

60. Mosbacher Kolloquium

of the German Society for
Biochemistry and Molecular Biology

**Molecular and Cellular
Mechanisms of Memory**

March 19 - 21, 2009
Mosbach/Baden

Programme

Organization:**German Society for Biochemistry and Molecular Biology**

Mörfelder Landstraße 125
60598 Frankfurt am Main
Germany

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Co-Organization:**Leibniz Institute for Neurobiology**

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Scientific Committee:

Cord-Michael Becker, Erlangen
Heinrich Betz, Frankfurt am Main
Eckart Gundelfinger, Magdeburg

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Dear Visitor,

But the memory remains...
(Hetfield & Ulrich, band "Metallica").

Information is useless if it is not stored - in modern technology and culture as well as in biology. How do molecular patterns, how do cells and organisms collect information, store and recombine it and recall it when necessary?

We want to discuss these issues at the upcoming 60th Mosbacher Kolloquium in March 2009. At the Conference "Molecular and Cellular Mechanisms of Memory", you will meet leading experts from all over the world, among them Nobel Laureates Eric Kandel and Susumu Tonegawa. Their lectures will highlight the latest findings about the molecular and cellular basis of memory formation.

Mosbach is a charming small town amidst the vineyards of Baden/Germany. Since 1950, it has been hosting the annual spring conference of the German Society for Biochemistry and Molecular Biology (GBM).

We hope to meet you there and will be glad to welcome you to the conference. We are sure it will provide some exciting information for you - and for all of us.

Cord-Michael Becker
Heinrich Betz
Eckart D. Gundelfinger

17.00 - **Start of registration**
20.15

20.30 **Welcome /
Get together**
(in the town 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 town hall (Rathaus, Marktplatz / Hauptstraße) in Mosbach (to end about 10 p.m.).
No registration required.

09.00 - **Opening remarks**
09.15 (Alfred Wittinghofer -
President of the GBM)

09.15 - Session 1:
11.20 **Chemotaxis**

Chair Person: Heinrich Betz

09.15 - **Jeffry B. Stock**, Princeton
09.45 Methylation Memories: From E. coli
to Alzheimer's

09.50 - **U. Benjamin Kaupp**, Bonn
10.20 How to detect and remember a
single molecule

10.25 - **Coffee Break**
10.50

10.50 - Session 1 (continued):
11.20 **Chemotaxis**

10.50 - **Victor Sourjik**, Heidelberg
11.20 Noise, memory and behavior in
bacterial chemotaxis

11.25 - Session 2:
15.05 **Memory in plants**

Chair Person: Andreas Faissner

11.25 - **Barbara Hohn**, Basel
11.55 Environmental Influences on Plant
Genome Dynamics

12.00 - **Lunch Break**
13.00

13.00 - **Poster Session I**
14.00

14.00 - Session 2 (continued):
15.05 **Memory in plants**

14.00 - **Jerzy Paszkowski**, Geneva
14.30 DNA methylation and transgenerational epigenetic memory in plants

14.35 - **Daniel Schubert**, Düsseldorf
15.05 Epigenetic control of plant cell fate by histone methylation

14.55 - **Coffee Break**
15.40

15.40 - Session 3:
16.45 **Memory formation in the brain (1)**

Chair Person: Klaus Unsicker

15.40 - **Dietmar Kuhl**, Berlin
16.10 Learning about Arg3.1/Arc and long-term memories

16.15 - **Eric Klann**, New York
16.45 mTOR signaling in synaptic plasticity and memory

17.00 - **General Assembly of the GBM /**
18.30 **Mitgliederversammlung**

18.30 - Award ceremony
18.45 **“Kommunikationspreis der GBM”**

19.00 - **Feodor Lynen Lecture**
20.00

Chair Person: Alfred Wittinghofer

Susumu Tonegawa, Boston/Tokyo
Neural circuit genetics of hippocampal memory

08.30 - Session 4:
10.10 **The memory of the immune system**

Chair Person: Konrad Sandhoff

08.30 - **Brigitta Stockinger**, London
09.00 CD4 memory T cells: functional
differentiation and homeostasis

09.05 - **Michael McHeyzer-Williams**, La Jolla
09.35 Regulating Adaptive Immunity and
Immune Memory

09.40 - **Percy Knolle**, Bonn
10.10 Immune tolerance and memory

10.15 - **Coffee Break**
10.45

10.45 - Session 5:
12.25 **Memory in the non-living world**

Chair Person: Cord-Michael Becker

10.45 - **Thomas Elsässer**, Berlin
11.15 Ultrafast memory loss and relaxation
processes in liquid water

11.20 - **Gunther Eggeler**, Bochum
11.50 Microstructural, mechanical and bio-
chemical challenges in nickel-titanium
shape memory alloys

11.55 - **Albrecht Winnacker**, Erlangen
12.25 Memory and neural networks on the
basis of color centres in solids

12.30 - **Lunch Break**
13.30

13.30 - **Poster Session II**
14.30

14.30 - Session 6:
16.15 **Invertebrates: innate vs. learned behavior**

Chair Person: Rolf Heumann

14.30 - **Michael Adams**, Riverside
15.00 Chemical Coding of Innate Behavioral Sequences

15.05 - **Martin Heisenberg**, Würzburg
15.35 Types of memories in flies

15.40 - **Edward A. Kravitz**, Boston
16.10 The fruit fly fight club: learning and memory accompany the establishment of hierarchical relationships in male fights

16.15 - **Coffee Break**
16.45

16:45 - Session 7:
17.40 Short communications

Chair Person: Ulrich Brandt

16.45 - **Georg Auburger**, Frankfurt am Main
17.00 A53T-alpha-synuclein affects dopamine signalling and synaptic plasticity in striatum of aged mice

17.05 - **Frank Weber**, Heidelberg
17.20 The memory of time – Encrypting temporal information by post-translational modification of the circadian CLOCK protein

17.25 - **Volker Eulenburg**, Frankfurt am Main
17.40 Genetic analysis of glycine transporter 1 function

18.00 - Award lecture:
18.15 **Bayer Schering Pharma Thesis Prize**

18.15 -
19.15

Buchner Award Lecture

Chair Person: Nikolaus Pfanner

Eric Kandel, New York
The Long and Short of Long Term
Memory

08.30 - Session 8:
10.55 **Epigenetic mechanisms of memory**

Chair Person: Gerald Thiel

08.30 - **Geneviève Thon**, Copenhagen
09.00 Epigenetic inheritance of chromatin states in fission yeast

09.05 - **Christian Beisel**, Zürich
09.35 Epigenetic networks and cellular reprogramming

09.40 - **Ted Abel**, Philadelphia
10.10 Epigenetics of Memory Storage

10.15 - **Coffee Break**
10.40

10.40 - Session 8 (continued):
10.55 **Epigenetic mechanisms of memory**

10.40 - **Andre Fischer**, Göttingen
10.55 Epigenetic approaches to treat cognitive diseases

11.00 - Session 9:
12.05 **Memory formation in the brain (2)**

Chair Person: Eckart Gundelfinger

11.00 - **Michael Kiebler**, Wien
11.30 Molecular mechanisms of dendritic mRNA localization and its implication for learning and memory

11.35 - **Peter Seeburg**, Heidelberg
12.05 Spatial memory in mice with altered excitatory neurotransmission

12.10 **Closing remarks**

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.

One of this year's speakers will be the Nobel Prize laureate **Susumu Tonegawa**, who received the prize for his discovery of the genetic principle for generation of antibody diversity. The other speaker will be **Eric Richard Kandel**, who received the Nobel Prize for his research on the physiological basis of memory storage in neurons.

Dates:

Thursday, March 19, 12.05

Alte Mälzerei, Room: Darre

A registration is required.

Get-together for students

The special section 'Students' of the German Society for Biochemistry and Molecular Biology is organizing an informal get-together for young participants in Mosbach's brewery on Thursday and Friday evening.

Dates:

Thursday, March 19, 9.00 p.m.

Meeting point: Main entrance of the Alte Mälzerei

Friday, March 20, 7.30 p.m.

Meeting point: Main entrance of the Alte Mälzerei

Mosbach (Baden)

www.mosbach.de 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.

The Conference Centre „Alte Mälzerei“

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“.

General Information

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The technical organization of the Mosbach Colloquium is supported by the secretary general of the GBM, Prof. Ulrich Brandt, Frankfurt. We would like to thank his secretary, Lena Schmidt for her assistance with the organization of the meeting.

Registration

Please register online at

www.mosbacher-kolloquium.org

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

In case of cancellation after February 28, 2009 the registration fee cannot be refunded.

Confirmation of Registration

You will obtain a confirmation of registration by e-mail. Your name badge and further information will be available at the registration desk. Please present your name badge during the whole meeting.

The **Conference Office** (Alte Mälzerei) will be open:

Wed., March 18 05.00 p.m. - 08.15 p.m.

Thu., March 19 08.00 a.m. - 04.30 p.m.

Fri., March 20 08.00 a.m. - 04.30 p.m.

Sat., March 21 08.30 a.m. - 11.00 a.m.

Telephone and Fax numbers of the conference office (March 19-21, 2009) are:

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

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

E-mail / Internet access

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

Accommodation

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

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

You will receive confirmation by mail.

If you have received no confirmation, please inquire at the Städtisches Verkehrsamt (Tourist office) in Mosbach.

Projection

Overhead and beamer projection are available.

Poster

Posters should be presented throughout the meeting. There will be poster discussion sessions on Thursday and Friday afternoon.

Industrial Partners

Please visit the booths of our industrial sponsors.

Wir danken für die finanzielle Unterstützung /
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