



**UNIVERSITY
OF ALBERTA**

Faculty of Medicine & Dentistry
Department of Radiology & Diagnostic Imaging

Research Day.



**27th Annual
Research Day**

APRIL 28, 2026

BERNARD SNELL HALL - UOFA HOSPITAL

9:00AM - 3:50PM

Dr. Amber Simpson

University of Alberta, Professor in the
Department of Radiology and Diagnostic Imaging

Topic: From Pixels to Predictions: Seeing
More with AI in Radiology



Welcome to the 27th Annual Research Day!

We are excited to welcome you all to the 2026 Radiology Research Day, where we showcase some of the amazing research taking place in our department. At this event, we celebrate the research achievements of our residents, graduate students, postdoctoral fellows, staff, and faculty over the past year.

You will have the opportunity to engage with various research groups within the department, explore potential areas of collaboration, and build meaningful connections to further your academic pursuits. We encourage you to ask questions, share insights, and take full advantage of this platform to learn and grow.

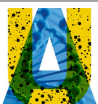
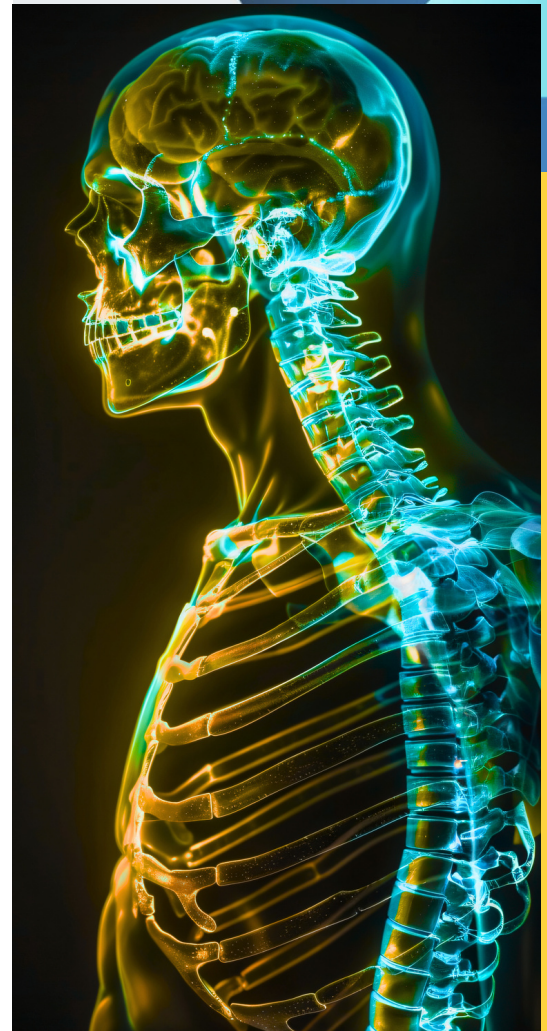
I am indebted to several individuals who played key roles in making this event possible, and we are truly grateful for each of their contributions. I would like to thank Dr. Derek Emery (Chair of Radiology and Diagnostic Imaging) for his immense support, and Mr. Justin Lowes for his efforts in coordinating this event. Sincere thanks to our keynote speaker, Dr. Amber Simpson, and to our judges - Dr. Amber Simpson, Dr. Robert Lambert, Dr. Alan Wilman, Dr. Rob Stobbe, and Dr. Matthew Li. Last but not least, a big thank you to everyone in our department - this event would not have been possible without you.

Regards,



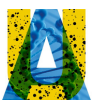
Dr. Abhilash Hareendranathan, PhD

Assistant Professor, Research Day Director
Department of Radiology & Diagnostic Imaging



Oral Presentations

Time	Abstract Title	Presenter
8:30AM	Coffee & Refreshments	
9:00AM	Welcome & Introduction	
9:05AM	Comparing FIB-4, VCTE, pSWE, 2D-SWE, and MRE Thresholds and Diagnostic Accuracies for Detecting Hepatic Fibrosis in Patients with MASLD: A Systematic Review and Meta-Analysis	Shyam Mehta (Undergraduate)
9:14AM	Paleontology and Medical Imaging: Adapting Clinical CT Techniques to Image Pachyrhinosaurus Species Fossils	Erin Dockery (Resident)
9:23AM	Assessing the Utility of Mercaptoacetyltriglycine Imaging After Renal Transplant Ureteric Stent Removal	Jordan Garside (Resident)
9:32AM	A Summary of Alveolar Echinococcosis and its Rise in Alberta, Canada	Michael Waine (Resident)
9:41AM	Clinical Impact of Serial Angiography and Intra-Arterial Thrombolysis in the Evaluation and Treatment of Severe Frostbite	Robyn St. Croix (Resident)
9:50AM	Research Integrity Infrastructure and Time to Retraction for Image Manipulation: An International Retrospective Cohort Study of 67,224 Retracted Publications	Sean Nurmsoo (Resident)
10:00AM	Coffee/ Refreshment Break	
10:10AM	Comparison of Prostate Cancer Screening Methods: Magnetic Resonance Imaging with Targeted Biopsy Versus Routine Ultrasound Guided Biopsy for Patients With an Elevated PSA	Sunghan Jung (Resident)
10:19AM	Robust Cross-Domain Generalization Using Unlabeled Target Data with Source-Domain Supervision	Lily Zhou (Graduate Student)
10:28AM	Deep Learning Regression for Automated DDH Metric Prediction in Pediatric Hip Ultrasound	Adam McArthur (Graduate Student)
10:37AM	High-Resolution Diffusion MRI Tractography Shows Lifespan Alterations of Superficial White Matter in Multiple Sclerosis	Alejandro Acosta (Graduate Student)
10:46AM	Segmenting Volumetric Medical Images at Their Native Resolution	Assefa Wahd (Graduate Student)
10:55AM	Quantitative Analysis Using AI-Assisted Point of Care Ultrasound to Inform Diagnostic Thresholds for At-Birth Developmental Hip Dysplasia Screening	Chloe Stiles (Graduate Student)
11:04AM	Toward Portable Real-Time Ultrasound Assessment of Cortical Bone Thickness and Elasticity Using Deep Learning	Ductho Le (Graduate Student)
11:13AM	Time-Embedding U-Net for Temporally Consistent Left Ventricular Segmentation in 3D Echocardiography	Ishani DasGupta (Graduate Student)
11:22AM	Inertial Sensor-Based Freehand Three-Dimensional Ultrasound Reconstruction for Palatal Suture Assessment	Jiaqing Wang (Graduate Student)
11:31AM	Evaluating Methods for Proton Density Mapping in Subjects with Multiple Sclerosis	Kiarash Jalali (Graduate Student)
11:40AM	Automated Quantitative Assessment of Periodontal Structures in Intraoral Ultrasound Videos	Logiraj Kumaralingam (Graduate Student)
11:49AM	Ultrasound-Detected Elbow Effusion as a Rule-Out Marker for Pediatric Supracondylar Fracture	Maha Ezzelarab (Graduate Student)



Time	Abstract Title	Presenter
12:00PM	Lunch & Poster Viewing Session	
1:00PM	Key Note Speaker: Dr. Amber Simpson Topic: From Pixels to Predictions: Seeing More with AI in Radiology	
2:00PM	High Resolution Diffusion Tensor Imaging of Brainstem Nuclei Across the Healthy Lifespan	Marium Soliman (Graduate Student)
2:09PM	From Segmentation to Malignancy Risk Assessment with MedSAM: Unravelling the Parenchymal Echotexture of Thyroid Nodules with Texture Aware-Foundation Models	Medha Chippa (Graduate Student)
2:18PM	High Quality Image Reconstruction of Pediatric Bone Using Enhanced Beamforming in Point of Care Ultrasound Imaging	Midhila Madhusoodanan (Graduate Student)
2:27PM	Enhanced Thyroid Nodule Segmentation Using Focused-Image Attention and Depth Attenuation Aware Loss Re-balancing	Mizanu Degu (Graduate Student)
2:36PM	Repeatability Analysis of Susceptibility Source Separation with Healthy Subjects from the CALSNIC-2 Satabase	Tereza Assuncao (Graduate Student)
2:45PM	Segmentation-Guided Conditional Diffusion Model for Free-Breathing Motion Artifact Correction in Cardiac MRI	Varsha Kesavan (Graduate Student)
2:54PM	The Accuracy of Yttrium-90 Radiation Segmentectomy Dosimetry and Treatment Practices	Apinya Chimcherd (Post-Doc/Fellow)
3:03PM	Evaluating Outcomes from Prostate Artery Embolization for Benign Prostatic Hyperplasia Within Edmonton, Alberta, Canada	Dominic Marrocco (Post-Doc/Fellow)
3:12PM	Robust Cross-Vendor T2 Mapping in Human Brain from Dual-Echo Fast Spin-Echo Using Bloch Simulations	Nashwan Naji (Post-Doc/Fellow)
3:21PM	Correlation of Hemodynamic Measurements Between Phase Contrast MRI and Wearable Sensor Devices	Sharanya Balachandran (Post-Doc/Fellow)
3:30PM	Video Summarization and Fracture Detection in Pediatric Wrist Ultrasound Using Deep Reinforcement Learning	Shrimanti Ghosh (Post-Doc/Fellow)
3:40PM	Closing Statements	

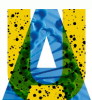


Poster Presentations

Abstract Title

Presenter

Poster 1	High Resolution Diffusion MRI of Hippocampal Subfields in Multiple Sclerosis Across the Lifespan	Adithi Madireddy (Graduate Student)
Poster 2	Real-Time Ultrasound Image Denoising Based on Deep Learning	Anparasy Sivaanpu (Graduate Student)
Poster 3	Bare-Metal Versus Covered Stent Use in Chronic Mesenteric Ischemia: A Systematic Review	Chaitanya Shah (Post-Doc/Fellow)
Poster 4	Pediatric Inflammatory Bowel Disease Classification Using Intestinal Ultrasound Texture Analysis	Manh Hai Hoang (Graduate Student)
Poster 5	Mechanical Thrombectomy for Pulmonary Embolism: A Retrospective Audit	Mansimran Virk (Undergraduate Student)
Poster 6	Domain-Constrained Distillation of DINOv3 into a Lightweight Foundation Model toward Point-of-Care Ultrasound	Md Jaber Al Nahian (Graduate Student)
Poster 7	An Unrolled Deep Network for Accelerated Multi-Contrast Brain MRI Reconstruction	Narges Razizadeh (Graduate Student)
Poster 8	A Retrospective Study of Clinical and Radiologic Factors Influencing the Development of Overlapping Disease Features in Pediatric Patients with Chronic Nonbacterial Osteomyelitis (CNO) and Spondyloarthropathies (SpA)	Sonali Andrahennadi (Post-Doc/Fellow)
Poster 9	High Resolution Kurtosis Imaging in Temporal Lobe Epilepsy	Pablo Stack (Graduate Student)
Poster 10	Prevalence of Malignancy Among Indeterminate Incidental Adrenal Nodules Measuring >3 cm in Patients Without Cancer: A Multi-Institutional Retrospective Study	Praniel Bennimahadeo (Post-Doc/Fellow)
Poster 11	Epidemiology and Imaging features of Echinococcus Multilocularis in Alberta Canada	Praniel Bennimahadeo (Post-Doc/Fellow)
Poster 12	18F-DOPA PET/CT for Differentiating Primary Brain Tumor Recurrence from Radiation Necrosis: A Canadian Experience <i>*On behalf of Shihan Chen (Resident)</i>	Jonathan Abele (Staff)
Poster 13	Point-of-Care Ultrasound (POCUS) for Shoulder Rotator Cuff Tear Detection (Supraspinatus Tendon Tear): A Comparative Study Between Expert Readers and Non-Expert Readers	Tina Qian (Graduate Student)
Poster 14	Validation of 3D Ultrasonic Imaging System with Stereo Vision Pose Tracking: A Phantom study	Trang Hoang (Graduate Student)
Poster 15	Evaluation of R2*-Only Susceptibility Source Separation for Multiple Sclerosis Normal-appearing Tissue and Lesions	Ziyan Zhu (Graduate Student)
Poster 16	Learning Stroke Volume from PC-MRI Aortic Flow: A Correlation and Regression Study	Shashank Pathak (Graduate Student)



Judges Panel



Dr. Amber Simpson
Section: Oral Presentations

Dr. Simpson is a fellow of the Alberta Machine Intelligence Institute, and is currently appointed as a Professor in the Department of Radiology and Diagnostic Imaging in the Faculty of Medicine and Dentistry at the University of Alberta. Her areas of expertise encompass biomedical data science and artificial intelligence.



Dr. Robert Lambert
Section: Oral Presentations

Dr. Lambert is currently appointed as a Professor in the Department of Radiology and Diagnostic Imaging in the Faculty of Medicine and Dentistry at the University of Alberta. He was head of musculoskeletal radiology at the U of A from 1982-2002, and Chair of the Department of Radiology from 2002-2016.



Dr. Alan Wilman
Section: Oral Presentations

Dr. Wilman is currently cross-appointed as a Professor in the Department of Biomedical Engineering in the Faculty of Engineering and in the Department of Radiology and Diagnostic Imaging in the Faculty of Medicine and Dentistry at the University of Alberta. He is trained as an MRI physicist.



Dr. Rob Stobbe
Section: Poster Presentations

Dr. Stobbe is a Faculty Service Officer in the Department of Radiology and Diagnostic Imaging in the Faculty of Medicine and Dentistry at the University of Alberta. His interests are centered on the technical development of Magnetic Resonance Imaging.



Dr. Mathew Li
Section: Poster Presentations

Dr. Li currently appointed as a Professor in the Department of Radiology and Diagnostic Imaging in the Faculty of Medicine and Dentistry at the University of Alberta. His interests are centered on informatics, machine learning, and musculoskeletal imaging.

