## Emerging Systems Medicine 2022 Conference

15 – 17 June 2022 | Stockholm, Sweden



## PRELIMINARY PROGRAM

Venue: Eva & Georg Klein Lecture Hall, Biomedicum, Karolinska Institutet

DATE	TIME	SESSION
15 June 2022	09:00-12:30	SESSION I: Systems Biology of Cancer
		Andrew E. Teschendorff, Chinese Academy of Sciences, Shanghai, China: Single-cell entropy identifies preneoplastic cells of high stemness and cancer risk
		<b>Kristin Swanson, Mayo Clinic, Phoenix, USA:</b> Personalizing Brain Cancer Treatment: Sex, Drugs and Radiomics
		<b>Sven Nelander, Uppsala University, Sweden:</b> Charting the invasion routes of glioblastoma and their patient-specific vulnerabilities
		2x Short talks TBD
	12:30-13:30	LUNCH
	13:30-17:00	SESSION II: Spatiotemporal analysis of disease models
		<b>Garry Nolan, Stanford University, USA:</b> Cancer cheats the game rules of immune-tissue schematics
		Lucas Pelkmans, University of Zurich, Switzerland: Finding information in heterogeneity: from cellular decision making to personalized drug responses in clinical trials
		<b>Olivier Pertz, University of Bern, Switzerland:</b> Spatio-temporal MAPK signaling dynamics in breast cancer
		Short talk: <b>Ulf Landegren, Uppsala University, Sweden:</b> Tools for in situ detection of mutant transcripts and proteins in cancer tissue samples
		Short talk: <b>Jianjiang Hu, Karolinska Institutet, Sweden</b> : Local temporal Rac1-GTP nadirs and peaks restrict cell protrusions and retractions in migrating cancer cells
	17:00-19:00	Poster Session (incl. drinks and snacks)

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16 June 2022	09:00-12:30	SESSION III: Systems Biology of Brain Disease
		<b>Gioele La Manno, EPFL, Lausanne, Switzerland:</b> A spatial lipidomics atlas of the mouse brain
		Jussi Taipale, University of Cambridge, UK, and Karolinska Institutet, Sweden: Transcriptional control of cancer cell proliferation
		<b>Ernest Arenas, Karolinska Institutet, Sweden:</b> Systems biology of human midbrain development and Parkinson's disease
		2x short talks TBD
	12:30-13:30	LUNCH
	13:30-17:00	SESSION IV: Host-pathogen interactions and responses to infection
		<b>Luis Serrano, CRG, Spain:</b> Translational adaptations of human viruses to the infected tissues
		<b>Anna Överby, Umeå University, Sweden:</b> Cellular tropisms of tick-borne flavivirus infection in mouse brains
		<b>Joel Selkrig, EMBL, Heidelberg, Germany:</b> Global mapping of host-pathogen interactions
		Short talk: <b>Ylva Ivarsson, Uppsala University, Sweden:</b> Panviral discovery of motif-based virus-host protein-protein interactions
		1 short talk TBD
	19:00-	Conference Dinner
17 June 2022	09:00-12:30	SESSION V: Data-driven methods for biomarker and drug discovery
		Andreas Califano, Columbia University, USA: Systematic Elucidation and Pharmacologic Targeting of non-Oncogene Cancer Dependencies at the Single Cell Level
		<b>Sergio Baranzini, UCSF, USA:</b> Embedding of millions of electronic health records onto a biomedical knowledge graph to predict medical outcomes
		Mika Gustafsson, Linköping University, Sweden: Time-series multi-omic analysis for the identification of network-based models of multiple sclerosis
		2x short talks TBD