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Dept. of Biochemistry Newsletter

Vol. 16, Issue 1, Jan-Apr 2025

Send contributions to: mweir24@uwo.ca

PEOPLE AND OTHER STUFF

- The Dept. of Biochemistry extends a warm welcome to Dr. Bishop, our newest faculty member who started in Jan.
- Thanks to everyone who organized and/or attended the Dr. Harold B. Stewart Memorial Lecture and poster sessions in Jan. Congrats to Dr. Weedmark (microbial geneticist at Health Canada) for her inspiring Lecture and to the poster presenters for a job well done.
- Updates from Biochemistry's EDID Committee are as follows:
 - i) The grounding phase for decolonizing teaching in the Dept. was completed. This phase engaged the Biochemistry Dept. via pre-work, self-reflection questions in an anonymous survey, and a group discussion. Discussions took place via a presentation given by the EDID Committee at the Graduate Program Retreat in Jan. A [resource](#) hub on decolonization was set up so that the Biochemistry Dept. can access resources and add to them. Details on the decolonization plan and presentations can be found in that hub.
 - ii) An anti-harassment/discrimination campaign for the Biochemistry community was rolled out for the winter term. Check out this [reporting tool](#) to find out which resources to access at Western for reporting harassment, discrimination, gender-based sexual violence, or other unprofessional behaviour.
 - iii) A workshop on unconscious bias was hosted. The speaker was Dr. Nicole Kaniki from Senomi Solutions Inc. in London, ON.

CONGRATS TO...

- ★ Clara Schott for a successful PhD thesis defense
- ★ Ali Marhon and Keerthana Sharath for successful MSc thesis defenses
- ★ Graydon Chapple and Maria Cinta Marsolais Hernandez for receiving DUROPs and Ridhwan Busari, Erin Lou, and Andreea Murariu for receiving USRIs to carry out summer research projects in the Biochemistry Dept.
- ★ Teija Bily, Cian Ward, and Dr. O'Donoghue for being featured by [CIHR](#) (Rare Disease Day 2025)
- ★ Teija Bily for receiving the Dr. Edward James Middleton Bursary (Dr. Middleton was a Western alumnus)
- ★ Ben Rutledge (first author), Drs. Choy and Duennwald, and their labs and colleagues for having their [publication](#) featured in a [commentary](#)
- ★ Mallory Frederick for winning the Dr. William Zaharia Award for excellence in the Dept. of Biochemistry PhD program
- ★ Jashan Gill for receiving the Dr. Bishnu D. Sanwal Graduate Performance Award in recognition of her advocacy and outreach work with groups such as SOS, WRPN, and the BGSA, among others
- ★ Sugitha Janarthanan (Hu lab) for passing her PhD Qualifying Exam with Distinction and receiving a Chair's Travel Award to attend the 2025 ICLR conference
- ★ Simon Ofiara for receiving the Paul Dudley White International Scholarship Award for 2025 from the American Heart Association
- ★ Dr. Babatounde Moctard Oloulade, an incoming postdoctoral fellow in the Hu lab, for winning a 3-year CIHR postdoctoral fellowship
- ★ Jess Jamieson for receiving the Schulich Emerging Leader Award
- ★ Drs. Boffa, Karas, and O'Donoghue for their promotions
- ★ Dr. Hegele for being re-appointed as the Jacob J. Wolfe Distinguished Medical Research Chair in Human Gene Function at the Schulich School of Medicine & Dentistry ([Schulich News](#))
- ★ Dr. Hu for receiving a CIHR Catalyst Grant
- ★ Dr. Hu and his lab for having their research featured in [Schulich News](#) and for publishing in [Nature Communications](#)
- ★ Dr. Huff for receiving the King Charles III Coronation Medal in recognition of exceptional contributions and unwavering commitment to advancing heart-and-stroke research and awareness
- ★ Dr. Karas for receiving a grant from the Advanced Research and Invention Agency for the Synthetic Plant Program

- ★ Drs. Koschinsky/Boffa, O'Donoghue, and Schild-Poulter for each receiving CIHR Project Grants

PUBLICATIONS

- Dr. Andrews (Interpretable single-cell factor decomposition using sciRED) (Humanization of apolipoprotein E, amyloid, and Tau in Alzheimer's disease) (Single-nucleus and spatial transcriptomic atlas of COVID-19 liver)
- Dr. Balci (DNA methylation profile in Sifrim-Hitz-Weiss syndrome) (SMAD3 pathogenic variant-harboring individuals) (Overlap between Aicardi-Goutières and Singleton Merten syndromes) (Clinical implementation and outcomes of genetic testing for epilepsy)
- Drs. Balci, O'Donoghue (Glutamine missense suppressor tRNAs and polyglutamine aggregation)
- Dr. Boffa (Lp(a) receptor)
- Drs. Boffa, Koschinsky (Lipoprotein(a) response in lipid lowering)
- Drs. Choy, Duennwald (Sti1/Stip1/Hop and misfolded proteins during stress)
- Dr. Connaughton (Genetic testing in CKD) (Living kidney donor candidates) (Variants in potential novel candidate genes in CAKUT)
- Drs. Connaughton, Hegele (Genetic testing in CKD in patients over 50)
- Dr. DiMattia (Spatiotemporal analysis in spheroids) (Cancer dormancy signaling mechanisms in epithelial ovarian cancer)
- Dr. Duennwald (Prion protein in glioblastoma stem cells)
- Dr. Dumeaux (Idiopathic subglottic stenosis)
- Drs. Edgell, Schild-Poulter (Ku and RNA-mediated immune responses)
- Dr. Garnham (Biotransformation of deoxynivalenol by B. subtilis YjiC)
- Dr. Gebregiworgis (Metabolic reprogramming in response to Freund's adjuvants) (Switch II pocket inhibitor and KRASG12D)
- Dr. Gloor (Uropygial gland microbiota of migrants) (Vaginal metatranscriptome meta-analysis)
- Dr. Goldberg (Bone sialoprotein improves extraction socket healing)
- Dr. Hegele (Familial chylomicronemia syndrome) (Heterozygous lipoprotein lipase deficiency) (Translating genetics into clinical practice) (Lipoprotein lipase) (Volanesorsen and familial chylomicronemia syndrome) (Plozasiran for persistent chylomicronemia and pancreatitis risk) (Hypertriglyceridaemia-induced acute pancreatitis) (Targeting apoC-III with plozasiran in hypertriglyceridemia) (Plasma biomarkers, longitudinal atrophy, microvascular burden in neurodegenerative and cerebrovascular diseases) (Lipodystrophy severity score) (Polygenic risk score for coronary artery disease in familial hypercholesterolemia) (Reappraisal of statin)

primary prevention trials) (Therapeutics for hyperlipoproteinemia) (Protein-binding therapy to lower cholesterol)

- Dr. Heinemann (Yeast models for Charcot-Marie-Tooth disease)
- Drs. Heinemann, O'Donoghue (tRNA and small molecule therapeutics for aminoacyl-tRNA synthetase diseases)
- Dr. Hu (Proportional assist ventilation for minimizing duration of mechanical ventilation) (Prediction of effects of mutations on protein-protein interactions) (GraphBAN: graph-based approach for predicting compound-protein interactions) (Contrastive learning-based multimodal foundation model for molecular property prediction and antibiotic screening) (Transfer learning and multimodal foundation models for antibiotic discovery) (Extracellular vesicle miRNAs in acute respiratory distress vs healthy lung environments)
- Dr. Junop (Mitochondrial calcium uptake inhibition by MCUB) (Conformational flexibility of human ribokinase)
- Dr. Karas (Conjugative plasmids for inducible horizontal DNA transfer) (Genetic engineering in diatoms) (Cloning a chloroplast genome in *S. cerevisiae* and *E. coli*)
- Dr. Konermann (Modeling an electrospray ionization emitter) (Retention prediction in peptide reversed-phase LC)
- Dr. Koschinsky (Lipoprotein(a) levels in coronary artery bypass graft surgery)
- Dr. Lajoie (Platforms for characterization of extracellular vesicles) (Adipose-derived stromal cells in adipose tissue implants)
- Drs. Lajoie, Schild-Poulter (WDR26 and muskelin interactions regulate CTLH E3 ligase complex)
- Dr. Litchfield (CK2 sustains de novo fatty acid synthesis in kidney cancer cells)
- Drs. Lu, Zhou (Pin1-Cis P-Tau-ApoE axis in preeclampsia and dementia)
- Dr. O'Donoghue (tRNA^{Ala} anticodon variants mistranslate genetic code)
- Dr. Penner (Method for reproducible development of aptamers)
- Dr. Pickering (Intussusceptive angiogenesis-on-a-chip)
- Dr. Rugar (Pediatric diabetic ketoacidosis) (Gene therapy for Fabry disease) (Ornithine transcarbamylase deficiency) (NDUFA13 variants and neurodevelopmental phenotype) (Newborn screening for genetic variants associated with hearing loss)
- Dr. Schild-Poulter (WDR26 depletion, chromatin accessibility, and gene expression)
- Dr. Shilton (Cellular function and mechanism of action of quinone reductase 2)
- Dr. Siqueira (Saliva-derived components in photodynamic therapy) (Salivary proteins-enhanced antimicrobial photodynamic therapy)
- Dr. Turley (AP39 in cutaneous wound healing in frostbite)
- Dr. Venn (The ultimate comedian)