General Information

Topic

The 3-day symposium explores mechanisms of cell state transitions underlying proliferation control, faithful cell cycle progression and tumor cell heterogeneity. The focus is on common principles and differences in molecular trigger mechanisms and how they can be modulated by modern experimental approaches. The meeting brings together international experts from the fields of basic biology, oncology and chemistry. Participants are invited to present a poster.

Poster Session

The symposium's poster sessions will provide an opportunity for early career researchers to present their work. We encourage participation, and the best posters will be awarded.

Registration

Participation is free of charge. Registration is required via: www.uni-due.de/crc1430/internationalsymposium-2023-registration.php

Organizing Committee

CRC1430 Molecular Mechanisms of Cell State Transitions

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Venue

University of Duisburg-Essen (UDE) Glaspavillon; Building R12, Room S00 H12 Universitätsstr. 2, 45141 Essen



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We thank for further support







Offen im Denken

Triggers of Cell State Transitions

1st CRC1430 International Symposium

October 10th to 12th, 2023 Essen, Germany



Program

Tuesday, October 10th, 2023

12.00 Registration

13.15 Welcome Notes by Hemmo Meyer

Session I – Chair: Markus Kaiser 13.30 Stefan Knapp, CRC1430, Goethe-Universität Frankfurt, GER Chemical Tools Triggering Cell State Transitions

14.10 **Malte Gersch**, CRC1430, TU Dortmund University, GER

Probing Ubiquitin Signalling

14.40 **Tom Muir**, Princeton University, USA Shedding Light on Chromatin: Chemical Biology Lights the Way

15.20 **Alexander Roesch**, CRC1430, University Hospital Essen, GER

Melanoma as Role Model to Study Tumor Heterogeneity and Plasticity

15.50 Coffee Break

Session II – Chair: Barbara Grüner

16.20 **Ruth Scherz-Shouval**, Weizmann Institute of Science, ISR *Cancer-CAF Coevolution*

17.00 **Lea Sistonen**, Åbo Akademi University, FIN Novel Targets of Heat Shock Transcription Factors in Cell Stress and Cell-Cell Adhesion

17.40 <u>Keynote lecture</u>: **Tobias Meyer**, Weill Cornell Medicine, USA Sequential Competition and Commitment in Proliferation Control

18.30 Break

Poster Session

18.45 **odd** poster numbers 20.15 **even** poster numbers Food and Beverages will be served during the Poster Session

Wednesday, October 11th, 2023

Session III - Chair: Malte Gersch

9.00 **Anne Bertolotti**, MRC Laboratory of Molecular Biology, UK

Therapeutic Opportunities in Manipulating Stress Responses

9.40 **Alessio Ciulli**, University Dundee, UK How PROTACs Work: Molecular Recognition and Design Principles

10.20 **Helle Ulrich**, IMB Mainz, GER Linking the Actin-Myosin System to DNA Replication and Repair

11.00 Coffee Break

Session IV – Chair: Simon Pöpsel

11.30 **Martin Eilers**, University Würzburg, GER How MYC Proteins Enable Cells to Sense and Respond to Transcription Problems

12.10 Michelle Debatisse, Institute Gustave Roussy, FRA

The Balance between ATR and DDK Activities Controls TopBP1-mediated Locking of Dormant Origins at the pre-IC-Stage

12.50 Symposium Photo & Lunch Break

Session V - Chair: Stefan Westermann

14.00 **Dominik Boos**, CRC1430, UDE, GER Activation of the Metazoan Replicative Helicase by GINS Loading

14.30 **Johannes Walter**, Harvard University, USA Harnessing Artificial Intelligence to Explore Genome Maintenance Mechanisms

15.10 **Alessandro Costa**, Francis Crick Institute, UK Activation of a Eukaryotic Origin of Replication Visualized by Cryo-EM

15.50 **Hemmo Meyer**, CRC1430, UDE, GER VCP/p97: Unfolding the Proteome for Cell Signaling and Homeostasis

16.20 Coffee Break & Social Event

16.45 Transfer to Zeche Zollverein

17.30 Visiting Zeche Zollverein Coal Mine

19.00 Dinner Erich-Brost-Pavillon

22.15 Last Bus Transfer to UDE and Hotel Essener Hof

Thursday, October 12th, 2023

Session VI – Chair: Doris Hellerschmied

9.00 **Elke Deuerling**, University Konstanz, GER New Concepts of Co-Translation Protein Sensing and Sorting

9.40 **Thomas Langer**, MPI Biology for Ageing, GER *Reprogramming of Mitochondria by Proteolysis*

10.20 **Kathrin Thedieck**, University of Innsbruck, AUT Endosomes Meet Phase Separation: How Stress Granule

Endosomes Meet Phase Separation: How Stress Granule Proteins Integrate Metabolic Signalling at the Lysosome

11.00 Coffee Break

Session VII - Chair: Christos Gatsogiannis

11.30 **Annette Paschen**, CRC1430, University Hospital Essen, GER

IFNy-driven Cell State Transition in Melanoma Therapy Resistance

12.00 Jan-Michael Peters, IMP Vienna, AUT How Cohesin Folds the Genome by Loop Extrusion

12.40 Lunch Break

Session VIII - Chair: Perihan Nalbant

13.40 **Stefan Westermann**, CRC1430, UDE, GER Molecular Mechanism of Dynamic Kinase Recruitment to the Yeast Kinetochore

14.10 Andrea Musacchio, CRC1430, MPI Dortmund, GER Feedback Control of Mitotic Progression

14.50 Poster Prize & Closing Remarks