



We Support New Ideas

Spring 2024

Glaucoma Research Society of Canada **News & Information**

Vol. 35 No. 1

Charitable Registration No 889178695 001

Future Advances in At-Home Glaucoma Care

Technological innovation and clinical research are resulting in more tools to help patients with glaucoma. Here's a peek at some future at-home tools projected by The American Academy of Ophthalmology in November 2023.

Nanodroppers, adaptable onto most bottles, decrease drop size. This has the potential to reduce side effects and to increase the number of doses from a bottle.

Expect to see **home visual acuity tests** as a review of trial studies shows them to be accurate and comparable to office tests. Studies are underway to evaluate web-based and tablet-based types of **home visual field tests**. More research is needed to see if these tests can detect glaucoma progression.

Smartphone adapters can take photos of the retina of the eye using an iPhone or other device, so **home optic nerve imaging** is a future possibility.

Several studies have shown the efficacy of **home tonometry** in detecting therapy related intraocular pressure (IOP) changes. Future applications will detect peak IOP that occurs outside of clinic hours, evaluate treatment efficacy of new medications, and remotely monitor patients postoperatively.

Wearable eye devices may, in the future, eliminate the need for patients to take measurements themselves. Examples under study include a contact lens with an embedded microsensor that can measure IOP continuously and an implantable IOP sensor that transmits readings through an external handheld device.

SAVE THE DATE!

Glaucoma Research Society of Canada's
2024 Annual Supporters' Meeting and
14th Annual Albert Waxer Lecture
will be held virtually on
Thursday, October 17, 2024

Please check our website
www.glaucomaresearch.ca
closer to the date for more details.
Or, if you're on our email list, sit back,
relax, and await your emailed invitation!
To join our email list, please contact us at
info@glaucomaresearch.ca



At the 2023 Walter Wright Symposium Stuart Murray, Dr Cindy Hutnik, & Dr Mark Shaffer handed out brochures & answered questions about the Society. Stuart Murray spoke about living with glaucoma.

President's Message



The Annual Supporters' Meeting (ASM), held virtually on October 11, 2023, was well attended. Highlighting the meeting was the 13th annual Albert Waxer lecture, *Investigating Potential Associations*

Between Common Medications and Glaucoma, delivered by Dr Brennan Eadie. You can view the presentation and the question and answer session that followed on our website.

At the meeting I reported that Renée Wolfe, Vice-President of our Board of Directors, had resigned after 30 years of dedicated service. The Society is very grateful for her contribution, particularly with respect to fundraising.

This year's ASM will be held virtually on October 17, 2024. The Board continues to meet regularly in virtual format to carry out the Society's objectives – raising funds for research grants. And I'm pleased to inform you that the Society raised over \$44,723.66 from the Toronto Waterfront Marathon in 2023. This year we plan to hold our own Walkathon on October 20, 2024.

As in previous years, the Society also received financial support from bequests, grants from foundations, and donations from individuals and corporations. Thanks to these generous contributions, the Society is awarding research grants totalling more than \$350,000 in 2024. (See list on opposite page.) Look for details about ways to provide financial support to the Society in a tax-effective way elsewhere in this newsletter.

The audited financial statements for the year ended on December 31, 2023 are available on the Society's website.

James M. Parks, President

Global Rate of Blindness Due to Glaucoma Decreases

Using population-based data from the Global Vision Database, a recent study reports a 23.3% decrease in glaucoma-related blindness in adults over 50 worldwide between 2000 and 2020.

However glaucoma remains a major cause of blindness globally. In 2020, 3.6 million people were blind due to glaucoma with an additional 4.1 million people having glaucoma-related vision impairment.

Eye April 2024

Calcium Channel Blockers Linked to Higher Glaucoma Risk

An analysis of data from over 400,000 UK Biobank participants revealed an association between calcium channel blockers (CCBs) used to treat high blood pressure and an increased prevalence of glaucoma.

The study concludes that CCBs may represent an important modifiable risk factor for glaucoma. Experts caution however that more evidence showing that CCB use is directly responsible for higher glaucoma risk is still needed.

JAMA Ophthalmology September 2023

Study Shows Glaucoma & Alcohol Link in Men

Japanese researchers report that alcohol consumption patterns such as frequency and quantity were associated with glaucoma prevalence in male drinkers. No such association was found in female drinkers.

Noting that alcohol consumption levels differed considerably between men and women in their study, they suggest further research on gender differences is needed.

Journal of Glaucoma July-August 2023

GLAUCOMA RESEARCH SOCIETY OF CANADA
AWARDS MORE THAN \$350,000 IN GRANTS
TO 15 RESEARCH PROJECTS IN 2024

The Canadian Pediatric Glaucoma Consortium: Genomic Profile of Primary Congenital Glaucoma (PCG) – Dr Ellen Zhou, University of Toronto; Johane Robitaille, Marcelo Nicolela, Dalhousie University

Safety and Efficacy of Sub-Tenon Triamcinolone Injection versus a Conventional Steroid Drops Post-Operative Glaucoma Surgery – Devin Betsch, Dr Marcelo Nicolela, Dr Lesya Shuba, Dr Brennan Eadie, Dr Paul Rafuse, Kevin Hodgson, Dalhousie University; Dr Matthew Palakkamanil, University of Alberta

Effects of Age and Experimental Glaucoma on Retinal Ganglion Cell Structure and Function – Delaney Henderson, Dr. Balwantray Chauhan, Dalhousie University

Validity of Self-Reported Glaucoma in Canada: The 2016–2019 Canadian Health Measures Survey – Yaping Jin, Dr Yvonne Buys, Dr Ziad Butty, University of Toronto

Renewal – Impact of Breathing Exercises Followed by Meditation on Improving Quality of Life in Glaucoma Patients: An Electronic Feasibility Study – Monali Malvankar, Dr Cindy M.L Hutnik, University of Western Ontario

Correlation between Ocular Rigidity and Hypotony Maculopathy Post-Glaucoma Filtration Surgery – Mark Lesk, Dr Santiago Costantino, University of Montreal

Assessing Uveolymphatic Outflow in Glaucoma – Yeni Yucel, Neeru Gupta, Unity Health Toronto/St. Michael's

Risk of Glaucoma Associated with Use of Calcium Channel Blockers in Patients with Cardiovascular Disease – Mahyar Etminan, University of British Columbia; Dr Bonnie He, Dr Brennan Eadie, Dalhousie University; Gareth Leung, University of Ottawa

Catalyzing Biomarker Discovery through the Development of an International Pediatric Glaucoma Biobank – Dr Helen Dimaras, Asim Ali, Kamiar Mireskandari, Ashwin Mallipatna, Crystal Cheung, The Hospital for Sick Children; Rajeev Muni, St. Michael's Hospital

Renewal – Cytokine Profiles in Different Stages of Primary Open-Angle Glaucoma – Dr Tianwei (Ellen) Zhou, Dr Jeremy Sivak, Department of Ophthalmology & Vision Sciences, University of Toronto

Health Education versus Meditation in Irreversible Age-Related Vision Loss Patients and their Caregivers: A Feasibility Randomized Controlled Trial – Monali Malvankar, Dr Cindy M.L. Hutnik, University of Western Ontario

continued on next page ...

... continued from previous page

Magneto-Mechanical Degradation of Pseudoexfoliation Fibrils – Jessica Chin, Larry D. Unsworth, University of Alberta

Measuring the Immune Response during Retinal Ganglion Cell Loss – Dr Corey Smith, Dr Balwantray Chauhan, Dalhousie University

Visual Acuity Changes and Rates of Hypotony in Patients Undergoing Trans Scleral Cyclophotocoagulation: Systematic Review – Chris Zajner, University of Western Ontario; Michael Balas, Dr David Mathew, University of Toronto

Quantitative Evaluation of Prostaglandin Analogue Side-Effect Profiles in Patients with Primary Open-Angle Glaucoma – Michael Balas, Dr David Mathew, University of Toronto

Congratulations to Dr Ellen Zhou of the Department of Ophthalmology & Vision Sciences, University of Toronto. She has won the Society's 2024 Mel Mitzel Research Excellence Award of \$5,000 in addition to her research grants. Her projects (see *above list*) received the highest score from peer reviewers.

ChatGPT-4 & Glaucoma

GPT-4 is an AI-powered chatbot developed by OpenAI. A recent study examining the accuracy of ChatGPT's knowledge about glaucoma revealed that ChatGPT answered nine out of ten questions about general information, diagnosis, treatment, prevention, and follow-up about glaucoma with satisfactory accuracy rates.

The answers to all questions about glaucoma resulted in 88.7% completely correct, 7.5% correct but insufficient, and 3.8% a combo of misleading information and correct information.

Journal of Glaucoma April 23, 2024

Reading on a Smartphone Increases Eye Pressure

Researchers in India report that reading digital text for 30 minutes on a smartphone increases intraocular pressure significantly more than

traditional print reading in both healthy adults and patients with primary open-angle glaucoma (POAG).

While eye pressure returned to baseline levels after 20 minutes in healthy patients, it remained higher in patients with POAG.

Journal of Glaucoma March 2024

Increased Risk of Falls & Fractures in People with Glaucoma

A study in England concludes that people with cataract, age-related macular degeneration (AMD), or glaucoma have higher risk of falls or fractures compared with people without these eye diseases.

These people would likely benefit from improved advice, access, and referrals to fall prevention services and targeted interventions to prevent related adverse outcomes.

JAMA Ophthalmology December 2023



**Dr. Rajiv Bindlish
Answers
Your Questions
about Glaucoma**

Do glucosamine supplements used to treat arthritis increase eye pressure?

A recent study (*Journal of Glaucoma*, November 24, 2023) reported that using glucosamine sulfate supplements for arthritis may increase intraocular pressure and could contribute to the development of glaucoma. Let your ophthalmologist know if you are taking glucosamine so they can advise you.

Should I avoid exercise if I have glaucoma?

Most exercise is good for you and will not affect glaucoma. However, certain yoga positions such as headstands and downward dog are not advised as lowering your head below your heart and straining with the activity may increase eye pressure.

If you have pigmentary glaucoma, vigorous physical activity may raise your eye pressure, so discuss this with your ophthalmologist.

Should I switch to using preservative-free medications?

Preservative-free medications cause less dry eye and eye redness. However not all medications are available preservative-free, and they can be difficult to administer.

Deciding to switch should be based on how well your eye pressure is controlled and on whether there are any side effects from the drops.

Does cataract surgery affect glaucoma?

Certain types of cataracts may contribute to eye pressure elevation, so surgery to remove them may help lower eye pressure.

Patients with primary angle closure (narrow angles) may benefit from cataract surgery as opening the drain of the eye after the cataract is removed may lower eye pressure.

I have glaucoma. Is it safe for me to take anti-allergy medications?

Most over-the-counter allergy medications are safe to take. Many older ones could cause pupil dilation which could lead to angle closure glaucoma and elevated eye pressure. Most new ones don't cause this to happen.

If you are concerned, check with your eye care practitioner.

I was diagnosed with glaucoma. My doctor recommended a laser treatment. Can't I just use drops to lower my eye pressure?

Eye drops remain a mainstay for lowering eye pressure and slowing glaucoma deterioration. But recent studies (*LIGHT Trial*) show that Selective Laser Trabeculoplasty (*SLT*) – a laser treatment to the drain of the eye – can lower eye pressure as well as using eye drops.

This laser effect may be better when it is done before eye drops are started.

**Email Your Questions
about Glaucoma to:**

info@glaucomaresearch.ca

Highlights from the 2023 Annual Supporters' Meeting

The Glaucoma Research Society of Canada's Annual Supporters' Meeting (ASM) was held on Wednesday, October 11, 2023 as a live webinar. President James Parks opened the meeting by thanking all attendees and supporters for another successful year for the Society.

Mr. Parks introduced the members of the Board of Directors with a slide show that highlighted the professional background of each director. Each member, closely involved with the overall running of the Society, helped keep administrative costs to a minimum.

Mr. Parks went on to present Recognition Awards to supporters who went above and beyond in 2023: Mabel Barnard, Judith Matthews, and Jerry Wiseblott & Associates. He then introduced the Society's treasurer, Tom Gottlieb.



Before presenting his treasurer's report, on behalf of the Board, Mr Gottlieb said goodbye and thanks to Ms Suzanne Marshall, the Society's Office Administrator since January 2020. He noted that in her nearly 4 years at the Society, Ms Marshall streamlined office operations, and expanded her role to include web site management and publishing the newsletters. She resigned to take up a position at Dalhousie University in Halifax.

He then welcomed and introduced Ms Norlan Roberts, the Society's new Office Administrator. Ms Roberts is a Certified Administration Professional and member of the International Association for Administrative Professionals with 20 years of experience in executive administration, office and facilities management, human resources/payroll and accounting.



Mr Gottlieb presented the Society's 2023 operational highlights, reporting that \$374,874 was awarded to 16 research projects across Canada in 2023, up from \$315,040 to 16 recipients in 2022, and from \$256,419 to 13 grant recipients in 2021. He thanked donors for making that possible, adding that major sources of revenue in 2023 came from Dr Graham Trope's Retirement Fundraiser and the Toronto Waterfront Marathon, as well as from regular donations, and bequests.

continued on next page ...

Dr Graham Trope then paid tribute to Ms Renée Wolfe, vice-president of the Society's Board of Directors, who was stepping down from the Board after nearly 30 years of dedicated service. He spoke about her numerous roles on the Board – as Treasurer from 1994 to 2004, as Vice-President since 2010, and as a superb fundraiser with programs such as the popular and innovative *Tealess Tea*.



Dr Trope then introduced Dr Brennan Eadie, the presenter of the 13th Annual Albert Waxer Lecture. Dr Eadie, along with his colleagues, Dr. Bonnie He and Dr. Ram Darwich, spoke about *Investigating Potential Associations Between Common Medications and Glaucoma*.

Following the presentation, Dr. Rajiv Bindlish hosted a question and answer session with Dr Eadie, along with Society Board members and glaucoma specialists Dr Cindy Hutnik and Dr Catherine Birt. Mr Parks then presented a certificate of appreciation to Dr Eadie and thanked everyone who attended before closing the meeting.

You can find a link to the recording of the 2023 Annual Supporters' Meeting by visiting www.glaucomaresearch.ca or by emailing us at info@glaucomaresearch.ca.

**2023 Waterfront Marathon
Supporters Raise Over \$44K
for Glaucoma Research**



GRSC Board Members James Parks, Dr Catherine Birt, Dr Mark Shaffer & Tom Gottlieb take part in the 2023 Waterfront Marathon.

**Get Active for the
Cure in 2024!**

**Coming Soon
More Details about
Our Own 2024
Walkathon**

**Check our website
www.glaucomaresearch.ca
or contact us at
info@glaucomaresearch.ca**

Powerful Ways for You to Help Fund Research

You can support the Society financially, not only with cash donations, but with donations of publicly listed securities (to avoid recognition of capital gains), transfers or designations of insurance policies or registered plans such as RRSPs, RRIFs or TFSAs, bequests under wills and through other methods of giving.

You can give an existing life insurance policy or purchase a new one naming the Glaucoma Research Society of Canada as owner/beneficiary. Gifts of an existing policy entitle the donor to a fair market value tax receipt, which may be greater than the cash surrender value. They may also require the donor to report income for tax purposes.

You can also designate the Society as the beneficiary under a life insurance policy, a registered retirement savings plan, a registered retirement income fund or a tax-free savings account. In that way, the funds will be paid directly to the Society without passing under a will or through an estate.

Giving marketable securities eliminates tax on a capital gain and entitles the donor to a fair market value receipt. This is more tax efficient than giving cash after selling the securities. Donors should seek tax advice in connection with gifts of insurance policies or securities or by making designations.

Corporations can also make donations to charities. A donation of securities by a private company could save tax and provide tax benefits to the company which could be worth as much as 90% of the value of the donation. A donor who owns securities personally can transfer them to a private company (at no tax cost by taking appropriate steps to avoid recognition of any accrued gains) and the company can then donate them to the charity.

Please ask our office for details or consult with your tax advisor.

Board of Directors

James M. Parks, President
Martin Chasson, CPA, CA, Past President
Thomas Z. Gottlieb, PEng, Treasurer
Mark Shaffer, MD, CCFP, FCFP, Executive Secretary
Graham Trope, MD, PhD, FRCSC, Chair, Scientific Advisory Committee
Catherine Birt, MA, MD, FRCSC, Vice-Chair, Scientific Advisory Committee
Rajiv Bindlish, MD, FRCSC, DABO
Cindy Hutnik, BSc, MD, PhD, FRCSC
Alfred Kwinter, BA, LLB
Scott Leslie, BSc, MBA
Stuart Murray, CGMA, CPA, CGA, BSc

Scientific Advisory Committee

Graham Trope, MD, PhD, FRCSC, *Chair, Toronto*
Catherine Birt, MA, MD, FRCSC, *Vice-Chair, Toronto*
Andrew C. Crichton, MD, FRCSC, *Calgary*
Lisa Gould, MD, FRCSC, *Winnipeg*
Frederick S. Mikelberg, MD, FRCSC, *Vancouver*
Paul H. Murphy, MD, FRCSC, *Saskatchewan*
Marcelo Nicolela, MD, PhD, FRCSC, *Halifax*
Jeremy M Sivak, PhD, *Toronto*
D.P. Tingey, BA, MD, FRCSC, *London*
Yeni Yücel, MD, PhD, FRCPC, *Toronto*

Editor/Writer: Linda Joyce Ott

Contact Us at Glaucoma Research Society of Canada

phone:

416-483-0200
1-877-483-0204 (toll-free)

e-mail:

info@glaucomaresearch.ca

mail:

1929 Bayview Avenue, Suite 215E
Toronto, ON M4G 3E8

website: www.glaucomaresearch.ca

