

PATHOLOGY AND LABORATORY MEDICINE
RESEARCH DAY 2026



APRIL 1, 2026
PROGRAM GUIDE



SCHEDULE

Pathology and Laboratory Medicine Research Day Website



https://www.schulich.uwo.ca/pathol/research/palm_research_day/index.html

9:00 – 9:15 a.m.

Welcome and Opening Remarks

Chair/Department Head
Department of Pathology
and Laboratory Medicine

9:15 – 10:15 a.m.

Platform Session 1

10:25 – 11:45 a.m.

Poster Session 1

11:45 – 12:40 p.m.

Lunch

12:40 – 2:00 p.m.

Poster Session 2

2:00 – 3:00 p.m.

Platform Session 2

3:15 – 4:20 p.m.

Keynote Address

Dr. Nicholas Lukacs
Professor, Godfrey Dorr Stobbe,
Department of Pathology,
University of Michigan.
Scientific Director,
Mary H. Weiser Food Allergy Center.

4:20 – 4:30 p.m.

Group Photo

4:30 – 5:00 p.m.

Research Day Award Ceremony

CHAIR'S MESSAGE



Welcome to one of our department's most important academic events of the year. Our Pathology and Laboratory Medicine Research Day showcases our research accomplishments, celebrates our people, and gives us a glimpse into an exciting future for both our department, as well as for our School and University.

This year, we have 126 research presentations given by an array of researchers that displays the breadth of our department's research. Most presenters are undergraduate students, graduate students, and residents; the research being presented spans all of our department's research themes, including amongst others, cancer biology, cardiovascular, respiratory and metabolic diseases, infection, immunity and inflammation, bioinformatics and data science, and digital pathology.

This year, we welcome Dr. Nicholas W. Lukacs, the Godfrey D. Stobbe Professor of Pathology at the University of Michigan Medical School, as well as the Scientific Director of the Mary H. Weiser Food Allergy Center in Ann Arbor, Michigan, USA. Dr. Lukacs' research focuses on innate and acquired immune responses in allergen- and respiratory virus-induced acute and chronic diseases, as well as the role of the gut microbiome in the development of allergic diseases. His research group also collaborates with scientists at Henry Ford Medical Center in Detroit and the University of California San Francisco, examining respiratory syncytial virus (RSV) infection in infants in the Pediatric ICU and the development of food and airborne allergen responses in inner city birth cohorts.

The organizing committee and many members of our department have dedicated considerable time to ensure that this day is a rewarding experience for our department members and for our wider community. I would like to thank the Research Day Committee as well as the members of our university department staff for their tremendous work in putting this day together, and my thanks to all of the judges for their invaluable service. My heartfelt congratulations to all of the presenters for the work that you have done on your research and for representing the Department of Pathology and Laboratory Medicine. And finally, I would like to thank all of you for attending and supporting our department. I hope that you enjoy our multi-disciplinary approach to studying health and disease, as you listen to the platform presentations and view the posters.

David Driman, MBChB, FRCPC

Chair, Department of Pathology and Laboratory Medicine, Schulich Medicine & Dentistry, Western University
Department Head, Department of Pathology and Laboratory Medicine
London Health Sciences Centre and St. Joseph's Health Care London

KEYNOTE ADDRESS



Nicholas Lukacs, MD, PhD

Professor, Godfrey Dorr Stobbe,
Department of Pathology, University of Michigan.

Scientific Director,
Mary H. Weiser Food Allergy Center.

“Early life Immunity: Viral infections, microbiome, and lung function”

Dr. Lukacs is Godfrey Dorr Stobbe Professor of Research Pathology in the Department of Pathology at the University of Michigan, as well as Scientific Director of the Mary H. Weiser Food Allergy Center.

A well-known investigator, highly experienced in translational research while working closely with biotech and pharmaceutical companies, Dr. Lukacs' laboratory focuses on the innate and acquired immune responses in allergen- and respiratory virus-induced acute and chronic diseases.

PLATFORM SESSION 1



Megan Hong - 9:15 a.m.

1

Macrophages as drivers of immune checkpoint inhibitor response in immune-hot DNA mismatch repair-deficient tumours



Jacob A. Houpt - 9:30 a.m.

2

Unusual Neuropathological Findings in Cases of Unexpected Death with No Apparent Anatomical Causes



Mohammad Derakhshan - 9:45 a.m.

3

Single-Cell Profiling Identifies an Aberrant Epithelial–Stromal Regenerative Niche Linked to Colitis-Associated Cancer



Hao Li - 10:00 a.m.

4

An internal audit of neuropathology consultation for forensic/coroner's autopsies at London Health Sciences Centre – a quality improvement project

PLATFORM SESSION 2

1

Phyo Win - 2:00 p.m.

Mitochondrial DNA copy number reduction via in vitro TFAM knockout remodels the nuclear epigenome and transcriptome



2

Katherina Baranova - 2:15 p.m.

Characterizing mitochondrial alterations and molecular changes in oncocytic and tall cell variant papillary thyroid carcinoma



3

Paula Magbor - 2:30 p.m.

Beyond Components: Using Community Detection to Resolve Transmission Risk Structure in HIV-1 Genetic Clusters



4

Josh Del Papa - 2:45 p.m.

Edge-Integrated, In-Line AI for Frozen Section Margin Assessment of Basal Cell Carcinoma: A Prospective Feasibility Study of the FROST Pipeline



POSTER SESSION 1

#	First Name	Last Name	Title
1	Rober	Abdo	High-Resolution Spatial Mapping of Breast Cancer Brain Metastasis
2	Jonathan	Wang	Extending RegSCOUT to Map Dysfunctional Non-Coding Elements in Pancreatic Cancer by Integrating Whole-Genome Sequencing with Single-Cell Multi-Omics
3	Adam	Greasley	Circular RNA CRIM1 Regulates Cardiac Cell Injury during Heart Transplantation
4	Eesa	Huq	Urban Indigenous Land Relations: Mapping Canadian Traditional Medicine and Food Sovereignty Programs
5	Kyla	Trinh	Understanding Patient Pathology Information Needs Through Qualitative Content Analysis of Real-World Patient Questions (INSIGHT)
6	Sophie	Smith	Surveillance of SARS-CoV-2 Within the Fecal Virome of White-Tailed Deer in Southeastern Quebec
7	Michael	Yoshida	Investigating Gender Bias in Multiple-Choice Questions in an Undergraduate Pathology Course
8	Melanie	Burr	Optimizing Genomic Testing Strategies for Patients with Epilepsy and Intellectual Disability: A Comparative Analysis of Chromosomal Microarray and Next-Generation Sequencing

POSTER SESSION 1

#	First Name	Last Name	Title
9	Annie	Wang	Investigating DLC1 β as a Cardioprotective Target in Cardiac Ischemia
10	Favour	Babasola	Benchmarking Methods that Identify Gene Regulatory Sites from Chromatin Accessibility Profiles in Cancer Datasets
11	Eric	Wang	Topical treatment for diabetic retinopathy via silencing of lncRNA HOTAIR
12	Daniel	Ye	Chemical Contraceptive Efficacy in the Common Marmoset
13	Sepehrdad	Nosrati	Evolutionary and Epigenetic Analysis of the Emergence of Adaptive Immunity Across <i>Caenorhabditis elegans</i> , <i>Drosophila melanogaster</i> <i>Homo sapiens</i> , and <i>Petromyzon marinus</i> .
14	Quinn	Le	Effect of Mitochondrial Transplantation on Nuclear Epigenome Remodeling
15	XingJian	Chang	In Vitro Generation and Validation of Scarless Circular ZMIZ1 RNA Using a Modified Permuted Intron-Exon System
16	Serina	Chahal	Circular RNA ZMIZ1 Overexpression Drives Melanoma Progression and Anti-tumour Immune Dysregulation
17	Chukwubikem	Mgbiri	Proliferation Marker Expression in Chronic Hyperplastic Candidiasis and Its Malignant Transformation

POSTER SESSION 1

#	First Name	Last Name	Title
18	Luis	Limo	Family Socioeconomic Profiles and Children's Oral and Developmental Health: A Latent Class Analysis with Effect Modification by Access to Dental Care
19	Luis	Limo	Higher buccal-epithelial mitochondrial DNA copy number is associated with early childhood caries and adverse developmental health and functioning
20	Daniel	Kawa	Characterizing p66Shc-Dependent Effects on Pluripotent Stem Cell Fate Using Teratomas and Single Cell Transcriptomics for Comparative in vivo Multi-Lineage Differentiation Modeling
21	Leah	McDonald	Assessing Efficacy of a Digital Denominator approach to PD-L1 Combined Positive Score Reporting
22	Alexander	Moersch	Patient and sample specific factors that predict a positive 16S ribosomal RNA gene PCR test
23	Trinity	Quan	A Comparative Evaluation of Hematoxylin and Eosin and Movat Pentachrome Staining in Diabetic and Non-Diabetic Mouse Tissues
24	Rilla	Wei	Preparing Pathologists' Assistants for Practice: Graduate Outcomes and Training Experiences in a Canadian Master's Program
25	Yuanyuan	Gu	Intradural Extramedullary Capillary Hemangioma of the Spinal Canal: A Report of Two Cases

POSTER SESSION 1

#	First Name	Last Name	Title
26	Hayley	Pyne	Investigating HNRNP F's Role in Melanoma Development & Progression
27	Francis	Baysah	Comparative Evaluation of Pathological Inks for Surgical Margin Assessment
28	Sukhman	Brar	Evaluation of Breast Carcinomas with HER2 IHC 2+ Expression and Associated FISH Amplification Rates
29	Grace	Ennema	Sex-Specific Gene Regulatory Mechanisms in Asthma Identified Through Integrative Genomic and Epigenomic Analyses
30	Xuan	Wang	Transcriptomic profiling reveals hippocampal white matter inflammation as potential epileptogenic focus in temporal lobe epilepsy
31	Laura	Lockau	Simulation-based medical education in postgraduate pathology training: A scoping review
32	Angelica	Ortiz	Evaluating the Quality of AI-Generated Visual Educational Content for Pathology Training
33	Sahanah	Thirukumar	Targeting Cardiac Necroptotic Cell Death in Diabetic Cardiomyopathy with Murine Cytomegalovirus M45
34	Mimi	Zhang	The Brain Tumour Tissue Bank at LHSC: A Digital Pathology Resource

POSTER SESSION 1

#	First Name	Last Name	Title
35	Yuto	Nakada-Sasaki	Suppression of Obesity by DDIT3-mediated Necroptosis Signaling
36	Cody	Hird	Assessing Spillover Risk: Coronavirus Entry Across Mammalian Hosts
37	Delicia	Wong	Assessing the Impact of Superinfection and Recombination on Phylodynamic Inference by Multi-Level Simulation
38	Yiming	Lin	Correlation of C4d Staining with Donor-Specific Antibodies and Clinical Outcomes in Post-Liver Transplant Rejection: A retrospective Single-Center Study
39	Taylor	Searle	Mechanistic investigation of Trametinib-Mediated Cell Death in High Grade Serous Ovarian Carcinoma Spheroids
40	Ikbel	Hadj Hassine	Natural Host Defense Peptides as Broad-Spectrum Antivirals Targeting Viral Envelopes
41	Amir Hossein	Karimi	Efficacy, Functional Consequences, and Immunomodulatory Effects of Treatment with a Type II RAF Inhibitor in Anaplastic Thyroid Carcinoma
42	Lakshmi Suchitra	Tadepalli	Shifting ecology and early resistance signals in Candidemia across Southwestern Ontario, Canada (2020-2024): a multicenter laboratory driven surveillance study

POSTER SESSION 1

#	First Name	Last Name	Title
43	Ashlyn	Kim	Detection of Mycobacterium tuberculosis in Formalin-Fixed Paraffin-Embedded Tissue Using GeneXpert and BD MAX
44	Lisa	Fang	Cell-free long non-coding RNAs as mediators of endothelial activation: a novel biomarker and mechanistic link in bacterial sepsis
45	Darshil	Patel	Quality Assurance Analysis of Turn-Around-Times in Neuropathology Medical/Hospital and Biobank Autopsy Consultations at London Health Sciences Centre
46	Caroline	Gordon	Exploring the Relationship Between Antimicrobial Resistance and Biosecurity Practices in Swine Production Systems
47	Xiaopu	Wang	A Retrospective Review of an Adolescent Suicide Cluster among First Nations Communities in Northern Ontario using the Integrated Motivational-Volitional (IMV) Model
48	Michael	Sharobim	Signaling Pathway Markers (E-cadherin, β -catenin, and BRAF) in Chronic Hyperplastic Candidiasis and Malignant Transformation Risk
49	Tracy	Wang	The Prognostic Value of Atypical Mitotic Figures in Meningiomas
50	Lok In	Cheah	Determining Pre-analytical Requirements for Testing Biogenic Amine Markers in Neuroendocrine Tumors

POSTER SESSION 1

#	First Name	Last Name	Title
51	Tommaso	Romagnoli	Evaluating the utility of large language models for cross-linguistic pathology reporting
52	Maggie	Chen	Making Autopsy Pathology Green: A Quality Improvement Project
53	Richard	Zhang	Identifying cell type- and developmental stage-specific gene regulation driving schizophrenia risk using a comprehensive multi-omics approach.
54	Xuanning	Zhang	Uncovering Immune Cell-type- and Site-specific Gene Regulatory Mechanisms Underlying Osteoarthritis
55	Christina	Wu	Optimizing In Vitro Production of circZMIZ1 via the T4 Permuted Intron-Exon System
56	Ruchika	Gupta	An Explainable, Scalable, and Auditable AI Microscope for Clinical Gram-Stain Triage
57	Haley	McConkey	Discovery of a DNA methylation epsignature for Weiss-Kruszka syndrome
58	Bernardo	Reyes-Ballesteros	Development of Pan-Vaccines for Pandemic Prevention.

POSTER SESSION 2

#	First Name	Last Name	Title
1	Janice	Sutherland	A Qualitative Examination into the Factors that Influence Dog Walking: A One Health Approach
2	Haitao	Lu	ADAR1 and RIPK1 orchestrate the ZBP1-RIPK3 complex-mediated PANoptosis and heart transplant rejection
3	Yueyang	Li	Trends in Colorectal Cancer Diagnosed at London Health Sciences Centre (LHSC) from 2004 to 2023.
4	Maria	Mihele	Mechanistic Investigation of Sodium Thiosulfate in Cardiac Transplant-Associated Ischemia Reperfusion Injury
5	Sharon	Chen	Evaluating the Performance of the Alegria 2® Assays for Connective Tissue Disease Autoantibody Testing
6	Eric	Wu	Integrative Genomic and Epigenomic Analyses to Uncover Gene Regulatory Mechanisms in Pancreatitis and Pancreatic Cancer
7	Grace	Li	Development of a Preference-Based Epiretinal Membrane-Specific Health-Related Quality of Life Instrument
8	Juliya	Zhurba	A novel approach using locally hosted large language models to support program-level evaluations in medical education.

POSTER SESSION 2

#	First Name	Last Name	Title
9	Nathan	Lee	Investigating the Roles of CypD and Drp1 in TLR3-Mediated Necroptosis.
10	Barrett	Carley	Automated Peripheral Nerve Detection in Head and Neck Squamous Cell Carcinoma Using a Foundation Pathology Model
11	Jacob A.	Haupt	Erdheim-Chester Disease Presenting as a Chronic Subdural Hematoma
12	Trinity	Quan	A Decade in the Making: Progressive Fibrous Dysplasia of the Rib
13	Melanie	Burr	Case Study: Transverse Sectioning of a Total Laryngectomy Specimen with a Chondrosarcoma
14	Shadi	Ahmadian	Inflammatory Features and Microbial Burden of Chronic Osteomyelitis of the Jaws
15	Raffin	Ryeed	The Inflammatory Response of Glomerular Endothelial Cells to Anti-AT1R Antibodies
16	Pious	Jose	Preventing Alloimmune Rejection in Transplantation using circMAP2K2 and circFSCN1 Silenced Tolerogenic Dendritic Cells
17	Rahul	Vij	Building the Foundation of an NGS-based CMV Antiviral Resistance Assay: Primer Design, PCR Optimization, and Workflow Refinement

POSTER SESSION 2

#	First Name	Last Name	Title
18	Rilla	Wei	A Case Study of Chondrosarcoma in a Left-chest mass resection
19	Sara	Sritharan	Investigating the role of LONP1 in macrophages
20	Rachel	Barboza	Investigating the mediating role of metabolites in mtDNA-CN and nuclear epigenome driven cardiovascular disease risk using a large-scale longitudinal cohort
21	Omar	Abdelraheem	Elucidating the development and pathogenicity of dual-positive Th2-Th17 cells
22	Tisa	Shah	Exploring the Effects of Psilocin on Serotonin 2A/Dopamine D2 Receptor Heterodimer Signaling
23	Tiffany	Cheung	Examining the effects of antibiotic-induced gut dysbiosis on antitumour immune responses in DNA mismatch repair-deficient colorectal cancers
24	Shania	Kaczmarek	Correlation of Pedestrian Lower Extremity Injuries from Fatal Motor Vehicle Collisions to Motor Vehicle Front Geometry
25	Liv	Lovering	Advancing Glaucoma Care Through Virtual Reality: Comparative Performance of Virtual Reality-Visual Field Testing and Humphrey Perimetry
26	Nhi	Le	Investigating Combination Immunotherapy in a Head and Neck Cancer Model

POSTER SESSION 2

#	First Name	Last Name	Title
27	Nader	Hosseini Naghavi	Integrating GWAS and Single-Cell Chromatin Accessibility Data to Study Gene Regulation in Multiple Sclerosis
28	Ryan	Wang	Clinical and Molecular Features of Biomarker Shifting in Breast Cancer Brain Metastases
29	Morgan	Black	Bridging the Pathology Communication Gap: Early Experience with Osler, a Patient-Facing AI Chatbot
30	Ella	Proulx	Squamomelanocytic Tumor in Xeroderma Pigmentosum: Immunohistochemical and Molecular Characterization of a Novel Case
31	Anna	Syed	Identifying age-related mitochondrial dysfunction in bone marrow endothelial cells and its impact on tissue resident stem cell niche
32	Nader	Shaker	S100A7 expression in oral potentially malignant disorders: verrucous hyperplasia and verrucous carcinoma
33	Chloe	Davidson	cDC1-Driven Cross-Priming Shapes Anti-PD-1 Response in Mismatch Repair-Deficient Colorectal Cancer
34	Victor	Dutrillac	Role of KIM-1 Shedding in Regulating Metastasis in Renal Cell Carcinoma.

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#	First Name	Last Name	Title
35	Shengjie	Ying	Single-cell landscape of sex- and etiology-shaped fibrotic programs in upper airway stenosis
36	Rizwan	Tahir	Investigation of Wnt Signaling in Dormant Ovarian Cancer
37	Malcolm	Hill	Investigation of HGSC spheroid dependency on netrin signaling via UNC5 antibody-mediated inhibition
38	Hanjia	Zhao	A 10-Amino Acid Deletion at N-terminus of DNA Damage Inducible Transcript 3 Confers Protection Against Doxorubicin-Induced Cardiotoxicity
39	Shagun	Chander	The Effects of Heat and Air Pollution on Academic Performance in Schoolchildren From Sub-Saharan Africa
40	Isaac	McKeown	Investigating the Impacts of Airborne Microplastics on Viral Respiratory Infections
41	Asiba	Noori	Identifying postnatal hematovascular progenitor signatures and their age-related decay
42	Yuliya	Kabak	Comparison of microarray and NGS for copy number variant detection in melanocytic neoplasms
43	Ashlyn	Kim	Colorectal Adenocarcinoma Arising in Juvenile Polyposis Syndrome: A Case Report

POSTER SESSION 2

#	First Name	Last Name	Title
44	Darshil	Patel	Beyond the Thyroid: An Uncommon Case of Vascular Thrombosis
45	Luna	Khanal	The Cardioprotective Role of DLC1
46	Chad	Kelawan	Investigating the Crosstalk of Netrin and WNT signaling in High-Grade Serous Carcinoma
47	Justin	Donovan	Linking sewer chemistry to viral RNA recovery in wastewater surveillance using a sewer physical twin model
48	Xiaopu	Wang	Primary Burkitt Lymphoma of the Terminal Ileum in an Older Adult: A Case Report
49	Senyang	Wei	Testing Combined Immunotherapy for the Management of Anaplastic Thyroid Cancer
50	Samuel	Ugulini	CBD Exposure Impairs Mechanisms of Glucagon Trafficking and Secretion in Pancreatic Alpha Cells
51	Carolyn	Lauzon-Young	Development of a Hierarchical Support Vector Machine (H-SVM) Framework for the Epigenetic Classification of Myeloid Malignancies
52	Melissa	Menard	Digital Cytometric Analysis for the Evaluation of Mismatch Repair Protein Immunohistochemistry in Colorectal Specimens

POSTER SESSION 2

#	First Name	Last Name	Title
53	Fatemeh	Behjati	Interpretable variational autoencoder for integrating epigenetic and transcriptomic profiles in Pancreatic Cancer
54	Stefan	Sampy	Nicotinamide mononucleotide promotes autophagy and bacterial clearance in endotoxin-stressed neutrophils
55	Alexandra	Keating	The role of extracellular vesicle-mediated SARS-CoV2 nucleocapsid protein and TAR DNA-binding protein 43 aggregate transmission in amyotrophic lateral sclerosis
56	Niloofar	Setayeshi	Microbiome-Driven Restoration of MAdCAM-1 to Boost ICI Efficacy in metastatic renal cell carcinoma
57	Laura	Duffy	Recurrent CHD6 Variant Associated with a Neurodevelopmental Syndrome and Episignature
58	MohdWessam	Al Jawhri	Decoding Tonsillar Hypertrophy in Obstructive Sleep Apnea
59	Rainy	Lu	From Latex to Lateral Flow : Advancing Cryptococcal antigen diagnostics

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seeing small, thinking big

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