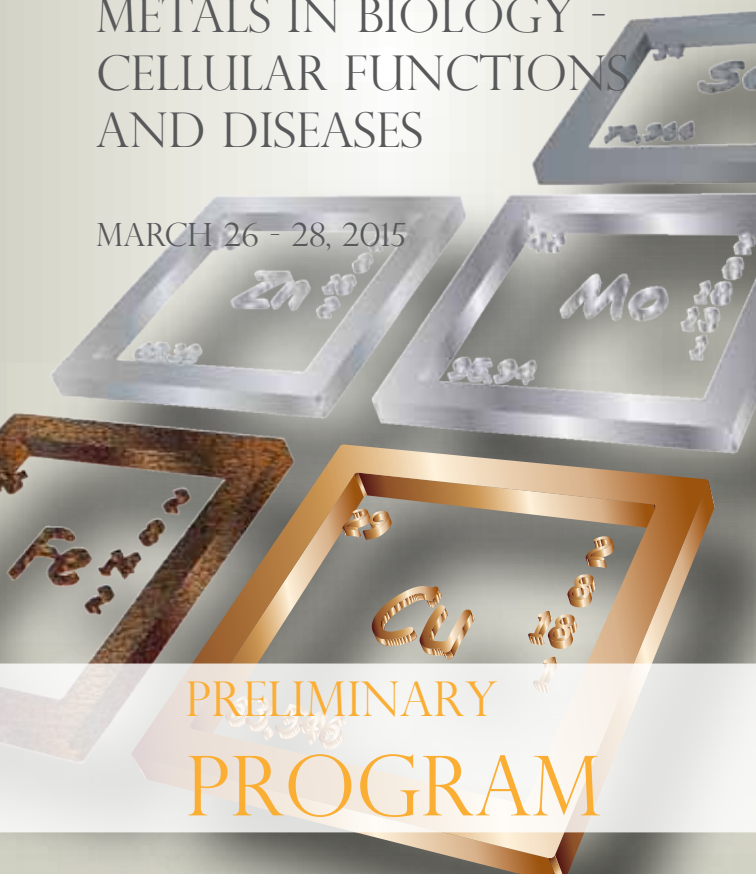




66. MOSBACHER KOLLOQUIUM

METALS IN BIOLOGY -
CELLULAR FUNCTIONS
AND DISEASES

MARCH 26 - 28, 2015



PRELIMINARY
PROGRAM

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TABLE OF CONTENTS

Organization	2
Welcome address	4
Program at a glance	5
Program	9
Prize lectures	14
Students for students	16
Social program	17
General remarks	
Accommodation	18
Conference office	18
Internet access	18
Lunch & coffee breaks	19
Posters	19
Industrial exhibition	19
Registration	20
Proceedings	21
Venue	21
Exhibitors	22
Sponsors	23

Dear Colleagues,

The traditional spring meetings of the German Society for Biochemistry and Molecular Biology (GBM) are held annually in the picturesque town of Mosbach to promote the exchange of scientific ideas and to foster the education of young scientists. The scientific theme of the 66th meeting is “Metals in Biology: Cellular functions and diseases”.

Metals such as iron, copper, molybdenum, manganese and zinc participate in many biochemical and cell biological processes. More than 40% of the cellular proteins bind a functionally critical metal or metal-cofactor. Hence, acquisition, intracellular distribution, and protein insertion of metals are essential for cell viability. Conversely, unbound metals are toxic, thus requiring sophisticated regulatory systems to assure adequate cellular uptake, storage and export. All these processes are accomplished by a plethora of specific membrane transporters, metal-sensing hormones, dedicated metallochaperones, biogenesis and assembly factors, and metal-storage proteins. Together they form a complex network that is essential for cellular metal homeostasis. Malfunctioning of these processes, however, leads to severe cellular dysfunctions and detrimental human diseases with, e.g., neurodegenerative or hematological phenotypes.

At the meeting, emerging new concepts of metal biology will be discussed by leading experts covering the topics of the cellular regulation, transport, and protein insertion of metals. The speakers will also describe the roles of metals in energy production, cofactor biosynthesis, enzyme function, and various fatal diseases.

We look forward to seeing you in Mosbach.
Roland Lill, Ralf R. Mendel and Martina Muckenthaler

PROGRAM AT A GLANCE

WEDNESDAY, MARCH 25

17:00 - 20:00	Arrival and registration
17:00 - 19:00	Workshop „Fellowships for Postdocs“
18:00 - 19:30	Primer on the Biology of Metals
20:00 - 22:00	Get-together and welcome reception



City hall/Mosbach

PRIMER ON THE BIOLOGY OF METALS

The organizers offer a brief introduction into the conference topic for attendees mainly at the undergraduate and graduate student level. The presentation will summarize basic and medical aspects of previous and current research in this area, and describe the technologies used.

WELCOME RECEPTION

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 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.

THURSDAY, MARCH 26

08:50 - 09:00	Opening remarks
09:00 - 10:30	Session 1: Metals in energy metabolism Ulrich Brandt, Nijmegen (NL) Dennis Winge, Salt Lake City UT (USA) Juan Fontecilla-Camps, Grenoble (FR)
10:30 - 11:00	Coffee break
11:00 - 12:00	Session 1 (continuation): Joan Broderick, Bozeman MT (USA) Thomas Happe, Bochum (DE)
12:00 - 13:00	Lunch break
12:00 - 13:00	Meet the Prof
13:00 - 14:30	Poster Session 1 (even numbers)
14:30 - 16:00	Session 2: Metalloproteomics: Intracellular trafficking and homeostasis Iqbal Hamza, College Park MD (USA) Dennis Thiele, Durham NC (USA) Sabeeha Merchant, Los Angeles CA (USA)
16:00 - 16:25	Coffee break
16:25 - 17:10	Session 2 (continuation): Amy Palmer, Boulder CO (USA) Poster talk: N.N.
17:10 - 17:25	Bayer HealthCare PhD Prize: N.N.
17:25 - 18:55	GBM General Meeting
19:00 - 20:00	Feodor Lynen Lecture: Matthias Hentze, Heidelberg (DE)
20:00 - 21:30	Lynen reception
20:00 - 21:30	Poster Session 2 (all numbers)
22:00 - 24:00	Party & Dance (org. by Junior GBM)



PROGRAM AT A GLANCE

FRIDAY, MARCH 27

09:00 - 10:25	Session 3: Biogenesis of metalloproteins Markus Ribbe, Irvine CA (USA) Frederic Barras, Marseille (FR) Oliver Stehling, Marburg (DE)
10:25 - 10:55	Coffee break
10:55 - 12:05	Session 3 (continuation) Caryn Outten, Columbia SC (USA) Florian Bittner, Braunschweig (DE) Poster talk: N.N.
12:05 - 13:15	Lunch break
12:05 - 13:15	Meet the Prof
13:15 - 14:45	Poster Session 3 (uneven numbers)
14:45 - 15:45	Session 4: Metals in enzyme function Val Culotta, Baltimore MD (USA) Caroline Kisker, Würzburg (DE)
15:45 - 16:15	Coffee break
16:15 - 17:30	Session 4 (continuation) Vadim Gladyshev, Boston MA (USA) Susan Buchanan, Bethesda MD (USA) Poster talk: N.N.
17:30 - 18:30	Eduard Buchner Prize: Ed Hurt, Heidelberg (DE)
18:30 - 20:00	Junior GBM Meeting



SATURDAY, MARCH 28

09:00 - 10:30	Session 5: Metals in disease: Neurodegeneration, inflammation, infection and hematology Hubertus Haas, Innsbruck (AT) Peter Ratcliffe, Oxford (UK) Tom Ganz, Los Angeles CA (USA)
10:30 - 11:00	Coffee break
11:00 - 12:00	Session 5 (continuation): Günter Weiss, Innsbruck (AT) Günter Schwarz, Köln (DE)
12:00- 12:20	Poster Prizes and closing remarks



Alte Maelzerei/Congress venue



WEDNESDAY, MARCH 25

17:00 - 20:00	Arrival and registration
17:00 - 19:00	Workshop (Chair: R. Lill) „Fellowships for Postdocs“ Fellowship programs of EMBO, HFSP and DFG
18:00 - 19:30	Primer (Chair: R. Lill) on the Biology of Metals
20:00 - 22:00	Get-together and welcome reception (in the city hall)

THURSDAY, MARCH 26

08:50 - 09:00	Opening remarks: Roger Goody (President of the GBM) Roland Lill (Scientific Board)
09:00 - 12:00	Session 1 (Chair: N.N.): Metals in energy metabolism
09:00 - 09:30	Ulrich Brandt, Nijmegen (NL) <i>Mitochondrial respiratory complex I</i>
09:30 - 10:00	Dennis Winge, Salt Lake City UT (USA) <i>FeS cluster maturation of succinate dehydrogenase</i>
10:00 - 10:30	Juan Fontecilla-Camps, Grenoble (FR) <i>Biological iron sulfur clusters in radical chemistry and as lewis acids</i>
10:30 - 11:00	Coffee break
11:00 - 12:00	Session 1 (continuation, Chair: N.N.)
11:00 - 11:30	Joan Broderick, Bozeman MT (USA) <i>Hydrogenases, radical SAM enzymes</i>
11:30 - 12:00	Junior GBM Session (Chair: N.N.) Thomas Happe, Bochum (DE) <i>Chemical mimics in metalloproteins - old tools in a new light</i>



THURSDAY, MARCH 26

12:00 - 13:00	Lunch break
12:00 - 13:00	Meet the Prof (Chair: N.N.): Guest: N.N.
13:00 - 14:30	Poster Session 1 (even numbers)
14:30 - 17:10	Session 2 (Chair: N.N.): Metalloproteomics: Intracellular trafficking and homeostasis
14:30 - 15:00	Iqbal Hamza, College Park MD (USA) <i>Organismal heme trafficking</i>
15:00 - 15:30	Dennis Thiele, Durham NC (USA) <i>Copper homeostasis in pathogenic fungi and their mammalian hosts</i>
15:30 - 16:00	Sabeeha Merchant, Los Angeles CA (USA) <i>Selective sub-cellular visualization of trace metals identifies dynamic sites of metal accumulation in Chlamydomonas</i>
16:00 - 16:25	Coffee break
16:25 - 17:10	Session 2 (continuation, Chair: N.N.)
16:25 - 16:55	Amy Palmer, Boulder CO (USA) <i>Imaging of metal homeostasis in living cells</i>
16:55 - 17:10	Poster talk: N.N. <i>Title: to be announced</i>
17:10 - 17:25	Bayer HealthCare PhD Prize: N.N. <i>Title: to be announced</i>
17:25 - 18:55	GBM General Meeting
19:00 - 20:00	Feodor Lynen Lecture: Matthias Hentze, Heidelberg (DE) <i>Title: to be announced</i>
20:00 - 21:30	Lynen reception
20:00 - 21:30	Poster Session 2 (all numbers)
22:00 - 24:00	Party & Dance (org. by Junior GBM)



FRIDAY, MARCH 27

09:00 - 12:05	Session 3 (Chair: N.N.): Biogenesis of metalloproteins
09:00 - 09:30	Markus Ribbe, Irvine CA (USA) <i>Nitrogenase assembly, NIF machinery</i>
09:30 - 10:00	Frederic Barras, Marseille (FR) <i>Genetic analysis of Iron-sulfur protein biogenesis in bacteria</i>
10:00 - 10:25	Oliver Stehling, Marburg (DE) <i>Iron-sulfur protein biogenesis in eukaryotes</i>
10:25 - 10:55	Coffee break
10:55 - 12:05	Session 3 (continuation)
10:55 - 11:25	Caryn Outten, Columbia SC (USA) <i>Mechanistic insights into iron regulation in yeast</i>
11:25 - 11:50	Florian Bittner, Braunschweig (DE) <i>Molybdenum cofactor maturation and insertion into apo-molybdoenzymes</i>
11:50 - 12:05	Poster talk: N.N. <i>Title: to be announced</i>
12:05 - 13:15	Lunch break
12:05 - 13:15	Meet the Prof (Chair: N.N.): Guest: N.N.
13:15 - 14:45	Poster Session 3 (uneven numbers)



FRIDAY, MARCH 27

14:45 - 17:30	Session 4 (Chair: N.N.): Metals in enzyme function
14:45 - 15:15	Val Culotta, Baltimore MD (USA) <i>Clever adaptations to metals and oxidative stress in the human fungal pathogen Candida albicans</i>
15:15 - 15:45	Caroline Kisker, Würzburg (DE) <i>Iron and Fe/S clusters in DNA metabolism</i>
15:45 - 16:15	Coffee break
16:15 - 17:30	Session 4 (continuation)
16:15 - 16:45	Vadim Gladyshev, Boston MA (USA) <i>The Seleno proteome</i>
16:45 - 17:15	Susan Buchanan, Bethesda MD (USA) <i>Iron piracy by pathogenic Neisseria</i>
17:15 - 17:30	Poster talk: N.N. <i>Title: to be announced</i>
17:30 - 18:30	Eduard Buchner Prize: Ed Hurt, Heidelberg (DE) <i>How do eukaryotic cells make their ribosomes</i>
18:30 - 20:00	Junior GBM Meeting



SATURDAY, MARCH 28

09:00 - 12:00	Session 5 (Chair: N.N.): Metals in disease: Neurodegeneration, inflammation, infection and hematology
09:00 - 09:30	Hubertus Haas, Innsbruck (AT) <i>Siderophores and the battle for iron in fungi</i>
09:30 - 10:00	Peter Ratcliffe, Oxford (UK) <i>Hypoxia and prolyl hydroxylases</i>
10:00 - 10:30	Tom Ganz, Los Angeles CA (USA) <i>Systemic iron homeostasis and its disorders: new hormones and pathways</i>
10:30 - 11:00	Coffee break
11:00 - 12:00	Session 5 (continuation)
11:00 - 11:30	Günter Weiss, Innsbruck (AT) <i>Metals in microbial host defense</i>
11:30 - 12:00	Günter Schwarz, Köln (DE) <i>Molybdenum in neurodegeneration, blood pressure and cancer treatment</i>
12:00 - 12:20	Poster prizes and closing remarks: President of GBM Scientific Board

FEODOR LYNEN LECTURE & MEDAL

In 2015, the German Society for Biochemistry and Molecular Biology (GBM) will honor

Matthias Hentze

from the European Molecular Biology Laboratory (EMBL), Heidelberg with the Lynen Medal in the context of the 66th Mosbacher Kolloquium on

March 26, 2015 at 19:00

followed by the Lynen Lecture and the Lynen Reception for all participants of the conference.

The Lynen Lecture is named after the famous German biochemist Feodor Lynen. He had a major impact on the development of biochemistry after the Second World War. His studies were devoted to the understanding of chemical details of metabolic processes in living cells and he was very supportive and active in Science politics.

His work connected chemistry, medicine and biology and he strongly promoted the connection of German scientists to colleagues in the United States, Israel, Japan and China. And Feodor Lynen has been the vice president of the GBM from 1953 – 1956.

EDUARD BUCHNER PRIZE

Next year the German Society for Biochemistry and Molecular Biology (GBM) will honor

Ed Hurt

from the Heidelberg University with these prestigious Prize on

March 27, 2015 at 17:30

BAYER HEALTHCARE PHD PRIZE

Call for proposals

For the eighth time the GBM award the best PhD thesis of the last year. Please see the full call for proposals on www.gbm-online.de

Deadline: December 31, 2014

The prize lecture is on

March 26, 2015 at 17:10



Bayer HealthCare

WORKSHOP „FELLOWSHIPS FOR POSTDOCS“

The EMBO, HFSP and DFG will present their respective programs on postdoctoral fellowships.

Carmen Gervais, HFSP
Andrea Hutterer, EMBO
Nikolai Raffler, DFG

Date & Venue:
Wednesday, March 25, 5 p.m.
Room Tenne

A registration is required and starts on February.

MEET THE PROF

Once again the Junior GBM will organize the established event „Meet the Prof“ with distinguished speakers from science and research.

Guest: to be announced
Thu., March 26, 12.00 - Rm. Darre
(Chair: N.N.)

Guest: to be announced
Fri., March 27, 12:05 - Rm. Darre
(Chair: N.N.)

In an informal atmosphere, you will get the chance to ask the questions which keep you up at night - e.g. how do I make a career in science? Did the speaker have fun on his/her scientific path and which experiences were decisive? You are welcome to join and ask further questions.

For students only! Registration is required starting in February 2015.

WELCOME RECEPTION

The Steering Committee of the German Society for Biochemistry and Molecular Biology (GBM) and the city of Mosbach invite you to a welcome reception at 8 p.m. in the city hall (Rathaus, Marktplatz / Hauptstraße) in Mosbach (to end about 10 p.m.)

We thank the city of Mosbach for the kind hospitality.

Date:

Wednesday, March 25, 8 p.m.

Town hall, (Rathaus, Marktplatz / Hauptstraße)

LYNEN RECEPTION

The GBM Steering Committee invites you to a reception in honor of Feodor Lynen after the Lynen Lecture.

Date:

Thursday, March 26, 8 p.m.

Alte Mälzerei

PARTY AND DANCE

The students committee of the German Society for Biochemistry and Molecular Biology is organizing an informal get-together with dance.

Date:

Thursday, March 26, 10 p.m.

(after Lynen reception)

Hopfen Keller (Alte Mälzerei)

For all participants

ACCOMMODATION

Accommodation can be booked through Städtisches Verkehrsamt (Tourist office). Please use the accommodation form at the meeting website.

You will receive confirmation by email.

For further questions concerning hotel reservation please contact the tourist information (Tel. +49 6261-9188-20, Fax -15, Email tourist.info@mosbach.de).

CONFERENCE OFFICE

Opening hours:

Wed., March 25	05.00 p.m. - 07.45 p.m.
Thu., March 26	08.00 a.m. - 04.30 p.m.
Fri., March 27	08.30 a.m. - 04.30 p.m.
Sat., March 28	08.30 a.m. - 11.00 a.m.

Telephone and Fax numbers of the conference office (March 25 - 28, 2015) are:

Tel. +49 (0) 6261 9292-78,
Fax. +49 (0) 6261 9292-79

INTERNET

There will be two wireless LAN access points in the foyer next to the conference office.

SSID: AM	Kongress
Username: gbm	
Password: gbm-2015 (Registration on browser)	Key: gbm-2015 (WPA2 encryption)

LUNCH & 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 city of Mosbach.

POSTERS

Poster sessions:

Thursday, March 26, 13:00 - 14:30 even numbers

Thursday, March 26, 20:00 - 21:30 all numbers

Friday, March 27, 13:15 - 14:45 odd numbers

During the poster sessions the presenting authors are requested to stay near their posters. Please see the abstract book for poster numbers and authors. Posters should be presented throughout the whole meeting.

The best three posters will be awarded (with certificate and 300 €).

The winners will be announced at the end of the Kolloquium on Saturday. To receive the price, personal attendance is required.

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

INDUSTRIAL EXHIBITION

Please visit the booths of our sponsors!



REGISTRATION

	until Jan 31	as of Feb 1
members* academia	195 €	250 €
non-members academia	285 €	340 €
undergraduate members*	40 €	55 €
undergraduate non-members	65 €	80 €
graduate members*	70 €	85 €
graduate non-members	95 €	125 €
retiree members*	95 €	125 €
retiree non-members	145 €	180 €
members* industry	270 €	350 €
non-members industry	350 €	430 €

*Member of the GBM, VAAM, DGZ, Dechema

Please register online at the meeting homepage.

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

Please note the payment terms described in the registration confirmation e-mail. With a payment later than February 10, 2015 your registration cannot be accepted as early registration.

After February 28, 2015 the registration fee cannot be refunded.

If you want to join the GBM with your registration to enjoy the reduced participation fee, please fill in the membership application form (www.gbm-online.de) and send it to the GBM head office.



PROCEEDINGS

Your name badge, program, abstract booklet are 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 convenient train connections from Frankfurt airport station to Mannheim and from there to Mosbach.

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 congress center 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“.

Alte Maelzerei
Alte Bergsteige 7
74821 Mosbach
www.maelzerei.de



ELSEVIER



DE GRUYTER



DFG



Bayer HealthCare







www.febs2015.com

40TH FEBS CONGRESS

The Biochemical Basis of Life

July 4-9, 2015 • Berlin, Germany



Berlin Partner/FTB-Werbefotografie

SAVE THE DATE

Topics

- Mechanisms of Gene Expression
- Membranes, Receptors & Bioenergetics
- Structural Biology & Biophysics
- From Chemical Biology to Molecular Medicine
- Molecular Neuroscience
- Systems Biology, Metabolomics & Theoretical Biology

Conference Chair

Prof. Dr. Volker Haucke
Leibniz Institut für Molekulare Pharmakologie, Berlin

Organizer

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