PRESIDENT'S REPORT: September 24, 2019

GENERAL

On August 2, a University of Manitoba led project received $2.2M in funding from Western Economic Diversification (WED) to enhance Manitoba's readiness to compete in the changing global economy. In partnership with Red River College, the University of Winnipeg, and Business Council Manitoba (BCM), the investment by WED to the U of M's co-managed project will drive industry investment in specific collaboration projects and have significant economic benefits. The project will support hiring five full-time employees to support the collaboration, 45 new industry-academic partnerships, and increased employment opportunities for 150 Indigenous students. The total cost of the project, including additional sources of funding through the U of M and other partners, is $4.3M over the next three years, supporting an expansion of the BCM program (a work-integrated learning program), and at least three AIM DAYS (Accelerating Innovation Meetings).

Two new buildings recently opened on the Fort Garry campus: the Stanley Pauley Engineering Building (SPEB) and the Smartpark Innovation Hub (SIH). Both received financial support from the Government of Canada Post-Secondary Institutions Strategic Investment Fund (SPEB $12.1M, SIH $20M), with the SPEB receiving additional $4M in support from the Province of Manitoba as well as support from Front and Centre campaign donors.

The SPEB is a 46,000-square-foot building located at 97 Dafoe Road adjacent to the Engineering Information and Technology Complex and is named in honour of engineering faculty alumnus Stanley Pauley [BSc(EE)/1949]. The building expands lab and student-support facilities across engineering disciplines. The SIH is a 75,000-square-foot building that creates a one-stop location for commercialization and professional services, and will ensure that industry partners have the ability to efficiently access new technologies and expertise to bring their ideas to market.

Many thanks to the outgoing Alumni Board Chair, Dawn Nedohin-Macek [BSc(Comp.E.)/2002], who has served on the Alumni Association Board of Directors for 7 years, the last two as Chair, with distinction. Dawn has demonstrated incredible leadership throughout her tenure and has given hundreds of hours of her time to the advance the University. The University congratulates the newly elected Alumni Board of Directors:

- Chair, Peter Wheatley [BSc(M.E.)/2007, MBA/2015]
- Vice Chair, Jessica Carvell [JD/2015]
- Treasurer, Mark Colley [BComm(Hons)/2004]
- Nominating Committee Chair, Evan Kuz [BFA(Hons)/1990]
- Member at large, Kristjan Mann [BA/2011, BA(Adv.)/2013, MA/2019]
- Member at large, Lasha Glennie [BA/2008, ExtEd/2016]
- Member at large, Efrem Teklemariam [MEng/1999]

The report commissioned to help guide the University of Manitoba to better address sexual violence, harassment and discrimination has been completed. Co-authors Donna Miller and Helga Van Iderstine's independent review, titled Responding to Sexual Violence, Harassment & Discrimination at the University of Manitoba: A Path Forward", was shared at a community presentation on September 17, 2019 to which all members of the UM community were invited. An implementation team, chaired by

Vice-President (Administration) Lynn Zapshala-Kelln, has been established and the University will be moving forward on implementing all recommendations.

ACADEMIC MATTERS

- Digvir Jayas, vice-president research and international, received an earned doctorate from the University of Saskatchewan. The award is in recognition of his substantial and sustained knowledge and contributions in his field of research, beyond that required for a typical doctorate.

- Bruno Dyck, business administration, received an Expanded Reason Award in Teaching, awarded by the Vatican Foundation Joseph Ratzinger/Benedict XVI and the university francisco de vitoria in madrid. The Expanded Reason Awards celebrate and encourage innovation in interdisciplinary research.

- A number of faculty were award recipients at the Canadian Society for Bioengineering/La Société Canadienne de Génie Agroalimentaire et de Bioingénierie (CSBE/SCGAB) annual meeting:
    - Danny Mann was named a CSBE Fellow, given to members of outstanding and extraordinary qualifications and experience in the field of agricultural, food or biological engineering;
    - Digvir Jayas and Song Liu were recipients of the inaugural CSBE John Ogilvie Research Innovation Award, presented for outstanding contributions to research, in any field of research relevant to CSBE/SCGAB, by an individual or team of researchers and intended to recognize the innovation or ingenuity of a single research project; and
    - Fuji Jian was honoured with the CSBE John Clark Award, given to a member who has produced outstanding work in industry, teaching, research or extension in one or more of the fields of electric power and processing, energy or food engineering.

  Several biosystems engineering students were recognized:
    - Laurissa Bridgeman, undergraduate scholarship;
    - Sarah Currie and Emily Kiely-Smith, CSBE Undergraduate Thesis Award;
    - Rhianna-Lynn Holter-Ferguson, CSBE Undergraduate Design Project Award;
    - Cliff Dueck and Rani Puthukulangara Ramachandran, graduate thesis award; and
    - Avery Simundsson, first place in oral presentation.

- Christina Lengyel, food and human nutritional sciences, recently received the Member Recognition Award for Outstanding Leadership at the Dietitians of Canada (DC) National Conference Annual Members Awards Ceremony.

- Don Flaten, soil science, was awarded the Canadian Association of Diploma in Agriculture Programs annual Excellence Award for Teaching.

- Jason Morrison, biosystems engineering, was presented with the North American Colleges and Teachers of Agriculture (NACTA) Teaching Award of Merit. These awards are given annually to individuals who excel in teaching an agricultural discipline.

- A number of students in soil science were award recipients at the Joint Annual Meeting of the Canadian Society of Soil Science (CSSS) and the Canadian Society for Agricultural and Forest Meteorology, recently held in Saskatoon:

- Joanne Thiessen Martens received the CSSS President's Award for her poster presentation titled *"Response of organically managed crops to addition of struvite fertilizer in a Manitoba soil"*, co-authored with K. Schneider, F. Zvomuya, and M. Entz; and
- Tony Britton won the CSS Bert Tanner Student Prize for his oral presentation, co-authored with A. Glenn, S. Satchithanantham, C Jackson, B. Amiro, and H. Wilson, titled *"Improving canola evapotranspiration estimates in Manitoba".*

- Ifeanyi Nwachukwu, human nutritional sciences student, received the Governor General's Gold Medal awarded for outstanding achievement at the graduate level.

- Bhanu Pilli, human nutritional sciences student, was awarded the Lieutenant Governor's Gold Medal, for the best record in scholarship and personal qualities throughout the degree course in agriculture.

- Crystal Almdahl, entomology student, and Chelsey Walchuk, food and human nutritional sciences student, received the North American Colleges and Teachers of Agriculture (NACTA) Graduate Student Teaching Award of Merit. These awards are presented annually to individuals who excel in teaching an agricultural discipline.

- Pamela Drawbridge, food science student, was awarded a national Canadian Institute of Food Science and Technology (CIFST) Student Leadership award for the prominent role she has played in planning and implementing events undertaken by the CIFST Manitoba Section over the past two years.

- Dr. Jody Stark, music, and Jennifer Arcand, music student, are the winners of the 2019 Pat Shand Canadian Music Essay Contest for their essay *"Exploring an Imagined Canadian Identity"*.

- Paula Berry, music student, won the prestigious 2019 College Light Opera Company scholarship, and performed in nine musicals in a period of 10 weeks for the historic opera company.

- Emma Johnson, music student, won the Grand Award at the 2019 National Music Festival, the nation's largest classical music festival. Part of this prestigious prize is performing with the Prince George Symphony Orchestra and the Thunder Bay Symphony Orchestra later this year.

- National Indigenous Peoples Day 2019, was celebrated on June 20th at the Bannatyne campus. Events included the construction of a teepee in the Medicine Garden/Mashkiki Gitigann, a pipe ceremony led by Elder Margaret Lavallee and a children's story time at the teepee with Knowledge Keeper Leslie Spillett. There was a complimentary feast held in the Brodie Centre Atrium with entertainment provided by David Boulanger from Burnt Project 1, Aboriginal School of Dance – "Wohitika" and James Favel, executive director of the Bear Clan Patrol. Artists and crafters also displayed their artworks.

- A group of Max Rady College of Medicine students, residents and faculty are working to improve civility in the clinical learning environment in Manitoba. The group, *Civility Saves Lives*, is part of a growing movement that aims to encourage dialogue about behaviour such as abuse and harassment and promote a civil working environment in health care. *Civility Saves Lives*, which has nine

members, has launched a survey for medical trainees regarding their experiences in the clinical learning environment. The team's next step will be to create an awareness campaign.

- A reproduction of *The Witness Blanket*, a large-scale art installation created by master carver Carey Newman, will be on display until October 31st on 3rd Floor, Neil John Maclean Health Sciences Library, Bannatyne campus. Retired nurse and residential school survivor Ann Callahan spoke at the opening of the exhibition on August 22, 2019. The installation has been described as *"a national monument to recognize the atrocities of the Indian Residential School era, honour the children and symbolize ongoing reconciliation."*

RESEARCH MATTERS

- Dr. Meghan Azad, Pediatrics & Child Health; Children's Hospital Research Institute of Manitoba, and Dr. Alain Labrqiue, Johns Hopkins School of Public Health, were awarded funding through the Bill & Melinda Gates Foundation "Call-to-Action" to participants of the 2018 Grand Challenges meeting in Berlin, Germany. Building on Labrique and Azad's prior work, in Bangladesh and Canada, respectively, the study will assess whether prelacteals affect the populations of bacteria in the newborn gut (the microbiome), a first step to understanding how this may affect development and survival.

- On June 21, the Canadian Academy of Engineering (CAE) announced the election of two Faculty of Engineering members as Fellows into the CAE. Randy Herrmann, Director of the Engineering Access Program (ENGAP), and Dr. Ekram Hossain, Electrical and Computer Engineering are two of the 49 other professionals from across Canada to receive this prestigious honour in 2019. Herrmann has provided exceptional leadership as the Director of the Engineering Access Program, which has graduated well over 100 engineers of Indigenous heritage who have gone on to demonstrate the importance of engineers who share the cultural heritage of Indigenous Peoples. Hossain is an internationally recognized expert in wireless communications and networking. His pioneering research contributions in radio resource management for cellular wireless and cognitive radio networks have significantly impacted research and development in this area and enabled advancement of broadband wireless communications technology. He is an extraordinary engineering educator and mentor of engineering graduate students.

- Four early career researchers are among the inaugural recipients of $986,250 in funding from the New Frontiers in Research Fund (NFRF) announced on May 13, 2019, by the Social Sciences and Humanities Research Council (SSHRC). The NFRF program launched in 2018, provides funding that supports high-risk, high-reward and interdisciplinary research to help Canadian researchers make the next great discoveries in their fields.

- The funded projects are:

PIs	Title	Awarded
Jones, Meaghan (Biochemistry & Medical Genetics); Saleem, Ayesha (Kinesiology & Recreation Management)	Reversing frailty through transmission of epigenetic age by extracellular vesicles	$ 250,000
El-Gabalawy, Renee (Anesthesia)	A targeted preoperative virtual reality intervention with artificial intelligence integration for anxiety in patients undergoing breast cancer surgery	$ 250,000
Kuss, Sabine (Chemistry)	Investigation of antibiotic resistance by electrochemistry	$ 236,250
Maghoul, Pooneh (Civil Engineering); Ashraf, Ahmed (Electrical & Computer Engineering); Hollaender, Hartmut (Civil Engineering); Shalaby, Ahmed (Civil Engineering)	Threat assessment for northern civil infrastructure affected by climate change using an AI-based geomechanical model	$ 250,000

- On May 21, the Natural Sciences and Engineering Research Council (NSERC) announced $13.7M in funding to 85 research projects over the next five years. Eighteen early-career researchers also received support from the Discovery Launch Supplement program and an additional nine graduate students received a combined $1,176,500 in scholarships. The research projects are:

PI	Sponsor	Title	Awarded
Aliani, Michel (Food and Human Nutritional Sciences)	NSERC Discovery Grant	Understanding complex interactions between flavour precursors in meat-pulse products using a flavouromics platform	$200,000
Arsenio, Janilyn (Internal Medicine)	NSERC Discovery Grant & Launch Supplement	Single cell analysis of the molecular regulation of T cell differentiation	$197,500
Atukorallaya, Devi (Oral Biology)	NSERC Discovery Grant	Mexican tetra (Astyanax mexicanus) as a model to understand the development and regeneration of the epithelial appendages	$162,500
Bellili, Faouzi (Electrical and Computer Engineering)	NSERC Discovery Grant & Launch Supplement	Scalable and efficient machine-type communication in 5G wireless access and beyond	$152,500
Brassinga, Ann (Microbiology)	NSERC Discovery Grant	Understanding the mechanisms employed by Legionella to survive in diverse environments	$160,000
Bridges, Gregory (Electrical and Computer Engineering)	NSERC Discovery Grant	Microwave devices for biosensors and single cell dielectric spectroscopy	$230,000
Chen, Ying (Biosystems Engineering)	NSERC Discovery Grant	Simulations of microdynamics of soil, tool, and crop residue using the discrete element method (DEM)	$275,000
Davoren, Gail (Biological Sciences)	NSERC Discovery Grant	The ecology of focal forage fish and their influence on marine predators	$165,000

Davoren, Gail (Biological Sciences)	NSERC Northern research supplement & Ship time	The ecology of focal forage fish and their influence on marine predators	$177,165
Deng, Chuang (Mechanical Engineering)	NSERC Discovery Grant	Design and multiscale characterization of novel metallic systems with hierarchical microstructural heterogeneity	$140,000
Dibrov, Pavel (Microbiology)	NSERC Discovery Grant	Structure, function and dynamics of the cation-proton antiporter Vc-NhaP2 in Vibrio cholerae	$160,000
Docker, Margaret (Biological Sciences)	NSERC Discovery Grant	Mechanisms of life history evolution in an ancient vertebrate	$200,000
Duan, Kangmin (Oral Biology)	NSERC Discovery Grant	Molecular basis and regulatory mechanisms of bacterial interspecies and intercellular interactions	$160,000
Eftekharpour, Eftekhar (Physiology & Pathophysiology)	NSERC Discovery Grant	Role of thioredoxin system in regulation of autophagy-apoptosis cross talk in neural cells: Uncovering novel molecular interactions	$160,000
Ferguson, Philip (Mechanical Engineering)	NSERC Discovery Grant & Launch Supplement	Predictive drone control for interplanetary exploration	$172,500
Fernyhough, Paul (Pharmacology and Therapeutics)	NSERC Discovery Grant	Muscarinic receptor signalling pathways regulating axonal regeneration and sprouting in adult neurons	$32,000
Fry, William (Mark) (Biological Sciences)	NSERC Discovery Grant	Regulation of subfornical organ neurons by the neuropeptide neurotensin	$180,000
Gericke, Michael (Physics and Astronomy)	NSERC Subatomic Physics	High precision tests of the running of the weak mixing angle with the MOLLER and P2 experiments	$600,000
Gerstein, Aleeza (Microbiology)	NSERC Discovery Grant & Launch Supplement	Genotypic and phenotypic variation during adaptation in fungal microbes	$202,500
Gillis, Darren (Biological Sciences)	NSERC Discovery Grant	The impact of ecological dynamics and statistical properties in fisheries data on the sustainability of fish populations and harvest	$140,000
Gole, Aniruddha (Electrical and Computer Engineering)	NSERC Discovery Grant	Enabling a robust future HVDC grid	$455,000
Gordon, Joseph (Nursing)	NSERC Discovery Grant	Modulation of cell death and differentiation by myocardin-regulated microRNAs during mammalian development	$160,000
Hanson, Mark (Environment & Geography)	NSERC Discovery Grant	Response and recovery in boreal wetlands from contaminants: New and culturally appropriate tools for ecological risk assessment	$235,000
Hatch, Grant (Pharmacology and Therapeutics)	NSERC Discovery Grant	Regulation of membrane transport by cardiolipin	$160,000
Hossain, Ekram (Electrical and Computer Engineering)	NSERC Discovery Grant	On design and engineering of radio access networks for beyond 5G wireless	$320,000

House, James (Food and Human Nutritional Sciences)	NSERC Discovery Grant	Nutritional regulation of sulphur amino acid metabolism	$275,000
Hu, Can-Ming (Physics and Astronomy)	NSERC Discovery Grant	Cavity Spintronics: Expanding the horizons for microwave, THz, magnetic, and quantum technologies	$375,000
Hu, Can-Ming (Physics and Astronomy)	NSERC Accelerator Supplement	Cavity Spintronics: Expanding the horizons for microwave, THz, magnetic, and quantum technologies	$120,000
Irani, Pourang (Computer Science)	NSERC Discovery Grant	In-situ user interfaces	$445,000
Jakobson, Lorna (Psychology)	NSERC Discovery Grant	Factors contributing to natural variation in perceptual and cognitive skills	$165,000
Kelly, Debbie (Psychology)	NSERC Research tools & instruments	Integrating cognitive science and movement ecology through the establishment of Technosmart Avian Tracking System	$89,822
Khoshdarregi, Mohammad (Mechanical Engineering)	NSERC Discovery Grant & Launch Supplement	Intelligent robotic machining systems: Integrated process planning, monitoring, and control	$147,500
Kirkland, Stephen (Mathematics)	NSERC Discovery Grant	Nonnegative and combinatorial matrix theory	$105,000
Kuss, Christian (Chemistry)	NSERC Discovery Grant & Launch Supplement	Conjugated polymer binders for lithium- and sodium-ion batteries	$152,500
Kuss, Sabine (Chemistry)	NSERC Discovery Grant & Launch Supplement	Scanning photoelectrochemical microscopy and its application to biological systems	$132,500
Kuss, Sabine (Chemistry)	NSERC Research tools & instruments	A scanning electrochemical microscope for the analysis of biological systems	$150,000
Kuzyk, Zou (Geological Sciences)	NSERC Discovery Grant & Northern research supplement	Organic carbon cycling along high-latitude continental margins and implications of climate change	$200,000
Leboe-McGowan, Launa (Psychology)	NSERC Discovery Grant	Metaphorical influences on time perception	$140,000
Liang, Xihui (Mechanical Engineering)	NSERC Discovery Grant & Launch Supplement	Development of advanced condition monitoring techniques for gearboxes and bearings	$172,500
Lindsey, Benjamin (Human Anatomy and Cell Science)	NSERC Discovery Grant & & Launch Supplement	Radial-glial stem cell development and plasticity in the adult zebrafish brain	$162,500
Liu, Song (Biosystems Engineering)	NSERC Discovery Grant	Development of functional materials for battling bacterial contamination	$165,000
Luo, Yunhua (Mechanical Engineering)	NSERC Discovery Grant	Understanding bone strength and fracture by multiscale modeling, testing and imaging: The role of chemical composition and hierarchical structure	$195,000
Mammei, Juliette (Physics and Astronomy)	NSERC Subatomic Physics	PREX ll and CREX: Precision parity violating measurement of neutron skin of heavy nuclei at Jefferson Laboratory	$475,000
Mundy, Christopher (Centre for Earth Observation Science)	NSERC Discovery Grant & Northern research supplement	Physical and biological controls of primary production in the ice-influenced Canadian Arctic marine system	$240,000

Mundy, Christopher (Centre for Earth Observation Science)	NSERC Ship time	Southampton island marine ecosystem project (SIMEP) network - 2019 scientific cruise	$168,000
Papakyriakou, Timothy (Centre for Earth Observation Science)	NSERC Discovery Grant	Air-sea exchange of CO2 and carbon system dynamics in Canadian subarctic waters	$150,000
Pelka, Peter (Microbiology)	NSERC Discovery Grant	Cellular functions of the hub proteins FUBP1 and DREF and their deregulation by adenovirus	$160,000
Plaizier, J. C. (Kees) (Animal Science)	NSERC Discovery Grant	Enhancing gut health in high yielding cattle	$275,000
Renault, Sylvie (Biological Sciences)	NSERC Discovery Grant	Interaction between abiotic and biotic stresses: Salinity and herbivory in woody plants	$140,000
Safi-Harb, Samar (Physics and Astronomy)	NSERC Discovery Grant	Astrophysics of Supernova Remnants in the 2020's	$250,000
Sirker, Jesko (Physics and Astronomy)	NSERC Discovery Grant	Many-body quantum systems out of equilibrium	$170,000
Soderstrom, Melanie (Psychology)	NSERC Discovery Grant	Factors influencing infant perception of infant-directed speech	$33,000
Sparling, Richard (Microbiology)	NSERC Discovery Grant	Relating fermentation pathways to energy conservation in lignocellulolytic clostridia and related organisms	$250,000
Stern, Gary (Centre for Earth Observation Science)	NSERC Discovery Grant	Efficacy of in-situ burning as a counter measure to oil spills in Arctic ice infested waters	$215,000
Taylor, Carla (Food and Human Nutritional Sciences)	NSERC Discovery Grant	Metabolic and immune functions of zinc and lipids	$235,000
Thulasiraman, Parimala (Computer Science)	NSERC Discovery Grant	Adaptive decentralized traffic forecasting for intelligent transportation	$140,000
Tomy, Gregg (Chemistry)	NSERC Discovery Grant	Identification and environmental fate of novel halogenated polycyclic aromatic compounds in Canada's oil sands region	$145,000
Wang, Bingchen (Mechanical Engineering)	NSERC Discovery Grant	Study of dual-jet interference and scalar mixing using direct numerical and large-eddy simulations	$160,000
Wang, Yang (Computer Science)	NSERC Discovery Grant	Visual recognition beyond supervised learning	$140,000
Wigle, Jeffrey (Biochemistry and Medical Genetics)	NSERC Discovery Grant	Transcriptional regulation of fibroblast generation in the embryonic heart	$160,000
Yahampath, Pradeepa (Electrical and Computer Engineering)	NSERC Discovery Grant	New signal processing techniques for next generation video compression	$140,000
Zahradka, Peter (Physiology & Pathophysiology)	NSERC Discovery Grant	Hormonal mechanisms of gene regulation	$180,000
Zhu, Guozhen (Mechanical Engineering)	NSERC Discovery Grant & Launch Supplement	Deformation physics of nanoscale features in Mg alloys	$202,500

Zvomuya, Francis (Soil Science)	NSERC Discovery Grant	Characterizing the release, dynamics and plant availability of phosphorus from recovered struvites	$180,000

- On May 31, the Canadian Institutes of Health Research awarded $753,432 to Dr. Donald Miller and a multidisciplinary team under the Collaborative Health Research Projects (CHRP) program to examine blood and urine based biomarkers for early detection and treatment monitoring of brain tumours. CHRP funds bring together diverse teams of health researchers, engineers and those in the natural sciences, and social scientists and humanities scholars, to tackle health challenges. The University of Manitoba project involves a diverse team of investigators with Miller: Drs. Thomas Klonisch (Human Anatomy & Cell Science), Ted Lakowski (Pharmacy), Marshall Pitz (Research Institute of Oncology and Hematology a joint institute with CancerCare Manitoba), as well as David Wishart from The Metabolomics Innovation Centre (Alberta) in partnership with BioMark Diagnostics (British Columbia).

- On June 18, The Honourable Kirsty Duncan, Minister of Science and Sport, announced two new Canada Research Chairs (CRCs) and two renewed CRCs at the University of Manitoba. All are Tier 2 chairs, each receiving $500,000 over five years, for a total of $2M. They are:

    - Dr. Eric Collins (Centre for Earth Observation Science), new Chair in Arctic Marine Microbial Ecosystem Services, will answer the driving question of: How will sea ice loss, economic development, and other human impacts affect ecosystem services provided by Arctic marine microbes?
    - Dr. Susan Logue (Human Anatomy and Cell Science), new Chair in Cell Stress and Inflammation, aims to understand how stressed cells "talk" to neighbouring cells. Using a range of cell biology and biochemical techniques Logue will study cell-to-cell communication during endoplasmic reticulum (ER) stress and determine how the unfolded protein response impacts on the wider cellular environment.
    - Dr. Carl Ho (Electrical and Computer Engineering), renewed Chair in Efficient Utilization of Electric Power, studies low voltage micro-grid technologies, power electronics grid-connected converters, and their controls.
    - Dr. Nicole Rosen (Linguistics), renewed Chair in Language Interactions, conducts advanced linguistic research on language interactions on the Canadian Prairies, including the influence of heritage and immigrant languages on official languages, and on the Michif language.

- On July 17, the Canadian Institutes of Health Research (CIHR) announced $4M in funding to two Rady Faculty of Health Sciences professors: Dr. Keith Fowke (Medical Microbiology & Infectious Diseases), to investigate how anti-retroviral and anti-inflammatory medications can prevent new HIV infections; and Dr. Adam Burgener (Obstetrics & Gynecology) to investigate how the microbiome in the human body interacts with vaccines and anti-retroviral drugs against HIV. Fowke's co-investigators are: Emmanuel Ho (University of Waterloo); Joshua Kimani (Medical Microbiology and Infectious Diseases (MMID – U of M and University of Nairobi); Lyle Mckinnon (MMID-UM); Thomas Murooka (Immunology-UM); Julie Lajoie (MMID-UM); Julius Oyugi (MMID and University of Nairobi).

  Burgener's co-investigators are: Carolina Herrera (Imperial College, London); Roger Paredes (Irsi Caixa, Barcelona), Vanessa Poliquin (Obstetrics, Gynecology and Reproductive Sciences, U of M) and Thomas Murooka (Immunology-UM).

- On July 17, more than $2.5M was awarded by the Social Sciences and Humanities Research Council (SSHRC) to the following research projects:

PI	Sponsor	Title	Awarded
Arora, Sandeep (Marketing)	Insight Grant	The Impact of Corporate Political Activities on Customer Mindset Metrics	$75,415
Brownell, Marni (Community Health Sciences/Manitoba Centre for Health Policy)	Partnership Development Grant	Across the Spectrum: Building a Multi-Sector Partnership to Conduct Social Policy Evaluation and Research Using Big Data	$199,960
Brownell, Marni (Community Health Sciences/Manitoba Centre for Health Policy)	Insight Grant	Quantifying Social Disparities in Youth Justice System Trajectories — Evidence to Inform Policy Change	$252,756
Carriere, Real (Political Studies)	Insight Development Grant	Nistotumowin Nehinuwak Okimahin: Developing a Deeper Understanding of Swampy Cree Political Theories and Practices	$70,705
Jiang, Changmin (Supply Chain Management)	Insight Development Grant	Airlines' Passenger Data Protection Investment: Consumer Response and Market Competition	$58,932
Kouritzin, Sandra (Curriculum, Teaching & Learning)	Insight Grant	Workload Creep in the Social Sciences and Humanities in Canadian research-intensive universities	$326,209
Kruk, Richard (Psychology)	Insight Grant	A question of time: Sensory and language sampling in reading acquisition	$99,915
Liu, Mingzhi (Accounting & Finance)	Insight Grant	Directors' and officers' liability insurance, corporate social performance, and tax avoidance	$68,035
Ng, Adolf (Supply Chain Management)	Insight Development Grant	New Technology, Climate Change Perception, and Behavioral Changes: The Roles of Virtual Reality (VR)	$52,239
Porth, Lysa (Warren Centre, Asper School of Business)	Insight Grant	Machine Learning-Based Methods Using Satellite-Derived Remote Sensing Data for Risk Management and Insurance in the Presence of Systemic Weather Risk	$283,070
Roos, Leslie (Psychology)	Insight Development Grant	The Impacts of Maternal Social Buffering on Preschoolers' Emotional, Behavioural, and Physiological Responses to Stress	$71,980
Saberian, Soodeh (Economics)	Insight Development Grant	Air Pollution and Mental Health	$51,100
Ursel, Jane (Sociology and Criminology)	Insight Grant	Impervious to Change? A Mixed Methods Analysis of Criminal Sexual Assault Complaint Attrition Rates	$268,580
Wang, Luming (Marketing)	Insight Grant	Information Privacy in Mobile Applications	$95,240
Woodgate, Roberta (Nursing)	Insight Grant	Indigenous Youth Aging out of the Child Welfare System in Manitoba: Where do we go from here?	$373,539

Woolford, Andrew (Sociology)	Insight Grant	Symbiotic Destruction: Genocide, Human Groups, and the Natural World	$119,583
Yoon, Ee-Seul (Education)	Insight Development Grant	Is School Choice Fueling Inequality in the Canadian Education System?	$37,414

- On August 12, seven research projects aimed at testing new technologies and techniques to improve our responses to oil spills received $6.385M in funding from the Government of Canada through the Department of Fisheries and Oceans Canada. The researchers receiving the funding are: Dr. Feiyue Wang, Dr. Soeren Rysgaard and Dr. Gary Stern, all researchers at the Centre for Earth Observation Science. The projects are:

PI	Research Partner	Title	Awarded
Wang, Feiyue (Environment & Geography)	SL Ross Environmental Research, Ltd.	Onsite burning as a response technique for oil spills in Canadian waters	$305,000
Wang, Feiyue (Environment & Geography)	SL Ross Environmental Research, Ltd.	Small-scale testing of alternative response options for spilled oils in Canada	$680,000
Wang, Feiyue (Environment & Geography)	SL Ross Environmental Research, Ltd.	Experimental field study of onsite burning with fire booms to reduce burn residues	$846,000
Wang, Feiyue (Environment & Geography)	SL Ross Environmental Research, Ltd.	Experimental field study of aerial herder and igniter use for onsite burning in drift ice and open water	$1,400,000
Wang, Feiyue (Environment & Geography)	SL Ross Environmental Research, Ltd.; DF Dickins Associates, Ltd.	Chemical analysis of oil and oil products and their changes in the environment	$1,900,000
Stern, Gary (Environment & Geography)	McGill University	Baseline monitoring of hydrocarbon contaminants and microbial genomics along the Kivalliq transportation corridor	$770,000
Rysgaard, Søren (Environment & Geography)	Aarhus University, National Research Council Canada	Onsite and offsite investigation of oil biodegradation potential in Arctic marine environments	$484,000

- 137 research projects led by 57 investigators received a total of $15,443,292 in grant funding from multiple sponsors. Those projects receiving more than $25,000 are:

PI	Sponsor	Title	Awarded
Alfaro, Marolo (Civil Engineering)	NSERC Engage	Measuring construction and post-construction deformations of mechanically stabilized earth walls using terrestrial laser scanning	$25,000
Archibald, Mandy (Nursing)	Children's Hospital Research Institute of Manitoba (CHRIM)	Developing a research laboratory at the nexus of arts-lived experience research and knowledge translation	$30,000
Austin-Smith, Brenda (English, Film, and Theatre)	Canadian Association of University Teachers	Framing feeling: Film, adaptation, emotion	$48,400
Barclay, Ruth (Physical Therapy)	CIHR Catalyst	Self-reported and physical factors associated with community ambulation in	$69,868

		older adults and people with osteoarthritis	
Bridges, Gregory (Electrical and Computer Engineering)	Queen's University	emSYSCAN - Embedded Systems Canada	$120,000
Dahl-Jensen, Dorthe (Environment & Geography)	Research Manitoba	Canada Excellence Research Chair in Arctic Ice, Freshwater Marine Coupling and Climate Change	$9,999,640
Dakshinamurti, Shyamala (Pediatrics and Child Health)	Research Manitoba	How does hypoxia inhibit adenylyl cyclase activity in the hypertensive pulmonary artery? Investigating the role of cysteine nitrosylation	$44,100
Friesen, Marcia (Dean's Office - Faculty of Engineering)	Manitoba Aerospace Industries	NSERC Chair in Design Engineering for sustainable development and enhanced design integration	$290,917
Gericke, Michael (Physics and Astronomy)	University of Winnipeg	The Nab Experiment: An ultraprecise measurement of the electron-antineutrino angular correlation coefficient in neutron beta decay	$40,000
Gericke, Michael (Physics and Astronomy)	University of Winnipeg	Ultracold neutron electric dipole moment experiment	$27,000
Goldsborough, Gordon (Biological Sciences)	Red River Basin Commission	Red River dredging and Netley-Libau Marsh restoration pilot project	$190,300
Hollaender, Hartmut (Civil Engineering)	NSERC Engage	Evaluation of permafrost changes due to climate change	$25,000
Jones, Meaghan (Biochemistry and Medical Genetics)	Health Sciences Centre Foundation	Breaking the link between prenatal environmental exposures and allergic disease: Insights from epigenetic research	$70,000
Katz, Alan (Community Health Sciences)	University of British Columbia	Establishment of the strategy for patient-oriented research Canadian data platform	$375,000
Kazem Moussavi, Zahra (Electrical and Computer Engineering)	Mitacs Acelerate Intership (Cluster)	Application of advance signal and image processing to develop objective diagnostic and monitoring technologies as well as predicting the response to treatment for Alzheimer's disease	$240,000
Keijzer, Richard (Surgery)	Research Manitoba	Understanding mechanisms of transplacental nanoparticle transfer as a novel fetal therapy option during pregnancy	$44,100
Ko, Ji Hyun (Human Anatomy and Cell Science)	CIHR Catalyst	Do cognitive behavioral therapy skills classes increase a resiliency-related brain connectivity pattern to posttraumatic stress disorder	$149,927
Koksel, Filiz (Food and Human Nutritional Sciences)	Research Manitoba	Understanding the mechanisms associated with quality creation in protein-rich plant-based aerated foods during processing	$50,000
Komenda, Paul (Internal Medicine)	Mitacs Elevated PDF	The epidemiology of Fabry disease and metabolic acidosis in Manitoba	$60,000
Kuss, Christian (Chemistry)	Research Manitoba	Enabling all-solid-state battery electrodes with mixed conducting binders	$48,200

Kuss, Sabine (Chemistry)	Research Manitoba	Investigation of antibiotic resistance by electrochemistry	$130,000
Kuzyk, Zou (Centre for Earth Observation Science)	Laval University	Community-based research on winter water modifications in the coastal domain of Hudson Bay: Implications for freshwater-marine coupling, biological productivity and the carbon cycle (Short title: Coastal oceanography of Hudson Bay)	$75,000
Landrum, Lisa (Architecture)	SSHRC Connection	Canadian architecture forums on education: Toward an architecture policy for Canada	$50,000
Larcombe, Linda (Internal Medicine)	CIHR HIV/AIDS Community-Based	Mapping the journey: Developing culturally appropriate, geographically-responsive HIV care for northern Manitoba First Nations people	$447,923
Mackay, Dylan (Community Health Sciences)	Manitoba Medical Service Foundation	The impact of diet on frailty and chronic kidney disease outcomes from the CanFIT study	$31,000
Mai, Sabine (Physiology & Pathophysiology)	Research Manitoba	Novel non-invasive blood-based molecular analysis to identify high-risk lethal prostate cancer	$44,100
McLaren, Paul (Medical Microbiology and Infectious Diseases)	Manitoba Medical Service Foundation	Genetic regulation of the vaginal immune and microbial environment and its impact on HIV susceptibility	$31,850
Myrie, Semone (Food and Human Nutritional Sciences)	Mitacs Accelerate	The effects of the dietary supplement Cardioflex on reducing cardiovascular disease risk factors in adults	$60,000
Nixon, Kendra (RESOLVE (Research and Education for Solutions to Violence and Abuse))	Prairie Action Foundation CARE	Caught in the middle	$66,711
Nyachoti, Charles (Martin) (Animal Science)	Manitoba Pork Council	Development of innovative strategies to reduce feed costs in the post-weaning period while maintaining optimal performance and health	$165,000
O'Dea, Christopher (Physics and Astronomy)	University of Toronto	Unlocking the radio sky with next-generation	$36,305
Papakyriakou, Timothy (Centre for Earth Observation Science)	Research Manitoba	Canadian consortium for arctic data inoperability: Data sharing and analysis for arctic research and northern communities	$279,990
Papakyriakou, Timothy (Centre for Earth Observation Science)	University of Calgary	Canadian consortium for arctic data interoperability: Data sharing & analysis for arctic research and northern communities	$177,517
Porter, Michelle (Centre on Aging)	Winnipeg Foundation (The)	Homeshare Program	$30,000
Rajapakse, Athula (Electrical and Computer Engineering)	Mitacs Accelerate	Machine learning approach for real-time assessment of voltage stability using multiple indicators derived from wide area synchrophasor measurements	$45,000

Raouf, Afshin (Immunology)	Health Sciences Centre Foundation	Application of adipose-derived mesenchymal stem cells to wound healing and scar formation	$41,100
Renault, Sylvie (Biological Sciences)	Mitacs Accelerate	Revegetation of disturbed areas in Northern Manitoba	$30,000
Renner, Eberhard (Internal Medicine)	Manitoba Medical Service Foundation	Effect of an exercise rehabilitation program on symptom burden in hemodialysis: A multi-centre randomized controlled study	$150,000
Roos, Leslie (Psychology)	Research Manitoba	The BRIDGE program: Building regulation in dual generations	$129,947
Saleem, Ayesha (Kinesiology and Recreation Management)	Research Manitoba	Do extracellular vesicles cause skeletal muscle loss in cancer cachexia?	$130,000
Saleem, Ayesha (Kinesiology and Recreation Management)	Research Manitoba	Role of extracellular vesicles in mediating health adaptations	$44,100
Schroth, Robert (Preventive Dental Sciences)	Children's Hospital Research Institute of Manitoba (CHRIM)	A randomized clinical trial of silver diamine fluoride (SDF) to arrest early childhood caries (ECC) in young children	$60,000
Scribbans, Trisha (Faculty of Kinesiology and Recreation Management)	College of Massage Therapists of Ontario	Myofascial release (MFR) of the pectoral fascia: Effects on shoulder posture, upper limb reaching strategies and performance	$32,094
Shah, Ashish (Internal Medicine)	Manitoba Medical Service Foundation	Novel methods for selecting appropriate patients undergoing trans-catheter aortic valve implementation (TAVI) - A pilot project	$30,000
Siddiqui, Tabrez (Physiology & Pathophysiology)	Research Manitoba	Mechanisms underlying neural circuit disruption in schizophrenia	$130,000
Sirker, Jesko (Physics and Astronomy)	German Research Foundation (DFG)	Relaxation dynamics after a quench in integrable and almost integrable quantum chains	$245,550
Slevinsky, Richard (Mathematics)	Research Manitoba	Spectral methods for nonlocal equations on the sphere	$49,500
Sorensen, John (Chemistry)	NSERC Engage	Characterization of bioactive natural products from beneficial agricultural bacteria	$25,000
St John, Philip (Internal Medicine)	CIHR Catalyst	Health status of rural Canadians	$64,300
Stamps, Robert (Physics and Astronomy)	Research Manitoba	Desktop supercomputers for the design of advanced functional materials	$114,462
Stern, Gary (Centre for Earth Observation Science)	Laval University	Understanding the effects of climate change and industrial development on contaminant processes and exposure in the Canadian arctic marine ecosystem	$63,500
Targownik, Laura (Internal Medicine)	Ferring Canada	Evaluating the use of and outcomes associated with 5-ASA use in a population based sample of persons with UC	$30,000

Thompson, Shirley (Natural Resources Institute)	Mitacs Accelerate	Learning partnership for community development and Mino Bimaadiziwin in Brokenhead Ojibway Nation	$45,000
Urquia, Marcelo (Community Health Sciences)	Research Manitoba	Social Determinants of Health Digital Library	$240,000
Zelenitsky, Sheryl (Dean's Office - College of Pharmacy)	Kidney Foundation of Canada	Optimizing Antibiotic Dosing for Patients on Hemodialysis: A High-Risk Population	$99,891
Zvomuya, Francis (Soil Science)	Mitacs Elevated PDF	Soil productivity and soil health status following restoration of pipeline corridors on agricultural land reserve cropland in Northern British Columbia	$71,000

ADMINISTRATIVE MATTERS

- The University of Manitoba's outdoor Farmers' Market, hosted by the Office of Sustainability, operates every second Tuesday from 10 AM – 3 PM until September 24. The market's goals are to increase access to fresh foods, support a healthy community, reduce carbon emissions from long-haul transportation, stimulate the local economy, support local businesses and encourage consumers to reconnect with the land. Throughout the summer, free outdoor yoga, a charity hotdog stand and entertainment have been added to the day's events.

- The Office of Sustainability has begun department organics collection for staff kitchens and break rooms at the Fort Garry campus. Thus far, there are 15 departments enrolled in the program and ~300 pounds of organics have been diverted from landfill in the first two months of the program. Organics collection has recently expanded to include the Daily Bread kitchens and UM Dining Services pre-consumer kitchen waste.

- The AASHE (Association for Advancement of Sustainability in Higher Education) has released their Sustainable Campus Index recognizing top-performing universities in 17 sustainability impact areas as measured by the STARS system. Along with being listed as a Stars Gold campus, we are also highlighted as a top performer in two categories from over 300 universities submitting. Tied for #3 for Coordination and Planning (p.11-12) and for Research (p. 29-30) https://www.aashe.org/wp-content/uploads/2019/08/SCI-2019-Updated.pdf

- Issues with power outages on the University Fort Garry Campus continued in the spring and summer of 2019. The challenges with the system are three-fold. One-third of the interruptions are caused by faults on the incoming MB Hydro lines along the transmission route or at the Mohawk Station on Bishop Grandin Boulevard. This will be alleviated by the addition of a third distribution line to the University in 2020/21. One-third of the issues are related to failures due to the age of the infrastructure at the University Station on Freedman Crescent. A letter of intent (LOI) has been signed with Manitoba Hydro to progress a conversion to a higher voltage and replacement of the station with points of delivery (POD) on campus over the next few years. This will allow for a reduction in the reliance on the University station, and additional maintenance to be completed to provide additional spare parts and redundancy. The third aspect is related to campus distribution infrastructure to buildings. With the establishment of PODs on campus, some suspect and aged distribution equipment will be replaced as part of the campus re-servicing plan. The signature of the

LOI in July 2019 is a major advancement to working collaboratively with MB Hydro on ensuring a reliable supply of electrical service to the campus. In the meantime, Physical Plant staff work diligently to maintain the existing infrastructure and to respond efficiently to outages.

- Road construction is underway along University Crescent from Chancellor Matheson Road to Dafoe Road, as part of the Fort Garry campus five year road renewal program. 2019 work also includes landscape improvements along University Crescent, raised pedestrian crossings on Dafoe Road, the reconstruction of Freedman Crescent from Service Street 7 to the Winnipeg Transit bus staging area as well as bank stabilization and a multi-use pathway along Saunderson Street/Dysart Road. Work is expected to be complete by October 25, 2019. The University Crescent and Dafoe Road intersection will be completed in a series of phases with lane reconstruction occurring with each phase. In order to ensure safety and facilitate construction more efficiently, the University Crescent and Dafoe Road intersection will be closed starting Tuesday, September 3 until the completion of construction. Access to Dafoe Road will be from the south side of campus via Freedman and MacLean Crescent. Three (3) UM today stories have been distributed to the campus community via Week at a Glance and the Physical Plant service disruption webpage is updated as traffic impacts change.

- Darlene Smith has been appointed as the new Associate Vice-President (Human Resources).

- Human Resources, in collaboration with the Provost's Office, has launched a new training session for academic search committees on the topic of Implicit Bias. As implicit bias can negatively impact the recruitment process, this training provides a foundation on how to recognize and interrupt biases to ensure that the hiring process is fair. The session covers topics relating to equity, diversity, inclusion, interrupting bias, and evaluation criteria, to support the University to follow best practices in advertising, searching and interviewing.

- Human Resources has announced the fall schedule of customized learning and development opportunities for support staff designed to support employees to perform their current role, or to prepare them for future roles. Over 50 learning workshops and activities will be offered through Learning & Organizational Development (LOD) between September and December of 2019.

- Parking Services implemented a new online student parking registration system and sold out student parking in 24 hours. With this new online system we also introduced a flexible parking pilot program for students which sold out in 48 hours. Student parking consists of over 3,100 parking spaces and the flexible parking pilot program will provide parking at a reduced rate for 100 vehicles in 50 of those student spaces.

- Staff from Revenue Accounting attended the Indigenous Education Counsellors' Annual Gathering in June to give a presentation on sponsored student tuition and financial support processes. The presentation was well received; it helped clarify processes and how they have changed over the years to help students succeed.

- The UM Access and Privacy Officer will be a keynote speaker at the Manitoba and Saskatchewan Connections Conferences in September 2019. The conferences welcome access and privacy, information management, and security professionals in public bodies to participate in an event for those who are charged with supporting or managing Freedom of Information and the Protection of

Personal Information within organizations subject to their Province's respective access and privacy legislation. The subject of the keynote address is Records and Reconciliation: The Right to Know and the Power of Truth, which will highlight the work being done to provide access to records at the National Centre for Truth and Reconciliation which is hosted at the University of Manitoba.

- The Standing Committee on Industry, Science and Technology ("INDU") released the second report on the Copyright Act review after hearing from 263 witnesses, reading 192 briefs, and receiving over 6,000 emails and letters. The range of stakeholder participation (in particular from the educational sector) was greater for this report than for the Canadian Heritage Standing Committee's, and features more balanced recommendations representing the interests of both copyright owners and users. In contrast to the Canadian Heritage report, the INDU Committee recommends expanding Fair Dealing purposes, rejects harmonizing statutory damages for commercial and non-commercial infringements, and calls for further review of copyright collective tariffs and damages. In addition, INDU has suggested that the government attempt to facilitate negotiations between educational institutions and Access Copyright, and to revisit Fair Dealing in educational institutions in three years following receipt of more authoritative information and other legal developments (such as the outcome of the appeal in Access Copyright v. York). While this report is more influential and advantageous for educational institutions than the Canadian Heritage report, the fact that many of these recommendations suggest further review leaves uncertainty about the future direction of Canadian copyright law.

- The Accessibility for Manitobans Act has adopted their second set of requirements, the Employment Standard. The OHRCM will support Human Resources in implementing the requirements of the Standard by May 2020.

- The Information Security Policy and Procedure is going to the Board of Governors for approval in November.

- Device encryption for laptops and desktops will be rolled out to IST centrally managed devices in September. A communication was sent on August 26th to Distributed IT and the Deans and Directors to inform them of the requirement to encrypt their devices that they manage using tooling that will allow for compliance reporting.

EXTERNAL MATTERS

- Gifts made in the current reporting period include:
    - Stu Clark [BComm(Hons)/1976, LLD/2011], an esteemed alumnus and entrepreneur, made a gift of $10 million to the I.H. Asper School of Business, bringing his total giving to over $19 million. In recognition of his giving, the University is establishing the Stu Clark Graduate School at the I.H. Asper School of Business.
    - John [BSc/1958] and Gabrielle Pashniak supported the Stanley Pauley Engineering Building with a gift of $400,000 through the John and Gabrielle Pashniak Foundation.
    - Kerry [LLB/1980] and Simone Vickar made a gift of $300,000 to the Faculty of Law to establish a permanent space in Robson Hall for the L. Kerry Vickar Business Law Clinic.
    - The Province of Manitoba announced $2.5 million in support for the James W. Burns Leadership Institute over 10 years.

- The Seniors Alumni Learning for Life Program fall session launched September 12, 2019. An exciting, diverse program is being offered and as in previous years, the program is sold out.

- Homecoming 2019 took place September 16 - 22. Graduation years ending with a '4' or '9' were celebrating milestone anniversaries this year. Many activities, events and reunions were being planned, including:
    - Homecoming Concert
    - Opening of the Stanley Pauley Engineering Building
    - Homecoming Football Game & Tailgate Carnival
    - UMSU Centennial Celebration Brunch
    - 25 reunions and faculty events on both campuses

- Alumni events will be hosted in New York and Brandon in October. For the second year, a UM Alumni and Friends team is registered to participate in the Terry Fox Run of New York and a pre-run reception will be hosted in conjunction with the event. In Brandon, a lunch will feature three of the University's 3MT graduate students presenting on their innovative research.

- The Alumni Association AGM was held on Monday, June 10. 2019. Alumni in attendance unanimously supported the following governance model amendments:
    - Update the Association's bylaws;
    - Reduce the size of the Board of Directors;
    - Remove the executive committee; and
    - Introduce an Alumni Council as a standing committee of the Board of Directors that will be advisory, not governing, in nature.

- Within the maximum composition of 55 members excluding ex-officio members, the Alumni Council will consist of a diverse group alumni with representation from all faculties, colleges and various alumni community groups founded on equity, diversity and inclusion. This group will meet three times annually and is intended to foster active communication among key alumni constituencies and stakeholders on topical issues facing the university. Various members of the University's senior leadership team may be present at these meetings to hear directly from alumni. The three alumni representatives on the Board of Governors will serve on the Alumni Council and will no longer be members of the Board of Directors.

- After extensive community consultation over the past 18 months, the launch of the University's new logo on June 12, 2019 began the first step of introducing the new brand. The logo received an overwhelmingly positive response - both online and through direct feedback from the community. The new brand will continue to be introduced over the next year, informing the University's visual expression and storytelling through the implementation and transition phases.

- On August 8, 2019, the University successfully launched the first phase of the redesigned umanitoba.ca website, following a year-long consultation with community stakeholders. The remaining webpages will continue to migrate to the new site in stages, with faculty and department content moving over within the next 18 months. As with any exciting new venture, umanitoba.ca is a work in progress and will be updated continually with improvements based on feedback from the community.

- Nominations for the 2020 Distinguished Alumni Awards will open in October and close on November 22, 2019. The DAA 2020 Celebration of Excellence is scheduled for October 1, 2020. The timing of the Celebration of Excellence event has been moved to align with Homecoming 2020, which is in keeping with best practices of other Canadian universities. The Celebration of Excellence will be the flagship event during Homecoming 2020 scheduled from September 29 to October 4, 2020.