



Toast to USask's  
Doctoral Graduates  
June 22, 2022

*The beauty and diversity of Saskatchewan is profound.  
Under our province's endless sky, and situated on Treaty 6 territory by its  
swiftly flowing river (Kisiskatchewanipi) in Saskatoon, we, at the College  
of Graduate & Postdoctoral Studies are proud to call this place home. We  
are grateful to share this space with you, the Homeland of the Métis and  
pay our respect to the First Nations and Métis ancestors of this place and  
reaffirm our relationship with one another.*

**Program Design**

Momo Tanaka & the Grad Hub Team

**Printing**

XL Print & Design

**Event Photos**

David Stobbe

**Signature Vendor**

Crossmount Cider Company

**A special thank you to**

Elena Trejo and the Holiday Inn Express  
team

**3pm**

Doors open

**4pm**

Short program  
hosted by Dean Debby Burshtyn

**4:30pm**

Reception

**5pm**

Closing Remarks

# Your host



**Debby Burshtyn**  
Dean of College of Graduate  
& Postdoctoral Studies

Debby received a Bachelor of Science from McGill University in 1989, a Philosophical Doctorate from the University of Toronto in 1994 and completed postdoctoral training at the National Institute of Allergy and Infectious Disease, USA.

Dean Burshtyn is an advocate for adapting graduate education and mentorship to fit the changing funding and employment landscape. She continues to lead initiatives designed to effect long-term positive change on graduate students' learning experiences including designing the quality assurance processes for graduate programs and promoting the development and assessment of learning outcomes in graduate education linked to career preparation. Through her work with the Canadian Association for Graduate Studies (CAGS) Task Force on Excellence in Graduate Programs, Debby is committed to a vision of excellence in graduate programming across Canada and here, at USask.







# A toast from



**Grit McCreath**  
University Chancellor

From spending Sundays on campus with her parents as a youngster, to being a student and alumna, to being a member of the University Senate and the Board of Governors, McCreath has held many roles at USask, giving her time and energy for the better part of 20 years.

For the last decade, Chancellor McCreath has served the University of Saskatchewan as a member of the Senate and Board of Governors. In 2015, she was named the first Honourary Ambassador of the University. The chancellor has been honoured twice by the City of Calgary and received the Conference Board of Canada Royal Bank Partners in Education Award; the Excellence in Teaching Award from Alberta Education; and was named one of Calgary's Women of Distinction. In 2011 Chancellor McCreath received a spot on the College of Education Wall of Honour.

"I see this role as an extension of my work as the university's honorary ambassador," said McCreath, who spent 32 years as a teacher and education administrator in Saskatoon, Toronto, Edmonton and Calgary. "I am excited to enhance the university's reputation, celebrate its history, support the exceptional leadership of President Stoicheff, and work with students, faculty and alumni."

As chancellor, McCreath presides at university convocation ceremonies, confer degrees, chair University Senate and serve on the Board of Governors, and joins us today to toast USask's doctoral graduates.



## Naheda Sahtout

Class of Spring 2021 | Chemistry  
*Characterization of the Thioredoxin System from  
Colwellia Psychrerythraea and Thermo-sipho  
Africanus*

Dr. Naheda Sahtout (Ph.D) is an award-winning academic, researcher, scientist, and leader. Naheda completed her B.Sc. (Honours) in Biology from the University of Waterloo, M.Sc. in Molecular and Cellular Biology from the University of Guelph, and Ph.D. in Chemistry from the University of Saskatchewan. She is currently a Science Analyst in the Office of the Chief Science Operating Officer with the Canadian Food Inspection Agency.

Naheda developed a strong interest in STEM outreach and finding innovative and creative ways of bringing STEM to rural and Indigenous communities during her graduate programs. She also found her passion in enhancing graduate education, and as a student leader worked hard to strengthening the student-supervisory relationship, finding more resources for graduate students, increasing the networking opportunities for graduate students with non-academic partners, and working on initiatives that prepare graduate students for non-academic careers. As a legally blind scientist, she is committed to redefining the landscape and finding ways to support women and girls succeed. Her unique background and first-hand experience navigating academia, combined with her fierce and enthusiastic nature, have given her the tools to be an excellent advocate for the matters that are close to her heart.



*The many names and dissertation titles contained in these pages demonstrates an incredible diversity of perspectives and experiences. These works are representative of countless hours of research, analysis, collaboration, and exploration. This toast is to celebrate our graduates and their commitment to pushing the boundaries of their discipline, furthering knowledge, and working towards a brighter future.*

**Zayda Morales Moreira** Applied Microbiology  
*Epiphytic Seed Microbiomes of Wheat, Canola, and Lentil*

**Ruixue Yin** Biomedical Engineering  
*Principle and Performance of Concanavalin A-sugar Affinity Based Closed-loop Insulin Delivery System*

**Md Musharaf Hossain** Biology  
*Identification and Functional Characterization of *Plasmodiophora brassicae* Secretory Proteins*

**Dana Kellett** Biology  
*Effects of Abundant Snow and Ross's Geese on Arctic Ecosystem Structure: Plants, Birds, and Rodents*

**Farshad Shafiei** Biology  
*Nutrient Dynamics and Water Quality of a Large Reservoir in the Context of Flow Variability*

**Hafiz Ahmed** Civil Engineering  
*Characterization of spring thaw for different forest types in the southern boreal forest under current and future climate*

**Trung Doan** Civil Engineering  
*New Truck Loading Model For Rural Bridges In Saskatchewan*

**Bryce Marcotte** Civil Engineering  
*Protecting Geomembrane Liners*

**Aylin Aghababaei** Chemical Engineering  
*Adsorption of Carbamazepine from Water by Hydrothermally Treated and Steam Activated Flax Shives and Oat hulls*

**Afees Ayandiran** Chemical Engineering  
*Novel Catalysts Development for Production of Jet Fuel Range Hydrocarbons from Vegetable Oils*

**Mehraneh Ghavami** Chemical Engineering  
*Alumina Supported Manganese-based Catalysts for Catalytic Ozonation of Acetone and Toluene in Air*

**Shima Masoumi** Chemical Engineering  
*Algal Biofuels Production using Hydrothermal Liquefaction of Microalgae and Hydrotreating of Biocrude Oil over Algal Hydrochar-Based Catalysts*

**Jude Okolie** Chemical Engineering  
*Supercritical Water Gasification of Lignocellulosic Biomass Materials for Hydrogen Production*

**Venkata Krishna Rao Garapati** Chemistry  
*Synthesis and Study of Oxazolium and Thiazolium Salts as Organocatalysts*

**Tyler Morhart** Chemistry  
*Surface-Enhanced Spectroelectrochemistry using Synchrotron Infrared Radiation*

**Chen Xue** Chemistry  
*Design and Characterization of Chitosan-Based Nonwoven Fibrous Materials*

**Jacob Alhassan** Community and Population Health Sciences  
*"It Feels Like Somebody Cut My Legs off": Public transportation and the politics of health in Saskatchewan*

**Lizabeth Hernandez-Ronquillo** Community and Population Health Sciences  
*Diagnostic Performance of the ambulatory EEG versus routine EEG and risk factors for seizure recurrence*

**Jason Bowey** Computer Science  
*Understanding Congruence Between Player and Character Beliefs in Digital Games*

**Judith Islam** Computer Science  
*Analyzing Software Bugs in Code Clones*

**Sara Rouhani** Computer Science  
*Data trust framework using blockchain and smart contracts*

**Farouq Al-omari** Computer Science  
*Towards Semantic Clone Detection, Benchmarking, and Evaluation*

**Kenisha Blair-Walcott** Educational Administration  
*Insights from Predictors of Faculty Success: A Mixed Methods Study*

**Margaret Clarke** Educational Administration  
*Understanding Clergy Resilience: A Mixed Methods Research Study*

**Nataliia Zakharchuk** Educational Administration  
*Transforming University Governance in the Context of the Bologna Process: A Case Study of Ukrainian Higher Education*

**John Bosco Acharibasam** Education  
*Integrating Indigenous Ecological Knowledge into Early Childhood Education in Boania Primary School, Ghana*

**Elaina Guilmette** Education  
*The Experiences of Secondary Teachers Co-Constructing Mental Wellness Knowledge*

**Karim Tharani** Education  
*Tradition and Technology: A Design-based Prototype of an Online GINAN Semantization Tool*

**Yuchuan Chen** Environmental Engineering  
*Machine Learning-Incorporated Transient Stability Prediction and Preventive Dispatch for Power Systems with High Wind Power Penetration*

**Mohamed Mahgoub** Environmental Engineering  
*Real-Time Prediction of Cascading Failures in Power Systems*

**Robin Adair** English  
*Panoramic Still-Lives: Art, Perception, and Being in the Works of Virginia Woolf*

**Adam Epp** English  
*Dickens' Self-created Literary Brand in Novels and Adaptations*

**Martin Boucher** Environment and Sustainability  
*Accelerating Decentralized Energy Transitions: A Socio-Technical Perspective*

**Rafaella Carvalho Mayrinck** Environment and Sustainability  
*Site-Specific Carbon Stock Assessments Of Shelterbelt Trees*

**Leila Eamen** Environment and Sustainability  
*An Integrated Water Resources Management Framework for Robust Decision-Making in a Transboundary River Basin: An Inter-Regional Hydro-Economic Approach*

**Magali Furlan Nehemy** Environment and Sustainability  
*The Role of Plant Hydrodynamics and Phenology in Plant Water Source Apportionment*

**Heidi Walker** Environment and Sustainability  
*Building Inclusive Responses to Climate Hazards: An Intersectional Analysis of Wildfire in Northern Saskatchewan*

**Yingying Su** Epidemiology  
*Exploration in the Biopsychosocial Model of Stress and Mental Health and Illness: Risk Factors, Moderators Mediators and Impacts*

**Maria Romero Pena** Food Science  
*Development of stable liquid water-in-oil emulsions by modifying emulsifier-aqueous phase interactions*

**Scott Adams** Health Sciences  
*Improving Access to Ultrasound Imaging in Northern, Remote Communities*

**Janine Brown** Health Sciences  
*"It's a Big Difference between Having an Opinion on Something and Actively Doing It": Physician and Nurse Practitioner Non-participation in Medical Assistance in Dying*

**Luan Chu** Health Sciences  
*Farm Exposures and Prevalence of Atopy and Asthma among School-aged Children Living in Agricultural Settings*

**Upkardeep Pandher** Health Sciences  
*Pulmonary Inflammation After Exposure to LPS and Glyphosate*

**Vincent Anderson** Interdisciplinary Studies  
*Solving For Pattern: A Practice-Based Approach to Social and Ecological Justice Learning and Action*

**Justin Andrushko** Kinesiology  
*Neural correlates of upper limb unimanual motor practice*

**Natalie Houser** Kinesiology  
*Developing Physical Literacy Enriched Opportunities within the Home, School, and Community Contexts*

**Hayley Legg** Kinesiology  
*The Relationship Between Upper Extremity Strength and Forward Fall Arrest Capacity in Older Women*

**Margaret Burns** Nursing  
*Critical Illness and Rurality: Interfacility Transfers to Urban Centres and the Impact on Rural Families*

**Praveen Kumar Goud Roayapalley** Pharmacy  
*The evaluation of novel conjugated unsaturated ketones as candidate antineoplastic agents*

**Adebayo Adeleke** Physics and Engineering Physics  
*Structures, Structural Transformations and Properties of Selected Elemental and Extended Solids*

**Maryam Honari** Plant Sciences  
*Identifying DNA-Protein Interactions and Promoter Function in the Candidate Apomixis APOLLO Gene*

**Gursahib Sandha** Plant Sciences  
*Improving Fusarium Head Blight Management in Durum Wheat in*

**Ana Vargas Palacios** Plant Sciences  
*Exploring the Genetic Resources of Lens and Rhizobium to Improve the Biological Nitrogen Fixation (BNF) Ability in the Lentil Crop*

**Jeremy Cheng** Psychology  
*Evaluating Tribunal Decisions to Release or Detain Those not Criminally Responsible on Account of Mental Disorder*

**Ashley Coveney** Psychology  
*Evaluating a New Measure of Adult Attachment: The Tripartite Attachment Battery*

**Kelsi Toews** Psychology  
*The Processes of Help-Seeking and Counsellor Development in the Context of Men who Experience Intimate Partner Abuse*

**Alexandra Zidenberg** Psychology  
*Toward a Greater Understanding of the Assessment, Psychological Correlates, and Management of Human Perpetrated Sexual Behaviour Toward Animals*

**Rhiannon Klein** Public Policy  
*Reviewing and Redefining Relationships: Intergovernmental Relations and Modern Treaty Implementation in Yukon, 1986-2016*

**Christiani Thompson Wagner** Applied Linguistics  
*Tipo, Brazil's 'like': Synchronic functional and phonetic analyses of nominal, grammatical, and discourse functions*

**Charlene Thompson** Public Health  
*Promoting Success in Maternal-Child Health Programs Serving Indigenous Families: A Community-Based Participatory Research Project*

**Mitsuaki Ota** Soil Science  
*Biogeochemical and Ecological Responses to Warming Climate in High Arctic Polar Deserts*

**Ashley James** Toxicology  
*Accumulation, Distribution and Chemical Form of Organic Mercury in Brain Tissue and Larval Zebrafish (Danio Rerio)*

**Mariia Tokareva** Large Animal Clinical Sciences  
*Motivated for movement? Exercise and the gestation environment on sow performance and welfare*

**Salah Uddin Khan** Veterinary Microbiology  
*Determination of Factors Affecting the Community Structure of Gardnerella spp. In the Vaginal Microbiome*

**Dharmasiri Gamage Kulathunga** Veterinary Microbiology  
*Improving Diagnostic Methods and Processes for the Identification and Characterization of Brachyspira*

# Our award winners

## 2021-2022 Governor General's Gold Medal

**Scott Adams**, Ph. D.  
College of Medicine

**Tyler Morhart**, Ph. D.  
Department of Chemistry

## 2021-2022 University of Saskatchewan Graduate Thesis Awards

### Life Sciences

**Scott Adams**, Ph. D.  
College of Medicine  
*Improving access to ultrasound imaging in northern, remote communities*

### Physical and Engineering Sciences

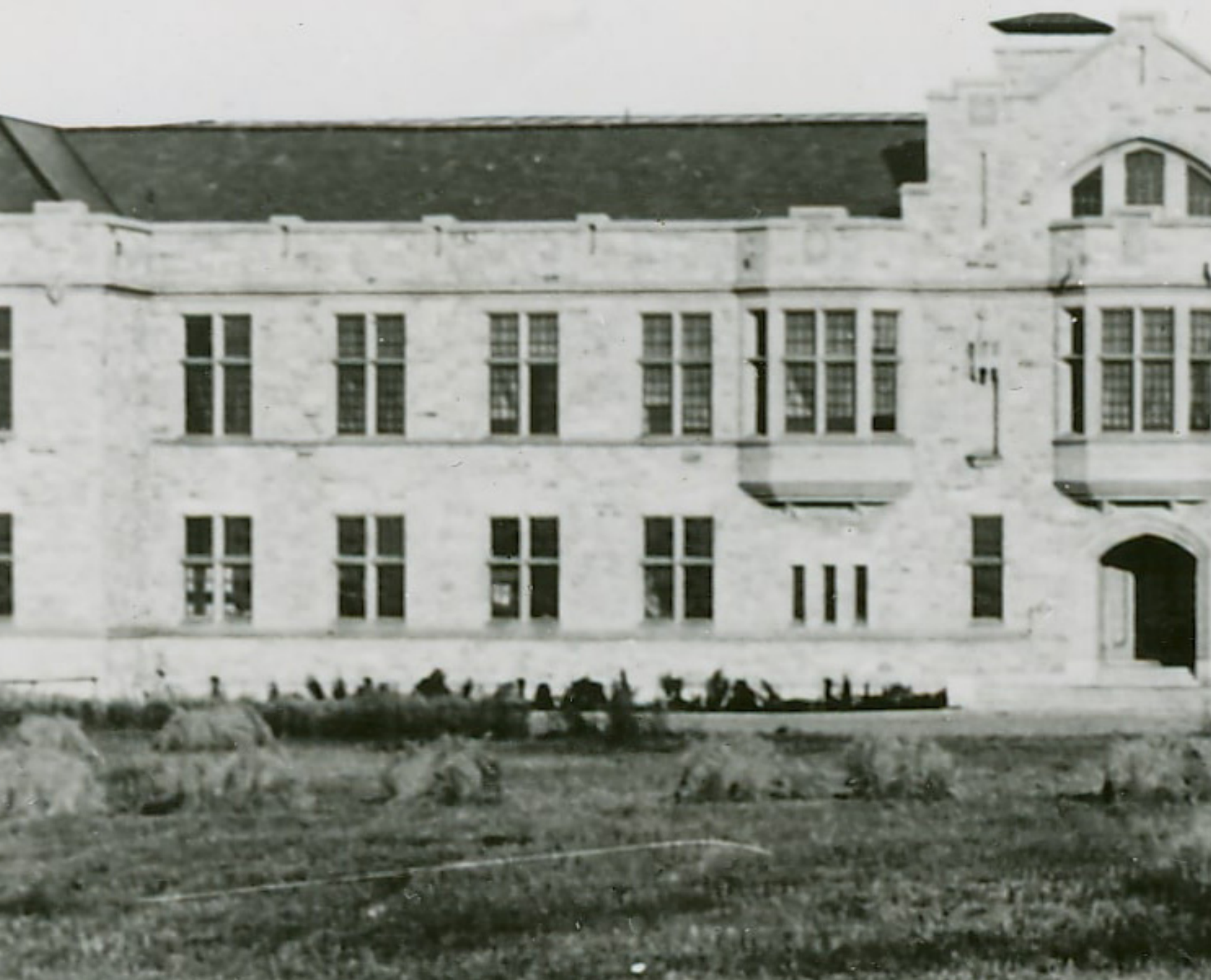
**Tyler Morhart**, Ph. D.  
Department of Chemistry  
*Surface-Enhanced Spectroelectrochemistry using Synchrotron Infrared Radiation*

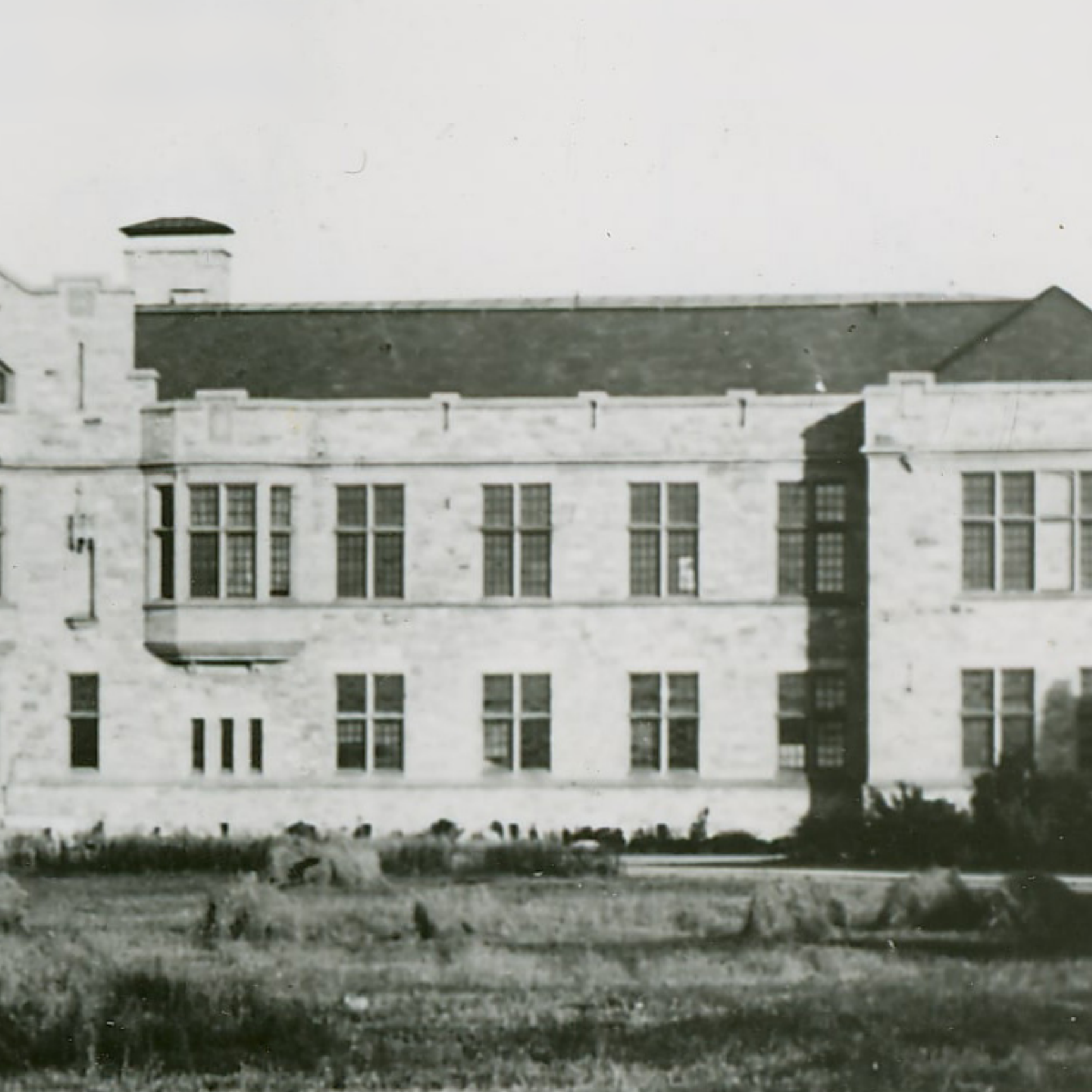
### Social Sciences

**Kelsi Toews**, Ph. D.  
Department of Psychology  
*The Processes of Help-Seeking and Counsellor Development in the Context of Men who Experience Intimate Partner Abuse*

**Natalia Zakharchuk**, Ph. D.  
Department of Educational Administration  
*Transforming university governance in the context of the Bologna Process: A case study of Ukrainian higher education*









## Scott J. Adams

Class of Fall 2021 | Medicine

*Improving access to ultrasound imaging in northern, remote communities*

Scott J. Adams graduated with a PhD in fall 2021 under the supervision of Dr. Ivar Mendez and Dr. Paul Babyn, receiving the Governor General's Gold Medal and Graduate Thesis Award in Life Sciences. He received his MD from the University of Saskatchewan in 2017, where he also undertook residency in diagnostic radiology.

Dr. Adams' research provides new insights to improve access to medical imaging in rural and remote communities. He has published more than 35 papers and received multiple national and international awards, including a Vanier Canada Graduate Scholarship, Artificial Intelligence Health Research Fellowship, and Amis Fellowship from the American College of Radiology.

Dr. Adams is currently a research fellow at Harvard Medical School and Massachusetts General Hospital and resident physician at the University of Saskatchewan and Royal University Hospital.



# Spring 2022

- Kimberly Harrison** Anatomy and Cell Biology  
*A Novel In Vivo Synchrotron Radiation Micro-CT Imaging Platform for the Direct Tracking of Remodeling Events in Cortical Bone*
- Omid Mirzaei** Agricultural Economics  
*Three Essays on First Nations Economic Development*
- Tomohiro Hamaoka** Animal Sciences  
*Investigating the mode of action of Bacillus subtilis C-3102 probiotic in broiler chicken*
- Lucas Rodrigues** Animal Sciences  
*Examination of the Effectiveness of Provision of Functional Amino Acids to Enhance Robustness in Enteric Challenged Pigs*
- Seon Hwa Kim** Applied Microbiology  
*Molecular and Transcriptomic Studies of Sphaerodes mycoparasitica–Fusarium graminearum–Triticum durum Interactome Shed Light on Biotrophic Bycoparasitism*
- Lumeng Cui** Biomedical Engineering  
*Robust Magnetic Resonance Imaging of Short T2 Tissues*
- Yulian Ding** Biomedical Engineering  
*Predicting Biomolecule-disease Associations Based on Machine Learning Approaches*
- Hammed Ejalonibu** Biomedical Engineering  
*Engineering Novel Optical Sensors for Magnetic Field Sensing Applications*
- Fei Wang** Biomedical Engineering  
*Predicting Potential Drugs and Drug-Drug Interactions for Drug Repositioning*
- Wutao Yin** Biomedical Engineering  
*Artificial Intelligence Based Methods for Autism Spectrum Disorder Diagnosis from fMRI Data*
- Anoosha Attaran** Biology  
*Effects of Chronic Exposure to Selenium on Social Behaviour and Social Learning In Zebrafish (Danio rerio)*

- Igor de Albuquerque** Biology  
*The Arabidopsis Tt5 Mutant Accumulates Naringenin Chalcone and Exhibits Enhanced Resistance to Fungal Pathogens when Grown under Long Day Conditions*
- Yanzhao Cheng** Biostatistics  
*Multivariate Finite Mixture Group-Based Trajectory Modeling with Application to Mental Health Studies*
- Mohamad Mehdi Heydari Foroushani** Biological Engineering  
*Investigation of Lentil Seed Behavior Under Microwave and Microwave-Infrared Thermal Treatments and Their Impact on Modifying the Physico-Chemical and Functional Properties*
- Ghassan Al-Yassin** Biochemistry, Microbiology and Immunology  
*Activation/Inactivation of CD4+ T Cells in Context of the Quorum Hypothesis*
- Zoe Gillespie** Biochemistry, Microbiology and Immunology  
*The Impact of Nutrient Restriction and Metformin Treatment on Genome Structure and Function in Hutchinson-Gilford Progeria Syndrome (HGPS) Fibroblasts*
- Kusum Sharma** Biochemistry, Microbiology and Immunology  
*Characterization of a "Hypothetical Protein", EF1025, from Enterococcus Faecalis: Role in Cell Length and Shape*
- Mina Sadat Ahadi** Civil Engineering  
*Computational and Physical Modelling of the Flow and Sediment*
- Md. Shahabul Alam** Civil Engineering  
*Spatial and Temporal Variability in the Water Balance of Oil Sands Mine Reclamation Covers*
- Mohsen AsadiBagloee** Civil Engineering  
*Estimation of Greenhouse Gas and Odour Emissions From Cold Region Municipal Biological Nutrient Removal Wastewater Treatment Processes*
- Chen Li** Chemical Engineering  
*Studies on Granulation, Drying and Tribocharging Behaviour of Pharmaceutical Powders in a Fluidized Bed Dryer*

**Dalia Ahmed** Chemistry  
*Inhibitors of UDP-Galactopyranose Mutase from Mycobacterium tuberculosis, a Potential Antimicrobial Drug Target*

**Karnjit Parmar** Chemistry  
*The Syntheses of Hyacinthacine A1 and Planar [10]Annulenes*

**Chase Radford** Chemistry  
*Influence of Morphology and Solid-State Structure on Non-Fullerene Organic Solar Cell Performance*

**Josseline Ramos Figueroa** Chemistry  
*Understanding Myo-Inositol Metabolism Using the Bioorganic Chemistry of Myo-Inositol Phosphate Synthase*

**Mehran Rezazadeh Khalkhali** Chemistry  
*Studies on Enantioselective Stetter and Aza-Benzoin Reaction Catalyzed by Bis(amino)cyclopropenylienes (BACs)*

**Kazeem Sulaiman** Chemistry  
*Design and Structural Characterization of Monometallic and Bimetallic Clusters for Selective Heterogeneous Catalysis*

**Natasha Vetter** Chemistry  
*Kinetics and Mechanism of Glucose 6-Phosphate 3-Dehydrogenase (Ntdc) and its Activity with Substrate Analogues*

**Raquel Robinson** Computer Science  
*A Design Exploration of Affective Gaming*

**Ajay Shrestha** Computer Science  
*Designing Incentives Enabled Decentralized User Data Sharing Framework*

**James Dixon** Community and Population Health Sciences  
*The Political Economy of the Overdose Crisis in Western Canada: An Exploratory Case Study*

**Wilfred Beckford** Educational Administration  
*Leadership As Hosting: Exploration Of Concept And Practices*

**Michael Jutras** Educational Administration  
*Decolonizing Leadership Practices in Inner-City Schools Affected by Complex Poverty*

**Kelly McInnes** Educational Administration  
*Exploring the Culture of Decanal Search Processes: A Search for Excellence*

**Coralee Pringle-Nelson** Educational Administration  
*School Leaders' Experiences Leading After a Traumatic Event: A Posttraumatic Growth Perspective*

**Kareen Reid** Educational Administration  
*The Influence Of School Leadership Practices On Culturally Responsive Pedagogy For Newcomer Students*

**Christopher Scribe** Educational Administration  
*kihteyhayak pihkswestamawnan: Wisdom Keepers Will Speak For Us*

**Racquel Biem** Education  
*Learning Ecosystems: Connecting Social Constructivism and Distance Learning*

**Andrea Dunk** Education  
*Identifying as a Teacher of Reading: A Case Study of Pre-Service Teachers' Beliefs About Reading and the Teaching of Reading Over the Duration of a Required ELA Course*

**Lucy Fowler** Education  
*Where learning happens: Conversations with Queer, Métis Youth Who Engage in Hip-Hop*

**Marc Gobeil** Education  
*The Investigation and Development of Experiential Learning Theory in Primary and Secondary Education*

**Luke Heidebrecht** Education  
*Unsettling Colonial Relations in Experiential Education: Maya Ixil Perspectives on Decolonizing International Service Learning*

**Peiyan Li** Environmental Engineering  
*Optimal Planning of Virtual Inertia Installations to Improve the Power System Frequency Response*

**Mohammad Reza Mohebbian** Environmental Engineering  
*Improving Maternal and Fetal Cardiac Monitoring Using Artificial Intelligence*

**Nhat Pham** Environmental Engineering  
*Localization with Multi-Lateration Techniques in Low-Power Wide-Area Network*

**Hamid Rezaie** Environmental Engineering  
*Wind Power Prediction and Uncertainty Modeling for Power System Operation*

**Juan Yopez Rodriguez** Environmental Engineering  
*Object Detection Networks at the Edge: Hardware Optimization and Intelligent Transportation Systems Applications*

**Federica Giannelli** English  
*A (S)hero's Journey: Paths to Re-writing Myths in the Star Wars Franchise*



**Apurba Das** Environment and Sustainability  
*A Stochastic Modelling Approach to Improve Ice-Jam Flood Risk Management*

**Zhe Zhang** Environment and Sustainability  
*Modeling Land Surface Heterogeneity in Land Surface and Regional Climate Models*

**Mustafa Andkhoie** Epidemiology  
*Predictors of prostate cancer outcomes in Saskatchewan*

**Kunalkumar Kadiya** Food Science  
*The Effect of Interfacial Compositions on the Dispersed Phase-induced Gelation and Controlled Digestion of Mono and Bilayer Nanoemulsions*

**Yingxin Wang** Food Science  
*Microencapsulation of Omega-3 Fatty Acid Rich Oil via Comple*

**Warrick Baijiss** Geography  
*Indigenous Water Justice In Manitoba Through Engagement In Water Governance*

**Robert Fawcett** Geography  
*The Liminality of Indigenous Urbanism in Saskatchewan*

**Kelechi Nwanekezie** Geography  
*Advancing Strategic Environmental Assessment Concept and Practice: A Role for SEA in Energy Transitions*

**Isabelle Baconnais** Geology  
*A Study of the Geochemistry of Chromium Isotopes in the Modern Oceans*

**Maximiliano Paz** Geology  
*Sedimentology, Ichnology and Sequence Stratigraphy of Black Shales from the Upper Jurassic-Lower Cretaceous Vaca Muerta Formation, Neuquén Basin, Argentina*

**Maryam Safarshahi** Geology  
*Seismic Wave Propagation in Iran and Eastern Indian Shield*

**Victoria Stinson** Geology  
*Origin of Gold Mineralization in the Borden Mine and a New Tectonic Model for the Kapuskasing Structural Zone*

**Katrina Sawchuk** Health Sciences  
*Understanding Indigenous Health Literacy through Community-Led Engagement*

**Michael Zaki** Health Sciences  
*Novel Neuroprotective Targets of Adenosine and Glutamate Signaling in an Animal Model of Ischemic Stroke*

**Qin Xiang** Interdisciplinary Studies  
*Mandarin Chinese Heritage Language Maintenance Among Mandarin-English Bi/Multilingual Children In Saskatchewan.*

**Nathan Reis** Kinesiology  
*Men Athletes' Self-Compassion and Masculinities*

**Mahdi Rostami Haji Abadi** Kinesiology  
*Bone Health and Physical Activity in Children With Autism Spectrum Disorder*

**Kirat Shukla** Kinesiology  
*Predictive balance control during backward walking and effects of a haptic input based intervention on predictive balance control during walking*

**Emmanuel Neye** Mathematics  
*Grobner Bases via Linkage for Classes of Generalized Determinantal Ideals*

**Mahmood Tarayrah** Mathematics  
*Exact and Approximate Symmetries and Approximate Conservation Laws of Differential Equations with a Small Parameter*

**Omar Faye** Mechanical Engineering  
*Computational and Experimental Study of Hydrogen Generation and Storage on Graphene and Cellulose Doped with Nb, Mg, and Ti*

**Easwaran Krishnan** Mechanical Engineering  
*Small-Scale Testing of Fixed-Bed Regenerators*

**Felipe Morais Fernandes Serafim** Mechanical Engineering  
*Stress Corrosion Cracking of Selected Austenitic and Duplex Stainless Steels in Potash Brine Environment*

**Joseph Omale** Mechanical Engineering  
*Texture Control for Optimizing Properties in X70 Pipeline Steel*

**Hadi Ramin** Mechanical Engineering  
*Transient Analysis and Optimization of Fixed-Bed Regenerator*

**Ketan Kumar Sandhi** Mechanical Engineering  
*Coatings for Alloys Used in Molten Salt Nuclear Reactor*

**Chenwang Yuan** Mechanical Engineering  
*Investigation of a Soft Tactile Sensing System for Human Collaborative Robots*

**Aiyang Lin** Microbiology and Immunology  
*The Mechanism of Cyanamide/MMS-induced DD12/3 Expression in *Saccharomyces cerevisiae**

**Se'era Anstruther** Nutrition  
*The Nutrition Environment and Socioeconomic Factors in Association with Diet Quality Among Pre-school Aged Children Attending Childcare Centres in Saskatchewan, Canada*

**Hajar Miranzadeh Mahabadi** Pharmacology  
*Role of cellular prion protein in trafficking of GluA2 - containing  $\alpha$ -amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA) receptors to the neuronal lipid raft*

**Shenzhen Yao** Pharmacy  
*The influence of physicians on medication adherence*

**Adebayo Adeniyi** Physics and Engineering Physics  
*First Principles Investigations of Novel Condensed Matter Materials*

**Oleksandr Chapurin** Physics and Engineering Physics  
*Flows And Instabilities in Low-Temperature Plasmas with Ionization and Charge-Exchange Processes*

**Matthew Kozun** Physics and Engineering Physics  
*Advanced Prototypes of the Aerosol Limb Imager*

**Amir Qamar** Physics and Engineering Physics  
*Core-level Soft X-ray Spectroscopy of PbO-Based Photoconductors and Nanosheets of MoO<sub>3</sub>*

**Jeffery Zielinski** Physics and Engineering Physics  
*Temperature Gradient Driven Instabilities, Structure, and Transport in Magnetized Plasmas*

**Khaldoun Ali** Plant Sciences  
*Mechanisms of Seed Discrimination and Selective Seed Foraging in Carabid Weed Seed Predators*

**Hirbod Bahrani** Plant Sciences  
*Genetic Analysis of Developmental Traits Associated with Enhanced Winter Survival in Autumn-Seeded Rye (*Secale cereale* L.)*

**Ti Zhang** Plant Sciences  
*Phenotyping Canola (*Brassica napus* L.) Agronomic Traits and Estimating Seed Yield Using Unoccupied Aerial Vehicle (UAV)- based Multispectral Imagery*

**Carissa Augustyn** Psychology  
*An Examination of Psychopathy, Self-Reported Treatment Change, and Recidivism in a Sample of Federally Incarcerated Men Who Have Sexually Offended*

**Nicole Callan** Psychology  
*Dangerous Offenders: An Analysis of Judicial Sentencing Decisions*

**Giustino Garcea** Public Policy  
*The Public Management Trilemma: Implementing Lean in a Public Healthcare System*

**Nyake Yvonne** Public Policy  
*Contested Governance and Lesson Drawing: A Critical Assessment of the Social License Model in Canada's Agri-Food Sector (1998-2018)*

**Jennifer Bell** Soil Science  
*Microbial Community Assembly Processes in Agricultural and Natural Ecosystems*

**Gazali Issah** Soil Science  
*Soil Carbon and Nitrogen Dynamics in Rejuvenated Grazed Pasture Systems Sod-seeded with Non-bloat Legumes*

**Yuchen Gao** Sociology  
*How Do Medical Students Learn Professionalism and Develop Professional Identities? An Institutional Ethnography of the Curriculum at One Medical School*

**Alper James Alcaraz** Toxicology  
*Building Toxicity Pathway Models and Estimating Transcriptomic Points-Of-Departure ((t)PODs) in Three Phylogenetically Distant Ray-finned Fishes Exposed to 17 $\alpha$ -Ethinylestradiol and Fluoxetine*

**Hamza Al-Maamory** Veterinary Biomedical Sciences  
*Improvement of Porcine Genetic Resource Preservation by Improving In Vitro Production, Vitriification and Transfer of Embryos*

**Mohammad Amin Fayaz** Veterinary Biomedical Sciences  
*In Vivo and In Vitro Developmental Study of Porcine Testis Cells and Tissue*

**Brandon Keith** Veterinary Biomedical Sciences  
*Molecular Mechanisms of Hemolysis by *Brachyspira hamptonii**

**Miranda Zwiefelhofer** Veterinary Biomedical Sciences  
*Strategies for Oocyte Collection and In Vitro Embryo Production in Free-Roaming Bison Herds*

**Olivia Ihedioha** Veterinary Microbiology  
*Bovine Tuberculosis Pathogenesis The Role and Mechanism of Parahydroxybenzoic Acid Derivatives in Bovine TB Pathogenesis*

**Swarali Kulkarni** Veterinary Microbiology  
*Neutralizing Antibodies are Associated with Protection in Animal Models of Coronavirus Infection and Vaccination*







*A doctoral degree represents the culmination of years of hard work and dedication; seeing it through to the finish line is testament to academic excellence and perseverance. As our world's next leaders, the University of Saskatchewan's doctoral scholars will lead with respect | nīkānītān manācihitowinihk | ni manachīhitoonaan and respond to what the world needs.*

*Congratulations graduates!*



# Be Bold & Be Ambitious.

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