



### 3. Ulm Meeting – Biophysics of Amyloid Formation

Ulm University, Building N27, multimedia room

#### 19 February 2019

**09:00**     **Marcus Fändrich** | Ulm University, Germany  
Welcome Address

*Chair: Gunilla Westermark*

**09:10**     **Olga Gursky** | Boston University School of Medicine, U.S.A.  
Amyloid formation by lipophilic proteins

**09:40**     **Keiichi Higuchi** | Shinshu University, Japan  
Seeding and transmission phenomena in systemic amyloidosis

**10:10**     **Matthias Schmidt** | Ulm University, Germany  
Cryo-EM fibril structures from systemic amyloidosis

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**10:30**     **Coffee**

*Chair: Stefano Ricagno*

**11:00**     **Johannes Buchner** | Technical University Munich, Germany  
Misfolding of antibody light chains

**11:30**     **Luis M. Blancas-Mejia** | Mayo Clinic, U.S.A.  
Biophysical determinants on AL amyloidosis

**11:50**     **Sheena Radford** | University of Leeds, U.K.  
The structural molecular mechanism of amyloid fibril formation

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**12:20**     **Lunch**

*Chair: Vladimir Muronets*

**13:30**     **Michele Vendruscolo** | Cambridge University, U.K.  
Computational methods in amyloid research

**14:00**     **Helen Saibil** | Birkbeck University of London, U.K.  
Cellular protein aggregation and disaggregation

**14:30**     **Hirotsugu Ogi** | Osaka University, Japan  
Real-time monitoring of fibrillation and fibril-dissociation reactions of amyloid  $\beta$ -aggregates

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**15:00**     **Postersession I and coffee**

*Chair: Marcus Fändrich*

**17:00**     **David Eisenberg** | University of California Los Angeles, U.S.A.  
KEYNOTE LECTURE: Analysis of protein folding diseases with diffraction methods

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**18:00**     **End of today's sessions**

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## 20 February 2019

- Chair: Roland Riek*  
**09:00** **Hideki Mochizuki & Kensuke Ikenaka** / Osaka University, Japan  
Conformational conversion of  $\alpha$ -synuclein monomer regulates the distinct types of fibrils
- 09:30** **Alexander Büll** | University of Düsseldorf, Germany  
The secondary nucleation of A $\beta$  and  $\alpha$ -synuclein amyloid fibrils
- 10:00** **Salvador Ventura** / University of Barcelona, Spain  
Finding new drugs for amyloid diseases
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- 10:30** **Coffee**
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- Chair: Jan Münch*  
**11:00** **Christian Griesinger** / Max-Planck-Institute for Biophysical Chemistry, Germany  
Drug development and protein misfolding in neurodegenerative diseases
- 11:30** **Hilal Lashuel** / EPFL Lausanne, Switzerland  
Role of  $\alpha$ -synuclein in Parkinson's disease
- 12:00** **Daniel Segal** / Tel Aviv University, Israel  
Anthraquinone-based natural product modulates tau aggregation
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- 12:30** **Lunch**
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- Chair: Ehud Gazit*  
**13:30** **Patrick C. A. van der Wel** / University of Groningen, Netherlands  
Solid-state NMR of misbehaving polyglutamine proteins and chaperones that control them
- 14:00** **John Carver** / Australian National University, Australia  
Milk proteins: amyloid fibril formation and molecular chaperone action
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- 14:30** **Postersession II and coffee**
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- Chair: Daniel Otzen*  
**16:30** **Meytal Landau** / Technion, Israel  
Extreme polymorphism in amyloids from pathogenic microbes
- 17:00** **Han Remaut** / Vrije Universiteit Brussel, Belgium  
Secretion and assembly of the bacterial amyloid curli
- 17:30** **Sven Saupe** / University of Bordeaux, France  
Prion amyloid signaling in fungi and bacteria
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- 18:00** **End of today's sessions**
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## 21 February 2019

- Chair: Eva Zerovnik*  
**09:00** **Bernd Reif** / Technical University Munich, Germany  
Molecular interference with protein aggregation - A NMR perspective
- 09:30** **Yifat Miller** / Ben-Gurion University of the Negev, Israel  
Amyloids and metals: mechanism and functions
- 10:00** **Astrid O. Gräslund** / Stockholm University, Sweden  
Biophysical studies of the amyloid- $\beta$  peptide and its interactions
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- 10:30** **Coffee**
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- Chair: Shai Rahimipour*  
**11:00** **John H. Viles** / Queen Mary University of London, U.K.  
A $\beta$  assembly and membrane interactions
- 11:30** **Jochen Walter** / University of Bonn, Germany  
Role of phosphorylation on structure, aggregation and deposition of amyloid  $\beta$ -variants
- 12:00** **Cláudio M. Gomes** / University of Lisbon, Portugal  
The neuronal S100B alarmin is a calcium-tuned suppressor of A $\beta$  aggregation
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- 12:30** **Lunch**
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- Chair: Rino Esposito*  
**13:30** **Yuji Goto** / Osaka University, Japan  
Aggregation phase diagram shows a competitive mechanism for supersaturation-limited and – unlimited transition
- 14:00** **Eri Chatani** / Kobe University, Japan  
Exploring multi-step nucleation mechanisms of amyloid fibrils
- 14:20** **Masatomo So** / Osaka University, Japan  
Amyloid fibrillation of the fragments of  $\beta$ 2-microglobulin under crowding conditions
- 14:40** **Masaru Hoshino** / Kyoto University, Japan  
Dynamic equilibrium between oligomeric states of amyloid- $\beta$  peptide studied by solution NMR
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- 15:00** **Coffee**
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- Chair: Jay Kant Yadav*  
**15:30** **Yoshitaka Nagai** / Osaka University, Japan  
Structural basis of polyglutamine aggregation
- 16:00** **Kazumasa Sakurai** / Kindai University, Japan  
Insights into the hidden states of amyloidogenic proteins from pressure-induced changes
- 16:20** **Kazuo Kuwata** / Gifu University, Japan  
Logical design of molecular chaperones for conformational diseases
- 16:50** **Marcus Fändrich** / Ulm University, Germany  
Concluding remarks, farewell
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- 17:00** **End of the meeting**
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