

16th May – 18th May 2018

International Hepatitis Symposium Heidelberg

Ralf Bartenschlager's 60th Birthday Symposium (16th)

AND

International Symposium of the TRR179 (17th to 18th)

Conference Venue: DKFZ Heidelberg, Communication Center, INF 280, Heidelberg

Confirmed Speakers:

Andrea Ablasser, Lausanne
Andreas Bergthaler, Vienna
Eva Billerbeck, New York
Maura Dandri, Hamburg
Carlo Ferrari, Parma
Markus Heim, Basel
Matteo Iannacone, Milan
Stanley M. Lemon, Chapel Hill
Wenhui Li, Beijing
Mala Maini, London
Darius Moradpour, Lausanne
Christine Neuveut, Paris
Thomas Pietschmann, Hannover
Barbara Reherrmann, Bethesda
Charles M. Rice, New York
Naglaa Shoukry, Montreal
John Wherry, Philadelphia
Adam Zlotnick, Bloomington



Chica and Heinz
Schaller Foundation



REBLIKON GmbH

**Ralf Bartenschlager's 60th Birthday
Symposium**

Symposium Chair:

PD Dr. Volker Lohmann

Department of Infectious Diseases,
Molecular Virology,
Heidelberg University Hospital

Organizing Committee:

PD Dr. Volker Lohmann
Dr. Sandra Bühler
Dr. Catherine Moreau
Steffi Schimang

Conference Language:

The conference language will be English.

Contact:

Dr. Sandra Bühler or Steffi Schimang, Department of Infectious Diseases, Molecular Virology,
Im Neuenheimer Feld 344, 69120 Heidelberg
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International Symposium of the TRR179

Symposium Chairs:

Prof. Dr. Ralf Bartenschlager

Department of Infectious Diseases,
Molecular Virology,
Heidelberg University Hospital;
Research Division 'Virus-associated
Carcinogenesis', DKFZ, Heidelberg;
German Centre for Infection Research (DZIF
e.V.)

Prof. Dr. Robert Thimme

Department of Internal Medicine II,
University Hospital Freiburg

Prof. Dr. Ulrike Protzer

Institute of Virology,
TU München/ Helmholtz Zentrum München;
German Centre for Infection Research (DZIF
e.V.)

Organizing Committee:

Prof. Dr. Ralf Bartenschlager
Prof. Dr. Robert Thimme
Prof. Dr. Ulrike Protzer
Dr. Sandra Bühler
Dr. Catherine Moreau
Steffi Schimang

Dear Colleagues and Guests,

it is my pleasure to welcome you to our symposium on behalf of Ralf's 60th birthday. We are running a little ahead of events, since his real birthday will be on May 29th, but it is actually always the right time to celebrate one of the most famous German virologists with highest international renown.

Ralf has authored more than 300 publications with a total of more than 25.000 citations; he has been a leading scientist in Hepatitis B and Hepatitis C virus research. His work set the ground for highly efficient HCV therapies, which are now available. He received numerous prizes and awards, including the Robert Koch prize and the Lasker award. Ralf's 60th birthday therefore is an excellent point to look back on his career, starting as a PhD student in Heinz Schaller's group, continuing as a postdoc at Roche in Basel and as a group leader in Mainz. Since 2002 he is heading the department Molecular Virology at Heidelberg University which is the endowed professorship of the Chica and Heinz Schaller Foundation. Since 2014 he is heading the division "Virus-associated carcinogenesis" and is coordinating the research program "Infection, Inflammation and Cancer" at the DKFZ.

During the symposium we will shed light on the different stages of his career, with speakers representing former supervisors and colleagues, PhD students and Postdocs trained by him, as well as collaborators and current group leaders in his department. We hope that you will enjoy a mix of personal views on Ralf's past combined with outstanding current research pointing towards the future of virology research. In addition, this event will be a platform to meet colleagues and friends in an informal atmosphere with food and drinks.

We are grateful for the generous support of the Chica and Heinz Schaller Foundation and for the DKFZ for hosting the symposium.

Best regards and looking forward to an exciting meeting!



PD Dr. Volker Lohmann

Dear Colleagues,

it is a great pleasure to welcome you to the first international symposium of our DFG-funded collaborative research center **TRR 179 “Determinants and dynamics of elimination versus persistence of hepatitis virus infection”** in Heidelberg. This research network that unites scientists from **Munich, Freiburg and Heidelberg**, aims to unravel the interplay and the dynamics of immunological and viral factors that determine the outcome of hepatitis virus infections.

In line with the mission of TRR179, our symposium is intended to bring together clinicians and basic scientists that share a common interest in the mechanisms utilized by hepatitis viruses to establish persistence. This highly interdisciplinary topic at the forefront of virus – host interactions can only be tackled by combining various disciplines such as immunology, cell biology, virology, bioinformatics and systems biology that require a broad spectrum of technologies including high-end imaging, cutting-edge *in vitro* and *in vivo* models as well as single cell analyses. Therefore, a main mission of our symposium is to foster collaborations across the borders of disciplines and technologies by bringing together key opinion leaders in a relaxed and informal atmosphere while providing young scientists a platform for personal and scientific exchange.

We would like to thank the German research foundation (DFG), the SFB/TR 209 and the SFB1129 for the generous support of the symposium. We are also very grateful to the German Cancer Research Center (DKFZ) in Heidelberg for hosting this meeting. Clearly, we are most grateful for the contribution of all the speakers and chairpersons, whom we thank very much for taking their time out of busy schedules and their active participation.

Finally, we thank you all for coming to Heidelberg and we wish you an exciting and productive meeting as well as a pleasant stay.



Prof. Dr. Ralf Bartenschlager



Prof. Dr. Ulrike Protzer



Prof. Dr. Robert Thimme

AGENDA Ralf Bartenschlager's 60th Birthday Symposium

Wednesday, 16th May 2018

- 10:00 Greetings from DKFZ Heidelberg
Michael Baumann, Heidelberg, Germany
- 10:10 Greetings from Medical Faculty, Department of Infectious Diseases and Chica and Heinz Schaller Foundation
Hans-Georg Kräusslich, Heidelberg, Germany
- 10:40 Welcome
Volker Lohmann, Heidelberg, Germany
- 10:55 Early beginnings - Ralf BC
Michael Nassal, Freiburg, Germany
- 11:15 The duck hepatitis B virus and its polymerase
Ursula Klingmüller, Heidelberg, Germany
- 11:35 Of the police, a success story of modern medicine, and The Pierre - the wondrous transformations of Professor B.
Darius Moradpour, Lausanne, Switzerland

12:15 – 13:30

LUNCH

Foyer DKFZ Communication Center

- 13:30 Noisy cytomegalovirus latency
Matthias Reddehase, Mainz, Germany
- 13:50 Of genomes and replicons: the winding road to HCV cell culture
Volker Lohmann, Heidelberg, Germany
- 14:05 How to kill excellent science by mindless business management
Rene Devos, St. Albans, United Kingdom
- 14:25 Host and viral factors determining susceptibility to RNA virus infections
Thomas Pietschmann, Hannover, Germany
- 14:45 Living on the fat of the land
David Paul, Cambridge, United Kingdom

15:05 Morphological and functional remodeling of the cytoplasm by flaviviruses
Laurent Chatel-Chaix, Laval, Canada

15:30 – 16:00

COFFEE BREAK

Foyer DKFZ Communication Center

16:00 Infecting a computer with a virus and getting rid of it again
Marco Binder, Heidelberg, Germany

16:20 The emperor's new clothes: How Hepatitis B viruses became enveloped
Stefan Seitz, Heidelberg, Germany

16:40 Fatty liver disease and its link to liver cancer: From lipids and viruses
Mathias Heikenwälder, München and Heidelberg, Germany

17:00 Entry inhibition, the tender spot for Hepatitis Delta virus
Stephan Urban, Heidelberg, Germany

17:20 Random walks in virology including encounters with Ralf
Charles M. Rice, New York, USA

18:30 – 21:30

TRR179 Welcome Reception

Foyer DKFZ Communication Center

AGENDA International Symposium of the TRR179

Thursday, 17th May 2018

09:00 Welcome address
Ralf Bartenschlager

Inflammation and Microbiome
Chairman: Hartmut Hengel

09:20 Role of microbiota in host fitness
Barbara Rehermann, Bethesda, USA

09:45 Hepatic metabolism directs antiviral immunity in persistent infection
Andreas Bergthaler, Vienna, Austria

10:10 Lymphotoxin β receptor signalling-dependent control of virus clearance in chronic hepatitis B virus and hepatitis C virus infections
Mathias Heikenwälder TRR179

10:25– 10:50

COFFEE BREAK

Foyer DKFZ Communication Center

Innate Immune Response
Chairman: Andreas Pichlmair

10:50 Intracellular DNA sensing strategies
Andrea Ablasser, Lausanne, Switzerland

11:15 Dissecting NK cell-mediated immune responses against hepatitis B virus and hepatitis C virus infection
Adelheid Cerwenka TRR179

11:30 Mechanisms of interferon induction by hepatitis D virus and impact of chronic innate immune activation on antiviral immunity
Veit Hornung/ Percy Knolle TRR179

11:45 Strategies to harness an effective antiviral response targeting hepatitis B virus
Ursula Klingmüller/ Jens Timmer TRR179

12:00 Global effects on host cell signaling by continuous stimulation of innate antiviral responses in persistent viral infections
Marco Binder/ Andreas Pichlmair TRR179

12:15 Role of innate immune response in HCV infection
Markus Heim, Basel, Switzerland

12:45 – 13:45

LUNCH

Foyer DKFZ Communication Center

In Vivo Imaging and Mouse Models

Chairman: Percy Knolle

13:45 Spatio-temporal dynamics of naive CD8+ T cells undergoing intrahepatic priming
Matteo Iannacone, Milan, Italy

14:10 Molecular mechanisms of HBV and HDV persistence
Maura Dandri, Hamburg, Germany

14:35 Dynamics of antiviral T cell immunity against viral infection of the liver
Dirk Wohlleber/ Vasilis Ntziachristos TRR179

14:50 Mouse models of acute and chronic hepacivirus infection
Eva Billerbeck, New York, USA

Cell biology of hepatitis virus replication

Chairman: Dirk Grimm

15:15 Unravelling the role of DNA repair in the formation of the hepatitis B virus cccDNA persistence reservoir
Sabrina Schreiner/ Michael Nassal TRR179

15:30 Contribution of innate immune response to persistence versus clearance of hepatitis C virus and hepatitis A virus infections
Volker Lohmann TRR179

15:45 Impact of the host stress response on hepatitis C virus infection
Alessia Ruggieri TRR179

16:00 Means of modification and degradation of hepatitis B virus cccDNA
Ulrike Protzer/ Dirk Grimm TRR179

16:15 – 16:45

COFFEE BREAK

Foyer DKFZ Communication Center

Chairman: Michael Nassal

- 16:45 Highjacking of cell regulation by HBV: a 3D nuclear perspective
Christine Neuveut, Paris, France
- 17:10 Assembly and misassembly of HBV capsids
Adam Zlotnick, Bloomington, USA
- 17:35 Determinants of success and failure to control hepatitis C virus infection by the interferon system
Ralf Bartenschlager TRR179
- 17:50 Hepatitis B virus X-protein-mediated transcriptional regulation and stability of cccDNA
Stephan Urban TRR179
- 18:05 HBV entry
Wenhui Li, Beijing, China
- 18:30 Cellular egress and entry of quasi-enveloped hepatitis A virus
Stanley M. Lemon, Chapel Hill, USA

19:00 –

SPEAKERS' DINNER

Castle Schriesheim – Bus transfer

Friday, 18th May 2018

Adaptive Immune Response

Chairman: Robert Thimme

- 09:15 T cell exhaustion in chronic HBV infection and potential correction strategies
Carlo Ferrari, Parma, Italy
- 09:40 Signatures of protective immunity against HCV
Naglaa Shoukry, Montreal, Canada; Cooperation CanHepC



- 10:05 Characterization of follicular T helper cell responses in viral hepatitis
Tobias Böttler TRR179
- 10:20 Heterogeneity of HBV- and HCV-specific CD8+ T cells in chronic infection
Maike Hofmann/ Robert Thimme TRR179
- 10:35 Role of myeloid cells in the liver for antiviral immunity
Percy Knolle TRR179
- 10:50 Viral escape from dominant virus-specific CD8+ T cell responses in HBV mono-infection and HBV/HDV co-infection and strategies to restore antiviral CD8+ T cell response
Christoph Neumann-Häfelin TRR179

11:05 – 11:30

COFFEE BREAK

Foyer DKFZ Communication Center

- 11:30 Overcoming constraints on T cell immunity in HBV
Mala Maini, London; Great Britain
- 11:55 T-cell exhaustion
John Wherry, Philadelphia, USA
- 12:20 Farewell
Ralf Bartenschlager, Robert Thimme and Ulrike Protzer

12:30–

LUNCH FOR TAKE AWAY

Foyer DKFZ Communication Center

Conference Venue:

Communication Center, DKFZ Heidelberg
Im Neuenheimer Feld 280
69120 Heidelberg

How to find the DKFZ:

By Car:

a) **Due to the limited number of parking areas in the Neuenheimer Feld, it is recommended to arrive by public transport.**

b) **Approaching Heidelberg on Autobahn A5 from Frankfurt or Karlsruhe**, change to Autobahn A656 from direction Mannheim at the junction "Heidelberger Kreuz". Continue on Autobahn A 656 to Heidelberg, which ends at the Heidelberg City limits.

As you enter the city of Heidelberg, follow the signs „Eberbach/HD-Wieblingen/Chirurgie“: Turn left at first traffic light, then right at second. Follow the curve at the next light. Underpass the Neckar Bridge, then turn right twice heading for "Chirurgie/DKFZ". Having crossed the Neckar River, take the left lane at the first intersection and head for "Chirurgie/DKFZ". Follow this street to the next intersection. Do NOT turn left and drive through the gate, as indicated by DKFZ-signs (it's a checkpoint)! Drive straight ahead instead. To the right there are (charged) parking lots where you can park your car. From the car park walk back to the gate and pass it. Follow the street for about 100 meters. The German Cancer Research Center is the tall building on the right (for your orientation, you can find the house numbers on the top of each building; DKFZ has 280). Go straight ahead along the building, until you can see the main entrance on the right. In the entrance hall please contact the information desk for further help.

By Tramway or bus from the central station:

Tramway: Take the north exit (Kurfürstenanlage) of the central station to the tram stop. Take tram number 24 with terminus "Burgstr.", or tram number 21 with terminus "OEG-Bahnhof". With both lines, leave at stop "Jahnstraße/Chirurgie" (right after the Neckar bridge). Cross the street to the left and walk into „Jahnstrasse“. Follow that street until you reach the gate on the left. Pass the gate and walk into „Kirschnerstrasse“. About 100 meters down the road you will see the DKFZ main building.

Bus: Take bus number 32 with terminus "Neuenheim, Kopfklinik", and leave at stop "Uni Campus". Walk a few meters back and turn left. You will see the DKFZ conference center on the right.

TRR179 Welcome Reception (open to all)

The TRR179 Welcome Reception will take place in the foyer of the DKFZ conference center after the last talk on Wednesday, May 16th. All participants are warmly welcome to attend.

Speakers' Dinner:

All speakers are invited to participate in the speakers' dinner which will take place on Thursday, 17th May 2018 in

Burggasthof Strahlenburg Schriesheim
Burgweg 32
69198 Schriesheim

We have organized a bus transfer to the restaurant. Details for departure will be given during the symposium.