UNIVERSITY OF ALBERTA

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LMP Chair's Report - October 2025

1 message

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Laboratory Medicine & Pathology

Chair's Report October 2025

Dear Colleagues, Learners & Friends!

Welcome to the Fall 2025 Chair's report. I hope you have all had a great end to the summer and start to the academic year, despite recent challenges for those with school-aged children and the teachers' strike/lockout.

In this report, we are highlighting a **Spotlight on Innovation** from **Dr. Gilbert Bigras** and **Dr. Jodi Carter**, who are both Associate Professors in the Department of Laboratory Medicine & Pathology, and Anatomical Pathologists specializing in breast pathology and cancer biomarkers at the Cross Cancer Institute. Together, and with the support of many other colleagues within and beyond the Department, they are co-leading multiple initiatives focused on digital pathology and AI-based solutions to improve clinical biomarker assay performance. This innovative and impactful work provides an inspiring example of modern pathology research – I would encourage everyone to read further about it below.

With the new academic year, I wish to extend a warm welcome to the new cohort of students across our educational programs, including MLS, graduate studies (including the first two students in our new MSc Molecular Diagnostics program), and residency and fellowship programs. On the administrative support side, we recently welcomed **Jen Freund** as our new Academic Department Manager (ADM). Despite only being with us since August, Jen has already had a significant positive impact on LMP's day-to-day operations and broader systems and processes – we are extremely fortunate to have her! Please see below for further info about Jen and how to get a hold of her. We have also had several new clinical faculty members join the department over the last few months and I look forward to working with you all. Welcome!

I encourage you to review the ever-impressive list of academic contributions and achievements from LMP members over the last few months, including numerous presentations, publications, grants, and recognitions. In particular, I would like to highlight the many awards received by our graduate students, including **Dr. Alexa Thompson** (’25 PhD, Supervisor Carmen Charlton), who recently received the Governor General's Gold Medal. This marks the second year in a row that LMP graduates have received this highly prestigious award, which is a truly remarkable achievement that highlights the strength of our graduate program and the commitment of those that support it. Congratulations to all!

Looking to the future, please mark your calendars for the **2026 DRIvE Days** on April 24-25, 2026 at Lister Centre. In addition to the usual high-quality research, innovation, professional development and education updates, we have two internationally renowned speakers committed to once again give our named lectures. For those interested in Anatomical Pathology, please also mark your calendars for the next **Banff Pathology Course (Gastrointestinal Pathology)** on September 10-12, 2026. More details on these events will be available shortly.

In closing, I wish you all the best for the remainder of the semester and thank you for your ongoing dedication and contributions to the Department.

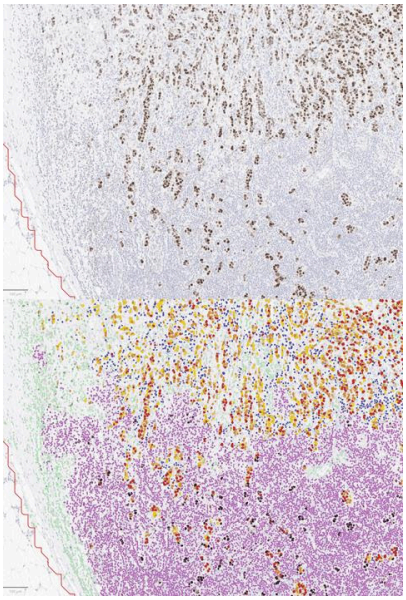
Sincerely,

Benjamin Adam, MD, FRCPC
Associate Professor and Chair
Department of Laboratory Medicine & Pathology

Spotlight on Innovation

Gilbert Bigras, MD PhD FRCPC
Associate Professor, Department of Lab Medicine & Pathology
Pathologist, Cross Cancer Institute
Medical Lead, Edmonton Zone Immunohistochemistry Laboratory
University of Alberta & Alberta Precision Laboratories

Jodi M. Carter, MD PhD FRCPC
Associate Professor, Department of Lab Medicine & Pathology
Pathologist & Site Lead Cross Cancer Institute Laboratory
University of Alberta & Alberta Precision Laboratories



Ushering in the Digital Pathology Era of Clinical Biomarker Assays

At the Cross Cancer Institute (CCI), Drs. Bigras and Carter co-lead initiatives in digital

pathology-based solutions to improve clinical biomarker assay performance. As diagnostic pathologists with expertise in breast pathology, they focus specifically on breast cancer biomarkers (project highlighted below), as well as a subset of clinically-actionable biomarkers with more wide-ranging therapeutic applications (e.g. PD-L1 and Ki-67). These projects are a team effort with key roles played by the entire CCI Pathology team and with numerous internal and external collaborators; they are supported by Alberta Precision Labs with funding support from AstraZeneca and Merck.

Digital Pathology-Based Predictive Biomarkers in Breast Cancer

Breast cancer is a common but very heterogeneous disease, and the use of molecular biomarkers to accurately determine which patients will benefit from (neo)adjuvant therapies remains a critical gap. Outsourced molecular testing for breast cancer recurrence risk prediction is effective but very expensive, highlighting the urgent need for development of artificial intelligence-driven digital algorithms to improve local immunohistochemical assays for biomarker quantification.

At the Cross Cancer Institute, we leverage histologic, immunohistochemical and, most recently, digital image data from our large immunohistochemical biomarker assay service to develop effective tools for triaging breast cancer cases for molecular test outsourcing. Specifically, we incorporate our estrogen receptor, progesterone receptor HER2 and KI67 proliferation index data into AI models based on the validated Magee Decision Algorithm tool for triaging (Magee-Women Hospital of University of Pittsburgh Medical Center). A key innovation led by Dr. Bigras in collaboration with Professor Nilanjan Ray's team (Computing Science, University of Alberta) is the replacement of visual estimation of biomarker quantitation in the triage tool with a more robust and reproducible digital pathology-assisted AI methodology. Data extraction is automated through AI-assisted image analysis – including nuclear segmentation and immunohistochemical stain intensity and percentage positive staining data. **Image Top Panel**: Conventional immunohistochemical (IHC) staining of a breast cancer specimen for estrogen receptor (ER). **Bottom panel:** Digital image of same slide with AI-supported cell classification and quantification: stromal cells (green), immune cells (purple), and tumour cells (yellow to brown-red, reflecting progressive increases in ER staining intensity enabling reproducible semi-quantitative ER assessment). Nuclear segmentation was performed using the StarDist AI algorithm, which models nuclei as star-convex polygons, and cell classification was achieved with a multilayer perceptron (MLP) model.

This digital pathology-based AI model for triaging shows promise: our data on several hundred breast cancer cases demonstrated a very strong predictive power for recurrence risk scores obtained with a commercially-available molecular assay. While additional validation studies are underway, this reproducible and cost-effective AI-driven triage tool could reduce outsourcing for molecular risk prediction assays by an estimated 40% and, most critically, streamline & optimize the care of patients with breast cancer.

Dr. Bigras trained at the Université de Montréal and Université Joseph Fourier (Grenoble, France). He worked in Switzerland and arrived in Edmonton in 2004. His research focuses

on the application of digital pathology and artificial intelligence to biomarker quantification. Dr. Bigras has authored/co-authored 75 peer-reviewed publications and is actively funded through Mitacs, a Canadian not-for-profit organization that fosters research partnerships between academia and industry, as well as several industry partners.

Dr. Carter trained at the University of Alberta followed by Mayo Clinic where she worked for 10 years prior to returning to Edmonton in 2022. In on-going collaborations with colleagues at Mayo Clinic, Dr. Carter's research portfolio focuses on the use of high-plex digital spatial platforms for biomarker discovery in triple-negative breast cancer. She has authored/co-authored 150 peer-reviewed papers. She is actively funded by the NIH & industry partners.

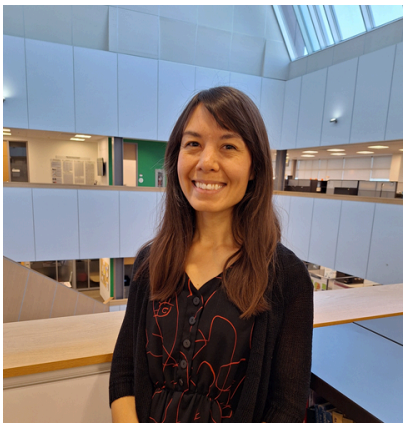
New Appointments

The Department welcomes:
· Dr. Yvonne Littler, Clinical Lecturer – Assistant Chief Medical Examiner/Forensic Pathologist, OCME Calgary
· Dr. Thane Kubik, Clinical Lecturer – General Pathologist & Transfusion Medicine Physician, APL Calgary & Edmonton
· Dr. Ahmed Shah, Clinical Lecturer – Anatomical Pathologist, APL Base Lab
· Dr. Conrad Moher, Clinical Lecturer – Anatomical Pathologist, UAH & APL Base Lab
· Dr. Hang Yang, Clinical Lecturer – Anatomical Pathologist, APL Base Lab
· Dr. Devin Godfrey, Clinical Lecturer – Anatomical Pathologist, Royal Alexandra & Misericordia Community Hospitals

New Appointments for Faculty/Clinical Faculty:

Dr. Steven Drews
· Director Medical Microbiology and Surveillance and Discovery Laboratory, Medical Microbiology, Canadian Blood Services

Welcome!



Please welcome **Jen Freund** as our new **Academic Department Manager** (ADM). Jen is our first point of contact for administrative help with HR and finance for LMP. She is responsible for management of the department's systems and processes, ensuring effective day-to-day operation of the department, providing oversight of financial and human resources management; academic program administration; communications; space and facilities management in collaboration with the University and AHS.

Jen is located on the 5th Floor of the Kipnes Academy (ECHA). She will be responding to requests being sent to lmphrfin@ualberta.ca and you can also reach her at jen.freund@ualberta.ca. Her previous department was Oncology and she has been with the Faculty of Medicine & Dentistry in various capacities since 2008.

Save the Date!

DRIvE Days - April 24 & 25, 2026

Banff Pathology Course - September 10-12, 2026

Graduate Studies

New Graduate Students
We are pleased to welcome the following students:

- Aranas, Abigail, MSc Molecular Diagnostics, Fall 2025
- Blake, Lauren, MSc PA, Fall 2025
- Buchko, Sarah, MSc TS, Fall 2025
- Chahal, Navdeep, MSc TS, Fall 2025
- Das, Sharanya, MSc, Fall 2025
- D'Souza, Mason, MSc, Fall 2025
- Grubisa, Garrett, MSc, Fall 2025
- Grynoch, Donald, MSc, Fall 2025
- Powell, Brooklynn, MSc Molecular Diagnostics, Fall 2025
- Shepherd, Kade, MSc, Fall 2025
- Simpson, Ethan, MSc, Fall 2025
- Sosinkalo, Danik, MSc PA, Fall 2025
- Uppal, Gursevak, MSc, Fall 2025
- Wang, Jiaxuan (Zoe), MSc PA, Fall 2025
- Zhao, Fan, MSc, July 2025

Awards
Congratulations to these students who received awards acknowledging their research and/or supporting their graduate programs:

John and Patricia Schlosser Environment Scholarship
- Jenny Chau

HE Bell Scholarship
- Abigail Aranas

Bell McLeod Graduate Entrance Scholarships

- Sharanya Das
- Mason D'Souza
- Garrett Grubisa
- Gursevak Uppal
- Fan Zhao
- Danik Sosinkalo
- Lauren Blake
- Zoe Wang
- Abigail Aranas
- Brooklyn Powell
- Ethan Simpson

University of Alberta Graduate Recruitment Scholarship

- Garrett Grubisa
- Gursevak Uppal

Andrew Stewart Memorial Graduate Prize

- Huyan Xiao

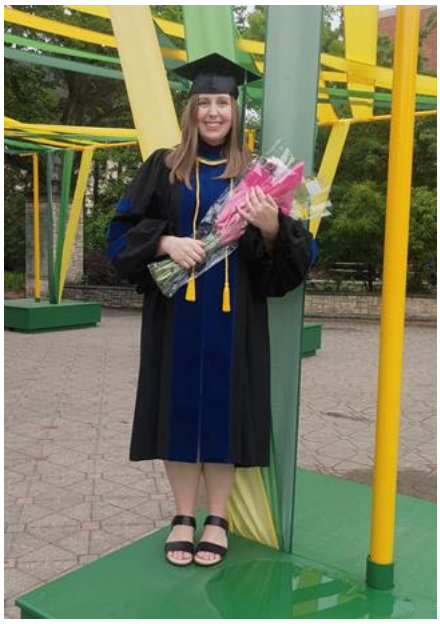
Milestones & Updates

The new LMP course-based MSc specialization in Molecular Diagnostics program officially welcomed the first cohort of 2 students in September 2025.

Dr. Gwen Clarke presented an update at Vein to Vein Provincial Conference on the MSc Transfusion Science program.

The LMP graduate program will be participating in a Quality Assurance Review in 2026. The program has begun the process of preparing a self assessment report and other materials for the review including video tours of department lab spaces.

The department of Laboratory Medicine and Pathology has proudly secured two back-to-back Governor General's Gold Medals, a remarkable achievement that highlights the strength of our graduate program. We caught up with our most recent recipient, Alexa Thompson, who received the prestigious award at the 2025 Spring Convocation. She shared some reflections on her time in the grad program and what this recognition means to her.



What initially drew you to the LMP Grad Program?

Coming into grad school, I knew I wanted to do a dry lab project that incorporated infectious diseases and pregnant women. I ultimately chose the LMP Program because of my amazing supervisor, Dr. Carmen Charlton, and her oversight of the prenatal communicable disease and hepatitis testing programs at the provincial public health lab during that time.

What achievement, accomplishment or moment are you most proud of from your time in the LMP graduate program?

In terms of my research, I would probably have to say seeing how my research influenced guideline recommendations made by the Public Health Agency of Canada, Society of Obstetrics and Gynecology Canada, and Action Hepatitis Canada. I was also fortunate enough to publish my research in one of the top hepatology journals in the world, which was a huge accomplishment for me. One of the best moments of my program was the day I found out I won the CIHR Vanier Scholarship. But I'm overall the proudest of the relationships I was able to build with other people, which I believe helped me accomplish everything I was able to and get me to where I am now.

What was the biggest challenge you faced? How did you stay motivated?

Probably imposter syndrome. I think academia sometimes has a way of making you question your knowledge, adequacies, and worth. To help combat this and stay motivated, I always reminded myself that nobody will know as much about your research project as you will, I wouldn't have gotten this far without having sufficient knowledge and experiences that make me worthy of the opportunities I have now, and learning is a lifelong experience. These three things were a bit of a mantra I revisited many times during my PhD, and I hope other students read this and embody them too.

Looking back, is there any advice you would give to your younger self starting out as a graduate student?

Criticism is not a reflection of you as a person. I think it's important to acknowledge that everyone has different perspectives in life that aren't always going to align with yours or your work. Because of this, receiving criticism or feedback is a great learning opportunity to understand how other peoples' perspectives may improve the quality of your work.

What comes next for you in your professional journey?

Directly after finishing my PhD, I completed a contract with the federal government as a Policy Analyst with Indigenous Services Canada. I am now working as a Senior Policy Advisor in the Indigenous Health Division within the Government of Alberta, where I get to incorporate Indigenous perspectives into new health policies that ensure equitable access to healthcare for First Nations, Métis, and Inuit populations across Alberta.

Can you comment on your research and contribution to science, the research being done in the Charlton lab, and anything else you would like to highlight about your research and winning this award:

My research in the Charlton lab evaluated healthcare programs for individuals infected with hepatitis C (HCV) in Alberta, with a focus on pregnant women, their babies, and populations that often experience barriers to care. During my program, I validated a new one-step HCV testing algorithm and evaluated new HCV screening guidelines for pregnant women and their babies. Overall, my research contributed to the permanent adoption of one-step HCV testing and screening of all pregnant women for HCV in Alberta, which influenced new HCV policy and guideline recommendations across Canada.

Fun fact: in 2022, I was interviewed by FoMD where during that interview, I was asked where I could see myself in five years. I responded that I hoped to be working in health policy for the government to support policies for women, children, and/or marginalized populations. Just three years later, I am happy to say I have been able to achieve that goal!

Alexa's PhD Supervisor, Dr. Carmen Charlton, shared some insight on her time supervising Alexa:

It has been an absolute pleasure supervising Alexa during her time in the program. She is a deeply self-driven and motivated researcher, with a remarkable creative spark and a genuine passion for her work. Beyond her academic excellence, Alexa is also an exceptionally caring and thoughtful individual, always generous with her time and support for others. The Governor General's Gold Medal is a well-deserved recognition of both her outstanding contributions and the integrity she brings to everything she does. I am incredibly proud of her achievements and excited to see what she does next.

Scholarly Achievements
June 1, 2025 to September 30, 2025

Awards & Recognitions

Dr. Marcia Abbott
• International Academy of Cytology Diploma Certification (June 2025)

Dr. Amir Landi
• The American Society of Transplantation Fellows Symposium Travel Grant (August 2025), Value: ~ $1000 USD (Registration discount, Flight, & Accommodation), Funding Agency: The American Society of Transplantation, Event: The American Society of Transplantation Fellows Symposium on Transplantation 2025, Lincolnshire, IL, USA, September 19-21, 2025
• The Postgraduate Medical Education (PGME) Prestigious Scholarly Travel Fund (July 2025), Value: $2000 CAD, Funding Agency: Postgraduate Medical Education, Faculty of Medicine & Dentistry, College of Health Sciences, University of Alberta, Edmonton, AB, Canada, Event: The American Society of Histocompatibility & Immunogenetics 51st Annual Meeting, Orlando, FL, USA, October 6-10, 2025

Dr. Janet Zhou
• Passed certification exams for the Canadian Academy of Clinical Biochemistry (CACB)

Grants

Dr. Roger Leng
• CIHR Project Grant as a principal investigator from the CIHR Project Competition announced on July 18, 2025, valued at $650,250.00 for a five-year period, from 2025 to 2030

Dr. Natalie Marshall
• APL Public Health Laboratory summer research project grant, Term: June-August 2025, Value: $10,000

Dr. David Wishart
• Funding agency/Sponsor: WCHRI, Project title: Advanced blood testing to predict menopausal-driven diseases, Oct-01-2025 to Sep-30-2027, Total Award: $59,970

Recent Presentations

Dr. Marcia Abbott:
1. “The Role of Clinical Laboratories in Alberta’s Transition to HPV Primary Screening”, Sept 4, 2025,

Invited speaker for HPV Prevention and Screening Workshop, Discussed Alberta's transition to primary HPV testing in terms of the clinical laboratory role, including QA, potential lack of readiness, interpretation, reporting, workflow, sequalae for workload, KPIs, opportunities for future research, Calgary, Alberta

Dr. Brinda Balachandra & Dr. David Beyer

Podcast:

1. Featured on YEGMD podcast discussing diagnostic and molecular pathology and diagnostic and clinical pathology careers, Sept 22, 2025 episode, The Path Less Taken: Exploring Lab Medicine and Pathology - YEGMDPod | Podcast on Spotify

Dr. Steven Drews

Abstracts:

1. Drews, SJ, Charlton, C., Craney, C, Resz, I, Rebbapragada, A., Tang, E., Bigham, M., Uzicanin, S, O'Brien, S.F. "Rates of syphilis unconfirmed and confirmed donations in Canadian blood donors during a two-year period of epidemiologic, policy and test-based change". ISBT, Milan, Italy, May 31-June 4, 2025.
2. Drews, S.J., Charlton, C, Ramirez-Arcos, S., Jenkins, C., Conrod, V., Todd, L., Osmond, L, O'Brien, S.F., Pambrun, C. "Lessons learned from an implementation of whole blood lysis tube collection for a national tick-borne disease surveillance program in Canadian blood donors". ISBT, Milan, Italy, May 31-June 4, 2025.

Presentations:

1. "Malaria - Nucleic acid testing and donor deferral criteria changes. Pre-authorization amendment meeting June 17, 2025", Steven Drews and Mindy Goldman, Virtual, Health Canada, June 17, 2025
2. "West Nile virus in Canada", European Blood Alliance, Emerging Infectious Diseases group. Online. August 18, 2025
3. "Parvovirus B19 and Hepatitis A virus in Canadian Blood Services donation specimens." European Blood Alliance, Emerging Infectious Diseases group. Online. June 23, 2025
4. Chair, "Blood safety in a changing world: Emerging pathogens" ISBT, Milan, Italy, May 31-June 4, 2025
5. "Emerging Pathogens and Parasitology (EPP) Subgroup" with E. Bloch, ISBT, Milan, Italy, May 31-June 4, 2025
6. "Malaria: Where are we now?" ISBT, Milan, Italy, May 31-June 4, 2025
7. "Malaria policy" Canadian Blood Services and Hema-Quebec, Donor Selection Criteria Working Group. Online, June 11, 2023
8. "Quarterly Emerging Pathogens Report (Q1 FY25-26)" with Mindy Goldman and Chantale Pambrun, Canadian Blood Services, Executive Management Team, Online August 6, 2025
9. "Infectious diseases safety report" Canadian Blood Services Safety, quality and innovation committee meeting, With Isra Levy. Online. September 8, 2025
10. "Babesia donor surveillance-Overview and 2026 Southwestern Ontario Implementation." Canadian Blood Services Staff, with Chantale Pambrun and Kay Romans. Online. October 3, 2025.
11. "Lessons learned Babesia and Plasmodium NAT exploration: Canadian Blood Services July 2025" Canadian Blood Services Transmissible Diseases Laboratory Staff, Calgary, AB, July 30, 2025
12. MLSCI 470/570 - Moderated two one-hour case study session - "Transfusion-transmitted babesiosis and Chagas". University of Alberta, in person. September 25, 2025

Dr. Janet Elliott:

1. Janet A. W. Elliott (Invited Speaker). (2025). "Faculty of Engineering graduate school information session." Organized by Work Integrated Learning, Co-op and Engineering Career Connections, Faculty of Engineering, University of Alberta, Edmonton, Canada
2. Janet A. W. Elliott (Invited Speaker). (August, 2025). "Thermodynamics of aqueous systems with fluid interfaces." Institute for Atmospheric and Climate Science, ETH Zurich, Zurich, Switzerland
3. Janet A. W. Elliott (Invited Speaker). (2025). "Thermodynamics in cell and tissue cryopreservation:

How math can save knees." Faculty of Engineering Graduate Research Symposium (FEGRS), University of Alberta, Edmonton, Canada
4. Soheil Rezvani (Oral presenter), Janet A. W. Elliott. “Thermodynamic investigation of homogeneous bubble nucleation from a multicomponent liquid–gas solution.” 99th ACS Colloids and Surface Science Symposium. 18th IACIS Conference. June 22-26, 2025. University of Alberta, Edmonton, AB, Canada
5. Faranak Yadegari (Oral presenter), Janet A. W. Elliott. “Confounding experimental variables in measuring cell volume osmotic responses relevant to cryopreservation.” 99th ACS Colloids and Surface Science Symposium. 18th IACIS Conference. June 22-26, 2025. University of Alberta, Edmonton, AB, Canada
6. MingHan Yu (Oral presenter), Leah A. Marquez-Curtis, Janet A. W. Elliott. “Intracellular ice detection by freeze substitution and automated image analysis.” 99th ACS Colloids and Surface Science Symposium. 18th IACIS Conference. June 22-26, 2025. University of Alberta, Edmonton, AB, Canada
7. MingHan Yu (Oral presenter), Leah A. Marquez-Curtis, Janet A. W. Elliott. “Correlation of intracellular ice formation with various parameters in endothelial monolayer cryopreservation.” 62nd Annual Meeting of the Society for Cryobiology. July 22-25, 2025. Hannover, Germany
8. Faranak Yadegari (Oral presenter), Janet A. W. Elliott. “Confounding experimental variables in measuring cell volume osmotic responses relevant to cryopreservation.” 62nd Annual Meeting of the Society for Cryobiology. July 22-25, 2025. Hannover, Germany
9. Hadi Afsaneh (Oral presenter), Leah A. Marquez-Curtis, Janet A. W. Elliott. “Cryopreservation of human brain vascular pericytes in suspension.” 62nd Annual Meeting of the Society for Cryobiology. July 22-25, 2025. Hannover, Germany
10. Leah A. Marquez-Curtis (Oral presenter), Janet A. W. Elliott. “Interrupted slow cooling of mouse cardiac endothelial cell monolayers.” 62nd Annual Meeting of the Society for Cryobiology. July 22-25, 2025. Hannover, Germany
11. Korinne M. Tirones (Oral presenter), Mohammadhamed Shahsavari, Evan J. C. Andrin, Janet A. W. Elliott, Nadr M. Jomha. “Cryopreservation of porcine intact tibial plateaus using vitrification.” 62nd Annual Meeting of the Society for Cryobiology. July 22-25, 2025. Hannover, Germany
12. Evan J. C. Andrin, Mohammadhamed Shahsavari, Korinne M. Tirones (Oral presenter), Kezhou Wu, Janet A. W. Elliott, Nadr M. Jomha. “Comparison of cryoprotective agent exposure time and hydrogel application for vitrification of porcine meniscus.” 62nd Annual Meeting of the Society for Cryobiology. July 22-25, 2025. Hannover, Germany
13. Mohammadhamed Shahsavari, Kezhou Wu, Adibehalsadat Ghazanfari, Michael Doschak, Michael Turner, Mark Sommerfeldt, Janet A. W. Elliott (Oral presenter), Nadr M. Jomha. “Successful transplantation of vitrified and fresh swine osteochondral allografts.” 62nd Annual Meeting of the Society for Cryobiology. July 22-25, 2025. Hannover, Germany
14. Evan J. C. Andrin (Speaker), Mohammadhamed Shahsavari, Korinne M. Tirones, Janet A. W. Elliott, Nadr M. Jomha. "Cryopreservation of porcine whole meniscus by vitrification." Canadian Orthopaedic Association (COA) / Canadian Orthopaedic Research Society (CORS) / Canadian Orthopaedic Residents’ Association (CORA) Annual Meeting, June 2025, Vancouver, Canada
15. Mohammadhamed Shahsavari (Speaker), Kezhou Wu, Adibehalsadat Ghazanfari, Michael Doschak, Michael Turner, Mark Sommerfeldt, Janet A. W. Elliott, Nadr M. Jomha. "Transplantation of vitrified osteochondral allografts for cartilage repair in a swine model". Canadian Orthopaedic Association (COA) / Canadian Orthopaedic Research Society (CORS) / Canadian Orthopaedic Residents’ Association (CORA) Annual Meeting, June, 2025, Vancouver, Canada
16. Korinne M. Tirones (E-Poster presenter), Mohammadhamed Shahsavari, Evan J. C. Andrin, Janet A. W. Elliott, Nadr M. Jomha. "Cryopreservation of porcine intact tibial plateau using vitrification". Canadian Orthopaedic Association (COA) / Canadian Orthopaedic Research Society (CORS) / Canadian Orthopaedic Residents’ Association (CORA) Annual Meeting, June, 2025, Vancouver, Canada

Dr. Victoria Higgins
Oral Presentation:

1. Higgins V (presented on my behalf by Dr. Michelle Parker due to illness day of presentation). “Tapping into the Potential of CSF for the Investigation of Multiple Sclerosis: Harmonized Laboratory Reporting and Emerging Biomarkers”; Autoantibody Summit (Conference of the Autoantibody Network); Edmonton, AB; 2025 Sept 18

Poster Presentation/Abstract:

1. Higgins V, Beriault D, Parker ML, Bhayana V, Booth RA, Chen Y, Collier CP, Gagne M, Gifford JL, Ismail O, Macri J, Newbigging A, Olayinka L, Rodriguez-Capote K, Yang L, Freedman M, Moore C, Poliakov I, Schneider R, Thebault S. “Harmonizing Cerebrospinal Fluid Analysis for Multiple Sclerosis Investigation: An Update from the hCAMI Subcommittee of the Canadian Society of Clinical Chemists (CSCC)”. Joint Association for Diagnostics & Laboratory Medicine (ADLM) and Canadian Society of Clinical Chemists (CSCC) Annual Meeting; Chicago IL, USA; 2025 July 30

Dr. Amir Landi

Presentations/Abstracts:

1. “Liver Transplantation under Immune Storm: Resilience vs Vulnerability, Risks, and Assay Optimization”, The 10th Annual HLA Workshop, Alberta Precision Laboratory & University of Alberta, Edmonton, AB, Canada, April 25, 2025
2. “Liver Transplantation: When the immune system alarms, but liver charms!”, Ground Rounds, Laboratory Medicine & Pathology, University of Alberta, Edmonton, AB, Canada, May 8, 2025
3. “Utilization of HLA-restricted antigen presentation and population immunogenetics in designing peptide-based hepatitis C virus vaccine”, The 18th International Summer School on Immunogenetics, American Society of Histocompatibility & Immunogenetics, Merida, Mexico, April 6-9, 2025, Oral Presentation: Amir Landi, Abstract, A. Landi, J. Law, M. Logan, D. Hockman, M. Houghton
4. “Current landscape of HLA testing for disease association and drug sensitivity reactions in Canadian HLA laboratories”, Canada Blood Services Journal Club, September 11, 2025, Oral Presentation: Amir Landi & Jenny Tran
5. “Current landscape of HLA testing for disease association and drug sensitivity reactions in Canadian HLA laboratories”, ASHI Quarterly 3: September 15, 2025, Date: To be published, Article: A. Landi, E. Dijke, A. Halpin, J. Lan, J. Tran
6. “Crossmatch alarms, liver charm: A strong positive crossmatch complemented by more testing”, The American Society of Histocompatibility & Immunogenetics 51st Annual Meeting, Orlando, FL, USA, October 6-10, 2025, Abstract: A. Landi, A. Halpin, D. Tosczak, E. Dijke

Dr. Mao-Cheng Lee

Abstract:

1. Zhan (Cecilia) Shi, Carmen Tse, Sivanthini Palanivetpillai, Ashley N. Williams, Sa’adiya Umar, Ameeta E. Singh, Mao-Cheng Lee, Natalie C. Marshall, "Unmasking rare Ignatzschineria bacteremia: Clinical history informs modern diagnostics", AMMI Canada – CACMID Annual Conference 2025, Calgary, Alberta. APRIL 29 – MAY 2, 2025

Dr. Natalie Marshall

Abstracts:

1. McPhee, Brian; Zora, Krupa; Marshall, Natalie C, “Keeping pace with syphilis rates: The ProvLab AIX1000 Story”. ProvLab Educational Seminar Series. Edmonton, AB. July 30, 2025
2. Marshall, Natalie C.; Rymak, Stacy; van der Walt, Petrus J.; Snippes Vagnone, Paula; Croxen, Matthew; Simonovic, Ivanka; Tyrrell, Gregory J.; Tipples, Graham A. “Paraburkholderia fungorum: A Burkholderia mallei imposter & unexpected blood culture contaminant in Canada and the US”. AMMI Canada—CACMID Annual Conference 2025, Calgary, AB. May 2, 2025
3. Shi, Zhan (Cecilia); Tse, Carmen; Palanivetpillai, Sivanthini; Williams, Ashley N.; Umar, Sa’adiya; Singh, Ameeta E.; Lee, Mao-Cheng; Marshall, Natalie C. “Unmasking rare Ignatzschineria bacteremia:

Clinical history informs modern diagnostics". AMMI Canada—CACMID Annual Conference 2025, Calgary, AB. May 2, 2025

Dr. Michael Mengel

Invited Lecture:

1. American Society of Transplantation Fellows Symposium on Transplant Medicine (September 19. – September 21.) 2025 Chicago, IL, USA: "Post-Transplant Advances and Diagnostics-Biopsy Based Transplant Diagnostics"

Dr. Judy Qiu

Abstracts:

1. Qiu JY, Lee BE, Rosychuk RJ, Bhavanam S, Tipples G, Crowe A, Hubert CRJ, Parkins MD, Pang XL. "Wastewater-based Surveillance of Norovirus and Sapovirus from 2020 - 2024 in Alberta, Canada". The 9th international Calicivirus conference, Banff, Canada, Sep 2025
2. Qiu JY, Pang XL, Tipples G. "The Prevalence of Human Sapovirus in Alberta, Canada from 2018-2024". The 9th international Calicivirus conference, Banff, Canada, Sep 2025
3. Immaraj L, Bhavanam S, Jiang Q, Qiu JY, Gao TJ, Parkins MD, Hubert CRJ, Lee BE, Pang XL. "Hybrid Capture Genome Sequencing in Wastewater-Based Surveillance for Tracking Norovirus and Sapovirus in Alberta communities". The 9th international Calicivirus conference, Banff, Canada, Sep 2025
4. Pabbaraju K, Gill K, Wong A, Qiu JY, Tipples G, Lee BE, Pang XL. "Norovirus epidemiology in Alberta, Canada during July 2022 to March 2025". The 9th international Calicivirus conference, Banff, Canada, Sep 2025
5. Tyagi V, Qiu JY, Immaraj L, Christie E, Halloran K, Cervera C, Pang XL, Kabbani D. "Norovirus and Sapovirus Associated Chronic Diarrhea in SOT: Does Viral Load Correlate with Severity of Symptoms?" The 9th international Calicivirus conference, Banff, Canada, Sep 2025
6. Raymond P, Allen M, Blain R, Larocque E, Takagi H, Qiu JY, Oka T. "Evaluation of sensitivity and heat susceptibility of isolated human Sapovirus in the HuTu80 cells culture model". The 9th international Calicivirus conference, Banff, Canada, Sep 2025
7. Wen J, Peng K, Lee BE, Rosychuk RJ, Gao TJ, Qiu JY, Li MY, Risling E, Little LA, Sikora C, Pang XL, Ohinmaa A. "Wastewater-based surveillance for early COVID-19 case detection and mass testing prediction in long-term care facilities". 8th International Conference on Econometrics and Statistics, Tokyo, Japan, Aug 2025
8. Nyblade C, Zhou P, Lavoie L, Aboezz Z, King B, Hensley C, Frazier M, Frazier A, Truong E, Qiu JY, Pang XL, Yuan LJ. "Lack of Human Norovirus Detection in Salivary Glands of Gnotobiotic Pigs". American Society for Virology 44th Annual Meeting, Montreal, Canada, July 2025

Dr. Iveta Sosova:

1. Invited speaker: Conference: Building Bridges, Canadian PKU and Allied Disorders; Calgary Aug 21-24, 2025
2. Conference: Newborn Screening Ontario Symposium, September 18-19 in Ottawa, Abstract presented: "Long-chain Fatty Acid Oxidation Disorders: A Review of Newborn Screening Around the Globe for LC-FAOD". Ida Schwartz, Jennifer Audi, Sarah C. Grünert, Deborah Marsden, Pinay Kainth, David Kasper, Tatiele Nalin, Marzia Pasquali, Vanessa Rangel-Miller, Iveta Sosova, Kimimasa Tobita, Go Tajima, Nicole Miller. Newborn Screening Ontario Symposium; September 18-19, 2025, Ottawa, Ontario

Dr. Greg Tyrrell

Presentation:

1. 22nd Lancefield Symposium on Streptococci and Streptococcal Diseases (LISSSD). Talk entitled: "At the margins of society and in the middle of the iGAS story." Keynote Plenary talk. June 4, 2025. Brisbane, Australia

Abstracts:

1. Nasreen*, T., and G.J. Tyrrell. 2025. “Surveillance of antimicrobial susceptibility in invasive pneumococcal disease (IPD) causing Streptococcus pneumoniae in Alberta, Canada from 2010-2023”. 29th Annual Immunet Research Day (IRD), UAlberta. Matrix Hotel, Edmonton, Alberta. June 13, 2025. Awarded best poster for Post-doctoral Fellow and Senior Graduate Students.
2. Ngo*, S., A. Thompson* and G.J. Tyrrell 2025. “Province wide analysis of invasive group A streptococcus and respiratory virus coinfections 2018-2023”. Poster Presentation. 29th Annual Immunet Research Day (IRD), UAlberta. Matrix Hotel, Edmonton, Alberta. June 13, 2025.
3. Good, M. F., M. Pandey, S. Reynolds, V. Ozberk, V. Meier-Stephenson, M. Hawkes, A. Lepletier, A. Calcutt, A. Seth, I. Ogbuehi, A. Tse-Chang, C. Burton, B. Tyrrell, E. Keeffe, C. Davis, S. Jamieson, J. Osowicki, A.C. Steer, G. J. Tyrrell, D. L. Tyrrell, and M. Houghton. 2025. “Phase I Trial of a Peptide-based Vaccine to Prevent Streptococcus pyogenes Infection”. 22nd Lancefield International Symposium on Streptococci and Streptococcal Diseases (LISSSD). Brisbane, Australia. June 1-5, 2025.
4. Ngo*, S., A. Thompson* and G.J. Tyrrell. 2025. “Invasive group A streptococcus and respiratory viral co-infections in Alberta, Canada”. 22nd Lancefield International Symposium on Streptococci and Streptococcal Diseases (LISSSD). Brisbane, Australia. June 1-5, 2025.
5. Golden, A., A. Griffith, G.J. Tyrrell, J.V. Kus, A. McGeer, M-C Domingo, J.M. Grant, J. Minion, P. van Caeseele, G. Desnoyers, E. Simms, R. Taylor, X. Ding, L. Steven, J. McFadzen, C. Primeau and I. Martin. 2025. “Update on invasive group A streptococcus hypervirulent M1UK clone in Canada, 2024”. 22nd Lancefield International Symposium on Streptococci and Streptococcal Diseases (LISSSD). Brisbane, Australia. June 1-5, 2025.

Dr. David Wishart

Abstracts:

1. David S. Wishart, “Pan-Canadian Genome Library”, PCGL Team Meeting, Montreal, Canada — June 11, 2025
2. David S. Wishart, “Automating and Accelerating NMR Metabolomics”, NMR Metabolomics Symposium, Nantes, France — June 14, 2025
3. David S. Wishart, “Metabolomics Data Exchange: Taking Stock”, MetabolomeXchange Stakeholders Meeting, Prague, Czech Republic — June 21, 2025
4. David S. Wishart, “Metabolomics Data Standardization and Harmonization for AI”, Metabolomics 2025, Prague, Czech Republic — June 24, 2025
5. David S. Wishart, “Making Metabolomics Matter”, Workshop: III METCORE Metabolomics School – Food Metabolomics: From Food Resources to Industrial Food Processing and Food Intake, Cartagena, Colombia — July 19, 2025
6. David S. Wishart, “Making Metabolomics Matter”, Seminar Series, Irapuato, Mexico — August 23, 2025
7. David S. Wishart, “Using Deep Learning to Decipher the Dark Metabolome”, MANA 2025, Banff, Canada — September 2, 2025
8. David S. Wishart, “The Role of AI in Precision Nutrition”, Conference on Diet and Optimum Health, Oregon, United States — September 8, 2025
9. David S. Wishart, “Using Machine Learning to Facilitate the Identification of Harmful Chemicals”, CBRNe Protection Symposium, Malmö, Sweden — September 28, 2025

Recent Publications

Dr. Ben Adam

Peer-reviewed papers:

1. Wagner MJ, da Silva GMA, Hatami S, Khan M, Lin L, Wang X, Pidborochynski T, Adam BA, Nagendran J, Conway J, Freed DH. “Subnormothermic machine perfusion of neonatal and small sized pediatric donor hearts”. ASAIO J. 2025 Aug 1;71(8):652-659. PMID: 39700028. [IF 3.100]

2. Zielinski D, Goutaudier V, Sablik M, Divard G, Aubert O, Piedrafita A, Mezine F, Dagobert J, Certain A, Robin B, Gueguen J, Rabant M, Duong van Huyen JP, Sannier A, Randoux-Lebrun C, Maanaoui M, Lionet A, Gibier JB, Gnemmi V, Le Quintrec M, Chauveau B, Vermorel A, Couzi L, Bestard O, Elias M, Louis K, Rosales IA, Smith RN, Kung VL, Anglicheau D, Legendre C, Del Bello A, Huang E, Adam BA, Kamar N, Colvin RB, Mengel M, Lefaucheur C, Loupy A. “Molecular diagnosis of kidney allograft rejection based on the Banff Human Organ Transplant (B-HOT) gene panel: a multicenter international study”. Am J Transplant. 2025 Aug;25(8):1631-1642. PMID: 40345499. [IF 8.900]
3. Hatami S, Hefler J, Mainardi da Silva G, Wagner M, Kha M, Himmat S, Shan S, Wang X, Adam BA, Shapiro J, Nagendran J, Freed D. “Superior cardiac protection in combined ex-situ perfusion of heart and liver”. J Heart Lung Transplant. 2025 Sep 24:S1053-2498(25)02275-2. doi: 10.1016/j.healun.2025.09.012. Online ahead of print. PMID: 41005516. [IF 7.865]

Dr. Matthew Croxen:
1. Wong J, Refaat A, Villacampa-Teixeira P, Patkowski JB, Lapa N, Ortiz J, Dzierlega K, Roberts B, Tollenaar S, Croxen M, Thiesen A, Kao D, Willing B, Clemente-Casares X, Costa TRD, Elhenawy W. “The assembly of a hybrid type IV secretion system by a Crohn's disease-associated Escherichia coli strain”. Nat Commun. 2025 Oct 2;16(1):8797. doi: 10.1038/s41467-025-63859-4. PMID: 41038829; PMCID: PMC12491478

Dr. Steven Drews
Peer-reviewed manuscripts:
1. Goldman M, Drews SJ, Brumme C, Lapointe HR, Tang T, Osmond L, O'Brien SF. “Nondisclosure of use of antiretroviral medications in Canadian blood donors”. Transfusion. 2025 Sep 7. doi: 10.1111/trf.18393. Epub ahead of print. PMID: 40916486 https://pubmed.ncbi.nlm.nih.gov/40916486/
2. Chen J, Yu Y, O'Brien SF, Charlton CL, Drews SJ, Heffernan JM, Smith AM, Nakagama Y, Kido Y, Buckeridge DL, Russell WA. “The impact of statistical adjustment for assay performance on inferences from SARS-CoV-2 serological surveillance studies”. Am J Epidemiol. 2025 Jul 22:kwaf157. doi: 10.1093/aje/kwaf157. Epub ahead of print. PMID: 40699212
3. Charlton CL, Drews SJ, Makowski K, Hawes G, Cranney C, Robinson A, Wood H, Bigham M, O'Brien SF. “West Nile Virus positivity amongst Canadian blood donors and effectiveness of off-season screening”. Transfusion. 2025 Aug;65(8):1484-1489. doi: 10.1111/trf.18326. Epub 2025 Jun 28. PMID: 40579884; PMCID: PMC12315625 https://pubmed.ncbi.nlm.nih.gov/40579884/

Dr. Janet Elliott
Peer-reviewed journal papers:
1. Mohammadhamed Shahsavari, Kezhou Wu, Adibehalsadat Ghazanfari, Michael Doschak, Michael Turner, Mark Sommerfeldt, Janet A. W. Elliott, Nadr M. Jomha (2025). “Transplantation of vitrified osteochondral allografts revealed equivalent cartilage repair to fresh osteochondral allografts in a swine model.” Cryobiology. 120: 105279, https://doi.org/10.1016/j.cryobiol.2025.105279
2. Leah A. Marquez-Curtis, Janet A. W. Elliott (2025). “Interrupted slow cooling of mouse cardiac endothelial cell monolayers.” Cryobiology. 121. 105319, https://doi.org/10.1016/j.cryobiol.2025.105319

Dr. Victoria Higgins
Peer-reviewed publications:
1. Bohn MK, Nyholt D, Balion C, Cembrowski G, Collier C, De Guire V, Higgins V, Jung B, Landon O, Mohammed-Ali Z, Seccombe D, Taher J, Tsui AKY, Venner AA, White Al-Habeeb N, Adeli K. “Best Practice Guidelines on Reference Interval Harmonization in Canada: Evidence-based recommendations from the CSCC Working Group on Reference Interval Harmonization (CSCC WG-hRI)”. Clin Biochem. 2025 Epub 2025 Aug;139:110986
2. Higgins V, Volodko N, Parker ML, Estey MP, Proctor D, Olayinka L, Newbigging A, Bordeleau P, Powell M. “A Case of Compound Heterozygosity for Hb Hope and Hb E with Alpha Thalassemia Silent Carrier

(3.7kb HBA1 deletion)". Clin Biochem. Epub 2025 Aug:139:110990
3. Olayinka L, Chen Y, Rodriguez-Capote K, Gifford JL, Buch C, Weber S, Parker ML, Volodko N, Estey MP, Proctor D, Newbigging A, Bordeleau P, Powell M, Beriault DR, Macri J, Higgins V. "Oligoclonal Banding Analysis: Assessing Plasma Use and Time Interval Requirements for Paired CSF and Blood". Clin Chem Lab Med. 2025 Jun 26;63(11):e250-e253

Dr. Mao-Cheng Lee

Peer-reviewed papers:

1. Ima Anugom MD, Brittany Kula MD, Mao-Cheng Lee MD, Justin Bateman MD, Vanessa Fawcett MD, Tanis C. Dingle, Ph.D, "Beneath the Surface - Imported Eumycetoma in a Recent East African Immigrant to Alberta, Canada", Dr. Fungus Case of the Month, Under Review
2. Adrien Lam; Mao-Cheng Lee, MD; Alena Tse-Chang, MD; Joseph Ting, MBBS, MD, MPH, "Antibiotic Resistance Patterns of Bacterial Pathogens Causing Invasive Neonatal Infections in Northern Alberta: A Comprehensive Analysis", The Pediatric Infectious Disease Journal, Under Review

Dr. Natalie Marshall:

1. Natalie C. Marshall; Robert M. Taylor, Chapter 3: Virology. pages 53-79, "Comprehensive Review of Infectious Diseases". (2025), Editors: Andrej Spec; Gerome Escota; Bethany Davies; Jane O'Halloran. Publisher: Elsevier, Philadelphia, PA, USA:

Dr. Michael Mengel

Peer-reviewed publication:

1. "Alterations in mitochondria and cellular senescence in aged sEH null female kidneys". Yousef A, Fang L, Heidari M, Huang A, Kondraciuk P, Yee KA, Mengel M, Seubert JM. Geroscience. 2025 in press
2. "2025 Report of the STAR Working Group on Donor Derived Cell Free DNA: Establishing Analytical Validity as the Basis for Appropriate and Effective Clinical Utilization". Valenzuela NM, Lan J, Hitchman KMK, Amstutz U, Bloom RD, Levine DJ, Mengel M, Mannon RB. Am J Transplant . 2025 in press

Dr. Susan Nahirniak:

1. Metcalf RA, Nahirniak S, Guyatt G, Bathla A, White SK, Al-Riyami AZ, Jug RC, La Rocca U, Callum JL, Cohn CS, DeAnda A, DeSimone RA, Dubon A, Estcourt LJ, Filipescu DC, Fung MK, Goel R, Hess AS, Hume HA, Kaufman RM, Kranke P, Louw VJ, Møller MH, Murphy MF, Muszynski JA, O'Kelly CJ, Pagano MB, Patidar GK, Pavenski K, Poston JN, Saifee NH, Stolla M, Szczepiorkowski ZM, Tobian AAR, Uberoi R, Waters J, Williams B, Wood EM, Zantek ND, Zeller MP, Grossman BJ, Stanworth SJ. "Platelet Transfusion: 2025 AABB and ICTMG International Clinical Practice Guidelines". JAMA. 2025 Aug 19;334(7):606-617
2. Jug R, La Rocca U, Al-Riyami AZ, Bathla A, Metcalf RA, White SK, Stanworth SJ, Nahirniak S. "The clinical use of platelet transfusions: A systematic literature review and meta-analysis on behalf of the International Collaboration for Transfusion Medicine Guidelines". Transfusion. 2025 Jun;65(6):1155-1169

Ms. Yvonne Rees

Peer-reviewed paper:

1. Sherif Hanafy Mahmoud, Forugh Sanaee , Jenna Smith , Lindsay Ryerson , Mary Bauman , Yvonne Rees, Elona Turley, Rashid Alobaidi , Marcel Romanick and Afsaneh Lavasanifar, "Extended stability of bivalirudin in intravenous solutions", Future Journal of Pharmaceutical Sciences, 11, 89 (2025) https://doi.org/10.1186/s43094-025-00841-3

Dr. Ahmed Shah:

1. Shah A, Molligan JF, Dehner CA, Torres-Mora J. "Diagnostic Utility of PRAME in Rare Melanoma Mimics: A Comparative Analysis Including GNET, MMNST, Epithelioid MPNST, and MITF-Rearranged Melanocytic Tumors". J Cutan Pathol. 2025 Aug 17. doi: 10.1111/cup.14849. Epub ahead of print. PMID:

40819908
2. Shah A, Sukov WR, Halling K, Marcelis L, Oliveira A. “Novel SMARCA2::DDIT3 fusion in primary subcutaneous myxoid liposarcoma due to an unusual unbalanced chromosomal translocation”. Genes Chromosomes Cancer. 2025; DOI:10.1002/gcc.70089

Dr. David Wishart:
1. Kovur P, Kovur KM, Rayat DY, Wishart DS. “POC Sensor Systems and Artificial Intelligence-Where We Are Now and Where We Are Going?” Biosensors (Basel). 2025 Sep 8;15(9):589. doi: 10.3390/bios15090589. PMID: 41002329; PMCID: PMC12467669.
2. Andersson ER, Bayless AL, Brua RB, Casu F, Cheng LL, Choo M, Edison AS, Eghbalnia HR, Fleischer CC, Gouveia GJ, Hoch JC, Kaur G, Li DW, Pathmasiri W, Pelczer I, Probert F, Raftery D, Rovnyak D, Secreto M, Schock TB, Takis PG, Uchimiya M, Wishart DS, Yılmaz A, Sumner LW, Powers R, Copié V, Gebregiworgis T. “Securing the Future of NMR Metabolomics Reproducibility: A Call for Standardized Reporting.” Anal Chem. 2025 Sep 30;97(38):20655-20666. doi: 10.1021/acs.analchem.5c03274. Epub 2025 Sep 15. PMID: 40953484; PMCID: PMC12489887.
3. Marín-García M, Bellot M, Mandal R, Wishart DS, Tauler R, Raldúa D, Barata C, Gómez-Canela C. “Non-target metabolomic approach of the toxic effects of glyphosate in zebrafish (D. rerio)”. Environ Res. 2025 Sep 6;286(Pt 1):122788. doi: 10.1016/j.envres.2025.122788. Epub ahead of print. PMID: 40921245.
4. Orešič M, Karu N, Zhao HN, Moseley A, Hankemeier T, Wishart DS, Dorrestein PC, Fiehn O, Hyötyläinen T, Daouk RK; “Alzheimer Gut Microbiome Project. Metabolome informs about the chemical exposome and links to brain health”. Environ Int. 2025 Sep;203:109741. doi: 10.1016/j.envint.2025.109741. Epub 2025 Aug 22. PMID: 40889412.
5. Chen J, Rao A, Ghosh Biswas R, Zhang EJ, Zhou JX, Zhang E, Kobus Z, Kobus M, Su L, Christiani DC, Wishart DS, Cheng LL. “Automatic Identification of Potential Cellular Metabolites for Untargeted NMR Metabolomics”. NMR Biomed. 2025 Oct;38(10):e70131. doi: 10.1002/nbm.70131. PMID: 40887896; PMCID: PMC12445015.
6. Ranaraja A, Subhasinghe I, Ahmad SN, Banaganapalli B, Popowich S, Parambath SV, Ayalew LE, Mandal R, Wishart DS, Tikoo S, Gomis S. “Temporal metabolomic fingerprinting identifies adenine as a novel biomarker for early detection of Escherichia coli infection in broiler chickens”. Sci Rep. 2025 Aug 27;15(1):31580. doi: 10.1038/s41598-025-16873-x. PMID: 40866475; PMCID: PMC12391293.
7. Adeomi AA, Alatise OI, Wishart D, MacKay S, Olasehinde O, Wuraola F, Adisa A, Mohammed T, Aderounmu A, Betiku OA, Omoyiola OZ, Adeleye AO, Ogunleye SO, Babatunde OJ, Ademakinwa OR, Owoade IA, Mobolaji J, Olcese C, Kahn R, Choonawala NR, Fitzgerald G, Hosgood HD, Kingham TP. “Point-of-Care Urine Metabolomics Test to Diagnose Colorectal Cancers in Low- and Middle-Income Countries: A Pilot Controlled Trial in Southwestern Nigeria”. JCO Glob Oncol. 2025 Aug;11:e2500062. doi: 10.1200/GO-25-00062. Epub 2025 Aug 6. PMID: 40768684.
8. Seyedpour SF, Karami P, Khoshhal Salestan S, Aghapour Aktij S, Singh U, Huang S, Chew JW, Rahimpour A, Wishart D, Sadrzadeh M. “Facile Epitaxial Growth of Novel Nanoscale Ag-MAFs on Reverse Osmosis Membranes: Enhancing Performance, Antibacterial Activity, and (Bio)fouling Resistance”. ACS Omega. 2025 Jun 23;10(26):28191-28209. doi: 10.1021/acsomega.5c02816. PMID: 40657074; PMCID: PMC12242634.
9. Goldansaz SA, Hailemariam D, Dervishi E, Zwierzchowski G, Wójcik R, Wishart DS, Ametaj BN. “Lipopolysaccharide and Recombinant Prion Protein Induce Distinct Neurodegenerative Pathologies in FVB/N Mice”. Int J Mol Sci. 2025 Jun 28;26(13):6245. doi: 10.3390/ijms26136245. PMID: 40650022; PMCID: PMC12249767.
10. Niestanak VD, Wiebe N, Zhang L, Wishart DS, Tonelli M, Unsworth LD. “Temporal Changes in Blood Metabolome Among Patients on Hemodialysis”. Kidney Int Rep. 2025 Apr 1;10(6):1761-1770. doi: 10.1016/j.ekir.2025.03.054. PMID: 40630325; PMCID: PMC12232967.
11. García-López DA, Monárrez-Espino J, Borrego-Moreno JC, Zheng J, Mandal R, Torres-Calzada C, Oropeza-Valdez JJ, Tenório Nunes A, Sánchez Rodríguez SH, López JA, Calzada Rodríguez BE,

Wishart DS, López-Hernández Y. “Comprehensive clinical and metabolomics profiling of COVID-19 Mexican patients across three epidemiological waves”. Front Mol Biosci. 2025 Jun 18;12:1607583. doi: 10.3389/fmolb.2025.1607583. PMID: 40607062; PMCID: PMC12214581.

12. Bhattacharyya D, LeVatte MA, Wishart DS. “Towards Automated Testing of Kynurenine for Point-of-Care Metabolomics”. Methods Protoc. 2025 Jun 1;8(3):56. doi: 10.3390/mps8030056. PMID: 40559444; PMCID: PMC12196141.

13. da Silva BR, Brennan L, Horst MA, Wishart DS, Prado CM. “Advancing precision nutrition: bridging mechanistic insight and clinical implementation”. Nat Rev Endocrinol. 2025 Sep;21(9):515-517. doi: 10.1038/s41574-025-01141-9. PMID: 40523984.

14. Suyama S, Boxall S, Grace B, Fořtová A, Pychova M, Krbkova L, Mandal R, Wishart D, Griffin DE, Růžek D, Goonawardane N. “Changes in metabolite profiles in the cerebrospinal fluid and in human neuronal cells upon tick-borne encephalitis virus infection”. J Neuroinflammation. 2025 Jun 14;22(1):157. doi: 10.1186/s12974-025-03478-4. PMID: 40517242; PMCID: PMC12166563.

15. Sharma I, Milley A, Zhang L, Zheng J, Lockwood E, Wishart DS, Tonelli M, Unsworth LD. “Binding Capacity and Adsorption Stability of Uremic Metabolites to Albumin-Modified Magnetic Nanoparticles”. Int J Mol Sci. 2025 Jun 3;26(11):5366. doi: 10.3390/ijms26115366. PMID: 40508174; PMCID: PMC12155526.

16. Torres-Calzada C, Lee B, Berjanskii M, Wishart DS. “NMR Metabolomics in Livestock: An Update of Current Methods and Applications”. Methods Mol Biol. 2025;2925:383-396. doi: 10.1007/978-1-0716-4534-5_25. PMID: 40498202

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