Optometric Glaucoma Society

16th Annual Meeting

Chicago, Illinois

October 9-11, 2017

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President's Welcome

It is a great privilege and honor to welcome you to Chicago for the 16th scientific meeting of the Optometric Glaucoma Society. We are very proud to present this year's program showcasing some of the world's best scientific and clinical experts in glaucoma. The OGS continues to be a model of excellence in specialty education within optometry. The relationship with the AAO continues and allows us to share a snapshot of our world class OGS scientific meeting with our colleagues from outside the OGS. This allows the OGS to share some of our world-renowned educators with those professionals attending the Academy meeting.

This is my first year as President and it is honor to be able to introduce and welcome such a stellar program and panel of renowned speakers, researchers and awardees as well as our expert members and guests. As I begin to follow in the large footprints of our past Presidents (Ben Gaddie, John Flanagan and Murray Fingeret) I am fortunate to be surrounded by OGS members who work diligently to bring this entire meeting together. My first acknowledgement is to **Suresh Viswanathan** whose has put today's program together and assembled a unique integration of expert clinicians and scientists. The OGS meeting is renowned for its small meeting format that allows for intimate dialog and discussion on the most current and novel topics in glaucoma. A recurring comment from past honoree speakers is consistent praise for the interactive environment and scientific rigor of our meeting. With that, we encourage discourse with our expert presenters by commenting at one of the microphones located in the aisles.

This year we are extremely fortunate to have **Dr. Robert Fechtner** from SUNY Upstate Medical University, as our 2017 OGS Honoree. Dr. Fechtner's honoree lecture is titled "Ocular Surface Disease and Topical Glaucoma Therapy". I am also very pleased to announce this year's President Award honoree, **Dr. David Friedman**, from Wilmer Eye Institute, Johns Hopkins University School of Medicine. Dr. Freidman will speak on Home IOP Monitoring and on Key Lessons from Glaucoma Clinical Trials. This packed program also includes presentations from **John Berdahl, Lyne Racette, Brian Samuels, Konrad Psuedovs** and OGS Ezell Fellow **Jack Phu**. We are grateful to all of our expert speakers responsible for this world class scientific and clinical meeting.

This meeting would not be possible without the tremendous efforts of our Meeting Committee and Industry Relations Committee. **Chris Leivens** is the new Chair of the IRC and has done an incredible job of furthering support for the meeting from our friends in the industry. This meeting continues to evolve at a high level due to our valued industry members and their contributions.

As the OGS Executive Director, **Kellie Rogers** does the vast majority of the logistics for this meeting. Her duties include: tracking all of the numerous minute details such as venue selection, catering, meeting rooms, member and guest registration, industry vendor contracting, catering, receptions, meals, awards, and speakers just to name a few. Kellie has been an asset well beyond her role in the meeting planning and now has assumed virtually all of the day to day tasks of running an organization with 125 members. As you see Kellie around the meeting, please introduce yourself and give her a big thanks.

There are other changes this year in the OGS at the Executive Board level, while **Rich Madonna** continues as Vice President, **Danica Marrelli** is now Secretary, taking over for **Leo Semes** who has moved over to the Optometric Glaucoma Foundation. It's pleasure to have Danica on the Board, her contributions have already

been significant. And the new OGS Treasurer is **Eric Schmidt**; I greatly appreciate Eric's guidance and oversight in this vital role**.** **Ben Gaddie** is now the Executive Vice President, following our typical succession from Presidency. I extend a big thank you to all of our members and the numerous Committee Chairs who continue to give their time and expertise to pull off this great meeting.

Thank you to everyone for entrusting me to represent this exceptional organization. Finally, please enjoy the fellowship of colleagues and friends offered at this special time of year for the OGS.

Welcome to Chicago

Michael Chaglasian, OD
OGS President

OGS 2016 Annual Meeting Attendees, Anaheim, CA

OGS Mission Statement

The Optometric Glaucoma Society (OGS) mission is to promote excellence in care of glaucoma patients through professional education and scientific investigation. The society's major objectives are to promote education of optometrists related to all aspects of glaucoma; promote the acquisition of new knowledge about glaucoma, in part through the development of glaucoma research within optometry; facilitate the dissemination of information about glaucoma to healthcare providers and the public; and establish collaborative relationship with other related organizations.

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Optometric Glaucoma Society
16th Annual Scientific Meeting
October 9-11, 2017

Palmer House Hilton
17 E Monroe St
Chicago, IL 60603

Monday, October 9, 2017

Red Lacquer Room:

4:00 – 5:00 PM Executive Committee Meeting
5:00 – 5:30 PM General Business Meeting (for all members)
5:30 – 6:00 PM OGF Executive Committee Meeting

State Ballroom:

6:00 – 9:00 PM Opening Reception

Tuesday, October 10, 2017

State Ballroom:

7:20 – 7:50 AM Breakfast (opportunity to visit vendor exhibits)

Grand Ballroom:

7:50 AM Welcome from Michael Chaglasian, OGS President

Session 1: Early Diagnostic Characteristics and Progression Indicators in Glaucoma and Lessons from "Big Data"

Moderated by John Flanagan

8:00 – 8:15: **Jack Phu** (**OGS Ezell Fellow):** *Spatial Summation in Visual Field Testing for Glaucoma: Clinical Implications*
8:15 – 8:20: Discussion and questions

8:20 – 8:50: **Lyne Racette:** *Early Detection of Glaucoma Progression Using a Novel Individualized Approach*
8:50 –9:00: Discussion and questions

9:00 – 9:50: **David Friedman (President's Lecture):** *Big Glaucoma Clinical Trials and their Key Lessons*
9:50 – 10:00: Discussion and questions

State Ballroom: 10:00 – 10:30: Morning Break (opportunity to visit vendor exhibits)

Session 2: Intracranial Pressure, ICP Control and Glaucoma

Moderated by Suresh Viswanathan

10:30 – 11:00: **John Berdahl:** Intracranial Pressure in Glaucoma
11:00 – 11:10: Discussion and questions

11:10 – 11:50: **Brian Samuels:** CNS Control of Intraocular and Intracranial Pressure
11:50 – 12:00: Discussion and questions

State Ballroom:

- Noon – 1:00: ***LUNCH*** (opportunity to visit vendor exhibits)

Grand Ballroom: 1-1:05: Christopher J. Quinn, President, American Optometric Association

Session 3: The Ocular Surface in Glaucoma and Implications for Glaucoma Surgery

Moderated by Danica Marrelli

1:05 – 1:50: **Robert Fechtner (OGS Honoree Lecture)**: *Ocular Surface Disease and Topical Glaucoma Therapy*
1:50 – 2:00: Discussion and questions

2:00 – 2:45: **John Berdahl:** *Minimally Invasive Glaucoma Surgery*
2:45 – 3:00: Discussion and questions

State Ballroom:

3:00 – 3:30: Afternoon Break (opportunity to visit vendor exhibits)

Session 4: The Influences of Glaucoma on Quality of Life

Moderated by Thomas Freddo

3:30 – 4:10: **Konrad Pesudovs:** Quality of Life Issues for Glaucoma Patients
4:10 – 4:20: Discussion and questions

4:20 – 4:40: **Robert Fechtner**: Glaucoma in Developing Countries
4:40 – 4:45: Discussion and questions

4:45 – 5:05: **David Friedman:** Home Monitoring of Intraocular Pressure
5:05 – 5:10: Discussion and questions

Session 5: New Perspectives in Glaucoma Diagnosis, Glaucoma Surgery, Glaucoma's Influence on Patients' Quality of Life

Moderated by Murray Fingeret

5:10 – 6:00: Panel discussion with all speakers

Red Lacquer Room:

6:30 - 9:30: Reception and Dinner

Wednesday, October 11, 2017 OGS/AAO Joint Symposium

Moderated by Richard Madonna

8:00-8:25 AM: **John Berdahl: Intracranial Pressure in Glaucoma**
8:25-8:30 AM: Discussion and questions

8:30-8:55 AM: **Robert Fechtner: Ocular Surface Disease and Glaucoma Therapy**
8:55-9:00 AM: Discussion and questions

9:00-9:25 AM: **David Friedman: Big Glaucoma Clinical Trials and their Key Lessons**
9:25-9:30 AM: Discussion and questions

9:30-9:40 AM: Panel Discussion

Speakers

John Berdahl, MD

John Berdahl, MD, is a partner at Vance Thompson Vision in Sioux Falls, SD where he specializes in advanced Refractive, Cataract, Corneal and Glaucoma Surgery. Dr. Berdahl serves on the Vision for Mars program and started a medical device company to help treat glaucoma and other diseases caused by an imbalance between intraocular pressure and intracranial pressure. His research interests include Cerebrospinal Fluid Pressure in Glaucoma, Minimally Invasive Glaucoma Surgery, Refractive Laser Assisted Cataract Surgery (ReLACS), Intraocular Lens Design and drug delivery, and he has published numerous book chapters and peer-reviewed articles. His commitment to those in need is demonstrated by his leadership role in EyeCare America and the numerous surgical mission trips he continues to participate in worldwide.

After graduating from Mayo Medical School, Dr. Berdahl completed his internship at the Mayo Clinic in Scottsdale, AZ and his residency at Duke University. He then went on the complete an anterior segment fellowship at Minnesota Eye Consultants. He has won numerous national awards including the Claes Dohlman Award from Harvard University and the Resident Writers Award. In 2013 he was named the top young physician in South Dakota and was recently named one of the Top 40 under 40 ophthalmologists worldwide in addition to the Top 40 under 40 business leaders in the Dakotas.

Robert Fechtner, MD

The OGS Honoree

Robert D. Fechtner, MD, is Professor and Chair of the Department of Ophthalmology at SUNY Upstate Medical University in Syracuse, NY. A New Jersey native, Dr. Fechtner is a graduate of the Accelerate Premedical-Medical Program at University of Michigan. He completed research fellowships in glaucoma at Tufts New England Medical Center and Albert Einstein College of Medicine, an ophthalmology residency at Montefiore Medical Center in New York and a glaucoma fellowship at University of California, San Diego under a Research Service Award from the NIH. He was most recently Professor and Director of the Glaucoma Division at Rutgers New Jersey Medical School before he relocated to Syracuse in 2016.

Dr. Fechtner is an active glaucoma clinician, surgeon and educator with a particular interest in glaucoma pharmacology and diagnostic technologies. He is the associate editor of the Textbook of Ocular Pharmacology and has published over 100 articles, book chapters and monographs.

Dr. Fechtner is an active member and of numerous national scientific and medical organizations including the American Glaucoma Society, the American Academy of Ophthalmology, the Association for Research in Vision and Ophthalmology, and the American Society of Cataract and Refractive Surgeons. Dr. Fechtner has served as the Executive Vice President of the World Glaucoma Association since 2012 and has organized the past three World Glaucoma Congresses.

David Friedman, MD, MPH, PhD

President's Lecturer

David S. Friedman, MD, MPH, PhD is the Alfred Sommer Professor of Ophthalmology at the Wilmer Eye Institute of Johns Hopkins University School of Medicine and Professor in the Departments of Epidemiology and International Health at Johns Hopkins Bloomberg School of Public Health. Dr. Friedman is also the director of the Dana Center for Preventive Ophthalmology at Johns Hopkins. He graduated summa cum laude from Yale College, received his medical degree from Harvard Medical School, and obtained a PhD in

epidemiology from Johns Hopkins. He completed his residency at Wills Eye Hospital and served as a glaucoma fellow with Dr. Harry Quigley.

Dr. Friedman is the recipient of clinician scientist awards from the NIH, Research to Prevent Blindness and the American Geriatric Society. Since joining the Wilmer faculty in 1996 he has had continuous funding from the NIH, as well as numerous other funding organizations. He co-edited a definitive book on angle-closure glaucoma and has published nearly 300 peer-reviewed articles. He has served on the editorial boards of Ophthalmology, the Cochrane Collaboration, and the Journal of Glaucoma, and plays a leadership role in the World Glaucoma Association and the American Glaucoma Society. He also is the Senior Ophthalmologist for Helen Keller International, a large non-profit organization dedicated to alleviating blindness worldwide. He currently leads a CDC-funded program to identify novel approaches to screen underserved populations for eye diseases, especially glaucoma.

Dr. Friedman is world renowned for his contributions to the study of the mechanisms, epidemiology and prevention of angle-closure glaucoma. Over the last 20 years he has worked closely with researchers in Singapore, Guangzhou, Beijing and south India on this research. He identified novel dynamic risk factors for angle closure. This work formed the foundation for two seminal studies of angle closure glaucoma treatment including the EAGLE Trial and the Zhongshan Angle Closure Prevention (ZAP) Study. Dr. Friedman was a key member of the EAGLE Trial study team, a pivotal research study that demonstrated that early lens extraction is effective at treating angle-closure glaucoma. He is the co-principal investigator of the ZAP study which screened over 10,000 individuals in order to determine if prophylactic laser iridotomy is effective at preventing angle closure glaucoma. That study has completed seven years of follow-up and final results will be reported shortly.

In addition to his research, Dr. Friedman is listed on Best Doctors as a leading glaucoma specialist. Dr. Friedman also trains glaucoma fellows as well as residents. His dedication to teaching extends to the medical school where he is a co-director of the Scholarly Concentration program.

Konrad Pesudovs, BScOptom, PhD, MCOptom

Konrad Pesudovs PhD has been the Foundation Chair of Optometry and Vision Science at Flinders University since 2009. He completed his clinical training at the University of Melbourne (1990), his PhD at Flinders University (2000) before completing postdoctoral Fellowships in Bradford (UK) and Houston (USA). From 2004-2009 he ran the NHMRC Centre of Clinical Research Excellence in Ophthalmology Outcomes Research from the Department of Ophthalmology at Flinders University.

His research interest is ophthalmology outcomes research; incorporating optical, visual and patient-reported measurement into the holistic assessment of ophthalmic outcomes. A key element of this is the development of patient-reported outcome measures including visual disability, quality of life and other latent traits using Rasch analysis. He has developed a number of questionnaires and is the leader of an international project to develop item banking and computer adaptive testing for measuring patient-reported outcomes in ophthalmology (the Eye-tem Bank Project). Another key area of outcomes research is in the measurement of the optics of the eye and visual performance. He has conducted outcomes research in treatments for all the major blinding eye diseases, with particular emphasis on cataract and corneal disease. He also has a strong track record in health valuation and ophthalmic epidemiology particularly with the Global Burden of Disease Study.

He has published over 200 peer-reviewed papers, six book chapters, and over 40 other publications. He has made over 200 presentations at international conferences. His career grant funding is over US$9million. He sits on 3 journal editorial boards having previously sat on 5 others. He was Chairman of the Board of Administration of the National Vision Research Institute (2015-2016). He is a member of the Governing Council of the Australian College of Optometry (2010-), serving as President from 2016-. He has been a Committee Member of the Publications Committee for the Association for Research in Vision and Ophthalmology (2012-2014). He has won several international awards including the 2006 Waring Medal, 2008 Borish award, the 2009 and 2011 Garland Clay awards and shared The American Public Health Association Vision Care Section 2014 Outstanding Scientific Paper Award with the Vision Loss Expert Group of the Global Burden of Disease 2010.

Jack Phu, B. Optom, MPH

OGS 2016 Ezell Fellow

Jack Phu, B. Optom, MPH is currently a staff optometrist at Centre for Eye Health and is undertaking PhD studies in glaucoma and visual fields. He graduated from UNSW in 2011 and spent 3 years working in an independent private practice with a strong focus on ocular diseases. He became a Fellow of the American Academy of Optometry and completed a Masters in Public Health in 2014. He is involved in undergraduate teaching at UNSW in the areas of ocular diseases, clinical optometry and ocular therapeutics. He is also the 2016-2017 Optometric Glaucoma Society Ezell Fellow.

Lyne Racette, PhD

A native of Montreal (Canada), Dr. Racette completed her PhD in experimental psychology at Carleton University in Ottawa. After completing her postdoctoral fellowship at the University of California San Diego, she joined Indiana University in 2010 as an Assistant Professor. She is now an Associate Professor at the University of Alabama at Birmingham. She leads a research program focused on improving the detection of change in glaucoma. Her work has been funded by several foundations as well as by the National Institutes of Health. She has a long-standing interest in increasing diversity in science and is the outgoing Chair of the Diversity Initiatives Committee of the Association for Research in Vision and Ophthalmology.

Brian Samuels, MD, PhD

Brian Samuels received his undergraduate degree from Wabash College in 1997. Then he completed both his MD and PhD in medical neurobiology through the combined degree program at the Indiana University School of Medicine in 2004. After finishing ophthalmology residency at the University of Alabama in Birmingham (UAB), Brian completed a two-year clinical and research fellowship in glaucoma at the Duke Eye Center. He is an Associate Professor of Ophthalmology at UAB where he serves as the director of the glaucoma service and the glaucoma fellowship program. As a clinician-scientist, Brian enjoys the diversity of having a job that includes direct patient care, teaching fellows, residents and medical students, and running a basic science laboratory. His independent research interest involves understanding how differences between intraocular and intracranial pressure cause various optic neuropathies, including: glaucoma, idiopathic intracranial hypertension (IIH) and the vision impairment/intracranial pressure (VIIP) syndrome experienced by astronauts in microgravity. In addition to his independent work, he also enjoy working with collaborators who have synergistic research interests. Ultimately, he hopes that our preclinical scientific discoveries will translate into novel treatment options for patients with glaucoma and other blinding diseases. In his free time, Brian enjoys hiking, playing golf, and spending time with his wife, Anna and their two year old daughter, Tara.

Notes

World Glaucoma Congress 2017

This year's WGC was held in Helsinki, Finland June 28-July 1 and the OGS continued its tradition of holding a Society Symposium on the first day of the meeting.

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Our topic was "**New Developments in Perimetry"**, Murray Fingeret was the Program Chair. In this fast paced one-hour session, Jeffery Leibmann spoke on Central Field Testing in Glaucoma Detection; Alison McKendrick presented on modifications to the Central 24-2 Program and Anders Heijl discussed the development of Faster Testing Algorithms and Zeiss SITA Faster.

Mike Patella and Mike Chaglasian moderated a lively question and answer portion. Several OGS members were in attendance and made other presentations during the four day meeting. Travel Grants were once again awarded to members who were presenting.

Please put the 2019 WGC (Melbourne, Australia) on your calendar and join the OGS and the rest of the **World Glaucoma Association** in this unique international meeting.

Congratulations to the Optometric Glaucoma Society 2017 Ezell Fellow!

The Optometric Glaucoma Society established an Ezell Fellowship in 2007, dedicated to fund post-graduate research in the area of glaucoma. The award is done in partnership with the American Optometric Foundation and meant to encourage talented individuals to pursue a career in research and education.

Nevin W. El-Nimri, OD, MS

Nevin El-Nimri is an optometrist currently working toward a PhD in Vision Science at the University of California, Berkeley. She completed her undergraduate training at UC Berkeley and returned there after earning her O.D. and Masters in Vision Science at The Ohio State University in 2014. The main focus of her current research is the mechanisms underlying the increased risk of glaucoma in myopes. As part of this research, she is investigating the efficacy of topical ocular hypotensive drugs as novel myopia control therapies that may also directly reduce the risk of glaucoma. Her research has a translational emphasis and involves both the guinea pig as an animal model for myopia and human subjects. Nevin is a fellow of the American Academy of Optometry and the recipient of the 2017 OGS Ezell Fellowship. She will be speaking at the 2018 OGS Annual Meeting in San Antonio, Texas.

Optometric Glaucoma Foundation

About Us

The Optometric Glaucoma Foundation is the philanthropic arm of the Optometric Glaucoma Society. The OGF is a newly-formed 501(c)3, not-for-profit organization.

Mission Statement

The mission of the Optometric Glaucoma Foundation is to support glaucoma education for the optometric profession. This includes supporting and developing educational programs for students, residents, educators and practitioners. The OGF will work with different groups to meet our goals including industry and educational institutions, as well as optometric and ophthalmologic organizations.

How to identify glaucomatous damage on Optical Coherence Tomography (OCT) scans.

Donald C. Hood, PhD
Columbia University, New York, NY

Friday, October 27, 2017

8:15am	Welcome
8:30am	**1. An Introduction and Background Material.** **2. The principles behind a method for diagnosing and understanding glaucomatous damage based upon OCT.**
10:00am	Morning Break
10:30am	**3. How to use a one-page report to quickly diagnose and understand glaucomatous damage.** **4. Where can I find similar information in my commercial machine?**
12:00pm	Lunch
1:00pm	**5. Uuderstanding visual fields based upon OCT.** **6. Things aren't always simple: Artifacts, false positives, false negatives & other diseases.**
2:30	Afternoon Break
3:00pm	**7. This is about a Method/Process not a Report.** **8. Case analysis, dagnostic tests, & review**
4:30pm	Adjournment

OGS Leadership and Committees

Officers/Executive Committee
Michael Chaglasian – President
Richard Madonna – Vice President
Eric Schmidt – Treasurer
Danica Marrelli – Secretary
Ben Gaddie – Executive Vice President

Past Presidents
Murray Fingeret 2001-2008
John Flanagan 2008-2012
Ben Gaddie 2012-2016

Members at Large
Derek MacDonald
Justin Schweitzer

By-Laws
Daniel Roberts – Chair

Industry Relations
Chris Lievens

Nominating
John McSoley- Chair

Membership & Recruitment
Mark Dunbar – Membership Co-Chair
Tony Litwak – Recruiting – Co-Chair
Barry Frauens
Richard Madonna
Trennda Rittenbach
Justin Schweitzer
Sarah Wood

Program
Suresh Visvanathan – Chair
Richard Madonna
Leo Semes

E-Journal / PCON Newsletter
Carl Jacobsen – Chair
Scott Anthony
Derek MacDonald
Lisa Young

OGS Executive Committee
Anaheim, 2016

Founding Members

Paul Ajamian, OD
Jimmy D. Bartlett, OD, DOS, ScD
Richard Bennett, OD
Michael Chaglasian, OD
George Comer, OD
Shaban Demirel, OD, PhD
Mark Dunbar, OD
David Evans, PhD
Murray Fingeret, OD
John Flanagan, McOptom, PhD
Brad Fortune OD, PhD
Ben Gaddie, OD
William A Hare OD, PhD
Ronald Harwerth, PhD
Chris Johnson, PhD
Peter Lalle, OD
Tom Lewis, OD, PhD
Tony Litwak, OD
Vic Malinvosky
John McSoley, OD
Ron Melton, OD
Vincent Michael Patella, OD
Bruce Onofrey
Robert Prouty, OD
Chris Quinn, OD
Daniel Roberts, OD, MS
Pam Sample, PhD
Leo Semes, OD
Joseph Sowka, OD
William Swanson, PhD
James Thimons, OD
Randall Thomas, OD
Robert P. Wooldridge, OD

In Memoriam

Larry J. Alexander, OD
Thom J. Zimmerman, MD, PhD

OGS Ezell Fellows

2017 Nevin W. El-Nimri, OD, MS
2016 Jack Phu, BOptom, MPH
2015 Lakshmi Priya Rajagopalan, BS, PhD
2013 Kevin Ivers, OD, PhD
2012 Kevin Ivers, OD, PhD
2011 Nimesh Patel, OD, PhD
2010 Nimesh Patel, OD, PhD
2008 Joe Wheat, OD, PhD

Founders Award

2016 Gerhard Zinser, PhD
2015 Harry A. Quigley, MD
2012 Robert N. Weinreb, MD
2011 Douglas R. Anderson, MD

Distinguished Service Award

2016 Ben Gaddie, OD
2013 John G. Flanagan, MCOPtom, PhD
2012 Louis J. Catania, OD
2011 Tom L. Lewis, OD, PhD
2010 V. Michael Patella, OD
2008 Murray Fingeret, OD

Research Excellence Award

2014 Donald Hood, PhD
2013 Ronald S. Harwerth, OD, PhD
2009 Sir Peng Tee Khaw, MD, FRCOphth

Corporate Partnership Award

2016 Rick Halprin
2013 Richard D. Bay

OGS Annual Meetings

Dates	Location	President's Lecturer	OGS Honoree
October 9-11, 2017	Chicago, IL	David Friedman, MD, MPH, PhD	Robert Fechtner, MD
November 7-9, 2016	Anaheim, CA	Felipe A. Medeiros, MD, PhD	George A. Cioffi, MD
October 5-7, 2015	New Orleans, LA	Jonathan S. Myers, MD	Mae Gordon, PhD
November 10-12, 2014	Denver, CO	Steven L. Mansberger, MD, MPH	David Garway-Heath, MD
October 22-23, 2013	Seattle, WA	Anthony Realini, MD, MPH	Claude Burgoyne, MD
October 23-24, 2012	Phoenix, AZ	Brad Fortune, OD, PhD	Jost Jonas, MD
October 11-12, 2011	Boston, MA	Keith Martin, MD, FRCOphth	Jeffrey Liebmann, MD
November 15-16, 2010	San Francisco, CA	Kuldev Singh, MD, MPH	Wallace L.M. Alward, MD
November 9-11, 2009	Orlando, FL	Christopher A. Girkin, MD	George L. Spaeth, MD
October 20-22, 2008	Anaheim, CA	Theodore Krupin, MD	Robert Ritch, MD
October 22-23, 2007	Tampa, FL	David Greenfield, MD	Paul Kaufman, MD
December 5-6, 2006	Denver, CO	Balwantray Chauhan, PhD	Harry Quigley, MD
December 7, 2005	San Diego, CA		Stephen Drance, OC, MD
December 8, 2004	Tampa, FL		Douglas R. Anderson, MD
December 9, 2003	Dallas, TX		Anders Heijl, MD
December 11, 2002	San Diego, CA		Robert N. Weinreb, MD

Welcome New OGS Members

Jennifer Gould, OD, MS, FAAO
SUNY College of Optometry
New York, NY

Brian Mahoney, OD, FAAO
Department of Veterans Affairs
Wilmington, DE

John O'Donnell, OD
Premier Eye Care Group
Harrisburg, PA

Andrew Rixon, OD, FAAO
Department of Veterans Affairs
Memphis, TN

Jessica Steen, OD, FAAO, Dipl. ABO
Nova Southeastern University College of Optometry
Fort Lauderdale, FL

TIMOPTIC® in OCUDOSE®

(TIMOLOL MALEATE 0.5% OPHTHALMIC SOLUTION)

(DISPENSER)

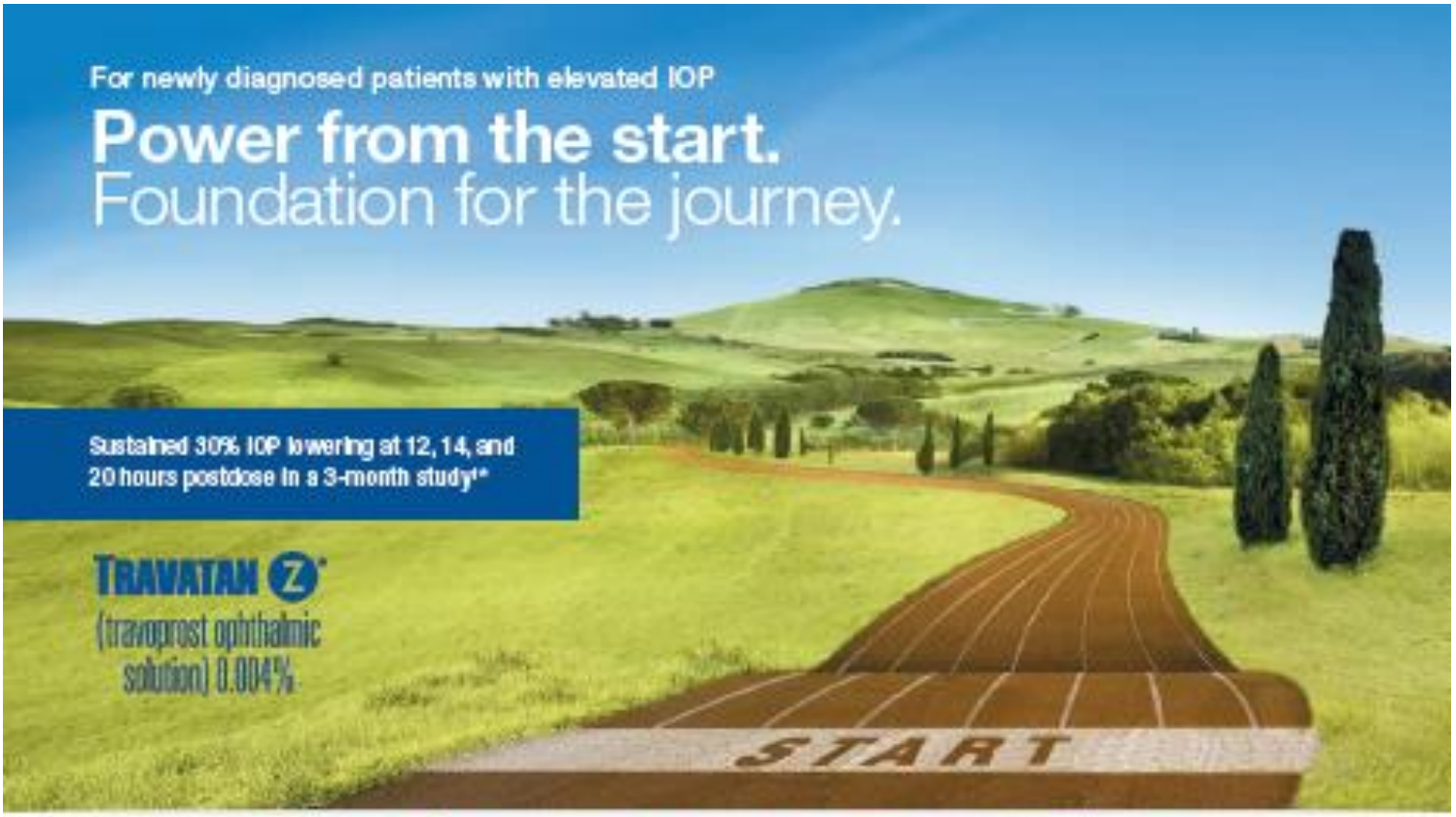
Istalol®

(timolol maleate ophthalmic solution) 0.5%

BAUSCH + LOMB

For newly diagnosed patients with elevated IOP

Power from the start.
Foundation for the journey.



Sustained 30% IOP lowering at 12, 14, and 20 hours postdose in a 3-month study†*

TRAVATAN Z®
(travoprost ophthalmic solution) 0.004%

TRAVATAN Z® Solution has no FDA-approved therapeutic equivalent available

INDICATIONS AND USAGE

TRAVATAN Z® (travoprost ophthalmic solution) 0.004% is indicated for the reduction of elevated intraocular pressure (IOP) in patients with open-angle glaucoma or ocular hypertension.

Dosage and Administration

The recommended dosage is one drop in the affected eye(s) once daily in the evening. TRAVATAN Z® Solution should not be administered more than once daily since it has been shown that more frequent administration of prostaglandin analogs may decrease the IOP lowering effect.

TRAVATAN Z® Solution may be used concomitantly with other topical ophthalmic drug products to lower IOP. If more than one topical ophthalmic drug is being used, the drugs should be administered at least five (5) minutes apart.

IMPORTANT SAFETY INFORMATION

Warnings and Precautions

Pigmentation—Travoprost ophthalmic solution has been reported to increase the pigmentation of the iris, periorbital tissue (eyelid), and eyelashes. Pigmentation is expected to increase as long as travoprost is administered. After discontinuation of travoprost, pigmentation of the iris is likely to be permanent, while pigmentation of the periorbital tissue and eyelash changes have been reported to be reversible in some patients. The long-term effects of increased pigmentation are not known. While treatment with TRAVATAN Z® Solution can be continued in patients who develop noticeably increased iris pigmentation, these patients should be examined regularly.

Eyelash Changes—TRAVATAN Z® Solution may gradually change eyelashes and vellus hair in the treated eye. These changes include increased length, thickness, and number of lashes. Eyelash changes are usually reversible upon discontinuation of treatment.

Intraocular Inflammation—TRAVATAN Z® Solution should be used with caution in patients with active intraocular inflammation (e.g., uveitis) because the inflammation may be exacerbated.

Macular Edema—Macular edema, including cystoid macular edema, has been reported during treatment with travoprost ophthalmic solution. TRAVATAN Z® Solution should be used with caution in aphakic patients, in pseudophakic patients with a torn posterior lens capsule, or in patients with known risk factors for macular edema.

Angle-closure, Inflammatory or Neovascular Glaucoma—TRAVATAN Z® Solution has not been evaluated for the treatment of angle-closure, inflammatory or neovascular glaucoma.

Bacterial Keratitis—There have been reports of bacterial keratitis associated with the use of multiple-dose containers of topical ophthalmic products. These containers had been inadvertently contaminated by patients who, in most cases, had a concurrent corneal disease or a disruption of the ocular epithelial surface.

Use With Contact Lenses—Contact lenses should be removed prior to instillation of TRAVATAN Z® Solution and may be reinserted 15 minutes following its administration.

Adverse Reactions

The most common adverse reaction observed in controlled clinical studies with TRAVATAN Z® Solution was ocular hyperemia, which was reported in 30 to 50% of patients. Up to 3% of patients discontinued therapy due to conjunctival hyperemia. Ocular adverse reactions reported at an incidence of 5 to 10% in these clinical studies included decreased visual acuity, eye discomfort, foreign body sensation, pain, and pruritus. In postmarketing use with prostaglandin analogs, periorbital and lid changes including deepening of the eyelid sulcus have been observed.

Use in Specific Populations

Use in pediatric patients below the age of 16 years is not recommended because of potential safety concerns related to increased pigmentation following long-term chronic use.

For additional information on TRAVATAN Z® Solution, please refer to the Brief Summary of Prescribing Information on the following page.

†Study Design: Double-masked, randomized, parallel-group, multicenter noninferiority comparison of the efficacy and safety of travoprost 0.004% preserved with benzalkonium chloride (BAK) and TRAVATAN Z® Solution after 3 months of treatment in patients with open-angle glaucoma or ocular hypertension. Baseline IOPs were 27.8 mm Hg (n=322), 25.8 mm Hg (n=322), and 24.6 mm Hg (n=322) at 8 AM, 10 AM, and 4 PM for TRAVATAN Z® Solution. At the end of month 3, the TRAVATAN Z® Solution group had mean IOPs (95% CI for the treatment differences) of 18.7 mm Hg (-0.4, 0.3), 17.7 mm Hg (-0.4, 0.3), and 17.4 mm Hg (-0.2, 0.5) at 8 AM, 10 AM, and 4 PM, respectively. Statistically equivalent reductions in IOP (95% CI about the treatment differences were entirely within ±1.5 mm Hg) were demonstrated between the treatments at all study visits during the 3 months of treatment.[1]

References: 1. Lewis RA, Katz GJ, Weiss MJ, et al; for Travoprost BAK-free Study Group. Travoprost 0.004% with and without benzalkonium chloride: a comparison of safety and efficacy. *J Glaucoma*. 2007;16(1):98-103.

Start strong with BAK-free TRAVATAN Z® Solution

NOVARTIS

TRAVATAN Z®

(travoprost ophthalmic solution) 0.004%

DESCRIPTION OF SUMMARY OF PRESCRIBING INFORMATION

INDICATIONS AND USAGE

TRAVATAN Z® (travoprost ophthalmic solution) 0.004% is indicated for the reduction of elevated intraocular pressure in patients with open-angle glaucoma or ocular hypertension.

DOSAGE AND ADMINISTRATION

The recommended dosage is one drop in the affected eye(s) once daily in the evening.

TRAVATAN Z® (travoprost ophthalmic solution) should not be administered more than once daily since it has been shown that more frequent administration of prostaglandin analogs may decrease the intraocular pressure lowering effect.

Reduction of the intraocular pressure starts approximately 2 hours after the first administration with maximum effect reached after 12 hours.

TRAVATAN Z® Solution may be used concomitantly with other topical ophthalmic drug products to lower intraocular pressure. If more than one topical ophthalmic drug is being used, the drugs should be administered at least five (5) minutes apart.

CONTRAINDICATIONS

None

WARNINGS AND PRECAUTIONS

Pigmentation

Travoprost ophthalmic solution has been reported to cause changes to pigmented tissues. The most frequently reported changes have been increased pigmentation of the iris, periorbital tissue (eyelid) and eyelashes. Pigmentation is expected to increase as long as travoprost is administered. The pigmentation change is due to increased melanin content in the melanocytes rather than to an increase in the number of melanocytes. After discontinuation of travoprost, pigmentation of the iris is likely to be permanent, while pigmentation of the periorbital tissue and eyelash changes have been reported to be reversible in some patients. Patients who receive treatment should be informed of the possibility of increased pigmentation. The long-term effects of increased pigmentation are not known.

Iris color change may not be noticeable for several months to years. Typically, the brown pigmentation around the pupil spreads concentrically towards the periphery of the iris and the entire iris or parts of the iris become more brownish. Neither nevi nor freckles of the iris appear to be affected by treatment. While treatment with TRAVATAN Z® (travoprost ophthalmic solution) 0.004% can be continued in patients who develop noticeably increased iris pigmentation, these patients should be examined regularly.

Eyelash Changes

TRAVATAN Z® Solution may gradually change eyelashes and vellus hair in the treated eye. These changes include increased length, thickness, and number of lashes. Eyelash changes are usually reversible upon discontinuation of treatment.

Intraocular Inflammation

TRAVATAN Z® Solution should be used with caution in patients with active intraocular inflammation (e.g., uveitis) because the inflammation may be exacerbated.

Macular Edema

Macular edema, including cystoid macular edema, has been reported during treatment with travoprost ophthalmic solution. TRAVATAN Z® Solution should be used with caution in aphakic patients, in pseudophakic patients with a torn posterior lens capsule, or in patients with known risk factors for macular edema.

Angle-closure, Inflammatory or Neovascular Glaucoma

TRAVATAN Z® Solution has not been evaluated for the treatment of angle-closure, inflammatory or neovascular glaucoma.

Bacterial Keratitis

There have been reports of bacterial keratitis associated with the use of multiple-dose containers of topical ophthalmic products. These containers had been inadvertently contaminated by patients who, in most cases, had a concurrent corneal disease or a disruption of the ocular epithelial surface.

Use with Contact Lenses

Contact lenses should be removed prior to instillation of TRAVATAN Z® Solution and may be reinserted 15 minutes following its administration.

ADVERSE REACTIONS

Clinical Studies Experience

Because clinical studies are conducted under widely ranging conditions, adverse reaction rates observed in the clinical studies of a drug cannot be directly compared to rates in the clinical studies of another drug and may not reflect the rates observed in practice. The most common adverse reaction observed in controlled clinical studies with TRAVATAN® (travoprost ophthalmic solution) 0.004% and TRAVATAN Z® (travoprost ophthalmic solution) 0.004% was ocular hyperemia which was reported in 30 to 50% of patients. Up to 5% of patients discontinued therapy due to conjunctival hyperemia. Ocular adverse reactions reported at an incidence of 5 to 15% in these clinical studies included decreased visual acuity, eye discomfort, foreign body sensation, pain and pruritus. Ocular adverse reactions reported at an incidence of 1 to 4% in clinical studies with TRAVATAN® or TRAVATAN Z® Solution included abnormal vision, blepharitis, blurred vision, cataract, conjunctivitis, corneal staining, dry eye, iritis/uveitis, keratitis, lid margin crusting, ocular inflammation, photophobia, subconjunctival hemorrhage and tearing.

Muscular adverse reactions reported at an incidence of 1 to 5% in these clinical studies were allergy, angina pectoris, asthma, arthritis, back pain, bradycardia, bronchitis, chest pain, cystitis syndrome, depression, dyspepsia, gastrointestinal disorder, headache, hypercholesterolemia, hypertension, hypotension, infection, pain, prostate disorder, sinusitis, urinary incontinence and urinary tract infections.

In postmarketing use with prostaglandin analogs periorbital and lid changes including deepening of the eyelid sulcus have been observed.

USE IN SPECIFIC POPULATIONS

Pregnancy

Pregnancy Category C

Teratogenic effects: Travoprost was teratogenic in rats, at an intravenous (IV) dose up to 10 mcg/kg/day (250 times the maximal recommended human ocular dose (MRHOD)), evidenced by an increase in the incidence of skeletal malformations as well as external and visceral malformations, such as fused sternebrae, domed head and hydrocephaly. Travoprost was not teratogenic in rats at IV doses up to 3 mcg/kg/day (75 times the MRHOD), or in mice at subcutaneous doses up to 1 mcg/kg/day (25 times the MRHOD). Travoprost produced an increase in post-implantation losses and a decrease in fetal viability in rats at IV doses > 3 mcg/kg/day (75 times the MRHOD) and in mice at subcutaneous doses > 0.3 mcg/kg/day (7.5 times the MRHOD).

In the offspring of female rats that received travoprost subcutaneously from Day 7 of pregnancy to lactation Day 21 at doses of ≥ 0.3 mcg/kg/day (8 times the MRHOD), the incidence of postnatal mortality was increased, and neonatal body weight gain was decreased. Neonatal development was also affected, evidenced by delayed eye opening, pinna detachment and preputial separation, and by decreased motor activity.

There are no adequate and well-controlled studies of TRAVATAN Z® (travoprost ophthalmic solution) 0.004% administration in pregnant women. Because animal reproductive studies are not always predictive of human response, TRAVATAN Z® Solution should be administered during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers

A study in lactating rats demonstrated that radiolabeled travoprost and/or its metabolites were excreted in milk. It is not known whether this drug or its metabolites are excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when TRAVATAN Z® Solution is administered to a nursing woman.

Pediatric Use

Use in pediatric patients below the age of 16 years is not recommended because of potential safety concerns related to increased pigmentation following long-term chronic use.

Geriatric Use

No overall clinical differences in safety or effectiveness have been observed between elderly and other adult patients.

Hepatic and Renal Impairment

Travoprost ophthalmic solution 0.004% has been studied in patients with hepatic impairment and also in patients with renal impairment. No clinically relevant changes in hematology, blood chemistry, or urinalysis laboratory data were observed in these patients.

NONCLINICAL TOXICOLOGY

Carcinogenesis, Mutagenesis, Impairment of Fertility

Two-year carcinogenicity studies in mice and rats at subcutaneous doses of 10, 30, or 100 mcg/kg/day did not show any evidence of carcinogenic potential. However, at 100 mcg/kg/day, male rats were only treated for 82 weeks, and the maximum tolerated dose (MTD) was not reached in the mouse study. The high dose (100 mcg/kg) corresponds to exposure levels over 300 times the human exposure at the maximum recommended human ocular dose (MRHOD) of 0.04 mcg/kg, based on plasma active drug levels. Travoprost was not mutagenic in the Ames test, mouse micronucleus test or rat chromosome aberration assay. A slight increase in the relative frequency was observed in one of two mouse lymphoma assays in the presence of rat S-9 activation enzymes.

Travoprost did not affect mating or fertility before in male or female rats at subcutaneous doses up to 10 mcg/kg/day (250 times the maximum recommended human ocular dose of 0.04 mcg/kg/day on a mg/kg basis [MRHOD]). At 10 mcg/kg/day, the mean number of corpora lutea was reduced, and the post-implantation losses were increased. These effects were not observed at 3 mcg/kg/day (75 times the MRHOD).

PATIENT CONSELING INFORMATION

Potential for Pigmentation

Patients should be advised about the potential for increased brown pigmentation of the iris, which may be permanent. Patients should also be informed about the possibility of eyelid skin darkening, which may be reversible after discontinuation of TRAVATAN Z® (travoprost ophthalmic solution) 0.004%.

Potential for Eyelash Changes

Patients should also be informed of the possibility of eyelash and vellus hair changes in the treated eye during treatment with TRAVATAN Z® Solution. These changes may result in a disparity between eyes in length, thickness, pigmentation, number of eyelashes or vellus hairs, and/or direction of eyelash growth. Eyelash changes are usually reversible upon discontinuation of treatment.

Handling the Container

Patients should be instructed to avoid allowing the tip of the dispensing container to contact the eye, surrounding structures, fingers, or any other surface in order to avoid contamination of the solution by common bacteria known to cause ocular infections. Serious damage to the eye and subsequent loss of vision may result from using contaminated solutions.

When to Seek Physician Advice

Patients should also be advised that if they develop an intercurrent ocular condition (e.g., trauma or infection), have ocular surgery, or develop any ocular reactions, particularly conjunctivitis and eyelid reactions, they should immediately seek their physician's advice concerning the continued use of TRAVATAN Z® Solution.

Use with Contact Lenses

Contact lenses should be removed prior to instillation of TRAVATAN Z® Solution and may be reinserted 15 minutes following its administration.

Use with Other Ophthalmic Drugs

If more than one topical ophthalmic drug is being used, the drugs should be administered at least five (5) minutes between applications.

Rx Only

U.S. Patent Nos. 5,631,297; 5,889,052; 6,011,062; 6,225,791; 6,303,657; and 6,849,253

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