IMAGING & PERIMETRY SOCIETY

24TH INTERNATIONAL VISUAL FIELD & IMAGING SYMPOSIUM

AUGUST 10-13, 2022

BERKELEY, CA

PERIMETRY.ORG

WELCOME

Dear Friends and Colleagues

It is our great honor to be hosting the 24th international meeting of the Imaging and Perimetry Society in Berkeley, California. It is 40 years since the meeting was last held in California, in Sacramento in 1982. We look forward to an extraordinary celebration of science, resilience and friendship at this long-awaited meeting, as it is wonderful to get together in person with colleagues from 10 countries to share and discuss our latest imaging and perimetry research findings.

The meeting will be held on the University of California, Berkeley (UC Berkeley) campus at the Herbert Wertheim School of Optometry and Vision Science. Established in 1868 as the University of California, and now informally known as “Cal”, it is the state's first campus of the world-renowned University of California system and is consistently ranked among the top public universities of the United States. We hope you will take time to explore the beautiful 178-acre UC Berkeley campus, its museums and botanical garden. Cal is surrounded by the town of Berkeley, known for its political activism and free speech movement in the 1960s and more recently for its gourmet restaurants. San Francisco is a short 30-minute BART (Bay Area Rapid Transit) ride from Berkeley, and the larger bay area is home to wonderful places to visit.

Welcome to Berkeley,

John Flanagan and Linda Zangwill
Conference Hosts and Co-Chairs

General Information

Wed., August 10th
Welcome Reception
5-8pm

Faculty Club
UC Berkeley
Minor Lane
Berkeley, CA 94720

Thurs., August 11th
Scientific Program
(Sessions 1-4)
Abstracts

Optional Dinner
6:30-9:30pm
Cornerstone
2367 Shattuck Ave.
Berkeley, CA 94704

Fri., August 12th
Scientific Program
(Sessions 5-6)
Abstracts

Winery Tour
4:30-8:30pm

William Hill Estate
1761 Atlas Peak Rd
Napa, CA 94558

Sat., August 13th
Scientific Program
(Sessions 7-10)
Abstracts

Reception
6:30-7:30pm

Dinner:
7:30-10:30pm

University Club
California Memorial Stadium
2227 Piedmont Ave
Berkeley, CA 94704

Water, the IPS Drink of Choice

During our conference we will not be serving sugar-sweetened beverages, as in soda/pop. Berkeley, California levied the nation's first "soda tax" on sugar-sweetened beverages in November 2014. Within 3 years there was over a 50% reduction in the consumption of sugary drinks and a 30% increase in the consumption of water. In the spirit of global public health we will serve water with all meals and at breaks. You will be provided with a reusable water cup at registration and will be encouraged to use it throughout the conference. However, we will also be serving tea and coffee, with milk, cream and sugar for those who prefer!

See: https://news.berkeley.edu/2019/02/21/three-years-into-soda-tax-sugary-drink-consumption-down-more-than-50-percent-in-berkeley/
PMID: 30789776

PCR Testing for International Travel

We have organized a testing service (CityHealth: https://covidtesting.cityhealth.com/) to come to the conference on Saturday morning to collect samples for PCR testing. They will provide the results and the necessary paperwork for international travel within 24 hours, for all delegates who require proof of a negative PCR test to return to their country of origin. My understanding is that this requirement is currently only for Japan. The cost will be the responsibility of the delegate and will be $250. Should anyone require earlier testing the CityHealth test center is approximately 5 miles from the UC Berkeley campus. The cost of testing at the CityHealth clinic will be $175.

Dress Code

Scientific Program, Dinner, Winery Tour: California Casual
Banquet: Business Casual

Mobile Phones

Please respect the presenter and other delegates by ensuring that your mobile phone is switched off or on silent while you are in sessions.

Smoking Policy

The 24th International Visual Field and Imaging Symposium is a non-smoking Symposium. UC Berkeley is a smoke and tobacco-free campus.

Disclaimer

The organizers have made every attempt to ensure that all information in this program/abstract book is correct. Some information printed has been provided by external sources. The organizers take no responsibility for changes to the program.

IMAGING & PERIMETRY SOCIETY

LOCAL ORGANIZING COMMITTEE
John Flanagan, PhD, DSc, FCOptom *Berkeley, CA, USA* (Co-Chair)
Linda Zangwill, PhD *Encinitas, CA, USA* (Co-Chair)
Michael Patella, OD *Iowa City, IA, USA*
Brad Fortune, OD, PhD *Portland, OR, USA*
Lyne Racette, PhD *Birmingham, AL, USA*
Mitchell Dul, OD, MS *New York, NY, USA*

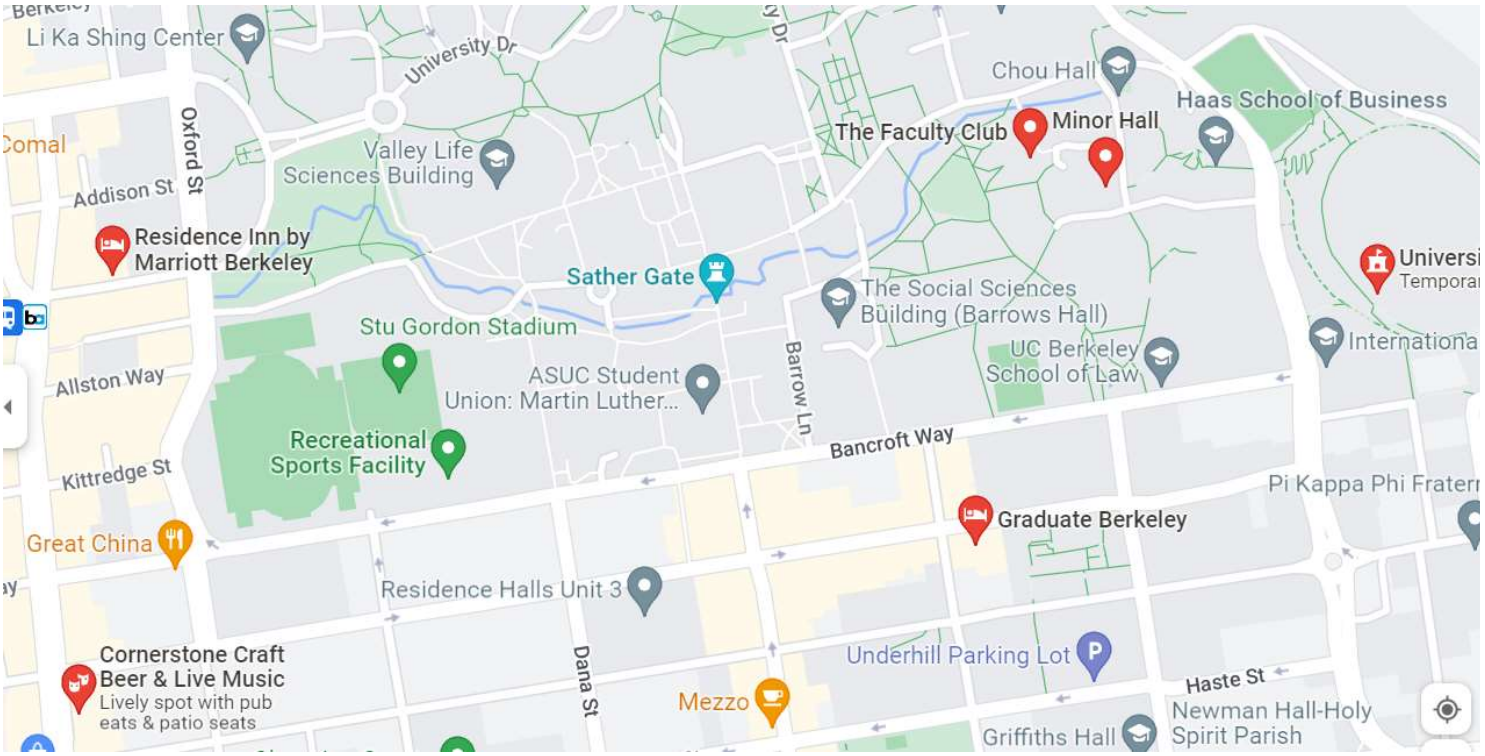
IPS BOARD MEMBERS:
President: Chota Matsumoto, MD *Osaka-Sayama City, Japan*
Past President: Chris Johnson, PhD *Iowa City, IA, USA*
Vice President: David (Ted) Garway-Heath, MD *London, England, UK*
Vice President: Aiko Iwase, MD *Tajimi, Gifu, Japan*
Secretary: Allison M. McKendrick, BScOptom, MScOptom, PhD
Carlton, Victoria, Australia
Treasurer: Mitchell Dul, OD, MS *New York, NY, USA*
Past-Secretary: David Henson, MD *Manchester, England, UK*

MEMBERS AT LARGE:
Lyne Racette, PhD *Birmingham, AL, USA*
Ryo Asaoka, MD *Hamamatsu, Shizuoka, Japan*

OTHER BOARD MEMBERS:
Fritz Dannehim, MD, Rosengarten, Germany
Kazuhisa Sugiyama, MD, Kanazawa, Ishikawa, Japan
Aiko Iwase, MD, Tajimi, Gifu, Japan

THANK YOU to the Herbert Wertheim School of Optometry & Vision Science for their generous support of the 24th International Visual Field & Imaging Symposium.

AREA MAP


Li Ka Shing Center
University Dr
Chou Hall
Haas School of Business
The Faculty Club
Minor Hall
Oxford St
Addison St
Valley Life Sciences Building
Residence Inn by Marriott Berkeley
Sather Gate
The Social Sciences Building (Barrows Hall)
Stu Gordon Stadium
UC Berkeley School of Law
Allston Way
ASUC Student Union: Martin Luther...
Barrow Ln
Bancroft Way
Kittredge St
Recreational Sports Facility
Graduate Berkeley
Great China
Residence Halls Unit 3
Cornerstone Craft Beer & Live Music
Lively spot with pub eats & patio seats
Dana St
Underhill Parking Lot
Haste St
Mezzo
Griffiths Hall
Newman Hall-Holy Spirit Parish

Platinum Sponsors

HEIDELBERG ENGINEERING

TOPCON Healthcare

SEEING EYE HEALTH DIFFERENTLY

ZEISS

Silver Sponsors

Alcon

Allergan
an AbbVie company

HAAG-STREIT GROUP

Bronze Sponsors

CREWT

icare
For better perception

optos®

KONAN MEDICAL

IMAGING *and* PERIMETRY SOCIETY

24th IPS Meeting

August 11-13, 2022

Berkeley, California

Clinical Imaging and Perimetry **New Technology** **Structure-Function** **Artificial Intelligence**

Thursday August 11		
08:15	**Breakfast: Exhibits & Networking**	
08:55	**Welcome to the Conference: John Flanagan & Linda Zangwill**	**Presenting Author**
	Session 1: Big Data & Motion. Moderators: John Flanagan & Linda Zangwill	
09:00	A prospective longitudinal study to investigate corneal hysteresis as a risk factor of central visual field progression	Alireza Kamalipour
09:10	Using large scale visual field data from clinics in England to examine associations between socio-economic status …..	Mehal Rathore*
09:20	Power to the People: Estimating the Detectability of Change in Individual Patients' Visual Field Series	Fabian Yii*
09:30	Discussion	
09:45	Measurement of fixational eye movements during visual field testing	Takuya Ishibashi*
09:55	Moving vs. Static Stimuli for Perimetry: Patient Experience	Donovan Redtomahawk
10:05	Moving vs. Static Stimuli for Perimetry: Repeatability and Defect Detectability	Stuart Gardiner
10:15	Discussion	
10:30	**Break: Exhibits & Networking**	
	Session 2: Virtual Reality & Home-Based Monitoring. Moderators: Lyne Racette & Jonathan Dennis	
11:00	Quantitative Visual Field Tests using Tablets and Virtual Reality Headsets	Chris Johnson
11:10	Acceptability of home-based visual field testing for glaucoma monitoring: A qualitative study of patients' views …..	Tamsin Callaghan
11:20	High-precision bundle-based tracking of visual fields at home in patients with glaucoma	Benjamin Backus
11:30	Discussion	
11:45	Lens Fogging in Virtual Reality Visual Field Devices in a Remote Setting	Annika Patel
11:55	Visual field testing with a commercially available head-mounted display	Jenny Bosten
12:05	Acceptability of home-based visual field testing for glaucoma monitoring: Accuracy and reliability data	Peter Campbell
12:15	Discussion	
12:30	**Lunch: Exhibits & Networking**	
12:45	**Carl Zeiss Meditec Lunchtime Symposium: Ryo Asaoka MD, PhD. "Reliability Indices: Are They Reliability Measures"**	
	Session 3: Artificial Intelligence – Imaging. Moderators: Andrew Turpin & Michael Wall	
13:30	**Keynote: Naama Hammel MD. From Code to Clinic: Challenges in translating ML models into real world products**	**Introduction: Linda Zangwill**
14:00	Ability of Machine Learning to Predict Functional Loss from Optical Coherence Tomography in Glaucoma Patients	Davide Scandella
14:10	Deep Learning Models Based on Unsegmented OCT RNFL Circle Scans Provide Accurate Detection of Glaucoma …..	Mark Christopher
14:20	Sex judgment using parameters of color fundus photographs in growth phase	Takehiro Yamashita
14:30	Discussion	
14:45	The influence of including OCT in POAG clinical trial endpoint determinations: Evidence from the OHTS3 20-yr follow-up	Linda Zangwill
14:55	An evaluation of an OCT-based Method for detecting glaucoma in a Reading Center setting	Don Hood
15:05	Discussion	
15:15	**Break: Exhibits & Networking**	
	Session 4: New Strategies and Devices. Moderators: Michael Patella & Takashi Nishida	
15:45	Evaluation of a visual field test strategy AIZE-EX	Hiroki Nomoto*
15:55	Characteristic findings of functional visual loss with perimeter imo	Akihiko Sugino
16:05	The efficiency of detection of a glaucoma visual field defect using a tablet perimetry tool: The Multi-Stimulus vision tester	Fumi Tanabe*
16:15	Discussion	
16:30	New portable binocular perimeter imo vifa	Chota Matsumoto*
16:40	High density perimetry and foveal avascular zone in glaucoma.	Augusto Paranhos Jr.
16:50	Discussion	
17:15	**Close**	
Friday August 12		
08:15	**Breakfast: Exhibits & Networking**	
	Session 5: Clinical Imaging and Perimetry. Moderators: Linda Zangwill & Stuart Gardiner	
09:00	**Keynote: Brad Fortune OD, PhD. Clinical-Pathologic Correlations Informing S-F Relationships During Progression**	**Introduction: Linda Zangwill**
09:30	The invisibility of Scotomas Pt 1: Scotoma Carving with Loss of High-Level Cells	Eli Peli
09:40	The invisibility of Scotomas Pt 2: Replacement with Loss of Photoreception	Eli Peli
09:50	Discussion	
10:00	Detection of glaucoma progression based on changes of the circumpapillary RNFL thickness between two OCT scans	Emmanouil Tsamis
10:10	Characterization of retinal nerve fiber layer and ganglion cell layer inner plexiform thickness in the OHTS3 20-yr follow-up	Evan Walker
10:20	Discussion	
10:30	**Break: Exhibits & Networking**	
11:00	**Aulhorn Lecture: Allison M. McKendrick PhD, BSOptom. "Can Structural Information Improve Perimetry?"**	**Moderator: Chris Johnson**
11:25	Discussion	

	Session 6: Diabetes, OCTA and Summation. Moderators: Donald Hood & Tony Redmond	
11:30	Evaluating early diabetic retinal neuron damage using contrast increments and decrements	Allison McKendrick
11:40	Initial OCTA vessel density loss is associated with faster visual field loss in glaucoma	Takashi Nishida
11:50	Detecting glaucomatous loss in the photopic full-field ERG: Influence of chromatic contrast, flash duration and flicker	Brad Fortune
12:00	Discussion	
12:15	Examining Spatial, Temporal and Spatiotemporal Summation in Age-Related Macular Degeneration	Aoife Hunter
12:25	Spatial summation in the glaucomatous macula: a model for retinal ganglion cell damage	Giovanni Montesano
12:35	Discussion.	
12:45	**Lunch: Exhibits & Networking**	
13:00	**Topcon Health Lunchtime Symposium: Donald Hood PhD. "What OCT Can Tell Us About Visual Fields?"**	
15:00	Transportation to William Hill Estate Winery, Napa, CA	

Saturday August 13

08:15	**Breakfast: Exhibits & Networking**	
	Session 7: Structure – Function. Moderators: Brad Fortune & Allison McKendrick	
09:00	**Keynote: William Tuten OD, PhD. "Measuring Human Vision at the Cellular Scale"**	**Introduction: John Flanagan**
09:30	Integration of structural data into perimetric examinations	Josephine Evans*
09:40	Concordance between objectively-detected RNF bundle defects in enface OCT images and conventional structural …..	Riccardo Cheloni
09:50	Discussion	
10:00	Recovery of a laser retinal damage case observed with adaptive optics retinal imaging and microperimetry	Yiyi Wang
10:10	Comparing the structure-function relationship between the strategies of SITA standard and KOWA Smart	Yuri Fujino
10:20	Discussion	
10:30	**Break: Exhibits & Networking**	
	Session 8: Clinical Perimetry and New Technology. Moderator: Mitch Dul and Chris Johnson	
11:00	Area Modulation Perimetry Reveals Retinal Ganglion Cell Dysfunction in Early Glaucoma	Pádraig Mulholland
11:10	Short-term visual field improvement after initial intraocular pressure lowering therapy in newly diagnosed glaucoma	Peter Reddingius
11:20	Perimetric testing of patients with ocular hypertension in the English Hospital Eye Service	Stephen Kelly
11:30	Discussion	
11:45	Influence of Myopic Correction and Axial Length on ON-OFF Perimetry	Stephen Dellostritto
11:55	Influence of Open Angle Glaucoma on ON-OFF Perimetry	Jia Tan
12:05	Discussion	
12:15	**Lunch: Exhibits & Networking**	
12:30	**Heidelberg Eng. Lunchtime Symposium: Kouros Nouri-Mahdavi MD, PhD. "Detection of Glaucoma Progression: Lessons Learned from the Macula"**	
13:15	**Business Meeting**	
14:15	**IPS Lecture: Michael Patella OD. "Lessons Learned after 40 years of Wandering in the Wilderness of Clinical Perimetry"**	**Moderator: John Flanagan**
14:40	Discussion	
	Session 9: Central Scotomas and Microperimetry. Moderator: Chris Johnson	
14:45	Central and Cecocentral Scotomas and Neuro-Ophthalmic Revisionist Approach	Steven Newman
14:55	Properties of measurements from the S-MAIA microperimeter in people with intermediate AMD in the MACUSTAR study	Bethany Higgins
15:05	Discussion	
15:15	**Break: Exhibits & Networking**	
	Session 10: New Tools and Techniques. Moderators: John Flanagan & Ryo Asaoka	
15:45	**Keynote: Dimitri Azar MD, PhD. "Artificial Intelligence in Diagnosis of Ophthalmic Diseases"**	**Introduction: John Flanagan**
16:15	The Java Open Visual Psychophysics (JOVP)	Iván Marin-Franch
16:25	Using artificial responses to speed up perimetric tests	Andrew Turpin
16:35	Invariance of test-retest variability with spot stimulus configuration	Tony Redmond
16:45	Discussion	
17:00	Suprathreshold approaches to spatially mapping the visual field in advanced glaucoma	Jonathan Dennis
17:10	Increasing spatial sampling in perimetry: a case series exploration of clinician of stimuli preferences relative to …..	Vasanth Muthusamy*
17:20	Discussion	
17:30	**Closing Remarks:** John Flanagan & Linda Zangwill	
18:30	**IPS Banquet and National Songs**	

The Imaging and Perimetry Society thanks our sponsors:

Platinum: Heidelberg Engineering, Topcon Healthcare, Carl Zeiss Meditec

Silver: Alcon, Allergan, Haag-Streit

Bronze: CREWT, iCare, Konan Medical, Optos

IPS IMAGING *and* PERIMETRY SOCIETY

SOCIAL EVENTS

WEDNESDAY, AUGUST 10TH
5-8PM

WELCOME RECEPTION

FACULTY CLUB
UC BERKELEY
MINOR LANE
BERKELEY, CA 94720
GREAT HALL & DECK

THURSDAY, AUGUST 11TH
6:30-9:30PM

OPTIONAL DINNER

CORNERSTONE
2367 SHATTUCK AVE.
BERKELEY, CA 94704

FRIDAY, AUGUST 12TH
BUS PICKUP: 3:15PM
OUTSIDE OF MINOR HALL

WINE TASTING RECEPTION
& DINNER

BUS BACK TO BERKELEY: 8:30PM
DROP OFF AT MINOR HALL

WILLIAM HILL ESTATE
WINERY
1761 ATLAS PEAK RD
NAPA, CA 94558

SATURDAY, AUGUST 13TH
RECEPTION: 6:30-7:30PM
DINNER: 7:30-10:30PM

UNIVERSITY CLUB
CALIFORNIA MEMORIAL
STADIUM
2227 PIEDMONT AVE
BERKELEY, CA 94704

IPS 2022 AWARDEES

Aulhorn Lecture

Allison McKendrick, PhD, BSOptom

Allison McKendrick is an internationally recognized expert in the assessment of visual disorder and dysfunction. She is an optometrist by training and completed research degrees in 1994 (Masters) and 1999 (PhD) at the University of Melbourne, Australia. After completing her PhD, she completed postdoctoral training at the Devers Eye Institute, Portland Oregon, returning to Australia in 2001 to take up a prestigious NHMRC Australian Clinical Research Fellowship at the School of Psychology, UWA (2001-2004). In 2005, Allison returned to the University of Melbourne to commence a lectureship. She has recently completed a turn as Head of Department of Optometry and Vision Sciences (April 2014 - March 2021). During her academic career, Allison has contributed extensively to all domains of academic endeavor (teaching, research, leadership and engagement). Her research is highly interdisciplinary, hence she has published widely in journals related to vision and eyecare, neurology, psychology, and medical device development. Her research has received extensive funding from nationally competitive grant agencies, industry and philanthropic sources. Her research related to perimetry has enabled significant inroads to solving problems associated with efficient and effective testing of vision in clinical settings. She has also made significant contributions to understanding and clinical interpretation of the links between structure and functional damage in glaucoma. Allison is also recognized for research contributions to the understanding of cortical changes to visual processing across the lifespan. She leads a vibrant research laboratory with a team of postdoctoral fellows and graduate research students. Her work is highly interdisciplinary, with collaboration from colleagues in ophthalmology, psychology, physiotherapy, neurology and neuroimaging.

IPS Lecture

Michael Vincent Patella, OD

Dr. Mike Patella is an American developer of automated ophthalmic diagnostic devices. He retired from Carl Zeiss Meditec in 2018 after 43 years of service as Director of Clinical Research, Director of the Glaucoma Business Unit, Director of New Business Development, and Vice President of Professional Affairs. He continues as a consultant to Carl Zeiss Meditec and to other companies.

Mike began his career as a US Air Force meteorology officer and after completing his military service worked as an aerospace engineer on a NASA manned spaceflight project called Skylab. He left aerospace engineering in 1974 in order to enter the UC Berkley School of Optometry, and, a few months later also joined a Berkeley startup called Humphrey Instruments. Humphrey Instruments had been founded that year by Nobel Laureate, Luis W. Alvarez. Humphrey was later purchased by Carl Zeiss, and came to be known as Carl Zeiss Meditec, Inc.

Mike worked for more than four decades at Humphrey and Zeiss on the invention and development of automated ophthalmic diagnostic instruments, most notably the Humphrey perimeter, but also including automated refractors and lensometers, contact lens fitting devices, and automated imaging systems, including the first clinical system for imaging the human eye using optical coherence tomography.
Mike and his lifelong collaborators, Anders Heijl and Boel Bengtsson, both of the University of Lund, formed the nucleus of the international team that developed – and continues to develop – the Humphrey perimeter. Together, the team invented all the applications found in the Humphrey perimeter, including

the first internationally-derived perimetric normative data, the SITA family of perimetric testing strategies and numerous other perimetric applications.

Together, Heijl, Bengtsson and Patella also have written five editions of a perimetric textbook called the Humphrey Primer, which, since 1986, have been distributed free of charge to ophthalmologists and optometrists worldwide. The fifth edition was released in English in March of 2021 and was translated in the summer of 2021 into Chinese by Xinghuai Sun, Professor and Chairman of the Eye & ENT Hospital of Fudan University in Shanghai. Translations by internationally recognized glaucoma specialists are underway in Japan, France, Spain, and Russia, with plans in place for similar to be produced in Germany, Italy and Portugal.

Mike also co-authored the second edition of the textbook, Automated Static Perimetry, with Professor Douglas R. Anderson of Bascom Palmer Eye Institute, published in 1999 by Mosby, Inc.

KEYNOTE SPEAKERS

Naama Hammel, MD
Naama is a clinical research scientist in Google Health. In this role she focuses on developing machine learning models for the detection of ocular and systemic diseases from medical images. Naama is an ophthalmologist with a subspecialty in glaucoma. She completed her medical and ophthalmology training at Tel-Aviv University; her glaucoma fellowship at the Shiley Eye Institute, UC San Diego; and her ophthalmic informatics fellowship at the UC Davis Eye Center.

Brad Fortune, OD, PhD
Brad Fortune, OD, PhD is a Senior Scientist and one of the Principal Investigators working within the Discoveries in Sight Research Laboratories of the Devers Eye Institute at Legacy Health. Brad's research interests broadly include retinal and optic nerve physiology and anatomy, with a specific focus on advanced methods for assessment of visual system function and retinal imaging in order to improve our understanding of eye disease mechanisms and our ability to detect and monitor sight-threatening conditions such as glaucoma. Dr. Fortune and his team perform translational research, with ongoing efforts to bridge between laboratory-based discovery and clinical application. Dr. Fortune has served as a Principal Investigator, Co-Investigator or Consultant on twenty grants funded by the National Eye Institute (NEI), as well as on numerous other projects sponsored by national and local research foundations and industry partners. He has also served as a member of numerous advisory panels reviewing research grant applications at the NIH and other national and international institutions (such as the BrightFocus Foundation and Glaucoma Research Foundation), as an invited referee for over thirty scientific journals, and on the Editorial Boards of Investigative Ophthalmology and Visual Science and the Journal of Glaucoma.

William Tuten, OD, PhD

William Tuten is an Assistant Professor in the Herbert Wertheim School of Optometry and Vision Science at the University of California, Berkeley. His research focuses on developing and using advanced optical platforms to study vision at the cellular level in the living human eye. His current work includes studies aimed at understanding the mechanisms subserving spatial and color vision near the fovea, as well as efforts to characterize the relationship between outer retinal structure and function in inherited retinal disease.

Dimitri Azar, MD, MBA

Dimitri Azar, MD, MBA is the Chief Executive Officer of Twenty/Twenty Therapeutics, a joint venture established by Google/Verily and Santen. He is Distinguished Professor and BA Field chair of ophthalmic research and Executive Dean Emeritus at the University of Illinois College of Medicine, where he pioneered the convergence of engineering and data science/artificial intelligence with basic and clinical medicine. Dimitri sits on the board of the Tear Film and Ocular Surface Society, the board of the Himalayan Cataract Project and the Verily SAB board. He also served as a non-executive director on the Boards of Novartis (2012-2019) and Verb Surgical (2015-2019).

He completed his residency and fellowship training at the Massachusetts Eye and Ear Infirmary, Harvard Medical School. He then moved to the Johns Hopkins Wilmer Ophthalmological Institute as assistant professor and founding director of the refractive surgery service (1991-1996). He returned to the Mass Eye and Ear Infirmary as the Director of the Cornea, Refractive Surgery and Contact lens Services (1996-2006). He was named tenured Professor of Ophthalmology at Harvard Medical School (2003-2006) and senior scientist at the Schepens Eye Research Institute, before joining the University of Illinois as Head of the Ophthalmology Department (2006-2011), and later as Executive Dean (2011-2018).

Dr. Azar received his MD from American University of Beirut and his MBA (with high distinction) from University of Chicago, Booth School of Business. He also holds an honorary doctoral degree from the University of Balamand, as well as an honorary master's degree from Harvard.

Dr. Azar is the author of more than 500 scientific articles and book chapters. He is the editor of 23 books in ophthalmology and holds more than 45 patents in ophthalmic pharmacology and bioengineering. He was named one of The Best Doctors in America and recognized among Castle Connolly's Regional Top Doctors in America annually between 1994 and 2020. He is a member of the Beta Gamma Sigma Honor Society and has served as Trustee for the Chicago Medical Society and for the Association of Research and Vision in Ophthalmology, and President of the Chicago Ophthalmological Society. Dr. Azar has received numerous named lectures and leadership awards, including the Life Achievement award by the American Academy of Ophthalmology, the Lans Distinguished Award, the Castroviejo Award, and the University of Illinois at Chicago Scholar Award and Distinguished Professor Award.

SPONSORED SPEAKERS

Ryo Asaoka, MD, PhD
Carl Zeiss Meditec Lunchtime Symposium
Dr. Ryo Asaoka is a consultant Ophthalmologist at the Department of Ophthalmology, Seirei Hamamatsu General Hospital. Ryo has graduated from the Tokyo Medical University in 1996, and gained degrees in Medicine at the Department of Ophthalmology, Hamamatsu University School of Medicine in 2005. He has achieved an international reputation in glaucoma research, in particular in the analysis of glaucoma diagnosis/progression, often using machine learning methods and also the association with the corneal biomechanics. These results are documented in more than 200 peer reviewed papers. He is a current board member of the Imaging and Perimetry or IPS (formerly the International Perimetric Society) and, the Japan Glaucoma Society and also the Japan Perimetric Society.

Donald Hood, PhD
Topcon Health Lunchtime Symposium
Don Hood, a member of the Columbia faculty since 1969, holds a Ph.D. (1970) degree from Brown University and honorary degrees from Smith College (2000), Brown University (2017), and SUNY College of Optometry (2019). He is a Fellow of the American Academy of Arts and Sciences and recipient of an Alcon Research Institute Award (2014). He currently serves as Editor-in-Chief of IOVS. While some of his over 350 publications deal with issues of the basic visual neuroscience, most concern diseases of the retina and optic nerve. He has had continuous grant support from NIH/NEI for almost 50 years.

Kouros Nouri-Mahdavi, MD
Heidelberg Engineering Lunchtime Symposium
Dr. Nouri-Mahdavi has an active clinical practice managing adult glaucoma patients and complex cataract surgeries. Dr. Nouri-Mahdavi's research focuses on functional and structural measurements for optimizing diagnosis of glaucoma or its progression, use of machine learning approaches in glaucoma diagnostics, and study of surgical outcomes in glaucoma. He has been the recipient of many awards including the American Academy of Ophthalmology's Secretariat and Achievement Awards, American Glaucoma Society MAPS Grant Award, the American Glaucoma Society Early and Mid-Career Clinician Scientist Awards, the Gerald Oppenheimer Family Foundation Center for Prevention of Eye Disease Award, Senior Alcon Research Award, and NIH K23 and R01 awards. He has been the co-recipient of UCLA Innovation Awards in 2018 and 2019 for translational research projects. His research is currently funded by an NIH R01 award to optimize detection of glaucoma progression in eyes with advanced glaucoma.

Dr. Nouri-Mahdavi is a clinician-scientist who continues to teach and publish extensively. He frequently lectures at national and international meetings. He is currently a member of the American Academy of Ophthalmology's (AAO), Association for Research in Vision and Ophthalmology, and the Vice-Chair of the AGS' Annual Meeting Committee. He serves on the Editorial Boards of *Journal of Glaucoma*, *International Glaucoma Review, and Journal of Ophthalmic and Vision Research*.

UNCOVER MORE

The discerning power of deviation maps provided by the SPECTRALIS® Glaucoma Module Premium Edition lets you visualize structural loss at a glance.

The patented Anatomic Positioning System (APS) automatically aligns the macular reference database precisely with the individual anatomy of each eye.

Accuracy you can see for yourself.

Uncover more: www.SPECTRALIS.info

Image Quality

Upgradeability

Dynamic Visualization

Please note: Deviation maps are not available for sale in the United States.

HEIDELBERG ENGINEERING

SYMPOSIUM

What OCT Can Tell Us About Visual Fields

Friday, August 12th | 12:45 - 1:30 pm
Herbert Wertheim School of Optometry and Vision Science
UC Berkeley | Room 491

Presented by
Donald C. Hood, PhD
Prof. Emeritus of Ophthalmic Sciences
Columbia University

OCT images and OCT deviation maps will be used to: understand the patterns of visual field damage seen in eyes with glaucoma; and to illustrate that, in general, glaucomatous damage seen with OCT agrees with defects seen on visual fields, if properly compared.

IPS IMAGING *and* PERIMETRY SOCIETY

SPONSORED BY

TOPCON Healthcare
SEEING EYE HEALTH DIFFERENTLY

MCA #4820

True Change of Glaucoma or Random Variability?

Find out with ZEISS GPA

ZEISS Glaucoma Workplace

Integrate CIRRUS, HFA and CLARUS data sets into a single GPA visualization to help guide your assessments by spotlighting changes that could impact disease management.

https://zeiss.ly/GWP

ZEISS

Seeing beyond

ABSTRACTS

THURSDAY, AUGUST 11TH

FRIDAY, AUGUST 12TH

SATURDAY, AUGUST 13TH