



INSTITUTE
FOR RESEARCH
IN BIOMEDICINE

Barcelona BioMed Conference CANCER PROMOTION understanding cancer promotion to inform prevention (3-5 June, 2024)

Monday, 3 June

8.30 Registration

9.00 Welcome by Directorate of IRB Barcelona and organizers
(Dr. Núria López-Bigas, Dr. Allan Balmain, Dr. Paul Brennan)

Session I: Epidemiology, risk factors and cancer prevention
Chair: Dr. James DeGregori, University of Colorado (Denver, CO, USA)

9.15 Tracing the origins and evolution of cancers induced by environmental
carcinogens
Dr. Allan Balmain, UCSF (San Francisco, CA, USA)

9.50 The Promoter Hypothesis: A Long View from the History and Philosophy of
Science
Dr. Anya Plutynski, Washington University (St. Louis, MO, USA)

10.25 Short talk 1

10.40 -11.15 *Coffee break and poster session*

11.15 *Title to be confirmed*
Dr. George Davey-Smith, Bristol University (Bristol, UK)

11:50 Short talk 2

12.05 Short talk 3

12.20 **The mutagenic and promotional effect of known and suspected risk factors across multiple cancer sites - Emerging results from Mutographs**
Dr. Paul Brennan, IARC (Lyon, France)

12.55 -14.00 *Lunch and poster session*

Session II: Clonal expansions in normal tissues

Chair: Dr. Dan Landau, NY Genome Center (New York, NY, USA)

14.00 **Somatic mutations, clonal expansions, and cancer risk**
Dr. Rosana Risques, UW Medicine (Seattle, WA, USA)

14.35 **Comparative two-stage chemical carcinogenesis in the skin: from mouse, to naked mole-rat and Ansell's mole-rat**
Dr. Angela Goncalves, DKFZ (Heidelberg, Germany)

15.10 **Positive selection and mutation dynamics in normal reproductive tissue**
Dr. Raheleh Rahbari, Wellcome Sanger Institute (Hinxton, UK)

15.45 - 16.15 *Coffee break and poster session*

16.15 Short talk 4

16.30 Short talk 5

16.45 **Clonal selection in normal tissues shaped by cancer promoters**
Dr. Núria López-Bigas, IRB Barcelona/ ICREA (Barcelona, Spain)

17.20 *End of session*

Tuesday, 4 June

Session III: Clonal hematopoiesis

Chair: Dr. Rosana Risques, UW Medicine (Seattle, WA, USA)

9.00 **Inherited and environmental modifiers of clonal hematopoiesis fitness**
Dr. Kelly Bolton, Washington University School of Medicine (St. Louis, MO, USA)

9.35 **Stem cell memories as drivers of cancer heterogeneity**
Dr. Alejo Rodriguez-Fraticelli, IRB Barcelona/ ICREA (Barcelona, Spain)

10.10 -10.40 *Coffee break and poster session*

10:40 **Somatic evolution of blood during ageing and disease**
Dr. Jyoti Nangalia, Wellcome Sanger Institute (Hinxton, UK)

11.15 Short talk 6

11.30 Short talk 7

11.45 **Tumor-infiltrating clonal hematopoiesis in non-small cell lung cancer**
Dr. Elsa Bernard, Gustave Roussy (Villejuif, France)

12:20-13.20 *Lunch and poster session*

Session IV: Molecular mechanisms of cancer promotion

Chair: Dr. Kamila Naxerova, Harvard University (Cambridge, MA, USA)

13.20 **Environmental challenge rewires functional connections among human genes**
Dr. Luke Gilbert, Arc Institute (San Francisco, CA, USA)

13.55 **Mapping phenotypes and lineage history in human somatic evolution with single-cell multi-omics**
Dr. Dan Landau, NY Genome Center (New York, NY, USA)

14.30 Short talk 8

14.45 **Epigenetic co-option of epithelial-immune crosstalk promotes pancreatic tumorigenesis**
Dr. Direna Alonso-Curbelo, IRB Barcelona (Barcelona, Spain)

15.20- 16.00 *Coffee break and poster session*

16.00 **Somatic evolution of the hematopoietic system in health and disease**
Dr. Kamila Naxerova, Harvard University (Cambridge, MA, USA)

16:35 Short talk 9

16.50 **The neuronal RNA-binding protein is a master regulator of the tumor microenvironment that promotes malignant progression and immune evasion**
Dr. Douglas Hanahan, EPFL (Lausanne, Switzerland)

17.25 *Title to be confirmed*

Dr. Samra Turajlic, The Francis Crick Institute (London, UK)

18.00 *End of session*

20.30 *Speakers dinner (Restaurant Can Pineda) (Sant Joan de Malta, 55)*

Wednesday, 5 June

Session V: Modeling cancer promotion and prevention in organoids and model Systems

Chair: Dr. Allan Balmain, UCSF (San Francisco, CA, USA)

9.00 **Organoid models of the tumor immune microenvironment**
Dr. Calvin Kuo, Stanford University School of Medicine (Stanford, CA, USA)

9.35 Short talk 10

9.50 Short talk 11

10.05 **Metabolic disorders promote oncogenic mutant expansion in normal oesophagus**
Dr. Phil Jones, Wellcome Sanger Institute (Hinxton, UK)

10.40 -11.20 *Coffee break and poster session*

11.20 **Somatic Evolution, Cancer, and Our Inevitable Decline with Age-Inextricably Linked**
Dr. James DeGregori, University of Colorado (Denver, CO, USA)

11.55 Short talk 12

12.10 Short talk 13

12.25 **Keynote:** Dr. Richard Peto, University of Oxford (Oxford, UK)
Title to be confirmed
Chair: Dr. Paul Brennan, IARC (Lyon, France)

13.00 *Concluding remarks and end of conference*