

Understanding of immune cells, immunotherapy and approaches to study the biological processes

Lectures day 7.9.2022
(part of Single-cells analysis summer school)



Modrá posluchárna UniMeC, alej Svobody 76, 323 00 Pilsen

PROGRAM

REGISTRATION: 08:00 – 08:45

WELCOME: 08:45 - 9:00

Milena Králíčková (rector of Charles University)

SESSION 1: IMMUNE CELLS AND SINGLE-CELL ANALYSIS 9:00 – 12:20

Chair: Valentina Caputo (London South Bank University) and Monika Holubová (Charles University)

PART 1

1. Microenvironmental control of innate lymphoid cell responses (Ana Stojanovic; University of Heidelberg) – 30min
2. iNKT and dogs: a ride from bench to bed with the help of man's best friend (Antonia Rotolo; the University of Pennsylvania) – 30min
3. CAR-iNKT cells: Another blade for the swiss army knife (Dominik Schneidawind; University Hospital Tubinghen) – 30min

Coffee break (10:30 – 10:50)

Chair: Valentina Caputo (London South Bank University) and Pavel Ostašov (Charles University)

PART 2

4. Single cell applications in the decade of CART therapy (Agnieszka Ciesielska; 10X Genomics) - 30min
5. Profiling of immune cells in bacterial sepsis (Lucie Kraftová; Charles University) – 30min
6. Empowering stem cell therapy for Huntington's disease using single-cell genomics (Vittoria Bocchi; University of Milan) – 30min

LUNCH BREAK: 12:20 – 13:20

(note: lunch will be provided only for the participants of Summer School)

SESSION 2: THE APPROACHES FOR THE STUDY OF BIOLOGICAL PROCESSES – 13:20 – 16:30

Chair: Iros Barozzi (Medical University of Vienna) and Lucie Houdová (University of West Bohemia)

PART 1

7. Possibilities for bioinformatic support of biological research and data analysis with ELIXIR CZ research infrastructure (Karel Berka, ELIXIR Czech Republic) – 15min
8. Spatial genomics: Digital approaches to study the Society of Cells (Kyoung Jae Won; University of Copenhagen) – 30min
9. Single Cell Transcriptomics (as of Today) (Giulio Pavesi; University of Milan) – 30min

Coffee break (14:40 – 15:00)

Chair: Iros Barozzi (Medical University of Vienna) and Pavel Ostašov (Charles University)

PART 2

10. Variation in gene expression at single-cell level (Aleksander Jankowski; University of Warsaw) - 30min
11. Harnessing cells to analyse cells: a massively parallel method for rare cell detection (Daniel Georgiev; Sampling Human, Inc.) – 30min
12. Genome-wide quantification of transcription factor binding at single-DNA-molecule resolution (Guido Barzaghi - Arnaud Krebs Lab; EMBL) – 30min

NOTE: COFFEE AND SNACK WILL BE PROVIDED FOR FREE. LUNCH IS ORGANIZED FOR SUMMER SCHOOL PARTICIPANTS ONLY

PLEASE REGISTER HERE:

<https://docs.google.com/forms/d/1FBj5IASuqFSchQnExUxpww8M6XmCLAH2ym2faRoHUzU/edit>