

3rd Course on Computational Systems Biology of Cancer: Promises of Artificial Intelligence

September 28 - October 2, 2020 **hours are in CEST zone**

VIRTUAL

EMBO / FEBS / Institut Curie Training Unit International Course

VIRTUAL

Monday, September 28 th Session 1: Machine learning in prior knowledge applications for data analysis		
08:50 09:00	Damjana Rozman University of Ljubljana, SI	Welcome and opening remarks by FEBS representative (Plenary Hall)
09:00 10:00	Andrei Zinovyev Institut Curie, FR	Didactic introductory lecture on AI approaches in systems biology (Plenary Hall)
10:00 11:00	Talks selected from abstracts	15 minutes/presentation (Parallel sessions: Plenary Hall, Meeting room A)
11:00 13:00	Lunch / Poster session (Parallel sessions: Poster rooms 1-8)	
Monday, September 28 th Session 2: Network biology in Artificial Intelligence era		
13:00 14:00	Laura Cantini IBENS-ENS, FR	Benchmarking of computational approaches to multi-omics data analysis (Plenary Hall)
14:00 15:00	Nataša Pržulj Barcelona Supercomputing Center, ES	Analyzing Network Data in Biology and Medicine (Plenary Hall)
15:00 15:30	Coffee break / Meet the speaker (Parallel sessions: Meeting rooms A-C)	
15:30 17:30	Poster session (Parallel sessions: Poster rooms 1-8)	
17:30 18:15	Talks selected from abstracts	15 minutes/presentation (Parallel sessions: Plenary Hall, Meeting room A)
18:30 19:30	Welcome cocktail / Virtual Apéro (Parallel sessions: Meeting rooms A-C, Poster rooms 1-2)	
Tuesday, September 29 th Session 3: Patient stratification and disease classification using Artificial Intelligence methods (1)		
09:00 10:00	Nataliya Sokolovska University Pierre et Marie Curie, FR	Interpretable models for clinical scores (Plenary Hall)
10:00 11:00	David Wedge The Big Data Institute, UK	Stratification of prostate cancers through the application of machine learning to sequencing data (Plenary Hall)
11:00 11:30	Coffee break / Meet the speaker (Parallel sessions: Meeting rooms A-C)	
11:30 13:30	Poster session (Parallel sessions: Poster rooms 1-8)	
Tuesday, September 29 th . Session 4: Patient stratification and disease classification using Artificial Intelligence methods (2)		
13:30 14:30	Susana Vinga Instituto Superior Técnico, PT	Cancer classification and survival analysis through sparse optimization and network-based regularisers (Plenary Hall)
14:30 15:30	Valentina Boeva ETH, Zurich, CH	Machine learning methods for the detection of intratumoral heterogeneity in cancer (Plenary Hall)
15:30 16:00	Coffee break / Meet the speaker (Parallel sessions: Meeting rooms A-C)	
16:00 17:30	Talks selected from abstracts	15 minutes/presentation (Parallel sessions: Plenary Hall, Meeting room A)
17:30 18:00	COVID 19 - biomedical observations (Plenary Hall)	
Wednesday, September 30 th Session 5: Machine Learning applications in precision medicine (1)		
09:00 10:00	Chloé-Agathe Azencott Centre for Computational Biology, MINES ParisTech, FR	Feature selection with regularization in high-dimensional genomics data (Plenary Hall)
10:00 11:00	Yves Moreau KULeuven, BE	Bayesian matrix factorization and deep learning for drug discovery and precision medicine (Plenary Hall)
11:00 11:30	Coffee break / Meet the speaker (Parallel sessions: Meeting rooms A-C)	
11:30 12:30	Talks selected from abstracts	15 minutes/presentation (Parallel sessions: Plenary Hall, Meeting room A)
12:30 13:30	Lunch / Poster session (Parallel sessions: Poster rooms 1-8)	
Wednesday, September 30 th Session 6: Machine Learning applications in precision medicine (2)		
13:30 14:30	Jean-Philippe Vert Google, FR	Robust machine learning for cancer precision medicine (Plenary Hall)
14:30 15:30	Olli Kallioniemi SciLifeLab, SE	AI approaches in Precision Cancer Medicine (Plenary Hall)
15:30 16:30	Lodewyk Wessels Netherlands Cancer Institute, NL	Mapping cellular networks in cancer (Plenary Hall)
16:30 17:00	Coffee break / Meet the speaker (Parallel sessions: Meeting rooms A-C)	
17:00 18:00	Poster session (Parallel sessions: Poster rooms 1-8)	

Thursday, October 1st Session 7: Tumor genetics and epigenetics (1)

09:00 10:00	Christina Leslie Memorial Sloan Kettering Cancer Center, USA	Machine learning in regulatory genomics and systems biology (Plenary Hall)
10:00 11:00	Andrew Teschendorff University College, UK	Machine Learning approaches for large scale multi-dimensional cancer omics data analysis (Plenary Hall)
11:00 12:00	Julio Saez-Rodriguez Heidelberg University, DE	Supporting Machine Learning with Prior Biological Knowledge to extract insight from omics data (Plenary Hall)
12:00 12:30	Coffee break / Meet the speaker (Parallel sessions: Meeting rooms A-C)	
12:30 13:30	Lunch / Poster session (Parallel sessions: Poster rooms 1-8)	

Thursday, October 1st Session 8: Tumor genetics and epigenetics (2)

13:30 14:30	Touati Benoukraf MUN, CA	DNA methylation and Cancer (Plenary Hall)
14:30 15:30	List of speakers TBA	Career development WS: Invited speakers, pharma and scientific editing representatives, platform managers speaking on their career (Plenary Hall)
15:30 16:00	Coffee break / Meet the speaker (Parallel sessions: Meeting rooms A-C)	
16:00 17:00	Talks selected from abstracts	15 minutes/presentation
17:00 19:00	Master student's journal club	Preseentation of milestone papers (Parallel sessions: Meeting rooms A-C)

Friday, October 2nd. Session 9: Bioimage Informatics in cancer research (1)

09:00 10:00	Nasir Rajpoot University of Warwick, UK	The Promise of Computational Pathology (Plenary Hall)
10:00 11:00	Florian Markowitz University of Cambridge, UK	Image analysis of the tumour tissue and early detection by AI (Plenary Hall)
11:00 11:30	Coffee break / Meet the speaker (Parallel sessions: Meeting rooms A-C)	
11:30 13:30	Lunch / Poster session (Parallel sessions: Poster rooms 1-8)	

Friday, October 2nd Session 10: Bioimage Informatics in cancer research (2)

13:30 14:30	Thomas Walter Centre for Computational Biology, MINES ParisTech, FR	Exploring the spatial aspects of gene expression (Plenary Hall)
14:30 15:30	Emma Lundberg SciLifeLab, SE	AI for improved spatial proteomics (Plenary Hall)
15:30 16:00	Coffee break / Meet the speaker (Parallel sessions: Meeting rooms A-C)	
16:00 17:30	Master student's journal club	Presentation of milestone papers (Parallel sessions: Meeting rooms A-C)
17:30 18:00	Closing remarks, prizes for presentations and posters (Plenary Hall)	
18:00 19:00	Farewell cocktail / Virtual Apéro (Parallel sessions: Meeting rooms A-C, Poster rooms 1-2)	