

Artwork: Josephine Francis

Joint symposia of the Canadian Lipoprotein Conference and the Canadian Society for Atherosclerosis, Thrombosis and Vascular Biology Hilton Resort and Spa, Whistler, BC

Thursday, October 13th - Sunday, October 16th, 2022

Co-Chairs: Angela Devlin & Gordon Francis

# **ACKNOWLEDGEMENTS**

### **SPONSORS**









# **CHAIRS, PRESENTATION & ABSTRACT JUDGES**

Marica Bacovic	Murray Huff	Erin Mulvihill	Bernardo Trigatti
Pascal Bernatchez	Réne Jacobs	Spencer Proctor	Ying Wang
Michael Boffa	Marlys Koschinsky	Katey Rayner	Geoff Werstuck
Josh Dubland	Thomas Lagace	Elizabeth Rideout	Scott Widenmaier
May Faraj	Warren Lee	Neale Ridgway	Changting Xiao
Morgan Fullerton	Richard Lehner	Nabil Seidah	Jessica Yue
Grant Hatch	Stéphanie Lehoux	Scot Stone	Dawei Zhang
Scott Heximer	Catherine Martel		

### TRAINEE COMMITTEE

Nadya Morrow Taylor Ricci Sumayyah Sokeechand Nolwenn Tessier Jeong-Ah Yoo Christopher Yuen









#### Canadian Lipid & Vascular Summit 2022

Joint symposia of the Canadian Lipoprotein Conference and the Canadian Society for Atherosclerosis, Thrombosis and Vascular Biology Hilton Resort and Spa, Whistler, BC

> Thursday, October 13th - Sunday, October 16th, 2022 Co-Chairs: Angela Devlin & Gordon Francis

#### Location

Oral sessions and meals: Mount Currie Room, Hilton Resort and Spa

Poster sessions: Cheakamus Room, Hilton Resort and Spa

### **Trainee presentation competition**

\*Masters student; \*\*\*PhD student; \*\*\*Postdoctoral Fellow

### Thursday, 13 October 2022

12:00 – 17:30	Arrival and registration		
15:00 – 17:30	Early Career Researcher Forum – Mount Currie Room		
16:00 – 17:30	CLC Business meeting, Diamond Head Room, Lower Level		
17:30 – 18:30	Dinner – Mount Currie Room		
18:45 – 18:55	Welcome – Angela Devlin and Gordon Francis		
18:55 – 19:25	2022 CIHR-ICRH/CSATVB Mid-Career Excellence Award in Blood and Blood Vessel Research Screening for occult cancer in patients with unprovoked venous thromboembolism (Past/Present/Future) Marc Carrier, Ottawa Hospital Research Institute, University of Ottawa		
19:25 – 20:30	Session #1	Thrombosis and Clinical Studies of Vascular Disease Chairs: Angela Devlin, Gordon Francis	
	19:25 – 19:40	Prothrombotic and antifibrinolytic effect of lipoprotein(a): in vitro and in vivo studies.  JR Clark, JM Assini, ML Koschinsky, <b>Michael B Boffa</b> . Robarts Research Institute, Western University	
	19:40 – 19:55	Native LDL and omega-3 fatty acids regulate white adipose tissue NLRP3 inflammasome and related diabetes risk in humans.  V Lamantia, S Bissonnette, Y Cyr, A Baass, C Des Rosiers, May Faraj. Montréal Clinical Research Institute (IRCM)/ Université de Montréal	
	19:55 – 20:10	Functional relationship of the CARS2 locus to coronary artery disease.  **Anh-Thu Dang, A Turner, P Lau, R McPherson. University of Ottawa Heart Institute	
	20:10 – 20:25	Familial hypercholesterolemia in Canada: Investigating management patterns and clinical outcomes from the FH Canada Registry.  ***Iulia Iatan, I Ruel, A Guerin, L Cermakova, P Couture, J Bergeron, A Baass, S Bernard, D Gaudet, BW McCrindle, GA Francis, GBJ Mancini, JM Brophy, RA Hegele, J Genest, LR Brunham, on behalf of the FH Canada investigators.  University of British Columbia	







# Friday, 14 October 2022

07:00 - 08:30	Breakfast	
08:30 - 09:15	2022 CIHR-ICRH Distinguished Lecturer/CSATVB Scientific Excellence Award in Blood and Blood Vessel Sciences 2022 Jean Davignon Distinguished Scientist Lecturer The long and winding road of Lipoprotein(a) biology: Where it comes from, where it goes, and why it's bad. Marlys Koschinsky, Robarts Research Institute, Western University	
09:15 – 10:15	Session #2	Intracellular Lipid Metabolism Chairs: Neale Ridgway, Rene Jacobs
	09:15 – 09:30	Role of lipid droplets in neuronal proteostasis.  ***Chinmayee Das, R Selvaraj, A Zaidi, N Steinberg, R Watts, P LaPointe, R Lehner, S Sipione. University of Alberta
	09:30 – 09:45	Regulation of membrane phospholipid balance under conditions of impaired CDP-ethanolamine pathway.  *Roya Iraji, M Bacovic. University of Guelph
	09:45 – 10:00	Characterization of the lipolytic role of arylacetamide deacetylase (AADAC).  Jihong Lian, R Nelson, R Watts, R Lehner. University of Alberta
	10:00 – 10:15	Autophagy dysfunction in old immune cells impairs atherosclerosis regression.  **Dominique Boucher, S Robichaud, I Suliman, A Rasheed, LI Susser, C Emerton, M Geoffrion, E De Jong, DME Bowdish, KJ Rayner, M Ouimet. University of Ottawa Heart Institute
10:15 – 10:30	Break	
10:30 – 12:15	Session #3	CSATVB President's Symposium: Atherosclerosis and Vascular Biology I Chairs: Angela Devlin, Scott Heximer
	10:30 – 10:50	2022 CLVS Spotlight Presentation Leveraging spatial biology to advance biobank research of atherosclerotic disease Ying Wang, University of British Columbia
	10:50 – 11:05	Contribution and characterization of smooth muscle cell foam cells in human atherosclerotic lesions using flow cytometry and single cell RNA sequencing.  Sima Allahverdian, V Blanchard, B Sahin, V Ollivier, JB Michel, GA Francis.  University of British Columbia
	11:05 – 11:20	Investigating the role of Interleukin-15 receptor alpha in atherosclerosis.  **B Sumayyah Sokeechand, BL Trigatti. McMaster University
	11:20 – 11:35	The role of riboflavin in endothelial function.  *Taylor Ricci, P Bernatchez, AM Devlin. University of British Columbia
	11:35 – 11:50	Pathogenic levels of lipoprotein(a) in transgenic mice exacerbate atherosclerosis and potentiate complex plaque features in a sex-specific manner.  **Julia Assini, JR Clark, C Xing, MB Boffa, ML Koschinsky. Western University
	11:50 – 12:10	2022 CLVS Spotlight Presentation Lipophagy: Molecular Mechanisms and Flux in Atherosclerosis. Mireille Ouimet, University of Ottawa Heart Institute







# Friday, 14 October 2022

unch	
Cassian #4	
Session #4	Atherosclerosis and Vascular Biology II Chairs: Bernardo Trigatti, Katey Rayner
13:15 –13:45	2022 CLVS Clinician Scientist Lecture  How genetics has improved our understanding and care of patients with inherited lipid disorders.  Liam Brunham, University of British Columbia
13:45 – 14:00	Detecting early atherosclerotic cardiovascular disease in high-risk women with and without polycystic ovary syndrome.  *Xiaoying Wu, M Wilke, M Ghosh, P Raggi, H Becher, D Vine. University of Alberta
14:00 – 14:15	Hyperlipidemia-induced Hematopoiesis is Repressed by MLKL in Endothelial Cells of the Splenic Niche.  ***Adil Rasheed, T Dennison, S Robichaud, HJ Wyatt, M Nguyen, M Geoffrion, Y Marouf, A Baxi, R Lee, H Kazan, C van Solingen, M Ouimet, K Rayner. University of Ottawa Heart Institute
14:15 – 14:30	IL-16 induces LDL transcytosis by a novel pathway: Implications for atherosclerosis.  **Tse Wing Winnie Ho, E Jang, W Lee. University of Toronto
14:30 – 14:45	The effects of vascular endothelial growth factor overexpression on atherosclerosis progression in a hyperglycemic mouse model.  *Rangana Talpe Guruge, G Werstuck. McMaster University
14:45 – 15:00	D-mannose supplementation decreases atherosclerotic lesions in ApoE-/- mice through regulation of gut microbiota composition and inflammation.  **Jonathan O'Connor Miranda, T Ebrahimian, F Dierick, M Kotsiopriftis, S Lehoux. McGill University
Break	
2022 CLC Rubinstein Lecture  Prevention of metabolic dysregulation and atherosclerosis: Lessons learned from nobiletin treatment  Murray Huff, Robarts Research Institute, Western University	
Break	
CSATVB Executive Meeting (by invitation)	
Poster Session #1, Cheakamus Room	
Dinner (on your own)	
Trainee Pub Night	
3 2 7 7	13:45 – 14:00  14:00 – 14:15  14:15 – 14:30  14:30 – 14:45  14:45 – 15:00  Greak  O22 CLC Rubins  Prevention of mereatment  Aurray Huff, Ro  Greak  SATVB Executive  Coster Session #







# Saturday, 15 October 2022

07:00 - 08:30	Breakfast	
08:30 – 10:10	Session #5	Lipoprotein Metabolism Chairs: Thomas Lagace, Spencer Proctor
	08:30 - 08:50	2022 CLVS Spotlight Presentation  New insights into the biology of PCSK9 & PCSK7 and their implication in lipid metabolism and beyond.  Nabil Seidah, Montreal Clinical Research Institute, University of Montreal
	08:50 – 09:05	Hepatocyte stress adaptors NRF1 (Nfe2l1) and NRF2 (Nfe2l2) regulate high- density lipoprotein (HDL) composition and function. MJ Trites, BM Stebbings, H Aoki, S Phanse, M Akl, L Li, M Babu, <b>Scott</b> <b>Widenmaier</b> . University of Saskatchewan
	09:05 – 09:20	Furin proteolysis of PCSK9 improves its interactions with oxidized LDL and cell surface receptors CD36 and LOX1.  **Ikhuosho Asikhia, T Lagace. University of Ottawa Heart Institute
	09:20 – 09:35	Bile acids modulate hepatic lipoprotein production via a TGR5 and GLP1R dependent pathway.  **Danielle Alvares, S Hoffman, K Adeli. University of Toronto
	09:35 – 09:50	The role of hepatic Surf4 in lipoprotein metabolism and the development of atherosclerosis in apoE-/- mice.  **Yishi Shen, H Gu, L Zhai, B Wang, S Qin, D Zhang. University of Alberta
	09:50 – 10:10	2022 CLVS Spotlight Presentation Cholesterol, triglyceride and HDL abnormalities in Muscular Dystrophy: potential identification of a new class of genetic dyslipidemias. Pascal Bernatchez, University of British Columbia
10:10 - 10:30	Break and Grou	p Photo
10:30 – 12:30	Poster Session #2	
12:30 – 13:30	Lunch	
13:30 – 15:00	Session #6	Diabetes and Fatty Liver Disease Chairs: Geoff Werstuck, Erin Mulvihill
	13:30 – 14:00	2022 Simon Pierre Noël Award Lecture Hepatic phospholipid metabolism mediates diet induce obesity and insulin resistance Réne Jacobs, University of Alberta
	14:00 – 14:15	Impact of Dietary Trimethylamine N-Oxide (TMAO) Supplementation on Weight Gain and Hepatic Glucose Metabolism in Mice Fed a High-Fat Diet.  *Hailey Fedoruk, B Vetsch, B Mandour, B Lunn, K Leonard, R Nelson, J Yue, R Jacobs. University of Alberta
	14:15 – 14:30	Low-fat dairy improved immune function more than high-fat dairy in a diet- induced swine model of insulin resistance. **Yongbo She, K Wang, A Makarowski, R Mangat, S Tsai, B Willing, SD Proctor, C Richard. University of Alberta







	14:30 – 14:45	EEF1A1 inhibition and deficiency alter metabolism in mouse liver and cell culture models.  **Rachel Wilson, A Kozlov, R Cumming, D Betts, N Boradaille. Western University
	14:45 – 15:00	Combination Metformin and Sitagliptin Therapy Improves Cardiac Function and Conserves Kinesis in Aged, Obese Dpp4EC-/- after LAD-Ligation.  **Natasha Trzaskalski, NM Morrow, AC Clement, J Hursti, AA Hanson, E Fadzeyeva, R Seymour, EE Mulvihill. University of Ottawa Heart Institute
15:00 – 18:30	Free Time	
15:30 – 16:30	CSATVB Annual General Meeting	
18:30 – 19:00	Reception	
19:00 - 21:00	Banquet and Awards	

### 16 October 2022

Travel Day





