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. Jacobsen3, A. Brakhage4, H. Haas5 (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. Hortschansky3, A. Brakhage4, R. Guthke1, H. Haas5 (1Hans Knöll Institute, Jena, Germany; 2Friedrich Schiller University, Jena, Germany; 3Innsbruck Medical University, Innsbruck, Austria)

15.15 - 15.45  RNAseq Analysis of Aspergillus fumigatus Mutants
S. Müller1, V. Valiante1, M. Groth2, A. Brakhage4, 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. Mech1, 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. Mech1, M. Figge2, S. Germerodt1, A. Schroeter1, S. Schuster1 (1Friedrich Schiller University, Jena, Germany; 2Hans Knöll Institute, Jena, Germany)

19.30  Get-Together
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  
E. van Someren, D. Bogaert, S. Huse, J. Rossen, R. Veenhoven, E. van Gils,  
J. Bruin, R. Montijn, M. Bonten, E. Sanders, M. van Erk, B. Keijser (TNO - Netherlands Organisation for Applied Scientific Research, The Netherlands)

11.00 - 11.30  Coffee Break

Systems Biology of Candida Infection
11.30 - 12.00  A Dual-Systems Approach to Decipher Fungal-Host Invasion Mechanisms  
L. Tierney¹, D. Hnisz¹, J. Linde², S. Müller², R. Guthke², K. Kuchler¹  
¹Medical University of Vienna, Austria; ²Hans Knöll Institute, Jena, Germany

12.00 - 12.30  Transcription Landscapes in Candida albicans and Candida dubliniensis - A Cross-Specifics 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

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