

Evolution of Cancer - Reconstructing the Past, Predicting the Future

742. WE-Heraeus-Seminar

21 - 25 March 2022

hybrid

at the Physikzentrum Bad Honnef, Germany

**WILHELM UND ELSE
HERAEUS-STIFTUNG**



Program

Sunday, 20 March 2022

17:00 – 20:00 Registration

18:00 *BUFFET SUPPER and informal get-together*

Monday, 21 March 2022

08:00 *BREAKFAST*

09:00 Scientific organizers **Welcome words**

09:10 – 10:10 Johannes Berg Tutorial:
Population dynamics

10:10 – 10:30 *COFFEE BREAK*

10:30 – 11:30 Donate Weghorn Tutorial:
Selection inference

11:30 – 12:30 Martin Peifer Tutorial:
Clonal inference

12:30 – 12:40 **Conference Photo** (in the front of the lecture hall)

12:40 *LUNCH*

Program

Monday, 21 March 2022

14:00 – 15:00	Leonid Mirny	Limited evidence of tumour mutational burden as a biomarker of response to immunotherapy
15:00 – 15:30	<i>COFFEE BREAK</i>	
15:30 – 16:30?	Philipp Altrock	Modeling cancer ecology to understand tumor evolution
16:30 – 17:30	Eytan Domany	tba
17:30 – 17:45	Stefan Jorda	About the Wilhelm and Else Heraeus-Foundation
19:00	<i>DINNER</i>	

Program

Tuesday, 22 March 2022

08:00	<i>BREAKFAST</i>	
09:00 – 10:00	Bartłomiej Waclaw	Darwinian evolution in spatial models of cancer
10:00 – 10:30	<i>COFFEE BREAK</i>	
10:30 – 11:30	Peter Campbell	tba
11:30 – 12:30	Peter Van Loo	Molecular archeology of cancer
12:30	<i>LUNCH</i>	
14:00 – 15:00	Ville Mustonen	The impact of cell turnover on cancer therapy and evolution
15:00 – 15:30	<i>COFFEE BREAK</i>	
15:30 – 16:30	Noemi Andor	Characterizing cytotoxic therapy induced shifts in the cost-to-benefit ratio of high ploidy
16:30 – 17:30	Christina Curtis	Charting genotype to phenotype maps of tumorigenesis
17:30 – 18:30	Online posters with 'elevator pitch'-talks	
19:00	<i>DINNER</i>	

Program

Wednesday, 23 March 2022

08:00	<i>BREAKFAST</i>	
09:00 – 10:00	Julie George	Deciphering tumor evolution in small cell lung cancer
10:00 – 10:30	<i>COFFEE BREAK</i>	
10:30 – 11:30	Nicholas McGranahan	Exploiting sequencing data to understand cancer evolution
11:30 – 12:30	Marco Gerlinger	Genetic and immune landscape co-evolution in colorectal cancers
12:30	<i>LUNCH</i>	
14:00 – 17:30	Excursion: Hike in the vicinity	
19:00	<i>DINNER</i>	

Program

Thursday, 24 March 2022

08:00	<i>BREAKFAST</i>	
09:00 – 10:00	Trevor Graham	Tracing evolution before cancer in the human colon
10:00 – 10:30	<i>COFFEE BREAK</i>	
10:30 – 12:30	On site posters, livestreamed via Zoom	
12:30	<i>LUNCH</i>	
14:00 – 15:00	Simon Tavare	Modeling and simulation of cancer evolution in single cells
15:00 – 15:30	<i>COFFEE BREAK</i>	
15:30 – 16:30	Katerina Politi	Uncovering mechanisms of drug resistance in lung cancer
16:30 – 17:30	Quaid Morris	Reconstructing complex clone trees from multiple bulk DNA samples using Pairtree
18:00 – 19:00	Fireside chat	
19:00	<i>HERAEUS DINNER (social event with cold & warm buffet with complimentary drinks)</i>	

Program

Friday, 25 March 2022

08:00	<i>BREAKFAST</i>	
09:00 – 10:00	Mariam Jamal-Hanjani	Cancer evolution and the development of metastases
10:00 – 10:30	<i>COFFEE BREAK</i>	
10:30 – 11:30	Niko Beerenwinkel	Inferring tumor evolution from single-cell data
11:30 – 12:30	Shamil Sunyaev	Mechanisms of cancer mutation and what they can tell us about cancer evolution
12:30	<i>LUNCH</i>	
14:00 – 15:00 (Q&A at 14:45)	Charles Swanton	Cancer evolution, immune evasion and metastases.

End of the seminar and departure

NO DINNER for participants leaving on Saturday morning