



1st Symposium

Interconnections and Cross-Regulation of Gene Expression Processes

September 17th - 19th 2025, Max Planck Institute for Multidisciplinary Sciences, Göttingen, Germany

Organised by the members of Collaborative Research Center **SFB1565**

Contact: sfb1565.office@med.uni-goettingen.de

<https://sfb1565.uni-goettingen.de>

**Venue: Max Planck Institute for Multidisciplinary Sciences, Fassberg Campus,
Am Fassberg 11, 37077 Göttingen, Germany**

Programm

Wednesday, September 17th

12.00 Registration (Foyer front)

14:00 **Start of the SFB 1565 Symposium** (Manfred Eigen Lecture Hall)

Markus T. Bohnsack (University Medical Center Göttingen) Welcome and teaser

Session 1: Physical coupling of processes (Chair: Claudia Höbartner)

14:25 Nikolay Zenkin (Newcastle University) Transertion: coupling of transcription to translation to insertion of protein into membrane in *B. subtilis*

14:55 Markus Wahl (Free University Berlin) Transcription regulatory mechanisms for efficient ribosome biogenesis

15:25 Hauke Hillen (University Medical Center Göttingen) Physical coupling of organellar and viral gene expression processes

15:55 Yulia Yuzenkova (Newcastle University) Mechanism of Coupling Transcription to the Circadian Clock in Cyanobacteria

16:25 Coffee Break (Foyer)

Session 2: Cotranscriptional processes (Chair: Marieke Oudelaar)

16:50 Valerie Hilgers (University of Basel) Cross-regulation between transcription initiation and RNA processing

17:20 Lydia Herzel (Free University Berlin) Transcriptome dynamics and heterogeneities across microorganisms

17:50 Argyris Papantonis (University Medical Center Göttingen) Coordination of splicing and 3D organization changes governs senescence commitment

18:20 Elizabeth Tran (Purdue University) Dbp2 Unwinds RNA Secondary Structure to Promote Transcription Termination and RNA Decay

19.00 Welcome Reception (Canteen)

20:15 **Keynote talk:** Matthias Hentze (EMBL Heidelberg) Riboregulation: the story unfolds...

21.15 Get together (Canteen)

Thursday, September 18th

Session 3: Multifunctional proteins and complexes (Chair: Peter Rehling)

- 09:00 Juan Valcárcel Juárez (Centre for Genomic Regulation, Barcelona) Networks of alternative splicing regulation in cancer
- 09:30 Utz Fischer (University of Würzburg) Making mRNA in the wrong compartment: how poxviruses express their genes in the host cytoplasm
- 10:00 Matthias Dobbels (University Medical Center Göttingen) A ribosomal protein turning on p53 through alternative splicing
- 10:30 Marc Graille (Institut Polytechnique de Paris) Characterization of m⁶A 18S rRNA methyltransferase METTL5 mutants responsible for neurodevelopmental disorders
- 11:00 Coffee Break (Foyer)

Session 4: RNA-based regulation of gene expression (Chair: Christof Lenz)

- 11:25 Mandy Jeske (Heidelberg University) Defining piRNA factor interaction networks across species
- 11:55 Harald Schwalbe (Goethe University Frankfurt) NMR studies of transcriptional and translational RNA riboswitches
- 12:25 Panagiotis Poulis (MPI for Multidisciplinary Sciences, Göttingen) Mechanism of +1 ribosome frameshifting induced by N¹-methylpseudouridine in mRNA
- 12:55 Anthony Henras (Center for Integrative Biology, Toulouse) The dual life of disordered lysine-rich domains of snoRNPs in rRNA modification and nucleolar compaction
- 13:30 Lunch (Prandtl Hall)

Session 5: Localisation and biomolecular condensates in regulation (Chair: Elisa Oberbeckmann)

- 14:30 Karsten Weis (ETH Zürich) How cells deal with stress: divergent fates for old and new mRNAs
- 15:00 Katja Strässer (Justus Liebig University, Giessen) A Phospho-Switch in Yra1 Governs Selective mRNA Export During Heat Stress
- 15:30 Michaela Müller-McNickoll (Goethe University Frankfurt) Subcellular architecture and the regulation of gene expression
- 16:00 Vikram Panse (University of Zürich) Protein Targeting Revisited: Insights from the Ribosome
- 16:30 Denis Lafontaine (Université libre de Bruxelles) Making Ribosomes One Nucleotide at a Time
- 17:00 Coffee Break (Foyer)

Session 6: Interconnections with translation (Chair: Sonja Lorenz)

- 17:20 Danny Nedialkova (MPI of Biochemistry, München) Context-dependent essentiality of mRNA translation genes in human cells

- 17:50 Niels Fischer (MPI for Multidisciplinary Sciences, Göttingen) Molecular pathway of translation initiation in human cells
- 18:20 Ingo Wohlgemuth (MPI for Multidisciplinary Sciences, Göttingen) Selective silencing of antibiotic-tethered ribosomes as a resistance mechanism against aminoglycosides
- 18:50 Ricarda Richter-Dennerlein (University Medical Center Göttingen) Coupling of ribosome biogenesis and translation initiation in human mitochondria
- 19.20 Buffet dinner (Prandtl Hall)
- 20:30 Poster Session and drinks (Foyer)

Friday, September 19th

Session 7: RNA processing, quality control and decay machineries (Chair: Katherine E. Bohnsack)

- 09:00 Torben Heik Jensen (Aarhus University) Interconnections between early RNA decay and first intron splicing
- 09:30 Gunter Meister (University of Regensburg) RNA meets protein decay – regulation of gene silencing pathways through RNP inactivation and degradation
- 10:00 Heike Krebber (University of Göttingen) The multifunctional guard proteins interconnect RNA pathways for quality control
- 10:30 Coffee Break (Foyer)

Session 8: High-throughput approaches revealing interconnections (Chair: Holger Stark)

- 11:00 Christoph Dieterich (Heidelberg University) Single molecule sequencing approaches to study RNA modifications and processing
- 11:30 Henning Urlaub (University Medical Center Göttingen) Deciphering protein–RNA and –DNA interactions on the molecular level by crosslinking combined with mass spectrometry
- 12:00 Monika Witzenberger (Weizmann Institute of Science) Towards an enzymatic toolkit for recording RNA–RBP binding and RNA localization
- 12:30 Markus T. Bohnsack (University Medical Center Göttingen) Wrap-up
- 13:00 Lunch and final discussion (Canteen)
- 15.00 **End of Symposion**