Programme 22nd September 2011

12.30 - 13.00  Registration

13.00 - 13.30  Systems Biology of Fungal Infection
A. Brakhage (Hans Knöll Institute, Jena, Germany)

13.30 - 14.00  Mathematical Modelling of Stress Responses in Commensal and Pathogenic Yeasts
K. Tyc, E. Klipp (Humboldt University Berlin, Germany)

14.00 - 14.15  Coffee Break

Systems Biology of Aspergillus fumigatus Infection

M. Schrettl1, C. Jöchl1, T. Heinekamp2, E. Werner2, I. Jacobsen2, A. Brakhage2, H. Haas1
(1Innsbruck Medical University, Innsbruck, Austria; 2Hans Knöll Institute, Jena, Germany)

14.45 - 15.15  Modelling of Regulatory Interactions for Iron Homeostasis in Aspergillus fumigatus
J. Linde1,2, P. Hortschansky1, A. Brakhage1, R. Guthke1, H. Haas1
(1Hans Knöll Institute, Jena, Germany; 2Friedrich Schiller University, Jena, Germany)

15.15 - 15.45  RNAseq Analysis of Aspergillus fumigatus Mutants
S. Müller1, V. Valiante1, M. Groth2, A. Brakhage1, R. Guthke1
(1Hans Knöll Institute, Jena, Germany; 2Fritz Lipmann Institute, Jena, Germany)

15.45 - 16.15  Coffee Break

Spatio-Temporal Approaches in Systems Biology of Infection

16.15 - 16.45  Multi-Photon Imaging Reveals Mechanisms of B Cell Migration and Selection in Germinal Centres
M. Meyer-Hermann (Helmholtz Centre for Infection Research, Braunschweig, Germany)

16.45 - 17.15  Automated Image Analysis of the Interaction between Phagocytes and Aspergillus fumigatus during Infection
F. Mech, A. Thywißen, R. Guthke, A. Brakhage, M. Figge
(Hans Knöll Institute, Jena, Germany)

17.15 - 17.45  Immuno-Pacman: Human Phagocytes vs Opportunistic Pathogenic Fungi - A Multi-Agent-Based Modelling Approach
C. Tokarski1, S. Hummert2, F. Mech3, M. Figge2, S. Germerodt1, A. Schroeter1, S. Schuster1
(1Friedrich Schiller University, Jena, Germany; 2Hans Knöll Institute, Jena, Germany)

19.30  Get-Together

For further information and registration please refer to: www.biocontrol-jena.com  (Please register before 9th September 2011)
Programme 23rd September 2011

Clinical Perspectives

09.00 - 09.30 The Lung as Source and Target in Sepsis
M. Bauer (University Hospital Jena, Germany)

09.30 - 10.00 Identification of Sepsis Pathogens with Micro-Raman Spectroscopy
U. Münchberg1, B. Kampe1, P. Rösch1, M. Bauer2, J. Popp1,3
(1Friedrich Schiller University, Jena, Germany; 2University Hospital Jena, Germany; 3Institute of Photonic Technology, Jena, Germany)

10.00 - 10.30 Integrative Network Analysis of Gene Function and Drug Mode of Action in Methicillin-Resistant Staphylococcus aureus
I. Overton (Western General Hospital, Edinburgh, UK)

10.30 - 11.00 Systems Biology Approaches to Study Host-Pathogen Relations: Nasopharyngeal Microbiota in Children

11.00 - 11.30 Coffee Break

11.30 - 12.00 A Dual-Systems Approach to Decipher Fungal-Host Invasion Mechanisms
L. Tierney1, D. Hnisz2, J. Linde2, S. Müller2, R. Guthke2, K. Kuchler2
(1Medical University of Vienna, Austria; 2Hans Knöll Institute, Jena, Germany)

12.00 - 12.30 Transcription Landscapes in Candida albicans and Candida dubliniensis - A Cross-Species Analysis
C. Grumaz, S. Lorenz, P. Stevens, E. Lindemann, J. Retey, U. Schöck, S. Rupp, K. Sohn (Fraunhofer Institute for Interfacial Engineering and Biotechnology, Stuttgart, Germany)

12.30 - 13.00 The Core Filamentation Response of the Human Pathogenic Fungus Candida albicans
R. Martin1, K. Hänniger1, D. Albrecht2, O. Kurzai1 (Friedrich Schiller University, Jena, Germany; 2BioControl Jena GmbH; Germany)

13.00 - 14.00 Lunch Break

Intracellular Perspectives

14.00 - 14.30 Systems Biology of Infection: Complex Entanglement of Host, Pathogen and Environment
T. Dandekar (University of Würzburg, Germany)

14.30 - 15.00 Database for Fungal Transcription Factors
E. Shelest, E. Fazius (Hans Knöll Institute, Jena, Germany)

15.00 - 15.30 Metabolism of Intracellularly Replicating Listeria: Isotopologue-Based Flux Analysis and Modelling
T. Fuchs (Technical University of Munich, Germany)

15.30 - 16.00 Modelling the Intracellular Replication of Hepatitis C Virus
N. Sulaimanov, M. Binder, V. Lohmann, R. Bartenschlager, L. Kaderali (University of Heidelberg, Germany)

16.00 - 16.15 Concluding Remarks
R. Guthke (Hans Knöll Institute, Jena, Germany)

16.15 End of Workshop