

Artificial Intelligence, Digital Health, and the Eye

08:15 – 08:45 Registration
08:45 – 09:00 Welcome: Educational Goals of the Conference Adnan Tufail

Session 1: Understanding AI for the Clinician

09:00 – 09:15 AI for Clinicians Roy Schwartz
09:15 – 09:27 Applications of AI to Image Analysis. Phillippe Valmaggia
09:27 – 09:40 AI and Structure Function Models. Yue Wu
09:40 – 10:05 Foundation Models – What are they and are they better?
Foundation Models for the Clinician Pearse Keane
Large Language Models Yue Wu
10:05 – 10:30 Panel Discussion (Sánchez, Wu, Valmaggia, Keane)
Chief Moderator: Adnan Tufail
Moderators: Adnan Tufail, Michelle Khan

10:30 – 11:00 Tea Break

Session 2: Expanding Applications of AI and Clinical Ophthalmology Applications

11:00 – 11:10 Corneal/Anterior Segment disorders. Sajjad Ahmed
11:10 – 11:20 How AI Can Impact Cataract and Refractive Surgery. Julian Stevens
11:20 – 11:30 VR Surgery. Can AI Help Surgical Specialties? Lyndon Da Cruz
11:30 – 11:40 Glaucoma David Crabb,
Giovanni Montesano
11:40 – 11:50 AI in Adnexal Surgery – Disease of the Orbit David Verity
Jimmy Uddin
11:50 – 12:30 Panel Discussion (Sánchez, Wu, Valmaggia)
Chief Moderator: Michelle Khan
Moderators: Adnan Tufail, Michelle Khan

12:30 – 13:30 Lunch with the Experts

13:30 – 13:40 Overview of the St John of Jerusalem Eye Hospital Group. David Verity
13:40 – 13:50 St John Ophthalmic Association and Its Humanitarian Work. Michelle Khan

Session 3: Ethics and Standards

13:50 – 13:55 Introduction of Keynote Speaker Michelle Khan
13:55 – 14:25 Keynote – Similarities and differences between digital and biological computation Geoffrey Hinton
14:25 – 14:35 Panel Discussion (Sánchez, Wu, Fajtl) Moderators: Adnan Tufail, Michelle Khan
14:35 – 14:40 Presentation to Professor Geoffrey Hinton by Michael and Amira Dan
14:40 – 14:50 Trustworthy AI Clarisa Sánchez
14:50 – 15:00 Regulating AI: Overview of CE Mark, FDA, and Health Canada Standards Alastair Denniston
15:00 – 15:10 Generating Evidence for AI Mass Clinical Deployment: How Good is Good Enough? Catherine Egan
15:10 – 15:20 Panel Discussion (Sánchez, Rudnicka, Liu)
Chief Moderator: Adnan Tufail
Moderators: Adnan Tufail, Michelle Khan

15:20 – 15:50 Tea Break

Session 4: AI, Digital Health, and Telemedicine: Novel Applications and Accessibility for All

15:50 – 16:00 AI Solutions for Global Eye Health: Equity and Access. Covadonga Bascarán
16:00 – 16:10 The Role of AI in Accelerating Clinical Trials. Ulrich Luhmann
16:10 – 16:20 Eyeface Network: Linking Professionals from War-Torn and Catastrophe Zones. David Verity
16:20 – 16:30 Novel Applications of AI to Promote Visual Rehabilitation. Saqib Shaikh
16:30 – 16:50 Panel Discussion (Fanego, Maloca, Shaikh)
Chief Moderator: David Verity
Moderators: Adnan Tufail, David Verity
16:50 – 17:00 Closing Remarks Allan Slomovic