

1st Symposium on Machine Learning for Infection and Disease in Görlitz



Thursday 15 September 2022 - Friday 16 September 2022

Scientific Programme

ThursdaySeptember 15th

Time

Title

Speaker

Session 1: Chair Dr. Artur Yakimovich

8:30 - 9:00

Symposium Opening - Welcome Address

Dr. Artur Yakimovich (CASUS HZDR, Germany)

9:00 - 9:30

Overview talk: the rise of artificial intelligence in infection biology

Dr. Artur Yakimovich (CASUS HZDR, Germany)

9:30 - 10:30

Understanding virus infection variability by AI-guided single cell biology

Prof. Urs Greber (University of Zurich, Switzerland)

10:30 - 11:00

Coffee break + Discussions

Session 2: Student Chair Gabriel della Maggiora

11:00 - 12:00

Biomedical NLP: opportunities and challenges

Dr. Elif Ozkirimli (Roche Pharma, Switzerland)

12:00 - 13:00

Inferring spatio-temporal models from imaging data

Prof. Ivo Sbalzarini (TU Dresden, Center for Systems Biology Dresden, Germany)

13:00 - 14:00

Lunch Break + Discussions

Session 3: Student Chair Rui Li

14:00 - 15:00

Predicting mutations with AI in Genomics

Prof. Anna Poetsch (TU Dresden, Germany)

15:00 - 16:00

Structures of membrane protein complexes in situ by cryo electron tomography: current state and

future developmetns

Prof. Mikhail Kudryashev (Max Delbrück Center for Molecular Medicine, Germany)

16:00 - 17:00

Data-driven approach to early estimate the inflection points of infected cases in Saxony, Germany
Dr. Kai Fan (CASUS, Where2Test team)

17:00 - 19:00

Conference Dinner + Networking

19:00 - 22:00

Flash Talks

FridaySeptember 16th

Time

Title

Speaker

Session 4:Chair Dr. Artur Yakimovich

8:30 - 9:00

Symposium Day 2 Opening
Dr. Artur Yakimovich (CASUS HZDR, Germany)

9:00 - 10:00

How to build a Poxvirus
Prof. Jason Mercer (University of Birmingham, United Kingdom)

10:00 - 11:00

Machine Learning in Microscopy of Virus Infections
Prof. Yohei Yamauchi (ETH Zürich, Switzerland and University of Bristol, UK)

11:00 - 11:30

Coffee break + Discussions

Session 5:Chair Dr. Artur Yakimovich

11:30 - 12:30

Use of the cytoskeleton to control Shigella infection
Prof. Serge Mostowy (London School of Hygiene & Tropical Medicine, United Kingdom)

12:30 - 13:00Capturing the heterogeneity of Shigella infection with high content microscopyDr. Ana
Lopez Jimenez (London School of Hygiene & Tropical Medicine, United Kingdom)

13:00 - 14:00

Lunch Break + Discussions

14:00 - 14:30

Flash Talks

Session 6: Student Chair Trina De

14:30 - 15:30

Studying virus infection in 3D nasal epithelia

Dr. Giuseppe Balistreri (University of Helsinki, Finland)

15:30 - 16:30

Studying the dynamics of virus-host interaction by live imaging

Dr. I-Hsuan Wang (Academia Sinica, Taiwan)

16:30 - 17:30

Developing an image-based machine learning platform to diagnose urinary tract infection

Dr. Harry Horsley (University College London, United Kingdom)

17:30 - 18:00

Closing remarks

Dr. Artur Yakimovich (CASUS HZDR, Germany)

18:00 - 18:30

Coffee break + Discussions + Transition to the public talk venue

18:30 - 19:30

Public talk: "Mit den 'Augen' eines Virus - tiefe Einblicke in Viren & Zellen"

Prof. Urs Greber (University of Zurich, Switzerland)