal development. Whether given part or all of the CFI envelope, the projects that we identify now will be helpful for other grants, federal funding, and donor support.

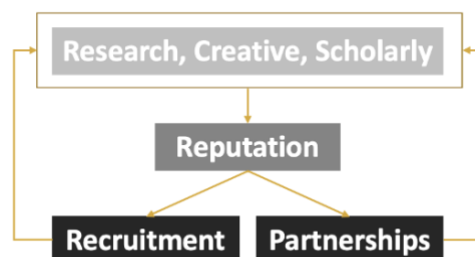
Deans have been asked to work directly with their Associate Deans of Research and to consult with faculty and aligned research centres and institutes to develop 1-page high-level proposals for use of the future CFI envelope. In your proposal consider how an investment in new research infrastructure will: 1) enhance research and reputation, 2) support the largest number of faculty across campus, 3) have potential to include collaborations and contributions

from other institutions (do not contact other institutions at this time), and 4) support the Windsor-Essex region, Ontario, and Canada. Faculties can submit multiple proposals and cross-Faculty proposals are encouraged. Given that opportunities, inspirations, and needs evolve, proposals and ideas that develop after that deadline will still be accepted on a rolling basis. Please note that the Innovation Fund is different from the CFI-JELF allocation.

Stanford’s World’s Top 2% Researchers

The Stanford database tracks citation data for both a faculty members entire career (up to 2021) and for the most recent full year that data is available (2021). The data is based on h-index, co-authorship, self-citations, and the size of the research field. It is important to note that this database does not capture the whole of a university’s research enterprise and may under-represent research, creative, and scholarly work in the areas of arts ,humanities, and law.

Career	In-Year				
Adam, Barry D.	Adesina, Adeyemi	33 current and former faculty from the University of Windsor are on the career list and 37 faculty and students are on the in-year list. Here is how we compare to other universities in Ontario without a medical school. Data is present as percent of faculty.			
Ahmadi, Majid	Ahmadi, Majid				
Alpas, Ahmet T.	Al-Aasm, Ihsan S.				
Aroca, Ricardo F.	Albanese, J.				
Drake, G. W.F.	Alpas, Ahmet T.				
ElMaraghy, Hoda	Aroca, Ricardo F.				
Fisk, A. T.	Drake, G. W.F.				
Fryer, B. J.	ElMaraghy, Hoda				
Gorey, Kevin M.	Erdodi, Laszlo		Brock	Career 5.9%	In Year 4.7%
Hackam, Reuben	Fisk, A. T.		Laurier	2.5%	2.4%
Hu, H.	Hackam, Reuben		Trent	10.0%	7.2%
Jonathan Wu, Q. M.	Houser, Chris		Waterloo	19.8%	16.8%
Kaloni, P. N.	Hussey, Nigel E.		Windsor	6.3%	7.1%
Kwan, Hon Keung	Jackson, Dennis L.		Carleton	7.2%	6.3%
Liu, Bing	Jonathan Wu, Q. M.		Lakehead	6.6%	6.3%
Loeb, Stephen J.	Kar, Narayan C.				
Maclsaac, Hugh J.	Kordestani, Mojtaba				
Maticka-Tyndale, Eleanor	Kwan, Hon Keung				
McGarvey, Bruce R.	Loeb, Stephen J.				
Michael Siu, K. W.	Maclsaac, Hugh J.				
Northwood, Derek O.	McCoy, Christopher Eric				
Polat, Ali	Mennill, Daniel J.				
Rourke, Byron P.	Mirza, Muhammad Usman				
Saif, Mehrdad	Naderi, Bahman				
Sale, Peter F.	Nie, Xueyuan				
Ting, David S.K.	Northwood, Derek O.				
Trenhaile, Alan	Polat, Ali				
Tuck, D. G.	Rau, Jeffrey G.				
Walton, Douglas	Razavi-Far, Roozbeh				
Wang, Zhongde	Saif, Mehrdad				
Wu, Huapeng	Sale, Peter F.				
Zhang, Ning	Singh, Pushpinder				
Zheng, Ming	Ting, David S.K.				
	Trenhaile, Alan				
	Walton, Douglas				
	Zhang, Ning				
	Zheng, Ming				



Canada Research Chair (CRC) Allocation Strategy 2022

Background

Canada Research Chairs ([CRCs](#)) are an opportunity to invest in existing and emerging areas of research strength, and thereby enhance the reputation of the University of Windsor. Tier 1 CRCs are an opportunity to support outstanding researchers acknowledged by their peers as world leaders in their fields, while Tier 2 CRCs are an opportunity to support exceptional emerging researchers, acknowledged by their peers as having the potential to lead in their field. In this respect, the CRC program is an exciting opportunity to attract new high-caliber researchers to the University of Windsor with support from NSERC, SSHRC and CIHR.

The number of chairs at an institution are based on our three-year average of tri-agency funding (NSERC, SSHRC, and CIHR) and the national re-allocation process is conducted every 5 years. The University of Windsor currently has six Tier 1 Chairs and seven Tier 2 Chairs supported by NSERC (9), SSHRC (3) and CIHR (1).

As of Fall 2022, there are 3 active chairs and another 4 in various states of renewal. There is also an active search in the Faculty of Engineering for an Environmental Engineer, 2 expiring chairs and 3 vacant chairs. Given that Tier 1 chairs can be split into two Tier 2 chairs, the University of Windsor has an immediate need to initiate a search for 5 and 7 chairs. To meet the Tri-Council equity targets, several of these searches will be restricted to women and gender minorities, persons with disabilities, Indigenous Peoples, and racialized minorities.

In consultation with the Deans and the CRCs, there will be expectations of current and future chairholders to be visible research leaders on campus and in the community, and ensure that their research, creative, and scholarly work is strengthening the reputation of the University of Windsor nationally and internationally.

	Tri-Agency Funding	% of Funding	Current CRCs
Odette	\$129,806	1.3	0
Eng.	\$3,389,267	33	3
Education	\$88,808	0.9	1
FAHSS	\$920,269	9.0	2
Hum. Kin.	\$250,860	2.5	0
Law	\$99,636	1.0	0
Nursing	\$16,238	0.2	0
Science	\$5,246,343	52	3

CRCs at the University of Windsor

CRC	Agency	Tier	Status	Research
Catherine Febria	NSERC	2	Renewal	Freshwater Restoration Ecology
Jennifer Willett	SSHRC	2	Renewal	Art, Science and Ecology
Aaron Fisk	NSERC	1	Renewal	Trophic Ecology
Charlene Senn	CIHR	1	Renewal	Sexual Violence
Ning Zhang	NSERC	2	Active	Edge Computing and Internet of Vehicles
Narayan Kar	NSERC	1	Active	Electrified Vehicles
Hugh MacIsaac	NSERC	1	Active	Aquatic Invasive Species
Oliver Love	NSERC	2	Expiring	Integrative Ecology
Stephen Loeb	NSERC	1	Expiring	Supramolecular Chemistry
Shijing Xu	SSHRC	2	Expiring	International and Intercultural Reciprocal Learning
Unfilled	NSERC	2	In Search	Environmental Engineering
Unfilled	SSHRC	2	Vacant	Open
Unfilled	NSERC	2	Vacant	Open

It is important to note that CRCs are not permanently allocated to Faculties. When a research chair is vacated it has always and will continue to move back to the central pool for redistribution based on current and future strategic research priorities.

2022/23 Allocation Process

Through consultation and in parallel with the Aspire Strategic Plan development, the University of Windsor is adopting a more strategic approach to the allocation of CRCs to complement existing and emerging research areas.

Consultation with the Deans, Associate Deans of Research, and the current CRCs, revealed the following strategic research areas as opportunities for one or more CRC:

1. Public and Environmental Health
2. Smart Technology and Materials
3. Automobility and Cybersecurity
4. Community and Regional Transformation
5. Indigenous Research & Scholarship
6. Black Research & Scholarship

It is important to note that these are broad areas and there are other research themes (e.g., Social Justice) that can be brought forward through one or more of these broad areas.

The allocation and search process for the Indigenous and Black Scholarship CRCs will be developed and allocated based on further consultation and are not included in the following allocation strategy:

1. Internal Competition: Proposals are invited from the Deans or their designate for one or more chairs in the strategic research areas (1-4) outlined above. Multi-Faculty proposals are encouraged, and all proposals require the approvals of the respective Deans. The 2-page proposals should provide the following information:
 - a. Chair title (e.g., Canada Research Chair in)
 - b. Strategic Research Area
 - c. Summary of the strategic research opportunity that will enhance research and reputation
 - d. Statement on how the chair aligns to existing research strengths and how the chair will serve as a catalyst for increasing research activity and funding
 - e. Description of how the chair will increase research funding, support academic program development and training, provide opportunities for advancement, etc.
 - f. Description of how the position will need to be funded (e.g., open line, bridge to future open lines, need for support, etc.)
2. Proposals will be due to the OVPRI on **December 15, 2022.**
3. Proposals will be reviewed by the President's Executive Leadership Team (ELT) based on the quality of the research proposal, potential to strength research and build reputation, opportunities for new undergraduate and graduate program development, and the current distribution of chairs. Opportunities for combining proposals will be explored if there is sufficient overlap.
4. Results will be announced early Winter 2023.