

62. Mosbacher Kolloquium



(MOSBACHER.KOLLOQUIUM)

7 - 9 April 2011 | Mosbach (Baden), Germany

Mechanisms of RNA-mediated regulation

program





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scientific organization

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in cooperation with the
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GEN AG "Regulatory RNA" of the Gesellschaft für Genetik (GfG)

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Dear Colleague,

RNA, originally considered as a passive information carrier molecule, has only recently been recognized as a central regulatory molecule. RNA-mediated regulation is an universal principle in prokaryotes and eukaryotes, and RNA regulatory networks control a variety of key cellular processes on the transcriptional and translational level, or by affecting RNA stability. In genome-wide studies, new non-coding RNAs with important regulatory functions are discovered daily.

At the Mosbacher Kolloquium in April 2011, we want to provide an overview about the current status of research on the manifold regulatory mechanisms with RNA as the central key player. Lectures from leading experts in the field will illustrate the latest findings and ensure lively discussions.

It is a long lasting tradition that the German Society for Biochemistry and Molecular Biology is organizing its spring meeting in the picturesque town of Mosbach. We are glad to welcome you to the 62th Kolloquium and are looking forward to an interesting meeting.

Dagmar Klostermeier
GBM study group "RNA biochemistry"



meeting venue: alte mälzerei

wednesday, 6 april 2011

- 17:00 Start Registration
- 20:30 Welcome Reception

thursday, 7 april 2011

- 09:00 Opening (N. Pfanner & D. Klostermeier)
- 09:00 Morning session:
RNA regulatory networks in prokaryotes
Gisela Storz, Bethesda (US)
E. Gerhart H. Wagner, Uppsala (SE)
Jörg Vogel, Würzburg (DE)
Wolfgang Hess, Freiburg (DE)
Pascale Romby, Strasbourg (FR)
- 12:00 Lunch break
- 12:15 "Meet the Prof" (Guest: Reneé Schroeder)
- 12:30 Poster session
- 14:00 Afternoon session:
Hot topics in regulation
Kekichi Masutomi, Tokyo (JP)
Gunther Hartmann, Bonn (DE)
Peter Stadler, Leipzig (DE)
Stan Brouns, Wageningen (NL)
Michael Terns, Athens (US)
- 17:15 GBM General Meeting
- 19.00 Feodor Lynen Lecture
Eric Westhof, Strasbourg (FR)
- 20:00 Lynen reception
- 20:30 10 years GBM study group "RNA Biochemistry"
(with poster session)

friday, 8 april 2011

- 09:00 Morning session:
Regulation via ligand-induced conformational changes

Ron Breaker, New Haven (US)
Adrian Ferré d'Amaré, Seattle (US)
Robert Batey, Boulder (US)
Franz Narberhaus, Bochum (DE)
Shoshy Altuvia, Jerusalem (IR)
- 12:00 Lunch break
- 12:15 "Meet the Prof" (Guest: Eric Westhof)
- 12:30 Poster session
- 14:00 Afternoon session:
RNA-mediated regulation in transcription

Kevin Weeks, Chapel Hill (US)
Patrick Cramer, Munich (DE)
Torben Heick Jensen, Århus (DK)
David Corey, Dallas (US)
Robert Landick, Madison (US)
- 17:15 Schering Award Lecture

Sebastian Kühner, Heidelberg (DE)
- 17:30 Eduard Buchner Prize Lecture:

Renée Schroeder, Vienna (AT)

saturday, 9 april 2011

- 09:00 Morning session:
Mechanisms of micro-RNA function

Mihaela Zavolan, Basel (CH)
Eliza Izaurralde, Tübingen (DE)
Markus Stoffel, Zurich (CH)
Witold Filipowicz, Basel (CH)
Brenda Bass, Salt Lake City (US)
- 12:00 Poster Awards & Closing Remarks

afternoon

17:00

Start Registration

20:30

Welcome Reception/Get together
(City hall)



mosbach city hall

day of arrival

The Steering Committee of the German Society for Biochemistry and Molecular Biology (Gesellschaft für Biochemie und Molekularbiologie, GBM) and the city of Mosbach invite you to a **welcome reception at 8.30 p.m.** in the city hall (Rathaus, Marktplatz / Hauptstraße) in Mosbach (to end about 10 p.m. - no registration required).

We thank the city of Mosbach for the kind hospitality.

morning

09:00	Opening (N. Pfanner & D. Klostermeier)
	Morning session: (Chair: Christian Hammann) RNA regulatory networks in prokaryotes
09:00	Gisela Storz, Bethesda (US) <i>The role of small RNAs in regulatory networks</i>
09:30	E. Gerhart H. Wagner, Uppsala (SE) <i>Active RNA cycling on Hfq</i>
10:00	Jörg Vogel, Würzburg (DE) <i>Functional domains in Hfq-dependent small RNAs</i>
10:30	Coffee break
11:00	Wolfgang Hess, Freiburg (DE) <i>Regulatory RNA in cyanobacteria: Developmental decisions, stress responses and a plethora of chromosomally encoded cis-antisense RNAs</i>
11:30	Pascale Romby, Strasbourg (FR) <i>RNA-dependent regulation in Staphylococcus aureus</i>
12:00	Lunch break
12:15	"Meet the Prof" (Chair: Niklas Laasch) Guest: Renée Schroeder, Vienna (AT)
12:30	Poster session

afternoon

Afternoon session: (Chair: Anita Marchfelder & S. Vörtler)

Hot topics in regulation

14:00

Kekichi Masutomi, Tokyo (JP)

Identification of the RNA-dependent RNA polymerase and mechanism of chromatin maintenance

14:30

Gunther Hartmann, Bonn (DE)

Immunobiology of RIG-I

15:00

Peter Stadler, Leipzig (DE)

Beyond microRNAs: treasures in short-read sequencing data

15:30

Coffee break

16:00

Stan Brouns, Wageningen (NL)

Small RNA guided invader defense

16:30

Michael Terns, Athens (GR)

Small RNA-based prokaryotic immunity via the CRISPR-Cas system

17:15

GBM General Meeting

19:00

Feodor Lynen Lecture

Eric Westhof, Strasbourg (FR)

Sequence-based detection of structural modules of RNA architectures

20:00

Lynen Reception

20:30

10 years GBM study group RNA Biochemistry (with poster session)

morning

Morning session: (Chair: Beatrix Sues)

Regulation via ligand-induced conformational changes

09:00

Ron Breaker, New Haven (US)

The expanding diversity of noncoding RNA in bacteria

09:30

Adrian Ferré-d'Amaré, Seattle (US)

Diversity of structural responses of riboswitches to cognate ligand binding

10:00

Robert Batey, Boulder (US)

Conformational sampling by riboswitch aptamers

10:30

Coffee break

11:00

Franz Narberhaus, Bochum (DE)

Bacterial RNA thermometers - Molecular zippers or switches?

11:30

Shoshy Altuvia, Jerusalem (IR)

A pH responsive RNA regulator

12:00

Lunch break

12:15

"Meet the Prof" (Chair: Niklas Laasch)

Guest: Eric Westhof, Strasbourg (FR)

12:30

Poster session

afternoon

Afternoon session: (Chair: Mark Helm)

RNA-mediated regulation in transcription

14:00

Kevin Weeks, Chapel Hill (US)

The chemical biology of whole transcriptome analysis

14:30

Patrick Cramer, Munich (DE)

RNA-based transcription regulation

15:00

Torben Heick Jensen, Århus (DK)

Uncovering layers of human RNA polymerase II transcription

15:30

Coffee break

15:50

David Corey, Dallas (US)

Modulating transcription in human cells with small RNAs

16:20

Robert Landick, Madison (US)

Regulation of transcript elongation by nascent RNA structures

16:50

Coffee Break

17:15

Schering Award Lecture

Sebastian Kühner, Viernheim (DE)

Proteome organization in a genome-reduced bacterium

17:30

Eduard Buchner Prize Lecture

Renée Schroeder, Vienna (AT)

Towards understanding the mechanism of proteins with RNA chaperone activity

morning

Morning session: (Chair: Roland Hartmann)

Mechanisms of micro-RNA function

09:00

Mihaela Zavolan, Basel (CH)

Post-transcriptional gene regulation by miRNAs and RNA-binding proteins

09:30

Eliza Izaurralde, Tübingen (DE)

Mechanisms of miRNA-mediated gene silencing

10:00

Markus Stoffel, Zurich (CH)

MicroRNA function in metabolism

10:30

Coffee break

11:00

Witold Filipowicz, Basel (CH)

Regulation of microRNA function and metabolism in mammalian cells

11:30

Brenda Bass, Salt Lake City (US)

*Mechanisms for processing small RNAs in *C. elegans**

12:00

Poster Awards & Closing Remarks
(I. Sinning & D. Klostermeier)



mosbach mansion

Meet the Prof

Dear students,

at this year's Mosbacher Kolloquium, you will once again have the opportunity to meet two of the speakers in an informal way to ask questions.

This year's guests are:

Renée Schroeder (Eduard Buchner Prize laureate)

Eric Westhof (Feodor Lynen laureate)

Dates:

Thursday, 12:15 (Renée Schroeder)

Friday, 12.15 (Eric Westhof)

Location:

Alte Mälzerei, Room: Darre

A registration is required

(<http://www.doodle.com/ghb4dtrehkdvfmz3>).

get-together for students

The Junior-GBM Potsdam is organizing an informal get-together for young participants in Mosbach's brewery on Friday evening.

Date:

Friday, April 9, 7.00 p.m.

Meeting point: Main entrance of the Alte Mälzerei

accommodation

Accommodation can be booked through
Städtisches Verkehrsamt (Tourist office) only:

Tel. +49 6261-9188-20, Fax -15.

You will receive confirmation by mail.

conference office

Opening hours:

Wed., 6 April	05.00 p.m. - 08.00 p.m.
Thu., 7 April	08.00 a.m. - 04.30 p.m.
Fri., 8 April	08.30 a.m. - 04.30 p.m.
Sat., 9 April	08.30 a.m. - 11.00 a.m.

Telephone and Fax numbers of the conference
office (6 - 9 April 2011) are:

Tel. +49 (0) 6261 9292-78,

Fax. +49 (0) 6261 9292-79.

exhibition

Please visit the booths of our industrial sponsors.

internet access

There will be a wireless LAN access point in the foyer
next to the conference office.

SSID: AM Key: GBM_2011

lunch and coffee breaks

Coffee, tea and mineral water will be provided for free
during the coffee breaks.

Lunch is available at your own expense in the
conference center or you can also visit one of the
restaurants in the town of Mosbach.

poster

Posters should be presented throughout the whole meeting.

Please see the abstract book for poster numbers and authors.

The posters should be presented in Portrait format (DIN A0 resp. ~120 x 85 cm)

There will be poster discussion sessions on Thursday and Friday afternoon. During the poster sessions the presenting authors are requested to stay near their posters.

The best three posters will be awarded. The winners will be announced by the end of the Kolloquium on Saturday.

projection

Overhead and beamer projection are available. Please contact the conference office if you need further technical assistance.

registration

There is an opportunity for on-site registration at the Conference office in Mosbach.

Registration fees for on-site registration:

members* academia	225 €
non-members academia	300 €
retiree members*	90 €
retiree non-members	110 €
student members*	50 €
student non-members	75 €
members* industry	355 €
non-members industry	430 €

*Member of the GBM, VAAM, DGZ, Dechema

The registration fee includes coffee/tea/mineral water during the conference breaks

Your name badge, program, abstract booklet and further information will be available at the registration desk. We kindly ask to wear your name badge as an entry ticket during the whole meeting.

venue - mosbach

Mosbach is located on the railway line (S-Bahn) Mannheim-Heidelberg-Mosbach-Osterburken, 45 kilometres east of Heidelberg.

The nearest airport is Frankfurt/Main. There are good train connections from Frankfurt airport station to Mannheim and from there to Mosbach (about 110 km).

By car: From Frankfurt / Heidelberg: Motorway A6 exit Sinsheim - then B292 to Mosbach; From Stuttgart / Heilbronn: A6 exit Neckarsulm - B27 to Mosbach; From Würzburg / Nürnberg: A81 exit Osterburken, B 292 to Mosbach.

venue - alte maelzerei - the conference center

Alte Bergsteige 7, 74821 Mosbach,
www.maelzerei.de,
is located just above the old city centre. When arriving by car, please follow the yellow signs to parking areas P5 „Alte Mälzerei“ or P6 „Altstadt“.





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A meeting of the German
Society for Biochemistry and
Molecular Biology (GBM)