CCOI

Maximizing the Impact of Ophthalmic Imaging and AI on Population Health: Health Equity, Reimbursement, and Interoperability

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

CONFERENCE PROGRAM

January 18–19, 2023

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

Hosted virtually by CCOI

JANUARY 19, 2023 | DAY 1: 7:00 AM–12:10 PM (5 HOURS 10 MIN)

7:00 AM–7:05 AM

INTRODUCTORY REMARKS BY CCOI PRESIDENT

Mark Blumenkranz, MD, MMS
HJ Smead Professor Emeritus Co-Director, Ophthalmic Innovation Program
Byers Eye Institute at Stanford

7:05 AM–8:30 AM

SESSION 1: HEALTH EQUITY, GLOBAL HEALTH, AND DEMOCRATIZATION

Session Chairs: **Michelle Tarver, MD, PhD** and **Malvina Eydelman, MD**

7:00 AM–7:10 AM

Advancing Health Equity: FDA/CDRH Perspective
Jeff Shuren, MD, JD
Director, Center for Devices and Radiological Health (CDRH)
US Food and Drug Administration

7:10 AM–7:20 AM

Advancing Health Equity throughout the Total Product Life Cycle of Medical Devices
Michelle Tarver, MD, PhD
Deputy Director, Office of Strategic Partnerships and Technology Innovation
Program Director for Patient Science, Digital Health Center of Excellence
US Food and Drug Administration

7:20 AM–7:30 AM

Fostering Inclusivity and Transparency in Ophthalmic Device Studies
Malvina Eydelman, MD
Director, Office of Health Technology 1
Ophthalmic, Anesthesia, Respiratory, ENT, and Dental Devices
Center for Devices and Radiological Health
US Food and Drug Administration

7:30 AM–7:40 AM

Health Equity and Its Importance in Ophthalmology: An Academy Perspective
Stephen McLeod, MD
Chief Executive Officer, American Academy of Ophthalmology
Professor and Chair Emeritus
Department of Ophthalmology
Francis I. Proctor Foundation
University of California, San Francisco

7:40 AM–7:50 AM

How Patient Organizations Help Close the Gap
Adrienne Graves, PhD
Director and Board Member
Glaucoma Research Foundation

7:50 AM–8:00 AM

Global Disparity in Retinoblastoma
Carol Shields, MD
Chief, Ocular Oncology
The Wills Eye Hospital at Thomas Jefferson University

8:00 AM–8:30 AM

Health Equity, Global Health, and Democratization: Panel Discussion and Q&A
Moderators: *Michelle Tarver, MD, PhD and Malvina Eydelman, MD*
Emmett T. Cunningham Jr., MD, PhD, MPH, Operating Partner at Blackstone Life Sciences
Adrienne Graves, PhD
Michael Lipnick, MD, Associate Professor, Anesthesia, School of Medicine, University of California, San Francisco
Stephen McLeod, MD
Carol Shields, MD

8:30 AM–8:45 AM **BREAK**

8:45 AM– 9:45 AM

SESSION 2: COVERAGE AND REIMBURSEMENT

Chairs: **Michael Abramoff, MD, PhD,** and **Michael X. Repka, MD, MBA**

8:45 AM–8:55 AM

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

8:55 AM–9:05 AM

Path to a Code and Reimbursement
Michael X. Repka, MD, MBA
David L. Guyton MD and Feduniak Family Professor of Ophthalmology, Johns Hopkins University
Medical Director for Government Affairs, American Academy of Ophthalmology

9:05 AM–9:45 AM

Coverage and Reimbursement Panel Discussion and Q&A
Moderators: *Michael Abramoff MD, PhD,* and *Michael X. Repka, MD, MBA*

Sebastian Caliri, BS, MS, Partner, 8VC
Emmett T. Cunningham Jr., MD, PhD, MPH, Blackstone Life Sciences
Anitra Graves, MD, Medical Director, Noridian Healthcare Solutions
Risa Wolf, MD, Associate Professor, Pediatric Endocrinology, Johns Hopkins University School of Medicine

9:45 AM–10:00 AM **BREAK**

10:00 AM–11:25 AM

SESSION 3: INTEROPERABILITY

Chairs: **Michael Chiang, MD** and **Aaron Lee, MD, MSc**

10:00 AM–10:10 AM

Introduction
Michael Chiang, MD
Director of the National Eye Institute, National Institutes of Health

and

Malvina Eydelman, MD
Director, Office of Health Technology 1
Ophthalmic, Anesthesia, Respiratory, ENT, and Dental Devices
Center for Devices and Radiological Health
US Food and Drug Administration

10:10 AM–10:20 AM

Significance of Image Interoperability (Clinical)
Michael Boland, MD, PhD
Associate Professor of Ophthalmology, Harvard Medical School,
Medical Director of Practice Innovation
Massachusetts Eye and Ear

10:20 AM–10:30 AM

Significance of Image Interoperability from a Research Perspective
SriniVas Sadda, MD, FARVO
Professor of Ophthalmology
Doheny Eye Institute
University of California, Los Angeles

10:30 AM–10:40 AM

Ophthalmic Clinical Data Standards and Common Data Models
Michelle Hribrar, PhD
Assistant Professor
Medical Informatics and Clinical Epidemiology
Oregon Health Sciences University

10:40 AM–10:50 AM

Imaging Standards, Why They Matter for AI
Aaron Lee, MD, MSc
Assistant Professor of Ophthalmology
Department of Ophthalmology
University of Washington

10:50 AM–11:00 AM

Interoperability: DICOM Standards on the Academy Website
Flora Lum, MD
Vice President, Quality and Data Science
American Academy of Ophthalmology

11:00 AM–11:25 AM

Interoperability Panel Discussion and Q&A

Moderators: *Kerry Goetz, PhDc* and *Aaron Lee, MD, MSc*

Michael Boland, MD, PhD
Michael Chiang, MD
Malvina Eydelman, MD
Kerry Goetz, PhDc, Associate Director, Office of Data Science and Health Informatics, National Eye Institute, National Institutes of Health
Michelle Hribrar, PhD
Flora Lum, MD
Micky Tripathi, PhD, MPP, National Coordinator for Health IT, US Department of Health and Human Services

11:25 AM–12:00 NOON

INDUSTRY PANEL 1—INDUSTRY CHALLENGES AND PERSPECTIVES: HEALTH EQUITY, REIMBURSEMENT, AND INTEROPERABILITY

Moderators: **Mark Blumenkranz, MD, MMS** and **Malvina Eydelman, MD**

Mark Blumenkranz, MD, MMS,
HJ Smead Professor Emeritus Co-Director, Ophthalmic Innovation Program,
Byers Eye Institute at Stanford

Malvina Eydelman, MD,
Director, Office of Health Technology 1, Ophthalmic, Anesthesia, Respiratory, ENT, and Dental Devices
Center for Devices and Radiological Health
US Food and Drug Administration

Kendra Hileman, PhD, Vice President, Head of Instrumentation R&D, Alcon
Chuck Hess, VP Commercial Development & Digital Health, Bausch and Lomb
Charles Reisman, Scientific Director and Head of Clinical Trials, Heidelberg Engineering
Rajesh K. Rajpal, MD, Chief Medical Officer and Global Head of Clinical and Medical Affairs, Johnson & Johnson Vision
Mary K. Darbin, PhD, Vice President of Clinical Science, Topcon
Ninju Manivannan, PhD, Head of Algorithm Development and Clinical Research, Carl Zeiss Meditec, Inc.

12:00 NOON–12:10 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 at Stanford
VA Palo Alto Health Care System

JANUARY 20, 2023 | DAY 2: 7:00 AM–12:50 PM (5 HOURS 50 MIN)

7:00 AM–7:05 AM

OPENING REMARKS BY CCOI TREASURER

Joel S. Schuman, MD
Elaine Langone Professor of Ophthalmology
Professor of Neuroscience and Physiology, Neural Science, Biomedical Engineering and Electrical and Computer Engineering
NYU Langone Health
NYU Grossman School of Medicine
NYU Tandon School of Engineering

7:05 AM–12:05 PM

SESSION 4: AI AND NEWER IMAGING MODALITIES: IMPACTS ON HEALTH DISPARITIES AND UNDER-SERVED POPULATIONS

7:05 AM–7:35 AM

GLOBAL HEALTH

7:05 AM–7:15 AM

Does Teleophthalmology Improve Health Equity During the War?
Dmytro Pavlenko, MD
Assistant Professor and PhD Student
Department of Ophthalmology
Comprehensive Ophthalmologist
Consultative and Diagnostic Outpatient Clinic of the University Clinic
Bogomolets National Medical University, Kyiv, Ukraine

7:15 AM–7:25 AM

Smartphone-Based Retinal Imaging for Improving Health Care in Low- and Middle-Income Countries
Maximilian W.M. Wintergerst, MD, FEBO
Assistant Professor of Ophthalmology (Priv.-Doz.)
Department of Ophthalmology
University of Bonn, Germany

7:25 AM–7:35 AM

A New Generation of Highly Practical and Accurate AI Screening Applications
Zack Dvey-Aharon, PhD
Co-Founder & CEO AEYE Health Inc.

7:35 AM–8:00 AM

OCULAR IMAGING: PHI AND PII?

Chairs: **Emily Y. Chew, MD** and **Joel S. Schuman, MD**

7:35 AM–7:40 AM

Introduction
Emily Y. Chew, MD
Director Division of Epidemiology and Clinical Applications
National Eye Institute, National Institutes of Health

and

Joel S. Schuman, MD
Elaine Langone Professor of Ophthalmology
Professor of Neuroscience and Physiology, Neural Science, Biomedical Engineering and Electrical and Computer Engineering
NYU Langone Health
NYU Grossman School of Medicine
NYU Tandon School of Engineering

7:40 AM–7:50 AM

Privacy and Ocular Biometrics
Michael Boland, MD, PhD
Associate Professor of Ophthalmology, Harvard Medical School,
Medical Director of Practice Innovation
Massachusetts Eye and Ear

7:50 AM–8:00 AM

Federated AI
Aaron Lee, MD, MSc
Assistant Professor of Ophthalmology Department of Ophthalmology,
University of Washington

8:00 AM–8:15 AM

OCULAR IMAGING: PHI AND PII? PANEL DISCUSSION AND Q&A

Moderators: **Emily Y. Chew, MD** and **Joel S. Schuman, MD**

Michael Boland, MD, PhD
Aaron Lee, MD, MSc

8:15 AM–8:55 AM

FUNDUS/RETINA AND AGE-RELATED MACULAR DEGENERATION

Chair: **Emily Y. Chew, MD**

Emily Y. Chew, MD
Director Division of Epidemiology and Clinical Applications
National Eye Institute, National Institutes of Health

8:15 AM–8:25 AM

AI-Based Instance Segmentation of Reticular Pseudodrusen, a Critical Phenotype in AMD
Zhichao Wu, BAppSc (Optom), PhD, FAAO, FACO
Head of Clinical Biomarkers Research, Centre for Eye Research Australia;
Honorary Principal Fellow (Associate Professor), The University of Melbourne

8:25 AM–8:35 AM

Can I See It through Your Eyes? Predicting Myocardial Infraction through Retinal Scans and Minimal Personal Information
Alejandro Frangi, PhD
Professor, Diamond Jubilee Chair in Computational Medicine
University of Leeds

8:35 AM–8:45 AM

GANSeg: Training Deep Learning Models to Work on Multiple Devices with No Additional Annotations
Yue Wu, PhD
Acting Instructor, Department of Ophthalmology, University of Washington

8:45 AM–8:55 AM

Hydroxychloroquine Retinopathy Screening: An Opportunity for Employing Diagnostic Assistance Tools
Cathy Cukras, MD, PhD
Lasker Clinical Research Scholar
Unit on Clinical Investigation of Retinal Disease
National Eye Institute, National Institutes of Health

8:55 AM–9:05 AM

Retinal Imaging and Dementia
Cecilia S. Lee, MD, MS
Associate Professor, Klorfine Family Endowed Chair in Ophthalmology
University of Washington

9:05 AM–9:15 AM

AI Tools in GA Monitoring and Prognosis from the Phase III Complement Inhibition Trials
Ursula Schmidt-Erfurth, MD
Professor and Chair, Department of Ophthalmology and Optometry, Medical University of Vienna, Austria, Director, Vienna Reading Center, Medical Director OPTIMA Laboratory for AI in Image Analysis

9:15 AM–9:30 AM

BREAK

9:30 AM–10:00 AM

RETINOPATHY OF PREMATURITY

Chair: **Michael Chiang, MD**

Michael Chiang, MD
Director of the National Eye Institute
National Institutes of Health

9:30 AM–9:40 AM

New Imaging Modalities in ROP (Implications for Diagnosis, Classification, AI)
J. Peter Campbell, MD, MPH
Assistant Professor of Ophthalmology
Oregon Health Sciences University
Casey Eye Institute

9:40 AM–9:50AM

Standards for Data Collection and Registries
Andreas Stahl, MD
Professor, Director—Clinic for Ophthalmology
Greifswald University Medical Center

9:50 AM–10:00 AM **Federated Learning in ROP**
Jayashree Kalpathy-Cramer, PhD
Chief, Division of Artificial Medical Intelligence in Ophthalmology
University of Colorado School of Medicine

10:00 AM–10:15 AM

RETINOPATHY OF PREMATURITY PANEL DISCUSSION AND Q&A

Moderator: **R.V. Paul Chan, MD, MBA**

J. Peter Campbell, MD, MPH
R.V. Paul Chan, MD, MBA, Chair, Department of Ophthalmology and Visual Sciences, The John H. Panton, MD Professor of Ophthalmology, The Illinois Eye and Ear Infirmary, University of Illinois at Chicago
Jayashree Kalpathy-Cramer, PhD
Andreas Stahl, MD

10:15 AM–11:00 AM

ONCOLOGY

Chair: **Carol Shields, MD**

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

10:15 AM–10:25 AM **AI and Retinoblastoma: An Update**
Swathi Kaliki, MD
Head, OEU Institute for Eye Cancer
LV Prasad Eye Institute

10:25 AM–10:35 AM **Development of an AI Model to Distinguish Choroidal Naevus from Melanoma Using the MOLES Scoring System**
Jared Ching
Ocular Oncology Fellow, Moorfields Eye Hospital, London
Visiting Research Fellow, Department of Engineering Science, University of Oxford
Honorary Senior Clinical Fellow, Cambridge University Hospital

10:35 AM–10:45 AM **AI Uveal Melanoma**
Ezekiel Weis, MD
Provincial Medical Lead—Alberta Ocular Brachytherapy Program
Graduate Program Director, Department of Ophthalmology, University of Alberta
Professor, Department of Ophthalmology, Faculty of Medicine and Dentistry, University of Alberta
Clinical Professor, Department of Surgery, Faculty of Medicine, University of Calgary

10:45 AM–11:00 AM **Oncology Panel Discussion and Q&A**
Moderator: *Swathi Kaliki, MD*

Jared Ching
Ezekiel Weis, MD

11:00 AM–11:15 AM **BREAK**

11:15 AM–11:45 AM **GLAUCOMA**

Chair: **Joel S. Schuman, MD**

Joel S. Schuman, MD
Elaine Langone Professor of Ophthalmology
Professor of Neuroscience and Physiology, Neural Science, Biomedical Engineering and Electrical and Computer Engineering
NYU Langone Health
NYU Grossman School of Medicine
NYU Tandon School of Engineering

11:15 AM–11:25 AM **Achieving Equity through Use of AI for Glaucoma**
Nazlee Zebardast, MD, MSc, FRCSC
Assistant Professor of Ophthalmology
Massachusetts Eye and Ear Infirmary
Harvard Medical School

11:25 AM–11:35 AM **Making Glaucoma Screening Feasible, Equitable and Affordable**
Anthony Khawaja, MD
Consultant, Ophthalmic Surgeon
Moorfields Eye Hospital
Honorary Senior Research Associate
University College London, Institute of Ophthalmology

11:35 AM–11:45 AM **Predicting Glaucoma Progression Using AI—How Far into the Future Can We See?**
Xiulan Zhang MD, PhD
Professor of Ophthalmology, Zhongshan Ophthalmic Center
Sun yat-sen University, Guangzhou, China

11:45 AM–12:05 AM **GLAUCOMA PANEL DISCUSSION AND Q&A**

Moderator: **Joel S. Schuman, MD**

Anthony Khawaja, MD
Nazlee Zebardast, MD
Xiulan Zhang MD, PhD

12:05 PM–12:40 PM

INDUSTRY PANEL 2—INDUSTRY CHALLENGES AND PERSPECTIVES: CLINICAL TRIAL APPLICATIONS WITH ATTENTION TO POPULATION HEALTH CONSIDERATIONS

Moderator: **Mark Blumenkranz, MD, MMS** and **David W. Parke II, MD**

Mark Blumenkranz, MD, MMS, HJ Smead Professor Emeritus Co-Director, Ophthalmic Innovation Program, Byers Eye Institute at Stanford

David W. Parke II, MD, CEO Advisor, American Academy of Ophthalmology, Executive Chairman, Verana Health

Michael D. Abràmoff, MD, PhD, Founder and Executive Chairman, Digital Diagnostics
Daniela Ferrara, MD, PhD, FASRS, Principal Medical Director, Ophthalmology Lead, Product Development, Personalized Healthcare Program, Genentech, Inc.
Pravin U. Dugel, MD, President, Iveric Bio
Farshid Sepehrband, PhD, MSEE, Senior Staff Scientist, Early Clinical Development at Regeneron Pharmaceuticals, Inc.
Lawrence Whittle, Chief Commercial Officer, Verana Health

12:40 PM–12:50 PM

CLOSING REMARKS

Robert M. Califf, MD, MACC
Commissioner, US Food and Drug Administration

2023 CCOI CONFERENCE ORGANIZING COMMITTEE

Mark S. Blumenkranz, MD, MMS

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 and 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.

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 development of more than 50 international and national standards, oversaw 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 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.

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 (formerly IDx)

Dr. Abramoff is an American ophthalmologist, computer scientist and entrepreneur. He is 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.

Emily Chew, MD

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

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.

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 T*ranslational 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.

David Myung, MD, PhD

Associate Professor of Ophthalmology and, by courtesy, Chemical Engineering, Director—Ophthalmic Innovation Program, Director—STATUS program, Byers Eye Institute at Stanford and VA Palo Alto Health Care System

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 also 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 X. Repka, MD, MBA

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 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.

Joel S. Schuman, MD

Elaine Langone Professor of Ophthalmology, Professor of Neuroscience and Physiology, Neural Science, Biomedical Engineering and Electrical and Computer Engineering, NYU Langone Health, NYU Grossman School of Medicine, NYU Tandon School of Engineering

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 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 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 world-wide 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.

Carol Shields, MD

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 1800 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 5 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.

Michelle Tarver, MD, PhD

Deputy Director, Office of Strategic Partnerships and Technology Innovation, Program Director for Patient Science, Digital Health Center of Excellence, 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 review 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, developing patient-reported outcome measures as well as surveys to capture patient preferences with medical devices.

INVITED SPEAKERS AND PANELISTS

Michael Boland, MD, PhD

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

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.

Robert M. Califf, MD, MACC

Commissioner, US Food and Drug Administration

Dr. Robert M. Califf was confirmed earlier this year as the 25th Commissioner of Food and Drugs.

As Commissioner, Dr. Califf oversees the full breadth of the US FDA portfolio and execution of the Federal Food, Drug, and Cosmetic Act and other applicable laws. This includes assuring the safety, effectiveness, and security of human and veterinary drugs, vaccines and other biological products for human use, and medical devices; the safety and security of our nation's food supply, cosmetics, dietary supplements, products that give off electronic radiation; and the regulation of tobacco products.

Dr. Califf has had a long and distinguished career as a physician, researcher, and leader in the fields of science and medicine. He is a nationally recognized expert in cardiovascular medicine, health outcomes research, health care quality, and clinical research, and a leader in the growing field of translational research, which is key to ensuring that advances in science translate into medical care.

This is Dr. Califf's second stint as Commissioner. He also served in 2016 as the 22nd Commissioner. Before assuming the position at that time, he served as the US FDA's Deputy Commissioner for Medical Products and Tobacco.

Prior to rejoining the US FDA in 2022, Dr. Califf was head of medical strategy and Senior Advisor at Alphabet Inc., contributing to strategy and policy for its health subsidiaries Verily Life Sciences and Google Health. He joined Alphabet in 2019, after serving as a professor of medicine and vice chancellor for clinical and translational research at Duke University. He also served as director of the Duke Translational Medicine Institute and was the founding director of the Duke Clinical Research Institute.

Dr. Califf is a graduate of Duke University School of Medicine. He completed a residency in internal medicine at the University of California, San Francisco and a fellowship in cardiology at Duke.

Sebastian Caliri, BS, MS

Partner, 8VC

Sebastian leads 8VC's healthcare team, investing in and building health-IT and health services businesses such as Cityblock, Oscar, Elemy, Galileo, Commure, and Digital Diagnostics. Prior to 8VC, Sebastian led the healthcare division at Palantir where he helped numerous insurance, pharmaceutical, provider, and government clients solve their hardest data analysis problems.

Sebastian completed a year of the MD program at Stanford University and holds a BS and MS, magna cum laude, in Molecular Biophysics and Biochemistry from Yale University.

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.

Jared Ching, MD, PhD

Ocular Oncology Fellow, Moorfields Eye Hospital, London; Visiting Research Fellow, Department of Engineering Science, University of Oxford; Honorary Senior Clinical Fellow, Cambridge University Hospital

Dr. Jared Ching is currently a Fellow in Ocular Oncology at Moorfields Eye Hospital, Visiting Research Fellow at the Department of Engineering Science at the University of Oxford, and Senior Clinical Fellow at the Cambridge University Hospitals. Jared completed his ophthalmology residency at Cambridge University Hospitals. His research endeavours have focused on cancer cell biology and neuroscience having pursued a Research Fellowship at the Departments of Neurosurgery and Neurology at the University of Melbourne. He then worked at Institute of Medical Sciences, University of Aberdeen the fields of neural stem cell and glioblastoma electric field cell migration under Professor Colin McCaig before being awarded a NIHR Academic Clinical Fellowship at the University of Cambridge where he undertook further laboratory and animal research in the John Van Geest Centre for Brain Repair and MRC Mitochondrial Biology Unit. Currently, he is a Co-Principle Investigator with Professor Zhong You at the University of Oxford, investigating novel surgical devices for ocular surgery and holds several patents from this work. He is now investigating with Professor Mandeep Sagoo and Professor Bertil Damato, the use of AI for differentiating uveal melanoma and choroidal naevi in a collaboration with Stanford University.

Catherine Cukras, MD, PhD

Lasker Scholar and Investigator, Head of Unit on Clinical Investigation of Retinal Disease, Division of Epidemiology Clinical Research, Ophthalmic Genetics and Visual Function Branch, National Eye Institute, NIH

Dr. Catherine Cukras is a Lasker Clinical Research Scholar and clinical investigator at the National Eye Institute, National Institutes of Health (NIH) in Bethesda, Maryland. She is also a NIH Distinguished Scholar. She completed her undergraduate studies at Princeton University and obtained her combined MD/PhD degrees from Washington University in St. Louis. She completed her ophthalmology residency at Scheie Eye Institute at the University of Pennsylvania. She then completed a medical retina fellowship training at the National Eye Institute. Cathy Cukras serves as the Principal Investigator initiating and leading both non-interventional and interventional studies on retinal disease spanning monogenetic disease, age-related macular degeneration (AMD) and drug toxicities. She is a member of the program committee for the Association for Research in Vision and Ophthalmology (ARVO).

Mary K. Darbin, PhD

Vice President of Clinical Science, Topcon

Mary Darbin, PhD, is Topcon's VP of Clinical Science, leading clinical development and the use of big data to drive innovation. She has more than 20 years' experience in advanced development, R&D and clinical development for medical devices, with 15 of that in the ophthalmic diagnostics space. Most of her career was spent at Zeiss working on innovations such as OCT progression analysis and OCT Angiography. She was most recently Chief Scientific Officer at Heru, where she helped deliver multiple new vision testing modalities in a virtual augmentation headset. She has more than ninety publications in peer-reviewed journals and seventeen patents.

Pravin U. Dugel, MD

President, Iveric Bio

Dr. Dugel was previously Managing Partner, Retinal Consultants of Arizona and the Retinal Research Institute; Clinical Professor, USC Eye Institute, Keck School of Medicine, University of Southern California; and Founding Member, Spectra Eye Institute in Sun City, Arizona. Dr. Dugel has authored more than 200 papers, 35 book chapters, and is internationally recognized as a major clinical researcher and has been a principal investigator in over 100 multicenter clinical trials.

Dr. Dugel graduated Summa cum Laude from Columbia University in New York City, then attended UCLA School of Medicine, then residency in ophthalmology at the USC Eye Institute, Keck School of Medicine. Thereafter, he completed his medical retina fellowship at the Bascom Palmer Eye Institute and his surgical retina fellowship at the USC Eye Institute.

Zack Dvey-Aharon, PhD

CEO at AEYE Health Inc.

Dr. Dvey-Aharon is a leading artificial intelligence expert, machine learning evangelist, and the founder, CEO, and chief scientist of AEYE Health Inc. Previously to founding AEYE Health, Dr. Dvey-Aharon served for several years in the Israeli Intelligence, founded two successful AI companies, and worked with hundreds of companies to tackle their data science challenges.

AEYE Health's latest achievement is the recent US FDA clearance of AEYE-DS, the best-in-class autonomous diabetic retinopathy screening solution. AEYE-DS features efficacy previously unseen by over a thousand data science teams and unprecedented practicality breakthroughs, including the use of a single image per eye, virtually perfect imageability, and only rarely needing dilation to complete the screening.

Dr. Dvey-Aharon started his academic life at the age of 12 and received his PhD machine learning degree from Tel-Aviv University.

Daniela Ferrara, MD, PhD, FASRS

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

Daniela Ferrara, MD, PhD, FASRS is ophthalmologist retina specialist with more than 25 years of experience in clinical research and clinical practice.

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 Ophthalmology lead for the Personalized Healthcare program at Genentech, working with multidisciplinary teams o develop a pipeline of artificial intelligence-based tools to inform key decisions in drug development and patient care.

Dr. Ferrara is 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

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 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 development of structured data capture forms using FHIR, co-leads the Eye Care and Vision Research OHDSI OMOP Working Group, the American Academy of Ophthalmology Standards Working Group, and the DICOM Working Group 9 aligning imaging standards.

Adrienne Graves, PhD

Director and Board Member, Glaucoma Research Foundation

Dr. Adrienne Graves is a visual scientist by training and a global industry leader in ophthalmology. Formerly the CEO of Santen Inc., Dr. Graves currently serves as Board Chair at Iveric Bio, and Board Director at Qlaris Bio, Nicox S.A., Surface Ophthalmics, Opus Genetics, Oxurion, TherOptix, and Greenbrook TMS. She also serves as Director on the following Foundation Boards: American Society of Cataract and Refractive Surgery (ASCRS) Foundation, Glaucoma Research Foundation, American Academy of Ophthalmology Foundation (Emeritus), Retina Global, Himalayan Cataract Project, and Foundation Fighting Blindness (FFB). Dr. Graves co-founded Glaucoma 360 and serves as Chairman of the RD (Retinal Degeneration) Fund. Her recent honors include the Visionary Award from Foundation Fighting Blindness, the Catalyst Award from Glaucoma Research Foundation, the Visionary Award from OWL, the Bernice Brown Memorial Lecture and award from Women in Ophthalmology, and The Ophthalmologist 2021 Power List. Dr. Graves received an AB with Honors in Psychology from Brown University, a PhD in Psychobiology/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 at the Ophthalmic Innovation Program at Stanford University.

Kendra Hileman, PhD

Vice President, Head of Instrumentation Research and Development, Alcon

Kendra Hileman has over 28 years of experience in research and development for ophthalmic medical devices and pharmaceutical products. Dr. Hileman is currently Head of Instrumentation R&D at Alcon in 2020 where she leads the engineering teams responsible for development of optometric, cataract, refractive, and vitreoretinal surgical and diagnostic equipment. Prior to that position, she was Vice President, Head of Clinical Research & Development at Alcon. In this role, she had responsibility for the design and execution of clinical studies to support global regulatory and post-market studies. She led all functions of clinical research including clinical project leadership, global medical affairs, biostatistics, data management, statistical programming, medical writing, and clinical study public disclosure. She previously held similar clinical research roles at Abbott Medical Optics and Johnson & Johnson Vision.

Michelle Hribar, PhD, MS

National Institutes of Health and Medical Informatics and Ophthalmology at Casey Eye Institute at OHSU

Dr. Michelle Hribar is a DATA Scholar at the National Institutes of Health and an Associate Professor of Medical Informatics and Ophthalmology at Casey Eye Institute at OHSU. She was originally trained as a computer scientist and worked at NASA in their high performance computing division before eventually retraining as a medical informaticist at OHSU. Her NIH grant funded research has focused exclusively on informatics in ophthalmology, specifically in the reuse of electronic health record data for research. She is currently on a sabbatical at the National Institutes of Health where she is leading a national effort in improving the standardization of ophthalmic clinical data, including serving as co-chair of the OHDSI Eye Care and Vision Research workgroup.

Swathi Kaliki, MD

Head, OEU Institute for Eye Cancer, LV Prasad Eye Institute, India

Dr. Kaliki is the Head of Ocular Oncology services at the Operation Eyesight Universal Institute for Eye Cancer, LV Prasad Eye Institute, India. She has delivered more than 150 lectures in various national and international forums, published more than 200 peer-reviewed articles, contributed to more than 10 textbooks, and is an Ocular Oncology Section Editor for two international journals.

She is a recipient of the prestigious Shakuntala Amir Chand Prize from the Indian Council of Medical Research and the IAPB Vision Excellence Award 2020 for her contribution to the field of ocular oncology. She is also the brain behind "Whitathon", an annual running event creating awareness about retinoblastoma and raising funds to support the treatment of children from financially distressed families with this deadly eye cancer.

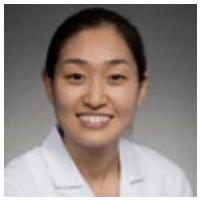
Anthony Khawaja, PhD, FRCOphth

Associate Professor and Honorary Consultant Ophthalmic Surgeon at Moorfields Eye Hospital and UCL Institute of Ophthalmology

Anthony Khawaja is an Associate Professor and Honorary Consultant Ophthalmic Surgeon at the UCL Institute of Ophthalmology and Moorfields Eye Hospital, London, UK. He is currently a UK Research and Innovation Future Leaders Fellow. Anthony's research training began with a Wellcome Trust funded PhD programme at the University of Cambridge, including a Berkeley Fellowship supported period at Harvard Medical School. Anthony's research interests concern the genetic and environmental causes of glaucoma and his ultimate aim is to develop prediction models that can enable efficient population screening of glaucoma and more personalised care of glaucoma patients in the clinic. Recent awards include American Academy of Ophthalmology Senior Achievement and Secretariat Awards, and a National Health Service Bronze National Clinical Excellence Award.

Cecilia S. Lee, MD, MS

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



Dr. Lee is an Associate Professor and the Klorfine Family Endowed Chair in Ophthalmology at University of Washington, Seattle, Washington. She specializes in medical retina and uveitis and serves as the Director of Clinical Research at the Department of Ophthalmology.

Dr. Lee received NIH/NEI K23 Career Development Award and has several NIH funded grants. She serves as the principal investigator of Eye Adult Changes in Thought (ACT) study. Her research interests include Big Data, ophthalmic imaging, retinal biomarkers of Alzheimer's disease, and clinical epidemiology. Dr. Lee is extensively published.

Dr. Lee is certified by the American Board of Ophthalmology and a fellow of the American Academy of Ophthalmology. Dr. Lee serves on the Editorial Board of the *American Journal of Ophthalmology, Ophthalmology Science*, the *American Academy of Ophthalmology's Eyenet* and Journal of Alzheimer's Disease.

Michael Lipnick, MD

Anesthesiologist and Critical Care Physician at the University of California, San Francisco

Michael Lipnick, MD is an anesthesiologist and critical care physician at UCSF. His interests center around the intersection of critical care, perioperative care, and health equity. Michael co-founded the UCSF Center for Health Equity in Surgery and Anesthesia and is currently co-Director of the UCSF World Health Organization Collaborating Center for Emergency, Critical, and Operative Care. During the COVID-19 pandemic, Michael collaborated with USAID and multiple implementing partners to support critical care and oxygen ecosystem strengthening in multiple settings. Michael is an investigator in the UCSF Hypoxia Lab and leads the Open Oximetry Project to help improve access to safe pulse oximeters by ensuring characterization and communication of the impacts of skin pigment and perfusion on pulse oximetry performance.

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, the Foundation of the American Academy of Ophthalmology. She has overseen the Academy's IRIS® Registry (Intelligent Research in Sight) since its initiation, which has collected over 397 million patient visits on over 70 million patients as of October 1, 2021, and reported on quality measures for over 10,000 NPI/TIN combinations since 2017. 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 served as consultant for an Intraocular Lens Registry funded by the US Food and Drug Administration. She oversees the quality of care and evidence-based activities of the Hoskins Center, including Preferred Practice Patterns, Ophthalmic Technology Assessments, Medicare data claims analyses, 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 directed the Academy's health information technology activities, including 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 development of criteria for ophthalmology-specific electronic health records.

Niranchana Manivannan, PhD

Head of Algorithm Development and Clinical Research, Carl Zeiss Meditec, Inc.

Dr. Manivannan is the Head of Algorithm Development and Clinical Research at Carl Zeiss Meditec, Inc. Her team is responsible for developing clinical applications for ophthalmic imaging technologies and for developing algorithmic solutions for OCT, fundus, and function testing modalities. She completed her undergraduate at the College of Engineering, Guindy, and her PhD in Electrical and computer engineering at The Ohio State University. She has a background in radiology and in developing AI solutions for ophthalmic diagnostics.

Stephen D. McLeod, MD

Chief Executive Officer, American Academy of Ophthalmology, Professor and Chair Emeritus, Department of Ophthalmology, Francis I. Proctor Foundation, University of California, San Francisco

Dr. McLeod is Chief Executive Officer for the American Academy of Ophthalmology and Professor and Chair Emeritus in the Department of Ophthalmology at the University of California, San Francisco. He pursued his undergraduate degree at Dartmouth College, followed by his medical doctorate degree at the Johns Hopkins University School of Medicine. He completed ophthalmology residency at the Illinois Eye and Ear Infirmary of the University of Illinois in Chicago, followed by fellowship training in cornea, external disease and refractive surgery at the Doheny Eye Institute.

Dr. McLeod is former Chair of the Ophthalmic Devices Panel of the Medical Devices Advisory Committee of the Food and Drug Administration. He has served as a member of the National Advisory Eye Council of the National Institutes of Health, on the Council of the American Ophthalmological Society, and on the Board of Directors of the American Board of Ophthalmology. Dr. McLeod is former Editor-in-Chief for the AAO's flagship peer review journal *Ophthalmology*.

David W. Parke II, MD

CEO, American Academy of Ophthalmology and Executive Chairman, Verana Health

Dr. Parke currently serves as the Chief Executive Officer of the American Academy of Ophthalmology. Previously, he was president and chief executive officer of the Dean McGee Eye Institute and Edward L. Gaylord Professor and Chair of the Department of Ophthalmology at the University of Oklahoma. He has been a member of the board of directors of the Ophthalmic Mutual Insurance Company, MedEncentive, Inc, Academic Physicians Insurance Company and of Medem, Inc. Dr. Parke's has also served terms as president of the American Academy of Ophthalmology, the Association of University Professors of Ophthalmology, the Council of Medical Specialty Societies, and as director of the American Board of Ophthalmology. He is currently Executive Chair of Verana Health, Inc.

Dmytro Pavlenko, MD

Assistant Professor and PhD Student—Department of Ophthalmology, Comprehensive Ophthalmologist—Consultative and Diagnostic Outpatient Clinic of the University Clinic, Bogomolets National Medical University, Kyiv, Ukraine

Dr. Pavlenko is a comprehensive ophthalmologist from Ukraine who is combining clinical practice with academic teaching, research, and volunteering. Previously, he received various trainings in the Czech Republic, Serbia, Spain, Austria, and the United States including his recent postdoctoral research fellowship at the Massachusetts Eye and Ear and Harvard Medical School. His research is mainly focused on OCT and OCTA imaging of the retina and optic disc but currently, he is also dedicated to investigating the impact of war on ocular health and the accessibility of eye care services.

Rajesh K. Rajpal, MD

Chief Medical Officer, Global Head of Clinical and Medical Affairs, Johnson & Johnson Vision

Rajesh Rajpal, MD is Chief Medical Officer and Global Head of Clinical and Medical Affairs for Johnson & Johnson Vision. In this role, Dr. Rajpal leads the integration of rapidly evolving medical and clinical insights into new product development to address unmet needs of patients and eye care professionals around the world. He also oversees clinical trials and the generation of surgical and vision care evidence and serves as the critical liaison to government agencies and to the academic, scientific, and industry communities.

Dr. Rajpal joined Johnson & Johnson Vision in 2020 from Avedro (acquired by Glaukos), where he served as Chief Medical Officer. Active in research and professional education, Dr. Rajpal 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 currently holds appointments on the clinical faculties of Georgetown and George Washington University Medical Centers and serves as the Cornea Consultant to the Walter Reed National Military Medical Center. He is the founder of and practices at the See Clearly Vision Group, an ophthalmology and optometry group practice with multiple offices in the Washington, DC area.

Charles Reisman

Scientific Director and Head of Clinical Trials, Heidelberg Engineering

Charles Reisman serves as Scientific Director at Heidelberg Engineering, covering the company's various imaging products with an emphasis on its research activities. Charles also heads up the Clinical Trials team with inputs into the company's regulatory activities. He has a strong background in research and development, having developed leading commercial spectral domain and swept source optical coherence tomography (OCT) systems and features.

SriniVas Sadda, MD, FARVO

Professor of Ophthalmology, Doheny Eye Institute, UCLA

SriniVas R. Sadda, MD, is the Director of Artificial Intelligence & Imaging Research at the Doheny Eye Institute, and Professor of Ophthalmology at the University of California, Los Angeles (UCLA) Geffen School of Medicine. He is the immediate past President of the Doheny Eye Institute. He received his MD from Johns Hopkins University, where he also completed ophthalmology residency and neuro-ophthalmology and medical retina fellowships (Wilmer Eye Institute).

Dr. Sadda's major research interests include retinal image analysis, advanced retinal imaging technologies, and clinical trial endpoint design. He has more than 650 peer-reviewed publications and 20 book chapters, and has given over 450 presentations worldwide. Dr. Sadda is Editor-in-Chief of the 7th Edition of *Ryan's Retina*. He also serves as an Editor-in-Chief of *Graefe's Archive for Clinical and Experimental Ophthalmology* and is an editorial board member of *Ophthalmic Surgery, Lasers & Imaging, Retina, Ophthalmology Retina, Ophthalmology Science and Ophthalmology*.

Ursula Schmidt-Erfurth, MD

Professor and Chair, Department of Ophthalmology and Optometry, Medical University of Vienna, Austria, Director, Vienna Reading Center, Medical Director OPTIMA Laboratory for AI in Image Analysis

Ursula Schmidt-Erfurth is Professor and Chair of the Department of Ophthalmology at the Medical University of Vienna, Austria. Professor Schmidt-Erfurth's clinical activities include surgical and medical retina. Her scientific research focuses on the development of innovative diagnostic techniques in retinal imaging such as artificial intelligence (AI) and the clinical introduction of novel therapeutic strategies in retinal disease. She is the founder and scientific director of the Vienna Reading Center (VRC), an independent institution for digital imaging performing image analysis for over 800 clinical sites worldwide and also the leader of the OPTIMA project, a Christian Doppler Laboratory for AI-based Ophthalmic Image Analysis. She was pioneering in bringing photodynamic therapy for neovascular AMD from bench to bedside. In the era of anti-VEGF therapy, she introduced automated AI-based fluid monitoring into clinical practice with regulatory approval. In geographic atrophy (GA), her papers on photoreceptor loss as a primary event and the trigger for lesion progression have a substantial impact on understanding and managing GA disease with complement inhibition as a novel break-through. She holds several patents for the development of novel imaging analysis methods. She has published more than 520 scientific papers in peer reviewed journals and 14 book chapters. She is a full member of the Austrian Academy of Sciences, vice president of the Academia Europea and a member of the ethics board of data sharing and analysis of the Federation of European Academies of Medicine (FEAM). She has received multiple awards such as the Richard and Hinda Rosenthal Award of the Macula Society, the Roger Johnson Award for Macular Research of the University of Washington, the Carl Zeiss Research Award by the Fraunhofer Gesellschaft/Germany, the Donald Gass Award of the Retina Society and the Arnall Patz Medal of the Macula Society.

Farshid Sepehrband, MSEE, PhD

Senior Staff Scientist, Clinical Imaging, Early Clinical Development, Regeneron

Farshid is a Senior Staff Scientist at Early Clinical Development at Regeneron. He serves as the imaging lead in clinical development studies including neurology and ophthalmology. Prior to joining Regeneron, Farshid was a Research Professor of Neurology at Stevens Neuroimaging and Informatics Institute of University of Southern California. Farshid has a PhD in Biomedical Engineering and Neuroscience from Queensland Brain Institute of the University of Queensland, Australia. His research focuses on combining modern data science, such as AI and computational modeling, with advanced clinical imaging techniques, in order to inform clinical development.

Jeff Shuren, MD, JD

Director, Center for Devices and Radiological Health (CDRH), US Food and Drug Administration

Jeff Shuren, MD, JD is the Director of the Center for Devices and Radiological Health (CDRH) at US FDA. He previously served as Acting Center Director. Dr. Shuren has held various policy and planning positions within US FDA from 1998 to 2009, including Acting Deputy Commissioner for Policy, Planning, and Budget; Associate Commissioner for Policy and Planning; and Special Counsel to the Principal Deputy Commissioner. Dr. Shuren is board certified in Neurology and served as an Assistant Professor of Neurology at the University of Cincinnati. In 1998, Dr. Shuren joined US FDA as a Medical Officer in the Office of Policy. In 2000, he served as a detailee on the Senate HELP Committee. In 2001, he became the Director of the Division of Items and Devices in the Coverage and Analysis Group at the Centers for Medicare and Medicaid Services. From 1998 to 2003, he served as a Staff Volunteer in the National Institutes of Health's National Institute of Neurological Disorders and Stroke Cognitive Neuroscience Section supervising and designing clinical studies on human reasoning. Dr. Shuren returned to US FDA as the Assistant Commissioner for Policy in 2003, and assumed his current position in September 2009.

Andrew Stahl, MD, FEBO

Director, Ophthalmology Clinic and Polyclinic, University Medicine Greifswald

Dr. Stahl studied Medicine at the University of Freiburg and Imperial College London. He was a Research Fellow at Harvard Medical School from 2008–2010. Since 2019, he is Chair and Head of the Department of Ophthalmology at University Medicine Greifswald, Germany. His main research interests are retinal disease, particularly retinopathy of prematurity (ROP), and AI-assisted diagnosis and prediction of retinal disease.

Micky Tripathi, PhD, MPP

National Coordinator for Health Information Technology, US Department of Health and Human Services

Micky Tripathi is the National Coordinator for Health Information Technology at the US Department of Health and Human Services, where he leads the formulation of the federal health IT strategy and coordinates federal health IT policies, standards, programs, and investments. Dr. Tripathi has over 20 years of experience across the health IT landscape. He holds a PhD in political science from the Massachusetts Institute of Technology, a Master of Public Policy from Harvard University, and an AB in political science from Vassar College.

Ezekiel Weis

Professor of Ophthalmology, University of Alberta; Clinical Professor of Surgery, University of Calgary; Provincial Medical Lead—Alberta Ocular Brachytherapy Program; President—Canadian Society of Oculoplastic and Reconstructive Surgeons; Graduate Program Director—Department of Ophthalmology, University of Alberta; Fellowship director, Orbit, Oculoplastics, and Ocular Oncology, University of Calgary

Graduated from medical school, Calgary, 2000. Graduated Ophthalmology residency, University of Alberta, 2005. Completed Masters of Public Health, in quantitative methods, Harvard University, Boston. Completed 3 fellowships in oculoplastics (Ottawa), Orbital disease and Ocular Oncology (Vancouver, under the supervision of Dr. J. Rootman), Orbital disease (Amsterdam Medical Centre, Amsterdam).

Over 70 peer-reviewed publications, 10 book chapters, 30 invited lectures, >100 research presentations, many mentoring and teaching awards.

President Canadian Society of Oculoplastic and Reconstructive surgeons.

Areas of research include early detection of uveal melanoma. Advanced radiation therapeutics for uveal melanoma. Prognostication in ocular oncology. Treatment of complicated thyroid-related orbitopathy. Corneal neurotization. Advancing surgical techniques for advanced oncologic disease.

Maximilian W. M. Wintergerst, MD, FEBO

Assistant Professor of Ophthalmology (Priv.-Doz.), Department of Ophthalmology, University of Bonn

Dr. Wintergerst is a consultant Ophthalmologist and his research focus is ophthalmic imaging and image analysis including low-cost approaches to improve health care in low- and middle-income countries. He is director of the Hospital Partnership Program of the University Hospital Bonn and the Sankara Eye Hospital Bangalore, India, and also heads international projects in Nigeria, Ghana, and Bangladesh. He conducted his habilitation thesis on the evaluation of Smartphone-based fundus imaging for ophthalmologic examination. For his commitment to international eye care, he has received numerous awards and grants including the eXcellence in Ophthalmology Vision Award (XOVA) by Novartis, three Health Partnership Global grants by the German Federal Ministry for economic cooperation and development (BMZ) and the Else Kröner-Fresenius-Foundation (EKFS), and two tropical Ophthalmology research grants by the German Ophthalmic Society (DOG).

Lawrence Whittle

Chief Commercial Officer, Verana Health

Lawrence Whittle, Chief Commercial Officer at Verana Health, is responsible for driving market positioning and customer success. His remit spans a multitude of stakeholders, leading medical society engagement, healthcare provider experience, and life sciences partnerships, as well as the marketing and quantitative sciences functions to elevate awareness and value across the care continuum.

Lawrence has more than 25 years of experience as a senior executive within technologies companies spanning different industries, including Data Analytics and Life Sciences. His deep expertise in commercialization has covered elevating company positioning, driving sustainable customer value through deep in-market partnerships, and nurturing strong collaborations across all key functions of the business. His experience in early- and mid-stage companies has resulted in two IPOs and two M&A transactions.

Risa Wolf, MD

Associate Professor of Pediatrics, Division of Pediatric Endocrinology, Johns Hopkins Medicine

Dr. Risa Wolf is an Associate Professor of Pediatrics in the Division of Pediatric Endocrinology at the Johns Hopkins University School of Medicine. She is an NIH funded investigator with research focused on using innovative technologies to improve outcomes in pediatric diabetes. As the first investigator to implement autonomous artificial intelligence (AI) based diabetic retinopathy screening in the pediatric population, she has led studies on implementation, diagnostic accuracy and cost-effectiveness. With NEI funding, she is conducting multiple clinical trials to determine if autonomous AI based retinopathy screening improves overall screening rates and mitigates disparities in underserved youth with diabetes. She is a core faculty member of the Hopkins Business of Health Initiative (HBHI) studying the impact of AI on healthcare, and is also a member of the American Diabetes Association Eye Health Committee.

Yue Wu, PhD

Acting Instructor, Department of Ophthalmology, University of Washington

Yue Wu is an Acting Instructor in the Department of Ophthalmology at the University of Washington. He completed his BA in statistics at Harvard University and then earned his PhD in engineering from the University of Cambridge. He joined the Lee Lab in 2017. His scientific interests include statistics, probability, graphical models, Monte Carlo and Sequential Carlo methods, and deep learning.

Zhichao Wu, BAppSc (Optom), PhD, FAAO, FACO

Head of Clinical Biomarkers Research, Centre for Eye Research Australia; Honorary Principal Fellow (Associate Professor), The University of Melbourne

Zhichao Wu is a Principal Investigator and Head of Clinical Biomarkers Research at the Centre for Eye Research Australia (CERA), whose research focuses on expediting the discovery of new treatments and prevention of irreversible vision loss from conditions such as age-related macular degeneration and glaucoma.

Nazlee Zebardast, MD, MSc, FRCSC

Assistant Professor of Ophthalmology, Medical Director, Glaucoma Imaging, Massachusetts Eye and Ear Infirmary, Harvard Medical School

Dr. Zebardast is a glaucoma specialist and assistant professor of Ophthalmology and director of Glaucoma Imaging at Mass Eye and Ear and Harvard Medical School. Her research focuses on developing precision medicine-based tools for disease detection, aiding clinicians in assessing for disease progression and eventually optimizing patient-related outcomes. She is currently working to define image-based and longitudinal endophenotypes for glaucoma using machine learning methods and to understand the genetic underpinning of vision loss in this blinding disease. This work aims to combines clinical phenotypes and genetic background to improve assessment of disease risk for any individual.

Dr. Zebardast was selected for the NIH/NEI-funded K12 Harvard-Vision Clinical Scientist Training Program as well as the Gliklich Innovation Scholarship program in 2019. She is currently funded by an NIH K23 career development award, an NIH R21 award, the Research to Prevent Blindness Career development award and the American Glaucoma Society clinician scientist award.

Xiulan Zhang, MD, PhD

Professor of Ophthalmology, Zhongshan Ophthalmic Center (ZOC), Sun yat-sen University, Guangzhou, China

Prof. Xiulan Zhang, MD, PhD, glaucoma specialist, is currently at Zhongshan Ophthalmic Center, Sun Yat-sen University, China. She was among the Top 30 and Top 50 Experts in Worldwide Glaucoma Expertscape 2019-2021 and She was listed as the Top 100 most influential people in ophthalmology Power List in 2014. She is a board member of APGS and APOIS. She was awarded the Distinguished Service Award of APAO in 2021, and the Prestigious Achievement Award of Ophthalmic Image Analysis in 2019.

Prof. Zhang has published 168 SCI articles, with H-index of 42. She created iGlaucoma, an integrated intelligent glaucoma screening platform based on AI and multimodal imaging (*NPJ Digital Medicine* 2020; *Ophthalmology* 2022 Jan; *Ophthalmology* 2022 Feb; and *Journal of Clinical Investigation* 2022 Jun). Prof Zhang founded a massive annotated public database "iChallenge" (https://ichallenges.grand-challenge.org/) The database covers major blinding diseases including glaucoma, AMD, PM, and DR.

Prof. Zhang has published four self-authored books by People's Medical Publishing House, and the Chinese translation of 10 books of the *WGA Consensus Series*. She has given invited lectures 698 times domestically and overseas.

CCOI APPRECIATES THE GENEROUS CONTRIBUTION OF OUR SPONSORS

Platinum-Level Sponsors

Genentech
A Member of the Roche Group

IVERIC bio

Gold-Level Sponsor

REGENERON
SCIENCE TO MEDICINE®

ZEISS

Silver-Level Sponsors

Alcon
SEE BRILLIANTLY

BAUSCH + LOMB

DIGITAL DIAGNOSTICS
AI the right way.

HEIDELBERG ENGINEERING

TOPCON Healthcare

Verana Health

Contributor

Johnson & Johnson VISION

CCOI ANNUAL CONFERENCE SPONSORSHIP OPPORTUNITIES

Annual Conference Supporters enable the Foundation to facilitate the attendance of more scientists at various career levels—while helping to keep attendee registration fees low.