

Thursday, October 13, 2016**08:00 Registration Opens (Poster Mounting)**

10:00 – 12:00 Plenary Session

Chair: *Stephan Ludwig*

10:00 Opening Remarks

10:30 **Keynote 1: Complexity, Networks and Disease Dynamics**
Dirk Brockmann, Berlin, Germany11:15 **Keynote 2: AIDS, Avian flu, SARS, MERS, Ebola, Zika ...what next?**
Ab Osterhaus, Hannover, Germany12:00 *Lunch*

13:00 *Poster Viewing Session*

**14:00 – 15:30 Session 1:
Antimicrobial use and resistance I**

Chairs: *Birgit Walther and Hendrik Scheinemann*14:00 **Whole-genome sequence analysis of ESBL-producing E. coli of ST410 from avian wildlife, human, companion animal and environmental origins indicates interspecies transmission**
K. Schaufler, M. Wöhrmann, R. Baddam, K. Müller, P. Gastmeier, B. Kohn, T. Semmler, L.H. Wieler, C. Ewers, **S. Guenther**14:15 **Cattle as a source of *Acinetobacter baumannii* and Carbapenemase-positive *Acinetobacter indicus***
P. Klotz, S. Göttig, U. Leidner, T. Semmler, S. Scheufen, C. Ewers14:30 **Antibiotic usage in livestock in Germany - Which drug classes are used?**
S. Kasabova, M. Hemme, L. van Rennings, M. Hartmann, I. Ruddat, C. von Münchhausen, A. Kaesbohrer, L. Kreienbrock14:45 **Disrupting the fatal interplay of influenza virus and pneumococcal neuraminidases by dual-acting inhibitors**
A. Hoffmann, M. Richter, E. Walther, Z. Xu, L. Schumann, U. Grienke, C.E. Mair, J. Kirchmair, S. von Grafenstein, K.R. Liedl, V. Makarov, S. Nietzsche, W. Pfister, J.M. Rollinger, **M. Schmidtke**15:00 **Harmonisation of biocide susceptibility testing of bacteria**
A. T. Feßler, F. Geber, M. Meurer, V. Hensel, S. Speck, M. Reinhardt, G. B. Michael, U. Truyen, S. Schwarz15:15 **Characterization of the phenotypic antimicrobial resistance and biofilm profile of mastitis-associated bacteria**
J. Assmann, T. Janßen, C. Fidelak, C. Schaudinn, A. Bethe, L. H. Wieler

Thursday, October 13, 2016 Continued

14:00 – 15:30 Session 2
Pathogen-cell interaction

Chairs: *Peter Valentin-Weigand and Jan Schinköthe*

- 14:00 **Efficient suilysin-mediated invasion and apoptosis in porcine respiratory epithelial cells after streptococcal infection under air-liquid interface conditions**
F. Meng, N.-H. Wu, M. Seitz, G. Herrler, P. Valentin-Weigand
- 14:15 **A GXXXA motif within the transmembrane domain of the Ebola virus glycoprotein is important for counteraction of the antiviral host factor tetherin**
M. González Hernández, M. Hoffmann, C. Brinkmann, S. Pöhlmann
- 14:30 **Recombinant Mumps viruses expressing the batMuV F protein are highly fusion active**
N. Krüger, C. Sauder, M. Hoffmann, C. Örvell, S. Rubin, G. Herrler
- 14:45 **A Neonatal Mouse Model To Study Invasive Non-Typhoidal Salmonella Typhimurium Infections: Insights Into The Role Of Salmonella Pathogenicity Island 2 (SPI2)**
K. van Vorst, A. Dupont, K. Zhang, C. Pfarrer, U. Repnik, G. Griffiths, M. Hensel, M. Hornef, M. Fulde
- 15:00 **Identification of molecular requirements for bat influenza A-like virus entry into mammalian cells**
M. Hoffmann, P. Zmora, N. Krüger, F. Wrensch, G. Herrler, S. Pöhlmann
- 15:15 **A comprehensive library of C-type lectin receptor (CLR)-Fc fusion proteins to detect CLR ligands on zoonotic pathogens**
J. Monteiro, S. Mayer, K. Opitz, R. Möller, T. Johannssen, **B. Lepenies**
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14:00 – 15:30 Session 3: Risk assessment, epidemiology and modelling

Chairs: *Sandra Eßbauer and Martin Pfeffer*

- 14:00 **Distribution of the Usutu virus and its impact on bird populations in Germany**
R. Lühken, S. M. Thomas, N. Tjaden, H. Jöst, J. Knauer, U. Ziegler, M. Groschup, C. Beierkuhnlein, J. Schmidt-Chanasit
- 14:15 **Risk factors for human Campylobacter infections in Germany and source attribution**
B. Rosner, A. Schielke, X. Didelot, C. Josenhans, F. Kops, G. Götz, T. Alter, K. Stingl, J. Breidenbach, S. Suerbaum, K. Stark
- 14:30 **Dynamic of excretion and immune response of experimentally infected pigs with monophasic variant of Salmonella Typhimurium serovar 1,4[5],12:i:-**
M. Cevallos, C. Houdayer, Y. Bailly, F. Paboeuf, C. Fablet, M. Denis, **A. Kerouanton**
- 14:45 **Modelling the risk of the establishment of Aedes albopictus in Germany using fine-resolution climate data**
A. Jaeschke, N. Tjaden, S. Thomas, C. Beierkuhnlein
- 15:00 **Risk factors for autochthonous Hepatitis E in Germany**
M. Faber, M. Askar, K. Stark

Thursday, October 13, 2016 Continued

15:15 **Contact Networks in the pig barn – Finding MRSA in the noisy movement**
T. Kaufholz, M. Will, C. Müller-Graf, T. Selhorst

15:30 *Coffee Break and Poster Viewing*

16:00 – 17:30 Big Data Management in Zoonoses Research
(Room Ballsaal)

Chairs: *Sebastian Semler and Anna Wendt*

16:00 – 16:20 **Management of Big (complex, federated, delicate...) Data in The National Cohort**
W. Hoffmann

16:20 – 16:40 **How to Manage Big Data in Zoonotic Research**
D. Harmsen

16:40 – 17:00 **Standardizing area-wide datasets from multiple sources, the case of mapping disease vectors**
G. Hendrickx

17:00 – 17:30 Discussion

17:30 – 19:30 General Assembly National Research Platform For Zoonoses
Language: German

Chair: *Sebastian C. Semler*

19:30 Welcome Reception/Social Dinner

Friday, October 14, 2016

07:30 – 09:00 Young Scientist Breakfast

09:00 – 10:30 Session 4: Antimicrobial use and resistance II

Chairs: *Sebastian Guenther and Peter Klotz*

- 09:00 **Influx of extended-spectrum beta-lactamase—producing Enterobacteriaceae and methicillin resistant Staphylococcus aureus into an equine veterinary teaching hospital**
B. Walthers, S. Klein, A.K. Barton, A. Lübke-Becker, H. Gehlen
- 09:15 **The RESET-research database: A comprehensive collection of microbiological and epidemiological information on ESBL-producing bacterial strains from Germany**
K. Hille, U. Seibt, W. Honscha, L. Kreienbrock
- 09:30 **Retrospective analysis addressing the emergence of the plasmid encoded colistin resistance gene mcr-1 in German livestock farms during the years 2011-2013**
N. Roschanski, M. Thieck, J. Hering, C. von Salviati-Claudius, H. Laube, M. Grobbel, L. Kreienbrock, **U. Rösler**
- 09:45 **Prevalence of extended spectrum and AmpC β -lactamase producing Enterobacteriaceae in poultry during slaughter**
P. von Tippelskirch, G. Götz, S. Orquera, M. Projahn, K. Dähre, A. Friese, U. Rösler, T. Alter
- 10:00 **Does size matter? - Transferability of extended-spectrum β -lactamase gene-carrying plasmids harboured by Escherichia coli isolates of diseased food-producing animals**
G.B. Michael, A.K. Siqueira, K. Kadlec, H. Kaspar, S. Schwarz
- 10:15 **ESBL-/AmpC-producing Enterobacteriaceae in the broiler production chain**
K. Dähre, M. Projahn, A. Friese, U. Rösler
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09:00 – 10:30 Session 5: Innate and Adaptive Immune Response

Chairs: *Veronika von Messling and Stefan Ludwig*

- 09:00 **Fruit bat tetherin restricts release of virus-like particles and is inefficiently antagonized by filovirus glycoproteins**
C. Brinkmann, I. Nehlmeier, M. Hoffmann, S. Pöhlmann
- 09:15 **An inactivated bivalent rabies - canine distemper virus vaccine induces protective immunity against both viruses in ferrets**
R.da F. Budaszewski, B. Sawatsky, B. Krämer, M. Schnell, V. von Messling
- 09:30 **Bat Mx proteins: evolution and antiviral specificity**
J. Fuchs, M. Hölzer, M. Schilling, C. Patzina, T. Hoenen, G. Zimmer, F. Weber, M. Marz, M.A. Müller, G. Kochs

Friday, October 14, 2016 Continued

- 09:45 **The immunopathogenic potential of *Arcobacter butzleri* – pathogen or commensal?**
M. M. Heimesaat, T. Alter, S. Bereswill, G. Gözl
- 10:00 **Correlating viral interferon antagonism with host evolutionary distance by a trans-species comparative interferon bioassay**
D. Ritz, J. Papies, D. Niemeyer, Andrea Sieberg¹, Isabella Eckerle¹, Anita Kretschmann, A. Pfeifer, F. Weber, C. Drosten, **M. A. Müller**
- 10:15 **Exploitation of PKR as a selector for the identification of immunostimulating influenza virus RNAs useful for antiviral therapy**
M. Budt, C. Mache, F. Jolmes, T. Wolff
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09:00 – 10:30 Session 6: Novel methods, diagnostics and NGS

Chairs: *Katrin Kuhls and Martin Groschup*

- 09:00 **Automated whole genome sequence based serogrouping of *Listeria monocytogenes* isolates**
P. Hyden, A. Pietzka, A. Lennkh, A. Murer, B. Springer, A. Indra, D. Harmsen, F. Allerberger, C. W. Sensen, **W. Ruppitsch**
- 09:15 **Next-Generation Multiplex PCRs for Virus Diagnostics**
A. Brinkmann, A. Radonić, A. Nitsche
- 09:30 **Tracing the geographical origin of human brucellosis in Germany**
E. Georgi, B. H. Northoff, M.-T. Pfalzgraf, L. M. Holdt, H.C. Scholz, M. C. Walter, S. Zange, M. H. Antwerpen
- 09:45 **Revolutionizing outbreak investigations: a retrospective analysis of nosocomial LA-MRSA transmission in an Austrian hospital by next generation sequencing**
S. Lepuschitz, D. Schmid, B. Springer, A. Indra, F. Allerberger, W. Ruppitsch
- 10:00 **Crimean Congo Haemorrhagic Fever, 2014 Sudan**
C. Kohl, T. Muzeniek, M. Eldegail, I. Mahmoud, A. Brinkmann, P. W. Dabrowski, L. Schrick, A. Radonic, P. Emmerich, T. Rieger, S. Günther, A. Nitsche, A. A. Osman
- 10:15 **Microfluidically supported organoids for modelling systemic inflammation and infection**
A.S. Mosig, M. Gröger, K. Rennert, O. Huber
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10:30 *Coffee Break and Poster Viewing*

Friday, October 14, 2016 Continued

11:00 – 12:30 Session 7: New and re-emerging zoonoses

Chairs: *Christian Drosten and Rainer Ulrich*

- 11:00 **In vivo screening for the novel zoonotic bornavirus (VSBV-1): New positive squirrel species and further sequences**
D. Hoffmann, K. Schlottau, C. Fast, D. Tappe, B. Hoffmann, D. Höper, C. Herden, R.G. Ulrich, M. Beer
- 11:15 **Link of a ubiquitous human coronavirus to dromedary camels**
I. Eckerle, V.M. Corman, Z. Memish, A.M. Liljander, R. Dijkman, H.R. Jonsdottir, K. Juma Ngeiywah, E. Kamau, M. Younan, M. Masri, A. Assiri, I. Gluecks, B.E. Musa, B. Meyer, M.A. Müller, M. Hilali, S. Bornstein, U. Wernery, V. Thiel, J. Jores, J.F. Drexler, C. Drosten
- 11:30 **Culex pipiens and Culex torrentium mosquitoes from Germany are susceptible to infection with West Nile virus**
M. Leggewie, M. Badusche, M. Rudolf, S. Jansen, J. Börstler, R. Krumkamp, K. Huber, A. Krüger, J. Schmidt-Chanasit, E. Tannich, S. C. Becker
- 11:45 **Detection of Mycobacterium tuberculosis complex bacteria in feces, urine and saliva of red deer (Cervus elaphus) and cattle from the hotspot regions in Germany**
K. Schwaiger, T. Körner, S. Schex, S. Rupp, M. Gareis, A. Hafner-Marx, M. Müller, M. Büttner
- 12:00 **Discovery of novel bunyaviruses in mosquitoes from the neotropics**
A. Kopp, F. Zirkel, A. Hübner, D. Hobelsberger, A. Estrada, I. Jordan, T. R. Gillespie, C. Drosten, S. Junglen
- 12:15 **Poultry-associated multi-drug resistant Salmonella spp., Campylobacter spp. and Arcobacter spp. in urban Ghana**
D. Dekker, K. Boahen, D. Eibach, A. Zautner, W. Rabsch, N. Sarpong, J. May

11:00 – 12:30 Session 8: Parasites

Chairs: *Anton Aebischer and Karsten Nöckler*

- 11:00 **The host cell carbohydrate metabolism regulates Toxoplasma gondii bradyzoite formation in skeletal muscle cells**
C. G. K. Lüder, T. Rahman, I. Swierzy, B. Downie, G. Salinas-Riester, M. Blume
- 11:15 **Epidemiology and genetic characterization of Giardia spp. infections in wild rodents in Germany**
C. Klotz, Y. Helmy, N. Kratzmann, S. Schmidt, U.M. Rosenfeld, S. Fischer, D. Reil, R.G. Ulrich, T. Aebischer
- 11:30 **Relationship between the seroprevalence in chicken and the presence or infectivity of Toxoplasma gondii cysts in chicken meat and other edible tissues**
G. Schares, B. Bangoura, M. Ludewig, F. Randau, A.-A. Alnassan, P. Maksimov, B. Matzkeit, M. Sens, A. Bärwald, F. J. Conraths

Friday, October 14, 2016 Continued

- 11:45 **Abundance of Ixodes ricinus and the prevalence of Lyme Borrelia pathogenic to humans**
A. Debski, F.-R. Matuschka, D. Richter
- 12:00 **Host-feeding patterns of mosquito species in Germany**
J. Börstler, H. Jöst, R. Garms, A. Krüger, E. Tannich, N. Becker, J. Schmidt-Chanasit, R. Lühken
- 12:15 **Comparison of different commercial DNA extraction kits to detect Echinococcus multilocularis eggs in faecal samples from foxes**
P. Maksimov, G. Schares, S. Press, A. Fröhlich, M. Herzig, F. J. Conraths
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11:00 – 12:30 Session 9: Free Topics

Chairs: *Martin Beer and Stephanie Thomas*

- 11:00 **Mycobacterium avium subspecies paratuberculosis in non-human primates**
K. Fechner, K. Mätz-Rensing, K. Lampe, F.-J. Kaup, C.-P. Czerny, J. Schäfer
- 11:15 **Co-Adaptation of the Hemagglutinin Due to Increased pH Stability is Essential in H5N1 HPAIV Evolution.**
U. Wessels, E-S. M. Abdelwhab, J. Veits, O. Stech, T. C. Mettenleiter, **J. Stech**
- 11:30 **Two consecutive outbreaks of Salmonella Muenchen linked to pig farming in Germany 2013-2014: Is something missing in our regulatory framework?**
A. Schielke, W. Rabsch, R. Prager, S. Simon, A. Fruth, R. Helling, M. Schnabel, C. Siffczyk, S. Wiczorek, S. Schroeder, B. Ahrens, H. Oppermann, S. Pfeiffer, S.-S. Merbecks, B. Rosner, C. Frank, A. A. Weiser, P. Lubert, A. Gilsdorf, K. Stark, D. Werber
- 11:45 **Joint use of data from science, public health institutions and industry partners: data structures, scientific aspects and legislative challenges in the context of animal health**
A. Wendt, D. Meemken, G. Klein, T. Blaha, K. N. Knöll, T. May, L. Kreienbrock
- 12:00 **SARS-CoV replication is regulated by p53 via interaction of the SARS-Unique Domain and PLpro with E3 ubiquitin ligase RCHY1**
A. von Brunn, J. Carbajo-Lozoya, M. Y. Hein, M. A. Müller, W. Deng, J. Lei, B. Meyer, Y. Kusov, B. von Brunn, D. R. Bairad, S. Hüntgen, C. Drosten, H. Hermeking, M. Mann, R. Hilgenfeld, Y. Ma-Lauer
- 12:15 **Cold-hardiness of the Asian tiger mosquito Aedes albopictus, a vector of multiple viral and parasitic pathogens**
R. Müller, A. Kreß, A.-M. Oppold, U. Kuch
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12:30 *Lunch*

13:30 *Poster Viewing*

Friday, October 14, 2016 Continued

14:30 – 16:00 Plenary Session

Chair: *Martin H. Groschup*

14:30 **Keynote 3: Ancient Pathogen Genomics: What we learn about Zoonosis from the past**
Johannes Krause, Jena, Germany

15:15 **Keynote 4: Zika virus replication and vaccine**
Pei-Yong Shi, Galveston, USA

16:00 **Poster Awards**

16:20 **Farewell**
