

AI Day, Royal College of Physicians: 27th Sept 2024, 09.00 – 16.30

Course title: **AI is coming for Gastroenterology**

Target audience: practising gastroenterologists, trainees and nurses

Course directors: Prof Laurence Lovat, Dr Omer Ahmad, Dr Rawen Kader

Course website; [Eventbrite](#)

TIME	TITLE	SPEAKER
9.00-9.30	Registration and industry stands	
9.30-9.40	Introduction	Prof Lovat, UCL CONFIRMED
9.40-10.30	Session 1: Introduction to AI	
9.40-10.00	Introduction: What does the gastroenterologist need to know about AI for clinical practice?	Prof Lovat, UCL CONFIRMED
10.00-10.30	KEYNOTE LECTURE: Pushing Medical Frontiers: AI-Driven Breakthroughs in Medicine	Prof Mihaela van der Schaar, Cambridge CONFIRMED
10.30 -12.00	Session 2: AI in Bowel Cancer Screening	
10.30-11.00	Debate: AI assisted colonoscopy will reduce colorectal cancer incidence and mortality	For and Against speakers Dr Nisha Patel, for Prof Anjan Dhar, against, CONFIRMED
11.00-11.30	Coffee and industry stands	
11.30-11.50	Do we need AI to implement optical diagnosis <i>(Issues to include implementing optical diagnosis into the BCSP, CADx, polyp sizing, and quality assurance for optical diagnosis)</i>	Ahmir Ahmad, St Marks Hospital CONFIRMED
11.50-12.50	Session 3: AI in Endoscopy	
11.50-12.10	AI for upper GI neoplasia – are we ready for prime time?	Prof Pradeep Bhandari, Portsmouth CONFIRMED
12.10-12.30	What’s on the horizon for AI in endoscopy? Beyond detection and characterisation	Dr Omer Ahmad CONFIRMED
12.30-12.50	Panel discussion: barriers to implementation of AI in endoscopic practice and lessons for wider AI adoption	Ahmad, Bhandari, Ahmad CONFIRMED
12.50-13.50	Lunch and industry stands	
13.50-16.30	Session 4: The Wider AI Perspective	
13.50-14.10	Evolving IBD management : The convergence of Digital Telemonitoring, AI and Smart Technology	Prof Charlie Lees, Edinburgh CONFIRMED
14.10-14.30	Using AI to transform UK hepatology services	Dr Tim Cross, Liverpool CONFIRMED
14.30-14.50	All models are wrong and yours are useless: lessons from Cytosponge for Barrett’s oesophagus	Prof Florian Markowetz CRUK Cambridge Institute CONFIRMED
14.50-15.00	Panel Discussion: Will AI Really Transform Services?	Lees, Cross, Markowetz CONFIRMED
15.00-15.30	Coffee and industry stands	
15.30-16.00	Is AI the solution to clinical burnout? Improving clinical efficiency and reducing administrative burden	Dr Nick Kennedy Exeter University CONFIRMED
16.00-16.30	Ethical, trustworthy, and safe AI implementation	Prof Alastair Denniston, Birmingham CONFIRMED
16.30	SUMMARY and CLOSE	Prof Lovat

SPEAKER DETAILS

Prof Laurence Lovat

Professor of Gastroenterology & Biophotonics, UCL,

Prof. Lovat served as the Clinical Director of the Wellcome/EPSRC Centre for Interventional and Surgical Sciences (WEISS) Centre at UCL from 2018 to 2024, where he fostered collaboration between interventional clinicians and engineers to accelerate the translation of cutting-edge technologies into clinical practice. Over the past 7 years, he has spearheaded research on Artificial Intelligence Endoscopy in partnership with UCL computer scientists, fostering international collaborations and mentoring numerous clinical and engineering PhD students. A co-founder of Odin Vision, which was acquired by Olympus UK & Ireland in 2022, he continues to provide consultancy to the company. Prof. Lovat also chairs the BSG AI Task Force.

Prof Mihaela van der Schaar

Mihaela van der Schaar is the [John Humphrey Plummer](#) Professor of Machine Learning, Artificial Intelligence and Medicine at the University of Cambridge and a [Fellow](#) at The Alan Turing Institute in London. In addition to leading the van der Schaar Lab, Mihaela is founder and director of the [Cambridge Centre for AI in Medicine](#).

Dr Nisha Patel

Honorary Senior Clinical Lecturer and Consultant Gastroenterologist at Imperial College Healthcare NHS Trust. Her research focuses on a robotic prototype device called CYCLOPS that attaches to a regular endoscope to facilitate the removal of colorectal polyps and early cancers through natural orifices, with no external incisions and therefore no scarring.

Prof Anjan Dhar

Professor of Gastroenterology, Durham University and Consultant at County Durham and Darlington NHS Foundation Trust.

Prof Dhar trained in inflammatory bowel disease and advanced therapeutic endoscopy and colonoscopy in India and subsequently at the University of Oxford and University College London. He has held BSG International Fellowships at the Medical University of South Carolina USA and Tokyo Japan for early GI cancer diagnosis and endoscopic treatment. He has research interests in new technologies for endoscopic diagnosis and treatment

Dr Ahmir Ahmad

[Consultant Gastroenterologist, St Mark's Hospital, London](#)

Dr Ahmad is an endoscopist with a particular interest in complex polypectomy, optical and AI-assisted diagnosis and advancing colonoscopy practice. His PhD at Imperial College London involved a portfolio of research exploring “Efficiency in Colonoscopy” throughout the patient pathway under primary supervision of Professor Brian Saunders. Findings from DISCARD3, a major study he led exploring optical diagnosis with a “resect and discard” strategy, are now being adopted nationally. As an expert advisor and committee member

he is supporting implementation of optical diagnosis within the NHS England Bowel Cancer Screening Programme.

Prof Pradeep Bhandari

Professor of Gastroenterology at University of Portsmouth

[Prof. Bhandari](#) has authored more than 200 peer-reviewed publications and several International and national Guidelines as well as book chapters. He has received several awards in the field of endoscopy including the BSG Hopkins Endoscopy Prize, the RCP Edinburgh Barbour Freeland Award, and the Crystal Awards (ASGE). He sits on the BSG Endoscopy Committee, and UEG Research Committee, specialist advisor to NICE, and is the current chair of the ESGE Research Committee.

Dr Omer Ahmad

Consultant Gastroenterologist and Interventional Endoscopist, UCLH, London

Dr Ahmad has a specialist interest in early endoscopic detection and resection of cancer in the gastrointestinal tract. He is a Senior Clinical Research Fellow at the UCL WEISS centre and part of the Surgical Robot Vision Research Group. He was awarded the A.J. Clark Prize at UCL for the best overall undergraduate performance. He was subsequently awarded the young clinical and translational scientist of the year by the BSG. His research focuses on the clinical translation of artificial intelligence in endoscopy and gastroenterology. He serves as an expert member on AI working groups for international endoscopy societies and is co-editor for the reference textbook 'AI in Clinical Medicine'

Prof Charlie Lees

[Professor of Gastroenterology](#) at the University of Edinburgh and consultant gastroenterologist at the Western General Hospital, Edinburgh.

Prof Lees was awarded the prestigious ASNEMGE (now UEG) European Rising Star in Gastroenterology Award in 2009. His major clinical, research and teaching interest is inflammatory bowel disease, at the translational interface between basic science and direct clinical application. He was the Chief Investigator of the PREdiCCt study which aims to discover the cause of disease flares in Crohn's disease and UC, in the process identifying prognostic factors and modifiable environmental and microbial elements that can be targeted in future interventional studies. He is also the UK chief investigator of the GEM study (www.gemproject.ca); a \$20m cohort study investigating the underlying cause of Crohn's disease. He runs a series of international teaching activities for gastroenterologists.

Dr Tim Cross

Consultant Hepatologist, Liver Medicine Department at the Royal Liverpool University Hospital.

Dr Cross is the president of the British Association for the Study of the Liver (BASL). He qualified from St. Bartholomew's Hospital Medical School, trained in liver medicine and transplantation at Addenbrookes hospital, Cambridge; The Royal Free Hospital, London and Kings College Hospital Liver unit, where he

undertook clinical research into assessment of liver fibrosis including work with fibroscan when it was in its infancy. He has published more than 100 peer reviewed abstracts and papers.

Prof Florian Markowetz

[Professor of Computational Oncology](#) at the University of Cambridge and Senior Group Leader at the Cancer Research UK Cambridge Institute.

Prof Markowetz received a Royal Society Wolfson Research Merit Award and a CRUK Future Leader in Cancer Research prize. He holds degrees in Mathematics (Dipl. math.) and Philosophy (M.A.) from the University of Heidelberg and a Dr. rer. nat. in Computational Biology from Free University Berlin, for which he was awarded an Otto-Hahn Medal by the Max Planck Society. He is a co-founder and director at Tailor Bio, a genomics start-up developing a pan-cancer precision medicine platform. He has also been involved in the development of the Cytosponge, a 'sponge on a string' to collect cells from the oesophagus to test for Barrett's oesophagus.

Dr Nick Kennedy Exeter University

Dr Kennedy is a [Consultant Gastroenterologist at the Royal Devon and Exeter NHS Foundation Trust](#) and an Exeter BRC Senior Investigator Fellow. He undertook his postgraduate training in Adelaide, South Australia and Edinburgh, UK, where he also obtained a PhD. His clinical and research interests are in inflammatory bowel disease (Crohn's disease and ulcerative colitis), particularly in understanding treatment response in IBD. He is a member of the UK and International IBD genetics consortia and current chair of the British Society of Gastroenterology IBD clinical research group.

He has a broader interest in health data research and is his hospital's Chief Research Information Officer and the Exeter Health Tech Research Centre's co-theme lead for data and artificial intelligence. He is working within the Exeter BRC to take forwards pharmacogenetic findings made by the Exeter IBD Research Group. He is also engaged with the BRC and the Great Western Secure Data Environment in making routinely collected clinical data within Devon better available for research.

Prof Alastair Denniston, Birmingham

Prof Alastair Denniston is Professor of Regulatory Science and Innovation at the University of Birmingham and Honorary Consultant Ophthalmologist at University Hospitals Birmingham NHSFT. He is a leader in the field of Artificial Intelligence (AI) and Digital Health Technologies.

Prof Denniston and [Dr Xiaoxuan Liu](#) co-lead the AI & Digital Health Group, a research and policy group focused on responsible innovation of AI health technologies. The group's work seeks to ensure AI technologies are safe, effective and equitable, and benefits patients and society. The group's work includes improving scientific standards, evidence, safety and diversity and representation within data used in AI. He has contributed to developing internationally adopted reporting guidelines for clinical trials of AI health technologies and building evidence standards for digital health technologies for NICE ([DHT-ESE](#)), in collaboration with Imperial College London and the Alan Turing Institute.