



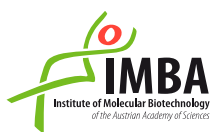
MICROSYMPOSIUM ON SMALL RNAs

Microsymposium on small RNAs

Vienna BioCenter, May 15th - 17th 2019



Thanks to the generosity of these sponsors, the Microsymposium is a free-attendance meeting



Ameres, Cochella, Brennecke, Nodine & Martinez Laboratories

14th MICROSYMPOSIUM on SMALL RNAs

Wednesday, 15th May 2019

9.00 - 11.00 **Registration & poster setup**

11.00 **Welcome & introduction**

Session 1: **Genome Defense (Chair: Julius Brennecke)**

11.15 - 11.45 **Steve Jacobsen**, University of California, Los Angeles
DNA methylation in Arabidopsis

11.45 - 12.15 **Scott Kennedy**, Harvard Medical School
Biomolecular Condensates in Epigenetic Inheritance and Genome Defense

12.15 - 12.45 **Peter Sarkies**, MRC London Institute of Medical Sciences
Epimutations driven by small RNAs occur rapidly but have limited duration in a metazoan organism.

12.45 **Group picture**

12.50 – 14.00 Lunch & poster set up

Session 2: **Argonautes & Other RBPs (Chair: Stefan Ameres)**

14.00 - 14.30 **Julie Claycomb**, University of Toronto
Argonomics: A Systematic Analysis of Argonaute Proteins in *C. elegans*

14.30 - 14.45 **Lukas Paul**, LEXOGEN sponsored talk
The short and long of RNA-Seq

14.45 - 15.15 **Markus Landthaler**, Max Delbrück Center for Molecular Medicine
Posttranscriptional regulation in space and time

15.15 - 15.45 Coffee break

PhD Workshop - Part 1 (Chair: Jakob Schnabl)

- 15.45 – 16.05 **Elena Kingston**, Whitehead Institute, MIT (David Bartel Lab)
Global analyses of the dynamics of mammalian microRNA metabolism
- 16.05 – 16.25 **Marzia Munafò**, Cancer Research UK - Cambridge Institute (Greg Hannon Lab)
Daedalus and Gasz recruit Armitage to mitochondria, bringing piRNA precursors to the biogenesis machinery
- 16.25 – 16.45 **Ranjith Papareddy**, Gregor Mendel Institute of Molecular Plant Biology (Michael Nodine Lab)
Small RNA regulation of DNA methylation dynamics during Arabidopsis embryogenesis

16.45 – 17.15 *Coffee break*

Session 3 RNA Metabolism I (Chair: Stefan Ameres)

- 17.15 – 17.45 **Nicolas Battich**, Hubrecht Institute (Alexander van Oudenaarden Lab)
Sequencing metabolically labeled transcripts in single cells reveals recurrent mRNA turnover strategies
- 17.45 – 18.15 **Zissimos Mourelatos**, University of Pennsylvania
Ribothrypsis: Mechanisms and Implications

18.30 *Symposium dinner*

19.30 *Informal poster session*

Thursday, 16th May 2019

Session 4 RNA Metabolism II (Chair: Clemens Plaschka)

- 09.00 – 09.30 **Brian Gregory**, University of Pennsylvania
Arabidopsis DXO1 functions in both NAD⁺-decapping to inhibit small RNA processing from messenger RNAs as well as in co-translational RNA decay
- 09.30 – 09.45 **Gabriele Christoffel**, QIAGEN sponsored talk
What could you be missing out from your samples? A sample to insight walk-through a miRNA workflow
- 09.45 – 10.15 **Alena Shkumatava**, Institut Curie
MicroRNA Degradation by a Conserved Target RNA Regulates Animal Behavior

10.15 – 10.45 *coffee break*

- 10.45 – 11.15 **Alex Tuck**, Friedrich Miescher Institute (Marc Buehler Lab)
RNA degradation: a dangerous message
- 11.15 – 11.45 **Katharina Markmann**, University of Tuebingen
A micro RNA acts as a systemic mediator of symbiotic susceptibility

11.45 – 12.00 *Short break*

PhD Workshop - Part 2 (Chair: Annamaria Sgromo)

- 12.00 – 12.20 **Samson Jolly**, University of Massachusetts Medical School (Phillip D. Zamore Lab)
An Unexpected Role for a Prokaryotic Argonaute Protein in DNA Replication
- 12.20 – 12.40 **Rob Maple**, University of Warwick (Jose Gutierrez-Marcos Lab)
Meiosis-associated argonaute (MAGO) proteins are necessary for meiosis in maize
- 12.40 – 13.00 **Arie Fridrich**, The Hebrew University of Jerusalem (Yehu Moran Lab)
Ancient subfunctionalization of Argonautes and the crucial developmental roles of their microRNAs in Cnidaria

13.00 – 14.30 *Lunch & poster session*

Session 5 Inheritance (Chair: Luisa Cochella)

- 14.30 – 15.00 **Laura Landweber**, Columbia University
Small RNAs in development in the ciliate Oxytricha
- 15.00 – 15.30 **René Ketting**, Institute of Molecular Biology
Paternal inheritance of an Argonaute protein in *C. elegans* via novel germ granules

15.30 – 16.00 *Coffee break*

PhD Workshop - Part 3 (Chair: Philipp Dexheimer)

- 16.00 – 16.20 **Ida Marie Sjøgaard**, University of Copenhagen (Peter Brodersen Lab)
Molecular characterization of interactors of the N-coil of ARGONAUTE1 and factors mediating its degradation
- 16.20 – 16.40 **Itai Antoine Toker**, Tel Aviv University (Oded Rechavi Lab)
Biogenesis of Neuronal Small RNAs Controls Behavior Transgenerationally
- 16.40 – 17.00 **Piergiuseppe Quarato**, Institut Pasteur (Germano Cecere Lab)
Endogenous siRNAs facilitate the clearance of maternal mRNAs during maternal-to-zygotic transition

Tour and dinner for academic speakers/Bar for PhD Workshop speakers

14th Microsymposium Posters

NR	Poster title	Name	Affiliation
1	A tissue-specific and transcription-dependent mechanism regulates primary microRNA processing efficiency of the human Chromosome 19 MicroRNA Cluster	Ábel Fóthi	RCNS, HAS
2	The microRNome of HAdV5-infected lung epithelial cells	Alexander Jürets	IMC University of Applied Sciences krams
3	DICIER: A fine-tuned bioinformatics pipeline to detect microRNA chimeric reads.	Andrea Grioni	Central European Institute of Technology
4	Nuclear quality control of precursor microRNA hairpins	Angela Rodrigues Viana	Institute of Molecular Biotechnology (IMBA)
5	miRNA regulated genes control plant-pathogen interaction	Anita Sós-Hegedűs	National Agricultural Biotechnology Research and Innovation Center
6	Biochemical characterization of uridylation-mediated RNA decay by the Drosophila TRUMP complex	Annamaria Sgromo	Institute of Molecular Biotechnology (IMBA)
7	Deciphering effects of Adar on Drosophila metamorphosis.	Anzer Khan	CEITEC, MU
8	MicroRNA determinants of the balance between effector and regulatory CD4+ T cells in vivo	Carolina Cunha	Instituto de Medicina Molecular - João Lobo Antunes (iMM-JLA)
9	Planarians recruit piRNAs for mRNA turnover in adult stem cells	Claus Kuhn	University of Bayreuth
10	The biochemical basis of the cooperative action of miRNAs	Daniel Briskin	Massachusetts Institute of Technology, Whitehead Institute, HHMI
11	Deciphering long dsRNA fate in mammalian cells	Daniel van Leeuwen	Department of Biology, ETH Zurich
12	MicroRNAs Play Key Regulatory Roles in Heat Shock	Delaney Pagliuso	University of California San Diego
13	Different mechanisms of miR-21 inhibition of translation in two human cell lines	Dorota Hudy	Silesian University of Technology
14	The epigenetic and evolutionary importance of palindromic motifs in the regulatory region of LTR retrotransposons	Elias Primetis	University of Sussex, School of Life Sciences
15	Crosstalk of RNAi and piRNA pathways in retrotransposon control in mouse oocytes	Eliška Svobodová	Institute of Molecular Genetics
16	Screening for secondary siRNA factors in Arabidopsis thaliana	Emilie Oksbjerg	Institute of Biology, University of Copenhagen
17	Exploring the function of an ancient miRNA family that is essential for C. elegans embryogenesis	Emilio Manuel Santillan	Research Institute of Molecular Pathology (IMP)
18	A nutrient supplement promotes the rapid detection and improved sensitivity of mycobacteria in clinical samples via the differential regulation of dormancy genes and noncoding RNAs	Ephrem Zegeye	NORCE Norwegian Research Centre AS

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19	The embryonic transcriptome of <i>Arabidopsis thaliana</i>	Falko Hofmann	<i>Gregor Mendel Institute of Molecular Plant Biology (GMI)</i>
20	Phosphorylation of AGO1 regulate sRNA pathway	Fangyue Guo	<i>University of Copenhagen</i>
21	<i>Drosophila</i> small ovary: a novel chromatin regulator involved in piRNA-mediated transposon silencing	Ferenc Jankovics	<i>Biological Research Centre, Hungarian Academy of Sciences</i>
22	Forward genetics identifies the first protein required for selective cell-to-cell and long-distance transport of miRNAs	Florian Brioudes	<i>ETH Zurich</i>
23	CHARACTERIZATION OF A miRNA/TARGET REGULATORY PATHWAY DURING HEAT ACCLIMATION IN BRASSICACEAE	Henrik Mihály Szaker	<i>NARIC, Agricultural Biotechnology Institute</i>
24	Investigation of the drug resistance-associated miRNA targetome using modified cross-linking ligation and sequencing of hybrids (qCLASH)	Ines Kozar	<i>University of Luxembourg</i>
25	Coarse-Grained RNA 3D Structure Prediction with auxiliary Experimental Data	Irene K. Beckmann	<i>Department of Theoretical Chemistry, University of Vienna</i>
26	Untangling the role of H3K9me3 in transgenerational small RNA inheritance	Itamar Lev	<i>Tel-Aviv University</i>
27	Dissecting 3' end formation and trailer piRNA production in <i>Aedes</i> mosquitoes	Joep Joosten	<i>RadboudUMC</i>
28	A photo-triggerable NP library for skin cell targeting and efficient in-vivo small non-coding RNA delivery in wound healing	Josephine Blersch	<i>Center for Neuroscience and Cell Biology, Coimbra, Portugal</i>
29	Target Pattern Analysis of 5' tRNA Halves Reveals Sequence-Specific, Ago-Independent Gene Regulation	Julia Jehn	<i>Johannes Gutenberg University Mainz</i>
30	CTD tyrosine1-phosphorylated RNA polymerase II produces damage-responsive transcripts at DNA double-strand breaks	Kaspar Burger	<i>Sir William Dunn School of Pathology, University of Oxford</i>
31	Small RNAs in somatic embryogenesis of Norway spruce	Katja Stojkovič	<i>Umea Plant Science Centre, Swedish University of Agricultural Sciences</i>
32	The architecture of a plant Argonaute1-Heat Shock Protein70 complex suggests chaperone involvement in Argonaute-GW interactions	Laura Arribas-Hernández	<i>University of Copenhagen</i>
33	Opposing Roles of MicroRNA Argonautes in <i>Caenorhabditis elegans</i> Aging	Laura Chipman	<i>University of California, San Diego</i>
34	Investigation of the function of <i>Arabidopsis thaliana</i> DCL2 as a receptor for viral RNA	Lijuan Han	<i>Copenhagen University</i>
35	Engineering interferon-proficient embryonic stem cells	Lisanne Knol	<i>University of Edinburgh</i>

NR	Poster title	Name	Affiliation
36	Identification of Factors Regulating long non-coding RNA Termination as a Mechanism to Suppress Transcriptional Interference	Louise Kastberg	<i>Copenhagen Plant Science Centre, University of Copenhagen</i>
37	MiR21 regulates different cancer cells death – programmed apoptosis and ferroptosis	Małgorzata Adamiec	<i>Politechnika Śląska</i>
38	Association time of AGO1 with its target as a trigger of secondary siRNA production	Maria Vigh	<i>University of Copenhagen -Biocenter</i>
39	MicroRNA dynamics and functions during Arabidopsis thaliana embryogenesis	Michael Nodine	<i>Gregor Mendel Institute of Molecular Plant Biology (GMI)</i>
40	miR-10b marks aggressive squamous cell carcinomas in recessive dystrophic epidermolysis bullosa	Monika Wimmer	<i>EB House Austria</i>
41	nanoPARE: parallel analysis of RNA 5' ends from low-input RNA	Michael Schon	<i>Gregor Mendel Institute of Molecular Plant Biology (GMI)</i>
42	A heterochromatin-specific RNA export pathway facilitates piRNA production	Mostafa ElMaghraby	<i>Institute of Molecular Biotechnology (IMBA)</i>
43	Differentially regulated micro RNAs in inflammatory monocytes	Muhammad Aslam	<i>Justus Liebig University, Giessen</i>
44	Regulation of miRNA biogenesis by the extracellular matrix: tenascin-C and miR-155 in the macrophage response to infection	Nicole Zordan	<i>University of Nottingham</i>
45	miR-26 regulates neurogenesis via REST	Nina Houben	<i>Institute of Medical Radiology and Cell Research (MSZ)</i>
46	Exploring the functional conservation of a deeply conserved animal microRNA	Paula Gutiérrez Pérez	<i>Research Institute of Molecular Pathology (IMP)</i>
47	Golgi-associated Rab protein is required for proper miRISC localization and function	Pascale Michaud	<i>CRCHU de Quebec - Université Laval</i>
48	Dissecting the essential requirements for microRNAs in embryonic development of Caenorhabditis elegans	Philipp Dexheimer	<i>Research Institute of Molecular Pathology (IMP)</i>
49	dkc1 mutations are associated with changes in tp53 expression and growth impairment.	Renáta Hamar	<i>Eötvös Loránd University</i>
50	Application of self organizing maps to identify miRNA fingerprint signatures in recessive dystrophic epidermolysis bullosa	Roland Zauner	<i>EB House Austria</i>
51	Analysis of miRNAs expression in different grade glioma	Rytis Stakaitis	<i>Lithuanian University Of Health Sciences</i>
52	The Atlas of DROSHA Cleavage Sites on Primary MicroRNAs	S. Chan Baek	<i>Seoul National University</i>
53	Interaction between microRNA and circRNA in endothelial dysfunction.	Sabina Licholai	<i>Jagiellonian University</i>
54	Role of sRNAs and DNA methylation as regulators of transgressive phenotypes in plants	Sara Lopez-Gomollon	<i>University of Cambridge</i>

NR	Poster title	Name	Affiliation
55	Knock down expression of the P0 protein from the PLRV genome by inducing the production of the hpRNA and siRNAs of this RNA silencing inhibitor and creating highly resistant strains of the virus	Shahla Faterirezvani	<i>Azerbaijan shahid Madani University</i>
56	Rhythmic expression of miRNAs in <i>C. elegans</i>	Smita Nahar	<i>Friedrich Miescher Institute for Biomedical Research (FMI)</i>
57	DROSHA isoform associated with Golgi apparatus	Soomin Son	<i>Seoul National University</i>
58	Identification of host factors for viral symptom development by comparative transcriptome, sRNA-ome and degradome analysis of two Arabidopsis ecotypes	Tamás Tóth	<i>National Agricultural Research And Innovation Centre</i>
59	TraPR: Trans kingdom rapid and affordable Purification of RISCs	Thomas GRENTZINGER	<i>ETH Zürich, RNA Biology group</i>
60	Heritable small RNAs mediate short-term but not long-term epigenetic variation in <i>C. elegans</i>	Toni Beltran	<i>MRC London Institute of Medical Sciences</i>
61	The Role of RNAPII Transcription Kinetics in Plants	Xueyuan Leng	<i>University of Copenhagen</i>
62	Germ granules proteins control small RNA homeostasis transgenerationally	Yael Mor	<i>Tel Aviv University</i>
63	Meiosis-Associated Argonautes (MAGO)s are associated with germline development of maize under heat stress	Yang-Seok Lee	<i>University of Warwick</i>
64	The piRNA pathway secures male fertility by silencing a single sex chromosome linked gene in the differentiated germ line cells of <i>Drosophila melanogaster</i>	Zsolt Venkei	<i>University of Michigan, Life Sciences Institute, Yamashita Lab</i>
65	fs(1)yb mediates self vs non-self differentiation in <i>Drosophila</i> somatic piRNA biogenesis	Dominik Handler	<i>Institute of Molecular Biotechnology (IMBA)</i>

Notes

The 14th MICROSYMPOSIUM on SMALL RNAs

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