

Agricultural, Food and Nutritional Science
ANNUAL REPORT 2022-23



**UNIVERSITY
OF ALBERTA**



Photography by Dawn Graves



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Pictured on the cover (L to R):
Linda Gorim and
Gleise M. Silva



Message from the Chair

Welcome to the Department of Agricultural, Food and Nutritional Science annual report! So much has happened since our last report in 2019; we experienced a once-in-a-lifetime pandemic, we delivered our academic programs online en masse, and the university restructured to better serve student and research stakeholders. And this experience served to distill us to the very essence of our department - resilience. I am so grateful to our staff, faculty, students, partners and supporters for seeing us through the tribulations of the past few years. It is because of the strength, stamina and ingenuity of our people that we continued, persevered, and prevailed.

Also during this time, I transitioned into the position of department chair, in a time when the buildings were empty, classes were online, and wearing a mask was literally the order of the day. I am honored to have the opportunity to lead this department of exceptional staff, teachers, students and researchers. The Department of Agricultural, Food and Nutritional Science is one of the most innovative on campus, and is known for adopting new technology early and applying it in both teaching and research. This pioneer, let's-do-this spirit is integral to our collective success and has made us a leader in both teaching innovation and research impact year after year, as evidenced by the many awards garnered by our students and staff and the long list of scientific publications you will see in this report.

Also in this annual report, you will see what we do every day to make knowledge more accessible and relatable, agriculture more sustainable, our food safer and healthier and our lives and the lives of our animals better. You will see us celebrate our colleagues retiring from academia by highlighting their achievements as they prepare to segue into the next chapter of their lives. As well, you will meet the next generation of professors who are eager to write their own chapters in the history of our department.

Thank you for visiting our department if ever so briefly in the pages of this report, and we invite you to join us as we write history one student, one project, and one idea at a time. We could not do as much as we do without support from people like you. If you are interested in finding out more, contact me at afns-chair@ualberta.ca and let's talk about what's next.

Heather Bruce
Chair and Professor

ANIMAL SCIENCE

FACULTY

- JUDD AIKEN** | Prion Disease
BURIM AMETAJ | Ruminant Nutritional Immunology
DAN BARREDA | Immunology
JOHN BASARAB | Livestock Genetics/Genomics
URMILA BASU | Manager, Lab and Genomics and Proteomics Unit
CLOVER BENCH | Applied Ethology/Animal Behaviour
HEATHER BRUCE | Carcass and Meat Science
VALERIE CARNEY | Poultry Innovation Partnership Lead
MICHAEL DYCK | Reproductive Physiology/Biotechnology
CAROLYN FITZSIMMONS | Beef Genomics
LEANNA GRENWICH | Director Animal Care
LELUO GUAN | Functional Genomics and Microbiology
DOUG KORVER | Poultry Nutrition
ANNE LAARMAN | NSERC Industrial Research Chair in Dairy Nutrition
CHANGXI LI | Bovine Genomics
MASAHITO OBA | Dairy Nutrition and Physiology
GRAHAM PLASTOW | Animal Genomics
GLEISE M. SILVA | Ruminant Nutrition
PAUL STOTHARD | Bioinformatics
RICHARD UWIERA | Veterinary Pathology
CRAIG WILKINSON | University Veterinarian
BENJAMIN WILLING | Canada Research Chair, Epigenomics/Nutrigenomics
JAY WILLIS | Manager, Research Stations
RUURD ZIJLSTRA | Ingredient Evaluation and Carbohydrate Nutrition
MARTIN ZUIDHOF | Poultry Science/Bioeconomic Modeling

Beefing Up Applied Research Efforts

In 2022, the U of A took an important step towards building a more sustainable and competitive beef industry by establishing a new research chair. Gleise M. Silva is the inaugural BCRC-Hays Chair in Beef Production Systems and will work directly with beef producers to translate U of A research on cow-calf production into practical advice. Her work will help producers save money and protect grasslands, all while advancing the Canadian beef industry's leadership in sustainable production. Drawing on her PhD on beef cattle nutrition, one area she will focus on is how to reduce the cost of feeding beef cattle during long Canadian winters. *The position, which started on July 1, 2022, is made possible by the Beef Cattle Research Council BCRC and the Hays family, with additional support from McDonald's Restaurants of Canada and Cargill.*

A Homegrown Advantage for Dairy Calves

New U of A research may help dairy producers ensure that calves stay healthy in those first few weeks before their immune systems are fully developed. Researcher Maddison Degenshein found that feeding newborn calves a probiotic supplement with gut bacteria from healthy cows helped protect them from common ailments like diarrhea, which can stunt growth or even result in death. As opposed to probiotics that use plant-based bacteria, a strain native to bovines would be more sustainable as it is easily cultivated from the animals' own manure. Degenshein helped develop the probiotic in the donor-funded lab of Leluo Guan, which will conduct further analysis to measure the effectiveness on calf gut health. *The research was made possible by funding from Alberta Milk and Results Driven Agriculture Research, and by a Natural Sciences and Engineering Research Council of Canada Industrial Research Chair grant.*

New Transfer Program Boosts Ag Education

The University of Alberta's Faculty of Agricultural, Life & Environmental Sciences (ALES) partnered with Lakeland College on a new transfer program that will enable students to graduate with both a diploma and degree after four years of study, preparing them for a range of successful careers in agricultural specialities. Starting in Fall 2022, graduates of the animal science technology diploma program at Lakeland's Vermilion campus can transfer their two years of study, or 60 credits, to the BSc in agriculture program at the Faculty of ALES in Edmonton. The interactive degree program at the U of A focuses on biotechnology in society and environmental sustainability with opportunities to apply their learning through real-world projects and case studies with industry partners.

On learning, not teaching

“Whether I had a few more research publications or a few less makes absolutely no difference to me anymore.”

Frank Robinson
Professor Emeritus



Poultry professor emeritus reflects on a career putting students first

Stephanie Bailey, '10 BA(Hons)

When most people were struggling to adapt to remote learning when the COVID-19 pandemic hit, Frank Robinson embraced it.

“The most fun I had teaching in the last ten years was during the pandemic,” says Robinson, professor emeritus of Poultry Production and Physiology in the Department of Agricultural, Food and Nutritional Science.

Over the course of two years, he seized the opportunity to host 80 guest speakers from all over the province to share their stories and provide students with rare glimpses into the daily life of a farmer.

“I just thought, what can we capitalize on during COVID that we couldn't do normally?”

That's Robinson in a nutshell. Recently retired in June 2022, he has spent his 37-year career at the U of A recognizing potential and opportunity where others have seen obstacles and risk. His specialty? Putting student hands-on learning first.

Take, for instance, launching a bi-annual showcase of undergraduate research for his animal science students in 2004. Sceptics at the time claimed that undergrads were ill-equipped and lacked the background to conduct their own research, but Robinson took a chance.

“A lot of people thought I lost my mind,” says Frank Robinson, who was a faculty member of the university's task force for the integration of teaching and research at the time.

Sure enough, Robinson's student-centred teaching philosophy paid off and the event was a huge success. Equal parts comedy show, musical and science conference, the show ran twice a year for a full decade, with students presenting to audiences of up to 600 people at the Myer Horowitz theatre.

“Lots of people talk about teaching and research, but I prefer to talk about learning. I've always thought that learning is the most important part,” says Robinson.

After the undergraduate research showcase came to an end in 2014, Robinson wasted no time getting to work on his next project: the ALES Mini-Internship Program.

The donor-funded program, launched in 2016, places ALES students with relevant organizations or industries such as hatcheries, distilleries and food processors for three days of hands-on learning. These days most agriculture and environmental and conservation sciences students come from urban backgrounds, so the program provides them with the real-world experiences needed to decide on a career path and be competitive in the job market.

“I really think it's all about opening doors for students, not closing them. Having them see something that they may have never seen before. Showing them the potential of things they could get into,” says Robinson.

To date, 584 students have gone through the mini-internship program and Robinson hopes many more have the opportunity to participate in years to come.

“When I look back on my career — whether I had a few more research publications or a few less makes absolutely no difference to me anymore,” says Robinson.

“My hope is that students get the knowledge and experience they need to jump into a career in agriculture with confidence.”



“My goal was always to make students do better than they ever thought they would. To create opportunities for them to learn as much from each other as they do from you.”

FOOD SCIENCE AND BIORESOURCE TECHNOLOGY

FACULTY

MARLENY ARANDA-SALDAÑA | Bio/Food Engineering Processing

DAVID BRESSLER | Fermentation and Bio/Food Engineering

HEATHER BRUCE | Carcass and Meat Science

LINGYUN CHEN | Canada Research Chair, Plant Protein Chemistry and Technology

JONATHAN CURTIS | Lipids and Analytical Chemistry

MICHAEL GÄNZLE | Canada Research Chair, Microbiology and Probiotics

ROOPESH MOHANDAS SYAMALADEVI | Food Safety and Engineering

FERAL TEMELLI | Food Process Engineering

AMAN ULLAH | Utilization of Lipids and Polymer/Material Chemistry

THAVA VASANTHAN | Grain Science and Technology

WENDY WISMER | Sensory and Consumer Science

JIANPING WU | Food Protein Chemistry

One Person's Trash is Another's Jet Fuel

In 2022, an industrial project powered by U of A research to create jet fuel from biowaste received \$2.89-million from Natural Resources Canada. The federal funding will support the ALES research lab run by David Bressler – a professor of bioresource technology and fermentation – who has been developing technology to convert waste fats and oils into hydrocarbons used to produce biofuels.

Working with several industry and government partners since 2003, Bressler's research group is currently working on a three-year project to develop biofuel for the aviation industry. The goal is to create an alternative to fossil fuels that has a lower carbon footprint and can be sustainably supplied from renewable products like restaurant grease and tallow from the rendering industry. This project could leverage Alberta's strength as a hotbed for agriculture, empowering producers to sell their waste lipids such as rendering fats, inedible crop-based oils and corn oil produced from the ethanol industry.

“The ‘Meat Wing’ makes research come alive by bridging the gap between benchtop and real-world facilities.”

Lynn McMullen
Professor Emerita

On the future
**of food
research**



Meat safety professor emerita leaves behind a one-stop shop processing facility to empower future researchers

Stephanie Bailey, '10 BA(Hons)

When Lynn McMullen sees a packaged sandwich at a gas station, she sees something most of us don't: a perfectly engineered micro-atmosphere, finely tuned to help preserve the meat inside. She also sees a matter of life and death.

She has devoted her entire career to the safety of meat as a professor of Food and Nutrition in the Department of Agricultural, Food and Nutritional Science. Recently retired, she reflects on how far the field of food safety has come — and how far it has yet to go.

“People are still dying preventable deaths. It's sad especially when there are technologies to stop it,” says McMullen.

Major outbreaks of foodborne illnesses — such as the Maple Leaf Foods Listeria outbreak that killed 23 people in 2008 — have served as stark reminders for McMullen of just how high the stakes are when it comes to food safety.

“I've spent a lot of my career looking at different technologies and using organisms to combat some of these pathogens, and also using chemical preservatives to control the growth of these organisms.”

A career highlight for McMullen was developing an innovative protocol that detects harmful strains of E-coli in record-breaking time — within seven hours rather than the standard 24-hour window — following an outbreak in Alberta in 2018. She also founded a company, CanBiocin Inc., in 1998 to commercialize organisms that kill Listeria in processed meat products, which is being used in countries in Central and South America.

McMullen has made significant contributions to food safety over the course of her 29-year career at the U of A, but she feels that her greatest legacy may be the Meat Safety and Processing Centre. She helped establish the level 2 processing facility, housed in the U of A's Agri-Food Discovery Place, in 2008 as a place for researchers to work with pathogens under conditions similar to what you would find in the meat industry.

“One of the challenges I always had as an academic doing meat research was trying to simulate the environment that you find in a food processing facility,” says McMullen. “The ‘Meat Wing’ makes research come alive by bridging the gap between benchtop and real-world facilities.”

“My hope is that this will continue and that it gets used for the purpose it was built for — helping to advance the science of meat safety.”

It looks like her wish may be granted as the U of A recently announced plans to develop the Institute of Cellular Agriculture at Agri-Food Discovery Place. The institute will support research efforts devoted to creating the future of food through cellular agriculture, the science of making animal products without animals, such as cultivated meat products.



HUMAN NUTRITION

Serving Up High Protein Recipes for Cancer Patients

U of A nutrition experts released a free, downloadable cookbook to boost protein for patients with cancer. The recipes were designed based on evidence that a diet high in animal-based protein helps maintain muscle during treatment.

“Cancer often leads to muscle loss at an accelerated rate, so we chose recipes that have a high percentage of calories from protein so people can optimize their diet,” says Carla Prado, a nutrition expert in ALES. She co-authored the book along with Anissa Armet, a registered dietitian and PhD candidate in nutrition and metabolism at the U of A, and Hillary Wilson, a registered dietitian and a medical student in the Faculty of Medicine & Dentistry.

Stuffed with healthy, tasty and easy recipes, the *High Protein Cookbook for Muscle Health During Cancer Treatment* can benefit anyone, especially those interested in weight management or who have higher protein needs like older adults and active individuals.

FACULTY

HEIDI BATES | Director, Integrated Dietetic Internship

JEAN BUTEAU | Human Nutrition

CATHY CHAN | Human Nutrition

ANNA FARMER | Community Nutrition

CATHERINE FIELD | Canada Research Chair, Nutrition and Metabolism

RENÉ JACOBS | Human Nutrition

DIANA MAGER | Clinical Nutrition

VERA MAZURAK | Nutrition and Metabolism

CARLA PRADO | Nutrition, Food and Health

SPENCER PROCTOR | Metabolic and Cardiovascular Diseases

CAROLINE RICHARD | Canada Research Chair, Nutritional Immunology

SABINA VALENTINE | Assistant Lecturer in Human Nutrition

DONNA VINE | Human Nutrition

NOREEN WILLOWS | Community Nutrition

On translating research into everyday solutions

“It’s not enough to just describe what’s going on. You have to ask why is this happening? From there, you can start identifying some possible solutions.”

Rhonda Bell
Professor Emerita

Retiring nutrition professor has spent the last two decades putting her research to work supporting healthy pregnancies and families

Stephanie Bailey, '10 BA(Hons)

Lack of money, lack of access, and a lack of understanding about local foodways. These are just a few of the barriers to good nutrition facing immigrant women in Alberta that Rhonda Bell uncovered during a 2015 study on maternal health during pregnancy.

“When it comes to health, telling people what to do is not helpful,” says Bell, professor of human nutrition in the Department of Agricultural, Food and Nutritional Science.

“You can’t just say, ‘Don’t eat sugary foods’. It’s much more complicated. Nutrition takes place within a bigger context.”

Bell has not lost sight of the bigger picture at any point during her 24-year career at the U of A. In her research on how maternal nutrition affects the long-term risk for health and disease, she’s helped tease out the complex social, cultural and economic determinants of healthy pregnancies.

On top of all that, she’s remained tirelessly committed to translating her research into everyday interventions that can make a real difference.

“It’s not enough to just describe what’s going on. You have to ask why is this happening? From there, you can start identifying some possible solutions.”

Her 2015 study found that access to nutritious, affordable food was the primary barrier to healthy eating. These findings were then used to create a community outreach program called The Grocery Run. Run by the Multicultural Health Brokers Cooperative, the program provided same-day emergency food to pregnant and postpartum women. The Grocery Run has since expanded into Fresh Routes, a non-profit that brings healthy and affordable food into neighbourhoods facing barriers.

“The idea is to build whole communities that allow for healthy nutrition, allow for supportive eating, allow for us to make the best choices possible,” says Bell, who has persistently strived to make research with and for the communities it might benefit.

She and her team have been working with the Cree First Nation of Maskwacis in a recent research program to gain a deeper understanding of how to better support the community’s pregnant women. Working with a community advisory committee, they co-created the Elders Mentoring Program where Elders from the community bridge the cultural gap between healthcare providers and pregnant Indigenous women who come to the clinic.

The momentum for this type of community-based, participatory research is only building. Bell’s team recently received \$14 million in funding from the Canadian Institutes of Health Research for the next six years to expand the scope of their research to work with Indigenous communities in Wood Buffalo and Vancouver Island.

Retiring next year, Bell is optimistic knowing that this research will continue to support even more healthy pregnancies and communities for the years to come.

“It’s the best outcome. The programs and the projects are important but I think more critical are the changes happening on the ground, in the community,” says Bell.

“My hope is that the communities can identify what will work for them and how to sustain programs that support young men and women to have healthy families.”

PLANT BIOSYSTEMS

FACULTY

EDWARD BORK | Mattheis Chair in Rangeland Ecology and Management

CAMERON CARLYLE | Rangeland Ecology

GUANQUN (GAVIN) CHEN | Canada Research Chair, Plant Lipid Biotechnology

LINDA GORIM | Western Grains Research Foundation Chair in Cropping Systems

SHEAU-FANG HWANG | Canola Breeding and Research

NAT KAV | Biochemistry and Biotechnology

BOYD MORI | NSERC Industrial Research Chair in Agricultural Entomology

JOCELYN OZGA | Plant Physiology and Horticultural Science

HABIBUR RAHMAN | Canola Breeding and Research

MALINDA THILAKARATHNA | Plant-Microbial Interactions

ERICK SANTOS | Agronomy, Forages and Grasslands

STEPHEN STRELKOV | Plant Pathology

Teaming Up to Battle Crop-Damaging Disease

New strains of clubroot, a soil-borne disease that attacks the roots of the canola plant, have been identified in more than 300 fields across Alberta. In 2022, U of A researchers teamed up with an agriculture company for a \$1.25-million project to help battle new strains of the crop-damaging disease and train new plant scientists.

Funded by agriculture company BASF, the comprehensive five-year project led by U of A plant scientists Stephen Strelkov and Sheau-Fang Hwang will identify new sources of pathogen resistance that can be bred into canola seeds. The research, running until 2026, will also provide opportunities for a post-doctoral fellow as well as U of A graduate and undergraduate students to work in plant science, helping to increase capacity in the field.

Mapping How Much Carbon is Stored in Prairie Soil

A new project co-led by U of A researchers is mapping out how much carbon prairie soil is storing. The findings from the study could help beef producers across Western Canada quantify the environmental and economic benefits to using grasslands as grazing land for cattle.

The \$3.2-million initiative, co-led by U of A rangeland ecologist Cameron Carlyle, will provide the most comprehensive mapping ever of how much carbon is being stored in perennial grasslands across Saskatchewan. The resulting data will help cattle farmers there — and eventually all across Canada's prairies — manage their land to keep as much harmful greenhouse gas in the ground as possible. The project results could also help producers benefit from carbon offset protocols if at some point such a program is implemented.

The research, which Carlyle is co-leading with University of Saskatchewan soil scientist Angela Bedard-Haughn, is supported by the Canadian Agricultural Partnership, the Government of Saskatchewan, Ducks Unlimited Canada and the Saskatchewan Cattlemen's Association.



The Right Cow for the Right Pasture

One of the challenges that cattle ranchers face is that they can't control what and when their animals eat because they roam and feed as they please in huge pastures. A new U of A research project – led by Edward Bork, a professor of rangeland ecology and management in the Department of AFNS – will help these ranchers identify the right kind of cow for their particular pastures to increase grazing efficiency while protecting pastures.

Launched this past summer, the research involves tracking the movements and feeding habits of grazing cattle, looking to identify genetic traits that could lead to breeding more efficient livestock. The findings from the three-year research program will help ranchers customize their cattle to the type of pastures they have, creating economic and environmental benefits along the way.

The project is funded by Alberta Beef Producers through the Canadian Agricultural Partnership, and by Results Driven Agriculture Research as well as Alberta Innovates.

Students Dig into the Science of Prairie Farming

Two new agronomy courses take students beyond the classroom to gain a competitive edge in the global workforce. Exploring Field Crop Agronomy – the first course created and taught for the first time in 2022 by Linda Gorim, assistant professor and Western Grains Research Foundation (WGRF) Chair in Cropping Systems – gives undergraduate agricultural students hands-on learning about the science of soil management and crop production on central and southern Alberta farms and fields. The second course, Experiential Learning in Agriculture, places students in paid summer internships as sales agronomists, agronomy associates, and research, horticultural and veterinary assistants. The courses provide students opportunities to network and to develop the necessary soft skills—like time management, working in a team and conflict resolution—to become future leaders in sustainable food production.

Funding and in-kind support for the agronomy course was provided by the Alberta Barley and Wheat Commission, the Alberta Canola Producers Commission and Western Grain Research Foundation. Support for the work experience course is provided by Val and Morley Blanch.

APRIL 2022 - MARCH 2023

Awards

Faculty + Staff Awards

NAME	AWARD
Marleny Aranda Saldana	ALES International Engagement Award
Clover Bench	ALES Teacher of the Year
Edward Bork	U of A Years of Service (25)
Valerie Carney	Fellow of the Poultry Science Association
Cathy Chan	ALES Teacher of the Year
Jonathan Curtis	U of A Retirement Recognition
Michael Dyck	ALES Teacher of the Year
Linda Gorim	ALES Tyrchniewicz Innovative Teaching Award
Leanna Grenwich	ALES Teacher of the Year
Paul Hansen	U of A Years of Service (40)
Nat Kav	ALES Teacher of the Year
Doug Korver	ALES Teacher of the Year
Doug Korver	U of A Years of Service (25)
Doug Korver	U of A Retirement Recognition
Lynn McMullen	ALES Teacher of the Year
Lynn McMullen	IAFP Fellow Award
Jocelyn Ozga	U of A Years of Service (30)
Carla Prado	Canada's Most Powerful Women (Science and Technology)
Frank Robinson	ALES Teacher of the Year
Dean Spaner	U of A Retirement Recognition
Paul Stothard	ALES Teacher of the Year
Malinda Thilakarathna	ALES Research and Innovation Award
Aman Ullah	ASTech Award - Environmental Innovation in Energy Applications
An Vo	U of A Years of Service (35)
Ruurd Zijlstra	ALES Teacher of the Year

Student Awards

STUDENT NAME	AWARD TITLE
Adam Fast	Alberta Wheat Commission Graduate Research Scholarship in Crop Science
Aldo Rios Martinez	Alberta Graduate Excellence Scholarship
Alyson Soderstrom	Alberta Graduate Excellence Scholarship
Alyson Soderstrom	Thermo Fisher Scientific Graduate Scholarship in AFNS
Amber Hager	Anthony Fellowship in Human Nutrition
Amber Hager	Dr. Elizabeth Russell MacEachran Scholarship
Amir Behrouzi	Alberta Innovates Graduate Student Scholarship (PhD)
Amir Vahedifar	Simone Demers-Collins Graduate Travel Scholarship in Agriculture
Ana Paula Pagano	Alberta Graduate Excellence Scholarship
Ana Paula Pagano	Thermo Fisher Scientific Graduate Scholarship in AFNS
Anabel Dombro	AFNS Graduate Student Teaching Award
Anabel Dombro	AltaLink Master's Scholarship in Rangeland Disturbance Ecology
Ananya Sarkar	Dr Bruce Jeffery Canola Travel Award - Doctoral Level
Ananya Sarkar	Robert Simonet Travel Award - Doctoral Level
Andres Merino Restrepo	Bern and Donna Kotelko Travel Award in Bioresource Excellence
Anissa Armet	AFNS Graduate Student Teaching Award
Ansar Ali	U of A Graduate Recruitment Scholarship (Winter)
Bernardo Araujo Sauto	Alberta Innovates Graduate Student Scholarship (Contract 4)
Bohan Wei	Robert Simonet Travel Award - Doctoral Level
Camila Estefani Orsso	U of A Doctoral Entrance Scholarship
Camila Estefani Orsso	U of A Graduate Entrance Scholarship Fees
Claire Douglas	U of A Graduate Recruitment Scholarship (Summer)
Dagem Haddis	Alberta Innovates Graduate Student Scholarship
Dagem Haddis	Graduate Student Engagement Scholarship

STUDENT NAME	AWARD TITLE
Danielito Dollete	The Ali Navabi Graduate Student Travel Award
Dhruvesh Patel	Alberta Graduate Excellence Scholarship
Dhruvesh Patel	Thermo Fisher Scientific Graduate Scholarship in AFNS
Dilrukshi Liyanage	AFNS Graduate Student Community Leadership Award
Ehsan Feizollahi	J Macgregor Smith Graduate Scholarship
Emad Yuzbashian Sharifabad	Alberta Graduate Excellence Scholarship
Emanuele Goes	Copeland Graduate Travel Award in Poultry Research
Emilee Storfie	Canada Graduate Scholarship - Doctoral (NSERC)
Emilee Storfie	Dr Bruce Jeffery Canola Travel Award - Doctoral Level
Emilee Storfie	President's Doctoral Prize of Distinction
Erisa Budo	U of A Graduate Recruitment Scholarship (Winter)
Etseoghena Obi	Poultry Service Industry Workshop-Oral Presentation 3rd Place
Fatemeh Ashkar	CIFST Graduate Student Travel Fund
Fatemeh Ashkar	Zenia Hawrysh Masters Scholarship in Food Science
Hailey Fedoruk	Alberta Diabetes Institute Master's Scholarship
Hailey Fedoruk	Canadian Lipid and Vascular Summit Best Oral Presentation (MSc)
Haley Wolgien	U of A Graduate Recruitment Scholarship (Fall)
Harleen Dhaliwal	CIFST Graduate Student Travel Fund
Harleen Kaur Dhaliwal	AFNS Graduate Student Community Leadership Award
Ilakkiya Thirugnanasambandam	Alberta Graduate Excellence Scholarship
Ilakkiya Thirugnanasambandam	Western Grains Research Foundation Graduate Scholarship - Masters Level
Jacey Toerper	Alberta Graduate Excellence Scholarship 2022/23
Jaqueline De Lima Munhoz	Dr Elizabeth A Donald MSc Fellowship in Human Nutrition

STUDENT NAME	AWARD TITLE
Jaqueline De Lima Munhoz	Hazel McIntyre Summer Research Award
Jedida Chirchir	U of A Graduate Recruitment Scholarship (Winter)
Jenneffer Rayane Braga Tibaes	Alberta Graduate Excellence Scholarship 2022/23
Jenneffer Rayane Braga Tibaes	Andrew Stewart Memorial Graduate Prize 2022/23
Jo Ann Chew	Aviagen Scholarship Award
Joaquin Sanchez-Zannatta	Animal Nutrition Conference of Canada (1st Place - Oral)
Juli Wang	Alberta Innovates Graduate Student Scholarship (Contract 4)
Juli Wang	Bern and Donna Kotelko Travel Award in Bioresource Excellence
Juli Wang	Donald A Shaw Memorial Graduate Scholarship
Juli Wang	Dr Michael E. Stiles Graduate Scholarship in Applied Microbiology
Juli Wang	Professor JB McQuitty Graduate Scholarship
Kallum McDonald	Canadian Association of Plant Biotechnology Conference and Travel Award (1st Place - Oral)
Kallum McDonald	Dr Bruce Jeffery Canola Travel Award - Master's Level
Kallum McDonald	University of Minnesota Plant Science Symposium (1st Place - Oral)
Kallum McDonald	Robert Simonet Travel Bursary and Graduate Scholarship - Master's Level
Kallum McDonald	Simone Demers-Collins Graduate Travel Scholarship in Agriculture
Kanishka Senevirathna	SM Blair Scholarship
Katherine Ford	AFNS Outstanding Thesis Award
Kelly Picard	Dr Catherine Field Graduate Scholarship in ALES
Keshav Bhattarai	U of A Graduate Recruitment Scholarship (Winter)
Kholoud El Mihi	Canadian Lipid and Vascular Summit-Best Poster Presentation (PhD)
Kristina Polziehn	Western Grains Research Foundation Graduate Scholarship - Doctoral Level

STUDENT NAME	AWARD TITLE
Lauren Engelking	Alberta Graduate Excellence Scholarship
Lauren Engelking	Harry J Hargrave Memorial Graduate Scholarship in Animal Science
Man Sun	Alexander Graham Bell Canada Graduate Scholarship - Master's (NSERC)
Man Sun	Walter H Johns Graduate Fellowship
Maryam Motamedrad	Alberta Graduate Excellence Scholarship
Matthew Oryschak	Alberta Graduate Excellence Scholarship
Matthew Oryschak	Thermo Fisher Scientific Graduate Scholarship in Agriculture, Food and Nutritional Science
Mianmian Zhu	Bern and Donna Kotelko Travel Award in Bioresource Excellence
Michele Tran	AltaLink Master's Scholarship in Rangeland Disturbance Ecology
Mohammed Mukthar	Ali Navabi Travel Award (CSA)
Mohammed Mukthar	Canadian Weed Science Society & Canadian Society of Agronomy - Joint Meeting - 1st Place Poster Presentation
Montserrat Montes de Oca Ibarra	Graduate Student Rising Star Award (GSA)
Muhammad Zubair	3MT People Choice Award
Muhammad Zubair	Bern and Donna Kotelko Travel Award in Bioresource Excellence
Muhammad Zubair	CIFST Graduate Student Travel Fund
Muhammad Zubair	J Macgregor Smith Graduate Scholarship
Muhammad Zubair	MacAllister Scholarship in Agriculture
Muhammad Zubair	MSED Chemical Institute of Canada Travel Award
Muhammad Zubair	U of A Green and Gold Student Leadership and Professional Development Award
Natalie LaForest	Dr. Karl C. Ivarson Agricholarship
Natalie LaForest	Knowledge First Graduate Student Scholarship
Pamela Klassen	Canada Graduate Scholarship - Doctoral (CIHR)

STUDENT NAME	AWARD TITLE
Pamela Klassen	Dr Nick Hussar Graduate Scholarship in Animal Science or Human Nutrition
Pamela Klassen	President's Doctoral Prize of Distinction
Peter Isesele	Dr. Elizabeth Russell MacEachran Scholarship
Peter Isesele	Rogers Sugar Graduate Scholarship
Ranga Nakandalage Don	John Prentice Graduate Scholarship in Beef Genomics
Reuel Purificati-Fune	Sir Frederick Banting and Dr Charles Best Canada Graduate Scholarship - Master's (CIHR)
Reuel Purificati-Fune	Walter H Johns Graduate Fellowship
Rubiel Merino Restrepo	Alberta Innovates Graduate Student Scholarship (Contract 2)
Rubiel Merino Restrepo	Professor JB McQuitty Graduate Scholarship
Shengjuan Li	Michael R Bevan Graduate Scholarship
Srujana Mekala	ISSE 3MT Competition Award (2nd Place)
Srujana Mekala	Zenia Hawrysh PhD Scholarship in Food Science
Stanley Woo	Sir Frederick Banting and Dr Charles Best Canada Graduate Scholarship - Master's (CIHR)
Stanley Woo	Walter H Johns Graduate Fellowship
Thiago Noetzold	Copeland Graduate Travel Award in Poultry Research
Thiago Noetzold	NACTA Graduate Student Teaching Award
Tianyi Zhao	U of A Graduate Recruitment Scholarship (Summer)
Udaya Subedi	Helen & Fred Bentley Forage Crops Graduate Scholarship in ALES
Udaya Subedi	Henry Kroeger Memorial Graduate Scholarship
Udaya Subedi	Robert Simonet Graduate Scholarship - Doctoral Level
Umair Zahid	UU of A Graduate Recruitment Scholarship (Fall)
Upama KC	Alberta Graduate Excellence Scholarship
Upama KC	Wayne Borden Travel Award

STUDENT NAME	AWARD TITLE
Usha Nandini Sivakumar Sharma	U of A Graduate Recruitment Scholarship (Winter)
Valentine Udeh	John Prentice Graduate Scholarship in Beef Genomics
Xiaoyu Wang	Alberta Canola Producers Award
Yajing Ban	John Prentice Graduate Scholarship in Beef Genomics
Yingxin Zhao	U of A Graduate Recruitment Scholarship (Winter)
Yueh-Hao Hung	Bern and Donna Kotelko Travel Award in Bioresource Excellence
Zhe Pan	Ruminant Animal Digestive and Metabolism Graduate Scholarship
Zhengping Wang	ALES Outstanding Graduate Research/Thesis Award
Zhiqian Jiang	ADI Graduate Scholarship
Zhiqian Jiang	U of A Graduate Recruitment Scholarship (Fall)

Partners + Funders

Acadian Seaplants Limited

ADISSEO

Agriculture and Agri-Food Canada

Agriculture Funding Consortium:

- Alberta Barley Commission
- Alberta Canola Producers Commission
- Alberta Chicken Producers
- Alberta Crop Industry Development Fund
- Alberta Innovates-Bio Solutions
- Alberta Livestock Meat Agency Ltd.
- Alberta Milk
- Alberta Pulse Growers Commission
- Alberta Wheat Commission
- Egg Farmers of Alberta
- Western Grains Research Foundation

Alberta Agriculture and Forestry

Alberta Hatching Egg Producers

Alberta Health Services

Alberta Innovates

Alberta Pork

Alberta Turkey Producers

Alltech Canada Inc

Almased Wellness GmbH

Barley Council of Canada

BC Dairy Association

Beef Cattle Research Council

Biena Inc.

Bioindustrial Innovation Canada

Burnbrae Farms Ltd.

Canada Foundation for Innovation

Canada Malting Company Limited

Canada Research Chairs

Canadian Beef Breed Council

Canadian Celiac Association

Canadian Field Crop Research Alliance

Canadian Foundation for Dietetic Research

Canadian Institutes of Health Research

Canadian Poultry Research Council

**Canadian Swine Research and
Development Cluster**

Canola Council of Canada

Canterra Seeds

Cargill

Ceapro Inc.

**Climate Change and Emissions
Management Corporation**

Dairy Farmers of Canada

Dairy Farmers of Manitoba

Edmonton International Airport

Egg Farmers of Alberta

Egg Farmers of Canada

Elmira Pet Products Ltd.

Engage Agro Corporation

FMC Corporation

Forge Hydrocarbons Corporation

FP Genetics

Genesis Inc.

Genome Alberta

Genome Canada

Genome Prairie

Heart & Stroke Foundation of Canada

Hypor LP

Ingredion Inc.

Kellogg Company

Kaiser Foundation Research Institute

Kidney Foundation of Canada

Lallemand Animal Nutrition

Lilydale Inc. – A Sofina Foods Company

Maple Leaf Foods Inc.

Mitacs Inc.

Monsanto Fund

**Networks of Centres
of Excellence - GlycoNet**

National Pork Board

Natural Sciences and Engineering

Research Council of Canada

Neogen

New Leaf Essentials (West) Ltd.

Organic Federation of Canada

PIC USA Inc.

PolicyWise for Children & Families

Prairie Oat Growers Association

Red Bow Ranching Ltd.

Saskatchewan Milk Marketing Board

Saskatchewan Pulse Growers

**Saskatchewan Wheat
Development Commission**

SeCan Association

**Social Sciences and Humanities
Research Council of Canada**

Sunterra Farms Ltd.

The Hanor Company of Wisconsin, LLC

The W. Garfield Weston Foundation

Trojan Technologies Inc.

University Hospital Foundation

Université de Montréal

University of Calgary

University of California, Los Angeles

University of Guelph

University of Saskatchewan

University - Iowa State

Valent

Western Economic Diversification Canada

Westgen

ENROLMENT

Undergraduate Students

PROGRAM OR MAJOR	NUMBER OF STUDENTS
Bachelor of Science in Agriculture	163
Agricultural and Resource Economics Major	14
Animal Science Major	77
Crop Science Major	48
Sustainable Agricultural Systems Major	24
Bachelor of Science in Agricultural/Food Business Management	30
Agriculture Business Management	23
Food Business Management	7
Bachelor of Science in Animal Health	270
Companion and Performance Animals Major	238
Food Animals Major	32
Bachelor of Science in Nutrition and Food Science - General Program	306
Bachelor of Science in Nutrition and Food Science - Dietetics Specialization	84
Bachelor of Science in Nutrition and Food Science - Food Science and Technology Specialization	43
Bachelor of Science Honors Honors in Food Science	2
Bachelor of Science Honors in Nutrition	9
TOTAL	907

Graduate Students

PROGRAM	NUMBER OF
Animal Science	57
Bioresource & Food Engineering	12
Bioresource Technology	22
Food Safety & Quality	5
Food Science & Technology	43
Nutrition & Metabolism	34
Plant Science	58
Rangeland & Wildlife Resources	7
TOTAL	238

Graduate students' country of origin: **54** / Canada **196** / From 38 different countries!

CONVOCATION

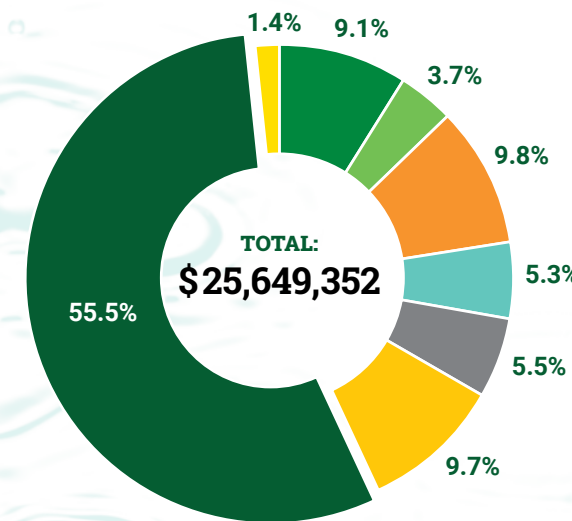
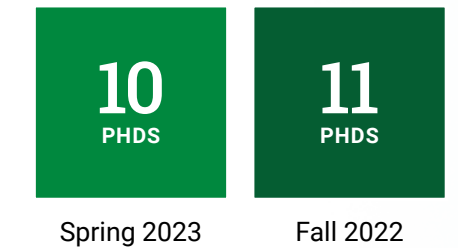
Bachelor of Science Graduates

PROGRAM	GRADUATES IN FALL 2023	GRADUATES IN SPRING 2023
BSc in Agricultural/Food Business Management	2	4
Bachelor of Science in Agriculture	2	25
Bachelor of Science in Animal Health	2	23
Bachelor of Science in Nutrition and Food Science - General Program	3	38
Bachelor of Science in Nutrition and Food Science - Dietetics Specialization	5	40
Bachelor of Science in Nutrition and Food Science - Food Science Technology	1	13
Bachelor of Science in Nutrition and Food Science - Honors		5

Master of Science Graduates



Doctorate Graduates



RESEARCH

AFNS Research Funding

Government of Alberta	\$2,343,876
CIHR	\$948,827
NSERC	\$2,524,397
Government of Canada (not Tri-agency)	\$1,369,619
Municipal, Provincial and Foreign	\$1,403,002
Business	\$2,476,900
Not for profit and Individuals	\$14,224,952
Endowments	\$357,780

TOTAL: \$25,649,352

Publications

FACULTY MEMBER(S)	TITLE	JOURNAL	PUBLICATION DATE
Judd Aiken	Remdesivir does not affect mitochondrial DNA copy number or deletion mutation frequency in aged male rats: A short report	PLoS ONE	2022-10-01
Judd Aiken	Chronic wasting disease prions in mule deer interdental glands	PLoS ONE	2022-10-01
Judd Aiken	Neural transcriptomic signature of chronic wasting disease in white-tailed deer	BMC Genomics	2022-12-01
Judd Aiken	Sheep scrapie and deer rabies in England prior to 1800	Prion	2023-01-01
Judd Aiken	Age- and time-dependent mitochondrial genotoxic and myopathic effects of beta-guanidinopropionic acid, a creatine analog, on rodent skeletal muscles	GeroScience	2023-02-01
Judd Aiken	Movement of Chronic Wasting Disease Prions in Prairie, Boreal and Alpine Soils	Pathogens	2023-02-01
Judd Aiken	Emergence of CWD strains	Cell and Tissue Research	2023-04-01
Judd Aiken	Nanopore sequencing identifies a higher frequency and expanded spectrum of mitochondrial DNA deletion mutations in human aging	Aging Cell	2023-06-01
Judd Aiken	Innate Immune Status of Glia Modulates Prion Propagation in Early Stage of Infection	Cells	2023-07-01
Burim Ametaj	Association of High Somatic Cell Counts Prior to Dry off to the Incidence of Periparturient Diseases in Holstein Dairy Cows	Veterinary Sciences	2022-11-01
Burim Ametaj	Mastitis: Impact of Dry Period, Pathogens, and Immune Responses on Etiopathogenesis of Disease and its Association with Periparturient Diseases	Dairy	2022-12-01
Burim Ametaj	Mastitis: What It Is, Current Diagnostics, and the Potential of Metabolomics to Identify New Predictive Biomarkers	Dairy	2022-12-01
Burim Ametaj	Early-Life Exposure to Lipopolysaccharide Induces Persistent Changes in Gene Expression Profiles in the Liver and Spleen of Female FVB/N Mice	Veterinary Sciences	2023-07-01
Daniel Barreda	Fever integrates antimicrobial defences, inflammation control, and tissue repair in a cold-blooded vertebrate	eLife	2023-03-14
John Basarab	Influence of Production Factors on Beef Primal Tissue Composition	New Strategies in Production and Product Quality Control of Fresh Meat	2022-02-11
John Basarab	Effects of Silage-Based Diets and Cattle Efficiency Type on Performance, Profitability, and Predicted CH4 Emission of Backgrounding Steers	Agriculture	2023-02-15
John Basarab	Estimation of genetic parameters for primal tissue component traits in commercial crossbred beef cattle	Meat Science	2023-08-01
John Basarab	Genome-wide association study for primal cut lean traits in Canadian beef cattle	Meat Science	2023-10-01
John Basarab	A machine learning approach to predict the most and the least feed-efficient groups in beef cattle	Smart Agricultural Technology	2023-10-01
Rhonda Bell	Medical, behavioural and social preconception and interconception risk factors among pregnancy planning and recently pregnant Canadian women	Family Medicine and Community Health	2022-09-16

FACULTY MEMBER(S)	TITLE	JOURNAL	PUBLICATION DATE
Rhonda Bell	Māmahitowin (bringing the camps together): Perinatal healthcare provider and staff participation in an Indigenous-led experiential intervention for enhancing culturally informed care—a mixed methods study	International Journal for Equity in Health	2022-12-01
Rhonda Bell	Exploring weight bias internalization in pregnancy	BMC Pregnancy and Childbirth	2022-12-01
Rhonda Bell	Describing 24-hour movement behaviours among preconception and recently pregnant Canadian parents: who do we need to target?	Behavioral Medicine	2023-01-01
Rhonda Bell, Paula Robson	Applying suggested new terminology and definitions for human milk feeding in the Alberta Pregnancy Outcomes and Nutrition (APrON) longitudinal pregnancy cohort	Applied Physiology, Nutrition and Metabolism	2023-01-01
Rhonda Bell	Binge-spectrum symptoms in their association with higher gestational weight gain	International Journal of Eating Disorders	2023-01-01
Rhonda Bell, Catherine Field	Associations between maternal folate status and choline intake during pregnancy and neurodevelopment at 3-4 years of age in the Alberta Pregnancy Outcomes and Nutrition (APrON) study	Journal of Developmental Origins of Health and Disease	2023-03-20
Rhonda Bell, Catherine Field	Associations between maternal folate status and choline intake during pregnancy and neurodevelopment at 3-4 years of age in the Alberta Pregnancy Outcomes and Nutrition (APrON) study	Journal of Developmental Origins of Health and Disease	2023-06-01
Rhonda Bell, Catherine Field	Epigenetic effects of folate and related B vitamins on brain health throughout life: Scientific substantiation and translation of the evidence for health improvement strategies	Nutrition Bulletin	2023-06-01
Rhonda Bell	Prenatal Nutrition Care in Alberta: The Perspectives of Pregnant Women and Registered Dietitians	Canadian journal of dietetic practice and research : a publication of Dietitians of Canada = Revue canadienne de la pratique et de la recherche en diététique : une publication des Diététistes du Canada	2023-06-01
Heather Bruce	Influence of Canadian beef quality grade and method of intramuscular connective tissue isolation on collagen characteristics of the bovine longissimus thoracis	Meat Science	2022-09-01
Heather Bruce	Effects of Alternating Electric Field Assisted Freezing-Thawing-Aging Sequence on Data-Independent Acquisition Quantitative Proteomics of Longissimus dorsi Muscle	Journal of Agricultural and Food Chemistry	2022-10-12
Heather Bruce, Michael Gaenzle	Glycomacropptide from camel milk inhibits the adhesion of enterotoxigenic Escherichia coli K88 to porcine cells	International Dairy Journal	2022-11-01
Heather Bruce	Breed dependent regulatory mechanisms of beneficial and non-beneficial fatty acid profiles in subcutaneous adipose tissue in cattle with divergent feed efficiency	Scientific Reports	2022-12-01
Heather Bruce, Spencer Proctor, Caroline Richard	Preferential deposition of dairy derived fatty acids in muscle tissue is partially due to the upregulation of CD36 in a low-birth-weight swine model	Journal of Animal Science	2023-01-01
Heather Bruce	Understanding the effects of chilling on color and quality characteristics of bovine longissimus thoracis	Meat Science	2023-01-01
Heather Bruce	Contribution of intramuscular connective tissue and its structural components on meat tenderness-revisited: a review	Critical Reviews in Food Science and Nutrition	2023-01-01

FACULTY MEMBER(S)	TITLE	JOURNAL	PUBLICATION DATE
Heather Bruce	Effects of alternating electric field assisted freezing-thawing sequence on beef quality	Food Chemistry	2023-03-01
Heather Bruce	Effects of alternating electric field assisted freezing-thawing sequence on longissimus dorsi muscle microstructure and protein characteristics	Food Chemistry	2023-05-30
Heather Bruce	Identification of peptides from camel milk that inhibit starch digestion	International Dairy Journal	2023-06-01
Jean Buteau	A Novel Small-molecule Activator of Lyn Kinase for the Treatment of Type 1 Diabetes	Canadian Journal of Diabetes	2022-11-01
Cameron Carlyle	Limited impacts of adaptive multi-paddock grazing systems on plant diversity in the Northern Great Plains	Journal of Applied Ecology	2022-07-01
Cameron Carlyle	Plant responses to soil biota depend on precipitation history, plant diversity, and productivity	Ecology	2022-10-01
Cameron Carlyle	Agroforestry perennials reduce nitrous oxide emissions and their live and dead trees increase ecosystem carbon storage	Global Change Biology	2022-10-01
Cameron Carlyle	Wildfire-Grazing Impact on Forage Quality Assessed with Near-Infrared Spectroscopy and Generalized Partial Least Squares Regression	Rangeland Ecology & Management	2023-03-01
Cameron Carlyle	Soil organic matter stability in forest and cropland components of two agroforestry systems in western Canada	Geoderma	2023-05-01
Catherine Chan	Effectiveness and Acceptability of a Nutrition Intervention Targeting Chinese Adult Immigrants With Type 2 Diabetes in Canada: A Study Using Mixed-Methods Analysis	Canadian Journal of Diabetes	2022-10-01
Catherine Chan	Remission of Type 2 Diabetes: Diabetes Canada Clinical Practice Guidelines Expert Working Group	Canadian Journal of Diabetes	2022-12-01
Catherine Chan	Association of dairy consumption patterns with the incidence of type 2 diabetes: Findings from Alberta's Tomorrow Project	Nutrition, Metabolism and Cardiovascular Diseases	2022-12-01
Catherine Chan	Elevated miR-143 and miR-34a gene expression in human visceral adipose tissue are associated with insulin resistance in non-diabetic adults: a cross-sectional study	Eating and Weight Disorders	2022-12-01
Catherine Chan	Graduate Student Literature Review: A scoping review on the impact of consumption of dairy products on phosphatidylcholine and lysophosphatidylcholine in circulation and the liver in human studies and animal models	Journal of Dairy Science	2023-01-01
Catherine Chan	An Egg White-Derived Peptide Enhances Systemic Insulin Sensitivity and Modulates Markers of Non-Alcoholic Fatty Liver Disease in Obese, Insulin Resistant Mice	Metabolites	2023-02-01
Catherine Chan	Dietary Interventions for Type 2 Diabetes in South Asian Populations—A Systematic Review	Current Nutrition Reports	2023-03-01
Guanqun Chen	Acyl-CoA:diacylglycerol acyltransferase: Properties, physiological roles, metabolic engineering and intentional control	Progress in Lipid Research	2022-11-01
Guanqun Chen	The Potential of Novel Gene Editing-Based Approaches in Forages and Rumen Archaea for Reducing Livestock Methane Emissions	Agriculture (Switzerland)	2022-11-01
Guanqun Chen	Eliciting Targeted Mutations in Medicago sativa Using CRISPR/Cas9-Mediated Genome Editing: A Potential Tool for the Improvement of Disease Resistance	Methods in Molecular Biology	2023-01-01
Guanqun Chen	Microalgal glycerol-3-phosphate acyltransferase role in galactolipids and high-value storage lipid biosynthesis	Plant Physiology	2023-02-21

FACULTY MEMBER(S)	TITLE	JOURNAL	PUBLICATION DATE
Guanqun Chen	Genetic architecture of seed glycerolipids in Asian cultivated rice	Plant Cell and Environment	2023-04-01
Guanqun Chen	Elucidation of Physiological, Transcriptomic and Metabolomic Salinity Response Mechanisms in Medicago sativa	Plants	2023-05-01
Guanqun Chen	Microalgal glycerol-3-phosphate acyltransferase role in galactolipids and high-value storage lipid biosynthesis	Plant Physiology	2023-05-01
Guanqun Chen	Genome-wide characterization of plant CTP :phosphocholine cytidyltransferases through evolutionary, biochemical and structural analyses	The Plant Journal	2023-05-02
Michael Dyck	PSXIII-B-14 Investigation of the Blood Transcriptome of Young Healthy Pigs to Identify Genetic Indicators for Disease Resilience	Journal of Animal Science	2022-09-21
Catherine Field	Childhood body mass index and associations with infant gut metabolites and secretory IgA: findings from a prospective cohort study	International Journal of Obesity	2022-09-01
Catherine Field, Caroline Richard	Combined Supplementation with Arachidonic and Docosahexaenoic Acids in T Helper Type-2 Skewed Brown Norway Rat Offspring is Beneficial in the Induction of Oral Tolerance toward Ovalbumin and Immune System Development	Journal of Nutrition	2022-09-01
Catherine Field, Vera Mazurak	Docosahexaenoic acid enrichment of tumor phospholipid membranes increases tumor necroptosis in mice bearing triple negative breast cancer patient-derived xenografts	Journal of Nutritional Biochemistry	2022-09-01
Catherine Field	Effects of a Novel High-Quality Protein Infant Formula on Energetic Efficiency and Tolerance: A Randomized Trial	Journal of Pediatric Gastroenterology and Nutrition	2022-10-01
Catherine Field, Rene Jacobs, Caroline Richard	The Lipid-Soluble Forms of Choline Enhance Ex Vivo Responses from the Gut-Associated Immune System in Young Female Rat Offspring	Journal of Nutrition	2022-11-01
Catherine Field	Effects of supervised high-intensity interval training on motivational outcomes in men with prostate cancer undergoing active surveillance: results from a randomized controlled trial	International Journal of Behavioral Nutrition and Physical Activity	2022-12-01
Catherine Field, Spencer Proctor	Elucidating the role of the gut microbiota in the physiological effects of dietary fiber	Microbiome	2022-12-01
Catherine Field	In parenteral nutrition—fed piglets, fatty acids vary by lipid emulsion and tissue sampled	Journal of Parenteral and Enteral Nutrition	2023-01-01
Catherine Field, Rene Jacobs, Caroline Richard	A Physiologically Relevant Dose of 50% Egg-Phosphatidylcholine Is Sufficient in Improving Gut Permeability while Attenuating Immune Cell Dysfunction Induced by a High-Fat Diet in Male Wistar Rats	Journal of Nutrition	2023-01-01
Catherine Field	Impact of Cesarean Delivery and Breastfeeding on Secretory Immunoglobulin A in the Infant Gut Is Mediated by Gut Microbiota and Metabolites	Metabolites	2023-02-01
Catherine Field	The programming effect of plant-based DHA, along with equivalent ARA, on immune system and oral tolerance development in 6-week allergy prone BALB/c pups	The Journal of Nutrition	2023-06-01
Catherine Field	Nutrition and immunity: perspectives on key issues and next steps	Applied Physiology, Nutrition and Metabolism	2023-07-01
Michael Gaenzle	LC-MS/MS quantitation of α-amylase/trypsin inhibitor CM3 and glutathione during wheat sourdough breadmaking	Journal of Applied Microbiology	2022-07-01

FACULTY MEMBER(S)	TITLE	JOURNAL	PUBLICATION DATE
Michael Gaenzle	Supercharged MPNs? Automated Determination of High-Throughput Most Probable Number (htMPN) Using Chip-Based 3D Digital PCR	Applied and Environmental Microbiology	2022-08-01
Michael Gaenzle	Supercharged MPNs? Automated Determination of High-Throughput Most Probable Number (htMPN) Using Chip-Based 3D Digital PCR	Applied and Environmental Microbiology	2022-08-09
Michael Gaenzle	Effects of protein fibrillation and antioxidants on probiotic survival during ambient storage	Food Chemistry	2022-09-30
Michael Gaenzle	African cereal fermentations: A review on fermentation processes and microbial composition of non-alcoholic fermented cereal foods and beverages	International Journal of Food Microbiology	2022-10-02
Michael Gaenzle	Antifungal cultures and metabolites of lactic acid bacteria for use in dairy fermentations	International Journal of Food Microbiology	2022-12-16
Michael Gaenzle, Lynn McMullen	Transduction of stx2a mediated by phage (Φ11-3088) from Escherichia coli O104:H4 in vitro and in situ during sprouting of mung beans	International Journal of Food Microbiology	2022-12-16
Michael Gaenzle, Roopesh Syamaladevi	Understanding the Salmonella Inactivation Mechanisms of 365, 395 and 455 nm Light Pulses Emitted from Light-Emitting Diodes	Applied Sciences	2023-01-01
Michael Gaenzle	Conversion of (poly)phenolic compounds in food fermentations by lactic acid bacteria: Novel insights into metabolic pathways and functional metabolites	Current Research in Food Science	2023-01-01
Michael Gaenzle	Does sourdough bread provide clinically relevant health benefits?	Frontiers in Nutrition	2023-01-01
Michael Gaenzle	Introduction to high pressure thermal processing and pressure assisted thermal sterilization	High Pressure Thermal Processing	2023-01-01
Michael Gaenzle	Questioning the fetal microbiome illustrates pitfalls of low-biomass microbial studies	Nature	2023-01-26
Michael Gaenzle	Characterization of the Glucan-Branching Enzyme GlgB Gene from Swine Intestinal Bacteria	Molecules	2023-02-01
Michael Gaenzle, Doug Korver	Conversion of Phenolic Acids in Canola Fermentation: Impact on Antimicrobial Activity against Salmonella enterica and Campylobacter jejuni	Journal of Agricultural and Food Chemistry	2023-02-01
Michael Gaenzle	Dynamics of high hydrostatic pressure resistance development in RpoS-deficient Escherichia coli	Food Research International	2023-02-01
Michael Gaenzle, Roopesh Syamaladevi	Understanding the Salmonella Inactivation Mechanisms of 365, 395 and 455 nm Light Pulses Emitted from Light-Emitting Diodes	Applied Sciences (Switzerland)	2023-02-01
Michael Gaenzle	Role of thiols and ascladiol production in patulin degradation by lactobacilli	Letters in Applied Microbiology	2023-03-01
Michael Gaenzle	Characterization of isogenic mutants with single or double deletions of four phenolic acid esterases in Lactiplantibacillus plantarum TMW1.460	International Journal of Food Microbiology	2023-03-02
Michael Gaenzle	Bacillus species in food fermentations: an underappreciated group of organisms for safe use in food fermentations	Current Opinion in Food Science	2023-04-01
Michael Gaenzle	Characterization of GshAB of Tetragenococcus halophilus: a two-domain glutathione synthetase	Applied Microbiology and Biotechnology	2023-05-01
Michael Gaenzle	Composition and activity of antifungal lipopeptides produced by Bacillus spp. in daqu fermentation	Food Microbiology	2023-05-01

FACULTY MEMBER(S)	TITLE	JOURNAL	PUBLICATION DATE
Michael Gaenzle	Conversion of hydroxycinnamic acids by Furfurilactobacillus mii in sorghum fermentations: Impact on profile of phenolic compounds in sorghum and on ecological fitness of Ff. mii.	Food Microbiology	2023-05-01
Michael Gaenzle	A Meta-Analysis of Bacterial Communities in Food Processing Facilities: Driving Forces for Assembly of Core and Accessory Microbiomes across Different Food Commodities	Microorganisms	2023-06-01
Michael Gaenzle	Socializing at the Air-Liquid Interface: a Functional Genomic Analysis on Biofilm-Related Genes during Pellicle Formation by Escherichia coli and Its Interaction with Aeromonas australiensis	Applied and Environmental Microbiology	2023-07-01
Leluo Guan	Effects of replacing inorganic salts of trace minerals with organic trace minerals in pre- and postpartum diets on feeding behavior, rumen fermentation, and performance of dairy cows	Journal of Dairy Science	2022-08-01
Leluo Guan	Invited review: Effect of subacute ruminal acidosis on gut health of dairy cows	Journal of Dairy Science	2022-09-01
Leluo Guan	Expressions of resistome is linked to the key functions and stability of active rumen microbiome	Animal Microbiome	2022-12-01
Sheau-Fang Hwang	Identification of Novel Genes Associated with Partial Resistance to Aphanomyces Root Rot in Field Pea by BSR-Seq Analysis	International Journal of Molecular Sciences	2022-08-28
Sheau-Fang Hwang	Soil fumigation with Vapam (metam sodium) to control clubroot (Plasmodiophora brassicae) of canola (Brassica napus)	Canadian Journal of Plant Science	2022-10-07
Sheau-Fang Hwang	Application of the NanoString nCounter System as an Alternative Method to Investigate Molecular Mechanisms Involved in Host Plant Responses to Plasmodiophora brassicae	International Journal of Molecular Sciences	2022-12-08
Sheau-Fang Hwang	Development of optimized Verticillium longisporum inoculation techniques for canola (Brassica napus)	Canadian Journal of Plant Pathology	2023-01-02
Sheau-Fang Hwang	Blackleg Yield Losses and Interactions with Verticillium Stripe in Canola (Brassica napus) in Canada	Plants	2023-01-17
Sheau-Fang Hwang	Characterization of Plasmodiophora brassicae pathotypes from western Canada in 2019–2020	Canadian Journal of Plant Pathology	2023-05-26
Rene Jacobs	Hepatocyte-derived DPP4 regulates portal GLP-1 bioactivity, modulates glucose production, and when absent influences NAFLD progression	JCI Insight	2023-01-24
Doug Korver, Martin Zuidhof	Evolution of maternal feed restriction practices over 60 years of selection for broiler productivity	Poultry Science	2022-10-01
Doug Korver	Protected biofactors and antioxidants reduce the negative consequences of virus and cold challenge while enhancing performance by modulating immunometabolism through cytoskeletal and immune signaling in the jejunum	Poultry Science	2022-12-01
Doug Korver	Systematic profiling of the chicken gut microbiome reveals dietary supplementation with antibiotics alters expression of multiple microbial pathways with minimal impact on community structure	Microbiome	2022-12-01
Doug Korver	Minimum phosphorus requirements for laying hen feed formulations	Poultry Science	2023-02-01
Doug Korver	Early-life β-glucan exposure enhances disease resilience of broiler chickens to a natural Clostridium perfringens infection	Developmental and Comparative Immunology	2023-03-01

FACULTY MEMBER(S)	TITLE	JOURNAL	PUBLICATION DATE
Doug Korver	Week-Old Chicks with High Bacteroides Abundance Have Increased Short-Chain Fatty Acids and Reduced Markers of Gut Inflammation	Microbiology Spectrum	2023-03-01
Doug Korver	Review: Current challenges in poultry nutrition, health, and welfare	Animal	2023-06-01
Vera Mazurak	Higher subcutaneous adipose tissue radiodensity is associated with increased mortality in patients with cirrhosis	JHEP Reports	2022-07-01
Vera Mazurak	Glial control of sphingolipid levels sculpts diurnal remodeling in a circadian circuit	Neuron	2022-10-05
Vera Mazurak	Dietary EPA+DHA Mitigate Hepatic Toxicity and Modify the Oxylipin Profile in an Animal Model of Colorectal Cancer Treated with Chemotherapy	Cancers	2022-11-01
Vera Mazurak	Interorgan Metabolism of Ganglioside Is Altered in Type 2 Diabetes	Biomedicines	2022-12-01
Vera Mazurak	Call for standardization in assessment and reporting of muscle and adipose change using computed tomography analysis in oncology: A scoping review	Journal of Cachexia, Sarcopenia and Muscle	2023-01-01
Vera Mazurak	Increased Expression of Hepatic Stearoyl-CoA Desaturase (SCD)-1 and Depletion of Eicosapentaenoic Acid (EPA) Content following Cytotoxic Cancer Therapy Are Reversed by Dietary Fish Oil	International Journal of Molecular Sciences	2023-02-01
Vera Mazurak	AA and DHA are decreased in paediatric AD/HD and inattention is ameliorated by increased plasma DHA	Human Nutrition and Metabolism	2023-03-01
Boyd Mori	Yeast and fruit fly mutual niche construction and antagonism against mould	Functional Ecology	2022-07-01
Boyd Mori	Distribution and life history of Contarinia brassicicola (Diptera: Cecidomyiidae) in canola (Brassica napus) grown on the Canadian Prairies	Agricultural and Forest Entomology	2022-11-01
Boyd Mori	Seed choice in ground beetles is driven by surface-derived hydrocarbons	Communications Biology	2022-12-01
Boyd Mori	Biology and management of Ceutorhynchus obstrictus (Coleoptera: Curculionidae) in spring-planted canola on the Northern Great Plains	Journal of Integrated Pest Management	2023-01-01
Boyd Mori	Characterization of the swede midge, Contarinia nasturtii, first instar larval salivary gland transcriptome	Current Research in Insect Science	2023-01-01
Boyd Mori	Pheromone trap monitoring reveals the continued absence of swede midge in the Northern Great Plains	Canadian Entomologist	2023-02-15
Boyd Mori	Comparative transcriptomic assessment of the chemosensory receptor repertoire of Drosophila suzukii adult and larval olfactory organs	Comparative Biochemistry and Physiology - Part D: Genomics and Proteomics	2023-03-01
Boyd Mori	Development of a pheromone monitoring system for the goosefoot groundling moth, Scrobipalpa atriplicella (von Röslerstamm) in quinoa, Chenopodium quinoa (Willdenow)	Crop Protection	2023-03-01
Graham Plastow	An Integrative Genomic Prediction Approach for Predicting Buffalo Milk Traits by Incorporating Related Cattle QTLs	Genes	2022-08-01
Graham Plastow	Genetic and phenotypic parameters for feed efficiency and component traits in American mink	Journal of Animal Science	2022-08-01
Graham Plastow	Signaling differences in peripheral blood mononuclear cells of high and low vaccine responders prior to, and following, vaccination in piglets	Vaccine: X	2022-08-01

FACULTY MEMBER(S)	TITLE	JOURNAL	PUBLICATION DATE
Graham Plastow	The influence of litter birth weight phenotype on embryonic and placental development at day 30 of gestation in multiparous purebred Large White sows	Animal Reproduction Science	2022-09-01
Graham Plastow	Assessing the genomic diversity and relatedness in 10 Canadian heritage chicken lines using whole-genome sequence data	Journal of Animal Breeding and Genetics	2022-09-01
Graham Plastow	Heritable and Nonheritable Rumen Bacteria Are Associated with Different Characters of Lactation Performance of Dairy Cows	mSystems	2022-09-01
Graham Plastow	Predicting dry matter intake in Canadian Holstein dairy cattle using milk mid-infrared reflectance spectroscopy and other commonly available predictors via artificial neural networks	Journal of Dairy Science	2022-10-01
Graham Plastow	Predicting methane emission in Canadian Holstein dairy cattle using milk mid-infrared reflectance spectroscopy and other commonly available predictors via artificial neural networks	Journal of Dairy Science	2022-10-01
Graham Plastow	Imputation to whole-genome sequence and its use in genome-wide association studies for pork colour traits in crossbred and purebred pigs	Frontiers in Genetics	2022-10-11
Graham Plastow	Genome-Wide Detection of Selection Signatures for Pelt Quality Traits and Coat Color Using Whole-Genome Sequencing Data in American Mink	Genes	2022-11-01
Graham Plastow	Genetic analysis of disease resilience of wean-to-finish pigs under a natural disease challenge model using reaction norms	Genetics Selection Evolution	2022-12-01
Graham Plastow	Genetic and phenotypic correlations between Aleutian disease tests with body weight, growth, and feed efficiency traits in mink	Journal of Animal Science	2022-12-01
Graham Plastow	Genome-wide detection of copy number variation in American mink using whole-genome sequencing	BMC Genomics	2022-12-01
Graham Plastow	Integrative analyses of genomic and metabolomic data reveal genetic mechanisms associated with carcass merit traits in beef cattle	Scientific Reports	2022-12-01
Graham Plastow	Predictive blood biomarkers of sheep pregnancy and litter size	Scientific Reports	2022-12-01
Graham Plastow	A chromosome-level genome assembly reveals genomic characteristics of the American mink (Neogale vison)	Communications Biology	2022-12-01
Graham Plastow	Breeding for disease resilience: opportunities to manage polymicrobial challenge and improve commercial performance in the pig industry	CABI Agriculture and Bioscience	2022-12-01
Graham Plastow	Applying multi-omics data to study the genetic background of bovine respiratory disease infection in feedlot crossbred cattle	Frontiers in Genetics	2022-12-12
Graham Plastow	Population genomics of American mink using genotype data	Frontiers in Genetics	2023-01-01
Graham Plastow	Corrigendum: Population genomics of American mink using genotype data. (Front. Genet. (2023), 14, (1175408), 10.3389/fgene.2023.1175408)	Frontiers in Genetics	2023-01-01
Graham Plastow	Exploration of plasma metabolite levels in healthy nursery pigs in response to environmental enrichment and disease resilience	Journal of Animal Science	2023-01-01
Graham Plastow	GWAS and genetic and phenotypic correlations of plasma metabolites with complete blood count traits in healthy young pigs reveal implications for pig immune response	Frontiers in Molecular Biosciences	2023-01-01

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Graham Plastow	Milk metabolomics analyses of lactating dairy cows with divergent residual feed intake reveals physiological underpinnings and novel biomarkers	Frontiers in Molecular Biosciences	2023-01-01
Graham Plastow	Plasma protein levels of young healthy pigs as indicators of disease resilience	Journal of Animal Science	2023-01-01
Graham Plastow	Genetic Analysis of Methane Emission Traits in Holstein Dairy Cattle	Animals	2023-04-01
Graham Plastow	Genome-wide association studies for additive and dominance effects for body composition traits in commercial crossbred Piétrain pigs	Journal of Animal Breeding and Genetics	2023-07-01
Carla Prado	Drivers of Dietary Choice Following a Diagnosis of Colorectal Cancer: A Qualitative Study	Journal of the Academy of Nutrition and Dietetics	2022-08-01
Carla Prado	Response to "Lean body mass should not be used as a surrogate measurement of muscle mass in malnourished men and women: Comment on Compher et al"	Journal of Parenteral and Enteral Nutrition	2022-09-01
Carla Prado	Measurement of obesity in primary care practice: chronic conditions matter	Family Practice	2022-09-24
Carla Prado	D3-Creatine dilution for body composition assessment: A direct take on the matter	Journal of Cachexia, Sarcopenia and Muscle	2022-12-01
Carla Prado	Prognostic value of myosteatosis and systemic inflammation in patients with resectable gastric cancer: A retrospective study	European Journal of Clinical Nutrition	2023-01-01
Carla Prado	Nascent to novel methods to evaluate malnutrition and frailty in the surgical patient	Journal of Parenteral and Enteral Nutrition	2023-02-01
Carla Prado	Nutrition for the high-risk surgical patient, when they need it most: Question and answer session	Journal of Parenteral and Enteral Nutrition	2023-02-01
Carla Prado	Exploring the Influence of Gut Microbiome on Energy Metabolism in Humans	Advances in Nutrition	2023-04-01
Carla Prado	Phase angle and cellular health: inflammation and oxidative damage	Reviews in Endocrine and Metabolic Disorders	2023-06-01
Carla Prado	Phase angle is associated with muscle health and cardiorespiratory fitness in older breast cancer survivors	Clinical Nutrition ESPEN	2023-06-01
Carla Prado	Prevalence and clinical implications of abnormal body composition phenotypes in patients with COVID-19: a systematic review	The American Journal of Clinical Nutrition	2023-06-01
Spencer Proctor, Caroline Richard	Low-fat dairy consumption improves intestinal immune function more than high-fat dairy in a diet-induced swine model of insulin resistance.	European journal of nutrition	2022-10-05
Spencer Proctor	Low-fat dairy consumption improves intestinal immune function more than high-fat dairy in a diet-induced swine model of insulin resistance	European Journal of Nutrition	2023-03-01
Spencer Proctor	Nonfasting remnant cholesterol and cardiovascular disease risk prediction in Albertans: a prospective cohort study	CMAJ open	2023-07-01
Caroline Richard	Consumption of the cell-free or heat-treated fractions of a pitched kefir confers some but not all positive impacts of the corresponding whole kefir	Frontiers in Microbiology	2022-11-24
Caroline Richard	Soaking to Reduce Potassium and Phosphorus Content of Foods	Journal of Renal Nutrition	2023-01-01

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Caroline Richard	Currently Available Handouts for Low Phosphorus Diets in Chronic Kidney Disease Continue to Restrict Plant Proteins and Minimally Processed Dairy Products	Journal of Renal Nutrition	2023-01-01
Caroline Richard	Phosphorus additives and their impact on phosphorus content in foods – an analysis of the USDAs Branded Foods Product Database	Journal of Renal Nutrition	2023-01-01
Caroline Richard	The impact of protein source on serum potassium and phosphate levels in adults living with advanced kidney disease	Nutrition, Metabolism and Cardiovascular Diseases	2023-03-01
Caroline Richard	Phosphorus Additives and Their Impact on Phosphorus Content in Foods—An Analysis of the USDAs Branded Foods Product Database	Journal of Renal Nutrition	2023-05-01
Paula Robson	Body Composition and Prostate Cancer Risk: A Systematic Review of Observational Studies	Advances in Nutrition	2022-07-01
Paula Robson	Development and External Validation of Partial Proportional Odds Risk Prediction Models for Cancer Stage at Diagnosis among Males and Females in Canada	Cancers	2023-07-01
Dean Spaner	Genomic Prediction Accuracy of Stripe Rust in Six Spring Wheat Populations by Modeling Genotype by Environment Interaction	Plants	2022-07-01
Dean Spaner	Identification of Spring Wheat with Superior Agronomic Performance under Contrasting Nitrogen Managements Using Linear Phenotypic Selection Indices	Plants	2022-07-01
Dean Spaner	Comparison of single-trait and multi-trait genomic predictions on agronomic and disease resistance traits in spring wheat	Theoretical and Applied Genetics	2022-08-01
Dean Spaner	Increasing grain yield while maintaining baking quality in Canada Western Red Spring wheat	Canadian Journal of Plant Science	2022-10-01
Dean Spaner	Identification of Disease Resistance Parents and Genome-Wide Association Mapping of Resistance in Spring Wheat	Plants	2022-11-01
Dean Spaner	Fall-applied residual herbicides improve broadleaf weed management in ultra-early wheat (Triticum aestivum L.) production systems on the northern Great Plains	Canadian Journal of Plant Science	2022-12-01
Dean Spaner	Forefront Canada Prairie spring red wheat	Canadian Journal of Plant Science	2022-12-01
Dean Spaner	Identification of Fusarium head blight sources of resistance and associated QTLs in historical and modern Canadian spring wheat	Frontiers in Plant Science	2023-01-01
Dean Spaner	Identification and characterization of stripe rust, leaf rust, leaf spot, and common bunt resistance in spring wheat	Crop Science	2023-07-01
Paul Stothard	Predicting dry matter intake in Canadian Holstein dairy cattle using milk mid-infrared reflectance spectroscopy and other commonly available predictors via artificial neural networks	Journal of Dairy Science	2022-10-01
Paul Stothard	Predicting methane emission in Canadian Holstein dairy cattle using milk mid-infrared reflectance spectroscopy and other commonly available predictors via artificial neural networks	Journal of Dairy Science	2022-10-01
Paul Stothard	Dietary benzoic acid and supplemental enzymes alter fiber-fermenting taxa and metabolites in the cecum of weaned pigs	Journal of Animal Science	2022-11-01
Stephen Strelkov	Identification of Novel Genes Associated with Partial Resistance to Aphanomyces Root Rot in Field Pea by BSR-Seq Analysis	International Journal of Molecular Sciences	2022-08-01

FACULTY MEMBER(S)	TITLE	JOURNAL	PUBLICATION DATE
Stephen Strelkov	The Occurrence of Clubroot in Colombia and Its Relationship with Climate and Agronomic Practices	Horticulturae	2022-08-01
Stephen Strelkov	A global pangenome for the wheat fungal pathogen <i>Pyrenophora tritici-repentis</i> and prediction of effector protein structural homology	Microbial Genomics	2022-10-10
Stephen Strelkov	The pangenome of the wheat pathogen <i>Pyrenophora tritici-repentis</i> reveals novel transposons associated with necrotrophic effectors ToxA and ToxB	BMC Biology	2022-10-24
Stephen Strelkov	Protocol: rhPCR and SNaPshot assays to distinguish <i>Plasmodiophora brassicae</i> pathotype clusters	Plant Methods	2022-12-01
Stephen Strelkov	Application of the NanoString nCounter System as an Alternative Method to Investigate Molecular Mechanisms Involved in Host Plant Responses to <i>Plasmodiophora brassicae</i>	International Journal of Molecular Sciences	2022-12-08
Stephen Strelkov	Blackleg Yield Losses and Interactions with <i>Verticillium</i> Stripe in Canola (<i>Brassica napus</i>) in Canada	Plants	2023-01-01
Stephen Strelkov	Blackleg Yield Losses and Interactions with <i>Verticillium</i> Stripe in Canola (<i>Brassica napus</i>) in Canada	Plants	2023-01-17
Stephen Strelkov	Effect of Plasma-Activated Water Bubbles on <i>Fusarium graminearum</i>, Deoxynivalenol, and Germination of Naturally Infected Barley during Steeping	Toxins	2023-02-03
Roopesh Syamaladevi	"Cold caramelization" of glucosamine under UV-C radiation	Food Chemistry Advances	2022-10-01
Roopesh Syamaladevi	High-energy cookies for undernourished adolescents: In vivo rat assay of protein quality and evaluation of storage conditions on cookies shelf-life	Future Foods	2022-12-01
Roopesh Syamaladevi, Aman Ullah	Nano-modified feather keratin derived green and sustainable biosorbents for the remediation of heavy metals from synthetic wastewater	Chemosphere	2022-12-01
Roopesh Syamaladevi	Effect of Plasma-Activated Water Bubbles on <i>Fusarium graminearum</i>, Deoxynivalenol, and Germination of Naturally Infected Barley during Steeping	Toxins	2023-02-01
Roopesh Syamaladevi	Enhanced Gel Properties of Duck Myofibrillar Protein by Plasma-Activated Water: Through Mild Structure Modifications	Foods	2023-02-01
Roopesh Syamaladevi	In-Package Atmospheric Cold Plasma Treatment and Storage Effects on Membrane Integrity, Oxidative Stress, and Esterase Activity of <i>Listeria monocytogenes</i>	Microorganisms	2023-03-01
Roopesh Syamaladevi	In-Package Atmospheric Cold Plasma Treatment and Storage Effects on Membrane Integrity, Oxidative Stress, and Esterase Activity of <i>Listeria monocytogenes</i>	Microorganisms	2023-03-01
Roopesh Syamaladevi	The Application of Cold Plasma Technology in Low-Moisture Foods	Food Engineering Reviews	2023-03-01
Roopesh Syamaladevi	Bacterial biofilm reduction by 275 and 455 nm light pulses emitted from light emitting diodes	Journal of Food Safety	2023-03-02
Roopesh Syamaladevi	Rapid detection of three mycotoxins in animal feed materials using competitive ELISA-based origami microfluidic paper analytical device (μPAD)	Analytical and Bioanalytical Chemistry	2023-04-01
Roopesh Syamaladevi	Valorization of Cold Plasma Technologies for Eliminating Biological and Chemical Food Hazards	Food Engineering Reviews	2023-06-20

FACULTY MEMBER(S)	TITLE	JOURNAL	PUBLICATION DATE
Feral Temelli	Drying of sodium alginate using Pressurized Gas eXpanded (PGX) liquid technology	Journal of CO2 Utilization	2022-07-01
Feral Temelli	Potential of sequential pearling to explore macronutrient distribution across faba beans (<i>Vicia faba</i> L.) for chemical-free hybrid fractionation	Journal of Food Composition and Analysis	2022-09-01
Feral Temelli	Supercritical adsorptive precipitation of coenzyme Q10 on sodium alginate aerogel	Journal of Supercritical Fluids	2022-10-01
Feral Temelli	Potential of air-currents assisted particle separation (ACAPS) technology for hybrid fractionation of clean-label faba bean (<i>Vicia faba</i> L.) protein	Journal of Food Engineering	2023-02-01
Feral Temelli	Isolation of clean-label faba bean (<i>Vicia faba</i> L.) proteins: A comparative study of mild fractionation methods against traditional technologies	Innovative Food Science and Emerging Technologies	2023-03-01
Malinda Thilakarathna	Impacts of humic-based products on the microbial community structure and functions toward sustainable agriculture	Frontiers in Sustainable Food Systems	2022-11-22
Malinda Thilakarathna	The Genotypic Variability among Short-Season Soybean Cultivars for Nitrogen Fixation under Drought Stress	Plants	2023-02-22
Malinda Thilakarathna	The effect of drought stress on nodulation, plant growth, and nitrogen fixation in soybean during early plant growth	Journal of Agronomy and Crop Science	2023-06-01
Aman Ullah	Influence of End-Capped Modifications in the Nonlinear Optical Amplitude of Nonfullerene-Based Chromophores with a D-π-A Architecture: A DFT/TDDEF Study	ACS Omega	2022-07-12
Aman Ullah	Influence of End-Capped Modifications in the Nonlinear Optical Amplitude of Nonfullerene-Based Chromophores with a D-π-A Architecture: A DFT/TDDEF Study	ACS Omega	2022-07-12
Aman Ullah	Bionanocomposites from spent hen proteins reinforced with polyhedral oligomeric silsesquioxane (POSS)/cellulose nanocrystals (CNCs)	Biocatalysis and Agricultural Biotechnology	2022-08-01
Aman Ullah	Synthesis and Evaluation of Thermoresponsive Renewable Lipid-Based Block Copolymers for Drug Delivery	Polymers	2022-09-01
Aman Ullah	Assessing Molecular Docking Tools to Guide the Design of Polymeric Materials Formulations: A Case Study of Canola and Soybean Protein	Polymers	2022-09-01
Aman Ullah	Synthesis, Characterization, and DFT-Based Electronic and Nonlinear Optical Properties of Methyl 1-(arylsulfonyl)-2-aryl-1H-benzod[imidazole-6-carboxylates	ACS Omega	2022-09-06
Aman Ullah	Visible light driven doped CeO2 for the treatment of pharmaceuticals in wastewater: A review	Journal of Water Process Engineering	2022-10-01
Aman Ullah	Exploration of the interesting photovoltaic behavior of the fused benzothiophene dioxide moiety as a core donor with modification in acceptors for high-efficacy organic solar cells	RSC Advances	2022-10-11
Aman Ullah	Editorial: Polymer blends for drug release systems	Frontiers in Materials	2022-11-03
Aman Ullah	Thermal stability study of catalyst (CuO/ZnO) supported on phenyl polyhedral oligomeric silsesquioxanes	Journal of Thermal Analysis and Calorimetry	2023-01-01
Aman Ullah	Characterization of biobased materials	Advanced Applications of Biobased Materials: Food, Biomedical, and Environmental Applications	2023-01-01

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Aman Ullah	Chemical modification of protein-based biopolymers for application in food packaging	Advanced Applications of Biobased Materials: Food, Biomedical, and Environmental Applications	2023-01-01
Aman Ullah	Hydrophobic Polyhedral Oligomeric Silsesquioxane Support Enhanced Methanol Production from CO2 Hydrogenation	ACS Applied Materials and Interfaces	2023-01-01
Aman Ullah	Recent Progress in Proteins-Based Micelles as Drug Delivery Carriers	Polymers	2023-02-01
Aman Ullah	Recent trends in nanochitosan-based materials for environmental remediation	Nanomaterials from Renewable Resources for Emerging Applications	2023-02-10
Aman Ullah	Hydrophobic Polyhedral Oligomeric Silsesquioxane Support Enhanced Methanol Production from CO2 Hydrogenation	ACS Applied Materials & Interfaces	2023-02-21
Aman Ullah	Chitosan based bio-nanocomposites packaging films with unique mechanical and barrier properties	Food Packaging and Shelf Life	2023-03-01
Aman Ullah	3D printed human hair - polymer continuous fiber reinforced composites through Vat Photopolymerization process	Materials Today Communications	2023-06-01
Aman Ullah	Chemically cross-linked keratin and nanochitosan based sorbents for heavy metals remediation	International Journal of Biological Macromolecules	2023-06-30
Ben Willing	Low-fat dairy consumption improves intestinal immune function more than high-fat dairy in a diet-induced swine model of insulin resistance	European Journal of Nutrition	2022-10-05
Ben Willing	Dietary benzoic acid and supplemental enzymes alter fiber-fermenting taxa and metabolites in the cecum of weaned pigs	Journal of Animal Science	2022-11-01
Ben Willing	Probiotic treatment vs empiric oral antibiotics for managing dysbiosis in short bowel syndrome: Impact on the mucosal and stool microbiota, short-chain fatty acids, and adaptation	Journal of Parenteral and Enteral Nutrition	2022-11-01
Ben Willing	Consumption of the cell-free or heat-treated fractions of a pitched kefir confers some but not all positive impacts of the corresponding whole kefir	Frontiers in Microbiology	2022-11-24
Ben Willing	Colonic innate immune defenses and microbiota alterations in acute swine dysentery	Microbial Pathogenesis	2022-12-01
Ben Willing	Maternal Mycobiome, but Not Antibiotics, Alters Fungal Community Structure in Neonatal Piglets	Applied and Environmental Microbiology	2022-12-20
Ben Willing	Week-Old Chicks with High Bacteroides Abundance Have Increased Short-Chain Fatty Acids and Reduced Markers of Gut Inflammation	Microbiology Spectrum	2023-01-31
Ben Willing	Over supplementation with vitamin B12 alters microbe-host interactions in the gut leading to accelerated Citrobacter rodentium colonization and pathogenesis in mice	Microbiome	2023-02-03
Ben Willing	Opportunities and Challenges of Understanding Community Assembly in Spontaneous Food Fermentation	Foods	2023-02-03
Ben Willing	The Gut Commensal Escherichia coli Aggravates High-Fat-Diet-Induced Obesity and Insulin Resistance in Mice	Applied and Environmental Microbiology	2023-03-29
Ben Willing	Week-Old Chicks with High Bacteroides Abundance Have Increased Short-Chain Fatty Acids and Reduced Markers of Gut Inflammation	Microbiology Spectrum	2023-04-13
Ben Willing	Cecal Microbiota Development and Physiological Responses of Broilers Following Early Life Microbial Inoculation Using Different Delivery Methods and Microbial Sources	Applied and Environmental Microbiology	2023-05-31

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Ben Willing	Comparing the impact of mixed-culture microbial communities and fecal transplant on the intestinal microbiota and metabolome of weaned piglets	FEMS Microbiology Ecology	2023-06-16
Noreen Willows	Decolonizing research in high-income countries improves Indigenous peoples' health and wellbeing	Applied Physiology, Nutrition and Metabolism	2023-01-01
Noreen Willows	"I just got tired of their healthy tips": health promotion during public health crises	Health promotion and chronic disease prevention in Canada : research, policy and practice	2023-06-01
Noreen Willows	"I just got tired of their healthy tips": health promotion during public health crises	Health Promotion and Chronic Disease Prevention in Canada	2023-06-01
Wendy Wismer	Contribution of protein microgels, protein molecules, and polysaccharides to the emulsifying behaviors of core/shell whey protein-alginate microgel systems	Food Hydrocolloids	2022-08-01
Wendy Wismer	A Review of Sensory and Consumer-related Factors Influencing the Acceptance of Red Meats from Alternative Animal Species	Food Reviews International	2022-11-01
Wendy Wismer	Drivers of Dietary Choice After a Diagnosis of Colorectal Cancer: A Qualitative Study	Journal of the Academy of Nutrition and Dietetics	2023-03-01
Jianping Wu	Structurally Modified Bioactive Peptide Inhibits SARS-CoV-2 Lentiviral Particles Expression	Pharmaceutics	2022-09-01
Jianping Wu	Tripeptide Leu-Ser-Trp Regulates the Vascular Endothelial Cells Phenotype Switching by Mediating the Vascular Smooth Muscle Cells-Derived Small Extracellular Vesicles Packaging of miR-145	Molecules	2022-10-01
Jianping Wu	An Egg White-Derived Peptide Enhances Systemic Insulin Sensitivity and Modulates Markers of Non-Alcoholic Fatty Liver Disease in Obese, Insulin Resistant Mice	Metabolites	2023-01-01
Jianping Wu	Glucoregulatory Properties of Fermented Soybean Products	Fermentation	2023-03-01
Jianping Wu	Peptidomics Study of Plant-Based Meat Analogs as a Source of Bioactive Peptides	Foods	2023-03-01
Jianping Wu	Casein Hydrolysate Alleviates Adipose Chronic Inflammation in High Fat-Diet Induced Obese C57BL/6J Mice through MAPK Pathway	Nutrients	2023-04-01
Jianping Wu	Tripeptide IRW Improves AMPK/eNOS Signaling Pathway via Activating ACE2 in the Aorta of High-Fat-Diet-Fed C57BL/6 Mice	Biology	2023-04-01
Martin Zuidhof	Review: When worlds collide – poultry modeling in the 'Big Data' era	Animal	2023-01-01
Martin Zuidhof	Symposium: Better teaching through science: incorporating the scholarship of teaching & learning	Poultry Science	2023-01-01
Martin Zuidhof	Symposium: Better teaching through science: incorporating the scholarship of teaching & learning	Poultry Science	2023-01-01
Martin Zuidhof	Multiphasic mixed growth models for turkeys	Journal of Animal Science	2023-01-01
Martin Zuidhof	Continuous exposure to red light induces photorefractoriness in broiler breeder pullets	Poultry Science	2023-04-01
Martin Zuidhof	Review: When worlds collide – Poultry modelling in the 'Big Data' era	Animal	2023-06-01

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