

## FluResearchNet Meeting Braunschweig, 26.-27. September 2011

**Monday, 26.09.2011**

### 10.00 Registration

11.00 - 11.15 **Welcome notes**  
Ludwig, S. | Münster  
Schughart, K. | Braunschweig

### Session 1: Viral adaptation and host susceptibility

11.15 **Key note: Molecular determinants of influenza virus host adaptation and pathogenicity**  
Gabriel, G. | Hamburg

11.45 **Adaptation of avian influenza viruses to growth in differentiated porcine airway epithelial cells**  
Punyadarsaniya, D. | Hannover

12.05 **Synergistic adaptive mutations in the HA and PA lead to increased virulence of pandemic 2009 H1N1 influenza A virus in mice.**  
Seyer, R. | Münster

12.25 **Analysis of the host genetic susceptibility to influenza A infections in mouse mutants**  
Hatesuer, B. | Braunschweig

12.45 **Identification of host genetic factors influencing host susceptibility to Influenza A infections.**  
Nedelko, T. | Braunschweig

13.05 **Long-term evolution of swine influenza A virus in Germany**  
Lange, J. | Jena

### 13.25 - 14.30 Lunch

### Session 2: Pathogenesis

14.30 **Key note: Attenuation and Virulence of Influenza Viruses**  
Stech, J. | Greifswald - Insel Riems

15.00 **Characterization of the neuraminidase of the H1N1/09 pandemic influenza virus**  
Matrosovich, M. | Marburg

15.20 **Recombinant soluble influenza A hemagglutinins bind to cell surface sialic acids of cultured cells and tissue sections**  
Sauer, A.-K. | Hannover

15.40 **Type II pneumocytes are the major target cells for seasonal and highly pathogenic influenza A viruses in the human lung**  
Wolff, T. | Berlin

16.00 **Primary Human Blood-derived Macrophages Restrict Release of Infectious Viral Particles.**  
Friesenhagen, J. | Hannover

16.20 **Subtype-specific pathogenicity of European swine influenza viruses in mice**  
Schmidtke, M. | Jena

16.40 - 17.15 Coffee Break

Session 3: Antiviral Strategies

- 17.15 **Standard oseltamivir treatment has no therapeutic effect on H1N1 influenza virus A/Jena/5258/09 infection in mice**  
Seidel, N. | Jena
- 17.35 **Antiviral activity of the MEK-inhibitor U0126 against pandemic H1N1v and highly pathogenic avian influenza virus in vitro and in vivo**  
Planz, O. | Tübingen
- 17.55 **Biphasic action of p38 MAPK signaling in the influenza A virus induced primary and secondary host gene response**  
Börgeling, Y. | Münster
- 18.15 **Host proteases and influenza infection: characterization and inhibition**  
Bahgat, M. M. | Braunschweig

19.30 Get-together

**Tuesday, 27.09.2011**

**Session 4: Pathogenesis II**

- 09.00            **Key note: HPAIV H5N1 escaping neutralisation: more than HA variation**  
Beer, M. | Greifswald - Insel Riems
- 09.30            **A single point mutation (Y89F) within the non- structural protein 1 of influenza A viruses dramatically limits lung epithelial cell tropism and virulence in mice.**  
Hrincius, E. | Münster
- 09.50            **Reassortment of wild-type H7N1 HPAIV with a H5N1 NS-segment leads to increased virulence in intravenously infected embryos of chicken and turkey**  
Petersen, H. | Hannover
- 10.10           **Restricted replication of avian influenza polymerases in mammals is rescued by adaptive mutations in NEP**  
Brunotte, L. | Freiburg
- 10.30           **Highly Pathogenic Influenza Viruses Cause an Inhibition of the Immune Response in Human Monocytes via Activation of the Rar-related Orphan Receptor alpha.**  
Friesenhagen, J. | Hannover
- 10.50           **Whole genome expression analysis as a valuable tool to host responses during the course of an influenza A virus infection**  
Wilk, E. | Braunschweig

**11.10-11.30    Coffee Break**

**Session 5: Interferon System**

- 11.30            **Macrophage-expressed IFN- $\beta$  mediates apoptotic alveolar epithelial injury in severe influenza virus pneumonia**  
Högner, K. | Gießen
- 11.50            **Interferon-lambda protects chicken embryos from viral infection**  
Rubbenstroth, D. | Freiburg
- 12.10           **Identification and preliminary characterization of IFN $\alpha$ -producing cells in virus-infected chickens**  
Bender, S. | Freiburg
- 12.30           **Rig-I activates the Phosphatidylinositol-3-kinase (PI3K) to promote efficient type I interferon production in response to influenza virus vRNA**  
Ehrhardt, C. | Münster

**General network activities**

- 12.50            **Activities of the National Research Platform for Zoonoses**  
Ludwig, S. | Münster
- 13.00            **Discussion and closing remarks**  
Ludwig, S. | Münster

**13.30            Lunch**

## Poster Presentation

- P1**            **Analysis of the antiviral ISG15 system and its role in the replication of human and animal influenza A viruses**  
J. Knepper\*, V. K. Weinheimer, T. Wolff
- P2**            **Antiviral activity of the proteasome inhibitor VL-01 against Influenza A viruses**  
E. Haasbach\*, E. K. Pauli, R. Spranger, D. Mitzner, U. Schubert, R. Kircheis, O. Planz
- P3**            **Pandemic H1N1 influenza virus carrying a Q136K mutation in the neuraminidase gene is resistant to zanamivir but exhibits reduced fitness in vivo**  
D. Rubbenstroth\*, M. Kaminski, and P. Stäheli\*
- P4**            **Lung Epithelium Progenitors Show Increased Proliferation, Decreased Apoptosis and are infected during Influenza Pneumonia**  
O.R. Gottschald\*, J. Quantius, W. Seeger, J. Lohmeyer, S. Herold
- P5**            **FGF10/FGFR2b-induced alveolar epithelial repair is impaired in severe influenza virus pneumonia**  
J. Quantius\*, O.R. Gottschald, J. Lohmeyer, S. Herold