



# **Expanding Datasets for Digitally Enhanced Management of Eye Diseases: Patient-Generated Data, Generative AI, 4D Imaging, and other Alternate Data Streams**

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

## **CONFERENCE PROGRAM**

**January 18–19, 2024**

**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 18, 2024 | DAY 1: 7:00 AM–1:40 PM (6 HOURS 40 MINUTES)

7:00 AM–7:10 AM

#### INTRODUCTORY REMARKS BY CCOI PRESIDENT

##### **Mark Blumenkranz, MD, MMS**

*HJ Smead Professor Emeritus Co-Director, Ophthalmic Innovation Program  
Byers Eye Institute at Stanford*

7:10 AM–8:10 AM

#### SESSION 1: GENERATIVE AI

Session Chair: **Aaron Lee, MD, MSc**

7:10 AM–7:23 AM

##### **Gen AI in Ophthalmology**

*Daniel Ting, MBBS, PhD*

Singapore Eye Research Institute and Byers Eye Institute at Stanford

7:23 AM–7:31 AM

##### **Large Language Models in Ophthalmology**

*Fares Antaki, MDCM, FRCSC*

Fellow in Artificial Medical Intelligence, Moorfields Eye Hospital and UCL Institute of Ophthalmology

7:31 AM–7:39 AM

##### **LLMs for Good and for Evil**

*Aaron Lee, MD, MSc*

Assistant Professor of Ophthalmology

Department of Ophthalmology

University of Washington

7:39 AM–7:47 AM

##### **Generative AI for Pupilated Retinal Photographs Image Enhancement**

*Tham Yih Chung, PhD*

Population Data Science Co-lead & Optometry Education Program  
Director, Centre for Innovation & Precision Eye Health, Department of Ophthalmology, Yong Loo Lin School of Medicine, National University of Singapore

7:47 AM–7:55 AM

##### **Medicus Ex Machina: Safely Integrating Generative AI into Healthcare**

*Sebastian Jayaraj, PhD*

Digital Health Specialist, Food and Drug Administration

7:55 AM–8:10 AM

##### **Generative AI: Panel Discussion and Q&A**

Moderator: **Aaron Lee, MD, MSc**

8:10 AM–9:10 AM

#### SESSION 2: PATIENT-GENERATED DATA

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

##### *Malvina Eydelman, MD*

Director, Office of Health Technology 1

Ophthalmic, Anesthesia, Respiratory, ENT, & Dental Devices Center for Devices and Radiological Health, Food and Drug Administration

*Michelle Tarver, MD, PhD*

Deputy Director, Office of Strategic Partnerships and Technology Innovation  
Program Director for Patient Science, Digital Health Center of Excellence  
Food and Drug Administration

8:10 AM–8:25 AM

**Patient-Generated Health Data: Role in Evidence Generation**

*Anindita Saha*

Assistant Director, Digital Health Center of Excellence, Food and Drug Administration

8:25 AM–8:35 AM

**Seeing the Power of Novel Data Streams in the Digital Era of Healthcare**

*Jennifer Goldsack, MChem, MA, MBA, OLY*

CEO, Digital Medicine Society (DiMe)

8:35 AM–8:45 AM

**Health Tech Horizons: Harnessing the Power of Patient-Generated Data and Generative AI for Better Outcomes**

*Shilpa Venkatachalam, PhD, MPH*

Director, Patient-Centered Research Operations and Ethical Oversight, President, GHLF, North Africa, Global Healthy Living Foundation

8:45 AM–8:55 AM

**Collection of Patient-Generated Data with the IRIS Registry**

*Flora Lum, MD*

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

8:55 AM–9:10 AM

**Patient-Generated Data: Panel Discussion and Q&A**

Moderators: *Michelle Tarver, MD, PhD*; and  
*Malvina Eydelman, MD*

9:10 AM–9:20 AM

**BREAK**

9:20 AM–10:20 AM

**SESSION 3: ALTERNATIVE DATA STREAMS**

Session Chairs: **Lama Al-Aswad, MD, MPH**; and  
**Malvina Eydelman, MD**

*Malvina Eydelman, MD*

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

9:20 AM–9:30 AM

**Decision Intelligence Management of Eye Care**

*Lama Al-Aswad, MD, MPH*

Professor of Ophthalmology  
Scheie Eye Institute  
Department of Ophthalmology  
University of Pennsylvania School of Medicine

9:30 AM–9:40 AM

**Using Synthetic Data for AI/ML Model Development**

*Vinay Pai, PhD, MBA*

Digital Health Specialist, Digital Health Center of Excellence, Food and Drug Administration

9:40 AM–9:50 AM	<b>The Importance of Alternative Data Streams for Precision Medicine</b> <i>Ranya Habash, MD</i> CEO, LifeLong Vision Special Purpose Acquisition Company Chief Medical Officer of Everbridge Co-Founder of HipaaChat
9:50 AM–10:00 AM	<b>Pearls/Pitfalls of Working with Healthcare Claims Data</b> <i>Brian L. VanderBeek, MD, MPH</i> MSCE, Assistant Professor in Ophthalmology Retina Service, Scheie Eye Institute, University of Pennsylvania
10:00 AM–10:10 AM	<b>Creating Powerful Datasets through Novel Data Linkage</b> <i>Pearse Keane, MD, FRCOPHT</i> Consultant Ophthalmologist, Moorfields Eye Hospital NHS Foundation Trust, Associate Professor, University College London (UCL) Institute of Ophthalmology
10:10 AM–10:20 AM	<b>Alternative Data Streams: Panel Discussion and Q&amp;A</b> Moderators: <i>Lama Al-Aswad, MD, MPH</i> ; and <i>Malvina Eydelman, MD</i>
10:20 AM–11:20 AM	<b>SESSION 4: 4D IMAGING</b> Session Chair: <b>Joel S. Schuman, MD, FACS</b>  <i>Joel S. Schuman, MD, FACS</i> 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
10:20 AM–10:35 AM	<b>Advances in Optical Coherence Tomography for Autonomous Imaging and Image-Guided Microsurgery</b> <i>Joseph A. Izatt, PhD</i> Michael J. Fitzpatrick Distinguished Professor of Engineering Professor of Biomedical Engineering Chair of the Department of Biomedical Engineering Professor in Ophthalmology Faculty Network Member of the Duke Institute for Brain Sciences Core Faculty in Innovation & Entrepreneurship
10:35 AM–10:45 AM	<b>Multimodality Technologies for 4D Imaging of Ophthalmic Dynamics</b> <i>Yuankai K. Tao, PhD</i> Associate Professor, Dept. Biomedical Engineering Director of Graduate Recruiting SPIE Faculty Fellow in Optics and Photonics
10:45 AM–11:00 AM	<b>Megahertz OCT for High Definition 4D Imaging Beyond Structural Contrast</b> <i>Robert Huber, Prof., PhD</i> Director, Chair, Institute of Biomedical Optics Universität zu Lübeck, Germany
11:00 AM–11:20 AM	<b>4D Imaging: Panel Discussion and Q&amp;A</b> Moderator: <i>Joel S. Schuman, MD, FACS</i>

11:20 AM–11:30 AM

## BREAK

11:30 AM–12:30 PM

## SESSION 5: REGULATING AI/ETHICS/EQUITY

Session Chairs: **Malvina Eydelman, MD**; and **Michael Abramoff, MD, PhD**

*Malvina Eydelman, MD*

Director, Office of Health Technology 1

Ophthalmic, Anesthesia, Respiratory, ENT, & Dental Devices Center for Devices and Radiological Health, Food and Drug Administration

11:30 AM–11:40 AM

### How to Include Invisible Populations in Clinical Trials in the Future

*Michael Abramoff, MD, PhD*

Robert Watzke Professor in Retina Research and Electrical and Computer Engineering

University of Iowa

Founder and Executive Chairman, Digital Diagnostics

11:40 AM–11:50 AM

### Ethical Considerations Integrating AI into Clinical Practice

*Danton S. Char, MD*

Assistant Professor of Anesthesiology, Stanford University

11:50 AM–12:00 Noon

### What Are We Regulating When We Regulate AI

*Ziad Obermeyer, MD*

UC Berkeley School of Public Health

12:00 Noon–12:10 PM

### Use and Equity of Artificial Intelligence Devices for Diabetic Retinopathy: Leveraging the Real-World Data from the IRIS® Registry

*Flora Lum, MD*

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

12:10 PM–12:17 PM

### Collaborative Efforts to Support FDA Regulation of AI-Enabled Medical Devices

*Kathryn Drzewiecki, PhD*

Office of Policy, Center for Devices and Radiological Health Food and Drug Administration

12:17 PM–12:30 PM

### Regulating AI/Ethics/Equity: Panel Discussion and Q&A

Moderators: **Malvina Eydelman, MD**; and

**Michael Abramoff, MD, PhD**

12:30 PM–1:30 PM

## INDUSTRY PANEL 1—IMAGING SOFTWARE AND DATA

Moderator: **Michael Abramoff, MD, PhD**

*Michael Abramoff, MD, PhD*

Robert Watzke Professor in Retina Research and Electrical and Computer Engineering

University of Iowa

Founder and Executive Chairman, Digital Diagnostics

*Sam Kavusi, PhD*, Head of Retina Imaging and Teleretinal Integration, Verily Health

*Rajesh K. Rajpal, MD*, Chief Medical Officer, Global Head of Clinical and Medical Affairs, Johnson & Johnson Vision

*Charles Reisman*, Scientific Director and Head of Clinical Trials, Heidelberg Engineering

*David Rhew, MD*, Global Chief Medical Officer & VP of Healthcare, Microsoft

*Steve Schallhorn*, Carl Zeiss Meditec, Inc.

*Lawrence Whittle*, President, Verana Health

1:30 PM–1:30 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 19, 2024 | DAY 2: 7:00 AM–1:50 PM (6 HOURS 50 MINUTES)

7:00 AM–7:05 AM

## OPENING REMARKS BY CCOI TREASURER—NEXT 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

7:05 AM–8:05 AM

## SESSION 6: DATA HARMONIZATION/INTEROPERABILITY/ INTEGRATION

Session Chair: **Michael Chiang, MD**

7:05 AM–7:11 AM

### **Introduction**

*Michael Chiang, MD*

Director of the National Eye Institute, National Institutes of Health

7:11 AM–7:20 AM

### **Common Data Models**

*Michelle Hribar, PhD*

NEI DATA Scholar and Associate Professor, Oregon Health & Science University

7:20 AM–7:29 AM

### **Implementing a Distributed Data Network Study in Ophthalmology**

*Cindy Cai, MD*

The Jonathan and Marcia Javitt Rising Professor, Assistant Professor of Ophthalmology, Wilmer Eye Institute, Johns Hopkins University School of Medicine

7:29 AM–7:38 AM

### **Multi-Modal Data Harmonization**

*Paul Nagy, PhD, FSIIM (Nah-Gee)*

Director of Education, Biomedical Informatics and Data Science  
Associate Professor of Medicine, Radiology, Public Health, and Biomedical Engineering  
Schools of Medicine, Public Health, and Engineering

7:38 AM–7:47 AM	<b>Data Harmonization in Enterprise Imaging Systems</b> <i>Alexander J. Towbin, MD, FAAP, FACR, FSIM</i> Associate Chief Medical Information Officer, Cincinnati Children's Hospital Medical Center
7:47 AM–8:05 AM	<b>Data Harmonization/Interoperability/Integration: Panel Discussion and Q&amp;A</b> Moderator: <i>Kerry Goetz, MS</i>  <i>Kerry Goetz, MS</i> Associate Director Office of Data Science and Health Informatics, NEI
8:05 AM–8:35 AM	<b>SESSION 7. AI AND DIGITAL HEALTH DATA INTEROPERABILITY: CONSIDERATIONS FOR THE PRACTICING CLINICIAN: AN ORGANIZATIONAL PERSPECTIVE, PANEL DISCUSSION AND Q&amp;A</b> Session Moderator: <b>Michael X. Repka, MD, MBA</b>  <i>Michael X. Repka, MD, MBA</i> David L. Guyton MD and Feduniak Family Professor of Ophthalmology, Johns Hopkins University Medical Director for Government Affairs, American Academy of Ophthalmology  <i>Bruce Allan, MD, FRCS</i> , Chair ESCRS Digital Health Special Interest Group  <i>Stephen D. McLeod, MD</i> , Chief Executive Officer, American Academy of Ophthalmology, Professor and Chair Emeritus, Department of Ophthalmology, Francis I. Proctor Foundation, University of California, San Francisco  <i>David W. Parke II, MD</i> , Executive Chair, Verana Health  <i>Paisan Ruamviboonsuk, MD</i> , Clinical Professor of Ophthalmology, College of Medicine, Rangsit University, Thailand; Council Member of Asia-Pacific Academy of Ophthalmology; Committee member of Thai Retina Society
8:35 AM–8:45 AM	<b>BREAK</b>
8:45 AM–11:00 AM	<b>SESSION 8: WORKING GROUP UPDATES</b>
8:45 AM–9:05 AM	<b>FUNDUS/RETINA AND AGE-RELATED MACULAR DEGENERATION</b> Chair: <b>Emily Y. Chew, MD</b>  <i>Emily Y. Chew, MD</i> Director Division of Epidemiology and Clinical Applications National Eye Institute, National Institutes of Health
8:45 AM–8:55 AM	<b>Benchmark Dataset for Age-Related Macular Degeneration</b> <i>Amitha Domalpally, MD, PhD</i> Assistant Professor, Department of Ophthalmology and Visual Sciences, University of Wisconsin, Madison

8:55 AM–9:05 AM	<b>Towards Continuous Disease Severity Grades Using Machine Learning</b> <i>Aaron Lee, MD, MSc</i> Assistant Professor of Ophthalmology Department of Ophthalmology University of Washington
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## 9:05 AM–9:30 AM **GLAUCOMA**

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

*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

9:05 AM–9:25 AM	<b>Real-World Implementation of Artificial Intelligence for Glaucoma Detection: Early Results and Future Implementation</b> <i>Linda M. Zangwill, PhD</i> Professor of Ophthalmology in Residence UC San Diego Health, Shiley Eye Institute
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9:25 AM–9:30 AM	<b>Glaucoma Panel Discussion and Q&amp;A</b> Moderator: <i>Joel S. Schuman, MD, FACS</i>
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## 9:30 AM–9:50 AM **Ocular: PHI and PII?**

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

*Emily Y. Chew, MD*

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

*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

9:30 AM–9:40 AM	<b>Update from the Committee on Ophthalmic Imaging and PII/PHI: The Status of Retinal Images</b> <i>Michael Boland, MD, PhD</i> Associate Professor of Ophthalmology, Harvard Medical School, Medical Director of Practice Innovation Massachusetts Eye and Ear
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9:40 AM–9:50 AM	<b>Ocular: PHI and PII? Panel Discussion and Q&amp;A</b> Moderators: <i>Emily Y. Chew, MD; and Joel S. Schuman, MD, FACS</i>
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Additional Panelist: *Aaron Lee, MD, MSc*

Assistant Professor of Ophthalmology, Department of Ophthalmology  
University of Washington

9:50 AM–10:10 AM

## ONCOLOGY

Chair: **Carol Shields, MD**

*Carol Shields, MD*

Chief, Ocular Oncology

Wills Eye Hospital, Thomas Jefferson University

9:50 AM–9:57 AM

### **AI in the Judgement of Choroidal Nevus Growth into Melanoma**

*Lauren A. Dalvin, MD*

Associate Professor, Ocular Oncology Service, Department of Ophthalmology, Joint Appointment in Medical Oncology Mayo Clinic

9:57 AM–10:04 AM

### **Large Language Models in Ocular Oncology: Potential and Pitfalls**

*Antonio Yaghy, MD*

New England Eye Center, Tufts University Medical Center

10:04 AM–10:10 AM

### **Oncology Panel Discussion and Q&A**

Moderator: *Carol Shields, MD*

10:10 AM–10:30 AM

## RETINOPATHY OF PREMATURITY

Chair: **Michael Chiang, MD**

10:10 AM–10:11 AM

### **Introduction**

*Michael Chiang, MD*

Director of the National Eye Institute, National Institutes of Health

10:11 AM–10:18 AM

### **Potential Bias in AI Algorithms**

*Jayashree Kalpathy-Cramer, PhD*

Professor, Ophthalmology, Department of Ophthalmology University of Colorado School of Medicine

10:18 AM–10:25 AM

### **AI-Based Quantitative Scale for ROP Diagnosis**

*J. Peter Campbell, MD, MPH*

Associate Professor of Ophthalmology, School of Medicine, Oregon Health & Science University

10:25 AM–10:30 AM

### **Panel Discussion and Q&A**

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

*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 at the University of Illinois at Chicago

10:30 AM–11:00 AM

## FOUNDATIONAL PRINCIPLES OF AI

Chair: **Michael Abramoff, MD, PhD**

10:30 AM–10:45 AM

### **Health Equity, AI, and Bias: Regulatory Considerations**

*Michael Abramoff, MD, PhD*

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

10:45 AM–11:00 AM

### **International Collaboration in Advancing the Work on Standardization of Methodology for AI in Ophthalmology and Role of National Eye Institute**

*Gyan “John” Prakash, MSc, MS, PhD, MBA, FAICO*  
Director, Office of International Program Activities (OIPA)  
National Eye Institute

11:00 AM–11:10 AM

## **BREAK**

11:10 AM–12:10 PM

## SESSION 9: DIGITAL IMAGING, ROBOTICS, AND AI FOR SURGERY

Chair: **Mark Blumenkranz, MD, MMS**

*Mark Blumenkranz, MD, MMS*

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

11:10 AM–11:20 AM

### **Global Trend of AI in Ophthalmology**

*Daniel Ting, MBBS, PhD*

Singapore Eye Research Institute and Byers Eye Institute at Stanford

11:20 AM–11:30 AM

### **Endoscopic Applications in Ophthalmology**

*Mikhail Boukhny, PhD*

Vice President, Research and Development, BVI Medical

11:30 AM–11:40 AM

### **Simulation-Based Training: Current Strategies and Controversies**

*Bonnie A. Henderson, MD*

Clinical Professor, Tufts University School of Medicine  
Past President, American Society of Cataract and Refractive Surgery  
President/CEO, HelpMeSee

11:40 AM–11:50 AM

### **New Developments in Vitreoretinal Surgery, 3D Viewing Systems, and Robotics**

*Maria H. Berrocal, MD, FASRS*

CEO Drs Berrocal & Associates, Associate Professor University of Puerto Rico, Past President Pan-American Vitreo-Retinal Society

11:50 AM –12:10 PM

### **Developing Algorithms to Assess Meibomian Gland Structure from Infrared Meibography Images Using Deep-Learning Convolutional Neural Networks**

*Charles Scales, PhD*

Digital Health Lead  
Director, RWD Operations & Analytics  
Medical Affairs  
Johnson & Johnson Vision

12:10 PM–1:10 PM

## INDUSTRY PANEL 2—VIEW FROM THE TOP

Moderator: **Mark Blumenkranz, MD, MMS**

*Mark Blumenkranz, MD, MMS*

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

*Olaf Felske, CEO, Haag-Streit USA*

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

*Chuck Hess*, Global Vice President, Commercial Development & Digital Health, Bausch and Lomb

*Kendra Hileman*, Vice President, Head of Instrumentation Research and Development, Alcon

*Shervin Korangy*, President and CEO, BVI Medical

*David W. Parke II, MD*, Executive Chair, Verana Health

*Farshid Sepehrband, PhD, MSEE*, Associate Director, Clinical Imaging, Early Clinical Development, Regeneron Pharmaceuticals, Inc.

1:10 PM–1:40 PM

### KEYNOTE SPEAKER:

### THE FUTURE OF EVIDENCE GENERATION & THE ROLE OF OPHTHALMIC IMAGING

**Amy Abernethy, MD, PhD**

*President of Product Development and Chief Medical Officer, Verily*

1:40 PM–1:50 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*

## 2024 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 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 *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.

## 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**

**Kenneth L. Roper, MD Endowed Chair and Professor of Ophthalmology, Vice Chair for Research Innovation Co-Director, Glaucoma Service, The Wills Eye Hospital at Thomas Jefferson University**



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

### Amy P. Abernethy, MD, PhD

**President of Product Development and Chief Medical Officer, Verily**



Amy P. Abernethy, MD, PhD is the President of Product Development and Chief Medical Officer at Verily, where she leads teams in the development and delivery of solutions that bridge the gap between clinical research and care. Before joining Verily, Dr. Abernethy was Principal Deputy Commissioner and Acting Chief Information Officer of the US Food & Drug Administration. Prior roles include serving as CMO/CSO of Flatiron Health and multiple roles at Duke University, where she was Professor of Medicine. Dr. Abernethy went to the University of Pennsylvania and then Duke University Medical School, and received her PhD from Flinders University in Australia.

### 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 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.

### Bruce Allan, MD, FRCS

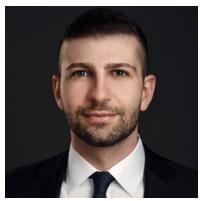
**Consultant, Ophthalmic Surgeon, Moorfields Eye Hospital**



Professor Bruce Allan qualified in medicine from Cambridge in 1985, and was appointed as a Consultant Surgeon at Moorfields in 1998 after advanced specialist training in the UK, South Africa, and Australia. He was Training Director for the Corneal Service at Moorfields for over 10 years, and Service Director for Refractive Surgery from 2012 to 2019. He is currently chairing the Royal College of Ophthalmologists Refractive Surgery Standards Working Group and the European Society of Cataract and Refractive Surgeons (ESCRS) Digital Health Special Interest Group. He is an ESCRS Council and EU Cornea board member.

## **Fares Antaki, MDCM, FRCSC**

### **Fellow in Artificial Medical Intelligence, Moorfields Eye Hospital and UCL Institute of Ophthalmology**



Dr. Antaki is a board-certified ophthalmologist from Montreal, Canada. He earned his medical degree from McGill University in 2018. During his ophthalmology residency at the University of Montreal, he served as Chief Resident and published over 40 peer-reviewed articles. He also received numerous research and teaching awards (COS, ASRS, ARVO) and graduated as Valedictorian across all residency specialties in 2023. Currently, he is a Fellow in Artificial Medical Intelligence at the Moorfields Eye Hospital and UCL Institute of Ophthalmology in London, UK, working with Prof. Pearse Keane. His research focuses on the applications of artificial intelligence and virtual reality in ophthalmology.

## **María H. Berrocal, MD, FASRS**

### **CEO Drs Berrocal & Associates, Associate Professor University of Puerto Rico, Past President Pan-American Vitreo-Retinal Society**



Dr. María H. Berrocal completed her vitreo-retinal training at the Department of Ophthalmology NYH/Cornell University and a medical retina fellowship with Dr. J Donald Gass at Bascom Palmer Eye Institute and was a Heed Fellow awardee.

She has received the AAO Lifetime Achievement Award, Senior Achievement Award, and ASRS Senior Honor Award, and the Doctors Choice Award yearly since 2002. Dr. Berrocal has been an invited speaker and visiting surgeon in over 20 countries. She has received the ASRS Founders Award, Stanley Chang Lectureship, the J Donald Gass Lectureship, the ARDS Founders Award, Fundadores Lecture SPRV, VBS Keynote Speaker, Bryan Liddy Lecture, Robison B Harley Lecture, Frank Spellman lecture, José Berrocal Memorial Lecture, and the Navas Lectureship. She has authored and co-authored over 180 articles and book chapters.

## **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.

## **Mikhail Boukhny, PhD**

### **Senior Vice President, Head of Research and Development, BVI**

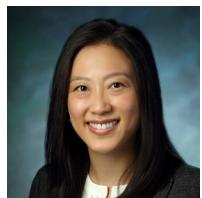


Mikhail Boukhny has over 29 years of experience in research and development of ophthalmic surgical devices. Dr. Boukhny has been leading global R&D at BVI since 2021, which includes cataract, vitreoretinal, glaucoma and a very diverse portfolio of consumable products. Prior to that, Mikhail was heading Carl Zeiss Surgical R&D and was responsible for IOLs, Cataract instrumentation including Quatera, Visualization systems, in particular Artevo, and Biometry IOL Master portfolio. Prior to joining Carl Zeiss in 2019, Dr. Boukhny was leading Alcon Instrumentation R&D—Cataract, Vitreoretinal, Visualization, Refractive, and Diagnostics segments. In his leadership roles, Mikhail has been instrumental in bringing to market many successful products, including Legacy, Infiniti, and Centurion; he invented the transformational Torsional phacoemulsification modality. Dr. Boukhny has over 180 issued patents.

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## **Cindy X. Cai, MD, MS**

**The Jonathan and Marcia Javitt Rising Professor, Assistant Professor of Ophthalmology, Retina Division, Wilmer Eye Institute, Johns Hopkins University School of Medicine**



Dr. Cai is the Jonathan and Marcia Javitt Rising Professor and Assistant Professor of Ophthalmology at the Wilmer Eye Institute. She graduated from Columbia University summa cum laude with a major in biology and a minor in music. She received her medical degree from Columbia University and completed her ophthalmology residency at Johns Hopkins with subsequent fellowship training in vitreoretinal surgery at Duke University. She is currently funded by NIH/NEI and RPB to study how to use informatics to improve diabetic retinopathy care.

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## **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.

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## **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.

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## **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 implementation of next generation technologies to bedside clinical care for all patients, including genomic testing, artificial intelligence/machine learning, and mechanical circulatory support.

## Tham Yih Chung, PhD

**Asst Professor (tenure-track), Population Data Science Co-lead & Optometry Education Program Director, Centre for Innovation & Precision Eye Health, Department of Ophthalmology, Yong Loo Lin School of Medicine, National University of Singapore**



Dr. Tham is currently an Assistant Professor on the tenure track in the Department of Ophthalmology at the Yong Loo Lin School of Medicine, National University of Singapore (NUS). Within NUS, he holds dual leadership roles as the Co-lead for Population Data Science as well as the Optometry Education Program Director at the Centre of Innovation & Precision Eye Health. In addition, he holds a joint appointment as a Clinician Scientist at the Singapore Eye Research Institute.

Dr. Tham specializes in ocular epidemiology, advanced ocular imaging, and the application of deep learning in ophthalmic research. His prolific research portfolio includes over 220 peer-reviewed publications in prestigious journals, including **Lancet Digital Health**, **Nature Biomedical Engineering**, **Nature Aging**, **JAMA Network Open**, and **Ophthalmology**. One of his most seminal contributions is the Global Glaucoma Burden paper, which has amassed over 6,000 citations.

Dr. Tham was a recipient of multiple prestigious academic and scientific awards, including the National University of Singapore's President Graduate Fellowship Award, the Singapore National Medical Research Council (NMRC)'s Transition Talent Award, and the Clinician Scientist Award. Since 2021, Stanford University has identified him as one of the top 2% most-cited researchers globally, underscoring his influence and contributions to the field.

## Lauren A. Dalvin, MD

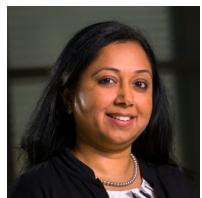
**Associate Professor, Ocular Oncology Service, Department of Ophthalmology, Joint Appointment in Medical Oncology, Mayo Clinic**



Dr. Lauren A. Dalvin is an Ocular Oncologist and Associate Professor of Ophthalmology with a joint appointment in Medical Oncology at the Mayo Clinic. She has over 100 peer-reviewed publications and was awarded a KL2 grant to support research on transcriptomic and epigenomic approaches for uveal melanoma drug discovery. Dr. Dalvin serves on the editorial board for the **Canadian Journal of Ophthalmology** and the American Academy of Ophthalmology's **EyeNet** magazine and as an examiner for the American Board of Ophthalmology. Dr. Dalvin is passionate about multidisciplinary, team-based eye cancer care and advancing the field through quality clinical and translational research.

## Amitha Domalpally, MD, PhD

**Assistant Professor, Department 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 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.

## Pravin U. Dugel, MD

### President, Iveric Bio



Dr. Domalpally is the Research Director at Wisconsin Reading Center, University of Wisconsin-Madison, and iDr. 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.

## Olaf D. Felske, MS, MBA

### CEO, Haag-Streit USA



Olaf D. Felske is the CEO of Haag-Streit USA. Haag Streit is a Swiss medical device group with a legacy spanning 165 years focusing on innovation and quality, particularly within the field of ophthalmology.

Olaf is a global healthcare executive driving stakeholder value. Formerly in key roles at Medtronic, including global positions in the US and Switzerland, as well as CFO and COO for Canada, he has orchestrated mergers, acquisitions, and strategic alliances. Olaf has also been instrumental in launching remote patient monitoring and care coordination services in the country, emphasizing technology and patient-centric innovation. His diverse career spans various industries, with international experience in Europe, the Middle East, Africa, and the Americas.

Olaf acts as an advisor at the Creative Destruction Lab (CDL), contributing to healthcare innovation. Furthermore, he has served as an expert on committees and advisory boards in healthcare and biotech. Olaf holds an MS in engineering and an MBA with a specialization in strategy and finance.

## 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.

## Jennifer C. Goldsack

### Chief Executive Officer, Digital Medicine Society (DiMe)



Jennifer C. Goldsack founded and serves as the Chief Executive Officer of the Digital Medicine Society (DiMe), a 501(c)(3) nonprofit organization dedicated to advancing digital medicine to optimize human health. Previously, Jennifer spent several years at the Clinical Trials Transformation Initiative (CTTI), a public-private partnership co-founded by Duke University and the FDA. Jennifer spent five years working in research at the Hospital of the University of Pennsylvania, first in Outcomes Research in the Department of Surgery and later in the Department of Medicine. More recently, she helped launch the Value Institute, a pragmatic research and innovation center embedded in a large academic medical center in Delaware.

Jennifer earned her master's degree in chemistry from the University of Oxford, England, her masters in the history and sociology of medicine from the University of Pennsylvania, and her MBA from the George Washington University.

## Ranya Habash, MD

### CEO, LifeLong Vision Special Purpose Acquisition Company, Chief Medical Officer of Everbridge, Co-Founder of HipaaChat



Dr. Habash is a cataract surgeon and comprehensive ophthalmologist at Bascom Palmer Eye Institute with a unique background in the clinical, technical, and business sides of medicine. She was appointed to the FDA's Digital Health Network of Experts and on The Ophthalmologist Power List multiple times, including the top 50 stars in the world "who will lead ophthalmology over the next few decades and shape its future," and as one of the "most influential people in ophthalmology" worldwide. With experiences as CEO of LifeLong Vision, a Visionary Innovation Mentor at Stanford, and the Medical Director of Technology at Bascom Palmer, her perspective is unique. As an entrepreneur, Habash has founded three digital health companies and collaborates with partners like Microsoft and Apple to improve the healthcare experience for all.

## Bonnie An Henderson, MD

### President/CEO, Head of Global Innovation & Technology, HelpMeSee, Clinical Professor, Tufts University School of Medicine



Bonnie An Henderson is the Past President of the American Society of Cataract and Refractive Surgery and Clinical Professor of Ophthalmology at Tufts University. She is the Associate Editor for the *Journal of Refractive Surgery* and on the editorial board of *Ophthalmology*. She has authored over 175 articles, book chapters, and abstracts, five textbooks, and delivered over 300 invited lectures worldwide, 32 Visiting Professorships, and 16 Named Lectures. She developed a digital-based cognitive simulation program to teach cataract surgery. She has received numerous awards including Lans Distinguished Award by the International Society of Refractive Surgery, the Suzanne Veronneau-Troutman Woman of the Year Award by WIO, and the Visionary Award by the American-European College of Ophthalmic Surgeons. She is currently the President/CEO of HelpMeSee, a global nonprofit that develops ophthalmic simulation-based training solutions.

## Chuck Hess

### VP Commercial Development & Digital Health, Bausch + Lomb



Chuck Hess brings 40 years of experience in ophthalmology to his role as the Vice President of Global Development and Operations for Bausch + Lomb. Throughout his career, he has held numerous positions in Product Development, Marketing, Sales Leadership, Business Development, Operations Leadership, and General Management. Chuck is responsible for leading the development and launch of numerous ophthalmic surgical platform technologies, including the Millennium System and the Stellaris Vision Enhancement System. He has also designed, developed, and introduced over 550 microsurgical instruments and disposable products, earning him a US Patent for his innovation in the field of ophthalmic surgery.

Chuck is a strong advocate for patient care and has worked tirelessly to develop new technologies and services that enhance the well-being of eye care patients around the globe. He is a member of the American and European Council of Ophthalmic Surgery and has held positions in various professional organizations, including serving as a board member for the ASCRS Foundation and the AAO Corporate Advisory Council. Chuck graduated from Washington University in St. Louis with an engineering degree.

## 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.

## **Robert Huber, Prof., PhD**

**Director, Chair, Institute of Biomedical Optics, Universität zu Lübeck, Germany**



Robert Huber studied physics at LMU Munich with a major in astrophysics and applied nuclear physics where he received his PhD (Dr. rer. nat.) in 2002 on femtosecond spectroscopy of fast electron transfer processes. After being a postdoc in the Chemistry Department at the University of Frankfurt, he joined from 2003 to 2007 the group of Prof. J. G. Fujimoto at MIT where he developed various new wavelength-swept lasers for optical coherence tomography (OCT). Since 2013 he is a professor at the University of Lübeck. His current research focuses on the development and application of new fiber lasers for OCT, multi-photon, and Raman imaging. He is the inventor of the Fourier Domain Mode Locked (FDML) laser and he pioneered the field of Megahertz Optical coherence tomography (MHz-OCT) which is successfully commercialized by OPTORES.

## **JOSEPH A. IZATT, PHD, MS, BS**

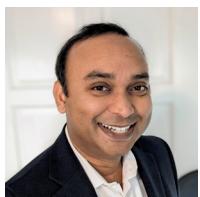
**Michael J. Fitzpatrick Distinguished Professor of Engineering, Chair, Department of Biomedical Engineering, Duke University, Durham, North Carolina**



Joseph A. Izatt is the Michael J. Fitzpatrick Distinguished Professor and Chair of the Department of Biomedical Engineering at Duke University. He holds secondary faculty appointments in the Departments of Electrical and Computer Engineering and Ophthalmology and is Program Director for Biophotonics at the Fitzpatrick Institute for Photonics. He obtained the BS, MS, and PhD degrees from MIT in 1986, 1988, and 1991, respectively. Prof. Izatt's research interests include biomedical optics and spectroscopy, coherence-based and wavefront-optimized tomographic optical imaging, and novel instrumentation for intrasurgical visualization and manipulation. He has authored or co-authored over 250 peer-reviewed publications, more than 420 contributed and 140 invited lectures and presentations, and 80 issued patents. He is a Fellow of the American Institute for Medical and Biological Engineering (AIMBE), The International Society for Optics and Photonics (SPIE), Optica [formerly The Optical Society (OSA)], and the National Academy of Inventors (NAI).

## **Sebastian Jayaraj, PhD**

**Digital Health Specialist, Digital Health Center of Excellence, Center for Devices and Radiological Health (CDRH), Food and Drug Administration**



Sebastian Jayaraj, PhD leads programs for digital health investor engagement, innovation in hospital-at-home ecosystems, and advises on artificial intelligence regulation and strategy at the FDA. Before joining the FDA, he was Executive Director, Product Management & Strategy for digital health technologies at Providence Health. Prior to that, he was a tech entrepreneur and held leadership roles in IT and research informatics at public biotech companies.

His digital products continue to be widely used by patients and researchers and have garnered media coverage as pioneering approaches. He holds patents and peer-reviewed publications in health tech, genomics, and management. Dr. Jayaraj received his PhD Strategy from Rutgers University, MS in Computer Science from the University of Pennsylvania, and BS in Biology from Bangalore University.

## Jayashree Kalpathy-Cramer, PhD

Professor, Ophthalmology, Department of 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.

## Sam Kavusi, PhD

Head of Retina Imaging and Teleretinal Integration, Verily Health



Sam Kavusi is the head of Retina Imaging and Teleretinal Integration at Verily. He is interested in improving the availability and accuracy of retina image captures especially outside of the ophthalmic environments. Generally, he is interested in the application of on-device intelligence, computational imaging, artificial intelligence, and consumer electronics in the development of modern medical devices. He received his BS degree (Hons.) 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 is co-inventor of more than 70 patents and his publications are cited more than 800 times.

## Pearse A. Keane, MD, MSc, FRCOphth, MRCSI

Consultant Ophthalmologist, Moorfields Eye Hospital NHS Foundation Trust, Professor of Artificial Medical Intelligence, University College London, UK Research & Innovation, Future Leaders Fellow



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.

## Shervin Korangy

### President and Chief Executive Officer, BVI



Shervin brings to BVI over 25 years of general management, operational, financial, and investment experience across a diverse array of industries including healthcare, consumer products, industrial manufacturing, and financial services. Prior to BVI, Shervin was a senior executive with Novartis Group AG, holding roles which included Global Head of Corporate Finance. Before Novartis, he spent 15 years with The Blackstone Group, one of the world's leading alternative investment firms. In addition, Shervin is a co-founder of Sight Sciences, a growth-stage medical device company focused on transforming glaucoma and dry eye treatment. He serves on the Board of Directors of BVI, Hain Celestial and Motus GI, as well as the Wharton Leadership Advisory Board. Shervin graduated with a BS in Economics from the Wharton School of the University of Pennsylvania.

## 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 423 million patient visits on over 70 million patients as of July 1, 2023, and reported on quality measures for over 10,000 NPI/TIN combinations since 2017. She serves as the contractor on an FDA grant to evaluate the use and equity for artificial intelligence devices for diabetic retinopathy screening and to evaluate intraocular lenses in the pediatric population using the IRIS Registry. She also serves as principal investigator on a Council of Medical Specialty Societies grant on Diagnostic Excellence, and a grant for NORC related to the Vision and Eye Health Surveillance System. 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 a 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 directs the Academy's health information technology activities, including the Committee on Artificial Intelligence, 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 standards, as well as the development of criteria for ophthalmology-specific electronic health records.

## 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*.

## **Paul Nagy, PhD, FSIIM**

**Director of Education, Biomedical Informatics and Data Science, Associate Professor of Medicine, Radiology, Public Health, and Biomedical Engineering, Schools of Medicine, Public Health, and Engineering, Johns Hopkins University**



Paul Nagy, PhD, FSIIM is the Director of Education in Biomedical Informatics and Data Science in the School of Medicine with over 75 graduate students including a doctoral program supported by an NLM T15 award. He teaches 6 courses on data science working with EHR and Medical Imaging data.

Dr. Nagy leads the JH Observational Health and Data Science Informatics (OHDSI) research group at Johns Hopkins and has been awarded 26 Million in awards since 2021 from the FDA, NIH, NSF, and the CDC. He is the author of over 140 papers and over 200 national presentations in the field of informatics and implementation science.

## **Ziad Obermeyer, MD**

**Associate Professor, Blue Cross of California Distinguished Professor, UC Berkeley**



Ziad Obermeyer is Associate Professor and Blue Cross of California Distinguished Professor at UC Berkeley. His research uses machine learning to help doctors make better decisions, and help researchers make new discoveries—by ‘seeing’ the world the way algorithms do. His work on algorithmic racial bias has impacted how many organizations build and use algorithms, and how lawmakers and regulators hold AI accountable. He is a cofounder of Nightingale Open Science and Dandelion Health, a Chan Zuckerberg Biohub Investigator, a Faculty Research Fellow at the National Bureau of Economic Research and was named one of the 100 most influential people in AI by TIME magazine. Previously, he was Assistant Professor at Harvard Medical School, and continues to practice emergency medicine in underserved communities.

## **Vinay Pai, PhD, MBA**

**Digital Health Specialist, Digital Health Center of Excellence, FDA**



Vinay Pai is a Digital Health Specialist in the FDA's Center for Devices and Radiological Health (CDRH), Office of Strategic Partnerships and Technology Innovation (OST), Division of Digital Health (DDH), having joined the FDA in September 2019. Prior to that, Vinay was in the National Institutes of Health, first as a staff scientist in the National Heart, Lung, and Blood Institute (NHLBI) (working on MRI and CT technology development and image processing, and researching cardiac function in humans and mice models) and then as a program officer and division director for biomedical imaging informatics and health informatics in the National Institute of Biomedical Imaging and Bioengineering (NIBIB). Before NIH, Vinay was a faculty at New York University School of Medicine developing techniques using proton and hyperpolarized helium magnetic resonance imaging to study cardiac and lung function. Vinay has a PhD in mechanical engineering from Florida State University and an MBA from Johns Hopkins University.

## **David W. Parke II, MD**

### **Executive Chairman, Verana Health**



Dr. Parke currently serves as the Executive Chair of Verana Health, Inc. From 2009 to 2022 he was CEO 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. Dr. Parke currently holds the title at OU of Professor Emeritus.

He has been a member of the board of directors of the Ophthalmic Mutual Insurance Company, MedEncentive, Inc, Academic Physicians Insurance Company, and Medem, Inc. Dr. Parke 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. For 25 years he was a clinically active vitreoretinal surgeon.

## **Gyan "John" Prakash, MSc, MS, PhD, MBA, FAICO**

### **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 Technology Initiative (TMTI), a pioneer scientific R&D program in the US Government with a budget of US\$ 1.6 Billion. Before joining the US Government, Dr. Prakash served as the COO 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 Global Eye Genetics Consortium (GEGC). Recently, he has published three volumes of Advances in Vision Research with Springer-Nature comprising a large international collaboration of vision researchers around the world.

## **Rajesh K. Rajpal, MD**

### **Chief Medical Officer and Global Head/VP of Clinical and Medical Affairs, Vision, Johnson & Johnson, MedTech**



At Johnson & Johnson MedTech, Dr. Rajesh K. Rajpal leads the Vision team in clinical affairs, medical affairs, and global professional affairs. He oversees 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 is responsible for clinical trials and the generation of data-led surgical and vision care evidence. Dr. Rajpal also serves as a critical liaison to government agencies and to the academic, scientific, and industry communities. He is a member of the Medical Devices Advisory Committee for the FDA Ophthalmic Devices Panel.

Dr. Rajpal joined Johnson & Johnson 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 input 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.

## 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 U.S. states to roll-out COVID-19 vaccines.

He is Adjunct Professor at Stanford University; holds six US technology patents that enable 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 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.

## Paisan Ruamviboonsuk, MD

### Clinical Professor of Ophthalmology, College of Medicine, Rangsit University, Thailand, Council Member of Asia-Pacific Academy of Ophthalmology, Committee member of Thai Retina Society



Dr. Paisan Ruamviboonsuk is the former President of the Royal College of Ophthalmologists of Thailand (2013–2016), and the Thai Retina Society (2011–2014) of which he is still a committee member. He serves in many ophthalmology societies in Asia-Pacific: Vice-President of the Asia-Pacific Teleophthalmology Society, the Scientific Secretary of the Asia-Pacific Vitreo-Retina Society, Council Member of Asia-Pacific Academy of Ophthalmology, and the Secretary-General of Association of Southeast Asian Nations Ophthalmology Society.

He received several distinguished awards, such as the Chainat-Narenthorn Award of the Ministry of Public Health of Thailand, given by H.M. King Rama X of Thailand, Asia-Pacific Academy of Ophthalmology Arthur Lim Award, and American Academy of Ophthalmology Achievement Award.

His studies on screening for diabetic retinopathy since the early 2000s have become a national program in Thailand. In 2022, he received the Sasakawa Health Prize from the World Health Organization for this project which is now integrated with AI.

## Anindita (Annie) Saha

### Assistant Director, Digital Health Center of Excellence, FDA



Ms. Saha is leading the development of partnerships, regulatory science, international collaborations, and operations for the DHCe to empower digital health stakeholders in advancing healthcare and equity. She is working to advance the use of patient-generated health data, using digital health technologies (DHTs) in trials, and how to manage bias in DHTs and improve transparency. Additionally, Annie helped incubate and continues to support CDRH's patient science and engagement efforts to advance the science and adoption of patient input as evidence, including patient preference information (PPI), clinical outcome assessments (COAs). Previously, Annie was the Director of Partnerships to Advance Innovation and Regulatory Science (PAIRS) where she oversaw a broad program portfolio, supporting a number of strategic partnership and regulatory science programs for CDRH. This included relationships with the Medical Device Innovation Consortium and other public-private partnerships, Network of Experts, Critical Path, and technology transfer. Ms. Saha began her FDA career as a researcher in the CDRH's Office of Science and Engineering Laboratories in the Division of Imaging and Applied Mathematics in the area of imaging display technologies. Ms. Saha has a Bachelor of Science in Bioengineering and a Minor in History from the University of Pittsburgh.

## Charles Scales, PhD

### Digital Health Lead, Johnson & Johnson MedTech, Vision



Dr. Charles Scales is a scientific leader at Johnson & Johnson MedTech, Vision, with nearly two decades of experience in medical technology, encompassing Research & Development and Medical Affairs. His expertise extends to leading multi-disciplinary digital health teams in the development of innovative medical device-based interventions utilizing data science, machine learning, and artificial intelligence tools. He is a "bilingual" data scientist, with a strong background in STEM and modern data science/analytics/ RWD tools, which allows him to effectively manage and lead digital health product development teams. Dr. Scales has successfully established the J&J MedTech, Vision Digital Health and Analytics Platform, responsible for the integration of data science and digital innovation to deliver a robust digital health product innovation pipeline for the company. He is experienced in collaborating with global data science development and engineering teams across complex organizations and has negotiated RWD/RWE data-sharing agreements with major hospital systems and surgical sites. Dr. Scales has also helped shape regulatory pathways for digital health products including direct collaboration with the FDA. His strategic intellectual property development has resulted in numerous patents and patent applications. Dr. Scales has been recognized with various awards within Johnson & Johnson, including the Phillip B. Hoffmann Research Scientist Award and the Vice President's Award for Technical Leadership.

## Steve Schallhorn, MD

### Chief Medical Officer, Zeiss Meditec



Steve Schallhorn is board certified and licensed ophthalmologist, Chief Medical Officer for ZEISS Meditec, Clinical Professor of Ophthalmology at the University of California, San Francisco, and Chairman of the Optical Express Medical Advisor Board.

After graduating from Colorado State University, Dr. Schallhorn entered the US Navy in 1977 as a naval aviator and flew F-14s, and later served as a Topgun instructor. He then completed a medical degree at the Uniformed Services University of the Health Sciences, ophthalmology residency at the Naval Medical Center San Diego in 1993, and cornea fellowship at the Doheny Eye Institute, University of Southern California.

He retired from the Navy in February 2007 and entered into private practice. In 2016 he joined Zeiss Meditec as their Chief Medical Officer.

## Farshid Sepehrband, MSEE, PhD

### Associate Director, Clinical Imaging, Early Clinical Development, Regeneron



Farshid is an Associate Director 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 the Stevens Neuroimaging and Informatics Institute of the University of Southern California. Farshid has a PhD in Biomedical Engineering and Neuroscience from the 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, to inform clinical development.

## Yuankai (Kenny) Tao, PhD

### Associate Professor of Biomedical Engineering, Vanderbilt University



Kenny Tao, PhD, is an Associate Professor of Biomedical Engineering and Ophthalmology and Visual Science at Vanderbilt University. He received his BSE, MS, and PhD in Biomedical Engineering from Duke University with a focus in biophotonics and ophthalmology and completed his postdoctoral fellowship at Massachusetts Institute of Technology with a focus on nonlinear optics and oncology. His lab has developed novel optical imaging systems for clinical diagnostics and therapeutic monitoring in ophthalmology, gastroenterology, and oncology. His ongoing research primarily focuses on clinical translation of therapeutic tools for image-guided intraoperative feedback using modalities including optical coherence tomography. The majority of his research projects are multidisciplinary collaborations between his lab and investigators in engineering, basic sciences, and medicine.

## Daniel Ting, MD (1st Hons), PhD

### 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 committee. He is the Associate Editor of **npj Digital Medicine** and Editors of **Ophthalmology**, **Ophthalmology Retina** and **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, 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.

## Alexander J. Towbin, MD, FAAP, FACR, FSIIM

Associate Chief Medical Information Officer, Cincinnati Children's Hospital Medical Center



Dr. Towbin is a Professor of Radiology, the Neil D. Johnson Chair of Radiology Informatics, Associate Chief of Radiology, and Associate Chief Medical Information Officer at Cincinnati Children's Hospital. He is a recognized leader in pediatric radiology, imaging informatics, and quality improvement. Apart from his current roles at Cincinnati Children's Hospital Medical Center and the University of Cincinnati, Dr. Towbin is an active member of multiple organizations including ACR, RSNA, Society for Imaging Informatics in Medicine (SIIM), Health Information Management Systems Society (HIMSS), Society for Pediatric Radiology, and the Children's Oncology Group. He currently co-chairs the HIMSS/SIIM Enterprise Imaging Society.

## Brian I. Vanderbeek, MD, MPH, MSCE

Assistant Professor of Ophthalmology and Vitreoretinal Surgeon, Scheie Eye Institute, University of Pennsylvania



Brian L. VanderBeek, MD, MPH, MSCE is an Assistant Professor of Ophthalmology and Vitreoretinal Surgeon at the Scheie Eye Institute, University of Pennsylvania. He received his Master of Public Health from the University of Michigan and his Master of Clinical Epidemiology from the University of Pennsylvania. His research focuses on developing and implementing methodologies to use real-world data to analyze comparative effectiveness, health outcomes, health policy, and resource utilization as they pertain to eye disease. He has published over 90 peer-reviewed studies and has been an invited speaker at numerous national and international meetings. He is also a member of the University of Pennsylvania's Center for Pharmacoepidemiology and Research Training and a Senior Fellow at Wharton's Leonard Davis Institute.

## Shilpa Venkatachalam, PhD, MPH

Director, Patient-Centered Research Operations and Ethical Oversight, President, Global Healthy Living Foundation, North Africa



Dr. Venkatachalam is the Director, Patient-Centered Research Operations and Ethical Oversight and President of GHLF North Africa, as well as Co-Principal Investigator of CreakyJoints® "ArthritisPower," the AR-Power Patient-Powered Research Network which is part of 20 Patient-Powered Research Networks of the Patient-Centered Outcomes Research Net. She manages several research projects including a collaborative research group called the Autoimmune Research Collaborative (ARC) and the GHLF ArthritisPower research registry.

In addition, she More recently Shilpa led a PCORI Dissemination Engagement Award on Chronic Pain and a collaborative project on understanding the concerns, behaviors, and experiences of people living with autoimmune and rheumatic conditions during the COVID-19 pandemic and a PCORI Stakeholder Convening Engagement Award titled, "Vaccine Uptake Research in Autoimmune Disease: Multistakeholder Planning." Shilpa is a co-author on peer-reviewed papers and abstracts and has been invited to present her findings at international medical conferences.

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## Lawrence Whittle

### President, Verana Health



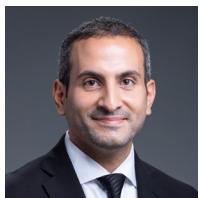
Lawrence Whittle, President at Verana Health, is responsible for driving collaborative relationships across the Life Sciences as well as driving customer success with both Life Sciences companies and the Clinician network. His remit spans a multitude of stakeholders, leading medical society engagement, healthcare provider experience, and life sciences partnerships, as well as the marketing function to elevate awareness and value across the care continuum.

Lawrence has more than 25 years of experience as a senior executive within technology companies 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.

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## Antonio Yaghy, MD

### New England Eye Center, Tufts University Medical Center



Antonio Yaghy, MD is an incoming ophthalmology resident at the University of Massachusetts. Over the past five years, he has been deeply involved in clinical research in ocular oncology and retinal imaging. He is passionate about integrating the worlds of ophthalmology and artificial intelligence to pioneer advancements in patient care. Outside of his professional life, he delights in creating digital artwork and playing the piano. He is enthusiastic about both contributing to and learning from the distinguished UMass community in the coming year.

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## Linda M. Zangwill, PhD

### Professor, Richard K. Lansche M.D. and Tatiana A. Lansche Endowed Chair, Viterbi Family Department of Ophthalmology, University of California, San Diego



Linda Zangwill, PhD, is Professor and Clinical Research Director of the Viterbi Family Department of Ophthalmology at the University of California San Diego. Dr. Zangwill has been continuously funded by the National Eye Institute since 1995 and has published over 450 manuscripts in peer-reviewed journals. She is an elected committee member of the Glaucoma Research Society and an Association for Research in Vision and Ophthalmology Gold Fellow. Dr. Zangwill's clinical research focuses on improving our understanding of the complex relationship between structural and functional change over time in the aging and glaucoma eye, developing methods to differentiate between highly myopic eyes with and without glaucoma, and applying artificial intelligence/machine learning techniques to improve glaucoma detection and identify individuals at highest risk of visual impairment from glaucoma.

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