



CRUK Cambridge Centre Early Detection Programme International Summer School
2019

**Discovery and Development of Diagnostics for Early Detection of Cancer
Programme**

MONDAY 15TH JULY

Learning objectives:

- To introduce participants to the summer school and the team exercise
- To understand the need for early cancer detection
- To understand some of the challenges of early detection

Session 1: Introduction to Early Detection of Cancer, moderated by Dr Sarah Bohndiek

13:45-14:00	Welcome and introduction	Dr Sarah Bohndiek, University of Cambridge, UK
14:00-14:45	The need for early detection and Cytosponge™ case study	Prof Rebecca Fitzgerald University of Cambridge, UK
14:45-15:30	Cancer screening as a public health policy challenge	Prof Anne Mackie Public Health England
15:30-16:00	Break	
16:00-16:45	Evidence-based interventions for early detection and prevention of prostate cancer	Prof Maroeska Rovers Radboud University, Netherlands
16:45-17:30	Introduction to team exercise Envisioning New Diagnostics & introductory team meeting	Carl Yamashiro Arizona State University, USA
Evening:	Icebreaker and debate: 'Consumer Genomics', Facilitators:	Mara Aspinall MD, BlueStone Venture, USA Prof Stephen Quake Stanford University

TUESDAY 16TH JULY

Learning objectives:

- To gain an overview of some of the current early detection technologies being developed
- To understand some of the challenges of bringing new diagnostic tests to market
- To gain an insight into the commercialisation process of early detection technologies

Session 2: Science and Technology of Diagnostics, moderated by Jamie Blundell

09:00-09:45	Liquid biopsy biomarkers and CancerSEEK	Prof Nickolas Papadopoulos Johns Hopkins University, USA
09:45-10:30	Optical imaging for the early detection of cancer	Prof Chris Contag Michigan State University, USA
10:30-11:00	Break	
11:00-11:45	Precision measurement of biology: application to early detection of cancer	Prof Stephen Quake Stanford University, USA
11:45-13:00	Lunch	



Session 3: Case studies for Science/Technology of Diagnostics, moderated by Mara Aspinnall

13:00-13:45	Immunovia - IMMray™ PanCan-D	Dr Henrik Winther Immunovia AB, Sweden
13:45-14:30	Exact Sciences - Cologuard®	Dr Barry Berger Exact Sciences Corporation, USA
14:30-15:00	Break	
15:00-17:00	First session of team activity	
Evening: Barbecue		

WEDNESDAY 17TH JULY

Learning objectives:

- To understand the regulatory frameworks for cancer screening technologies
- To understand the basic principles of clinical trial design
- To gain an insight into the evaluation and review of new tests
- To gain an insight into cancer diagnostics in a primary care setting

Session 4: Regulation and Evidence Review, moderated by Dr Wendy Alderton

09:00-09:45	Regulation of early detection diagnostics (US/EU)	Dr Alberto Gutierrez Former Director at FDA, USA
09:45-10:30	Evidence review of new screening tests	Dr Sian Taylor-Phillips University of Warwick, UK
10:30-11:00	Break	
11:00-11:45	Technical validation from a lab director's perspective	Dr Robyn Meurant NSF International

11:45-13:00 Lunch

Session 5: Clinical Trials and Implementation, moderated by Prof Rebecca Fitzgerald

13:00-13:45	Design of clinical trials for early detection of cancer	Prof Peter Sasieni King's College London, UK
13:45-14:30	Cancer testing in primary care (The CanTest collaborative)	Dr Fiona Walter University of Cambridge, UK
14:30-15:15	Case study: pathway to adoption. Qiagen <i>Digene</i> HPV test	Prof Attila T. Lorincz QMUL, UK
15:15-15:30	Break	
15:30-17:30	Second session of team activity	

Evening: Gala dinner. Speaker: Billy Boyle, Owlstone Medical Ltd



THURSDAY 18TH JULY

Learning objectives:

- To understand some of the ethical and societal implications of early detection of cancer

09:00-10:30 Third session of team activity

10:30-11:00 Break

Session 6: Panel discussion and Q&A session on societal impacts of early detection of cancer, moderated by Dr Stuart Hogarth

11:00-12:30 15-minute introductory talk from each speaker followed by Q&A

Prof Lynette Reid
Dalhousie University, Canada

Dr Stephen John
University of Cambridge, UK

Dr Maryon McDonald
University of Cambridge, UK

12:30-13:00 Lunch

13:00-14:30 Fourth session of team activity

14:30-14:45 Break

14:45-16:30 Presentations of team activity, prizes and conclusion of summer school.