

WELCOME

On behalf of Cancer Research UK and the American Association for Cancer Research (AACR), we welcome you to our inaugural Engineering and Physical Sciences in Oncology Conference.

As leading funders of cancer research on either side of the Atlantic, Cancer Research UK and AACR are uniquely poised to foster global, cross-disciplinary collaboration. This conference is the first meeting of our strategic alliance, and will convene international scientists from disciplines spanning basic biology to cutting-edge therapeutic technology to advance the understanding, detection and treatment of cancer.

Together, we aim to showcase fresh perspectives on the biggest challenges in cancer research. We're providing a platform for dialogue and debate between disciplines, which, we hope, will spark conversations and collaborations that endure long after the conference ends.

We'd like to thank our expert steering committee members, Kevin Brindle (University of Cambridge), Sangeeta Bhatia (Massachusetts Institute of Technology), Joe Gray (OSHU) and Molly Stevens (Imperial College London), who have developed an engaging and thought-provoking programme. We encourage open discussion throughout – get ready to join the conversation.



Iain Foulkes
Executive Director of
Research and Innovation
Cancer Research UK

AGENDA

TUESDAY 15 OCTOBER

All sessions will take place in the Trinity Suite

09:30 – 10:40	Registration, networking and poster set-up
10:40 – 11:00	Welcome from Cancer Research UK and AACR Iain Foulkes, Cancer Research UK Elizabeth Jaffee, The Dana and Albert “Cubby” Broccoli Professor of Oncology and The Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, US
11:00 – 12:00	Integrative Approaches to Reconstruct the Tumour Microenvironment Sylvia Plevritis, Stanford University, US
12:00 – 13:30	Networking lunch, exhibition and poster session A
13:30 – 15:30	What are the barriers to progress in cancer? Chair and speaker: Charles Swanton, Francis Crick Institute and UCL Cancer Institute, UK Speakers: René Bernards, Netherlands Cancer Institute, Netherlands Elizabeth Jaffee, The Dana and Albert “Cubby” Broccoli Professor of Oncology and The Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, US
15:30 – 16:00	Networking, exhibition and refreshment break
16:00 – 18:00	Detect: monitoring disease state Chair and speaker: Kevin Brindle, University of Cambridge, UK Speakers: Peter Choyke, National Cancer Institute, US Oliver Jonas, Brigham and Women’s Hospital, Harvard Medical School, US Wolfgang Weber, Technical University of Munich, Germany
18:00 – 19:30	Networking drinks and poster session B
19:30	Close

WEDNESDAY 16 OCTOBER

All sessions will take place in the Trinity Suite

07:30 – 08:10	Arrival refreshments and poster set-up
08:10 – 08:20	Opening remarks Matt Kaiser, Cancer Research UK
08:20 – 09:30	Promoting multidisciplinary collaboration across networks Chair: Matt Kaiser, Cancer Research UK Speakers: Don Ingber, Wyss Institute for Biologically Inspired Engineering, Harvard, US Paul Workman, The Institute of Cancer Research, UK
09:30 – 10:00	Networking, exhibition and refreshment break
10:00 – 12:00	Understand: cancer biophysics and clinical challenges Chair and speaker: Owen Sansom, Cancer Research UK Beatson Institute, UK Speakers: Buzz Baum, University College London, UK Simon Walker-Samuel, University College London, UK
12:00 – 13:00	Networking lunch and poster session C
13:00 – 15:00	Understand: cancer research in the big data era Chair and speaker: Nils Gehlenborg, Harvard, US Speakers: Bissan Al-Lazikani, The Institute of Cancer Research, UK Mihaela van der Schaar, University of Cambridge and The Alan Turing Institute, UK
15:00 – 15:30	Networking, exhibition and refreshment break
15:30 – 18:00	Detect: emerging technologies for cancer diagnosis Chair and speaker: Molly Stevens, Imperial College London, UK Speakers: Sarah Bohndiek, University of Cambridge, UK Jason Lewis, Memorial Sloan Kettering Cancer Center, US Vasilis Ntziachristos, Technical University of Munich and Helmholtz Zentrum Munich, Germany Peter van Zijl, Johns Hopkins University School of Medicine, US
18:00	Conference close
18:15 – 19:30	Networking drinks and poster session D
19:30 – late	Conference dinner Leonardo Royal Hotel London Tower Bridge

THURSDAY 17 OCTOBER

All sessions will take place in the Trinity Suite

08:45 – 09:00	Arrival and refreshments
09:00 – 09:10	Opening remarks Kevin Brindle, University of Cambridge, UK
09:10 – 10:10	Tracing the basis of epithelial cell competition in normal and perturbed states Chair: Kevin Brindle, University of Cambridge, UK Ben Simons, University of Cambridge, UK
10:10 – 10:40	Networking and refreshment break
10:40 – 12:40	Treat: engineered solutions to enhance therapy Chair and speaker: Uwe Oelfke, Institute of Cancer Research, UK Speakers: Bernd Pichler, University Hospital Tübingen, Germany Paula Hammond, Massachusetts Institute of Technology, US Shana Kelley, University of Toronto, Canada
12:40 – 13:40	Networking lunch and poster session E
13:40 – 15:40	Treat: novel therapeutic approaches Chair and speaker: Sangeeta Bhatia, Massachusetts Institute of Technology, US Speakers: Angela Koehler, Massachusetts Institute of Technology, US Edward Tate, Imperial College London and the Francis Crick Institute, UK Terry Rabbitts, University of Oxford, UK
15:40 – 15:45	Panel change
15:45 – 16:30	Future leaders Chair: Sangeeta Bhatia, Massachusetts Institute of Technology, US Speakers: Nobina Mukherjee, University of Oxford, UK Peter Winter, Massachusetts Institute of Technology, US Jessica Warrington, University of Manchester, UK <i>Not designated for CME credit.</i>
16:30 – 16:45	Closing remarks and poster prizes