



4. Ulm Meeting – Biophysics of Amyloid Formation

Ulm University, Building N27, multimedia room

18 February 2020

- 09:00** **Marcus Fändrich** | Ulm University, Germany
Welcome Address
- Chair: Meytal Landau*
- 09:10** **Antoine Loquet** | Université de Bordeaux, France
New approach to solve atomic resolution structure of amyloids fibrils by ¹H-detected ss-NMR
- 09:40** **Nir Salinas** | Technion – Israel Institute of Technology, Israel
Extreme Structural Polymorphism in Functional Amyloids
- 09:55** **Wei-Feng Xue** | University of Kent, U.K.
Quantification of amyloid fibril polymorphism by nano-morphometry
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- 10:25** **Coffee in the foyer**
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- Chair: Sheena Radford*
- 11:00** **Simone Ruggeri** | University of Cambridge, U.K.
Nanoscale structural and chemical characterisation of protein aggregation
- 11:30** **Ioana-Mariuca Ilie** | University of Zurich, Switzerland
From monomeric disorder to fibrillar order: a microscopic view on α-synuclein and Aβ42
- 11:45** **Jayant B. Udgaonkar** | IISER Pune, India
Kinetic and structural characterisation of the mechanism of conformational conversion of tau
- 12:15** **Matthias Schmidt** | Ulm University, Germany
Cryo-EM structures of Aβ amyloid fibrils purified from Alzheimer patient tissue
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- 12:30** **Lunch in the foyer**
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- Chair: Astrid Gräslund*
- 13:30** **Gabriele S. Kaminski Schierle** | University of Cambridge, U.K.
The role of alpha-synuclein at the presynapse
- 14:00** **Oxana Klementieva** | Lund University, Sweden
Super resolution infrared imaging of amyloid aggregates directly in neurons
- 14:15** **Erich Wanker** | Max Delbrück Center for Molecular Medicine, Germany
Detection of self-propagating huntingtin amyloid fibrils and their role in Huntington's disease
- 14:45** **Raz Jelinek** | Ben Gurion University, Israel
Fibrillation and interaction of the pro-apoptotic BIM protein with beta-amyloid
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- 15:00** **Postersession I and coffee in the foyer**
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- Chair: Marcus Fändrich*
- 17:00** **Per Westermark** | Uppsala University, Sweden
KEYNOTE LECTURE: Amyloid research through my eyes
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- 20:00** **Dinner**
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19 February 2020

- Chair: Bernd Reif*
09:00 **Robert Tycko** | National Institutes of Health, U.S.A.
Structures of amyloid-beta and FUS low-complexity domain fibrils
- 09:30** **Markus Zweckstetter** | Max-Planck Institute for Biophysical Chemistry, Germany
Structural heterogeneity of α -synuclein fibrils amplified from patient brain extracts
- 10:00** **Birgit Strodel** | Research Center Jülich, Germany
Effects of *in vivo* conditions on amyloid- β aggregation: computational approaches
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- 10:30** **Coffee in the foyer**
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- Chair: Rosemary A. Staniforth*
11:00 **Beat Maier** | ETH Zürich, Switzerland
Solid-state NMR and cryo-EM working together
- 11:30** **Vladimir Muronetz** | Lomonosov Moscow State University, Russia
Modifications of alpha-synuclein changing its amyloid transformation
- 11:45** **Wolfgang Hoyer** | Heinrich-Heine University Düsseldorf, Germany
Lysosomal formation of protofibrillar A β oligomers that potently induce tau missorting
- 12:15** **Eva Žerovnik** | Jožef Stefan Institute, Slovenia
Prolines affect the nucleation phase of amyloid fibrillation of human stefin B
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- 12:30** **Lunch in the foyer**
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- Chair: Yuji Goto*
13:30 **Gunilla T. Westermark** | Uppsala University, Sweden
Intra islet spreading of IAPP amyloid
- 14:00** **Aphrodite Kapurniotu** | TU Munich, Germany
IAPP cross-interactions: from discovery to exploitation
- 14:30** **Gunnar Schröder** | Research Center Jülich, Germany
Amyloid fibril structure of islet amyloid polypeptide by cryo-electron microscopy
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- 15:00** **Postersession II and coffee in the foyer**
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- Chair: Salvador Ventura*
17:00 **Frederic Rousseau** | Switch Laboratory, Belgium
Evolutionary imprints of protein aggregation
- 17:30** **Roland Riek** | ETH Zürich, Switzerland
On the amyloid world hypothesis
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- 20:00** **Dinner**
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20 February 2020

- 09:00** *Chair: Ute Hegenbart*
Jan Bieschke | UCL Institute of Prion Diseases / MRC Prion Unit, U.K.
Single-molecule analysis of prion-like mechanisms in neurodegeneration and systemic diseases
- 09:30** **Yoh Matsuki** | Osaka University, Japan
Hybrid structural analysis of β 2-microglobulin amyloid fibril from amyloidosis patient using solid-state NMR and cryo-EM
- 09:45** **Raoul Motika** | Orient-Institute Istanbul, Turkey
Stefan Schönland | University Hospital Heidelberg, Germany
FOR 2969: German research unit on systemic AL amyloidosis
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- 10:15** **Coffee in the foyer**
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- Chair: Johannes Buchner*
10:45 **Stefano Ricagno** | University of Milan, Italy
Light chain amyloidosis: amyloidogenesis, amyloids and soluble proteins
- 11:15** **Gareth Morgan** | Boston University, U.S.A.
Small molecule stabilizers of amyloidogenic antibody light chains
- 11:45** **Marcus Fändrich** | Ulm University, Germany
Concluding remarks
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- 11:50** **End of the meeting, Lunch bag in the foyer**
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