

7th course on Computational Systems Biology of Cancer - Spatial multimodal data analysis: when omics meet images

September 30th - October 4th, 2024 **hours are in CEST zone**

Institut Curie Advanced International Course

(All lectures are in Amphitheater BDD)
entrance at 11 rue Pierre et Marie Curie - 75005 PARIS

Monday, September 30th

Chairs: TBD

09:00 09:15	Loredana MARTIGNETTI & Denis THIEFFRY Institut Curie, Paris, FR	Welcome and opening remarks by the organisers
09:15 10:00	Emmanuel BARILOT Institut Curie, Paris, FR	Introduction to Computational Systems Biology of Cancer, Multi-modal analysis and Artificial Intelligence
10:00 10:45	Thomas WALTER Institut Curie, Paris, FR	Predictive models in Computational Pathology
10:45 11:15	Coffee break / Meet the speaker (Hall BDD)	
11:15 12:15	Elisa FICARRA UniMore, Modena, IT	Multi-modal integration of Gigapixel Whole Slide Images and molecular data with Co-Attention Transformers
12:15 14:00	Lunch (Green Cafe)	

Monday, September 30th

14:00 15:00	Britta VELTEN (ONLINE) Univ. Heidelberg, Heidelberg, DE	Learning patterns from spatial omics data
15:00 15:30	Coffee break / Meet the speaker (Hall BDD)	
15:30 16:30	Marta LOVINO UniMore, Modena, IT	Multi-omics data for patient stratification and overall survival estimation: data, models and strategies
17:00 20:00	Welcome cocktail (Hall BDD)	

Tuesday, October 1st

Chair: TBD

09:00 10:00	Kim THRANE KTH Royal Institute of Technology, Stockholm, SE	Adding modalities to Spatial Transcriptomics
10:00 11:00	Giovanni CIRIELLO University of Lausanne, Lausanne, CH	TBD
11:00 11:30	Coffee break / Meet the speaker (Hall BDD)	
11:30 12:00	Industry talk: Lunaphore's delegate	When RNA meets protein in the same section: accelerating spatial biology
12:00 14:00	Lunch (Green Cafe)	
14:00 15:00	Leanne DE KONING & Nicolas SERVANT Institut Curie, Paris, FR	Finding your way in the universe of spatial omics
15:00 16:00	Short talks	10 minutes/presentation
16:00 16:30	Coffee break / Meet the speaker (Hall BDD)	
16:30 17:00	Flash Presentations by PhD students	5 minutes/presentation
17:00 18:00	Samantha MORRIS (ONLINE) KEYNOTE Washington University School of Medicine, St Louis, US	New genomic technologies to deconstruct and control cell identity.
18:00 19:00	Poster session 1 (Poster area BDD)	

TOGETHER.
LET'S BEAT CANCER



Wednesday, October 2nd

Chair: TBD

09:00 10:00	Julio SAEZ-RODRIGUEZ University of Heidelberg, Heidelberg, DE	Knowledge-based machine learning to extract disease mechanisms from multi-omics data
10:00 11:00	Asmund FLOBAK Norwegian University of Science and Technology, Trondheim, NO	Clinical decision support for colon cancer by computational cancer signaling simulation and patient-derived spheroid functional validation
11:00 11:30	Coffee break / Meet the speaker speaker (Hall BDD)	
11:30 12:15	Short talks	10 minutes/presentation
12:15 14:00	Lunch (Green Cafe)	
14:00 15:00	Short talks	10 minutes/presentation
15:00 16:00	Arnau MONTAGUD CSIC, Valencia, ES	Multiscale modelling for personalised medicine
16:00 16:30	Coffee break / Meet the speaker (Hall BDD)	
16:30 17:30	Paul MACKLIN KEYNOTE Indiana University, Bloomington, US	TBD
17:30 18:00	Flash Presentations by PhD students	5 minutes/presentation
18:00 19:00	Poster session 2 (Poster area BDD) and Master's journal club (Amphi BDD)	

Thursday, October 3rd

Chair: TBD

09:00 10:00	Connie R. JIMENEZ Amsterdam University Medical Center, Amsterdam, NL	Inferring kinase activity from phosphoproteomics data for target discovery and treatment response prediction in cancer
10:00 11:00	Laurent. GATTO UCLouvain, Louvain, BE	A principled approach to process, analyse and interpret single-cell proteomics data
11:00 11:30	Coffee break / Meet the speaker (Hall BDD)	
11:30 12:15	Short talks	10 minutes/presentation
12:15 14:00	Lunch (Hall BDD)	
14:00 15:00	Oznur TASTAN Sabanci University, Istanbul, TR	Deciphering molecular interactions via machine learning
15:00 15:30	Coffee break / Meet the speaker (Hall BDD)	
15:30 16:30	Vera PANCALDI CRCT, Toulouse, FR	Network approaches for spatial data analysis
16:30 18:00	Master's journal club (Amphi BDD)	
18:00 21:00	Social Event (Outside Curie)	

Friday, October 4th

Chair: TBD

09:00 10:00	Fatima AL-SHAHROUR Spanish National Cancer Research Centre, Madrid, ES	Bioinformatics strategies to target cancer genomes for precision medicine
10:00 11:00	Lisbeth GERIS University of Liège, Liège, BE	From omics to organ: building virtual patients for developing living implants
11:00 11:30	Coffee break / Meet the speaker (Hall BDD)	
11:30 12:00	Short talks	10 minutes/presentation
12:00 14:00	Lunch (Green cafe)	
14:00 16:30	Curie Museum Vist (Curie Campus) Career development workshop (Amphi BDD) Master's journal club (IBENS)	
16:30 17:00	Coffee break / Meet the speaker (Hall BDD)	
17:00 17:30	Closing remarks, prizes for journal club, presentations and posters (Amphi BDD)	
17:30 19:00	Farewell cocktail (Hall BDD)	