

PROGRAM

Scientific program (pages 2 to 5)

Detailed programs (pages 6 to 11)

Scientific program

PROGRAM – Monday, July 25th 2022

15 h 45 -16 h 00 Boarding – Shuttle « Symphony Bus International » Montreal-St-Paulin
Metro station Berri-UQAM (corner Berri & de Maisonneuve), Montreal, QC
IRCM Group – Summer School

16 h 00 DEPARTURE (duration: 2h00)

17 h 00 -18 h 30 **ARRIVAL AT VENUE AND CHECK-IN**
Le Baluchon Éco-Villégiature
3550, Chemin des Trembles, St-Paulin, Quebec, J0K 3G0

18 h 30 -19 h 30 **Reception and welcoming remarks by the VHRN Director**
Michel Cayouette, PhD
Institut de recherches cliniques de Montréal, Montreal, Quebec, Canada

19 h 30 Welcome Dinner

Scientific program

PROGRAM – Tuesday, July 26th 2022

7 h 00 – 8 h 30	Breakfast
8 h 30 – 8 h 45	Opening remarks Adriana Di Polo, PhD , University of Montreal, Montreal, Quebec, Canada Stuart Trenholm, PhD , McGill University, Montreal, Quebec, Canada
8 h 45 – 9 h 45	<i>Restoring function to the human cornea: bench to bedside and back</i> May Griffith, PhD , University of Montreal, Montreal, Québec, Canada
9 h 45 – 10 h 35	<i>The neurovascular unit: a new therapeutic target for glaucoma</i> Adriana Di Polo, PhD , University of Montreal, Montreal, Quebec, Canada
10 h 35 – 10 h 45	<i>Dr Suzanne Véronneau-Troutman, a pioneer in many ways</i> Isabelle Hardy, MD, FRCSC , University of Montreal, Montreal, Quebec, Canada
10 h 45 – 11 h 15	Coffee break
11 h 15 – 12 h 15	<i>Regenerating the retina via cell reprogramming</i> Michel Cayouette, PhD Institut de recherches cliniques de Montréal, Montreal, Quebec, Canada
12 h 15 – 14 h 00	Lunch
14 h 00 – 15 h 00	<i>Ocular surface nerves: structure, function, and protection of Vision</i> Darlene Dartt, PhD , Harvard University, Cambridge, Massachusetts, USA
15 h 00 – 15 h 30	<i>Group discussion with patient partners</i> Panel Session Mary-Kate Fraser and Conrad Eder FBC representative (Larissa Moniz/Morgan Ineson , <i>Fighting Blindness Canada</i> (FBC), Ontario, Canada) Stuart Trenholm , Université McGill, Montréal, Québec, Canada Michel Cayouette, PhD , IRCM, Montréal, Québec, Canada
15 h 30 – 17 h 30	<i>Free time (outdoor activities or other)</i>
17 h 30 – 18 h 30	<i>A vision for the future: How to recruit neural plasticity for sight restoration after stroke</i> Krystel Huxlin, PhD , University of Rochester, Rochester, New York, USA
18h 30 – 19 h 30	Session 1: Poster presentations (odd numbers)
19 h 30	Dinner BBQ



Scientific program

PROGRAM – Wednesday, July 27th 2022

7 h 00 – 8 h 30	Breakfast
8 h 30 – 9 h 30	<i>The assembly and function of motion-selective retinal circuits</i> Arjun Krishnaswamy, PhD McGill University, Montreal, Quebec, Canada
8 h 45 – 9 h 45	<i>Effects of vision loss on the brain's internal compass</i> Stuart Trenholm, PhD McGill University, Montreal, Quebec, Canada
10 h 30 – 11 h 00	Coffee break Poster viewing
11h 00 – 12 h 00	Session 2: Flash talks by students
12 h 00 – 14 h 00	Lunch
14 h 00 – 15 h 00	Optogenetic retinal therapy and cell type specific therapies Botond Roska, MD, PhD Institute for Molecular and Clinical Ophthalmology, Basel, Switzerland
15 h 00 – 15 h 30	Photobooth and Free time
15 h 30 – 15 h 45	Coffee break Poster viewing
15 h 45 – 17 h 30	Free time (outdoor activities or other)
17 h 30 – 18 h 30	<i>A solution to the worldwide myopia epidemic: A tale of translation from bench to clinic</i> Maureen Neitz, PhD University of Washington, Seattle, Washington, USA
18h 30 – 19 h 30	Session 3: Poster presentations (even numbers)
19 h 30	Gala Dinner

Scientific program

PROGRAM – Thursday, July 28th 2022



7 h 00 – 8 h 45	Breakfast
8 h 45 – 9 h 45	<i>An overview of vision rehabilitation: what we can do now while we wait for the 'cure'?</i> Walter Wittich, PhD, FAAO, CLVT École d'optométrie, University of Montreal, Montreal, Quebec, Canada
9 h 45 – 10 h 45	<i>How to discover a new retinal gene for retinal degeneration, build a human database and perform a human therapeutic trial for blindness</i> Robert Koenekoop, MD, PhD Montreal Children's Hospital, McGill University Health Center, Montreal, QC, Canada
10 h 45 – 11 h 00	Break Poster viewing
11h 00 – 12 h 00	Session 4: Flash talks by students
12 h 00 – 12 h 15	Closing comments and wrap-up Adriana Di Polo, PhD University of Montreal, Montreal, Quebec, Canada Stuart Trenholm, PhD McGill University, Montreal, Quebec, Canada
12 h 30 – 14 h 00	Lunch
14 h 00 -14 h 15	Boarding – Shuttle « Symphony Bus International » St-Paulin-Montréal Le Baluchon Éco-Villégiature
14 h 15	DEPARTURE (duration: 2h00)
16 h 30	ARRIVAL at MONTREAL Station de métro Berri-UQAM (corner Berri & de Maisonneuve), Montreal, QC

Detailed programs

Poster Presentations – odd numbers

Abstract

Session 1 : Tuesday, July 26 2022
6:30pm-7:30pm

1	Uncovering the role of Podxl in cone photoreceptor cell development and survival Samantha Boudreau , Michael Housset, Michel Cayouette
3	Assessing the interocular delay in amblyopia and its link to visual acuity Daniel Gurman , Alexandre Reynaud
5	Formation de contacts synaptiques : contribution du récepteur GPR55 Lucile Lacomme , Philippe Germain, Aurélie Stil, Jean-François Bouchard
7	 Mesure fonctionnelle de la quantité de lumière détectée par les bâtonnets Geneviève Rodrigue , Laurine Paris, Judith Renaud, Rémy Allard
9	Nanoparticles for Drug Delivery to Treat Ocular Melanoma Mozhgan Aghajanzadeh , Thai Hien Tu, Christopher E Rudd, May Griffith
11	La synthèse de corps cétoniques par l'endothélium ischémique favorise l'angiogenèse pathologique dans la rétinopathie proliférante Charlotte Betus , Candace Yang, Gael Cagnone, Emilie Heckel, Tapan Agnihotri, Sheetal Pundir, Jose Carlos Rivera, Grant Mitchell, Jean-Sébastien Joyal
13	Pten Regulates the Development of Starburst Amacrine Cell Dendrites Teva Bracha , Kevin Wright
15	 Mast cell activation contributes to experimental choroidal neovascularization Rabah Dabouz , Pénélope Abram, Carlos José Rivera, Sylvain Chemtob
17	Évoquer la vision par stimulation optogénétique du cortex visuel chez la souris Ismaël Djerourou , Emma Morgan, Véronique Chouinard, Valérie Daigneault, Maurice Ptito, Matthieu Vanni.
19	Cellular signals corresponding to structural alterations to single retinal ganglion cells in glaucoma with in vivo imaging Aliénor Jamet , Balwantray Chauhan
21	Morphology and Characteristics of MafB+ Retinal Ganglion Cells and Amacrine Cells Nina Luong , Kevin Wright, Benjamin Sivyer
23	The cell adhesion molecule Sdk1 shapes the assembly of a retinal circuit that detects visual orientation Pierre-Luc Rochon , Catherine Theriault, Aline G. Rangel Olgin, Arjun Krishnaswamy.

Detailed programs

Poster Presentations – odd numbers

Abstract

**Session 1 :Tuesday, July 26 2022
6:30pm-7:30pm**

25	Wound healing response of the alkali burnt cornea after treatment with novel anti-inflammatory drugs Neethi Thathapudi , Marc Groleau, Naoufal Akla, Marie-Claude Robert, May Griffith
27	The anti-uveal melanoma effect of miR-181a and combinational therapies Rui Wang , Houda Tahiri, Chun Yang, Pierre Hardy
29	Restoration of mitochondrial axonal transport prevents neurodegeneration and rescues visual function in glaucoma Heberto Quintero , Yukihiro Shiga, Nicolas Belforte, Luis Alarcon-Martinez, Sana El Hajji, Deborah Villafranca-Baughman, Florence Dotigny, Adriana Di Polo
31	Asymmetries in Connections Between Wide-Field Amacrine Cells and Starburst Amacrine Cells in the Mouse Dorsal Retina Iliia Capralov

Detailed programs

Oral Presentations – odd numbers

Résumé

Session 2 : Wednesday July 27 11:00am-12:00pm

Moderator: To come, PhD



7	11h00	 Mesure fonctionnelle de la quantité de lumière détectée par les bâtonnets Geneviève Rodrigue , Laurine Paris, Judith Renaud, Rémy Allard
11	11h10	La synthèse de corps cétoniques par l'endothélium ischémique favorise l'angiogenèse pathologique dans la rétinopathie proliférante Charlotte Betus , Candace Yang, Gael Cagnone, Emilie Heckel, Tapan Agnihotri, Sheetal Pundir, Jose Carlos Rivera, Grant Mitchell, Jean-Sébastien Joyal
13	11h20	Pten Regulates the Development of Starburst Amacrine Cell Dendrites Teva Bracha , Kevin Wright
15	11h30	 Mast cell activation contributes to experimental choroidal neovascularization Rabah Dabouz , Pénélope Abram, Carlos José Rivera, Sylvain Chemtob
25	11h40	Wound healing response of the alkali burnt cornea after treatment with novel anti-inflammatory drugs Neethi Thathapudi , Marc Groleau, Naoufal Akla, Marie-Claude Robert, May Griffith
31	11h50	Asymmetries in Connections Between Wide-Field Amacrine Cells and Starburst Amacrine Cells in the Mouse Dorsal Retina Iliia Capralov

Detailed programs

Poster Presentations – odd numbers

Abstract

Session 3 : Wednesday July 27 6h30pm-7h30pm

2		Assessment of Visual Function in a Snf2h Knockout Mouse Model of Retinal Degeneration Skyra Cheng , Pamela Lagali, Adam Baker, Catherine Tsilfidis
4		Evaluation and Adaptation of the FACE-Q Craniofacial Patient-Reported Outcome Measure for Ophthalmology Patients Farheen Khan , Roxanne Noronha, Sara Williams, Karen Wong-Riff, Asim Ali, Helen Dimaras
6		Tear evaporation rate and influential factors measuring with the Waterloo Evaporimeter Naeimeh Monfared , Paul J. Murphy
8		An ideal observer analysis of letter identification in wavelet noise mimicking spatial scrambling in amblyopia Xingqi Raffles Zhu , Alex Baldwin, Robert Hess
10		Comparing normal and optogenetically restored vision Nicole Arnold , Rudi Tong, Aude Villemain, Stuart Trenholm
12		3D Printed Tactile Maps to Improve Spatial Learning of Blind Individuals Maxime Bleau , Natalina Martieniello, Joseph Paul Nemargut, Maurice Ptito
14		The role of neuron-glia communication in retinal maturation Thomas Brown , Shashank Srikanta, Nicolas Cemarkian, Michel Cayouette
16		Novel approaches to stimulate regeneration in the mammalian retina David Luke Ajay , Michel Cayouette
18		Insulin promotes RGC dendrite regeneration through ribosomal protein S6 kinase activation leading to restoration of neuronal function in glaucoma Sana El Hajji , Yukihiro Shiga, Nicolas Belforte, Yves Carpentier Solorio, Philippe D'Onofrio, Florence Dotigny, Nathalie Arbour, Adriana Di Polo
20		The role of the dorsal raphe in visually guided behavior Jonas Lehnert , Kerry Yang, Kuwook Cha, Anmar Khadra, Erik Cook, Arjun Krishnaswamy
22		The role of cadherin 4 in the assembly of off retinal circuits Aline Giselle Rangel Olguin , Pierre-Luc Rochon, Catherine Theriault, Arjun Krishnaswamy
24		Time-course analysis of human trabecular meshwork single cell contraction after a 5-day dexamethasone treatment Luis Sanchez , Jie J. Zheng

Detailed programs

Poster Presentations – odd numbers

Abstract

Session 3 : Wednesday July 27 6h30pm-7h30pm

26	A novel femtomolar hemodynamic modulation strategy reveals major microvascular defects in glaucoma at single-pericyte scale Deborah Villafranca-Baughman , Luis Alarcon-Martinez, Jorge L. Cueva Vargas, Nicolas Belforte, Florence Dotigny, Adriana Di Polo
28	Designing Injectable Liquid Corneas for Patients at High Risk for Rejecting Corneal Transplantation: synthesis, characterization, in vitro biocompatibility study Mostafa Zamani , Mozhgan Aghajanzadeh, May Griffith
30	Light-evoked RGC calcium dynamics are altered in glaucoma: live imaging evidence of abnormal calcium clearance Yukihiro Shiga, Aline Giselle Rangel Olguin, Luis Alarcon-Martinez, Nicolas Belforte, Heberto Quintero, Deborah Villafranca-Baughman, Florence Dotigny, Arjun Krishnaswamy, Adriana Di Polo


Detailed programs

Oral Presentations – odd numbers

Abstract

Session 4 : Thursday July 28 11:00am-12:00pm

Moderator: : To come, PhD

2	11h00	 Assessment of Visual Function in a Snf2h Knockout Mouse Model of Retinal Degeneration Skyra Cheng , Pamela Lagali, Adam Baker, Catherine Tsilfidis
8	11h10	An ideal observer analysis of letter identification in wavelet noise mimicking spatial scrambling in amblyopia Xingqi Raffles Zhu , Alex Baldwin, Robert Hess
12	11h20	3D Printed Tactile Maps to Improve Spatial Learning of Blind Individuals Maxime Bleau , Natalina Martieniello, Joseph Paul Nemargut, Maurice Ptito
16	11h30	Novel approaches to stimulate regeneration in the mammalian retina David Luke Ajay , Michel Cayouette
22	11h40	The role of cadherin 4 in the assembly of off retinal circuits Aline Giselle Rangel Olguin , Pierre-Luc Rochon, Catherine Theriault, Arjun Krishnaswamy
26	11h50	A novel femtomolar hemodynamic modulation strategy reveals major microvascular defects in glaucoma at single-pericyte scale Deborah Villafranca-Baughman , Luis Alarcon-Martinez, Jorge L. Cueva Vargas, Nicolas Belforte, Florence Dotigny, Adriana Di Polo