DEAR COLLEAGUES,

It is a great pleasure to welcome you to the first Hanover International Symposium on Infection Susceptibility of the newly founded Cluster of Excellence RESIST 'Resolving Infection Susceptibility'. RESIST was established in the beginning of 2019 and is founded for 7 years within the framework of the Excellence Strategy for German Universities of the German Federal and State Governments by the Deutsche Forschungsgemeinschaft (DFG).

The aim of the Excellence Cluster RESIST is to drive forward our understanding of the fundamental determinants of susceptibility to infectious diseases, as well as of the pathogens that commonly cause disease in susceptible individuals, to the point where this newly gained knowledge can be used to develop more accurate, personalised therapies, diagnostic methods and novel preventive strategies.

We have invited international experts on these topics to promote the interaction of our Cluster of Excellence with colleagues across the globe. We are looking forward to two days of scientific exchange, coorganised by the VW Foundation in this historical location. I am looking forward to meeting you all and hope that you will enjoy the conference and your visit to Hannover.

Thomas F. Schulz, MD, Speaker Cluster of Excellence RESIST

CONTACT

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DFG Deutsche Forschungsgemeinschaft

VENUE

Herrenhausen Palace
Herrenhäuser Str. 5
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Phone +49 (0) 511-7637440
www.schloss-herrenhausen.de

HOUSING

Grand Hotel Mussmann
Ernst-August-Platz 7
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Fax +49 (0) 511- 3656-145
www.grandhotel.de

HOW TO GET THERE

Grand Hotel Mussmann to Herrenhausen Palace:
Out of the hotel first keep left and turn left into 'Georgstraße'. Walk down the 'Georgstraße' until the underground station 'Kröpke'. At 'Kröpcke' follow the signs '4 – Garbsen' or '5 – Stöcken' and take the metro until station 'Herrenhäuser Gärten'. The Herrenhausen Palace is on your left side in the direction of travel.

Herrenhausen Palace to Grand Hotel Mussmann:
Out of the Herrenhausen Palace keep right to the metro station 'Herrenhäuser Gärten'. Take line '4 – Roderbruch' or '5 – Anderten' and get out at station 'Kröpke'. Follow the signs to 'Hauptbahnhof / Hbf'. Walk down 'Goeorgstraße' until the square in front of the main station and turn right. After a few steps 'Grand Hotel Mussmann' is on your right side.

RESIST INSTITUTIONS

MHH Hannover Medical School

TWINCORE

HZI HELMHOLTZ Centre for Infection Research

CSSB Centre for Structural Systems Biology

cci Center for Chronic Immunodeficiency

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1st Hannover Symposium on Infection Susceptibility

Cluster of Excellence RESIST
'Resolving Infection Susceptibility'

Spokesperson: Thomas F. Schulz

September, 30th – October, 1st
2019 · Hannover

organised in collaboration with
VolkswagenStiftung

RESIST
RESOLVING INFECTION SUSCEPTIBILITY

Monday, September 30th, 2019

08:00 Coffee and Registration
09:30 Welcome: **Björn Thümler (MWK)**
09:45 Welcome: **Michael Manns (MHH)**
09:55 Welcome: **Dirk Heinz (HZI)**
10:05 Welcome: **Thomas F. Schulz (MHH, RESIST)**

OPENING TALK

10:15 **Beate Kampmann, London, UK**
'Tuberculosis: towards understanding susceptibility and prevention in children'

SESSION I: MICROBIAL COMMUNITIES

Chair: Rita Gerardy-Schahn

11:00 **Soren Molin, Lungby, Denmark**
'Changes in bacterial susceptibility to antibiotics caused by mutations selected for during persistent lung infections in cystic fibrosis patients'

11:30 **Axel Brakhage, Jena, Germany**
'Host-pathogen interactions od human-pathogenic fungi: the case of *Aspergillus fumigatus*'

12:00 **Franziska Faber, University Wurzburg, Germany**
'The metabolic footprint of commensal Clostridia in the large intestine'

12:30 **Rolf Müller, Saarbrücken, RESIST, Germany**
'Analysing bacterial inter- and intraspecies chemical interaction in space and time'

13:00 **Lunch**

SESSION II: MICROBIAL SHAPING OF THE IMMUNE SYSTEM

Chair: Alice McHardy

14:00 **Matthias Hornef, Aachen, Germany**
'Susceptibility of the neonatal host to enteric infection'

14:30 **Till Strowig, Braunschweig, RESIST, Germany**
'The influence of host-microbiota crosstalk on infection susceptibility and inflammation in the gut'

15:00 **Dorothee Viemann, Hannover, RESIST, Germany**
'How the newborn impacts on the microbial shaping of its immune system'

15:30 **Sofia Forslund, Berlin, Germany**
'Disease and drug signatures in the gut microbiome'

16:00 **Coffee break**

SESSION III: SHAPING THE IMMUNE RESPONSE

Chair: Thomas Werfel

16:30 **Annette Oxenius, Zurich, Switzerland**
'Regulation of adaptive immunity in chronic viral infections'

17:00 **Reinhold Förster, Hannover, RESIST, Germany**
'Cellular dynamics of MCMV control'

17:30 **Immo Prinz, Hannover, RESIST, Germany**
'Innate and adaptive gamma-delta T cells'

18:00 **Petter Brodin, Solna, Sweden**
'Systems-level analysis of immune development early in life'

18:30 **Drinks and Poster**

19:30 **Dinner with all participants at Herrenhausen Palace**

Tuesday, October 1st, 2019

SESSION IV: MODULATING THE IMMUNE RESPONSE

Chair: Jochen Hühn

08:30 **Xavier Saelens, Genf, Belgium**
'Disease modulating vaccines against influenza and human respiratory syncytial virus'

09:00 **Bruno Correia, Lausanne, Switzerland**
'Trivalent cocktail of *de novo* designed immunogens enables the robust induction and focusing of functional antibodies *in vivo*'

09:30 **Thomas Krey, Hannover, RESIST, Germany**
'The Good, the Bad and the Flexible – Neutralization epitopes in the HCV glycoproteins'

09:50 **Florian Klein, Cologne, Germany**
'Broadly neutralizing antibodies for targeting HIV-1'

10:20 **Coffee break**

SESSION V: GENETIC DETERMINANTS OF THE IMMUNE RESPONSE

Chair: Reinhold E. Schmidt

10:45 **Jean-Laurent Casanova, New York, USA**
'Toward a genetic theory of childhood infectious disease'

11:15 **Bodo Grimbacher, Freiburg, RESIST, Germany**
'The relationship of infections and inflammation'

11:40 **Sandra Pellegrini, Paris, France**
'Insights into TYK2, shared element of JAK/STAT pathways, and USP18, private element of the type I interferon pathway'

12:10 **Thomas Pietschmann, Hannover, RESIST, Germany**
'Genetic determinants of severe respiratory syncytial virus infection in infants'

12:35 **Yang Li, Hannover, RESIST, Germany**
'Integration of multi-omics data for understanding immune functions'

13:00 **Lunch**

SESSION VI: VIRAL PERSISTENCE

Chair: Albert Osterhaus

14:00 **John Sinclair, Cambridge, UK**
'Understanding human cytomegalovirus latency in order to target the latent reservoir'

14:30 **Maria Masucci, Solna, Sweden**
'Targeting ubiquitin signaling networks in herpesvirus persistence and replication'

15:00 **Paul Lehner, Cambridge, UK**
'The HUSH epigenetic transcriptional repressor complex – defending the genome from retroelement attack'

15:30 **Coffee break**

SESSION VII: VIRAL PERSISTENCE AND REPLICATION

Chair: Markus Cornberg

16:00 **Charles Bangham, London, UK**
'The human leukaemia virus HTLV-1: chromatin structure, epigenetics and regulation of latency'

16:30 **Patrick Lomonte, Lyon, France**
'Epigenetic regulation of herpes simplex virus 1 latency mediated by promyelocytic leukemia nuclear bodies'

17:00 **Bill Sugden, Wisconsin, USA**
'Stable transformation of primary B-cells by Kaposi's sarcoma herpes virus and Epstein-Barr virus: an in vitro model for the development of primary effusion lymphoma'

17:30 **Closing remarks – Gesine Hansen, RESIST, Germany**

PUBLIC EVENING LECTURE (GERMAN)

Moderation: Hannes Schlender, scienceRELATIONS GbR
doors open: 18:45

19:00 **'Wenn das Immunsystem es nicht alleine schafft'**
Achim Kautz, Deutsche Leberhilfe e. V.
Gerd Klock, dsai e. V.
Affected persons and RESIST scientists

20:45 **Brezel and Wine**