INTERNATIONAL ALLIANCE FOR CANCER EARLY DETECTION VIRTUAL SUMMER SCHOOL

PRECISION EARLY DETECTION FOR ALL

9th - 12th August 2021

CONTENTS

WELCOME

We cannot overestimate the power of early detection to beat cancer sooner. It can help to intervene before the disease spreads, deliver more effective, curative treatments and ultimately improve outcomes for all patients around the globe.

We invite you to join us in the third annual ACED Virtual Summer School. Building upon the learnings of previous Summer Schools, we will delve into the topics of early detection science, set against the backdrop of the COVID-19 pandemic and the wider health inequalities it has highlighted.

Through a rich and diverse range of talks, interactive sessions and panel discussions involving members of the academic community, industry, public, patients and clinicians, we aim to cover the following themes:

- The science and technology behind cancer early detection innovations and diagnostics
- Case studies of early detection in healthcare systems
- Health inequalities and the effects on early detection
- The barriers in implementing precision early detection initiatives

This summer school is open to academic, healthcare, corporate and trainee delegates. The programme will provide valuable insight into early detection science and is therefore well suited to PhD students from across the UK and US member centres.

A full agenda is available on the following pages detailing the confirmed speakers and learning objectives for each day. All timings are subject to change, and are in British Summer Time.

Registration is still open, please follow this link to the Eventbrite page, or contact your local ACED Programme Manager for further information. We look forward to welcoming you all on the 9th of August.

With thanks to our sponsors:

This event is supported by the above companies, they have had no input into the agenda, topics or choice of speakers

MONDAY 9TH AUGUST

SESSION 1 | INTRODUCTION TO EARLY DETECTION OF CANCER (16:00 - 17:15)

Chair: Prof. Rob Bristow, University of Manchester, UK

Objectives
- To introduce participants to the Summer School
- To understand the urgent and unmet need for early cancer detection
- To understand ways to overcome unique challenges of early detection research

Time	Topic	Speaker
16:00-16:05	Welcome, Housekeeping and Introduction	ACED Manchester team
16:05-16:20	The Unique Need for Early Detection Research	Prof. Rob Bristow The University of Manchester, UK
16:20-16:35	Cancer Screening as a Public Health Policy Challenge	Prof. Bob Steele The University of Dundee, UK
16:35-16:50	Language of Early Detection	Dr Kelly Fagan-Robinson The University of Cambridge, UK
16:50-17:15	Networking and Discussion	

SESSION 2 | INTRODUCTION TO HEALTH INEQUALITIES (17:30 - 19:00)

Chair: Dr Ignacia Arteaga, University of Cambridge, UK

Objectives
- To understand the challenges in delivering precision early detection for all
- To develop an appreciation for the complexity of health inequalities
- To understand the role of patient and public involvement in research

Time	Topic	Speaker
17:30-18:00	Interactive Networking Session	
18:00-18:15	Health Inequalities and Early Detection	Dr Bella Starling VOCAL, UK
18:15-18:20	Patient Experience Talk	
18:20-18:35	Addressing inequalities - Wigan Case study	Prof. Kate Ardern Wigan Council, UK
18:35-18:50	Health Inequalities and Research - Funders Perspective	Dr Ian Walker Cancer Research UK
18:50-19:00	Summary	

TUESDAY 10TH AUGUST

SESSION 3 | INTRODUCTION TO AI TECHNOLOGIES IN THE EARLY DETECTION SPACE (16:00 - 17:30)

Chair: Prof. Parag Mallic, Stanford University, US

Objectives
- To understand the role of AI: its advantages and limitations
- To understand the new advances in text mining when applied to 'messy' diagnosis data
- To facilitate discussion on academic career options and networking

Time	Topic	Speaker
16:00-16:05	Welcome, Housekeeping and Introduction	Session Chair
16:05-16:30	The Grail Model	Sir Harpal Kumar GRAIL
16:30-16:45	AI Data Driven Early Detection	Prof. Sue Astley The University of Manchester, UK
16:45-17:00	Discussion	
17:00-17:30	Interactive Networking Session	

SESSION 4 | DATA AND STATISTICS OF EARLY DETECTION (17:40 - 19:00)

Chair: Prof. Nora Pashayan, University College London, UK

Objectives
- To understand how health inequalities impact cancer diagnosis
- To understand how big data sets used in early detection can be biased
- To explore how access to healthcare impacts early detection

Time	Topic	Speaker
17:40-18:00	The Lung Health Check - A Community Model for Early Detection Screening	Dr Haval Balata Manchester University NHS Foundation Trust
18:00-18:20	Big Data in Early Detection	Dr Ellie Badrick The University of Manchester, UK
18:20-18:40	Knowledge, Power, and Logics of (Mis)Representation: Considerations for Placemaking and Data Justice for Decolonizing Cancer Research	Dr Ryan Petteway OHSU, US
18:40-19:00	Discussion and Summary	

SESSION 5 | SCIENCE OF EARLY DETECTION (16:00 - 17:30)

Chair: Prof. Steve Pereira, University College London, UK

Objectives
- How to identify those people at higher risk
- How to apply new tests in real world settings
- To understand the role of imaging in identifying cancer at early stages
- How novel cancer models are mapping the generation of tumours

Time	Title	Speaker
16:00-16:05	Welcome, Housekeeping and Introduction	Session Chair
16:05-16:20	Genetic Risk	Prof. Gareth Evans The University of Manchester, UK
16:20-16:35	Gynaecological Cancer Early Detection	Dr Vanitha Sivalingam The University of Manchester, UK
16:35-16:50	Imaging in Early Detection	Prof. Shonit Punwani University College London, UK
16:50-17:10	The Role of Cancer Models in Early Detection	Dr Ellen Langer OHSU, US
17:10-17:30	Discussion	

SESSION 6 | SCIENCE OF EARLY DETECTION (17:50 - 19:00)

Chair: Prof. Shelley Barton, OHSU, US

Objectives
- To understand how ethnicity and genomics contribute to differences in cancer early detection
- The role of exosomes in cancer development
- How nanotechnology is working with cancer models

Time	Title	Speaker
17:50-18:05	The Importance of Ethnic Specific Genomes	Prof. David Wedge The University of Manchester, UK
18:05-18:20	Exosomes	Prof. Utkan Demirci Stanford University, US
18:20-18:35	Nanotechnology in Early Detection	Dr Marilena Hadjidemetriou The University of Manchester, UK
18:35-19:00	Discussion and Summary	

SESSION 7 | CANCER EARLY DETECTION LOOKING OUTSIDE OF THE US/UK (16:00 - 17:30)

Objectives
- To understand some of the challenges in delivering screening / diagnostic tests within different communities
- To understand how to implement early detection initatives on an international scale

Time	Title	Speaker
16:00-16:05	Welcome, Housekeeping and Introduction	Session Chair
16:05-16:35	Challenges of Implementing Early Detection in India	Prof. Rajiv Sarin Tata Memorial Centre, India
16:35-16:50	Kenya and Manchester	Dr George Njoroge Kenya University Teaching Referral and Research Hospital
16:50-17:10	MADCAP Study	Prof. Tim Rebbeck University of Harvard, US
17:10-17:30	Discussion	

SESSION 8 | SUMMARY SESSION (17:50 - 19:00)

Chair: Dr Martin Bone, University of Manchester, UK

Objectives
- What is needed to develop cancer early detection programmes
- Explore how to reduce health inequalities

Time	Title	Speaker
17:50-18:40	Audience Engagement Session: "The Big Debate"	
18:40-18:50	Feedback from attendees	
18:50-19:00	Summary of the ACED Summer School	Dr Martin Bone The University of Manchester, UK
	Close of the Summer School	

CHAIR AND SPEAKER BIOGRAPHIES

We are delighted to welcome experts from a wide range of disciplines, institutions and backgrounds to speak, debate and chair at our 2021 ACED Summer School.

Read more about our confirmed Chairs and Speakers.

Prof. Rob Bristow

The University of Manchester, UK

Session 1 Chair

Professor Rob Bristow joined The University of Manchester as Director of the Manchester Cancer Research Centre (MCRC) in August 2017 with a remit to developing a new cancer strategy for Manchester with a cancer team science approach. The MCRC is a unique partnership between Cancer Research UK, The University of Manchester and the Christie NHS Foundation Trust.

His primary research interests are in tumour hypoxia, DNA damage signalling and repair in tumours, and the genomics of prostate cancer progression and cancer treatment response. He is particularly interested in novel clinical trials that intensify cancer therapy to prostate cancer patients whose tumours harbour aggressive genetic changes and hypoxic sub-regions. Professor Bristow is currently a senior group leader in Translational Oncogenomics at the CRUK Manchester Institute and was the lead PI for the Canadian component of the ICGC whole genome prostate cancer sequencing project (CPC-GENE).

He has served on a number of senior Scientific Advisory Boards and committees for: Prostate Cancer Foundation (USA), the MOVEMBER Foundation, the American Association for Cancer Research (AACR), the German Cancer Centre, Tuebingen Comprehensive Cancer Centre, NKI Amsterdam, the Danish Cancer Society and sits on the Scientific Executive Board for Cancer Research UK (CRUK). He has over 280 published papers and book chapters and is twice a Canadian Foundation for Innovation (CFI) awardee. He was made a Canadian Cancer Society Research Scientist in 2004, an ESTRO Honorary Fellow in 2011 and a Fellow of the Academy of Sciences (UK) in 2019.

He also co-Leads the Manchester arm of the International Alliance for Cancer Early Detection (ACED), with an interest in signatures that predict aggression in men with sporadic and hereditary prostate cancer. Rob is also involved in the governance of ACED, sitting on the Alliance Executive Board (AEB).

Dr Ignacia Arteaga is a postdoctoral research fellow in the Department of Social Anthropology at the University of Cambridge. She graduated from Pontificia Universidad Católica de Chile with a BA (Hons) in Sociology, and completed an MSc in Medical Anthropology (2014) and a PhD in Anthropology (2018) at University College London.

Dr Arteaga's scholarship engages with techno-scientific practices in cancer research and care in the UK. Her ongoing research, ANTHCED, constitutes one of the first in-depth anthropological studies of the scientific development and social effects of early cancer detection technologies.

Dr Arteaga is currently the lead on the "REPRESENT: A Community Engagement Roadmap to Improve Participant Representation in Cancer Research Early Detection" ACED pilot with Prof. Shannon (OHSU), Prof. Pashayan (UCL), and Dr Starling (MFT). She is also a Research Fellow in Robinson College.

Dr Ignacia Arteaga

The University of
Cambridge, UK

Session 2 Chair

Professor Parag Mallic is an Associate Professor at Stanford University. Originally trained as an engineer and biochemist, his research spans computational and experimental systems biology, cancer biology and nanotechnology.

Dr. Mallick received his undergraduate degree in Computer Science from Washington University in St. Louis. He then obtained his Ph.D. from UCLA in Chemistry & Biochemistry, where he worked with Dr. David Eisenberg. He completed Post-Doctoral studies at The Institute for Systems Biology, in Seattle, WA with Dr. Ruedi Aebersold.

Beyond studying fundamental disease mechanisms, his group has been pioneering novel approaches for enabling personalized and predictive medicine. Most recently, his group has been developing model-based and physics-based approaches to machine learning that enable learning over domains that span a wide range of time and length scales.

Prof. Parag Mallic

Stanford University, US

Session 3 Chair

Prof. Nora Pashayan

University College London, UK

Session 4 Chair

Professor Nora Pashayan is a Professor of Applied Cancer Research & honorary Consultant in Public Health Medicine at University College London.

Nora had her undergraduate studies in Biology, followed by completing MD from the American University of Beirut, then Masters in Epidemiology from London School of Hygiene & Tropical Medicine, and in Public Health from the University of Cambridge, and PhD from the University of Cambridge on modelling the natural history of prostate cancer. She has received Cancer Research UK Training Fellowship and Clinician Scientist Fellowship.

Her research is in cancer early detection, investigating biology informed risk-stratified screening strategies to improve the benefit-harm balance and cost-the effectiveness of screening programmes, and ways of implementing such programmes.

Nora is the Co-Director of Training for the International Alliance for Cancer Early Detection.

Prof. Steve Pereira

University College London, UK

Session 5 Chair

Professor Steve Pereira is a consultant gastroenterologist at University College London Hospitals NHS Foundation Trust and the Royal Free Hospital, and Professor of Hepatology & Gastroenterology at UCL.

The research interests of his group centre on the pathogenesis, early diagnosis and novel treatments for biliary tract cancer and pancreatic tumours, as well as benign pancreaticobiliary diseases.

He is involved in a number of multicentre clinical endoscopy trials and translational research studies at UCL, including an early pancreatic cancer and neuroendocrine tumour biomarker discovery pipeline.

Prof. Shelley Barton

Co-Director, CEDAR, OHSU
Knight Cancer Institute,
School of Medicine

Session 6 Chair

Professor Michelle (Shelley) Barton is a Co-Director of CEDAR and professor in the Division of Oncological Sciences at the Knight Cancer Institute, OHSU.

Prior to Shelley's arrival at CEDAR in September, 2020, she was at the MD Anderson Cancer Center in Houston, TX, as a professor in the Department of Epigenetics and Molecular Carcinogenesis and the Colin Powell Chair for Cancer Research. Shelley was also the MD Anderson Dean of the UT MD Anderson Cancer Center UTHealth Graduate School of Biomedical Sciences from 2012-2020.

She received her PhD in Biochemistry at the University of Illinois and did postdoctoral studies in the field of epigenetics with Dr. Beverly Emerson at The Salk Institute for Biological Studies.

Shelley's research areas of interest are epigenetics, p53 and breast cancer.

Dr Martin Bone

The University of
Manchester, UK

Session 8 Chair

Dr Martin Bone is a Programme Manager based at the Manchester Cancer Research Centre and is responsible for overseeing the Manchester ACED programme. He is also a member of the ACED Operations Board and is jointly responsible for all aspects of operations and programme management within the Alliance.

After obtaining his PhD in Biomedical Engineering from the Newcastle University, Martin worked as a researcher at the university for 5 years before becoming a Project Manager in industry responsible for the SBRI funded research exploring personalised 3D printing orthotics for diabetic ulcers. After moving to Australia in 2017, Martin took up the role of Institute Manager for the newly established Disability Innovation Institute at the University of New South Wales to moving to Manchester in mid-2019 to lead the ACED Programme.

Professor Robert Steele obtained his initial surgical and academic training in Edinburgh, Hong Kong and Aberdeen and was appointed as Senior Lecturer in Surgery at the University of Nottingham in 1990. He was then appointed Professor of Surgical Oncology at the University of Dundee in 1996 and as Professor of Surgery and Head of Academic Surgery in 2003.

His main interests are the treatment of and screening for colorectal cancer. Having led the UK demonstration pilot that was used to inform the decision to introduce national screening programmes throughout the United Kingdom, he is at present the Clinical Director of the Scottish Colorectal Cancer Screening Programme, and has published extensively in this area. He has chaired several NHS QIS and HIS groups related to colorectal cancer and colorectal cancer screening and he chaired the SIGN group that developed the latest set of colorectal cancer guidelines.

He is a past member of Council of the Royal College of Surgeons of Edinburgh, past Chair of the Health Improvement, Protection and Services (HIPS) Research Committee of the Scottish Government's Chief Scientist's Office, and past President of the Association of Coloproctology of Great Britain and Ireland. He is currently Editor of "The Surgeon", co-founder and co-director of the Scottish Cancer Prevention Network and Chair of the Board of Directors of the Scottish Cancer Foundation. In 2016, he was appointed as Independent Chair of the UK National Screening Committee. In 2017 he was awarded an Honorary Membership of the Faculty of Public Health and was elected to the Fellowship of the Royal Society of Edinburgh. In 2018 he was elected to Fellowship of the Academy of Medical Sciences and was awarded a CBE in the Queen's Birthday Honours List.

Peer Reviewed Publications: 257, H index: 66, i10-index 212

Prof. Bob Steele

The University of Dundee, UK

Session 1 Speaker

Dr Kelly Fagan Robinson is a Lecturer and Medical Anthropology Subject Manager for the Health, Medicine & Society MPhil at the University of Cambridge. Later this year she will commence a Leverhulme Early Career and Isaac Newton Trust Fellowship project entitled 'Communication Faultlines on the Frontlines' which aims to test the limits of successfully communicating need and desert of 'support' to people who seemingly have little common ground. Her work covers a broad base of anthropological and interdisciplinary research in semiotics, language and epistemic dissonances within health and disability spaces internationally.

All of Kelly's research: 1) employs multimodal methodological approaches to unpacking the social relations that contribute to categories of personhood such as 'disabled' or 'at-risk'; 2) seeks to understand how such definitions inform knowledge-making within systems of public care and support; and 3) how embedded perceptions of social or bodily alterity contribute to epistemic injustice within health and social care in the UK and internationally.

Kelly has worked on these research questions across: British conceptualisations of cancer-risk on the CRUK 'Elusive Risks' pilot project; on an Alliance for Cancer Early Detection skills exchange with University of Manchester which explores the translatability of evidence across academic disciplines; and through lecturing and researching disability and public policies in Brazil as an associate on the British Academy Advanced Newton Fellowship project 'Living with Disabilities'. She holds a NVQ6 in British Sign Language.

Dr Kelly Fagan Robinson

The University of Cambridge, UK

Session 1 Speaker

Dr. Bella Starling is a Wellcome Trust Engagement Fellow and Co-Director of Public Programmes at Manchester University Hospitals NHS Foundation Trust, and Director at Vocal.

Her career has spanned neuroscience, stem cell and genetic research, science writing, biomedical ethics, public engagement, patient involvement and science policy, both as a practitioner and strategic adviser.

She is passionate about inclusion in, and democratisation of, research; her Fellowship will explore how public engagement with research can act as a catalyst for social change.

Dr Bella Starling

VOCAL, UK

Session 2 Speaker

Professor Kate Ardern read Medicine at The University of Manchester and has an MSc in Epidemiology and Health and Membership of the Faculty of Public Health. She was awarded Fellowship of the Faculty of Public Health 2006. Kate is an Honorary Professor at Salford University and a Visiting Professor at Chester University. She is a member of the All-Party Parliamentary Group on Longevity strategic advisory board, the Chief Medical Officer's advisory roundtable on public health research, and is a member of General Advisory Council of the Kings Fund.

In addition to her substantive post as Director of Public Health for Wigan where she also is the Borough's Chief Emergency Planning Officer, Kate is the Greater Manchester Combined Authority Lead DPH for Health Protection and Emergency Planning and in that role co-chairs the GM Local Health Resilience Partnership and is a member of the GM Resilience Forum. Throughout the Covid 19 Pandemic, Kate has been a core member of the Greater Manchester Strategic Coordinating Group overseeing the development of GM's very successful integrated contract tracing system and is a senior officer adviser in attendance at the Mayor of Greater Manchester's Emergency Committee. In recognition of her contribution to pandemic response, the Financial Times magazine in Dec 2020 named her as one of their eighteen international "Women of the Year 2020".

Prof. Kate Ardern

Director of Public Health, Wigan Council, UK

Session 2 Speaker

Dr Ian Walker

Cancer Research UK

Session 2 Speaker

Dr Ian Walker is Executive Director for Policy, Information and Communications at Cancer Research UK. Ian was appointed to the Board in 2021 and is responsible for developing and implementing our strategic priorities across policy, information and communications for Cancer Research UK.

Ian has over 15 years of combined experience dedicated to advancements in cancer prevention, diagnosis, and treatment.

First appointed as a CRUK Director in 2013, Ian has held several high impact roles within the charity across basic, translational and clinical research. He brings a wealth of relevant experience to the board, having advised on several of the charity's key campaigns to inform government policy around the provision of life-saving cancer research, including the push for the protection and restoration of clinical research activity within the NHS during the COVID-19 pandemic.

Ian is a trustee for the Association of Medical Research Charities (AMRC) and has previously held a Non-executive role in the biotechnology sector.

Ian holds a Biochemistry BSc with honours and a PhD from the University of Leeds. He also holds an MBA with distinction from Warwick Business School.
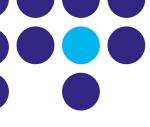
Sir Harpal Kumar

President of GRAIL Europe

Session 3 Speaker

Sir Harpal Kumar is the President of GRAIL Europe. He most recently served as Senior Vice President and Head of Innovation EMEA at Johnson & Johnson. Before joining J&J, Sir Harpal spent 15 years with Cancer Research UK and served as the organization's Chief Executive Officer from April 2007 until June 2018. Prior to this, he was Chief Operating Officer & Executive Director of Development at CRUK and served as Chief Executive of Cancer Research Technology (a subsidiary of CRUK). Before CRUK, he worked with McKinsey & Co, and was CEO of The Papworth Trust and Nexan Group.

Sir Harpal received a first-class Masters in Chemical Engineering from the University of Cambridge, and an MBA as a Baker Scholar from Harvard Business School. He has been awarded Honorary Doctorates from the Universities of Manchester, Newcastle, and Glasgow, and the Institute of Cancer Research, and he is an Honorary Fellow of the Academy of Medical Sciences, Royal College of Radiologists, Association of Cancer Physicians (UK) and St John's College, University of Cambridge.

In 2016, he was knighted by Her Majesty Queen Elizabeth II for services to cancer research. He i s a Board Member of UK Research & Innovation (UKRI) and Our Future Health and is a member of the UK Government Innovation Expert Group and the Oversight Committee of the Covid-19 National Core Studies.

Prof. Sue Astley

The University of
Manchester, UK

Session 3 Speaker

Prof. Sue Astley is a Professor of Intelligent Medical Imaging at the University of Manchester. She leads work on the development and evaluation of imaging biomarkers for breast cancer risk, and the science underpinning stratified screening. Her research encompasses a range of technologies both for breast density measurement and early detection of cancer.

Current projects include the use of AI to predict difficult-to-detect cancers and to assess breast cancer risk from standard and ultra-low-dose mammograms, the application of elastography to tissue characterisation, assessment of breast cancer risk in Saudi Arabia, evaluation of the impact of computer aided detection on reader behaviour and performance, and the use of contrast enhanced mammography for evaluation of breast lesions. Much of her work is collaborative within a multidisciplinary network of scientists and clinicians in the UK and overseas.

Sue is a mathematician and physicist by training and started out as an astronomer and cosmic ray physicist before developing an interest in computation and medical imaging.

Dr Haval Balata

Manchester University
NHS Foundation Trust, UK

Session 4 Speaker

Dr Haval Balata (MBChB, MRCP, PhD) is a Consultant Respiratory Physician at the Manchester Thoracic Oncology Centre, Wythenshawe hospital, Manchester University NHS Foundation Trust and an Honorary Senior Lecturer with the Division of Infection, Immunity and Respiratory Medicine at the University of Manchester.

His primary clinical and research interests are in the risk reduction, screening and early detection of lung cancer. He is the Responsible Clinician for the Manchester Lung Health Checks programme, the Clinical Director for the Lucis Bronchoscopy Centre and the Clinical Lead for the regional Navigational Bronchoscopy services.

Dr Ellena Badrick is an epidemiologist with an interest in routinely collected data and how we can use it to answer complex questions in the field of cancer early detection. She has worked extensively with UK GP data to explore the development of cancer risk prediction models for high-risk groups and the role of BMI in development of obesity related cancers.

Alongside data analysis she is keen to ensure meaningful Patient and Public involvement is built into research projects at Manchester.

Her current role is with the ACED team supporting funded projects within the Prevention and Early Detection Group based at the Manchester Cancer Research Centre.

Dr Ellena Badrick
The University of
Manchester, UK

Session 4 Speaker

Dr Ryan J. Petteway is a social epidemiologist and assistant professor in the OHSU-PSU School of Public Health. His applied research integrates social epidemiology, critical theory, decolonizing methods, and community-based participatory research (CBPR) to examine notions of place, embodiment, and placemaking in community health and development, making use of information and communication technologies (ICTs) to democratize research and practice processes. This work includes the development of a STEAM-based high school curriculum/training program focused on place, health, and social determinants.

More broadly, his scholarship engages: 1) notions of epistemic, procedural, and distributive justice within public health knowledge production processes—including considerations of power and (mis)representation in data collection, analysis, and access/use; 2) applications of critical theory to examine dominant discourse/narrative frames of "health equity", e.g. considerations of power and epistemic equity; and 3) pervading ethical frames of public health law and police powers.

Dr. Petteway is also an award-winning poet. His poem, "TOGETHER// Untethered", was awarded an April 2020 National Poetry Month Prize and nominated for a 2021 Pushcart Prize. His poem, "LATENT//Missing", was honored with the 2020 Lawrence W. Green Paper of the Year Award by Health Education & Behavior at the 2021 meeting of SOPHE. Other poems have appeared in both academic and poetry presses, including Health Promotion Practice and Kithe, among others.

Prior to his doctoral training, Dr. Petteway served as social epidemiologist and chief epidemiologist for the Baltimore City Health Department. He is an alum of the University of Virginia, University of Michigan, and University of California, Berkeley.

Dr Ryan Petteway
OHSU, US

Session 4 Speaker

Prof. Gareth Evans

The University of Manchester, UK

Session 5 Speaker

Prof. Gareth Evans qualified in Medicine from St Mary's Hospital London. He did both house jobs at St Mary's Harrow Road. He became an Army Officer at Medical school, and served as MO to the Royal Hussars (now medic on their charity) before spending 3 years doing paediatrics including 6 months out at St George's doing neonates. He ended up as an SR in Genetics doing an MD at the same time as training and started a consultant job in clinical genetics in 1992 at St Mary's in Manchester. He got a chair in 2001, specialised in cancer genetics, and continues to work with inherited breast bowel and ovarian cancer and in particular with patients with neurofibromatosis.

Professor Evans has established a national and international reputation in clinical and research aspects of cancer genetics, particularly in neurofibromatosis, breast and gynaecological cancer. He has published 890 peer reviewed research publications; 313 as first or senior author in addition >150 reviews and chapters He has an ISI web of knowledge H-index of 118 and google scholar of 157. He is overall cancer lead (3 themes) and Cancer Prevention Early detection theme lead on the successful all Manchester NIHR Biomedical research centre bid (2017-2022-£28.5million). He is lead clinician on the NICE familial breast cancer guideline group.

Dr Vanitha Sivalingam

The University of Manchester, UK

Session 5 Speaker

Dr Vanitha Sivalingam is a NIHR Clinical Lecturer in Gynaecological Oncology whose research interests include prevention and the early detection of gynaecological cancers, particularly vulval cancer. Vanitha studied medicine at Edinburgh University Medical School. She was awarded an intercalated First Class Honours BSc in Pharmacology and the Class Prize. In 2007, she was awarded MBChB with Honours and the Scottish Association for the Medical Education of Women Prize, awarded to the woman student most distinguished in the final MBChB exams.

Vanitha began her career in Obstetrics and Gynaecology as the South-East Scotland Deanery. In 2012, she won a competitive research training fellowship co-funded by the Wellcome Trust and Wellbeing of Women. This supported training for a PhD on the effect of metformin on obesity-driven endometrial cancer in Manchester under the supervision of Professor Henry Kitchener and Professor Emma Crosbie. During this time, she completed recruitment to a Phase 0 multi-center pre-surgical study of metformin in women with obesity-driven endometrial cancer .

Vanitha returned to full time clinical training in Scotland in 2015, and successfully gained Membership of the Royal College of Obstetricians and Gynaecologists. In 2018, she was awarded an NIHR Academic Clinical Lectureship and started subspecialty training in gynaecological oncology. She is an accredited colposcopist and a trainee representative of the British Society for the Study of Vulval Disease and the NCRI Cervix and Vulva Subgroup.

During her Clinical Lectureship she has received grants for the Early Detection of vulval CAncer Through self-Examination (EDuCATE) study and a CRUK ACED Travel Award to develop personalised risk prediction for women at increased risk of vulval cancer.

Professor Shonit Punwani is Professor of Magnetic Resonance and Cancer Imaging and Consultant Radiologist at UCLH. His medical training, undertaken at UCL, was supplemented with a PhD in MRI Physics. He completed post-graduate training in Medicine at Northwick Park, before training as a radiologist at UCLH. He was awarded a Walport NIHR Clinical Lectureship, before being appointed as a Senior Lecturer at UCL and Consultant Radiologist at UCLH.

He leads the 3T MRI research facilities that provide the infrastructure for imaging trials at UCLH. He is the research and development lead for radiology at UCLH, responsible for the provision of imaging services for clinical trials at UCLH. He is chair of the National Cancer Imaging Translational Accelerator (a multi-institutional collaboration dedicated to the support of clinical trials involving new/novel imaging methods).

He has a specialist clinical and research interest in the application and development of local and whole-body quantitative and functional MRI methods for imaging prostate cancer.

Prof. Shonit Punwani

University College London, UK

Session 5 Speaker

Dr Ellen Langer received her Ph.D. in Molecular Cell Biology from Washington University in St. Louis under the mentorship of Dr. Greg Longmore, and she completed postdoctoral training with Dr. Ken Murphy, Dr. Mario Capecchi, and Dr. Rosalie Sears. She is currently a Research Assistant Professor in the Department of Molecular and Medical Genetics and a Member of the Knight Cancer Institute at Oregon Health & Science University.

Dr. Langer's major research interest is in the identification of molecular mechanisms that underlie cellular plasticity in both tumor and stromal cells, and how interactions between these populations impact tumorigenic phenotypes. Throughout her career, Dr. Langer has sought to understand how physiologic processes that occur during development or in response to injury are corrupted to contribute to tumor development and progression. Her early research focused on the transcriptional regulators that control epithelial to mesenchymal transitions (EMT) in developmental systems including Xenopus neural crest development and embryonic stem cell differentiation. During her postdoc, Dr. Langer interrogated mechanisms of phenotypic plasticity in breast cancer cells to understand how extrinsic stressors such as low nutrients or therapeutic treatments mediate changes in tumor cell phenotypes. She also led an effort to develop manipulable, heterotypic, 3D bioprinted tumor models to support investigations of how tumor-stromal crosstalk affects tumor development, progression, and response to treatment.

Current work in her group utilizes 2-dimensional tissue culture, 3-dimensional bioprinted tissues, and mouse models in order to identify and target mechanisms of crosstalk between tumor cells and their microenvironment in breast and pancreatic cancer.

Dr Ellen Langer

OHSU, US

Session 5 Speaker

Prof. David Wedge

The University of
Manchester, UK

Session 6 Speaker

Professor David Wedge is a Professor of Cancer Genomics and Data Science at the Manchester Cancer Research Centre, University of Manchester.

He was co-lead of the Evolution and Heterogeneity working group of the ICGC Pan-Cancer Analysis of Whole Genomes (PCAWG) project and is currently one of the leaders of the Pan Prostate Cancer Group.

Much of the research in the Wedge lab is focused on tumour evolution, from the initial transformation of normal cells to cancer, through the acquisition of treatment resistance and to the formation of metastatic lesions.

The Wedge group have pioneered the development of computational methods to study heterogeneity in primary and metastatic cancers. Recently, the focus of the lab has shifted towards understudied populations, including the genomics of breast cancer in Nigerian women and of lung cancer in non-smokers.

Prof. Utkan Demerci

Stanford University, US

Session 6 Speaker

Professor Utkan Demerci is a professor with tenure at Stanford University School of Medicine, and serves as the interim Director and Division Chief in the Department of Radiology at the Canary Center at Stanford for Cancer Early Detection. Prior to this appointment, he was an Associate Professor of Medicine at the Brigham and Women's Hospital, Harvard Medical School. He also served as a faculty at the Harvard-MIT Health Sciences and Technology division.

He received his PhD from Stanford University in Electrical Engineering in 2005 as well as M.S. degrees in 2001 in Electrical Engineering, and in Management Science and Engineering in 2005.

Dr. Demirci has mentored and trained hundreds of successful scientists, entrepreneurs and academicians. As a result of these various contributions to science and engineering, he has been humbled by several honors including the NSF CAREER Award, IEEE EMBS Early Career Award. He was named as a fellow-elect of the AIMBE, and Distinguished Investigator of the Academy for Radiology and Biomedical Imaging Research.

His group focuses on developing innovative point-of-care technologies and creating microfluidic platforms for early cancer detection with broad applications to multiple diseases including infertility and HIV. Dr. Demirci's seminal work in microfluidics has led to the development of innovative FDA approved platform technologies in medicine. His inventions have been licensed to numerous companies. He has co-founded several startups including DxNow, LevitasBio, MercuryBio and Koek Biotech and serves as advisor to multiple early stage companies.

Dr Marilena Hadjidemetriou

The University of Manchester, UK

Session 6 Speaker

Dr Marilena Hadjidemetriou obtained a BSc in Pharmacy at the University of Athens and an MSc in Drug Delivery at UCL School of Pharmacy. In 2013, Marilena joined the Nanomedicine Lab at the University of Manchester as a Marie Curie Early Stage Fellow and her PhD project was focused on the development of the nanoparticle biomolecule corona as a tool for cancer diagnostics.

After her PhD, Marilena was funded by the CRUK Pioneer Award and the MRC Momentum Award to work on the nanoparticle-enabled discovery of blood biomarkers for cancer and neurodegenerative diseases. In 2018, she was appointed as a Research Fellow at the University of Manchester and she is now a Lecturer in Nano-Omics.

Her team works on the exploitation of the bio-nano interface in order to develop nanoparticle-based 'liquid biopsy' platforms. The NanoOmics team aims to generate fundamental knowledge on the interaction of nanomaterials with blood components in to order to unveil novel biomarker panels for early disease detection and to untangle underlying biological processes and molecular pathways.

Dr George Njoroge

Kenya University Teaching Referral and Research Hospital

Session 7 Speaker

Dr George Njoroge is currently the Chief Scientific Advisor at Kenyatta University Teaching, Referral & Research Hospital and Director of Research and Innovation. Previously, he was a Senior Research Fellow at Eli Lilly and a former a Director in Medicinal Chemistry at Merck Research Laboratories. Through his research leadership at Merck, an anti-HCV viral drug Victrelis™ (was discovered – this medicine was approved by FDA on May 13th, 2011 as the first-in-class therapy for Hepatitis C treatment. Dr. Njoroge led his chemistry in the discovery of the second-generation HCV protease inhibitor Narlaprevir® that is currently marketed in Russia as Arlansa. He was instrumental in discovery of Sarasar®, a farnesyl transferase inhibitor that has been approved for treatment of Progeria.

A graduate of University of Nairobi, first class honors, and completed his Ph.D. at Case Western Reserve University, Cleveland, Ohio in 1985

 Dr. Njoroge is an author or coauthor of 134 scientific publications and 104 USA granted patents. Dr. Njoroge was inducted into "Hall of Fame" as the latest Hero of Chemistry by the American Chemical Society (ACS). He is a recipient of numerous awards, including Emerald Award for Professional Achievement in Industry and Thomas Alva Edison Patent Award for emerging therapies. Dr. Njoroge was conferred with an Honorary Degree of Pharmaceutical Science by Mount Kenya University in the summer of 2014

Dr. Njoroge is the Founder of Centre of Africa's Life Sciences (C.O.A.L.S), a premier institution in Kenya for developing novel medicines in the continent of Africa

Prof. Timothy R. Rebbeck is the Vincent L. Gregory Professor of Cancer Prevention at the Harvard TH Chan School of Public Health and the Dana-Farber Cancer Institute.

Professor Rebbeck's studies the etiology and prevention of cancer, with an emphasis on cancer disparities and global health. He has directed large, multicenter studies and international consortia that have identified genetic, molecular, and epidemiological factors associated with cancer risk, outcomes, and disparities. He leads the international Men of African Descent and Carcinoma of the Prostate (MADCaP) network and has led a number of consortia studying hereditary cancer risk and prevention. Dr. Rebbeck has received continuous federal research funding since 1994. In addition to his research activities, Professor Rebbeck leads a number of initiatives on the Harvard Campus. He serves as Associate Director for Cancer Equity and Engagement in the Dana-Farber / Harvard Cancer Center. He is the founding director of the Zhu Family Center for Cancer Prevention at the Harvard TH Chan School of Public Health. In these roles, he fosters a variety of cancer research and educational activities to ensure that Harvard research engages with and positively impacts communities with the greatest disease burden worldwide.

Professor Rebbeck served for 10 years as Editor-in-Chief of the journal Cancer Epidemiology, Biomarkers and Prevention. He was a Fulbright Specialist to Africa in 2011-2016 where he developed cancer research capacity in Sub-Saharan Africa. He has received a number of scholarly achievement awards including the Vivian and Meyer P. Potamkin Foundation Award for Breast Cancer Research, the Nathaniel I. Berlin Lectureship from Northwestern University, the British Journal of Surgeons Lectureship from the Royal College of Surgeons, the National Cancer Institute's Director's Service Award, the Spirit of Empowerment Award from FORCE: Facing Our Risk of Cancer Empowered, the Joseph F. Fraumeni, Jr. Distinguished Achievement Award from the American Society for Preventive Oncology, and the American Society of Clinical Oncology - American Cancer Society Award and Lecture.

Prof. Tim Rebbeck

University of Harvard, US

Session 7 Speaker

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