

International DEEP-DV Summer School

High resolution virology: imaging – omics – data science

6th – 8th July 2023 at the CSSB, Hamburg, Germany

PROGRAM

Location: CSSB Main Lecture Hall

Thursday, July 6

9:30 – 11:30 **“Science writing: addressing your audience”**, Aditya Sankar (EMBL Heidelberg)
Funding opportunities with the DFG, TBA (UKE/TU Braunschweig)
Open to all PhD students and postdocs

12:15 – 12:30 Welcome and opening
Kay Grünewald, director of the Centre for Structural Systems Biology (CSSB)
Melanie Brinkmann & Nicole Fischer, speakers of DEEP-DV

12:30 – 14:00 **Session 1** **NextGen Virology: Imaging and Integrative Virology I**

Chairs: Jens Bosse (CSSB) and Gabrielle Vieyres (LIV)

- 12:30 – 13:15 **“Membrane modulations by herpesviruses - a structural cell biology perspective”**, Kay Grünewald, CSSB/LIV/UHH, Hamburg, Germany
- 13:15 – 13:30 Short talk 1
- 13:30 – 13:45 Short talk 2
- 13:45 – 14:00 **“MINFLUX nanoscopy of pathogens on the example of *Yersinia enterocolitica* and its type 3 secretion system”**, Alexander Carsten, UKE, Hamburg, Germany
- 14:00 – 14:30 **Coffee break**

14:30 – 16:00 **Session 2** **NextGen Virology: Imaging and Integrative Virology II**

Chairs: Benedikt Kaufer (FU Berlin) and Thomas Günther (LIV)

- 14:30 – 15:15 **“Dynamic genome interactions during virus infection”**, Matthew D. Weitzman, University of Pennsylvania, Philadelphia, PA, USA
- 15:15 – 15:30 Short talk 4
- 15:30 – 15:45 Short talk 5
- 15:45 – 16:00 Short talk 6

16:00 – 16:30 **FLASH talks**

Chair: Markus Landthaler (MDC Berlin)



16:30 – 18:00 **Poster session**

18:00 – 18:45 **Session 2 continued** **NextGen Virology: Imaging and Integrative Virology II**

Chairs: Benedikt Kaufer (FU Berlin) and Thomas Günther (LIV)

18:00 – 18:45 **“An integrative approach to decipher viral protein-protein interactions and their structures”**, Maya Topf, CSSB/LIV/UKE, Hamburg, Germany

18:45 – 19:15 **Group pictures**

19:30 **BBQ for all participants at the CSSB**

Friday, July 7

09:00 – 10:30 **Session 3** **NextGen Virology: Chromatin Remodeling and Nuclear Compartments**

Chairs: Adam Grundhoff (LIV) and Manja Czech-Sioli (UKE)

09:00 – 09:45 **“Transcriptional condensates in health and disease”**, Denes Hnisz, Max Planck for Molecular Genetics, Berlin, Germany

09:45 – 10:00 Short talk 7

10:00 – 10:15 Short talk 8

10:15 – 10:30 Short talk 9

10:30 – 11:00 **Coffee break**

11:00 – 13:00 **Session 4** **NextGen Virology: Transcription and Nuclear Compartments**

Chairs: Sabrina Schreiner (MHH) and Simon Weissmann (LIV)

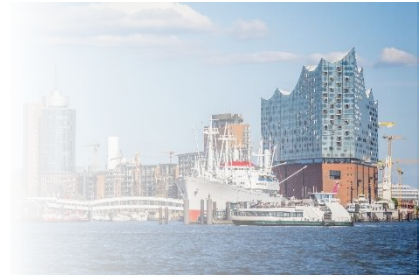
11:00 – 11:45 **“Nuclear sorting of RNA”**, Torben Heick Jensen, Aarhus University, Aarhus, Denmark

11:45 – 12:00 Short talk 10

12:00 – 12:15 Short talk 11

12:15 – 13:00 **“Physical mechanisms of genome organization”**, Thomas Quail, EMBL, Heidelberg, Germany

13:00 – 14:00 **Lunch break**



14:00 – 15:30 **Session 5** **NextGen Virology: Integrative Virology – Data Science**

Chairs: Caroline Friedel (LMU) and Emanuel Wyler (MDC)

- 14:00 – 14:45 **“RNA interactomics: a new perspective on RNA viruses and beyond”**, Mathias Munschauer, Helmholtz Institute for RNA-based Infection Research, Würzburg, Germany
- 14:45 – 15:00 Short talk 12
- 15:00 – 15:15 Short talk 13
- 15:15 – 15:30 Short talk 14

15:30 – 16:00 **FLASH talks**

Chair: Lars Dölken (JMU)

16:00 – 17:30 **Poster session**

17:30 – 18:15 **Session 5 continued** **NextGen Virology: Integrative Virology – Data Science**

Chairs: Florian Erhard (UR) and Maya Topf (CSSB/LIV/UKE)

- 17:30 – 18:15 **“Developing structural interactomics and its application in virology”**, Fan Liu, Leibniz Forschungsinstitut für Molekulare Pharmakologie, Berlin, Germany

19:30 **Speakers dinner**

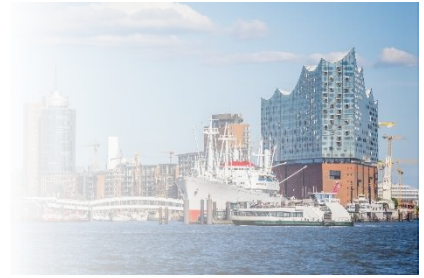
Saturday, July 8

09:00 – 10:15 **Session 6** **NextGen Virology: Molecular Switches in Infection**

Chairs: Abel Viejo-Borbolla (MHH) and Thomas Hennig (JMU)

- 09:00 – 09:45 **“Virus Infection Variability in Single Cells - From Entry to Egress”**, Urs Greber, University of Zurich, Zurich, Switzerland
- 09:45 – 10:15 **“Apoptosis, Necroptosis, and Pyroptosis: Many Ways for a Cell to Die ... and for a Virus to Interfere”**, Wolfram Brune, Leibniz Institute for Virology, Hamburg, Germany

10:15 – 10:45 **Coffee break**



10:45 – 12:00 **Session 6 continued** **NextGen Virology: Molecular Switches in Infection**

Chairs: Abel Viejo-Borbolla (MHH) and Thomas Hennig (JMU)

10:45 – 11:15 **“Kaposi Sarcoma-associated Herpesvirus Latent Nuclear Antigen: more than a key mediator of viral persistence”**, Thomas Schulz, Medizinische Hochschule Hannover, Hannover, Germany

11:15 – 12:00 **“Intersection of neuronal immune and stress signaling pathways with the latent HSV epigenome”**, Anna Cliffe, University of Virginia, Charlottesville, VA, USA

12:00 – 12:30 **Poster-price awards and farewell**