

Mechanobiology Meets Proteostasis FOR 2743 - Conference 2021

online from September 7-9, 2021

Cells of multicellular organisms are constantly exposed to stress resulting from mechanical forces. The research unit FOR 2743 'Mechanical Stress Protection' (www.for2743.uni-bonn.de) investigates proteostasis mechanisms essential for maintaining the mechanically stressed proteome.

The first international conference of the research unit provides a platform for the integration of mechanobiology and proteostasis. It brings together scientists of both research areas to promote the exchange of data, concepts, and ideas and to foster collaborative efforts.

On behalf of all members of the research unit I would like to welcome you. I hope you will enjoy our conference.

Jörg Höfeld

To access the conference, go to:
www.meetanyway.com/events/international-meeting-2021

September 7

9.00 - 9.15 J. Höfeld (Bonn)
Welcome

9.15 - 9.45 Thorsten Hoppe (CECAD, Institute of Genetics, University of Cologne)
Quality Control of Muscle Function by the Myosin-Directed Chaperone UNC-45

9.45 - 10.15 Dietmar Manstein (Institute for Biophysical Chemistry, MHH Hannover)
Allostery and proteostasis of myosin motors

10.15 - 10.45 Ivan Dikic (Institute of Biochemistry II, Goethe University Frankfurt)
Cellular stress responses and ER-phagy

10.45 - 11.15 Coffee break

11.15 - 11.45 Terje Johansen (Department of Medical Biology, UiT Tromsø)
CALCOCO1: A novel soluble ER-phagy and Golgipagy receptor

11.45 - 12.15 Dieter O. Füst (Institute for Cell Biology, University of Bonn)
The role of podin proteins in mechanical stress protection in muscle

12.15 - 12.45 Jörg Höfeld (Institute for Cell Biology, University of Bonn)
BAG3-mediated mechanical stress protection

12.45 - 13.45 Lunch break

13.45 - 14.15 Michael Hesse (Life & Brain Center, University Hospital Bonn)
Overexpression of human BAG3P209L in mice causes restrictive cardiomyopathy and myofibrillar myopathy

14.15 - 14.45 Carsten Grashoff (Institute for Molecular Cell Biology, University of Münster)
Exploring cell adhesions on molecular scales

14.45 - 15.15 Matthias Rief (Molecular Biophysics, Technical University of Munich)
Single molecule mechanobiology

15.15 - 15.45 Bernd Hoffmann (Institute of Biological Information Processing, Forschungszentrum Jülich)
Mutual interplay between mechanoresponse and BAG3-dependent autophagy

15.45 - 16.15 Coffee break

16.15 - 16.45 Wolfgang Linke (Institute of Physiology II, University Hospital Münster)
Titin as a sarcomeric template and mechanosensor in muscle cells

16.45 - 17.15 David Vilchez (CECAD, Institute of Genetics, University of Cologne)
Proteostasis of aging and stem cells

17.15 - 18.15 F.-Ulrich Hartl (Max-Planck-Institute for Biochemistry, Martinsried)
Chaperone mechanisms in protein folding and proteome maintenance

18.15 - open virtual get together

September 8

9.00 - 9.30 Bernd Bukau (ZMBH and DKFZ, Heidelberg)
Molecular dissection of amyloid disaggregation by the human Hsp70 chaperone machinery

9.30 - 10.00 Wojciech Pokrzywa (International Institute of Molecular and Cell Biology, Warsaw, Poland)
Muscle-derived exophers promote reproductive fitness

10.00 - 10.30 Marcus Krüger (CECAD, Institute of Genetics, University of Cologne)
Quantitative phosphoproteomics of pressure-overloaded mouse heart identifies an extended FHL1 isoform in cardiomyopathy

10.30 - 11.00 Coffee break

11.00 - 11.30 Pitter F. Huesgen (Central Institute for Engineering, Electronics and Analytics, Forschungszentrum Jülich; CECAD, University of Cologne)
Proteolytic regulation of protein abundance under mechanical stress

11.30 - 12.00 Christian Behrends (Munich Cluster for Systems Neurology - LMU Munich)
Mapping identities and routes of selective autophagy cargo

12.00 - 12.30 Markus Rinschen (Department of Biomedicine, Aarhus University and III. Medical Clinic, University Hospital Hamburg Eppendorf)
Mechanical stress protection at the kidney filtration barrier

12.30 - 13.30 Lunch break

13.30 - 16.00 Poster session I
Posters with even numbers are presented.

16.00 - 16.30 Elke Deuerling (Department of Biology, University of Konstanz)
Ribosome-associated chaperone machines at work

16.30 - 17.00 Deborah Trentini Schmidt (Center for Molecular Medicine Cologne, Cologne)
New insights into ribosome stalling and co-translational protein quality control

17.00 - 17.30 David Balchin (The Francis Crick Institute, London)
Actin folding orchestrated by the TRiC chaperonin

17.30 - 18.00 Coffee break

18.00 - 18.30 Johannes Buchner (Department of Chemistry, Technical University of Munich)
Functional principles of small heat shock proteins

18.30 - 19.00 Simon Alberti (Cellular Biochemistry, Technical University Dresden)
Phase separation as an organizing principle in biology

19.00 - open virtual get together

September 9

9.00 - 9.30 Sebastian Gehlert (German Sports University Cologne and University of Hildesheim)
Resistance exercise: an intensity-dependent mechanical stimulus that promotes health, muscle anabolism, myocellular damage and mechanoprotection

9.30 - 10.00 Mathias Gautel (Randall Division for Cell and Molecular Biophysics, King's College London)
Mechanosensitive cytoskeletal signalling hubs in the sarcomere

10.00 - 10.30 Bettina Warscheid (BIOSS, Institute of Biology II (Biochemistry), University of Freiburg)
Dissecting the phospho-signalling network around FLNc in contracting myotubes

10.30 - 11.00 Coffee break

11.00 - 11.30 Maja Köhn (BIOSS, Institute for Biology III, University of Freiburg)
Protein phosphatases as regulators of the mechanical stress response

11.30 - 12.00 Sara Wickström (Helsinki Institute of Life Science, University of Helsinki)
Mechanical stress responses at the nucleo-cytoskeletal interface

12.00 - 12.30 Britta Trappmann (Max Planck Institute for Molecular Biomedicine, Münster)
Synthetic extracellular matrices as a tool to study cell mechanotransduction

12.30 - 13.30 Lunch break

13.30 - 16.00 Poster session II
Posters with uneven numbers are presented.

16.00 - 16.30 Carlen Niessen (Department of Cell Biology of the Skin and CECAD, University of Cologne)
Mechanical stress responses in epithelial barriers

16.30 - 17.00 Lydia Sorokin (Institute of Physiological Chemistry and Pathobiochemistry, University of Münster)
The role of vascular laminins in shear response

17.00 - 17.30 Waldemar Kolanus (LIMES, University of Bonn)
Role of small GTPase networks in cell adhesion and mechanotransduction

17.30 - 18.00 Lea Sistonen (Faculty of Science and Engineering, Cell Biology, Åbo Akademi University, Turku)

HSF1 and HSF2 regulate distinct sets of genes and enhancers during heat shock and oxidative stress

18.00 - 18.15 Jörg Höfeld (Bonn)

Concluding remarks

All talks will be presented in the meetanyway lecture hall using Zoom.

Registration for the conference is free of charge and open until August 7. To register send a corresponding mail to:

mSP2021@uni-bonn.de

If you want to present a poster, send details (authors and title) until August 7 to:

mSP2021@uni-bonn.de

Following acceptance, posters must be uploaded until August 31 using the upload link in the acceptance mail.

Poster presentations will be held in the poster area. Posters with an even number will be presented on September 8 between 13.30 and 16.00, those with an uneven number will be presented on September 9 between 13.30 and 16.00.

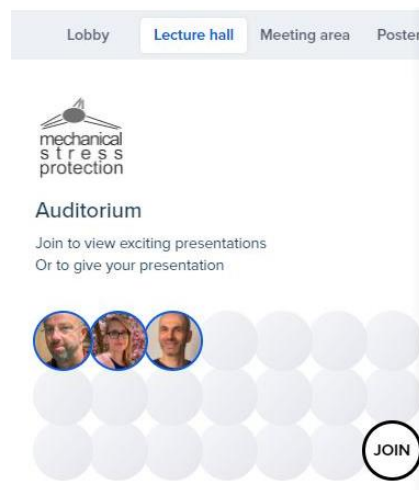
How to access and use the online conference platform

The conference is hosted by meetanyway. To access the conference, you need to be registered at meetanyway. To create a new account, go to:

www.meetanyway.com

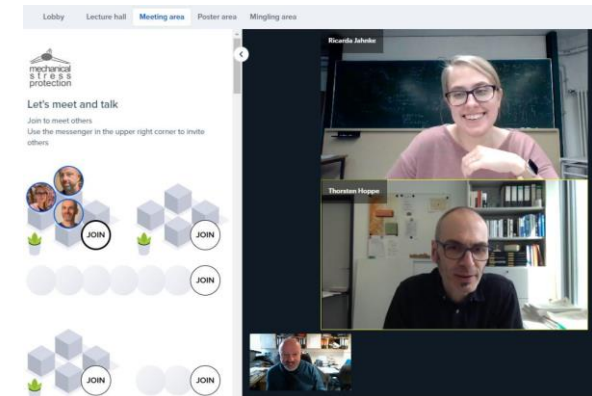
Create an account using the e-mail address, with which you registered for the meeting. Invited speakers should use the address used for communication with Jörg.

Provide the requested information and please also provide a photo of yourself. It is part of the conference feeling that all participants see each other based on their uploaded photos:



After registration you can access the conference here: www.meetanyway.com/events/international-meeting-2021

Besides the lecture hall with its auditorium, where all presentations are held, there is also a meeting area, where you can meet other participants on tables of different sizes. If you want to have a private conversation, you can even lock the table.



You can find other participants via the chat function and invite them on a table.

And finally, we have a mingling area, where you can randomly meet other participants for a three-minute conversation - similar to a brief chat with a colleague while you are jointly holding the line for a coffee during a real conference.

Once again, I hope you enjoy the meeting.

Jörg Höfeld

