## AI & DATA SCIENCE IN HEALTHCARE

## Tuesday 20th June 2023 | The Royal Society, London SW1Y 5AG

11:00	Buffet Lunch Provided
11:45	Welcome Remarks Sir Adrian Smith, President of the Royal Society; Professor Sir Michael Brady, Founder of Perspectum
	Session One: Medical Case Studies
12:00	Does Al Help Manage Patients in the Operating Theatre?
	Mr Myrddin Rees, General Consultant and Hepatobiliary Surgeon at Hampshire Hospitals NHS Foundation Trust
12:20	Liquid Networks and Applications to Surgery Professor Daniela Rus, Professor of Artificial Intelligence at MIT
12:40	Big Data and How it Has Changed Medicine
	Professor Amitava Banerjee, Professor in Clinical Data Science at UCL
13:00	End of Session Panel Discussion Chaired by Dr Elizabeth Fagan; Panel Members: Mr Myrddin Rees, Professor Daniela Rus and Professor Amitava Banerjee
13:20	Tea & Coffee Break
	Session Two: Al in Medicine
13:50	Everything Is Better with Blockchain: 3 Reasons why Distributed Ledger Technology Enhances the Quality of Al and Machine Learning
4.5.40	Dr Alex Cahana, Venture partner, Systems and Design Thinker, Blockchanger and Web 3.0 Champion
14:10	Safe Deployment of Medical Imaging Al  Professor Ben Glocker, Professor of Machine Learning for Imaging at ICL
14:30	Advances in Non-imaging Al for Healthcare Interventions  Professor David Clifton, RAEng Chair of Clinical Machine Learning at the Department of Engineering Science,  University of Oxford
14:50	End of Session Panel Discussion Chaired by Dr Michael Rosenblatt; Panel members: Dr Alex Cahana, Professor Ben Glocker and Professor David Clifton
15:10	Tea & Coffee Break
	Session Three: Developing Science of Al
15:35	Medicine: An Exercise of the Imagination  Dr Junaid Bajwa, Chief Medical Scientist at Microsoft Research
15:55	From X-ray Crystallography to AlphaFold to Generative Al: A RenAlssance of Empiricism and Connectionism in Biological Science  Professor Eric Xing, President and University Professor at MBZUAI, Professor at Carnegie Mellon and Entrepreneur
16:15	Clonal Haematopoiesis and Chronic Liver Disease Dr Waihay J. Wong, Instructor in Pathology at Brigham and Women's Hospital
16:35	Personalized Decision Making Using Counterfactual Logic  Dr Judea Pearl, Computer Scientist at University of California
16:55	End of Session Panel Discussion Chaired by Professor Sir Michael Brady; Panel members: Dr Junaid Bajwa, Professor Eric Xing and Dr Waihay J. Wong
17:15	Close of Conference



## OUR SPEAKERS



**Sir Adrian Smith** President of the Royal Society and Institute Director and Chief **Executive of The Alan Turing** Institute



**Dr Alex Cahana** Venture Partner, Systems and Design Thinker, Blockchanger and Web 3.0 Champion



**Professor Amitava Banerjee** Professor in Clinical Data Science at University College London



**Professor Ben Glocker** Professor in Machine Learning for Imaging at Imperial College London and Head of Machine Learning Research at Kheiron Medical



**Professor Daniela Rus** Director of CSAIL, Andrew (1956), Erna Viterbi Professor EECS and Director of MIT-AF AI Accelerator at MIT



**Professor David Clifton** Royal Academy of Engineering Chair of Clinical Machine Learning at University of Oxford



**Dr Elizabeth Fagan** Adjunct Professor at Rush-Presbyterian-St. Luke's **Medical Center** 



**Professor Eric Xing** President and University Professor at MBZUAI, Professor at Carnegie Mellon and Entrepreneur



**Dr Judea Pearl** Computer Scientist at University of California



**Dr Junaid Bajwa** Chief Medical Scientist at Microsoft Research



**Professor Sir Michael Brady** Founding Member of Perspectum



**Dr Michael Rosenblatt** Senior Partner of Flagship Pioneering in Cambridge Massachusetts and Member of the Harvard Medical School (HMS) Board of Fellows



**Mr Myrddin Rees** General Consultant and Hepatobiliary Surgeon at Hampshire Hospitals NHS **Foundation Trust** 



Dr Waihay J. Wong Instructor in Pathology at Brigham and Women's Hospital