

Late Summer School 2025

Tumor Heterogeneity, Evolutionary Dynamics and Treatment Response:

Experiments Meet Computation

24 - 26 September 2025

**Humboldt Universität Campus Nord, Haus 18, Philippstraße 13
10115 Berlin, Germany ([HU Nord](#))**

Wednesday, 24 September 2025

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| 09:45 – 10:45 | LECTURE [Hörsaal 2]
“Mathematical oncology and digital twins for clinical oncology”
Heiko Enderling , MD Anderson Cancer Center, Houston, USA |
| 11:00 – 12:00 | RESEARCH TALK [Hörsaal 2]
“Leveraging single cell technologies to engineer the immune system”
Ido Amit , Weizmann Institute of Science, Rehovot, Israel |
| 12:00 – 12:45 | RESEARCH TALK [Hörsaal 2]
“Extrachromosomal DNAs (ecDNAs) in cancer”
Anton Henssen , Charité – Universitätsmedizin Berlin, Germany |
| 15:30 – 16:30 | RESEARCH TALK [Hörsaal 2]
“Integrating patient-specific experimental models, state-of-the-art molecular biology, and large-scale computation to investigate growth principles and treatment options in cancers of the nervous system”
Sven Nelander , Uppsala University, Sweden |

Thursday, 25 September 2025

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| 09:00 – 10:00 | LECTURE [Hörsaal 2]
“The plastic epigenetic network of cancer”
Efrat Shema , Weizmann Institute of Science, Rehovot, Israel |
| 10:30 – 11:30 | Short Talks I [Hörsaal 2] <ul style="list-style-type: none">• Tancredi Massimo Pentimalli: Spatiotemporal dynamics of tumor microenvironment remodeling• Adila Apsara: Gut microbiota shape immune responses in radiation-induced lung toxicity• Siddharth Annaldasula: Deconvoluting the tumor microenvironment using somatic mutations |
| 11:30 – 12:30 | LECTURE [Hörsaal 2]
“Single-cell tumor phylogenetics”
Niko Beerenwinkel , ETH Zürich, Switzerland |

- 13:30 – 14:30 RESEARCH TALK [Hörsaal 2]
 “Single-molecule and single-cell epigenetics: Decoding the epigenome for cancer research and diagnosis”
Efrat Shema, Weizmann Institute of Science, Rehovot, Israel
- 17:00 – 18:00 LECTURE [MDC-BIMSB*]
 “Quantifying Somatic Evolution in Cancer”
Nicholas McGranahan, University College London, UK

Friday, 26 September 2025

- 09:00 – 10:00 RESEARCH TALK [Hörsaal 2]
 “Somatic Evolution, Metastasis and the Impact of Cancer Treatment”
Nicholas McGranahan, University College London, UK
- 10:30 – 11:30 **Short Talks II** [Hörsaal 2]
- **Vuk Dinovic**: Radiotherapy-induced tumor and stromal cell state regulation in PDAC
 - **Jonas Berger**: Long-read single-cell sequencing reveals highly variable aberrant splicing landscape in spliceosome mutated acute myeloid leukemia
 - **Kai Wollek**: Computational analysis of T cell receptor repertoires
- 11:30 – 12:30 RESEARCH TALK [Hörsaal 2]
 “PRiSM - Personalizing Radiotherapy with Integrated Scientific Modeling “
Heiko Enderling, MD Anderson Cancer Center, Houston, USA
- 13:30 – 14:30 RESEARCH TALK [Hörsaal 2]
 “Modeling tumor progression from single-cell sequencing data”
Niko Beerenwinkel, ETH Zürich, Switzerland

***MDC-BIMSB**: Max Delbrück Center - Berlin Institute for Medical Systems Biology, Hannoversche Str. 28, 10115 Berlin