

**SFB 1129 International Symposium**  
**Integrative Analysis of Pathogen Replication and Spread**

**Heidelberg 6 – 7 May, 2021 (local time)**  
**Online Meeting**

**Program**

**Thursday, May 6, 2021**

1.45 p.m. Opening and Welcome by SFB 1129 Spokesman

**Session I Session Chair: Ulrich Schwarz**

2.00 p.m. Short talk: Pintu Patra, Heidelberg (Project Schwarz)  
*Imaging red blood cell remodelling by P. falciparum*  
 Short talk: Joana Caria, Heidelberg (Project Lemke)  
*Molecular determinants of large cargo transport into the nucleus*

2.10-2.40 Maria Bernabeu, Barcelona  
*Developing 3D brain microvascular for cerebral malaria research*

2.40-3.10 Christine Selhuber-Unkel, Heidelberg  
*Migration of Acanthamoeba trophozoites in synthetic microenvironments*

3.10-3.40 Jochen Guck, Erlangen  
*Physical phenotyping of cell functional changes at 1000 cells/sec*

3.40-4.00 Break

**Session II Session Chair: Motomu Tanaka**

4.00 p.m. Short talk: Zhaozhi Sun, Heidelberg (Project Ruggieri)  
*Dynamical and Biophysical Properties of Virus-induced Stress Granules*  
 Short talk: Charlotte Decker, Heidelberg (Project Dao Thi)  
*The role of hepatitis E virus ORF3 protein in polarized viral secretion*

4.10-4.40 E. Ada Cavalcanti-Adam, Heidelberg  
*Cellular and molecular forces involved in particle uptake*

4.40-5.10 David Alsteens, Louvain-la-Neuve  
*Probing Virus Binding Sites to Animal Cells Using Atomic Force Microscopy*

5.10-5.40 Dirk Grimm, Heidelberg  
*Fighting fire with fire - use of viral vectors to study, prevent or treat viral infections*

5.40-7.00 Break

**Session III Session Chair: Michael Lanzer (or Britta Brügger)**

7.00 p.m. Short talk: Julian Czajor, Heidelberg (Project Tanaka)  
*Influence of haemoglobinopathie on biomechanics of Plasmodium falciparum infected erythrocytes*  
 Short talk: Marianne Papagrigorakes, Heidelberg (Project Lanzer)  
*Tracking the adhesion of Plasmodium falciparum infected erythrocytes under flow*

7.10-7.40 Isabelle Tardieux, Grenoble  
*Decoding the top gliding performance of the protozoan parasite Toxoplasma gondii*

7.40-8.10 Friedrich Frischknecht, Heidelberg  
*Keeping in shape for efficient malaria parasite migration and transmission*

8.10-8.40 Boris Striepen, Philadelphia  
*Biology of the enteric parasite Cryptosporidium*

**Friday, May 7, 2021**

**Session IV Session Chair: Alessia Ruggieri**

2.00 p.m. Short talk: Steffen Klein, Heidelberg (Project Chlanda)  
*Influenza A virus membrane fusion inhibition by IFITM3 characterized by in cellulo cryo-electron tomography*  
 Short talk: Nethi Jyothirmai, Heidelberg (Project Brügger)  
*Proteome-wide mapping of protein-sphingolipid interactions in IAV-infected A549 cells*

2.10-2.40 Eric Snijder, Leiden  
*From replication to spread: The coronavirus escape room*

2.40-3.10 Thomas Höfer, Heidelberg  
*Dynamics of dengue virus replication at single-cell resolution*

3.10-3.40 Steeve Boulant, Heidelberg  
*Single cell RNA sequencing of human intestinal organoids reveals lineage-specific intrinsic immune response to enteric viruses*

3.40-4.00 Break

**Session V Session Chair: Barbara Müller**

4.00 p.m. Short talk: Samy Sid Ahmed, Heidelberg (Project Fackler)  
*Concepts of HIV-1 spread in 3D collagen environments*  
 Short talk: Lara Gallucci, Heidelberg (Project Fackler)  
*Effects of the 3D environment on functional interactions between Dendritic Cells and HIV*

4.10-4.40 John Briggs, Cambridge  
*In situ structural studies of virus matrix proteins*

4.40-5.10 Markus Ganter, Heidelberg  
*Uncovering the regulation of Plasmodium falciparum proliferation*

5.10-5.40 Victoria Ingham, Heidelberg  
*The complexity of insecticide resistance in malaria vectors*

5.40-7.00 Break

**Session VI Session Chair: Oliver Fackler**

7.00 p.m. Short talk: Sandra Schifferdecker, Heidelberg (Project Müller)  
*Directly labelled HIV-1 CA using an expanded genetic code*  
 Short talk: Ines de Castro, Heidelberg (Project Lusic)  
*Nuclear pore complex in HIV-1 integration and host genome dynamics*

7.10-7.40 Hans-Georg Kräusslich, Heidelberg and Martin Beck, Frankfurt  
*Nuclear entry of capsid-encased HIV-1 replication complexes*

7.40-8.10 Walther Mothes, New Haven  
*Imaging retroviruses and SARS-CoV-2 across spatial and temporal scales*

8.10 end