

**National Symposium on Zoonoses Research 2018****Joint meeting of the National Research Platform for Zoonoses and the Research Network of Zoonotic Diseases****Wednesday, October 17, 2018****14:00 Registration Opens (Poster Mounting)**

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**15:00 – 17:00 Plenary Session I: Keynotes  
(Room Ballsaal)***Language: English / German*Chair: Stephan Ludwig

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**15:00 Opening Remarks: Joint meeting of the German Research Platform for Zoonoses and the Research Network of Zoonotic Diseases**

Stephan Ludwig (University of Münster) &amp; Christian Drosten (Charité Berlin)

**Welcome Note of the Federal Government**

Michael Engels (Federal Ministry of Defense)

**15:30 Keynote 1: Alexandra Mailles (French Public health Agency/ Santé publique France)  
Zoonotic risk and unmet needs in the One Health era****16:15 Keynote 2: Rene S. Hendriksen (Technical University of Denmark, Denmark):  
NGS, big data and molecular epidemiology**

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*17:00 Coffee Break*

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**17:20 – 18:50 Session 1: Pathogenesis and Modelling of zoonotic diseases (Room Ballsaal)****17:20 Function of serine protease HtrA in the lifecycle of the foodborne pathogen *Campylobacter jejuni***D. Simson, S. Backert, M. Boehm**17:35 O156:H25/O182:H25 STEC of human and bovine origin share remarkable genomic similarity**C. Menge, S.A. Barth, M. Fischer, A. Fruth, C. Berens, L. Geue**17:50 Establishment of a loss-of-function screening platform to identify MERS-Coronavirus host factor dependencies**F. Weege, D. Muth, A. Karlas, C. Drosten, T. F. Meyer**18:05 Identification of intestinal luminal metabolites mediating colonization resistance against *Campylobacteriosis* in murine infection models**S. Bereswill, U. Escher, K. Stingl, M. M. Heimesaat**18:20 Immunogenicity and protective capacity of recombinant Modified Vaccinia Ankara Virus against Zika Virus**J. H. Schwarz, D. Forster, A. Volz**18:35 Analysis of proteolytic activation of the spike protein of MERS coronavirus**H. Kleine-Weber, M. Tarek, M. Hoffmann, S. Pöhlmann

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**18:50 Poster Viewing Session**

**Thursday, October 18, 2018****08:30 Registration continued**

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**09:00 – 10:30 Session 2: Risk Assessment and Epidemiology (Room Ballsaal)**

- 09:00 **Can we predict the spatial origin of hantavirus infections using sequences derived from a generic screening PCR?**  
**S. Weiss**, B. Auste, D. H Kruger, J. Hofmann
- 09:15 **Molecular characterization and drug susceptibility of *Mycobacterium tuberculosis* from Eastern Sudan**  
**Y. A. Shuaib**, M. Merker, E. A. G. Khalil, U. Schaible, L. Wieler, M. A. Bakheit, S. E.-T. Mohamed-Noor, M. A. Abdalla, E. Richter, K. Kranzer, S. Niemann
- 09:30 **Chikungunya in Germany: Where and when could it happen?**  
N. Tjaden, F. Englmeier, K. Nagels, S. Thomas, **C. Beierkuhnlein**
- 09:45 **Evaluation of the zoonotic potential of H18N11 virus variant tested in the ferret model**  
**M. Gorka**, D. Hoffmann, K. Ciminski, M. Schwemmler, M. Beer
- 10:00 **Multidrug-resistant zoonotic bacteria in companion animals from North-West Germany**  
**U. Kaspar**, K. von Lützu, A. von Lützu, A. Schlattmann, G. Peters, U. Rösler, R. Köck, K. Becker
- 10:15 **Zoonoses in Exotic Pets - Epidemiologic Survey on the Variegated Squirrel Bornavirus 1 in Captive Squirrels (Family Sciuridae) in Germany**  
**V. Allendorf**, K. Schlottau, V. Schulze, F. J. Conraths, R.G. Ulrich, M. Beer, T. Homeier-Bachmann
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**09:00 – 10:30 Session 3: Innate and Adaptive Immune Response (Room Zehlendorf)**

- 09:00 **Interferon response is essential in containing human pathogenic Bourbon virus, a tick-borne Orthomyxovirus**  
**J. Fuchs**, T. Straub, M. Seidl, G. Kochs
- 09:15 **GlycoViroLectinTools: novel mosquito and sheep C-type lectin receptor (CLR)-Fc fusion protein libraries to screen for CLR/pathogen interactions**  
**D. Lindenwald**, J. Monteiro, K. Schoen, J. Glanz, A. Sternberg, S. Rautenschlein, M. Buettner, G. Alber, K. Jung, S. Becker, B. Lepenies
- 09:30 **Functional characterization of the interferon-induced antiviral factor tetherin of fruit bats**  
**M. Hoffmann**, I. Nehlmeier, C. Brinkmann, V. Krähling, L. Behner, A.-S. Moldenhauer, N. Krüger, J. Nehls, M. Schindler, A. Maisner, S. Becker, S. Pöhlmann
- 09:45 **MERS-Coronavirus strain with a fusion of two accessory genes isolated from a human patient**  
**D. Niemeyer**, K. Mösbauer, E. M. Klein, D. Muth, V. Corman, M. A. Müller, Z. A. Memish, C. Drosten
- 10:00 **Regions-specific regulation of type I interferon in the central nervous system protects from tick-borne encephalitis virus infection**  
S. Schreier, L. Zegenhagen, C. Kurhade, A. K. Överby, **A. Kröger**
- 10:15 **Murine fecal microbiota transplantation lowers intestinal *Campylobacter jejuni* loads and pro-inflammatory immune responses in secondary abiotic mice**  
**M. M. Heimesaat**, U. Escher, S. Bereswill
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**09:00 – 10:30 Session 4: Antimicrobial use and resistance (Room Steglitz)**

- 09:00 **Wastewater from a pig slaughterhouse as a reservoir for clinically relevant antibiotic-resistant pathogens and their dissemination into surface water**  
**M. Savin**, C. Heinemann, S. Dohlen, G. Bierbaum, M. Parcina, J. Kreyenschmidt

- 09:15 **Development of antibiotic resistance in fattening poultry**  
**C. Kollas**, M. Grobbel, A. Käsbohrer, B. A. Tenhagen, A. A. Weiser
- 09:30 **Characterization of a genetically encoded Tetracycline resistance determinant in *Chlamydia suis***  
**M. Peisker**, C. Schnee, C. Berens
- 09:45 **Identification of new mcr-3 colistin resistance gene variants in *Aeromonas* spp. of animal origin from Germany**  
**I. Eichhorn**, C. Feudi, A.T. Feßler, G. Brenner-Michael, Y. Wang, H. Kaspar, A. Lübke-Becker, J. Shen, S. Schwarz
- 10:00 **Analysis of blaCTX-M-1-carrying plasmids from *Escherichia coli* isolates of diseased food-producing animals collected in the GERM-VET resistance monitoring program 2008-2015**  
G. B. Michael, **A.-K. Schink**, K. Kadlec, H. Kaspar, S. Schwarz
- 10:15 **High zinc oxide diets: effects on porcine intestinal *Escherichia coli* populations**  
**V.C. Johanns**, T. Semmler, L. Epping, B. Walther, L.H. Wieler

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10:30 *Coffee Break and Poster Viewing*

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**11:00 – 12:30 Session 5: Selected Plenary Talks of the Research Network of Zoonotic Infectious Diseases (Room Ballsaal)**

- 11:00 **Promising options to combat campylobacteriosis -lessons learned from peroral gut microbiota transplantation and application of defined molecules in murine infection models**  
**Markus M. Heimesaat**
- 11:30 **Antibiotic Stewardship in Veterinary and Human Medicine**  
**Robin Köck**
- 12:00 **An unexpected development – classical bornavirus BoDV-1 as lethal zoonotic pathogenes**  
**Martin Beer**

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12:30 *Lunch & Poster Viewing*

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**14:30 – 16:00 Session 6: New and Re-Emerging Zoonotic Diseases (Room Ballsaal)**

- 14:30 **Experimental risk assessment for chikungunya virus transmission in Europe**  
A.Heitmann, S. Jansen, **R. Lühken**, M. Helms, B. Pluskota, N. Becker, C. Kuhn, J. Schmidt-Chanasit, E. Tannich
- 14:45 **Novel sandfly-associated phlebovirus with evidence of neutralizing antibodies in humans, Kenya**  
D. Tchouassi, **M. Marklewitz**, E. Chepkorir, F. Zirkel, S. Agha, C. Tigoi, E. Koskei, C. Drosten, C. Borgemeister, B. Torto, S. Junglen, R. Sang
- 15:00 **CRISPR-Forward screening approach to identify host cell factors required for bat influenza A-like virus (bat IAV) cell entry**  
**T. Thamamongood**, U.Karakus, K. Ciminski, W. Ran, G. Zimmer, M. Beer, A. Garcia-Sastre, S. Stertz, M. Schwemmler
- 15:15 **Cowpox Virus - Host Interactions: Identification and Confirmation of Virulence Factors**  
**S. Weber**, A. Franke, D. Hoffmann, A. Tamošiūnaitė, T. Schippers, K. Osterrieder, M. Beer
- 15:30 **Human pathogenic *Leptospira* in small mammals**  
**S. Fischer**, K. Jeske, A. Mayer-Schöll, F. Ruiz-Fons, C. Imholt, E. Heuser, J.P. Teifke, D. Reil, J. Jacob, K. Nöckler, L. Bluhm, A. Breitenstein, W. Fritzsche, R.G. Ulrich

- 15:45 **Neutralizing monoclonal antibodies and alpaca derived single domain antibody fragments against Rift Valley fever virus**  
**B. Gutjahr**, M. Eiden, S. Jäckel, S. Reiche, M. H. Groschup
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**14:30 – 16:00 Session 7: Public Health (Room Steglitz)**

- 14:30 **Activity and prevalence of pathogens in *Ixodes inopinatus* and *Ixodes ricinus* in Southeastern Germany**  
**L. Chitimia-Dobler**, S. Wölfel, G. Lemhöfer, Bestehorn, G. Dobler
- 14:45 **Areas with high hazard potential for autochthonous transmission of *Aedes albopictus* associated arboviruses in Germany**  
**S. Thomas**, N. Tjaden, C. Frank, A. Jaeschke, L. Zipfel, C. Wagner-Wiening, M. Faber, C. Beierkuhnlein, K. Stark
- 15:00 **Reduction of *Escherichia coli* cell numbers by colicins**  
**A. Rößner**, J. Andrack, G. Gölz, T. Seidler, T. Forbrig, T. Alter, S. Orquera
- 15:15 **One Health Interventions of Vétérinaires sans Frontières Germany in the current anthrax outbreak in South Omo Zone, Ethiopia**  
**A. Braus**, A. R. Schug, M. V. Larrateguy, A. Asrat, A. Adamu, G. Regassa
- 15:30 **Genotypic and phenotypic characterization of *Listeria monocytogenes* originating from food production environments**  
A. Roedel, **S. Vincze**, M. Noll, S. Kleta, S. Al Dahouk, R. Dieckmann
- 15:45 **Health economic assessment of a possible chikungunya transmission in Germany**  
**F. Englmeier**, N. B. Tjaden, S. M. Thomas, C. Beierkuhnlein, K. H. Nagels
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16:00 *Coffee break and Poster Viewing*

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**Impulse Session "Science communication"**

**(Room Ballsaal)**

*Language: German*

*Chair: Stephan Ludwig*

- 16:30 **Talk 1: Andrea Maisner (Philipps Universität Marburg)**
- 16:50 **Talk 2: Kai Kupferschmidt**
- 17:10 **Talk 3: Volker Stollorz (Science Media Center Germany)**
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**17:30 – 19:00 General Assembly National Research Platform for Zoonoses with the Election of Internal Advisory Board (Room Ballsaal)**

*Language: German*

*Chairs: Stephan Ludwig, Martin H. Groschup, Sebastian C. Semler*

Wahl des Internen Beirats

Bericht über das vergangene Jahr

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**19:00 – 20:00** *Poster Viewing Session + Casual Reception*

**20:00** ***Welcome Reception/Social Dinner (Room Ballsaal)***

**Friday, October 19, 2018****07:30 – 09:30 Young Scientist Breakfast**

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**09:30 – 10:30 Session 8: Pathogen-Cell Interaction (Room Zehlendorf)**

- 09:30 **Bacterial nucleases as growth factor during bacterial co-infections**  
**N. de Buhr**, B. J. Pfeiffer, S. Akhdar, C. Schwennen, K.-H. Waldmann, P. Valentin-Weigand, I. Hennig-Pauka, M. von Köckritz-Blickwede
- 09:45 **Hypoxia-induced citrate limitation results in upregulation of *C. burnetii* persistence genes**  
**I. Hayek**, F. Fischer, J. Schulze-Luehrmann, K. Dettmer-Wilde, R. Lang, P. Oefner, S. Wirtz, J. Jantsch, A. Lührmann
- 10:00 **Generation and characterization of synthetically-derived bat mumps virus**  
**N. Krüger**, C. Sauder, S. Hüttl, K. Voigt, G. Herrler, K. Hards, T. Steinmetzer, C. Örvell, J. F. Drexler, M. Müller, C. Drosten, S. Rubin, M. Hoffmann
- 10:15 **A cell model to investigate ENaC-dependent sodium absorption and tight junction alterations in campylobacteriosis**  
**P. Natramilarasu**, F. Lobo de Sá, H. Tröger, J.D. Schulzke, R. Bückler
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**09:30 – 10:45 Session 9: Novel Methods, Diagnostics and NGS (Room Steglitz)**

- 09:30 **Monitoring wildlife and their pathogens using flies**  
**S. Calvignac-Spencer**, F. H. Leendertz
- 09:45 **Successful oral vaccination against HPAIV H5N1 with novel bat influenza A virus chimeras**  
**J. Schön**, W. Ran, D. Hoffmann, M. Gorka, M. Juozapaitis, M. Schwemmler, M. Beer
- 10:00 **Exploring "big sequence data": De-novo detection of viral pathogens by a dynamic database approach**  
L. Forth, D. Höper, A. Hülsewig, R. Lembcke, C. Peißert, P. Holenya, M. Eckey, U. Reimer, K. Noack, M. Beer, **A. Pohlmann**
- 10:15 **Persistent virus infection in mosquito derived cells**  
**E. Schnettler**, K. Franzke, M. Leggewie, S. Vatipally, E. Tannich, S.C. Becker
- 10:30 **Gene expression and signaling pathways in the human colon mucosa during *Campylobacter jejuni* enteritis**  
**R. Bückler**, F. Lobo de Sá, M. Kerick, M.R. Schweiger, J.-D. Schulzke
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**09:30 – 11:00 Session 10: Epidemiology and Ecology of zoonotic infections (Room Ballsaal)**

- 09:30 **Epidemiology of tick-borne encephalitis in Germany in 2017**  
**G. Dobler**
- 09:45 **Tick-borne encephalitis virus goes into the mountains**  
**L. Lemhöfer**, M. Bestehorn, L. Chitimia-Dobler, G. Dobler
- 10:00 **Field work of the AECO project - Vector biology of *Aedes albopictus* and eco-bio-social drivers for effective vector prevention & control in cooler ecoregions**  
**R. Müller**, I. Kramer, P. Phuyal, U. Kuch, D. A. Groneberg, M. Dhimal
- 10:15 **Environmental occurrence of *Campylobacter* spp. in broiler farms and surroundings**  
**B. Reichelt**, V. Szott, K. Daehre, U. Roesler
- 10:30 **Clustering of hantavirus disease cases in a company in Lower Saxony, Germany, in December 2017, caused by intense bank vole infestation**  
**KM Schlinkmann**, C. Princk, S. Drewes, R.G. Ulrich, M. Saathoff, J. Freise, J. Dreesman
- 10:45 **Ticks and tick-borne pathogens in Sudan**

Y.A.Shuaib, MA.Abdalla, SE-T. Mohmed-Noor, AMA. Wd Elhag, YAB Ismael, G. Lemhöfer, S. Poppert, S. Schaper, G. Dobler, DK. Bakkes, **L. Chitimia-Dobler**

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11:00 *Coffee Break & Poster Viewing*

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**11:30 – 12:15 Plenary Session II: Keynote  
(Room Ballsaal)**  
*Language: English*  
Chair: *Martin H. Groschup*

**11:30 Keynote 3: Leonard Hamschmidt (Gesundheitsamt Oldenburg, Germany):  
*Leptospirose aus der Sicht des Öffentlichen Gesundheitsdienstes***

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12:15 *Lunch & Poster Viewing*

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**13:15 – 14:30 Plenary Session II (continued): Keynote  
(Room Ballsaal)**  
*Language: English*  
Chair: *Martin H. Groschup*

13:15 **Keynote 4: Xavier de Lamballerie (Aix-Marseille Université, France)**  
***Preparedness for zoonoses and emerging arboviral infections***

14:30 **Poster Awards and Farewell**

15:00 **End of Meeting**