McGill

2024 McGILL OPHTHALMOLOGY SYMPOSIUM

Friday, June 14th
Saturday, June 15th

St. James Club, Montreal, Quebec

Neuro-Ophthalmology

Program Learning Objectives

At the end of the program, participants will be able to:

IDENTIFY...
advances in neuro-ophthalmic conditions and the effects it has on clinical practices

EXAMINE...
the transformation of eyecare through innovations and information technology

ILLUSTRATE...
new neuro-ophthalmology medical therapies

DESCRIBE...
how neuro-imaging fits in to the paradigm of managing neuro-ophthalmic conditions

SUMMARIZE...
the basics of neuro-imaging

IDENTIFY...
the use of clinical information systems to improve neuro-ophthalmology care

Schedule

Day 1 – Friday, June 14th

8:00 am – 8:30 am

Registration & Breakfast

8:30 am – 8:45 am

Welcome Remarks

Dr. Guillermo Rocha, Professor and Chair, Department of Ophthalmology & Visual Sciences, McGill University

Professor Alex Baldwin, Assistant Professor, Department of Ophthalmology & Visual Sciences, McGill University, Co-Chair, McGill Ophthalmology Symposium

8:45 am – 9:15 am • NEURO-OPHTHALMOLOGY BREAD AND BUTTER

Headaches for Ophthalmologists

Professor Susan Mollan

- Prepare a general ophthalmologist with the confidence to triage headache patients
- Describe the "SNOOPS" red flag mnemonic for secondary headache disorders

9:15 am – 10:00 am • DIFFICULT ISSUES

"Glaucoma" in Neuro-Ophthalmology – *Dr. Julie Falardeau*

- Recognize uncommon or commonly missed optic neuropathies that can mimic glaucoma
- Recognize MRI findings frequently seen with advanced glaucoma

Approach to the Patient with Diplopia – *Dr. Mark Gans*

- Evaluate if the patient has binocular diplopia that impacts their quality of life
- Apply the best method to diagnose and treat the patient's binocular diplopia

Cranial Nerve Palsy – Do I Need to Image, and How? – *Dr. Francine Wein*

- Evaluate indications for imaging in patients based on clinical presentation, underlying conditions and potential differential diagnosis
- Evaluate appropriate imaging modalities – strengths and limitations of MRI, CT and MR angiography

10:00 am – 10:45 am

BREAK

10:45 am – 11:15 am • EYE MOVEMENTS DURING GOAL-DIRECTED SEARCH: WHAT DO THEY TELL US AND HOW WE CAN USE THEM

Dr. Suresh Krishna

Gain familiarity with some state-of-the-art aspects of:

- active visual scanning via eye-movements
- visual information transfer across fixations

11:15 am – 11:45 am • NEW DEVELOPMENTS IN AMBLYOPIA

Using artificial intelligence to predict visual acuity improvement in response to occlusion therapy in amblyopic eyes – *Daniel Chow*

- Examine a use case for AI (neural networks) in clinical decision making
- Recognize the role that occlusion duration plays in predicting amblyopia outcomes

Impacts of amblyopia on your patients that you may be missing – *Xingqi (Raffles) Zhu*

- Recognize the multiple knock-on effects of amblyopia on visual behaviour relevant to everyday life
- Examine an application of AI (convolutional neural networks) to understand visual system (dys) function in amblyopia

At-home training on an app to improve vision in adults with amblyopia – *Nicole Dranitsaris*

- Recognize the specific impact that amblyopia has on reading speed, and the ramifications of that effect
- Review a novel approach leveraging reading itself as a novel amblyopia therapy

11:45 am – 1:15 pm

LUNCH

1:15 pm – 2:00 pm • POSTER SESSION

2:00 pm – 2:30 pm • COMPUTATIONAL NEURO-OPHTHALMOLOGY

Papilledema and Pseudopapilledema Detection using Artificial Intelligence – *Tracy Aoun*

- Examine a use case of AI (AutoML) in identifying disease in fundus images
- Describe the distinction of the code-free AutoML approach compared to other deep learning solutions

Understanding Nonarteritic Ischemic Neuropathy Using Computer Simulation – *Amrit Das*

- Examine the difficulty with creating conventional disease models for Nonarteritic Anterior Ischemic Optic Neuropathy
- Describe the use of simulation software to develop a disease model for Nonarteritic Anterior Ischemic Optic Neuropathy

Interaction of Neuroprotective Compounds with MOG and Anti-MOG Antibodies: Implications for Treatment of Anti-MOG Syndrome – *Raheem Remtulla*

- Identify the role of novel phosphine-borane compounds in management of Anti-MOG syndrome and their proposed mechanism of action
- Recognize the use of In Silico simulation techniques to explore pharmacological interactions

2:30 pm – 2:40 pm • SPECIAL PRESENTATIONS

Dr. Leonard M. Parver Award
Mrs. Corrine Propas-Parver

Dr. Frederick Kingdom Retirement
Dr. Guillermo Rocha

2:40 pm – 3:15 pm
BREAK

3:15 pm – 3:45 pm • VISUAL BIOMARKERS IN CNS INFLAMMATORY SYNDROMES – *Dr. Fiona Costello*

- Review structural and functional aspects of the afferent visual pathway that make it an ideal model to investigation central nervous system (CNS) inflammatory disorders
- Examine emerging visual biomarkers used in the diagnosis and management of multiple sclerosis (MS)

3:45 pm – 4:30 pm • MYSTERY CASES IN NEURO-OPHTHALMOLOGY – SESSION 1

Mystery Case #1 – *Harrison Watt*
Mystery Case #2 – *Ali Salimi*

Panel Discussion: Professor Susan Mollan, Dr. Fiona Costello, Dr. Mark Gans
Moderator: Dr. Leonard Levin

- Analyze and discuss presented cases, learn from expert panelists and peer interaction
- Discuss various diagnostic and management approaches to presented cases

4:30 pm – 5:00 pm
Daily Concluding

DAY 2 – Saturday, June 15th

8:00 am – 8:30 am
Registration & Breakfast

8:30 am – 8:45 am
Opening Remarks
Dr. Guillermo Rocha, Professor and Chair, Department of Ophthalmology & Visual Sciences, McGill University
Dr. Hady Saheb, Associate Professor, Department of Ophthalmology & Visual Sciences, McGill University, Co-Chair, McGill Ophthalmology Symposium

8:45 am – 9:30 am • DR. SEAN MURPHY LECTURER
A Modern Day Approach to Optic Neuritis
Dr. Fiona Costello
- Review the evolving spectrum of optic neuritis subtypes in the current era
- Highlight clinical features, imaging characteristics and fluid biomarkers that may be used in the diagnosis of different optic neuritis subtypes

9:30 am – 10:45 am • NEURO-OPHTHALMOLOGY FAVOURITES

Pearls in Neuro-Ophthalmology – *Dr. Francine Mathieu Millaire*
- Examine key clinical pearls in neuro-ophthalmology to help in diagnostic acumen
- Discuss practical tips and strategies to apply in everyday clinical practice

Susac Syndrome and Its Mimics – *Dr. Kinda Najem*
- Summarize clinical presentation, diagnostic criteria and distinguishing features of susac syndrome
- Differentiate susac syndrome from other conditions with similar presentations

Lethal Nystagmus – *Dr. Leonard Levin*
- Present pathophysiology and various types of lethal nystagmus
- Examine effective diagnostic and therapeutic strategies for managing lethal nystagmus, including imaging, pharmacological interventions and referral protocols

Functional Vision Loss – *Dr. Daniela Toffoli*
- Identify characteristics and underlying etiologies of functional vision loss
- Develop a multidisciplinary approach to management

Amaurosis fugax – *Dr. Katherine Boudreault*
- Discuss what should you do if your patient reports an episode of amaurosis fugax a month ago
- Discuss what should you do if your patient reports an episode of amaurosis fugax within the last 72 hr

10:45 am – 11:15 am

BREAK

11:15 am – 11:45 am • GLAUCOMA: NEURO-OPHTHALMOLOGY'S LITTLE BROTHER

Towards Early Glaucoma Detection: Contrast Modulation Perimetry as a Selective Diagnostic Tool – *Ana Ramirez*

- Examine the impact of glaucoma on visual processing and the behavioural consequences of that impact
- Indicate how these properties of glaucoma can be exploited to develop novel early-detection tools

Decade-Long Outcomes of Two First-Generation Trabecular Micro-Bypass Stents with Cataract Surgery in Primary Open-Angle Glaucoma – *Ali Salimi*

- Examine the appropriate design of a long-term follow-up study for a surgical intervention
- Investigate the long-term outcomes of iStent implantation

Potential inequities in glaucoma research in Cochrane reviews and randomized clinical trials – *Mostafa Bondok*

- Review the appropriate equity-relevant factors that can be considered in systematic reviews
- Recognize the state of equity considerations in Cochrane reviews on glaucoma

11:45 am – 12:15 pm • NEW DEVELOPMENTS IN NEURO-OPHTHALMOLOGY

Paracentral Acute Middle Maculopathy in Migraines with Aura – *Andrew Farah*

- Recognize the link between migraine and paracentral acute middle maculopathy
- Examine the role of spectral domain OCT in identifying paracentral acute middle maculopathy

Optic Nerve Hypoplasia in Coffin-Siris Syndrome: A Case Series – *Sid Rahman*

- Examine the ophthalmological abnormalities that present in Coffin-Siris Syndrome
- Analyze the specific optic nerve abnormalities found in example Coffin-Siris Syndrome cases

Behavioural and real-world impact of Visual Snow Syndrome – *Ahmed Al-Qahtani*

- Review the stereotypic presentation and co-morbidities associated with visual snow syndrome
- Examine the current scientific understanding of the underlying pathophysiology and function consequences of visual snow syndrome

12:15 pm – 1:30 pm

LUNCH

1:30 pm – 2:15 pm • DR. STEPHEN FICHMAN LECTURER

Idiopathic Intracranial Hypertension: New Developments You Need to Know About

Professor Susan Mollan

- Describe the recent evidence from landmark randomized clinical trials in Idiopathic Intracranial Hypertension
- Produce a management framework to protect the vision, reduce headache morbidity and manage the underlying pathophysiology

2:15 pm – 3:00 pm • DR. DARIO LORENZETTI LECTURER

Neuro-Ophthalmic Complications Related to Systemic Drugs: Update and Refresher

Dr. Julie Falardeau

- Recognize manifestations of neuro-ophthalmic complications of systemic medications
- Examine the management approach for the neuro-ophthalmic toxicities

3:00 pm – 3:10 pm

Dr. Michael Flanders Retirement Presentation

Dr. Guillermo Rocha

3:10 pm – 4:00 pm • MYSTERY CASES IN NEURO-OPHTHALMOLOGY – SESSION 2

Mystery Case #3 – *Stuti Tanya, Dr. Leonard Levin*

Mystery Case #4 – *Raheem Remtulla*

Panel Discussion: Professor Susan Mollan, Dr. Fiona Costello, Dr. Julie Falardeau

Moderator: Dr. Leonard Levin

- Analyze and discuss presented cases, learn from expert panelists and peer interaction
- Discuss various diagnostic and management approaches to presented cases

4:00 pm – 4:10 pm

Concluding Remarks

POSTER SESSION LIST

1. **Binocular combination under asynchronous viewing conditions**
   Daniel Gurman
2. **Does human perception have access to purely monocular information?**
   Rinku Sarkar
3. **Reading efficiency in amblyopia**
   Dasha Vanichkina
4. **Cyanoacrylate Glue as a Novel Skin Substitute in Periocular Skin Excisions: Case Series and Literature Review**
   Mostafa Bondok
5. **Ranibizumab and aflibercept levels and its impact on vascular endothelial growth factor in human breast milk**
   Motaz Bamakrid
6. **Hypertensive uveitis secondary to hyaluronic acid injections: A Case**
   Peter Tai
7. **Efficacy and safety of nanomicellar cyclosporin 0.09% in patients with dry eye disease refractory to emulsion cyclosporin 0.05%: a prospective crossover study –**
   Siddharth Nath
8. **The mechanisms of crossed and uncrossed disparities in coarse stereopsis**
   Penghan Wang
9. **Impaired perception of isoluminant red-green contrast modulation stimuli: Evidence for a magnocellular pathway mechanism**
   Ana Ramirez
10. **Testing the effect of luminance masking on visual cortex with fMRI studies**
    Sujeevini Sujanthan
11. **Uncovering Visual Distortions in Amblyopia: A Comprehensive Approach**
    Haneieh Molaei

POSTER SESSION LIST

12. **Evaluating Quality of care and post-operative outcomes for Inuit patients in Nunavik**
    Sid Rahman

13. **Sensitivity to stimuli defined by luminance and isoluminant colour contrast across the visual field**
    Savannah Dunberry

14. **Apoptosis-mediated RPE cell damage above drusen in enucleated and eviscerated eyes**
    Emma Youhnovska

15. **Analysis of Ocular Emergencies: Incidence and Clinical Patterns Over Four Years at Major Tertiary Centers in Montreal, Canada**
    Jonathan El-Khoury

16. **Perceptual learning generalizes to untrained visual field locations in a naturalistic navigation task in a patient with cortical visual impairment**
    Ashim Pandey

17. **Fine-Scaled Visual Cortex Intersubject Correlation and Functional Connectivity Patterns During Movie**
    Austin Cooper

18. **Increased intermodulation frequencies observed with MEG during perceptual ambiguity**
    Erik Mokri

19. **TMS-fMRI to assess dorsal-ventral connectivity in object recognition from SFM cues**
    William Nguyen

20. **High-resolution diffusion MRI reveals divergence of cortico-cortical connections and enhanced connectivity of the central visual field**
    Ziqi Hao

21. **Effectiveness of Ophthalmologist Visits to Nunavik Based on Transfer to Montreal**
    Jade Dahoud

Accreditation:

La présente activité est une activité de formation collective agréée (section 1) au sens que lui donne le programme de Maintien du certificat (MDC) du Collège royal des médecins et chirurgiens du Canada ainsi qu'une activité de développement professionnel reconnue (catégorie A) au sens que lui donne le Collège des médecins du Québec. Cette activité a été approuvée par la direction de Développement professionnel continu de la Fédération des médecins spécialistes du Québec.

Vous pouvez déclarer un maximum de 11,25 heures en section 1 / activité de développement professionnel reconnue (catégorie A). Les participants doivent réclamer un nombre d'heures conforme à la durée de leur participation.

This event is an Accredited Group Learning Activity (Section 1) as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada, and a recognized professional development and assessment activity (Categories A) as defined by the Collège des médecins du Québec. This activity was approved by the direction de Développement professionnel continu (DDPC) of the Fédération des médecins spécialistes du Québec.

You may claim a maximum of 11.25 hours Section 1 / Recognized Professional Development Activity (Category A). Participants should claim a number of hours consistent with their attendance.

Rôle CanMEDS	Nb d'objectifs traitant de la compétence	Pourcentage relatif
Expert	45	28%
Communicateur	50	31%
Collaborateur	0	0%
Leader	25	15%
Promoteur de la santé	3	2%
Érudit	33	20%
Professionnel	7	4%
TOTAL	**163**	**100%**

2024 McGILL OPHTHALMOLOGY SYMPOSIUM

Organizing Committee:

Hady Saheb, MD, MPH, Co-chair
McGill Ophthalmology Symposium
Kelly Watters, Event Manager
Sylvie Gariépy, Directrice AMOQ

Scientific Committee:

Hady Saheb, MD, MPH, FRCSC
Leonard Levin, MD, PhD
Alex Baldwin, PhD

Le programme a été élaboré conjointement avec l'Association des médecins ophtalmologistes du Québec (AMOQ) de manière à respecter les principes d'intégrité, d'objectivité et d'équilibre scientifiques.

Ce congrès scientifique est réservé aux ophtalmologistes, aux résidents en ophtalmologie et aux étudiants en médecine.

Divulgation de conflits d'intérêts potentiels : Tout conflit d'intérêt sera divulgué par le comité scientifique, les conférencier.ère.s et les personnes ressources lors des présentations.

L'AMOQ, par le biais de sa cotisation syndicale, participe au financement de la Journée clinique d'ophtalmologie de McGill.

Énoncé de mission Comité DPC-AMOQ

Le Comité du développement professionnel continue (DPC) de l'Association des médecins ophtalmologistes du Québec (AMOQ) s'est donné pour mandat d'assurer le maintien des connaissances professionnelles et d'améliorer les compétences transverses des membres de l'Association dans le but d'offrir à la population du Québec les meilleurs standards de qualité en ce qui a trait à la pratique de l'ophtalmologie.

AMOQ
Association des médecins ophtalmologistes du Québec

This program benefits from Unrestricted Educational Grants

SILVER

- Alcon
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