Cancer Biology: Virtual Systems & Beyond Programme

Bergamo, Italy
16 - 18 March 2027

Scientific Programme

Tuesday 16th March 2027

11:30 REGISTRATION & WELCOME LUNCH
Light refreshments will be served from 12:00

13:00 CONFERENCE WELCOME

13:10 SESSION 1: COMPUTATIONAL APPROACHES TO IMMUNOTHERAPY
Chair: Charlotte Bunne

13:10 KEYNOTE LECTURE
Linghua Wang
UT MD Anderson, USA
'Decoding the Cellular Language of Cancer with AI and Spatial Omics for Precision and Predictive Oncology'

Q&A: 13:40-13:55

13:55 **Raza Ali**
CRUK Cambridge Institute, UK
'Dynamics of breast cancer tissues treated with immunotherapy'

Q&A: 14:15-14:25

14:25 **Proffered Paper 1**

Q&A: 14:35-14:40

14:40 EXHIBITOR INTRODUCTIONS
Led by members of the Scientific Programme Committee

14:50 COFFEE BREAK & SOLO TRAVELLERS' MEET-UP

15:20 **Mingyao Li**
Perelman School of Medicine, University of Pennsylvania, USA
'Digital tissue twins: shaping the future of cancer data science'

Q&A: 15:40-15:50

15:50 **Mor Nitzan**
The Hebrew University of Jerusalem, Israel
'Extracting spatial-temporal models of tumorigenesis from large scale biological data'

Q&A: 16:10-16:20

16:20 POSTER SPOTLIGHTS
3 top abstracts presented as 3-minute flash talks

16:30 INDUSTRY SYMPOSIUM

17:00 NETWORKING QUIZ

17:30 WELCOME RECEPTION

18:15 POSTER DISCUSSION SESSION 1

Wednesday 17th March 2027

08:15 EARLY POSTER VIEWING

08:45 INDUSTRY SPOTLIGHT

09:00 SESSION 2: FROM TARGET TO MOLECULE: VIRTUAL SCREENING AND DRUG DISCOVERY
Chair: Eytan Ruppin

09:00 **Charlotte Bunne**
EPFL, Switzerland
'Virtual Patient Labs: AI-Driven Simulation and Diagnostics for Precision Oncology'

Q&A: 09:20-09:30

09:30 **Proffered Paper 2**

Q&A: 09:40-09:45

09:45 **Mo Lotfollahi**
Sanger, UK
'Generative AI to describe and engineer tissue'

Q&A: 10:05-10:15

10:15 **Sophia J Wagner**
Heidelberg University, Germany
'Toward clinical discovery and forecasting with virtual patient representations'

Q&A: 10:35-10:45

10:45 COFFEE BREAK & EXHIBITION

11:15 **Hana Aliee**
CRUK Cambridge Institute, UK
'Causal machine learning in biomedicine'

Q&A: 11:35-11:45

11:45 **Proffered Paper 3**

Q&A: 11:55-12:00

12:00 POSTER SPOTLIGHTS
3 top abstracts presented as 3-minute flash talks

12:10 INDUSTRY SYMPOSIUM

12:40 LUNCH

13:30 POSTER DISCUSSION SESSION 2

15:00 SESSION 3: EMERGING TECHNOLOGIES AND VIRTUAL SYSTEMS
Chair: Marianna Rapsomaniki

15:00 **Eytan Ruppin**
Cedars Sinai, USA
'Towards fast and accessible precision oncology'

Q&A: 15:20-15:30

15:30 **Proffered Paper 4**

Q&A: 15:40-15:45

15:45 **Proffered Paper 5**

Q&A: 15:55-16:00

16:00 **Nicholas McGranahan**
UCL, UK

Q&A: 16:20-16:30

16:30 COFFEE BREAK & EXHIBITION
Tea, coffee and biscuits

17:00 **Trey Ideker**
University of Oxford Big Data Institute, UK
'The ARPA Digital Tumors Project'

Q&A: 17:20-17:30

17:30 **Mireia Crispin-Ortuzar**
University of Cambridge, UK
'Multimodal AI biomarkers: from early detection to treatment response'

Q&A: 17:50-18:00

18:00 NETWORKING SESSION
Debate: 'True or false? AI is overhyped and will under deliver for cancer research'

19:30 CONFERENCE DINNER
Optional ticketed event

Thursday 18th March 2027

08:15 EARLY POSTER VIEWING

08:45 INDUSTRY SPOTLIGHT

09:00 SESSION 4: SPATIAL OMICS AND HISTOPATHOLOGY
Chair: Raza Ali

09:00 **Marianna Rapsomaniki**
Swiss Biomedical Data Science Center, University of Lausanne, Switzerland
'Building predictive AI models for precision oncology across scales, modalities and perturbations'

Q&A: 09:20-09:30

09:30 **Ewa Szczurek**
Helmholtz Munich, Germany
'Learning the tumor microenvironment'

Q&A: 09:50-10:00

10:00 **Proffered Paper 6**

Q&A: 10:10-10:15

10:15 COFFEE BREAK & TRADE
Tea, coffee and biscuits

10:45 **Lichun Ma**
NCI, NIH, USA
'Spatial ecosystem of cellular communities in liver cancer'

Q&A: 11:05-11:15

11:15 **Aristotelis Tsirigos**
NYU School of Medicine, USA
'Multi-Modal AI Models of Gene Regulation'

Q&A: 11:35-11:45

11:45 SUMMARY, AWARDS & CLOSE

12:00 DEPART