



GESELLSCHAFT DEUTSCHER CHEMIKER



Fachgruppe Biochemie

Shaping the Molecules of Life: Chemical Biology of Nucleic Acid and Protein Modifications

Meeting of the GDCh-Division
Biochemistry

July 6 – 8, 2016 · Frankfurt am Main

www.gdch.de/biochemistry2016



► SCIENTIFIC COMMITTEE

T. Carell	München/DE
J. Eck	Zwingenberg/DE
C. Hackenberger	Berlin/DE
M. Helm	Mainz/DE
C. Hoebartner	Göttingen/DE
H. Kolmar	Darmstadt/DE
A. Rentmeister	Münster/DE
P. H. Seeberger	Potsdam/DE
W. Trommer	Kaiserslautern/DE

Wednesday, July 6, 2016

13:30 **Welcome**

Chemical Biology of RNA Modifications

13:40 **INVITED LECTURE**

Chemical-assisted Sequencing of DNA/RNA Modifications

C. Yi, Beijing/CN, X. Li, B. Xia, X. Xiong, S. Ma, Beijing/CN

14:20 **Cap-like Structures in Bacterial RNA and Epitranscriptomic Modification**

A. Jäschke, Heidelberg/DE, K. Höfer, G. Nübel, J. Frindert, F. Abele, H. Morales Filloy, Y. Zhang, Heidelberg/DE

14:40 **Dynamic Modulation of Dnmt2-dependent tRNA Methylation by the Micronutrient Queuine**

A. Ehrenhofer-Murray, Berlin/DE, M. Müller, Berlin/DE

15:00 **RNA Methylation Analysis by Whole-Transcriptome Bisulfite Sequencing**

C. Legrand, Heidelberg/DE, F. Tuorto, S. Bender, R. Liebers, M. Hartmann, F. Lyko, Heidelberg/DE

15:20 **COFFEE BREAK**

16:00 **INVITED LECTURE**

ADAR1 is Crucial for Discriminating between 'self' and 'non-self' Cellular RNAs

M. O'Connell, Brno/CZ, L. Keegan, Brno/CZ

16:40 **Modified Nucleosides in the tRNA Anticodon Accelerate Decoding to Promote Protein Folding and Brain Development**

S. A. Leidel, Münster/DE

17:00 **Redirecting RNA Editing In Vitro and In Vivo**

T. Stafforst, Tübingen/DE

17:20 **Identification, Structure and Function of the SAM-dependent Aminocarboxypropyl Transferase Responsible for 18S rRNA Hypermodification**

J. Wöhnert, Frankfurt/DE, B. Meyer, J. P. Wurm, C. Immer, S. Sharma, D. Pogoryelov, P. Kötter, Frankfurt/DE, D. Lafontaine, Brussels/BE, K.-D. Entian, Frankfurt/DE

17:40 **COFFEE BREAK**

18:00 **POSTER PRESENTATION** (short)

19:00 **POSTER SESSION / GET TOGETHER**

Thursday, July 7, 2016

Chemical Biology of DNA Modifications

- 9:00 **INVITED LECTURE**
DNA Bases beyond Watson and Crick
T. Carell, Munich/DE
- 9:40 **Structural and Functional Insights into the Polymerase IV Mediated Translesion Synthesis Across N²-dG Damaged DNAs**
P. I. Pradeepkumar, Mumbai/IN
- 10:00 **Oxidation of Labile Phosphorothioate DNA Modifications Leads to Lethal Genomic Instability**
S. Kellner, Cambridge/US, M. Demott, C.-P. Chen, B. Cao, P. Dedon, Cambridge/US
- 10:20 **INVITED LECTURE**
Chemistry and Biology of the Repair of Oxidized Guanines
S. David, Davis/US, R. Woods, O. Valerie, J. Yeo, Davis/US, M. Horvath, Salt Lake City/US
- 11:00 **COFFEE BREAK**
- 11:30 **GENERAL MEETING** Max-Buchner-Hörsaal
of the GDCh-Division Biochemistry
 (guests are welcome)
Mitgliederversammlung der GDCh-Fachgruppe Biochemie (Gäste sind herzlich willkommen)

Expanding the Functional Repertoire of Proteins and Nucleic Acids

- 12:00 **INVITED LECTURE**
Modifying RNA to Explore Riboswitch and Ribozyme Function
R. Micura, Innsbruck/AT
- 12:40 **LUNCH**

Thursday, July 7, 2016

Expanding the Functional Repertoire of Proteins and Nucleic Acids

- 13:30 **INVITED LECTURE**
Protein Sensing and Actuation Using DNA-based Molecular Circuits
M. Merkx, Eindhoven/NL, W. Engelen, B. M. G. Janssen, L. H. H. Meijer, M. T. F. A. de Greef, Eindhoven/NL
- 14:10 **Biochemistry of Hypusination**
R. Hilgenfeld, Lübeck/DE, A. Lindae, Lübeck/DE, E. Bill, Mühlheim/DE, A. X. Trautwein, Z. Han, Lübeck/DE
- 14:30 **Expanding the Programmability of DNA Recognition**
D. Summerer, Dortmund/DE
- 14:50 **Non-canonical Amino Acids for Live Cell Labeling**
J.-E. Hoffmann, Heidelberg/DE, C. Schultz, Heidelberg/DE
- 15:10 **COFFEE BREAK**
- 16:00 **Imaging the Glycosylation of Designated Proteins Inside Living Cells**
F. Doll, Konstanz/DE, A. Buntz, V. Wittmann, A. Zumbusch, Konstanz/DE
- 16:20 **Development of Synthesis Methodology for DNA-encoded Chemical Libraries**
A. Brunschweiler, Dortmund/DE, O. Bugain, M. Klika Skopic, K. Jung, H. Salamon, Dortmund/DE
- 16:40 **Alkene-modified Unnatural Nucleotides for Site-specific RNA Labeling Using Genetic Alphabet Expansion Transcription**
S. Kath-Schorr, Bonn/DE, F. Eggert, C. Domnick, Bonn/DE
- 17:00 **COFFEE-BREAK**
- 17:30 **Award of the Albrecht-Kossel-Preis to Prof. Johannes Buchner**
AWARD LECTURE
Molecular Chaperones – Cellular Machines of Protein Folding
J. Buchner, Garching/DE
Award of the “Förderpreis Fachgruppe Biochemie”
AWARD LECTURE

Friday, July 8, 2016

Chemoselective Protein Synthesis and
Biological Applications

- 9:00 **INVITED LECTURE**
Make Connections for Life: Harnessing the Chemical Biology of Flesh-eating Bacteria to Create Unbreakable Protein Teams
M. Howarth, Oxford/GB
- 9:40 **Engineered Intein Tools for Manipulating Protein Structure and Function**
H. D. Mootz, Münster/DE
- 10:00 **Formation of Peptidyl RNA from Amino Acids and Ribonucleotides**
C. Richert, Stuttgart/DE, H. Griesser, M. Bechthold, S. Mosch, Stuttgart/DE
- 10:20 **COFFEE BREAK**
- 11:00 **New Chemoselective Reactions for the Phosphorylation of Peptides and Proteins**
C. P. R. Hackenberger, Berlin/DE, J. Bertran-Vicente, S. Klenk, A. Hauser, M. Penkert, O. Nieto-Garcia, E. Krause, Berlin/DE
- 11:20 **Semi-synthesis and Properties of Homogeneous Glycosylphosphatidylinositol Anchored Proteins**
D. Varon Silva, Potsdam/DE, R. Roller, D. Michel, M. Garg, Potsdam/DE, J. Castilla, Bilbao/ES, H. Eraña, Bilbao/ES
- 11:40 **Towards Semi-synthesis of a Glycosidase with 4-fluoro Glutamic Acids as Catalytic Residues**
M. P. Kötzler, Vancouver/CA, S. G. Withers, Vancouver/CA
- 12:00 **Poster Prizes and Closing Remarks**

POSTER

The poster list confirmed by the Scientific Committee is available on the internet from May 2016 on:

www.gdch.de/biochemistry2016

It is still possible to submit last-minute-posters until **June 5, 2016**.

The poster session will take place in the Max-Buchner-Hörsaal.

Poster format: Portrait A0 (height: 118.9 cm, width: 84.1 cm).

▶ VENUE

DECHEMA e.V.
Gesellschaft für Chemische Technik und Biotechnologie e.V.
(Max-Buchner-Hörsaal)
Theodor-Heuss-Allee 25
60486 Frankfurt am Main/Germany

▶ HOW TO GET TO THE DECHEMA E.V.

By public transport

From Frankfurt Airport

- approx. 20 min. by taxi
- S-Bahn: S 8, S 9 (line 8 or 9) to the main station (Hauptbahnhof), change to S 3, S 4, S 5 or S-6 (platform 104, underground) to the station Messe, exit Theodor-Heuss-Allee/Festhalle

From the main railway station (Hauptbahnhof)

- approx. 20 min. walk
- approx. 10 min. by taxi
- S-Bahn: S 3, S 4, S 5 or S 6 (platform 104, underground) to the station Messe, Exit Theodor-Heuss-Allee / Festhalle
- Underground: line U 4 (line 4) direction Bockenheimer Warte to the station Messe, Exit Festhalle and 10 min. walk
- tram/streetcar line 16 or 17 to the stop Varrentrappstraße and 10 min. walk

By car

Via "Autobahn/Westkreuz" to "Frankfurt Stadtmitte", turn right at first traffic light after the railway bridge

From the city centre in direction "Messe" (exhibition grounds), on the "Theodor-Heuss-Allee" first left-hand turn-off lane before the railway bridge

Entrance Varrentrappstraße

The area of DECHEMA is part of the low emission zone (Umweltzone) in Frankfurt. Only vehicles displaying an appropriate badge on their windscreen will be allowed to enter the low emission zone. Information: www.umweltzone.frankfurt.de

DB BAHN The „Deutsche Bahn“ offers attractive conditions for travelling to GDCh-events. Further information can be found on en.gdch.de/railway

▶ REGISTRATION

Please register online not later than **May 25, 2016**

www.gdch.de/biochemistry2016

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Executive Director: Professor Dr. Wolfram Koch
Registered Charity No: VR 4453 · Registergericht Frankfurt am Main

All tickets and congress papers will be handed to the participants upon check-in at the registration desk. Participants are requested to wear their congress badges at all times for identification and admittance to the conference rooms.

Upon online registration, payment by credit card, direct debit (only with German bank account) or bank transfer (free of bank commission) is possible. The invoice will be sent to you automatically.

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► REGISTRATION FEES^{*)}

GDCh-member and member of EuCheMS-member societies	€ 250,-
Non-member	€ 340,-
Student Member**	€ 150,-
Student Non-member**	€ 175,-
Gold member (with over 50 years of GDCh membership)	free of charge

* The registration fees are not liable to value added tax (tax exemption additional § 4 Nr. 22a UstG.)

**valid student card required

If fees are paid in advance, but **after June 8, 2016**, we kindly ask participants to show proof of payment when claiming their tickets and congress papers at the registration desk. Credit cards (Amex, Mastercard, Visa) will be accepted.

► CANCELLATION

Requests for cancellation made prior to **May 25, 2016** will be subject to a € 25,- administration fee. After that date the full amount of the invoice has to be paid. Requests for refund will not be accepted; however, registration may be transferred to another member of your organisation. In this case please send a note to GDCh, congress team.

If the meeting is cancelled for whatever reason, fees paid will be refunded. Further recourse is excluded.

► SCHOLARSHIPS

The Biochemistry Division offers scholarships to a limited number of students, candidates for doctor's, diploma's, bachelor's or master's degree presenting a scientific contribution (main author of an oral contribution or poster). Please send your application to Dr. Susanne Kühner, s.kuehner@gdch.de by **May 15, 2016**. Information can be found at

www.gdch.de/biochemie

► LUNCH AND COFFEE BREAKS

The registration fee includes one lunch and all coffee breaks.

► GENERAL MEETING

The General Meeting of the Division of Biochemistry of the German Chemical Society will take place on July 7, 2016 at 11:30.

► SOCIAL PROGRAMME

The programme will include a poster session on Wednesday July 6, 2016.

Posters will be displayed throughout the conference.

► EXHIBITION / SPONSORING

For enquiries concerning the exhibition and/or sponsoring opportunities please contact

Prof. Dr. Andrea Rentmeister
Westfälische Wilhelms-Universität Münster
Institute of Biochemistry
Wilhelm Klemm Straße 2
48149 Münster
Germany

Phone: +49 251 83-33204

Email: a.rentmeister@uni-muenster.de

► DATES

Deadlines

May 25, 2016	Personal registration
May 25, 2016	Cancellation of participation
June 5, 2016	Submission of Last-Minute-Posters
June 8, 2016	Room reservation

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► ACCOMMODATION

Room allocations have been reserved in the following hotels:

QGREENHOTEL by Meliá

Katharinenkreisel (Opelrondell)

60486 Frankfurt am Main/Germany

Phone: +49 69 707300

Fax: +49 69 70730333

Email: qgreen.frankfurt@melia.com

Please make your reservation not later than **June 8, 2016** by using this link: <http://meetings.melia.com/de/Biochemistry>.

Motel One Frankfurt-Messe

Europa-Allee 25

60327 Frankfurt am Main/Germany

Phone: +49 69 6612453-0

Fax: +49 69 6612453-10

Email: frankfurt-messe@motel-one.com

Please make your reservation not later than **June 5, 2016** under the keyword **"Biochemistry2016/541104254"**

For further information about rooms and the city please contact
Tourismus+Congress GmbH Frankfurt am Main at
www.frankfurt-tourismus.de

The customers will be held accountable for non-occupancy of reserved rooms.

► INFORMATION BEFORE AND AFTER THE MEETING

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Martina Losch

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Executive director: Professor Dr. Wolfram Koch

Registered Charity No.: VR 4453 Registergericht Frankfurt/Main

► INFORMATION AND REGISTRATION DURING THE CONFERENCE

The conference office will be located in the foyer of the Max-Buchner Hörsaal.

Opening hours:

Wednesday, July 6, 2016

12:00 – 18:30 hrs

Thursday July 7, 2016

08:30 – 16:30 hrs

Friday July 8, 2016

08:30 – 12:30 hrs

Phone: +49 69 7564-147

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► INFORMATION ABOUT THE SCIENTIFIC PROGRAMME AND THE DIVISION

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EXHIBITORS



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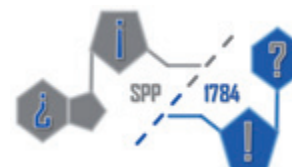
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