CCOI

New Frontiers in Ophthalmic AI and Innovation

A Meeting of the
Collaborative Community on Ophthalmic Innovation (CCOI)

CONFERENCE PROGRAM

January 23–24, 2025

Start Time 7:00 AM Pacific Time
(10:00 AM Eastern)
USA/Canada/Mexico

Hosted Virtually by CCOI

ALL TIMES ARE LISTED IN PACIFIC STANDARD TIME

JANUARY 23, 2025 | DAY 1: 7:00 AM–3:40 PM (8 HOURS 35 MINUTES)

7:00 AM–7:10 AM

INTRODUCTORY REMARKS BY CCOI PRESIDENT

Joel S. Schuman, MD, FACS
Kenneth L. Roper, MD Endowed Chair and Professor of Ophthalmology
Vice Chair for Research Innovation, Co-Director, Glaucoma Service
Wills Eye Hospital, Thomas Jefferson University
Professor of Biomedical Engineering, Drexel University School of Biomedical Engineering, Science and Health Systems

7:10 AM–8:25 AM

SESSION 1: VISION RESTORATION AND REHABILITATION

SESSION CHAIRS:

José-Alain Sahel, MD
Distinguished Professor and Chairman, The Eye and Ear Foundation
Endowed Chair, Department of Ophthalmology
University of Pittsburgh School of Medicine
Adjunct Professor of Robotics and Bioengineering, Carnegie Mellon University, Pittsburgh
Adjunct Professor of Ophthalmology, Hebrew University of Jerusalem, Israel
Emeritus Professor of Ophthalmology, Sorbonne Université
Honorary Professor, Institute of Ophthalmology, University College London

Mark Humayun, MD, PhD
University Professor of Ophthalmology and Biomedical Engineering
Cornelius J. Pings Chair in Biomedical Sciences
Co-Director, USC Eye Institute
Director of USC Ginsberg Institute for Biomedical Therapeutics
Director, USC Sensory Science Institute

Epiretinal Prostheses
Mark Humayun, MD, PhD

Subretinal Prostheses Today
Daniel Palanker, PhD
Professor of Ophthalmology and, by courtesy, of Electrical Engineering at Stanford University.

Vision Restoration in Retinal Degenerations: Optogenetics in the Clinic
José-Alain Sahel, MD

The Orion Vision Cortical Prosthesis
Nader Pouratian, MD, PhD
Professor and Chair, Department of Neurological Surgery, UT Southwestern Medical Center

The Neuralink Implant As a Vision Prosthesis
Daniel L. Adams PhD
Neuroengineer: Next Generation Applications Neuralink Corporation

Safety of Visual Prostheses
James Weiland, PhD
Professor of Biomedical Engineering and Ophthalmology & Visual Sciences
University of Michigan

Vision Restoration and Rehabilitation Panel Discussion and Q&A
MODERATORS: **José-Alain Sahel, MD;** and **Mark Humayun, MD, PhD**

PANELISTS:
Daniel L. Adams PhD
Daniel Palanker, PhD
Nader Pouratian, MD, PhD
James Weiland, PhD

and

Paul Bresge
CEO of Ray Therapeutics

Gislin Dagnelie, PhD
Professor of Ophthalmology
Johns Hopkins University

John G. Flannery, PhD
Professor of Neurobiology, Dept. Molecular & Cell Biology
Assoc. Director, Helen Wills Neuroscience Institute, University of California, Berkeley

Amy Laster, PhD
Interim Chief Scientific Officer
The Foundation Fighting Blindness

8:25 AM–9:55 AM

SESSION 2: MYOPIA

SESSION CHAIRS:
Daniel Ting, MBBS, PhD
Associate Professor
Senior Consultant
Singapore National Eye Center
Singapore Eye Research Institute

Michael X. Repka, MD, MBA
David L. Guyton MD and Feduniak Family Professor of Ophthalmology
Wilmer Eye Institute
Johns Hopkins University School of Medicine
President, American Academy of Ophthalmology

Why the National Eye Institute is Interested in Myopia
Michael Chiang, MD
Director, National Eye Institute, National Institutes of Health
Due to unforeseen circumstances, this presenter was not able to participate.

Prior FDA CDER and CDRH Discussions on Myopia Control
Michael X. Repka, MD, MBA

MYOPIA: History—Epidemiology & Pathophysiology
Ian Flitcroft, MA, DPhil (Oxon), MBBS, FRCOphth
Chief Innovation Officer, Ocumetra

Artificial Intelligence in Myopia
Daniel Ting, MBBS, PhD

MYOPIA: History—Epidemiology & Pathophysiology
Marcus Ang, MBBS, MMED, MCI, FAMS, FRCS, PhD
Head, Senior Consultant, Cornea and External Eye Disease Service, Singapore National Eye Center
Head, Senior Consultant, Refractive Service, Singapore National Eye Center
Associate Professor, DUKE-NUS Department of Ophthalmology and Visual Sciences, Singapore
Advisor, Myopia Center, SNEC, Singapore

Primary Endpoints
Jeffrey J. Walline, OD, PhD
Acting Dean, The Ohio State University College of Optometry

FDA Regulatory Challenges
Tieuvi Nguyen, PhD
Director, Division of Ophthalmic Devices, Center of Devices and Radiological Health
US Food and Drug Administration
Due to unforeseen circumstances, this presenter was not able to participate.

William M. Boyd, MD
Deputy Director, Division of Ophthalmology, Center for Drug Evaluation and Research,
US Food and Drug Administration
Due to unforeseen circumstances, this presenter was not able to participate.

Paula Johns, OD, MPH
Clinical Reviewer Division of Ophthalmic Devices, Center of Devices and Radiological Health,
US Food and Drug Administration
Due to unforeseen circumstances, this presenter was not able to participate.

Myopia: Panel Discussion and Q&A
MODERATORS: **Daniel Ting, MBBS, PhD** and
Michael X. Repka, MD, MBA

PANELISTS:
Marcus Ang, MBBS, MMED, MCI, FAMS, FRCS, PhD
Michael Chiang, MD
Due to unforeseen circumstances, this panelist was not able to participate.
Ian Flitcroft, MA, DPhil (Oxon), MBBS, FRCOphth
Jeffrey J. Walline, OD, PhD

and

Malvina Eydelman, MD
Director, Office of Health Technology 1, Ophthalmic, Anesthesia, Respiratory, ENT, & Dental Devices, Center for Devices and Radiological Health (CDRH), US Food and Drug Administration
Due to unforeseen circumstances, this panelist was not able to participate.

9:55 AM–10:05 AM

BREAK

10:05 AM–11:05 AM

SESSION 3: GENERATIVE AI

SESSION CHAIR: **Aaron Lee, MD, MSc**
C. Dan and Irene Hunter Endowed Professor
Department of Ophthalmology
University of Washington School of Medicine

Generative Artificial Intelligence
Aaron Lee, MD, MSc

Leveraging Synthetic Data for Foundation Models in Ophthalmology
Pearse Keane, MD, FRCOPHT
Consultant Ophthalmologist, Moorfields Eye Hospital NHS Foundation Trust
Associate Professor, University College London (UCL) Institute of Ophthalmology

AI for Counterfactual Generation
Hrvoje Bogunović, PhD
Assistant Professor, Medical University of Vienna
Director of Christian Doppler Lab for Artificial Intelligence in Retina

Opportunities and Challenges in Deploying GenAI
Jayashree Kalpathy-Cramer, PhD
Chief of Artificial Medical Intelligence in Ophthalmology
University of Colorado School of Medicine

Generative AI: Panel Discussion and Q&A
MODERATOR: **Aaron Lee, MD, MSc**

PANELISTS:
Hrvoje Bogunović, PhD
Jayashree Kalpathy-Cramer, PhD
Pearse Keane, MD, FRCOPHT

11:05 AM–12:20 PM

SESSION 4: CORNEA AND CATARACT

SESSION CHAIR: **Natalie Afshari, MD, FACS**
Stuart I. Brown MD Chair in Ophthalmology in Memory of Donald P. Shiley
Chief of Cornea and Refractive Surgery
Vice Chair and Professor of Ophthalmology at the Shiley Eye Institute
University of California, San Diego

Artificial Intelligence for Cataract Detection in Primary Care Setting
Darren Shu Jeng Ting, MBChB PGCHPE, PhD, CertLRS, FRCOphth
Birmingham Health Partners (BHP) Clinician Scientist Fellow, Department of Inflammation and Ageing, University of Birmingham, UK
Consultant Ophthalmologist in Cornea, Ocular Surface & Cataract, Birmingham and Midland Eye Centre, UK
Honorary Associate Professor of Ophthalmology, School of Medicine, University of Nottingham, UK
Adjunct Associate Professor of Ophthalmology, Duke-NUS Medical School, Singapore

Artificial Intelligence (AI) and Cataract
Ron Adelman, MD, MPH, MBA, FACS
Director of the Retina and Macula Service, Yale School of Medicine

Artificial Intelligence in Diagnosis of Corneal Infections
Maria (Mia) A. Woodward, MD, MSc
Associate Professor and Alan Sugar, MD Research Professor of Ophthalmology and Visual Sciences
Section Lead, Cornea, External Disease, & Refractive Surgery
University of Michigan

Keratoconus and Subtle Ectatic Disorders Diagnosis with Artificial Intelligence
Shady Awwad, MD
Professor, Cornea, Refractive Surgery, Cataract Surgery, and Ophthalmic Pathology
American University of Beirut Medical Center

Artificial Intelligence in Evaluation of Corneal OCT Imaging
David Huang, MD, PhD
Professor of Ophthalmology, School of Medicine
Professor of Biomedical Engineering, School of Medicine
Wold Family Chair in Ophthalmic Imaging
Associate Director & Director of Research, Casey Eye Institute, School of Medicine

Cornea and Cataract Panel Discussion and Q&A
MODERATORS: **Natalie Afshari, MD, FACS;** and **David Myung, MD, PhD**

David Myung, MD, PhD
Associate Professor of Ophthalmology and, by courtesy, of Chemical Engineering
Director, Ophthalmic Innovation Program
Director, Stanford Teleophthalmology Autonomous Testing and Universal Screening (STATUS) Program
Byers Eye Institute
Stanford University School of Medicine

PANELISTS:
Ron Adelman, MD, MPH, MBA, FACS
Shady Awwad, MD
David Huang, MD, PhD
Darren Shu Jeng Ting, MBChB, PGCHPE, PhD, CertLRS, FRCOphth
Maria (Mia) A. Woodward, MD, MSc

12:20 PM–12:30 PM **BREAK**

12:30 PM–1:20 PM

SESSION 5: NEURO-OPHTHALMOLOGY AND ORBIT

SESSION CHAIR: **Y. Joyce Liao, MD, PhD**
Stanford Medicine Professor of Ophthalmology
Professor of Neurology
Byers Eye Institute
Stanford University School of Medicine

AI and Image Analysis of the Optic Nerve Head: A Better Way to Predict Disease (OCT)
Michael Girard, PhD
Emory University School of Medicine

Through the Eye into the Brain, Using AI
Dan Milea, MD, PhD
Rothschild Foundation, Paris (France) and SERI (Singapore)

AI and Eye Tracking: A Better Way to Measure Visual Function
Joyce Liao, MD, PhD

The Use of a Generative Augmented Deep Learning Tool to Assess the Functional Significance of Blepharoptosis from External Ocular Photography
Licia Tan, MD
Consultant Oculoplastic Surgeon, Singapore National Eye Centre

Neuro-Ophthalmology and Orbit Panel Discussion and Q&A
MODERATORS: **Joyce Liao, MD, PhD;** and **Licia Tan, MD**

PANELISTS:
Dan Milea, MD, PhD
Michael Girard, PhD

and

Alex Fraser, MD
Department of Clinical Neurological Sciences and Department of Ophthalmology, Western University

Steffen Hamann, MD, PhD, FEBO, FRCOPHTH
Consultant Neuro-Ophthalmologist, Department of Ophthalmology, Copenhagen University Hospital—Rigshospitalet
Clinical Research Associate Professor, Department of Clinical Medicine, University of Copenhagen, Denmark

Randy Kardon, MD, PhD
Pomerantz Family Endowed Tenured Professor of Ophthalmology (Neuro-ophthalmology), University of Iowa Carver College of Medicine

Vivian T. Yin, MD, MPH
University of British Columbia

1:20 PM–2:15 PM

STAKEHOLDER PANEL 1: HOT TOPICS AND INNOVATIONS

SESSION CHAIR AND MODERATORS:

Joel S. Schuman, MD, FACS
Kenneth L. Roper, MD Endowed Chair and Professor of Ophthalmology
Vice Chair for Research Innovation, Co-Director, Glaucoma Service
Wills Eye Hospital, Thomas Jefferson University
Professor of Biomedical Engineering, Drexel University School of Biomedical Engineering, Science and Health Systems

Malvina Eydelman, MD
Director, Office of Health Technology 1
Ophthalmic, Anesthesia, Respiratory, ENT, & Dental Devices
Center for Devices and Radiological Health (CDRH), US Food and Drug Administration
Due to unforeseen circumstances, this chair and moderator was not able to participate.

PANELISTS:

E. Randy Craven, MD
Medical Director, Global Eyecare, Medical Affairs/Research and Development

Kerry Goetz, PHDC
Associate Director, Office of Data Science and Health Informatics
National Eye Institute (NEI)/National Institutes of Health (NIH)
Due to unforeseen circumstances, this panelist was not able to participate.

Andrzej Grzybowski, MD, PhD, MBA, MAE
Professor of Ophthalmology
Head of the Institute for Research in Ophthalmology
Past President of European Vision & Eye Research Association (EVER)
Head of the International Council, AI in Ophthalmology Society

Amit Mathur, OD
University of Waterloo, Waterloo Eye Institute, LV Prasad Eye Institute

Luis Abegão Pinto, MD, PhD
Head of the Glaucoma Clinic of the Department of Ophthalmology, Hospital Santa Maria

Rajesh K. Rajpal, MD
Founder, See Clearly Vision Group, Mclean, VA
Clinical Professor of Ophthalmology, George Washington University Medical Center
Former Chief Medical Officer and Global Head of Clinical, Medical and Professional Affairs, Johnson & Johnson Vision

Robert Rothman, PhD
Co-Founder and Co-Managing Member, InFocus Capital Partners

Paisan Ruamviboonsuk, MD
Clinical Professor of Ophthalmology, Rangsit University, Bangkok, Thailand

Mariia Viswanathan, MD, PhD, Ophthalmologist
Vision Center of Excellence, DHA Research and Engineering

Tien Yin Wong, MPH, PhD 黄天荫
Vice Provost, Tsinghua University, Beijing, China
Chair Professor and Senior Vice-Chancellor, Tsinghua Medicine, Tsinghua University Senior Advisor, SingHealth & Singapore National Eye Center, Singapore

2:15 PM–3:35 PM

SESSION 6: OCULOMICS

SESSION CHAIRS:

Carol Cheung, PhD
Associate Professor
Department of Ophthalmology and Visual Sciences, Faculty of Medicine,
The Chinese University of Hong Kong

Vinit B. Mahajan, MD, PhD
Vice Chair for Research, Byers Eye Institute, Stanford University
Director, Molecular Surgery Program, Faculty Fellow, Stanford ChEM-H
Veterans Affairs Palo Alto HCS

Introduction
Carol Cheung, PhD

Molecular Omics
Vinit B. Mahajan, MD, PhD

Historical Perspective of Oculomics
Tien Yin Wong, MPH, PhD 黃天荫
Vice Provost, Tsinghua University, Beijing, China
Chair Professor and Senior Vice-Chancellor, Tsinghua Medicine, Tsinghua University Senior Advisor, SingHealth & Singapore National Eye Center, Singapore

Deciphering the Oculome with *In Vivo* Retinal Imaging
Siegfried Karl Wagner, BMBCh, MSc, PhD, MRCP, FRCOphth
Senior Research Fellow, UCL Institute of Ophthalmology
Retinal Fellow, Moorfields Eye Hospital, London, UK

Integrative Analysis of Omics, EHR, and Wearable Data for Predictive Modeling in Clinical Settings
Nima Aghaeepour, PhD
Associate Professor, Baxter Laboratory in Stem Cell Biology
Stanford University

Applying Machine Learning Techniques to High-Plex Proteomics to Predict Disease Risk from Liquid Biopsy Samples
Joe Gogain, PhD
Director of Clinical Research and Development
Standard BioTools, Inc.

Oculomics Panel Discussion and Q&A
MODERATORS: **Carol Cheung, PhD;** and **Vinit B. Mahajan, MD, PhD**

PANELISTS:
Nima Aghaeepour, PhD
Joe Gogain, PhD
Siegfried Karl Wagner, BMBCh, MSc, PhD, MRCP, FRCOphth
Tien Yin Wong, MPH, PhD 黃天荫

3:35 PM

CLOSING REMARKS

David Myung, MD, PhD
Associate Professor of Ophthalmology and, by courtesy, of Chemical Engineering
Director, Ophthalmic Innovation Program
Director, Stanford Teleophthalmology Autonomous Testing and Universal Screening (STATUS) Program
Byers Eye Institute
Stanford University School of Medicine

JANUARY 24, 2025 | DAY 2: 7:00 AM–4:05 PM (9 HOURS 5 MINUTES)

7:00 AM–7:10 AM

OPENING REMARKS BY CCOI TREASURER

Michael Abramoff, MD, PhD
Robert Watzke Professor in Retina Research and Electrical and Computer Engineering, University of Iowa
Founder and Executive Chairman, Digital Diagnostics

7:10 AM–8:10 AM

SESSION 7: VISION ASSESSMENT AND OUTCOME MEASURES

SESSION CHAIRS:

José-Alain Sahel, MD
Distinguished Professor and Chairman, The Eye and Ear Foundation Endowed Chair
Department of Ophthalmology, University of Pittsburgh School of Medicine
Adjunct Professor of Robotics and Bioengineering, Carnegie Mellon University, Pittsburgh
Adjunct Professor of Ophthalmology, Hebrew University of Jerusalem, Israel
Emeritus Professor of Ophthalmology—Sorbonne Université
Honorary Professor, Institute of Ophthalmology, University College London

Emily Y. Chew, MD
Director Division of Epidemiology and Clinical Applications
National Eye Institute (NEI)/National Institutes of Health (NIH)
Due to unforeseen circumstances, this chair was not able to participate.

Todd Durham, PhD
Senior Vice President
Clinical & Outcomes
Foundational Fighting Blindness

Outcome Measures Current Challenges and Approaches
José-Alain Sahel, MD

Innovative Clinical Trial Design to Optimize Assessment and Outcomes
Lixia Wang, PhD
Principal, Amethyst Summit Corporation

Methods for Measuring What Matters to Patients
Cynthia Grossman, PhD
Director, Division of Patient-Centered Development, Center for Devices and Radiological Health (CDRH), US Food and Drug Administration
Due to unforeseen circumstances, this presenter was not able to participate.

Patient-Reported Outcomes: The Next Step Forward
Judith E. Goldstein, OD, FAAO
Associate Professor of Ophthalmology and Rehabilitation Medicine, Wilmer Eye Institute, Johns Hopkins School of Medicine

Vision Assessment and Outcome Measures Panel Discussion and Q&A
MODERATORS: **José-Alain Sahel, MD; Todd Durham, PhD** and **Emily Y. Chew, MD;**
Due to unforeseen circumstances, this moderator was not able to participate.

PANELISTS:
Judith Goldstein, OD
Cynthia Grossman, PhD
Due to unforeseen circumstances, this panelist was not able to participate.

and

Luis Lesmes, PhD
CEO, Adaptive Sensory Technology

8:10 AM–9:10 AM

SESSION 8: (FPOAI VERTICAL GROUP) DATA STANDARDS AND INTEROPERABILITY

SESSION CHAIRS: **Kerry Goetz, PHDC**
Associate Director, Office of Data Science and Health Informatics
National Eye Institute (NEI)/National Institutes of Health (NIH)
Due to unforeseen circumstances, this chair was not able to participate.

Aaron Lee, MD, MSc
C. Dan and Irene Hunter Endowed Professor
Department of Ophthalmology, University of Washington
Due to unforeseen circumstances, standing in as the chair during the conference.

Data Standardization in Healthcare
Raja Cholan
Chief of the Health Data Standards Branch, User Services Collection Division, US National Library of Medicine, National Institutes of Health
Due to unforeseen circumstances, this presenter was not able to participate.

Data Standardization and Exchange in Imaging
Kevin O'Donnell, MASc, FSIIM
Senior R&D Manager, Canon Medical Research, USA

Ocular Health on FJIR: Unlocking the Potential of Ocular Data Exchange
Su Chen, MD
Clinical Science Principal, MITRE
Steering Committee Chair of CodeX HL7 FHIR Accelerator

Standardizing Complex Disease Diagnosis Using LLMs and Provable Logic
Xiaoqing Jiang, PhD
Associate Vice President for Medical AI
Chair, Department of Health Data Science and Artificial Intelligence
Christopher Sarofim Professor, The University of Texas Health Science Center at Houston

Data Standards and Interoperability Panel Discussion and Q&A
MODERATORS: **Kerry Goetz, PHDC**
Due to unforeseen circumstances, this moderator was not able to participate.

Xiaoqing Jiang, PhD
Due to unforeseen circumstances standing in as the moderator during the conference.

PANELISTS:
Su Chen, MD
Raja Cholan
Due to unforeseen circumstances, this panelist was not able to participate.
Kevin O'Donnell

9:10 AM–9:25 AM **BREAK**

9:25 AM–1:40 PM **SESSION 9: LEGACY WORKING GROUP UPDATES**

9:25 AM–10:10 AM **FUNDUS/RETINA**

SESSION CHAIRS: **Emily Y. Chew, MD**
Director Division of Epidemiology and Clinical Applications
National Eye Institute (NEI)/National Institutes of Health (NIH)
Due to unforeseen circumstances, this chair was not able to participate.

Amitha Domalpally, MD, PhD
Research Director, Wisconsin Reading Center
Director, A-EYE Research Unit
Dept of Ophthalmology and Visual Sciences, University of Wisconsin, Madison
Due to unforeseen circumstances standing in as the chair during the conference.

Reference Standards for Validation of Age-Related Macular Degeneration Screening Models
Amitha Domalpally, MD, PhD

Update on the Bridge2AI Project: AI Ready and Equitable Atas for Diabetes Insights (AI-READI)
Cecilia Lee, MD, MPH
Professor; Klorfine Family Endowed Chair, Director of Clinical Research, University of Washington

Potential Detection Models and Reference Standards of Retinal Fluid in Neovascular Age-Related Macular Degeneration
Ursula Schmidt Erfurth, MD
Head of the Department of Ophthalmology and Optometry, University Eye Hospital, Medical University of Vienna

Fundus/Retina Panel Discussion and Q&A
MODERATORS: *Emily Y. Chew, MD*
Due to unforeseen circumstances, this moderator was not able to participate.

Amitha Domalpally, MD, PhD
Due to unforeseen circumstances standing in as the moderator during the conference.

PANELISTS:
Cecilia Lee, MD, MPH
Ursula Schmidt Erfurth, MD

and

Aaron Lee, MD, MSc
C. Dan and Irene Hunter Endowed Professor
Department of Ophthalmology, University of Washington School of Medicine

10:10 AM–11:00 AM

AI IN GLAUCOMA

SESSION CHAIR: **Ingeborg Stalmans, MD, PhD**
Professor of Ophthalmology, Head of the Glaucoma Unit, University Hospitals Leuven (UZLeuven), Belgium Director of the Laboratory of Ophthalmology, Catholic University of Leuven (KULeuven), Belgium

Glaucoma Workgroup Update
Lama Al-Aswad, MD, MPH
Professor of Ophthalmology, Irene Heinz Given and John La Porte Given Research Professor of Ophthalmology II, Vice Chair for Quality and Safety, Director of Teleophthalmology, AI and Innovations, Scheie Eye Institute, Department of Ophthalmology University of Pennsylvania Perelman School of Medicine

AI in Medicines Development: Perspective from an EU Medicines Regulator
Jane Moseley, MB, MSc, Dip Pharm Med
Scientific Advice Office, European Medicines Agency

Glaucoma Panel Discussion and Q&A
MODERATOR: *Luis Abegão Pinto, MD, PhD*
Professor of Ophthalmology, Head of the Glaucoma Clinic of the Department of Ophthalmology Hospital Santa Maria

PANELISTS:

Lama Al-Aswad, MD, MPH
Jane Moseley, MB, MSc, Dip Pharm Med
Ingeborg Stalmans, MD, PhD

and

Michael V. Boland, MD, PhD
Associate Professor of Ophthalmology, Harvard Medical School and Medical Director of Practice Innovation, Massachusetts Eye and Ear Infirmary

C. Gustavo De Moraes, MD, PhD, MPH
Chief Medical Officer, Ora Clinical
Associate Professor of Ophthalmology, Columbia University Medical Center

Gerhard Garhöfer, MD
Head of Ophthalmo-Pharmacology
Department of Clinical Pharmacology
Medical University Vienna, Austria

Louis R. Pasquale, MD
Site Chair, Department of Ophthalmology, Mount Sinai Hospital
Shelley and Steven Einhorn Professor of Ophthalmology
Director, Mount Sinai Hospital / NYEE Eye and Vision Research Institute
Department of Ophthalmology, Icahn School of Medicine at Mount Sinai

Leopold Schmetterer, PhD
Professor, Singapore Eye Research Institute

Benjamin Y. Xu, MD, PhD
Associate Professor of Ophthalmology, Clinical Scholar; Director, Glaucoma Service; Direction, Data Science and Artificial Intelligence; University of Southern California

11:00 AM–11:30 AM

OCULAR IMAGING: PHI AND PII

SESSION CHAIRS:

Emily Y. Chew, MD
Director Division of Epidemiology and Clinical Applications
National Eye Institute (NEI)/National Institutes of Health (NIH)
Due to unforeseen circumstances, this chair was not able to participate.

Joel S. Schuman, MD, FACS
Kenneth L. Roper, MD Endowed Chair and Professor of Ophthalmology
Vice Chair for Research Innovation, Co-Director, Glaucoma Service
Wills Eye Hospital, Thomas Jefferson University
Professor of Biomedical Engineering, Drexel University School of Biomedical Engineering, Science and Health Systems

Ocular Imaging: PHI and PII Panel Discussion and Q&A
MODERATORS: **Joel S. Schuman, MD, FACS;** and
Emily Y. Chew, MD
Due to unforeseen circumstances, this moderator was not able to participate.

PANELISTS:

Michael Abramoff, MD, PhD
Robert Watzke Professor in Retina Research and Electrical and Computer Engineering, University of Iowa, Founder and Executive Chairman, Digital Diagnostics

Michael V. Boland, MD, PhD
Associate Professor of Ophthalmology, Harvard Medical School and Medical Director of Practice Innovation, Massachusetts Eye and Ear Infirmary

Kerry Goetz, PHDC
Associate Director, Office of Data Science and Health Informatics
National Eye Institute (NEI)/National Institutes of Health (NIH)
Due to unforeseen circumstances, this panelist was not able to participate.

Flora Lum, MD
Vice President, Quality & Data Sciences, American Academy of Ophthalmology

11:30 AM–11:50 AM

OCULAR ONCOLOGY

SESSION CHAIR: **Carol Shields, MD**
Chief, Ocular Oncology, The Wills Eye Hospital at Thomas Jefferson University

Artificial Intelligence and Machine Learning in Ocular Oncology Retinoblastoma Experience in a Multiracial Cohort
Vijitha S. Vempuluru, MD
Consultant, Operation Eyesight Universal Institute for Eye Cancer, LV Prasad Eye Institute, India

Deep Learning Analysis of Missense Mutations in Uveal Melanoma Using Alpha Missense
Mak Benjamin Djulbegovic, MD, MSc
Resident in Ophthalmology, Wills Eye Hospital

11:50 AM–12:00 NOON **BREAK**

12:00 NOON–12:45 PM

PEDIATRICS

SESSION CHAIRS:

Michael F. Chiang, MD
Director of the National Eye Institute, National Institutes of Health
Due to unforeseen circumstances, this chair was not able to participate.

RV Paul Chan, MD, MSc, MBA
Chair, Department of Ophthalmology and Visual Sciences, The John H. Panton, MD Professor of Ophthalmology, The Illinois Eye and Ear Infirmary at the University of Illinois at Chicago
Due to unforeseen circumstances standing in as the chair during the conference.

The "P-Score" Innovation in ROP Classification
Gil Binenbaum, MD, MSCE
Chief of the Division of Ophthalmology
Mabel E. Leslie Endowed Chair in Pediatric Ophthalmology Children's Hospital of Philadelphia
Associate Professor of Ophthalmology Perelman School of Medicine, University of Pennsylvania

Oculomics in ROP
J. Peter Campbell, MD, MPH
Assistant Professor of Ophthalmology, OHSU Casey Eye Institute

Pediatrics Panel Discussion and Q&A
MODERATOR: **RV Paul Chan, MD, MSc, MBA**

PANELISTS:
Gil Binenbaum, MD, MSCE
J. Peter Campbell, MD, MPH
Michael F. Chiang, MD
Due to unforeseen circumstances, this panelist was not able to participate.

and

Jayashree Kalpathy-Cramer, PhD
Chief of Artificial Medical Intelligence in Ophthalmology
University of Colorado School of Medicine

12:45 PM–1:40 PM

FOUNDATIONAL PRINCIPLES OF ARTIFICIAL INTELLIGENCE (FPOAI)

SESSION CHAIR: **Michael Abramoff, MD, PhD**
Robert Watzke Professor in Retina Research and Electrical and Computer Engineering, University of Iowa School of Medicine
Founder and Executive Chairman, Digital Diagnostics

Expanding AI for Diabetic Retinopathy Screening in Youth
Risa M. Wolf, MD
Associate Professor, Pediatric Endocrinology
Director, Pediatric Diabetes Center
Medical Director, Camp Charm City
Co-Chair, HBHI Workgroup on AI and Health Care
Kathleen Clancy-Leslie Plotnick, MD Clinical Care and Research Professor
Johns Hopkins University School of Medicine

Expanding Innovation to Orphan Diseases Where It Is Not Commercially Viable: From an Ethical Perspective
Danton S. Char, MD, MAS
Associate Professor of Anesthesia and Biomedical Ethics Stanford University

Expanding Autonomous AI to Children: Innovation for "Orphan Diseases" FPOAI Panel Discussion and Q&A
MODERATOR: **Michael Abramoff, MD, PhD**

PANELISTS:
Danton S. Char, MD, MAS
Risa M. Wolf, MD

and

Vasum Peiris, MD, MPH, FAAP, FACC, FASE
Chief Medical Officer for Pediatrics and Special Populations
US Food and Drug Administration
Center for Devices and Radiological Health
Due to unforeseen circumstances, this panelist was not able to participate.

Edward Korot, MD
Vitreoretinal Surgeon, Partner—Retina Specialists of Michigan
Adjunct Faculty—Stanford University Byers Eye Institute
Cofounder, Chief Medical Officer—Sanro Health

Adoption of Autonomous AI: Challenges and Opportunities FPOAI Panel Discussion and Q&A
MODERATOR: **Michael Abramoff, MD, PhD**

PANELISTS:
Anitra Graves, MD, MMM, FCCP, FAASM
Contractor Medical Director, First Coast Service Options, Inc.

David Myung, MD, PhD
Associate Professor of Ophthalmology and, by courtesy, of Chemical Engineering
Director, Ophthalmic Innovation Program
Director, Stanford Teleophthalmology Autonomous Testing and Universal Screening (STATUS) Program
Byers Eye Institute
Stanford University School of Medicine

Gregory Sorensen, MD
Clinical AI Leader
CEO and Co-founder, DeepHealth

James Zou, PhD
Associate Professor of Biomedical Data Science and, by courtesy, of Computer Science and of Electrical Engineering, Department of Biomedical Data Science, Stanford University

1:40 PM–2:55 PM

SESSION 10: LOW-MIDDLE-INCOME COUNTRIES

SESSION CHAIR: **Daniela Ferrara, MD, PhD, FASRS**
Principal Medical Director, Ophthalmology Lead, Product Development, Personalized Healthcare Program, Genentech, Inc.

Needs and Success in Eradicating Blindness
Geoffrey Tabin, MD
Fairweather Foundation Endowed Chair and Professor of Ophthalmology and Global Medicine, Stanford University
Founding Director, Himalayan Cataract Project

Closing Gaps in Access with AI-led Eye Screenings in LMICs
Noelle Whitestone, MHA
Director, Clinical Strategy & Impact, Orbis International

Drug Development in LMICs
Patricio Schlottmann, MD
Ophthalmology Director and Retina Specialist, Medical University
Head of Clinical Research, Charles Research Center of Ophthalmology

Digital Device Development in Low and Middle Income Countries
José Augusto Stuchi, PhD, MBA
CEO and Co-Founder, Phelcom Technologies

National Eye Institute Initiatives for LMIC
Gyan "John" Prakash, MSc, MS, PhD, MBA, FAICO
Director, Office of International Program Activities (OIPA)
National Eye Institute (NEI), National Institutes of Health (NIH)
Due to unforeseen circumstances, this presenter was not able to participate.

Low-Middle-Income Countries Panel Discussion and Q&A
MODERATOR: **Daniela Ferrara, MD, PhD, FASRS**

PANELISTS:
Gyan "John" Prakash, MSc, MS, PhD, MBA, FAICO
Due to unforeseen circumstances, this panelist was not able to participate.
Patricio Schlottmann, MD
Due to unforeseen circumstances, this panelist was not able to participate.
José Augusto Stuchi, PhD, MBA
Geoffrey Tabin, MD

and

Michael Abramoff, MD, PhD
Robert Watzke Professor in Retina Research and Electrical and Computer Engineering
University of Iowa
Founder and Executive Chairman, Digital Diagnostics

David C. Rhew, MD
Global Chief Medical Officer, VP Healthcare, Microsoft

Noelle Whitestone
Director, Clinical Strategy & Impact, Clinical Services, Orbis International

2:55 PM–3:40 PM

STAKEHOLDER PANEL 2: HOT TOPICS AND INNOVATION

CHAIRS AND MODERATORS:

Michael Abramoff, MD, PhD
Robert Watzke Professor in Retina Research and Electrical and Computer Engineering, University of Iowa
Founder and Executive Chairman, Digital Diagnostics

Malvina Eydelman, MD
Director, Office of Health Technology 1
Ophthalmic, Anesthesia, Respiratory, ENT, & Dental Devices
Center for Devices and Radiological Health (CDRH)
US Food and Drug Administration
Due to unforeseen circumstances, this chair and moderator was not able to participate.

PANELISTS:

Kira Baldonado
Prevent Blindness

Daniela Ferrara, MD, PhD, FASRS
Principal Medical Director, Ophthalmology Lead, Product Development, Personalized Healthcare Program, Genentech, Inc.

Adrienne Graves, PhD
Foundational Fighting Blindness

Sam Kavusi, PhD
Head of Retina Imaging and Services
Verily, Google Life Sciences

Sanjay Nayak, MBBS, PhD
Chief Strategy Officer
Ocular Therapeutix, Inc.

Noelle Whitestone, MHA
Director, Clinical Strategy & Impact, Orbis International

3:40 PM–4:00 PM

KEYNOTE SPEAKER: HEALTH CARE FROM THE EYE

David C. Rhew, MD
Global Chief Medical Officer
VP Healthcare
Microsoft

4:00 PM

CLOSING REMARKS

2025 CCOI CONFERENCE ORGANIZING COMMITTEE

JOEL S. SCHUMAN, MD, FACS—CCOI PRESIDENT, CHAIR PROTECTED IDENTIFIABLE INFORMATION / PROTECTED HEALTH INFORMATION (PII / PHI) WORKING GROUP

Kenneth L. Roper, MD Endowed Chair and Professor of Ophthalmology, Vice Chair for Research Innovation, Co-Director, Glaucoma Service, Wills Eye Hospital Thomas Jefferson University, Professor of Biomedical Engineering, Drexel University School of Biomedical Engineering, Science and Health Systems

Dr. Schuman is the Elaine Langone Professor of Ophthalmology and Professor of Neuroscience and Physiology, Biomedical Engineering, Electrical & Computer Engineering and Neural Science at NYU. He chaired the ophthalmology department at NYU 2016–2020 and at the University of Pittsburgh/UPMC 2003–2016. At Tufts University 1991–2003 he was Residency Director and Glaucoma and Cataract Service Chief. Dr. Schuman and his colleagues were the first to identify a molecular marker for human glaucoma, published in Nature Medicine in 2001. Continuously funded by the National Eye Institute as a principal investigator since 1995, he is an inventor of optical coherence tomography (OCT), used worldwide for ocular diagnostics. Dr. Schuman has published more than 400 peer-reviewed scientific journal articles. Dr. Schuman has received numerous awards and is a 2012 Champalimaud Award Laureate.

MARK S. BLUMENKRANZ, MD, MMS—CCOI PAST PRESIDENT

HJ Smead Professor Emeritus, Co-Director of the Ophthalmic Innovation Program, Byers Eye Institute, Stanford University School of Medicine

Dr. Blumenkranz is also the Managing Director of Lagunita Biosciences, an early-stage healthcare incubator, and CEO of Kedalion Therapeutics. He has a long-standing interest in the area of university-industry technology transfer as well as ophthalmic laser delivery systems, ocular pharmacology, gene therapy, and health information technology. He is the recipient of multiple distinguished awards in the field including the AAO and AJO's Edward Jackson Award Lecture and most recently Stanford's Albion Walter Hewlett Award, and the author of more than 160 scientific papers and multiple patents in the field. He served as the Chairman of the Department of Ophthalmology at Stanford from 1997 until 2015 and played a leading role in the planning, fundraising, and construction of the Byers Eye Institute there.

DAVID MYUNG, MD, PHD—CCOI VICE PRESIDENT, CHAIR EDUCATION WORKING GROUP

Associate Professor of Ophthalmology and, by courtesy, Chemical Engineering, Director—Ophthalmic Innovation Program, Director—STATUS program, Byers Eye Institute at Stanford

Dr. Myung is a clinician-scientist specializing in cataract and corneal surgery and external diseases of the eye. He serves as the Director of the Ophthalmic Innovation Program at the Byers Eye Institute at Stanford which includes a project-based fellowship in the development and regulatory science of new eye care technologies. Dr. Myung leads an NIH-funded translational research laboratory focused on two areas of clinical need: (1) ophthalmic regenerative medicine and (2) telemedicine through ophthalmic imaging and digital health technologies. As Director of the Stanford Teleophthalmology Autonomous Testing and Universal Screening (STATUS) program at Stanford, he organized and leads an AI-powered remote screening network for diabetic retinopathy based out of primary care clinics throughout the Bay Area and led the development of a smartphone-based ophthalmic imaging system which has been studied in numerous clinical settings both in the US and abroad.

MICHAEL ABRAMOFF, MD, PHD—CCOI TREASURER, CHAIR FOUNDATIONAL PRINCIPLES OF ARTIFICIAL INTELLIGENCE (FPOAI)

Robert Watzke Professor in Retina Research and Electrical and Computer Engineering, University of Iowa School of Medicine, Founder and Executive Chairman, Digital Diagnostics (formerly IDx)

Dr. Abramoff is an American ophthalmologist, computer scientist, and entrepreneur. He is the Founder and CEO of Digital Diagnostics (formerly IDx), the first company ever to receive US FDA clearance for an autonomous AI system. In this capacity, as an expert on AI in healthcare, he has been invited to brief the US Congress, the White House, and the Federal Trade Commission. Dr. Abramoff has published over 250 peer-reviewed journal papers (h-index 54) on AI, image analysis, and retinal diseases, and many book chapters. In 2010, Dr. Abramoff's research findings led him to found IDx to bring to patients more accessible, affordable, and higher quality healthcare.

NATALIE AFSHARI, MD, FACS—CHAIR CORNEA & CATARACT WORKING GROUP

Stuart Brown MD Chair in Ophthalmology in Memory of Donald Shiley, Chief of Cornea and Refractive Surgery, Vice Chair and Professor of Ophthalmology at the Shiley Eye Institute, University of California, San Diego

Natalie Afshari received her medical degree from Stanford University and her residency and fellowship training at Harvard University, Massachusetts Eye and Ear Infirmary. Dr. Afshari is the recipient of the Lifetime Achievement Award and the Secretariat Award by the American Academy of Ophthalmology and has been named a Gold Fellow of the Association for Research in Vision and Ophthalmology. The American Medical Women's Association recognized her as the 2019 Women in Science Award recipient.

Dr. Afshari is the co-editor of a two-volume cornea book "*Principles and Practice of Cornea.*" She has served on the editorial boards of multiple journals: *American Journal of Ophthalmology, Investigative Ophthalmology and Visual Science, Survey of Ophthalmology,* and *Journal of Ocular Pharmacology and Therapeutics*. She has also served on the editorial board of *EyeWiki, EyeNet, Eye and Contact Lens, and Basic and Clinical Science Course Cornea and Lens* textbook committees. Dr. Afshari's research laboratory investigates genetics, stem cell regeneration of cornea, and prevention of cataracts.

CAROL Y. CHEUNG, PHD—CHAIR OCULOMICS WORKING GROUP

Associate Professor at the Department of Ophthalmology and Visual Sciences, the Chinese University of Hong Kong (CUHK)

Carol's research interest is the development and application of state-of-the-art image analysis techniques, including artificial intelligence (AI), for studying major eye and systemic diseases, particularly diabetic retinal disease and Alzheimer's disease. In broad areas of "eye imaging" and "oculomics," her research leverages cutting-edge digital and AI technology and has resulted in improving our understanding, and providing novel solutions to enhance the diagnosis, screening, and treatment of major healthcare problems. She has authored >300 research articles in SCI international indexed peer-reviewed journals, and 15 book chapters. She has delivered more than 120 invited lectures globally.

EMILY Y. CHEW, MD—CHAIR FUNDUS/RETINA; GLAUCOMA; PROTECTED IDENTIFIABLE INFORMATION / PROTECTED HEALTH INFORMATION (PII / PHI) WORKING GROUP

Director, Division of Epidemiology and Clinical Applications, National Eye Institute, National Institutes of Health

Dr. Chew is the director of the Division of Epidemiology and Clinical Applications at the National Eye Institute, National Institutes of Health in Bethesda, Maryland. As the Chief of Clinical Trials Branch, she designs clinical trials and epidemiologic studies in chronic retinovascular diseases such as age-related macular degeneration and diabetic retinopathy, and rare diseases, such as macular telangiectasia type 2. She also collaborates with colleagues at the National Library of Medicine/National Institutes of Health, utilizing artificial intelligence/deep learning for the detection and progression of age-related macular degeneration.

MICHAEL CHIANG, MD—CHAIR PEDIATRICS WORKGROUP

Director, National Eye Institute, National Institutes of Health

Dr. Chiang is director of the National Eye Institute, at the National Institutes of Health in Bethesda, Maryland. His clinical practice focuses on pediatric ophthalmology and strabismus, and he is board-certified in clinical informatics. His research develops and applies biomedical informatics methods to clinical ophthalmology in areas such as retinopathy of prematurity (ROP), telehealth, artificial intelligence, clinical information systems, genotype-phenotype correlation, and data analytics. His group has published over 200 peer-reviewed papers and has developed an assistive artificial intelligence system for ROP that received Breakthrough Status from the US Food and Drug Administration.

MALVINA EYDELMAN, MD

Director, Office of Health Technology 1, Ophthalmic, Anesthesia, Respiratory, ENT, and Dental Devices, Center for Devices and Radiological Health (CDRH), US Food and Drug Administration

Dr. Eydelman guided the development of more than 50 international and national standards, oversaw the development of numerous regulations and guidance; and convened over 30 public meetings of US FDA Medical Device Committees. She originated numerous symposia and workshops to facilitate device innovation and has been instrumental in expediting the development of novel endpoints for clinical trials of pioneering technologies. Dr. Eydelman has organized multi-stakeholder public-private partnerships and spearheaded many clinical and laboratory studies designed to improve the safety of medical devices. Dr. Eydelman received her MD degree from Harvard Medical School and a Doctorate in Health Sciences and Technology from Massachusetts Institute of Technology (M.I.T.). Dr. Eydelman has been granted a US patent, published nearly 100 peer-reviewed articles, book chapters, and monographs, and presented over 200 lectures worldwide.

DANIELA FERRARA, MD, PHD, FASRS—CHAIR LOW-MIDDLE-INCOME COUNTRIES WORKING GROUP

Principal Medical Director, Ophthalmology Lead, Product Development, Personalized Healthcare Program, Genentech, Inc.

Dr. Ferrara currently serves as principal medical director of Ophthalmology at Genentech/Roche. She has vast experience in the design, conduct, and interpretation of clinical trials to develop new therapies for visual threatening retinal diseases. Her major roles in biotech sit on late-stage product development, with phase III and IV clinical trials, while she also provides scientific support to early-stage clinical development with phase I and II clinical trials. She is now the Ophthalmology lead for the Personalized Healthcare program at Genentech, working with multidisciplinary teams to develop a pipeline of artificial intelligence-based tools to inform key decisions in drug development and patient care.

Dr. Ferrara is an Assistant Professor of Ophthalmology at Tufts University School of Medicine, where her major research interests include multimodal imaging of the retina and choroid; with a special focus on new technologies in optical coherence tomography for degenerative, vascular, and dystrophic diseases, including reading center activities and advanced analytics approaches.

KERRY GOETZ, PHDC—CHAIR (FPOIA VERTICAL GROUP) IMAGING STANDARDS AND INTEROPERABILITY

Associate Director, Office of Data Science and Health Informatics, National Eye Institute, National Institutes of Health

Kerry Goetz, PhD(c) is the Associate Director for the National Eye Institute's Office of Data Science and Health Informatics. In this capacity, she is responsible for advancing data management and sharing strategies to make NEI data FAIR (Fully AI-Ready & Findable, Accessible, Interoperable, and Reusable). For over a decade, Kerry has been leading the eyeGENE Program, a controlled access resource with data, samples, and a patient registry for rare eye conditions. She has implemented the sharing of several other clinical trial datasets through NEI BRICS, part of the NEI Data Commons. Kerry has also been entrenched in standards development through the NIH CDE Task Force since 2011 and serves on the Governance Board. She has worked closely with LOINC to create and review ophthalmology codes submitted by partners across the globe. Kerry has led the development of structured data capture forms using FHIR, co-leads the Eye Care and Vision Research OHDSI OMOP Working Group, and is a member of the American Academy of Ophthalmology Standards Working Group, and the DICOM Working Group 9 aligning imaging standards.

JEFFREY GOLDBERG, MD, PHD—CHAIR CLINICAL TRIALS WORKING GROUP

Professor and Chair of Ophthalmology, Byers Eye Institute, Stanford University

Dr. Jeffrey Goldberg is Professor and Chair of Ophthalmology and Director of the Byers Eye Institute at Stanford University, and a member of the National Academy of Medicine. His clinical effort is focused on patients in need of medical or surgical intervention for glaucoma and other retinal and optic nerve diseases, as well as cataract. His research is directed at neuroprotection and regeneration of retinal ganglion cells and the optic nerve, a major unmet need in glaucoma and other optic neuropathies, and his laboratory is developing novel molecular, stem cell and nanotherapeutics approaches for eye repair.

Dr. Goldberg received his BS magna cum laude from Yale University, and his MD and PhD from Stanford University where he made significant discoveries about the failure of optic nerve regeneration. He did his clinical training in ophthalmology and then in glaucoma at the Bascom Palmer Eye Institute and was awarded a fellowship from the Heed Foundation. He was named the 2010 Scientist of the Year by the Hope For Vision foundation and received the Cogan award from the Association for Research in Vision and Ophthalmology in 2012. He was elected in 2010 to the American Society of Clinical Investigation, an honorary society of physician scientists, and in 2021 to the American Ophthalmological Society. He directs an NIH-funded research laboratory and is one of the scientists funded by the National Eye Institute's Audacious Goals Initiative. In addition, he has developed significant expertise with implementing FDA clinical trials for optic nerve neuroprotection and regeneration. His goal is to translate scientific discoveries to patient therapies.

MARK S. HUMAYUN, MD, PHD, FARVO—CHAIR VISION RESTORATION AND REHABILITATION WORKING GROUP

Cornelius J. Pings Chair in Biomedical Sciences, Professor of Ophthalmology, Biomedical Engineering, and Integrative Anatomical Sciences, Director of the USC Ginsburg Institute for Biomedical Therapeutics, Co-Director of the USC Roski Eye Institute

Dr. Humayun is an internationally recognized pioneer in vision restoration. He assembled a team of multidisciplinary experts to develop the first FDA-approved artificial retina, Argus II, for sight restoration. He has more than 150 issued patents and over 300 peer-reviewed publications. He has a Google Scholar H index of 106. Dr. Humayun is a member of the US National Academies of Medicine, Engineering, and Inventors. He is a Fellow of the American Association for the Advancement of Science (AAAS), Institute of Electrical and Electronics Engineers (IEEE), American Society of Retinal Specialists (ASRS), and Association for Research in Vision and Ophthalmology (ARVO). For his extraordinary contributions, he was awarded the United States' highest technological achievement, the 2015 National Medal of Technology and Innovation by President Obama. He is the recipient of the 2018 IEEE Biomedical Engineering Award, the 2020 IEEE Medal for Innovations in Healthcare Technology, and the Charles Schepens Award by the American Academy of Ophthalmology in 2021. Dr. Humayun was named top 1% of ophthalmologists by the U.S. News & World Report.

AARON LEE, MD

Assistant Professor of Ophthalmology, Department of Ophthalmology, University of Washington

Dr. Lee co-chairs the American Academy of Ophthalmology Medical Information Technology Committee. He currently serves as an Associate Editor for Translational Vision Science and Technology and on the Editorial Board for the *American Journal of Ophthalmology* and *Nature Scientific Reports*. He has published 78 peer-reviewed manuscripts and is known as a leader in the field of artificial intelligence and ophthalmology. Aaron Lee's research is focused on the translation of novel computation techniques in machine learning to uncover new disease associations and mechanisms from routine clinical data including electronic health records and imaging.

Y. JOYCE LIAO, MD, PHD—CHAIR NEURO-OPHTHALMOLOGY AND ORBIT WORKING GROUP

Stanford Medicine Professor of Ophthalmology, Professor of Neurology, Byers Eye Institute, Stanford University

Professor Liao, MD, PhD is the endowed Stanford Medicine Professor of Ophthalmology and Professor of Neurology at Stanford University, USA. She has served as Director of Neuro-Ophthalmology since 2008. She has been the Founding Director of Stanford University Center for Optic Disc Drusen since 2019 and has raised over 30 million dollars to support vision research. Professor Liao is a clinician-scientist dedicated to making discoveries that improve clinical care and treatment of patients with eye-brain diseases. She directs the Stanford Human Ocular Motor Lab and uses noninvasive eye trackers to understand visuomotor behavior and the impact of eye-brain diseases on visual function. Dr. Liao has published extensively, and her body of work has transformed our understanding of the pathogenesis of eye-brain diseases and improved the diagnosis and treatment of patients.

FLORA LUM, MD

Vice President, Quality and Data Science, American Academy of Ophthalmology

Dr. Lum is the Vice President of Quality and Data Science for the American Academy of Ophthalmology, and the Executive Director of the H. Dunbar Hoskins MD Center for Quality Eye Care. She has overseen the Academy's IRIS® Registry (Intelligent Research in Sight) since its initiation, which has collected 700 million patient visits on 80 million patients as of October 1, 2024, and reported on quality measures for several thousand ophthalmologists each year since 2017. She oversees the quality of care and evidence-based activities of the Hoskins Center, including Preferred Practice Patterns, Ophthalmic Technology Assessments and Clinical Statements, and the creation, stewardship, and revision of performance measures which are incorporated into the Centers for Medicare and Medicaid Services' Merit-based Incentive Payment System. She has co-authored over 180 scientific peer-reviewed articles, presented at over 50 scientific meetings, and is a reviewer for *Ophthalmology Journal*. Recently, she submitted three grant proposals as the Principal Investigator, which were awarded by the Council of Medical Specialty Societies, and the US Food and Drug Administration.

She staffed the Hoskins Center stewardship of the Premium IOL Patient-Reported Outcome measure which was approved by the FDA for their Medical Device and Development Tool program. She served as Co-Principal Investigator for the Agency for Healthcare Research and Quality (AHRQ)-funded grant, RiGOR, Registry in Glaucoma Outcomes Research, A Prospective Observational Study Comparing the Effectiveness of Treatment Strategies for Primary Open-Angle Glaucoma from 2011–2013. She also directs the Academy's health information technology activities, including the development of Digital Imaging and Communications in Medicine (DICOM) standards, Systematized Nomenclature for Medicine (SNOMED) terminology, and Integrating the Healthcare Enterprise (IHE) Eye Care testing and demonstrations as well as the development of criteria for ophthalmology-specific electronic health records.

VINIT B. MAHAJAN, MD, PHD—CHAIR OCULOMICS WORKING GROUP

Vice Chair for Research, Byers Eye Institute, Stanford University, Director, Molecular Surgery Program, Faculty Fellow, Stanford ChEM-H, Veterans Affairs Palo Alto HCS

Dr. Mahajan is a professor and vitreoretinal surgeon in the Department of Ophthalmology at Stanford University. He is the Vice Chair for Research and directs the Molecular Surgery Program and the NIH-funded Omics Laboratory uses high-throughput methods in proteomics, genomics, and phenomics to identify molecules involved in eye disease. The lab uses liquid biopsies to identify protein biomarkers to better understand inflammation and immune mechanisms in the eye. His team also created AI-based methods like the TEMPO precision health tool that integrates human proteomics with single-cell gene expression to identify molecular pathways active in living humans. As a gene and molecular therapy surgeon, Mahajan and his multidisciplinary team help translate laboratory studies into human clinical trials at Stanford and through the founding and support of biomedical start-ups.

GYAN "JOHN" PRAKASH, MSC, MS, PHD, MBA, FAICO—CHAIR LOW-MIDDLE-INCOME COUNTRIES (LMIC) WORKING GROUP

Director, Office of International Program Activities (OIPA), National Eye Institute

Dr. Prakash leads the International Programs and Global Health initiatives at the Office of Director of National Institutes of Health (NIH), National Eye Institute (NEI) in the USA. Previously, he served as the first Director of Transformational Medical Technologies Initiative (TMTI), a pioneer scientific R&D program in the US Government – Dept. of Defense with a budget of US$ 1.6 Billion. Before joining the US Government, Dr. Prakash served as the Chief Operating Officer at AMAR International, a life science program management company in Virginia, USA. Dr. Prakash has also been the President and CEO of Metastatin Pharmaceuticals. He earned his international program management and global health experience at Pfizer World Headquarters in New York in several leadership roles. At Pfizer, he served as the Project Scientist for the largest-selling antifungal drugs in the world, fluconazole and voriconazole which have been used by millions of HIV and cancer patients and saved millions of lives around the world in the immunosuppressed and immunocompromised patients.

Dr. Prakash served as the founding President of the Global Eye Genetics Consortium (GEGC). Recently, he has published four volumes of Advances in Vision Research with Springer-Nature comprising a large international collaboration of vision researchers from about forty countries.

MICHAEL X. REPKA, MD—CO-CHAIR MYOPIA WORKING GROUP

David L. Guyton MD and Feduniak Family Professor of Ophthalmology, Johns Hopkins University Medical Director for Government Affairs, American Academy of Ophthalmology

Dr. Repka is the David L. Guyton, MD, and Feduniak Family Professor of Ophthalmology and a professor of pediatrics at the Johns Hopkins University School of Medicine. He has been at the Johns Hopkins University School of Medicine since 1983. He received his medical degree from the Jefferson Medical College of Thomas Jefferson University in 1979 and completed his ophthalmology residency at Wills Eye Hospital. He completed his MBA at Johns Hopkins University in 2010. Dr. Repka led the Pediatric Eye Disease Investigator Group funded by the National Eye Institute from 1997 to 2009 as chair and currently serves as past chair for and member of the operations committee.

Dr. Repka currently is Vice-chair for Clinical Practice and Division Director of Pediatric Ophthalmology and Adult Strabismus at the Wilmer Institute. He serves as President and Medical Director for Governmental Affairs of the American Academy of Ophthalmology. He is currently AAO's CPT Advisor to the AMA's CPT Editorial Panel.

JOSÉ-ALAIN SAHEL, MD—CHAIR VISION RESTORATION AND REHABILITATION/VISION ASSESSMENT AND OUTCOME MEASURES WORKING GROUP

Distinguished Professor and Chairman of the Department of Ophthalmology—University of Pittsburgh Medical School, The Eye and Ear Foundation Endowed Chair, Director, Vision Institute, University of Pittsburgh Medical Center, Emeritus Professor of Ophthalmology - Sorbonne Université, Adjunct Professor of Robotics and Bioengineering, Carnegie Mellon University, Pittsburgh, Adjunct Professor of Ophthalmology, Hebrew University of Jerusalem, Israel, Honorary Professor, Institute of Ophthalmology, University College London

Dr. José-Alain Sahel, MD is the Director and founder of the UPMC Vision Institute and chair of the University of Pittsburgh Department of Ophthalmology. He also founded the Vision Institute in Paris, France. Dr. Sahel is a clinician-scientist conducting vision restoration research focused on cellular and molecular mechanisms underlying retinal degeneration and the development of treatments for currently untreatable retinal diseases. His work contributed to understanding and preventing vision loss from photoreceptor cell degeneration. José-Alain Sahel has conducted and overseen 80+ clinical trials on retinal conditions including first-in-human trials of artificial retina, gene therapy, and optogenetics. Dr. Sahel co-authored 700+ peer-reviewed articles and 90 patents. He has co-founded companies developing innovative vision restoration therapies. Dr. Sahel received multiple awards, most recently the 2024 Wolf Prize in Medicine.

CAROL SHIELDS, MD—CHAIR OCULAR ONCOLOGY WORKING GROUP

Chief, Ocular Oncology, The Wills Eye Hospital at Thomas Jefferson University

Dr. Shields is currently the Director of the Oncology Service, Wills Eye Hospital, and Professor of Ophthalmology at Thomas Jefferson University in Philadelphia. Dr. Shields has authored or coauthored 12 textbooks, over 1,800 articles in major peer-reviewed journals, over 330 textbook chapters, given over 900 lectureships, and has received numerous professional awards. Some of her awards include The Byron Kanaley Award (1979) given to the top student-athlete at the University of Notre Dame, (she was the first woman to receive this award) and The Donders Award (2003) given by the Netherlands Ophthalmological Society every five years to an ophthalmologist worldwide who has contributed extensively to the field of ophthalmology. She is a member of numerous ocular oncology, pathology, and retina societies and has delivered 60 named lectures in America and abroad.

INGEBORG STALMANS, MD, PHD—CHAIR GLAUCOMA WORKING GROUP

Professor of Ophthalmology, Head of the Glaucoma Unit, University Hospitals Leuven (UZLeuven), Belgium, Director of the Laboratory of Ophthalmology, Catholic University of Leuven (KULeuven), Belgium

Professor Doctor Ingeborg Stalmans heads the Research Group of Ophthalmology at the Catholic University KU Leuven as well as the Glaucoma unit of the University Hospitals UZ Leuven. The subject of her PhD was the role of VEGF in retinal angiogenesis and in the pathogenesis of DiGeorge syndrome. The current focus of her research work is Artificial Intelligence to improve the detection and management of glaucoma, retinal imaging as a biomarker for systemic diseases, as well as medical and surgical glaucoma therapy. She is the President of the European Glaucoma Society, the President of the Belgian Glaucoma Society and is a member of the Royal Academy of Medicine of Belgium and Chair of the Glaucoma Workgroup at CCOI.

MICHELLE TARVER, MD, PHD

Deputy Center Director, Chief Transformation Officer, Center for Devices and Radiological Health (CDRH), Office of the Center Director, US Food and Drug Administration

Dr. Tarver is the Director of the Patient Science and Engagement Program at CDRH at the US FDA. The Patient Science and Engagement Program fosters innovative approaches to collecting, analyzing, and integrating the patient perspective in the development, evaluation, and surveillance of medical devices, including digital health technologies. She also leads the CDRH Patient Engagement Advisory Committee efforts, an advisory panel comprised entirely of patients and caregivers providing their perspectives on general issues related to the regulation of medical devices. In addition to her experience in patient-focused efforts, Dr. Tarver has extensive experience in premarket and postmarket reviews of various medical devices, developing guidance documents and standards, and fostering external collaborations. As an epidemiologist and board-certified ophthalmologist, she has worked on longitudinal epidemiological studies, clinical trials, registries, and developing patient-reported outcome measures as well as surveys to capture patient preferences with medical devices.

DANIEL TING, MBBS, PHD—CHAIR MYOPIA WORKING GROUP

Associate Professor, Duke-NUS Medical School, National University of Singapore, Adjunct Clinical Associate Professor, Byers Eye Institute, Stanford University

Dr. Ting's research focus is related to AI and digital health-related applications for eye and retinal diseases that span across machine learning, deep learning, privacy-preserving technology such as blockchain technology, federated machine learning, and generative adversarial network, satellite technology (4G and 5G), conversational AI chatbot using natural language processing and cybersecurity (e.g., adversarial attack). To date, Daniel has published >250 peer-reviewed publications in high-impact journals, such as *JAMA, NEJM, Lancet, Nature Medicine, Nature Biomedical Engineering, Lancet Digital Health*, etc. He serves in several AI leadership positions—AAO AI committee, STARD-AI, DECIDE-AI, QUADAS-AI, and chairs the RWC, APAO, and APVRS AI committees. He is the Associate Editor of *npj Digital Medicine and Editor of Ophthalmology, Ophthalmology Retina*, and the *British Journal of Ophthalmology* (*BJO*). For the accomplishment, Dr. Ting was recognized by many top-tiered international AI and ophthalmology societies in winning many prestigious scientific awards, including US ARVO Bert Glaser Award for Innovative Research in Retina, the US Macula Society Evangelos Gragoudas Award, etc. In 2021 and 2022, he was also ranked first for deep learning in the world across all domains (>55K researchers) for the past 10 years (2010–2021) by the ExpertScape. In 2022 and 2023, he was ranked the Top 100 Ophthalmologists Power list by the Ophthalmologists and the World's Top 2% Scientists by the Stanford University world ranking.

INVITED SPEAKERS AND PANELISTS

DANIEL L. ADAMS, PHD

Neuroengineer: Next Generation Applications, Neuralink Corporation

Dr. Daniel L. Adams is a neuroengineer at Neuralink Corporation, specializing in visual neuroscience. He earned his BSc and PhD in Neuroscience from University College London under Professors David Attwell FRS and Semir Zeki FRS. After postdoctoral research at Nihon University School of Medicine in Tokyo and at UCSF with Prof. Jonathan Horton, he served as an Assistant Professor of Ophthalmology at UCSF (2003–2019) and as an Associate Professor of Physiology at the Center for Mind/Brain Sciences, University of Trento, Italy. Dr. Adams has published extensively in leading academic and clinical journals, significantly advancing the understanding of the primate visual cortex, binocular vision, and strabismus. Awarded the International Prize for Excellence in 3Rs Research by NC3Rs, he has advanced ethical methodologies in neuroscience involving non-human primates. At Neuralink, he develops advanced neural interfaces aimed at restoring visual perception to the blind.

RON ADELMAN, MD, MPH, MBA, FACS

Director of the Retina and Macula Service, Yale School of Medicine

Dr. Adelman is the Director of the Retina and Macula Service at Yale School of Medicine. He is an internationally recognized expert in diseases and surgery of the macula, retina, and vitreous and serves as the President of the Connecticut State Medical Society (CSMS) and Scientific Director of the European Vitreo-Retinal Society (EVRS). Dr. Adelman has served as the President of the Connecticut Society of Eye Physicians and Surgeons (CSEP) and President of the New Haven County Medical Association (NHCMA). He has been invited faculty in 15 countries including Germany, Italy, Spain, Poland, Mexico and Canada. His clinical interests include macular holes and puckers, macular degeneration, diabetic retinopathy, complex retinal detachments, retinal vein occlusion, retinal lasers and surgery. He has described new disorders and has introduced a novel surgery for macular holes that is currently being utilized worldwide.

NIMA AGHAEEPOUR, PHD

Associate Professor, Baxter Laboratory in Stem Cell Biology, Stanford University

Nima Aghaeepour is an Associate Professor at Stanford University. His laboratory develops machine learning and artificial intelligence methods to study clinical and biological modalities in translational settings. He is primarily interested in leveraging multiomics studies, wearable devices, and electronic health records to address global health challenges. His work is recognized by awards from numerous national and international organizations including the Bill and Melinda Gates Foundation, the Alfred E. Mann Foundation, the March of Dimes Foundation, the Burroughs Wellcome Fund, the National Institute of General Medical Sciences, the National Institute of Child Health and Human Development, the National Institute of Aging, and the National Institute of Neurological Disorders and Stroke.

LAMA AL-ASWAD, MD, MPH

Envision Health Technologies and Visi Health Technologies

Lama A. Al-Aswad, MD, MPH, holds the Irene Heinz Given and John LaPorte Given Research of Professor of Ophthalmology II, Scheie Eye Institute, University of Pennsylvania, Vice-chair for Quality and Safety, Director of Teleophthalmology, AI and Innovations. Dr. Al-Aswad is also the CEO of EnVision Health Technologies and Visi Health Technologies. Previously, she was professor of ophthalmology and professor of population health at NYU Langone Health in New York. She also was the Vice Chair for Innovations and the Director of Teleophthalmology, Artificial Intelligence. She is a member of the *Ophthalmology Glaucoma* Editorial Board, the *Ophthalmology Science* Editorial Board, and a Member at Large on the Board of the American Glaucoma Society. Additionally, she has been appointed as a voting member on the Ophthalmic Device Committee at the FDA.

MARCUS ANG, MBBS, MMED, MCI, FAMS, FRCS, PHD

Head, Senior Consultant, Cornea and External Eye Disease Service, Singapore National Eye Center, Head, Senior Consultant, Refractive Service, Singapore National Eye Center, Associate Professor, DUKE-NUS Department of Ophthalmology and Visual Sciences, Singapore, Advisor, Myopia Center, SNEC, Singapore

Prof. Ang is actively involved in clinical training, examining and teaching medical students and Residents every month, and has trained more than 10 local and international Fellows. As a research mentor, he has supervised several PhD theses, PhD students, and numerous post-graduate students. He has been the Course Director for the International SNEC Advanced Cornea Course for many years, regularly teaching regional candidates corneal, refractive, and cataract surgery via workshops and wetlabs. On the international stage, he has delivered >100 lectures and published/edited several tectbooks, including serving on the Editorial Committee for the AAO Basic and Clinical Science Course. He is an instructor on the APAO Leadership Development Program and a Mentor on several APAO programs to teach and develop the next generation of Ophthalmologists in the region. Because of his efforts in education, he was awarded the International Ophthalmologist Education Award by the American Academy of Ophthalmology. Global Ophthalmology: As Founding Director of Global Clinic, he regularly organizes missions and travels to provide free eyecare and cataract surgery in countries such as Indonesia, Thailand, Cambodia, India, and Myanmar.

SHADY AWWAD, MD

Professor of Ophthalmology, Irene Heinz Given and John La Porte Given Research Professor of Ophthalmology II, Vice Chair for Quality and Safety, Director of Teleophthalmology, AI and Innovations, Scheie Eye Institute, Department of Ophthalmology University of Pennsylvania Perelman School of Medicine, Professor of Engineering, PRECISE Center Faculty, School of Engineering and Applied Science, University of Pennsylvania, Laser Safety Officer, Penn Presbyterian Medical Center

Dr. Shady Awwad is a Professor of Ophthalmology and Head of the Cornea & Refractive Surgery Division at the American University of Beirut Medical Center. He is also the co-founder of NeuralVision, a company specializing in AI solutions for ophthalmic imaging platforms. Dr. Awwad has received several international awards, including the George Waring Medal for Editorial Excellence from the *Journal of Refractive Surgery* and the AAO Achievement Award. He has developed numerous online analytical tools and software, contributed two formulas to the ASCRS IOL Calculator, and holds several patents in computer vision. He has authored more than 115 peer-reviewed publications and his clinical and research interests center on elective and therapeutic refractive surgery, analytical corneal imaging, and keratoconus diagnosis and management.

KIRA BALDONADO, MPH

Vice President, Public Health and Policy, Prevent Blindness

Kira Baldonado is the Vice President of Public Health and Policy for Prevent Blindness. She is responsible for the mission-based work of the organization, focusing on program outreach, education, and policy directives. Kira and her team are working to improve our nation's vision and eye health system by leading consensus-driven initiatives, creating accountability, and improved surveillance for vision, while promoting equity and patient engagement in each step of the continuum of vision care. She has overseen the successful launch of the ASPECT Patient Engagement Program, an advocate training program for patients and allies; the Center for Vision and Population Health at Prevent Blindness; and led the National Center for Children's Vision and Eye Health (NCCVEH) at Prevent Blindness until 2018. Kira was named as One of the Most Influential Women in Optical for 2023 by VisionMonday and is a member of the Society of Leadership Fellows at St George's House, Windsor Castle as an International Fellow.

GIL BINENBAUM, MD, MSCE

Chief of the Division of Ophthalmology, Mabel E. Leslie Endowed Chair in Pediatric Ophthalmology Children's Hospital of Philadelphia Associate Professor of Ophthalmology Perelman School of Medicine, University of Pennsylvania

Gil Binenbaum, MD, MSCE, Chief of the Division of Ophthalmology at Children's Hospital of Philadelphia and an associate professor of ophthalmology at the Perelman School of Medicine at the University of Pennsylvania. He holds the Mabel E. Leslie Endowed Chair in Pediatric Ophthalmology. Dr. Binenbaum sees patients at Children's Hospital's Wood Center, as well as the Specialty Care Center in Voorhees, New Jersey.

An active clinical researcher, Dr. Binenbaum is the principal investigator of a NIH-sponsored multi-center retinopathy of prematurity study. His research includes the investigation of the interpretation and causes of retinal hemorrhage in children who have had abusive head trauma, as well as studying clinical effectiveness in pediatric ophthalmology. Dr. Binenbaum mentors many students and trainees and teaches medical school classes at the University of Pennsylvania.

HRVOJE BOGUNOVIĆ, PHD

Assistant Professor, Medical University of Vienna, Director of Christian Doppler Lab for Artificial Intelligence in Retina

Hrvoje Bogunović is the Director of the Christian Doppler Lab for Artificial Intelligence in Retina at the Medical University of Vienna. His research group combines breakthroughs in Artificial Intelligence (AI) with cutting-edge retinal imaging to advance the state of the art in automated retinal image analysis and personalized medicine in ophthalmology. He obtained his BSc and MSc in Computer Science from the University of Zagreb, Croatia. He obtained his PhD with honors in 2012 from the University Pompeu Fabra, Spain. He then did a postdoc at the University of Iowa, US, specializing in medical image analysis for ophthalmology. He moved to the Medical University of Vienna, Austria in 2015 to lead computational imaging and machine learning method development and has been a Faculty there since 2021.

MICHAEL V. BOLAND, MD, PHD

Associate Professor of Ophthalmology, Harvard Medical School and Medical Director of Practice Innovation, Massachusetts Eye and Ear Infirmary

Dr. Boland is a member of the Massachusetts Eye and Ear Glaucoma Center of Excellence. In addition to his extensive institutional work on medical information technology, he has served in various capacities on the Medical Information Technology Committee of the American Academy of Ophthalmology, including Co-Chairman of that committee. He has also worked on the development of DICOM standards for common ophthalmic testing devices (visual field, OCT), and collaborated with other institutions to create a database of almost 1 million visual fields for clinical research.

WILLIAM M. BOYD, MD

Deputy Director, Division of Ophthalmology, Center for Drug Evaluation and Research, US Food and Drug Administration

William M. Boyd, MD, is the Deputy Director of the Division of Ophthalmology in the Office of New Drugs, Center for Drug Evaluation and Research at the Food and Drug Administration (FDA). After receiving an undergraduate degree from Duke University, Dr. Boyd completed medical school at UNC Chapel Hill and a residency in Ophthalmology at the Medical College of Georgia in Augusta, GA. He joined the FDA in 1998, serving as a primary reviewer for ophthalmic drug products and then subsequently as Clinical Team Leader. In 2020, he became the Deputy Director in the Division of Ophthalmology. Dr. Boyd has supervisory responsibility for the clinical review of ophthalmologic drug products and ophthalmic therapeutic biologic products submitted to the Center for Drug Evaluation and Research.

PAUL BRESGE

CEO of Ray Therapeutics

Paul Bresge has been a leader in cell and gene therapy biotech since 2010. He is co-founder and CEO at Ray Therapeutics, a clinical-stage optogenetics gene therapy company for blinding diseases. Before co-founding Ray Therapeutics, Paul served as CEO at jCyte, a late-stage clinical cell therapy company developing a treatment for retinitis pigmentosa. He was involved with jCyte before its inception and concluded a $252M licensing deal with Santen Pharmaceutical in 2020. In addition to his current role as CEO, Paul is on the board of directors of Healios. Paul is passionate about supporting companies with emerging technologies that have the potential to address the unmet needs of patients with blinding and other diseases.

J. PETER CAMPBELL, MD, MPH

Assistant Professor of Ophthalmology, OHSU Casey Eye Institute

Dr. Campbell is an Associate Professor of Ophthalmology at the Casey Eye Institute, Oregon Health & Science University (OHSU). As a clinician scientist with a clinical practice in adult and pediatric vitreoretinal surgery, Dr. Campbell's academic work focuses on the development of quantitative methods of diagnosing pediatric retinal diseases, including artificial intelligence, and optical coherence tomography. He is a member of the 3rd International Classification for ROP committee, and of the AAO AI Task Force.

R.V. PAUL CHAN, MD, MSC, MBA

Chair, Department of Ophthalmology and Visual Sciences, The John H. Panton, MD Professor of Ophthalmology, The Illinois Eye and Ear Infirmary at the University of Illinois at Chicago

Dr. Chan is director of the Pediatric Retina and Retinopathy of Prematurity Service at UI Health and professor of ophthalmology at the University of Illinois College of Medicine. Dr. Chan is board-certified in ophthalmology and a fellow of the American College of Surgeons. His clinical focus is in medical and surgical vitreoretinal disease, with a particular interest in the diagnosis and management of pediatric retinal disease and retinopathy of prematurity (ROP). His research interests include investigations into new methods to diagnose and manage pediatric retinal disease and ROP; identification of risk factors and genetic markers for pediatric retinal disease; telemedicine; computer-facilitated image analysis, and tele-education to improve the quality of care for pediatric retinal conditions and ROP. Dr. Chan is also the John H. Panton, MD Professor of Ophthalmology

DANTON S. CHAR, MD, MAS

Associate Professor of Anesthesia and Biomedical Ethics, Stanford University

Danton Char is a pediatric cardiac anesthesiologist, clinical researcher, and empirical bioethics researcher at Lucile Packard Children's Hospital and Stanford University. He focuses on improving the lives of infants, children, and adults with complex congenital cardiac disease and supporting the well-being of their caregivers and families. His research also focuses on identifying and addressing ethical concerns arising with the implementation of next-generation technologies to bedside clinical care for all patients, including genomic testing, artificial intelligence/machine learning, and mechanical circulatory support.

SU CHEN, MD

Clinical Science Principal, MITRE, Steering Committee Chair of CodeX HL7 FHIR Accelerator

Dr. Su Chen, MD, is a Clinical Science Principal at MITRE. She is an intrepid emergency medicine physician, computer scientist, and clinical informaticist with systems leadership experience in healthcare information systems optimization. Su currently co-chairs the Steering Committee for the CodeX HL7® FHIR® Accelerator, a not-for-profit member community advancing open clinical specialty data exchange standards in cancer, genomics, cardiovascular health, and beyond. She serves on the Executive Committee and the Technical Review Group mCODE® (minimal Common Oncology Data Elements), an open standard for cancer data exchange. Prior to joining MITRE, Su served as Director of Clinical IT in a nationwide health system, Steward Health Care, and Chief Medical Information Officer and Urgent Care Medical Director of the Greater New Bedford Community Health Care Center.

RAJA CHOLAN

Chief of the Health Data Standards Branch, User Services Collection Division, US National Library of Medicine, National Institutes of Health

Raja Cholan serves as the Health Data Standards Branch Chief for the User Services Collection Division at the US National Library of Medicine. Mr. Cholan has more than a decade of experience in management consulting and academic research as a leader, trusted advisor, and subject matter expert for high-priority federal interoperability programs advancing health data standards and terminologies. Mr. Cholan supported federal programs at the US Food and Drug Administration and US Department of Veterans Affairs to integrate SNOMED CT, LOINC, and RxNorm so that they are semantically interoperable. He also led the successful standards development and publication of ballots and standards at Health Level Seven International (HL7). He has authored numerous academic papers and presentations in medical informatics focused on terminology assessments, evaluation of data quality in Electronic Health Record (EHR) systems, and benefits and challenges for standards and interoperability. Mr. Cholan was involved with research grants at Oregon Health & Science University that advanced the application and implementation of health data standards and terminologies in EHR data for clinical quality measurement and clinical decision support systems. Mr. Cholan was a Fellow in the Medical Informatics Training Program at the Lister Hill National Center for Biomedical Communications at the US National Library of Medicine. He has a Master of Science degree in Health & Clinical Informatics from Oregon Health & Science University and a Bachelor of Science in General Science & Community Health: Health Science from Portland State University.

E. RANDY CRAVEN, MD

Medical Director, Global Eyecare, Medical Affairs/Research and Development

Dr. Craven has been the Medical Director for Glaucoma at AbbVie Medical Affairs/Clinical Development since 2021. He served as an associate professor of ophthalmology at the Wilmer Eye Institute from 2017 to 2021 and held the position of Medical Director for the Bethesda location of the Wilmer Eye Institute and as the Vice Chair for the Practice Network. He served as the Chief of Glaucoma and Fellowship Director at the King Khaled Eye Specialist Hospital in Riyadh Saudi Arabia from 2013 to 2017. He trained over 20 fellows in glaucoma across the globe. From the 1990s until 2013, he was the President of Glaucoma Consultants of Colorado and participated in over 100 clinical trials. Related to OCT, he has directed or taught at the AAO Instructional Course for Scanning laser/OCT for glaucoma since 1999.

GISLIN DAGNELIE, PHD

Professor of Ophthalmology, Johns Hopkins University

Gislin Dagnelie, PhD, is a Professor of Ophthalmology at the Johns Hopkins University School of Medicine. His work has been supported by grants from the National Institutes of Health and multiple other public and private sponsors. Dr. Dagnelie was the Center PI for clinical trials of the Second Sight Argus™ II retinal implant (2007–2020) and is leading several follow-up studies to make retinal prostheses more productive in patients' daily lives. He currently participates in the Chicago-based intracortical visual prosthesis (ICVP) project seeking to restore vision to the blind, for which his laboratory designed phosphene mapping and psychophysical assessment strategies. He is leading the development of assessment and rehabilitation methods for visual prosthesis wearers and other individuals with (ultra-)low vision, using visual functioning questionnaires and visual performance measures in virtual reality.

C. GUSTAVO DE MORAES, MD, PHD, MPH

Chief Medical Officer, Ora Clinical, Associate Professor of Ophthalmology, Columbia University Medical Center

C. Gustavo De Moraes, MD, PhD, MPH is Ora's Chief Medical Officer and Associate Professor of Ophthalmology at the Department of Ophthalmology at Columbia University Medical Center, New York. He is a clinician and surgeon with expertise in glaucoma, imaging, and endpoints across all fields of ophthalmology. He has published over 250 peer-reviewed research papers, delivered hundreds of guest lectures around the world, and authored or co-authored a dozen book chapters in ophthalmology. He is the current Associate Editor for *Investigative Ophthalmology and Visual Science* (*ARVO*) and has received awards from the American Academy of Ophthalmology and the American Academy of Optometry.

MAK BENJAMIN DJULBEGOVIC, MD, MSC

Resident in Ophthalmology, Wills Eye Hospital

Dr. Mak Benjamin Djulbegovic, MD, MSc, is a resident in ophthalmology at Wills Eye Hospital, with a Master of Science in Bioinformatics and Computational Biology from the University of South Florida and a Doctor of Medicine from the University of Miami Miller School of Medicine. He applies artificial intelligence and advanced computational tools to explore and address questions in ophthalmology. Dr. Djulbegovic has contributed to research on proteomic interactions relevant to eye diseases. He is most interested in researching how AI-driven approaches can improve diagnostics and enhance personalized treatments. He is passionate about collaborating within the ophthalmology community to leverage recent AI advancements, particularly those that can directly benefit patient care and advance the understanding of the molecular basis of ocular disease.

AMITHA DOMALPALLY, MD, PHD

Research Director, Wisconsin Reading Center, Director, A-EYE Research Unit, Dept of Ophthalmology and Visual Sciences, University of Wisconsin, Madison

Dr. Domalpally is the Research Director at Wisconsin Reading Center, University of Wisconsin-Madison, and is actively involved in research of clinical trial imaging endpoints with a focus on retinal diseases. Her research interest involves novel outcomes and new imaging techniques to understand the natural history and prognostic markers for complex retinal diseases such as age-related macular degeneration and diabetic retinopathy. As Director of the A-EYE Research Unit, she is also involved in developing and implementing artificial intelligence algorithms for retinal imaging. She also serves as Research Informatics Officer at the University of Wisconsin-Madison, specializing in privacy-compliant pipelines for clinical imaging and informatics, focusing on the translation of these technologies into practical healthcare applications.

TODD DURHAM, PHD

Senior Vice President, Clinical & Outcomes Research, Foundational Fighting Blindness

Todd Durham is the Senior Vice President, Clinical & Outcomes Research at the Foundation Fighting Blindness, a national non-profit that funds research to treat and cure inherited retinal diseases. In his current role, Todd is responsible for directing the Foundation's Clinical Consortium of retinal experts, managing the Foundation's disease registry, developing strategies to enhance product development, partnering with industry, and providing technical input on partnered programs and investment decisions. Todd has over 25 years of drug development experience. Before his current position, he contributed to research on numerous marketed products as Director of Biostatistics with IQVIA's Real World Evidence Solutions, was a doctoral fellow with Bristol Myers Squibb, and worked in various statistical and leadership roles for Novan, Inspire Pharmaceuticals, Quintiles, and as a self-employed consultant. Todd earned a BSPH and MS in biostatistics and a PhD in health policy and management (Decision Science and Outcomes Research) from the UNC Gillings School of Global Public Health.

JOHN G. FLANNERY, PHD

Professor of Neurobiology, Dept. Molecular & Cell Biology, Assoc. Director, Helen Wills Neuroscience Institute, University of California, Berkeley

John Flannery is a professor in the School of Optometry and the Helen Willis Neuroscience Institute. The Flannery Laboratory has studied gene therapy for blinding, inherited diseases of the retina for the past 20 years. They have developed animal models of several inherited human blinding diseases, including retinitis pigmentosa, Usher syndrome, and age-related macular degeneration. They have shown that they can protect photoreceptors from injury and cell death in these models by injecting adeno-associated virus or lentivirus vectors into the eye. In these experiments, they have had success in ameliorating photoreceptor cell death with a number of different neurotrophic agents, as well as ribozymes to knockdown the mutant transcripts in dominant disease. The overall goal of their research effort is to prevent or delay the course of blindness in patients. While results in the rodent models show they can protect rat photoreceptors from injury and death, these treatments are not useful for patients in later stages of retinal disease in which the photoreceptor cells have been lost.

IAN FLITCROFT, MA, DPHIL (OXON), MB, BS, FRCOPHTH

Chief Innovation Officer, Ocumetra

Professor Flitcroft is a paediatric ophthalmologist who has worked in the field of experimental myopia as a principal investigator for over 30 years, principally in the areas of computational modelling, the optical control mechanisms of eye growth and clinical trials. He is based at the Centre for Eye Research (CERI) in Dublin, Ireland, Europe's largest clinical trial centre for myopia. He also leads the Big Data group, which is developing machine learning and image AI tools for myopia management. As well as his research on the mechanisms guiding eye growth, he has been long term advocate for the public health implications of myopia and for the need for biological treatments of myopia.

J. ALEXANDER FRASER, MD

Department of Clinical Neurological Sciences and Department of Ophthalmology, Western University

Dr. Fraser completed residency training in Neurology at Western University and fellowship training in Neuro-Ophthalmology at Emory University in Atlanta. He is board-certified in Neurology by both the Royal College of Physicians and Surgeons of Canada and the American Board of Psychiatry and Neurology. He is currently an Associate Professor at Western University with a primary appointment in the Department of Clinical Neurological Sciences and a cross-appointment in the Department of Ophthalmology. He is a member of the Canadian Neurological Sciences Federation, the American Association of Neurology, and the North American Neuro-Ophthalmology Society. His clinical and research interests include enhanced-depth imaging optical coherence tomography of the optic nerve in health and disease, with a special interest in optic disc drusen and PHOMS (peripapillary hyperreflective ovoid mass-like structures).

GERHARD GARHÖFER, MD

Department of Clinical Pharmacology, Medical University of Vienna, Austria

Gerhard Garhöfer is a board certified specialist for ophthalmology at the Medical University of Vienna, Austria. He is currently head of the Section of Ophthalmo-pharmacology and associate Professor for Clinical Pharmacology. He has published more than 190 articles in peer-reviewed journals in the field of ocular drug development, ocular physiology, and pharmacology. He was vice-president of the European Association for Vision and Eye Research (EVER) and a member of the Executive Board of the European Glaucoma Society (EGS). Gerhard Garhöfer has received several grants and research awards.

MICHAËL J. S. GIRARD, PHD

Departments of Ophthalmology and Biomedical Engineering, Emory University School of Medicine

Since establishing the Ophthalmic Engineering & Innovation Laboratory (OEIL) in Singapore in 2012, Michaël J.A. Girard, PhD has strategically leveraged the remarkable growth in engineering and ophthalmology to advance translational research. Now partnered with the Emory University departments of Ophthalmology and Biomedical Engineering, Dr. Girard and OEIL are positioned to maximize inputs from artificial intelligence (AI) and physics–particularly biomechanics–to advance translational research in ophthalmology. This multidisciplinary approach holds the key to unlocking a deeper understanding of a wide range of ophthalmic disorders and developing innovative treatments. Additionally, our work aims to enhance and simplify the screening, diagnosis, and prognosis of these conditions.

Dr. Girard's research is particularly concentrated on optic neuropathies, including glaucoma, but also extends to myopia, neuro-ophthalmic, and neurological disorders. With a strong emphasis on translational research, OEIL maintains close collaborations with clinicians and industry partners—a relationship that is poised to expand in the near future.

JOE GOGAIN, PHD

Director of Clinical Research and Development, Standard BioTools, Inc.

Joe Gogain, PhD, is a Director of Clinical Research and Development at Standard BioTools, Inc. (formerly SomaLogic, Inc.). For the past seven years, he has worked closely with collaborating partners interested in biomarker and target discovery, as well as diagnostic and prognostic proteomic model development. Joe has a proven track record of IVD product development under design control and experience in de novo 510(k) regulatory submission processes and requirements. Joe has also served as a study director of national clinical trials for point-of-care diagnostic devices.

JUDITH E. GOLDSTEIN, OD, FAAO

Associate Professor of Ophthalmology and Rehabilitation Medicine, Wilmer Eye Institute, Johns Hopkins School of Medicine

Dr. Judith Goldstein is Director of the Lions Vision Research and Rehabilitation Center and Associate Professor of Ophthalmology and Rehabilitation Medicine at the Wilmer Eye Institute at The Johns Hopkins School of Medicine. Since 2006, Dr. Goldstein has led the clinical and teaching program, including the Lions Fellowship Training Program in Vision Rehabilitation. Dr. Goldstein's research focuses on the measurement of low vision rehabilitation outcomes and the calibration of visual function questionnaires to enable comparative estimates. Her most recent work examines improving health services delivery to the growing population in need and standardizing electronic health record data practices. Dr. Goldstein received her Doctor of Optometry from the State University of New York College of Optometry and completed residency training at the Baltimore Veterans Administration Medical Center. Prior to joining Johns Hopkins School of Medicine, Dr. Goldstein provided low-vision care to patients in her private clinical practice and served as Vice President of Clinical Services of Pioneer EyeCare as well as Director of Low Vision Services at the University of Maryland.

ADRIENNE GRAVES, PHD

Foundational Fighting Blindness

Dr. Adrienne Graves is a visual scientist by training and a global industry leader in ophthalmology. The former CEO of Santen Inc, Dr. Graves was Chair at Iveric Bio until their 2023 acquisition by Astellas. She currently serves on the Boards of Ocular Therapeutix, Harrow, Opus Genetics, Osanni Bio, Qlaris Bio, Surface Ophthalmics, NVasc, JelliSee, CellViva, and Implandata. Dr. Graves also serves on the boards of the following Foundations: American Society of Cataract and Refractive Surgeons (ASCRS), Glaucoma Research Foundation (GRF), American Academy of Ophthalmology (AAO; Emeritus), Foundation Fighting Blindness (FFB), and was a founding board member of OWL.
She Chairs the RD (Retinal Degeneration) Fund, the venture arm of FFB, and Co-founded Glaucoma 360. Dr. Graves received an AB with Honors in Psychology from Brown University, a PhD in Pyschobiology/Neuroscience from the University of Michigan, and she completed a Postdoctoral Fellowship in Visual Neuroscience at the University of Paris. She is a Visionary Innovation Mentor for the Ophthalmic Innovation Program at Stanford.

ANITRA GRAVES, MD, MMM, FCCP, FAASM

Contractor Medical Director, First Coast Service Options, Inc.

Anitra Graves, MD, MMM, FCCP, FAASM has a diverse work experience in the medical field. Anitra currently works as a Contractor Medical Director at First Coast Service Options, Inc. Anitra previously held roles such as Medical Director at Noridian Healthcare Solutions, LLC and Chief Medical Officer at Palmetto GBA. Anitra also has experience as an Associate Medical Director at Cahaba GBA and Chair of the Department of Medicine at Northside Hospital. Additionally, they have served as Owner of Cherokee Lung & Sleep Specialists and as an Intensivist at The Critical Care Group, LLC. Anitra is recognized for their expertise and leadership as a Vanguard member of the American Association of Physician Leadership and as Chair of the Health IT Subcommittee at the American College of Chest Physicians.

CYNTHIA GROSSMAN, PHD

Director, Division of Patient-Centered Development, Center for Devices and Radiological Health (CDRH), US Food and Drug Administration

Cynthia (Cyndi) Grossman, PhD is Director, Division of Patient-Centered Development in the Center for Devices and Radiological Health (CDRH) at FDA. As a social and behavioral scientist, Dr. Grossman has spent her career advancing methods to include the perspectives of patients, caregivers, and communities in medical product development. She has worked in industry, non-profit and had prior government service at NIH. She has led real-world research, developed, and led programs to advance patient-centered biomedical research and health care delivery, and managed a grant portfolio focused on improving the lives of people living with HIV and preventing transmission. She received her doctoral degree in clinical psychology from the University of Vermont, trained at Brown University and has received multiple grants and awards including Phi Beta Kappa and grants from NIH and PCORI.

ANDRZEJ GRZYBOWSKI, MD, PHD, MBA, MAE

Professor of Ophthalmology, Head of the Institute for Research in Ophthalmology, Past President of European Vision & Eye Research Association (EVER), Head of the International Council, AI in Ophthalmology Society

According to the Expertscape worldwide ranking: No. 1 in the cataract field; No. 1 in the cataract extraction field; No. 3 in the endophthalmitis field. Listed on the "The Power List" by The Ophthalmologist magazine, a ranking of the Top 100 most influential people in the world of ophthalmology. Present scientific interests: Myopia prevention and treatment and AI in Ophthalmology. Published a book on AI in Ophthalmology (Springer 2021; Chinese edition 2024). Founded AI in Ophthalmology Society (https://iaisoc.com) and European Network for Myopia Prevention and Control. He is the Past President of the EVER (European ARVO) and Treasurer of the European Academy of Ophthalmology. Publishing parameter (December 2024): H-index: 40 (Scopus), 52 (Google Scholar); IF 1455 ORCID: 0000-0002-3724-2391

STEFFEN HAMANN, MD, PHD

Consultant Neuro-Ophthalmologist, Department of Ophthalmology, Copenhagen University Hospital—Rigshospitalet, Clinical Research Associate Professor, Department of Clinical Medicine, University of Copenhagen, Denmark

Steffen Hamann's research interests center around optic neuropathies, where axonal compression, inflammation or ischemia lead to loss of vision. In particular, the focus is on the pathology of elevated intracranial pressure states, ischemic optic neuropathies, and optic disc drusen. In addition, his group is aiming at advancing the use of retinal and optic nerve imaging modalities, especially OCT, and incorporating artificial intelligence (AI) algorithms, to detect, identify, and predict neurological disease. He has published more than 135 peer-reviewed 0scientific papers. In 2015 Dr. Hamann founded the international Optic Disc Drusen Studies (ODDS) Consortium of which he is Chair. The consortium consists of highly dedicated optic nerve researchers from 15 different countries and 4 continents. Dr. Hamann is also chairman for neuro-ophthalmology of the European Reference Networks for Rare Eye Diseases.

DAVID HUANG, MD, PHD

Professor of Ophthalmology, School of Medicine, Professor of Biomedical Engineering, School of Medicine, Wold Family Chair in Ophthalmic Imaging, Associate Director & Director of Research, Casey Eye Institute, School of Medicine

Dr. David Huang is the Associate Director and Director of Research at the Casey Eye Institute, the Wold Family Endowed Chair in Ophthalmic Imaging, Professor of Ophthalmology and Professor of Biomedical Engineering at Oregon Health & Science University. He is known for his innovations in applying laser and optical technology to eye diseases. He is a co-inventor of optical coherence tomography (OCT), which is a commonly used ophthalmic imaging technology for 40 million procedures per year. His seminal article on optical coherence tomography, published in Science in 1991, has been cited more than 18,000 times. Dr. Huang has 42 U.S. patents in the areas of OCT, OCT angiography, mobile health testing, tissue engineering, and laser surgery. He has been the principal investigator of 6 National Institutes of Health research grants in over two decades, published more than 300 peer-reviewed articles with over 60,000 citations, and has edited 12 books. Since the invention of OCT, Dr. Huang has contributed to the development of polarization-sensitive OCT, swept-source OCT, anterior eye OCT, Doppler OCT, and OCT angiography technologies, and continues to pioneer new applications for these technologies in anterior eye diseases, glaucoma, and retinal diseases.

Dr. Huang leads the Center for Ophthalmic Optics and Lasers. He is a founder of GoCheck, the maker of the GoCheck Kids smartphone app that has screened over five million children for amblyopia risk factors. He is the founding president of the International Ocular Circulation Society.

XIAOQIAN JIANG, PHD

Associate Vice President for Medical AI, Chair, Department of Health Data Science and Artificial Intelligence, Christopher Sarofim Professor, The University of Texas Health Science Center at Houston

Dr. Xiaoqian Jiang is the Associate Vice President for Medical AI, Chair of the Department of Health Data Science and Artificial Intelligence, and the Christopher Sarofim Professor at The University of Texas Health Science Center at Houston (UTHealth). He also directs the Center for Secure Artificial Intelligence for Healthcare (SAFE) at the McWilliams School of Biomedical Informatics. Dr. Jiang is an expert in privacy-preserving data mining, federated learning, and explainable machine learning, with over $30 million in grant funding from NIH and other prestigious awards such as CPRIT Rising Stars and UT Stars. His research spans critical health AI applications, from Alzheimer's prevention to stroke rehabilitation, and his innovative work in human-in-the-loop AI models and computational phenotyping has earned several best paper awards from AMIA.

PAULA JOHNS, OD, MPH

Clinical Reviewer, Division of Ophthalmic Devices, Center of Devices and Radiological Health, US Food and Drug Administration

Dr. Johns is an optometrist and clinical reviewer with the US Food and Drug Administration in the Center for Devices and Radiological Health. She obtained a doctorate of optometry from the University of Alabama at Birmingham School of Optometry and an MPH in Epidemiology from the Harvard T.H. Chan School of Public Health. She completed residency training with the Indian Health Service at Zuni Comprehensive Community Health Center. Prior to joining FDA, Dr. Johns spent over a decade with the Indian Health Service.

JAYASHREE KALPATHY-CRAMER, PHD

Chief of Artificial Medical Intelligence in Ophthalmology, University of Colorado School of Medicine

Jayashree Kalpathy-Cramer is an endowed chair in Ophthalmic data sciences and the founding chief of the Division of Artificial Medical Intelligence in the Department of Ophthalmology at the University of Colorado (CU) School of Medicine. She leads the development and translation of novel artificial intelligence (AI) methods into effective patient care practices at the Sue Anschutz-Rodgers Eye Center. She is passionate about the potential that machine learning and artificial intelligence have to improve the access and quality of healthcare worldwide. Dr. Kalpathy-Cramer has authored over 200 peer-reviewed publications, has written over a dozen book chapters, and is a co-inventor on a dozen patents. She graduated from IIT Bombay, India, with a degree in electrical engineering and received her PhD from Rensselaer Polytechnic Institute, also in Electrical Engineering. She returned to academia after almost a decade in the semiconductor industry with a research pivot towards healthcare.

RANDY KARDON, MD, PHD

Pomerantz Family Endowed Tenured Professor of Ophthalmology (Neuro-ophthalmology), University of Iowa Carver College of Medicine

Randy Kardon MD, PhD, is the Pomerantz Family endowed tenured Professor of Ophthalmology, was Director of the Neuro-ophthalmology Service and Fellowship Director for over 20 years and has been faculty at the University of Iowa and Veterans Administration Health Care System for 35 years. He is the Director of the federally funded Iowa City Veterans Administration Center for the Prevention and Treatment of Visual Loss. Dr. Kardon has published over 20 chapters, co-authored a textbook, and has published 275 peer-reviewed journal articles and has been federally funded for 35 years. Current research includes use of facial features, eyelids, and pupils to diagnose and monitor eye and neurological disorders, ocular blood flow, AI to quantify and display spatial patterns of retinal nerve loss, and treatments for preserving vision in blinding disorders.

SAM KAVUSI, PHD

Head of Retina Imaging and Services, Verily, Google Life Sciences

Sam Kavusi is the Head of Retina Imaging and Services at Verily. He co-founded the Retina-AI Program at Alphabet and is interested in improving the availability and accuracy of retina image captures, especially outside of ophthalmic environments.

He received his BS from Sharif University, Tehran, Iran, in 1999, and his MS and Phd degrees in electrical engineering from Stanford University, Stanford, CA, in 2001 and 2006, respectively. He has held various industry positions leading and developing smartphone cameras, semiconductor/MEMS sensors, and proteomic chips at Google and Bosch. He also served on technical committees at ISSCC, CLEO conferences. Kavusi has co-invented more than 70 patents, and his publications have been cited over 800 times.

Sam is passionate about utilizing on-device intelligence, AI, computational imaging, and electronics to develop modern medical devices.

PEARSE KEANE, MD, MSC, FRCOPHTH, MRCSI

Consultant Ophthalmologist, Moorfields Eye Hospital NHS Foundation Trust, Associate Professor, University College London (UCL) Institute of Ophthalmology

Pearse Keane is Professor of Artificial Medical Intelligence at UCL Institute of Ophthalmology, and a consultant ophthalmologist at Moorfields Eye Hospital, London. Since 2020, he has been funded by UK Research & Innovation (UKRI) as a Future Leaders Fellow, and in 2023 he became a National Institute for Health Research (NIHR) Senior Investigator. He is originally from Ireland and received his medical degree from University College Dublin (UCD), graduating in 2002.

In 2016, he initiated a collaboration between Moorfields Eye Hospital and Google DeepMind, with the aim of developing artificial intelligence (AI) algorithms for the earlier detection and treatment of retinal disease. In August 2018, the first results of this collaboration were published in the journal, Nature Medicine. In 2023, he led the development of RETFound, the first foundation model in ophthalmology, published in Nature and made available open source.

EDWARD KOROT, MD

Vitreoretinal Surgeon, Partner—Retina Specialists of Michigan, Adjunct Faculty—Stanford University Byers Eye Institute, Cofounder, Chief Medical Officer—Sanro Health

Dr. Korot is a vitreoretinal surgeon guided by the goal of maximally scaling improvements in patients' lives through AI and technology. His research and tech endeavors involve medical AI validation, guideline development, safety, quantifying model uncertainty, and AI-driven clinical trial recruitment. He is a vitreoretinal surgeon at Retina Specialists of Michigan, an adjunct faculty at Stanford, and am the cofounder and chief medical officer of Sanro Health, which is a startup focused on AI-driven clinical trial recruitment. When not working, you can find him mountain biking, practicing drone photography, and attempting to do yoga.

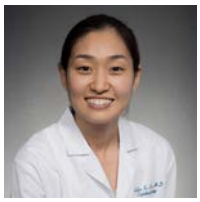
AMY M. LASTER, PHD

Interim Chief Scientific Officer, Foundation Fighting Blindness

Dr. Amy Laster is the Interim Chief Scientific Officer at the Foundation Fighting Blindness, the world's largest private funder of research for treatments and cures of blinding retinal degenerative diseases. The Foundation has raised over $900 million and under Dr. Laster's leadership, supports more than 90 research projects globally. Dr. Laster directs the Foundation's science strategy, collaborating with the Scientific Advisory Board, Board of Directors, academic institutions, biotech and pharmaceutical companies, venture funding entities, government agencies, and key research donors. A neuroscientist by training, Dr. Laster has conducted significant research on neuroregeneration following acute injury and the causes of neurological monogenic diseases. She is an active member of the Health Research Alliance Board of Directors' executive committee and the ClinGen Retina Ocular Clinical Domain Working Group.

CECILIA S. LEE, MD MS

Professor of Ophthalmology, Klorfine Family Endowed Chair, University of Washington



Dr. Lee is a clinician-scientist specializing in the intersection of ophthalmology, systemic health research, and advanced technologies like Big Data and AI. With expertise in retinal imaging and clinical epidemiology, Dr. Lee harnesses the eye's potential as a non-invasive window into systemic and neurological conditions, including Type 2 Diabetes Mellitus and Alzheimer's disease. Driven by a commitment to innovation and collaboration, Dr. Lee leads research initiatives that leverage AI-driven insights and promotes data-sharing to accelerate biomedical discovery. Her work aims to transform healthcare outcomes on a global scale, bridging cutting-edge science with real-world impact.

LUIS LESMES, PHD

CEO, Adaptive Sensory Technology

Luis Lesmes, CEO and co-founder of Adaptive Sensory Technology, is a leader in translating novel adaptive methods to clinical and practical testing applications. The core technology of Adaptive Sensory Technology is an application of Bayesian adaptive algorithms to rapid and precise assessment of the contrast sensitivity function.

Luis Lesmes has a BS in Psychobiology from the University of Southern California, a PhD in Experimental Psychology from the University of Southern California, and completed postdoctoral training in the Vision Center Laboratory at the Salk Institute for Biological Studies. He had a Senior Scientific Associate position at the Schepens Eye Research Institute, Mass Eye and Ear.

AMIT MATHUR, OD

University of Waterloo, Waterloo Eye Institute, LV Prasad Eye Institute

Dr. Mathur is Adjunct Faculty at the University of Waterloo, Waterloo Eye Institute and Senior Advisor, Innovation and Partnerships to LV Prasad Eye Institute. The LV Prasad eye care network consists of over 250 eye care centres which have cared for over 35 million patients since inception, an innovation lab, and teaching facilities. He is a founding board member of the international committee of Latin Amercian Ophthalmic Society of Imaging and AI. He was the cofounder of one of Canada's first private Canadian telehealth companies called Livecare Health and the founding President and Director of CloudMD Software & Services Inc. (TSXV:DOC). This growth was rapid and inorganic in nature, including the roll up of clinics, rehab centres and pharmacies. Subsequently he has been an active board and advisory member to companies that are forward looking and innovative and has actively invested in such companies.

Dr. Mathur is an active strategic and growth advisor to North American and Asian companies, he is a founding advisor to GetFresh Ventures business accelerator and their portfolio companies and a Venture Partner and health advisor to the MIT/Harvard ecosystem venture studio.

DAN MILEA, MD PHD

Rothschild Foundation, Paris (France) and SERI (Singapore)

Dan Milea, MD, PhD is a Neuro-Ophthalmologist and Clinician Scientist, Head of the Neuro-Ophthalmology department and Director of the Rothschild BRAIN Visual and Computational Neuroscience Group at the Rothschild Foundation Hospital, Paris (France). He is a Professor of Ophthalmology (Angers/France, Copenhagen/Denmark, and Duke-NUS Medical School/Singapore). He created in 2018 an international Consortium dedicated to AI applied to Visual Neurosciences and Neuro-Ophthalmology, coordinating over 40 expert centers in over 20 countries (BONSAI: Brain and Optic Nerve Study with Artificial Intelligence). The Consortium has published its results in various journals, including *The New England Journal of Medicine, JAMA Ophthalmology, Neurology, Annals of Neurology, Journal of Neuro-Ophthalmology*, etc. His research aims to establish AI-based inferences about the brain's health, using ophthalmic imaging. Dan Milea is Co-Editor-in-Chief of the journal *Neuro-Ophthalmology*.

JANE MOSELEY, MB, MSC, DIP PHARM MED

Senior Scientific Officer, Scientific Advice Office, European Medicines Agency

Dr. Moseley has been responsible for administering scientific advice, protocol assistance, and qualification procedures at EMA since 2009. Her professional background in ophthalmology, epidemiology, and regulatory including clinical assessor at the MHRA for pharmacovigilance, clinical trials, and licensing. Currently registered with the General Medical Council, UK. She obtained a medical degree from Trinity College, Dublin, a Masters in Epidemiology at the London School of Hygiene and Tropical Medicine, and a Diploma in pharmaceutical medicine, granted fellow of the Royal College of Ophthalmologists in UK, the Royal College of Surgeons/ Ophthalmology in Ireland, and is a member of the Faculty of Pharmaceutical Medicine UK.

SANJAY NAYAK, MBBS, PHD

Chief Strategy Officer, Ocular Therapeutix, Inc.

Sanjay Nayak, MBBS, PhD, was the founder and fund manager of a biotech-focused private investment fund, Sentiv Capital. The fund invested in public and private biotechnology companies and has been a sought-after co-investor, based on the quality and depth of his due diligence and contributions to investment strategy. Dr. Nayak's investment approach integrated more than 20 years of expertise in retina and ophthalmology with strong connections spanning industry, the investment community and top key opinion leaders, as well as a unique strategic acuity related to healthcare markets. Prior to founding Sentiv Capital, Dr. Nayak was the founder and Managing Partner at AnalyzeRx LLC, a well-respected healthcare consulting practice focused on delivering customized, high-end, qualitative market analytics and competitive strategy to large-cap pharmaceutical and biotechnology companies.

The firm developed a differentiated perspective on retinal therapeutics and provided competitive analysis, strategic guidance and supported the business development needs of its clients for more than fifteen years. Prior to his work at Analyze Rx LLC, Dr. Nayak was a Director at Strategic Analysis, Healthcare, which was acquired by IMS Health. His consulting work was focused on pharmaceutical competitive analysis encompassing commercial launch preparations and regulatory, pipeline and clinical trial evaluations. Dr. Nayak received his medical degree (MBBS) from Grant Medical College, University of Bombay, India and earned a PhD in pharmacology from Drexel University, Philadelphia, Pennsylvania. He is the author or co-author on several publications related to presynaptic receptors in the brain.

TIEUVI NGUYEN, PHD

Director, Division of Ophthalmic Devices, Center of Devices and Radiological Health, US Food and Drug Administration

Dr. Nguyen currently serves as Director of the Division of Ophthalmic Devices in FDA's Center for Devices and Radiological Health (CDRH). She received her PhD in Biomedical Engineering. In her role as Director, she oversees the scientific, compliance and regulatory work products related to premarket approval, post-market performance and surveillance, and compliance and enforcement of ophthalmic devices. She also provides scientific and technical leadership and guidance on the development of new regulations and policy issues, including the development of FDA guidance and consensus standard documents. Prior to joining FDA, Dr. Nguyen held various positions in pharmaceutical manufacturing, finance and consulting.

KEVIN O'DONNELL, MASC, FSIIM

Senior R&D Manager, Canon Medical Research, USA

Kevin O'Donnell, MASc, FSIIM, is a senior R&D Manager with Canon Medical Research, USA, focused on standards and interoperability in medical imaging. As an enthusiastic believer in the value of data standards to healthcare in general and medical imaging in particular, Kevin is a past Chair of both the DICOM Standard and IHE Radiology and has authored many supplements to both standards. He is a past lecturer at the National Imaging Informatics Course (NIIC) organized by RSNA, SIIM, and DPA, and is a Fellow of the Society for Imaging Informatics in Medicine. He graduated from the University of Waterloo, Canada with a Bachelor's degree in Systems Design Engineering and from the University of British Columbia with a Master's degree in Electrical Engineering.

DANIEL PALANKER, PHD

Professor of Ophthalmology and, by courtesy, of Electrical Engineering at Stanford University

Daniel Palanker develops optical and electronic technologies for diagnostic, therapeutic, surgical, and prosthetic applications, primarily in ophthalmology. In the field of electro-neural interfaces, he developed the photovoltaic subretinal prosthesis (PRIMA) and implants for electronic control of tear secretion and blood flow. In the field of optics, he is working on interferometric imaging of physiological signals in the retina (optoretinography). In the past, he worked on laser-tissue interactions and developed multiple practical clinical devices, including Electrosurgical system (PlasmaBlade, Medtronic), Pattern Scanning Laser Photocoagulator (PASCAL, Iridex), and Femtosecond Laser-assisted Cataract Surgery (Catalys, J&J). Dr. Palanker received multiple awards, published over 160 peer-reviewed papers (h-index 67), many book chapters, and has over 70 issued patents.

LOUIS R. PASQUALE, MD, FARVO

Site Chair, Department of Ophthalmology, Mount Sinai Hospital, Shelley and Steven Einhorn Professor of Ophthalmology, Director, Mount Sinai Hospital / NYEE Eye and Vision Research Institute, Department of Ophthalmology, Icahn School of Medicine at Mount Sinai

With continuous support from the National Institutes of Health since 2006, Dr. Pasquale's research has pioneered primary prevention strategies in open-angle glaucoma and now focuses on creating a multi-omic framework to enhance understanding of disease pathophysiology, improve early detection, and develop precision medicine solutions. He has been at the forefront of integrating Artificial Intelligence into ophthalmology, significantly advancing the field by demonstrating that autonomous algorithms can supplant costly reading centers in assessing endpoints in clinical trials, which could streamline clinical research processes. Dr. Pasquale is a past Vice President of ARVO and a prior member of the National Advisory Eye Council at NIH. He is currently a member of the board of directors of The Glaucoma Foundation and a leader in the Biennial International Glaucoma Think Tank meeting.

VASUM PEIRIS, MD, MPH, FAAP, FACC, FASE

Chief Medical Officer for Pediatrics and Special Populations, US Food and Drug Administration, Center for Devices and Radiological Health

As Chief Medical Officer for Pediatrics and Special Populations at the US Food and Drug Administration Center for Devices and Radiological Health, Dr. Peiris provides executive and clinical leadership. He serves as the Center's senior clinical science and practice expert on pediatrics and pediatric medical device issues and provides executive leadership on Center policies and initiatives associated with medical devices intended for use in pediatric and special populations. As a systems architect, he leads the Center's outreach for developing strategic initiatives which facilitate synergy among internal and external stakeholders and enhances the ability of the Agency and the medical device ecosystem to optimally serve the public health with respect to the needs of historically underserved populations at the FDA.

LUIS ABEGÃO PINTO, MD, PHD

Professor of Ophthalmology, Head of the Glaucoma Clinic of the Department of Ophthalmology, Hospital Santa Maria

Luís Abegão Pinto is the Head of the Glaucoma Clinic of the Department of Ophthalmology of Portugal's largest Hospital (Hospital Santa Maria), where he also serves as Associate Professor. He has authored or co-authored 104 indexed peer-reviewed papers on glaucoma, with his main areas of interest are 1) Screening (with emphasis on AI tools), 2) Glaucoma Surgery, specifically wound healing modulation, and 3) non-IOP related risk factors in glaucoma, particularly the ones related to ocular blood flow (the area of his PhD). He serves on the Executive Board of the European Glaucoma Society (EGS) since 2018 and is currently the EGS Vice-President.

NADER POURATIAN, MD, PHD

Professor and Chair, Department of Neurological Surgery, UT Southwestern Medical Center

Nader Pouratian is Professor and Chair of Neurological Surgery at UT Southwestern Medical Center. He earned his MD and PhD degrees at UCLA before completing neurosurgical and subspecialty training at the University of Virginia. In his clinical practice, he uses advanced neurotechnologies to improve brain and spine function for neurological and psychiatric diseases, including Parkinson's, tremor, pain, depression, obsessive-compulsive disorder, and blindness. His research aims to understand brain diseases and to develop targeted biological therapies. He takes advantage of unparalleled opportunities presented by neurosurgery to study human brain function and design novel neurotechnologies. His work is supported by several NIH grants, including the BRAIN and HEAL initiatives.

RAJESH K. RAJPAL, MD

Founder, See Clearly Vision Group, Mclean, VA, Clinical Professor of Ophthalmology, George Washington University Medical Center, Former Chief Medical Officer and Global Head of Clinical, Medical and Professional Affairs, Johnson & Johnson Vision

Dr. Rajpal is a practicing ophthalmologist and the founder of See Clearly Vision Group, an ophthalmology and optometry group practice in Washington, DC. He serves on the clinical faculty of Georgetown and George Washington University Medical Centers and as the Cornea Consultant to the Walter Reed National Military Medical Center. Active in research and professional education, he has served as principal investigator in numerous clinical trials, authored multiple original peer-reviewed publications and textbook chapters, and has lectured internationally on topics related to corneal disease, cataract, and refractive surgery. He is currently the industry representative to the Medical Devices Advisory Committee for the FDA Ophthalmic Devices Panel

For approximately the last five years, Dr. Rajpal served as Chief Medical Officer of Johnson & Johnson Vision as part of the Vision Leadership Team and led clinical and medical affairs as well as global professional relations. He oversaw integration of rapidly evolving medical and clinical insights into new product development to address unmet eye health needs of patients and eye care professionals around the world. His team was responsible for clinical trials and the generation of data-led surgical and vision care evidence. Dr. Rajpal also served as a critical liaison to government agencies and to the academic, scientific, and industry communities. Prior to joining Johnson & Johnson in 2020, he served as Chief Medical Officer at Avedro and was part of the leadership team leading to an IPO and then acquisition by Glaukos. Dr. Rajpal completed medical school and ophthalmology residency at Medical College of Virginia and cornea fellowship at Wills Eye Hospital in Philadelphia.

DAVID C. RHEW, MD

Global Chief Medical Officer (CMO) and VP of Healthcare for Microsoft

David Rhew is Microsoft's Global Chief Medical Officer & VP of Healthcare. He has served as Microsoft's International Coordinator for the Pandemic Response, where he worked with WHO to develop their World Health Data Hub, CDC to standup their vaccine data lake, and US states to roll out COVID-19 vaccines.

He is an Adjunct Professor at Stanford University; holds six US technology patents that enable the authoring, mapping, and integration of clinical decision support into electronic health records; and has been recognized as one of the 50 most influential clinician executives by Modern Healthcare.

Dr. Rhew received his Bachelor of Science degrees in computer science and cellular molecular biology from the University of Michigan. He received his MD degree from Northwestern University and completed his internal medicine residency at Cedars-Sinai Medical Center. He completed fellowships in health services research at Cedars-Sinai and infectious diseases at UCLA.

He has served as CMO and VP for Samsung; and SVP and CMO at Zynx Health. David has served on the National Quality Forum's Executive CSAC Board and chaired the Consumer Technology Association's Health Technology Board. He currently sits on AdvaMed's Digital Health Board and the Governing Committee for NESTcc, the medical device advisory group for FDA, CMS, and NIH.

ROBERT ROTHMAN, MD

Co-Founder and Co-Managing Member, InFocus Capital Partners

Dr. Robert Rothman is the Co-Founder and Co-Managing member of InFocus Capital Partners and InFocus Fund I. The fund is the first structured life-science entity for InFocus Capital Partners and has a 90% focus on ophthalmic investments. He is a glaucoma specialist at Glaucoma Consultants of Long Island / OCLI and a board-certified ophthalmologist and Clinical Assistant Professor of Ophthalmology at the Hofstra Northwell School of Medicine. Dr. Rothman's broad ranging background includes 25 years of clinical work, pharmaceutical and ophthalmic tech company consulting, start-up corporate governance and board participation, and health system business development. He has 20 years of venture capital deal sourcing, structuring and investing experience and has raised over $35 million for opportunities in a variety of areas.

PAISAN RUAMVIBOONSUK, MD

Clinical Professor of Ophthalmology, Rangsit University, Bangkok, Thailand

Dr. Ruamviboonsuk is former Presidents of the Royal College of Ophthalmologists of Thailand (2013–2016) and Thai Retina Society (2011–2014). He currently holds leadership positions in many ophthalmology societies in the Asia-Pacific: Vice-President of Asia-Pacific Teleophthalmology Society (APTOS), the Scientific Secretary of Asia-Pacific Vitreo-Retina Society (APVRS), Council Member of Asia-Pacific Academy of Ophthalmology (APAO), and the Secretary-General of Association of Southeast Asian Nations Ophthalmology Society (AOS).

He received several distinguished international lectureship awards, such as the 2024 APVRS Dennis Lam Award, the 2018 APAO Arthur Lim Award, and the 2023 APTOS Keynote Lecture. In 2019, he received Chainat-Narenthorn Award, the most prestigious award of the Ministry of Public Health of Thailand, given by H.M. King Rama X of Thailand. He also received AAO Achievement Award in 2018 and APAO Senior Achievement Award in 2024. His initiative on screening for diabetic retinopathy in Thailand since the early 2000s has become a national program and earned him the World Health Organization Sasakawa Health Prize in 2022.

PATRICIO SCHLOTTMANN, MD

Ophthalmology Director and Retina Specialist, Medical University, Head of Clinical Research, Charles Research Center of Ophthalmology

Patricio G. Schlottmann, MD, is the Ophthalmology Director and Retina Specialist at the Medical University, as well as Head of Clinical Research at the Charles Research Center of Ophthalmology in Buenos Aires, Argentina. He is also a Professor of Evidence-Based Medicine Advanced Course in Ophthalmology at the University of Buenos Aires and the Course Director for OCT and Images of the Argentina Society of Ophthalmology. He has served as the principal investigator for several landmark retina trials.

Dr. Schlottman serves as the Secretary of the Vitreoretinal Society of Argentina. He also is the Retina Section Editor of the Archives Spanish Society of Ophthalmology Journal and Editor-in-Chief of the Archives of the Argentinean Society of Ophthalmology Journal. He is a former Research Fellow at the Moorfields Eye Hospital, London, UK.

LEOPOLD SCHMETTERER, PHD

Professor, Singapore Eye Research Institute

Professor Leopold Schmetterer finished his PhD at the Technical University of Vienna in 1989. He is Scientific Director and Head of Ocular Imaging at Singapore Eye Research Institute, Professor of Ophthalmology at the National University of Singapore, and Professor of Biomedical Engineering at the Nanyang Technological University. Since 03/2020 he has held a named Professorship (SNEC/SERI Professorship in Ophthalmic Engineering & Technology) at Nanyang Technological University. He also holds guest professorships and the Institute of Ophthalmology in Basel and Foundation Rothschild in Paris. He is involved in many international societies including the European Association for Vision and Eye Research (EVER: president 2012 and president of the EVER Foundation 2014–2016) and the Association for Research in Vision and Ophthalmology (ARVO: program committee member 2009–2011 and member of the board of trustees since 2018, Vice-president 2025). He has published more than 520 papers in international journals including *Nature Biomedical Engineering, Nature Communications, Lancet Digital Health, npj Digital Medicine, Progress in Retinal and Eye Research, Ophthalmology, JAMA Ophthalmology, Diabetes, Diabetes Care, Diabetologia*, and *Neurology*. He has an h-index of 89.

URSULA SCHMIDT ERFURTH, MD

Professor and Chair, Department of Ophthalmology and Optometry, Medical University of Vienna, Austria, Leader OPTIMA laboratory for AI in image analysis

Ursula Schmidt-Erfurth, MD, is Professor of Ophthalmology at the Medical University of Vienna, Austria. Her clinical expertise includes surgical and medical retina. Her scientific research focuses on innovative techniques in retinal imaging with a focus on artificial intelligence (AI) and the translational introduction of novel diagnostic and therapeutic strategies in retinal disease. She founded the Vienna Reading Center and the Ophthalmic Image Analysis group (OPTIMA), an interdisciplinary team of computer scientists and retina experts. She holds several patents for the development of novel imaging analysis methods and has published more than 600 scientific peer-reviewed papers. She is a full member of the Austrian Academy of Sciences, the ethics board of the Federation of European Academies of Medicine (FEAM), the Macula Society, Retina Society, ASRS and the Club Gonin et al.

GREGORY SORENSEN, MD

DeepHealth

Dr. Gregory Sorensen is a leader in medical imaging and AI. He founded DeepHealth, an AI radiology company acquired by RadNet, where he current serves as Chief Science Officer, and also serves as Executive Chairman of IMRIS. He previously served on the Supervisory Board of Siemens Healthineers and is on the Supervisory Board of Fresenius Medical Care and the board of directors of RadNet. From 2011 to 2015, he was President and CEO of Siemens Healthcare North America. Earlier in his career, Dr. Sorensen was a neuroradiologist and Professor at Harvard Medical School with appointments at MIT and Oxford. He co-directed the Martinos Center for Biomedical Imaging at MGH, received NIH grants, and holds multiple patents.

JOSÉ AUGUSTO STUCHI, PHD, MBA

CEO and Co-Founder, Phelcom Technologies

Passionate about technology and innovation and CEO of Phelcom Technologies, a Brazilian technology-based startup that employs Physics, Electronics, and Computing to make visual health simpler, connected, and smart. PhD in Computer Engineering in the areas of Machine Learning and Computer Vision from University of Campinas (Unicamp), MBA in Business Management from Fundação Getúlio Vargas (FGV), master's degree in Electrical Engineering in the area of Computer Vision from University of São Paulo (USP) and a degree in Computer Engineering with an emphasis on Embedded Systems from USP. Experience of 15 years in software and hardware development, image and signal processing, computer vision, machine learning, management, innovation, marketing and business strategy.

GEOFFREY TABIN, MD

Fairweather Foundation Endowed Chair and Professor of Ophthalmology and Global Medicine, Stanford University, Founding Director, Himalayan Cataract Project

Geoff completed his undergraduate studies at Yale and then earned an MA in philosophy at Oxford as a Marshall Scholar. He attended Harvard Medical School for his MD, completed his ophthalmology residency at Brown University, and a cornea fellowship at Melbourne University in Australia. He then worked in Nepal with Dr. Sanduk Ruit teaching cataract surgery. In 1995 Drs. Tabin and Ruit founded the Himalayan Cataract Project which is working to eradicate preventable and curable blindness through high-quality ophthalmic care, education, and the establishment of world-class eye care infrastructure. In the ensuing 28 years, their program has directly cured over 1.4 million people of cataract blindness while establishing ophthalmology training programs in eleven countries in Asia and Africa.

Dr. Tabin is the author of "Blind Corners–Adventures on 7 Continents" (Lyons Press 2002) as well as four Ophthalmology textbooks including "Fighting Global Blindness." He has published more than 100 peer-reviewed academic articles and book chapters. He has been the recipient of numerous awards including the Einstein 100, Gold Humanism in Medicine, the American Academy of Ophthalmology Humanitarian Award, The ASCRS Chang/Crandall Humanitarian Award, The New York Times/Nicholas Kristoff Humanitarian Prize, and the Dalai Lama's Heroes of Compassion Award. He has been featured on multiple television programs including 60 Minutes, ABC News with David Muir, National Geographic Television, Discovery Channel, PBS, and NPR as well as being a guest on Late Night with David Letterman and "That's Incredible" for the invention of Bungee Jumping.

LICIA TAN, MD

Consultant Oculoplastic Surgeon, Singapore National Eye Centre

Dr. Tan Licia is a consultant at the Singapore National Eye Centre at the General Cataract and Comprehensive Ophthalmology department and Oculoplastics Service, and a Clinical Assistant Professor at the Singhealth Duke-NUS Ophthalmology and Visual Sciences Clinical Programme. Dr. Tan has been involved in research throughout her career and the publication of several research papers in respected peer review international medical journals such as Investigative Ophthalmology and Visual Sciences, with presentation of her work at international conferences. She is active in research, clinical sevrice, patient care and education of residents and fellows. Her research interest in artificial intelligence correlates mainly to its application to clinical care and exploring how artificial intelligence is transforming the landscape of the management of oculoplastics conditions.

DARREN SHU JENG TING, MBCHB, PGCHPE, PHD, CERTLRS, FRCOPHTH

Ageing, University of Birmingham, UK, Consultant Ophthalmologist in Cornea, Ocular Surface & Cataract, Birmingham and Midland Eye Centre, UK, Honorary Associate Professor of Ophthalmology, School of Medicine, University of Nottingham, UK, Adjunct Associate Professor of Ophthalmology, Duke-NUS Medical School, Singapore

Dr. Ting is a UK accredited, dual-trained, Honorary Associate Professor and Consultant Ophthalmologist with a subspecialty clinical and research interest in Cornea and Ocular Surface. He completed his 7-year ophthalmology specialist training in 2018 (with double gold medals in national exams) and his MRC / Fight for Sight-funded PhD in 2021. To date, he has secured ~£1 million as the Principal Investigator, >25 academic awards, and published more than 140 peer-reviewed publications, including in high-impact journals such as BMJ, Nature Medicine, Lancet, Lancet Microbe, Lancet EClinicalMedicine, PRER, Ophthalmology, and many others. His research interests span basic / translational research, clinical research, and systematic reviews, with a primary focus on cornea and ocular surface diseases, antimicrobial drug discovery and development, artificial intelligence, and digital health innovations.

VIJITHA S. VEMPULURU, MD

Consultant, Operation Eyesight Universal Institute for Eye Cancer, LV Prasad Eye Institute, India

Dr. Vempuluru is an ocular oncologist at the LV Prasad Eye Institute in India. She has a robust foundation in ocular oncology through two fellowship programs under Dr. Swathi Kaliki in India and Dr. Carol Shields in the USA. She is the first recipient of the International Victoria Cohen Scholarship Young Ocular Oncologists (2022) for aspiring ocular oncologists. She has been deeply involved in ocular oncology research and has authored 70 research articles and six book chapters related to ocular tumors. In a one-of-its-kind project, she worked on using artificial intelligence to diagnose retinoblastoma from fundus images.

MARIIA VISWANATHAN, MD, PHD, OPHTHALMOLOGIST

Vision Center of Excellence, DHA Research and Engineering

Mariia Viswanathan is an ophthalmologist and scientist with experience in research environments in addition to managing an eye care clinical practice. She received Doctor of Philosophy in Ophthalmology at the Filatov Institute of Eye Diseases and Tissue Therapy, Ukraine. She serves as Vision Care Research and Readiness section lead at the Vision Center of Excellence. The Vision Center of Excellence (VCE), a joint program of the Department of Defense (DoD) and the Department of Veterans Affairs (VA), leads and advocates for programs and research initiatives with three inter-related goals: Improve Vision Health, Optimize Readiness, and Enhance the Quality of Life for Service members and Veterans.

SIEGFRIED KARL WAGNER, BMBCH, MSC, PHD, MRCP, FRCOPHTH

Senior Research Fellow, UCL Institute of Ophthalmology, Retinal Fellow, Moorfields Eye Hospital, London, UK

Dr. Wagner is Senior Research Fellow at University College London and Fellow in Retina at Moorfields Eye Hospital. Dr. Wagner qualified in medicine from the University of Oxford, and subsequently completed an MSc in Epidemiology at the London School of Hygiene and Tropical Medicine and a PhD in ophthalmic informatics at University College London. His research is focused on the role of retinal imaging in noncommunicable diseases, particularly cardiovascular diseases and dementia. It falls into three main strands—mechanistic science, biomarker discovery, and the development of prediction models. He coordinates the AlzEye study, a large multimodal dataset linking retinal imaging at Moorfields Eye Hospital with national hospital admissions data for England.

JEFFREY J. WALLINE, OD, PHD

Acting Dean, The Ohio State University College of Optometry

Jeffrey J. Walline, OD, PhD is the Acting Dean at The Ohio State University College of Optometry. He received his Doctor of Optometry degree from the University of California, Berkeley School of Optometry, and his Master's and PhD degrees from The Ohio State University College of Optometry. Dr. Walline has led several pediatric contact lens studies, and he is the Study Chair of the Bifocal Lenses In Nearsighted Kids (BLINK and BLINK2) Studies, a National Eye Institute (NEI)-sponsored study of soft multifocal contact lens myopia control, and Co-Chair of the Delaying the Onset of Nearsightedness Until Treatment (DONUT) Study, an NEI-sponsored planning grant to prepare an application for a study to determine whether low concentration atropine can delay myopia onset.

LIXIA WANG, PHD

Principal, Amethyst Summit Corporation

Dr. Wang is a statistics scientist specializing in clinical trial design methodology and clinical development strategy and execution. Dr. Wang has been serving in the biotech and pharmaceutical companies for 30 years including Rigel Pharmaceutical, Intercept, CTI Biopharma, Novartis, and Merck. She was a recognized statistical leader in clinical development on innovative trial design, utilizing real-world data, and AI to expedite clinical development and regulatory approval. Dr. Wang is very passionate about using real-world data and AI to improve patients' diagnosis and treatment. She has led many initiatives on the topics. She was an invited speaker at the industry conferences. Dr. Wang has a PhD in Biostatistics, a master's in mathematics, and a bachelor's degree in electrical engineering.

JAMES WEILAND, PHD

Professor of Biomedical Engineering and Ophthalmology & Visual Sciences, University of Michigan

James Weiland received his PhD in Biomedical Engineering in 1997 from the University of Michigan. He joined the Wilmer Ophthalmological Institute at Johns Hopkins University in 1997 as a postdoctoral fellow and, in 1999, was appointed an assistant professor of ophthalmology at Johns Hopkins. Dr. Weiland was appointed assistant professor at the Doheny Eye Institute-University of Southern California in 2001. In 2017, Dr. Weiland was appointed as Professor of Biomedical Engineering (Medical School) and Ophthalmology & Visual Sciences at the University of Michigan. He is a Fellow of the American Institute of Medical and Biological Engineering and a Fellow of the IEEE. Dr. Weiland's research interests include retinal prostheses, neural prostheses, electrode technology, visual evoked responses, implantable electrical systems, and wearable visual aids for the blind.

NOELLE WHITESTONE, MHA

Director, Clinical Strategy & Impact, Orbis International

Noelle has built her career working at the intersection of healthcare and technology to get ambitious, cause-driven ideas off the ground in low-resource environments globally. She has worked with Orbis International for over 15 years across clinical services, global programs and research. Initially joining Orbis to support the design, build, and launch of the third-generation Flying Eye Hospital. She has continued to work in collaboration with global, cross-sector partners ranging from leaders in eye health, aviation, artificial intelligence (AI), and virtual reality (VR), to in-country hospitals, partner NGOs, and Ministries of Health to implement innovative technologies that support Orbis's work. She's had the opportunity to implement clinical AI platforms in under-resourced regions of the world and published research on AI's feasibility and acceptance and its positive impact on patient care and physician productivity.

RISA WOLF, MD

Associate Professor, Pediatric Endocrinology, Director, Pediatric Diabetes Center, Medical Director, Camp Charm City, Co-Chair, HBHI Workgroup on AI and Health Care, Kathleen Clancy-Leslie Plotnick, MD Clinical Care and Research Professor, Johns Hopkins University School of Medicine

Dr. Risa Wolf is an Associate Professor of Pediatrics and the Director of the Pediatric Diabetes Program at the Johns Hopkins University School of Medicine. She is an NIH-funded investigator and the principal investigator of the ACCESS trials implementing autonomous AI diabetic retinopathy screening in the pediatric population. Dr. Wolf has led studies on AI implementation, diagnostic accuracy, and cost-effectiveness. Dr. Wolf is a core faculty member of the Hopkins Business of Health Initiative (HBHI) and co-founder of the monthly AI on healthcare workshop. She has served as a member of the Collaborative Community for Ophthalmic Innovation on foundational principles for AI interpretation, and is a member of the American Diabetes Association Eye Health Committee.

TIEN YIN WONG, MPH, PHD, 黄天荫

Vice Provost, Tsinghua University, Beijing, China, Chair Professor and Senior Vice-Chancellor, Tsinghua Medicine, Tsinghua University Senior Advisor, SingHealth & Singapore National Eye Center, Singapore

Prof. Wong is an academic leader, innovator, and physician-scientist. He assumed the role of Chair Professor and Founding Head of Tsinghua Medicine at Tsinghua University in 2022. Over the past two decades, Prof. Wong has held multiple leadership positions, including Arthur Lim Professor and Medical Director of Singapore National Eye Center, Deputy Group CEO (Research and Education) at SingHealth, Vice-Dean of Duke-NUS Medical School, and Chair of Ophthalmology at NUS and the University of Melbourne. As a practicing retinal specialist, Prof. Wong has a prolific research portfolio on retinal diseases, ocular imaging, AI, and digital technology, with over 1,500 peer-reviewed papers and more than $100 million in grant funding. His accolades include the Arnall Patz Medal, Jose Rizal Medal, Friedenwald Award, and Singapore's President's Science and Technology Award. He is an elected member of the US National Academy of Medicine and the Australian Academy of Health and Medical Sciences.

MARIA (MIA) A. WOODWARD, MD, MSC

Associate Professor and Alan Sugar, M.D. Research Professor of Ophthalmology and Visual Sciences, Section Lead, Cornea, External Disease, & Refractive Surgery, University of Michigan

Dr. Woodward is a cornea specialist and a tenured Associate Professor at the University of Michigan. She is focused on healthcare delivery specifically for the anterior segment of the eye. Her research focuses on applying low-cost technologies and novel care models to address eye problems to improve patient outcomes, especially for vulnerable populations. She is the service lead for the Cornea Section. She currently serves on the Cornea Society board, The Cornea journal's senior editorial board, the AAO Intelligent Research in Sight (IRIS) research committee, and on the AAO council. She leads the AAO's Task Force on Ophthalmology and Community Health Centers. She has published 140 peer-reviewed articles and has been awarded grants from the NIH and Research to Prevent Blindness and received the Surgical Teaching award from the Kellogg residents.

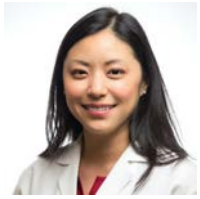
BENJAMIN Y. XU, MD, PHD

Associate Professor of Ophthalmology, Clinical Scholar; Director, Glaucoma Service; Direction, Data Science and Artificial Intelligence; University of Southern California

Benjamin Xu, MD, PhD received his BS from Yale University and MD and PhD in neuroscience from Columbia University. He then completed his ophthalmology residency at the USC Roski Eye Institute and glaucoma fellowship at the UCSD Shiley Eye Institute. He is now Associate Professor of Clinical Ophthalmology, Chief of the Glaucoma Service, and Director of Data Science and Artificial Intelligence (AI) at the USC Roski Eye Institute. His NIH-funded research focuses on developing novel diagnostic tools that enhance the detection and care of patients with or at risk for glaucoma using non-invasive ocular imaging and AI. He also studies the impact of glaucoma on diverse patient populations and healthcare systems using epidemiological and electronic healthcare data.

VIVIAN T. YIN, MD, MPH

Assistant Professor, University of British Columbia

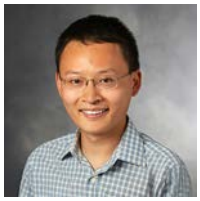


Dr. Vivian T. Yin is a clinical associate professor at the University of British Columbia specializing in ophthalmic plastic and reconstructive surgery. She worked at Memorial Sloan Kettering Cancer Center in New York and returned to Vancouver in Nov 2019. After completing her medical degree and ophthalmology residency at the University of Toronto, she pursued a prestigious 2-year fellowship training in Ophthalmic Plastics and Reconstructive Surgery at the University of Texas M.D. Anderson Cancer Center in Houston, Texas. She focuses on the treatment of periocular and orbital cancer, with the use of genetic-based targeted therapy and surgical innovations as her research interest, and speaks internationally on these topics. She is also involved with a clinical trial for thyroid eye disease in at UBC.

Dr. Yin also practices in global health with a Master's in Public Health from the Johns Hopkins Bloomberg School of Public Health. She generously donates her spare time to work towards eliminating preventable blindness. She has traveled to Bangladesh, the Philippines, Nepal, Tunisia and India to teach and provide surgical care for those in need. She is the current chair of the Canadian Association for Public Health and Global Ophthalmology and the COS representative to the International Council of Ophthalmology. She was chair and member of the board of directors for Seva Canada for six years.

JAMES ZOU, PHD

Associate Professor of Biomedical Data Science and, by courtesy, of Computer Science and of Electrical Engineering, Department of Biomedical Data Science, Stanford University



Dr. Zou is an Associate Professor of Biomedical Data Science and, by courtesy, of Computer Science and Electrical Engineering at Stanford University. He works on making AI more reliable, human-compatible, and statistically rigorous. He is especially interested in applications in human disease and health. He received his PhD from Harvard in 2014 and was once a member of Microsoft Research, a Gates Scholar at Cambridge, and a Simons fellow at UC Berkeley. Dr. Zou joined Stanford in 2016 and is a Chan-Zuckerberg Investigator. He is a part of the Stanford AI Lab. His research is supported by two Chan-Zuckerberg Biohub Investigator Awards, the Sloan Fellowship, the NSF CAREER Award, a Top Ten Clinical Achievement Award, and faculty awards from Google, Adobe, and Amazon.

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