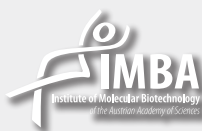




16th Microsymposium on RNA Biology

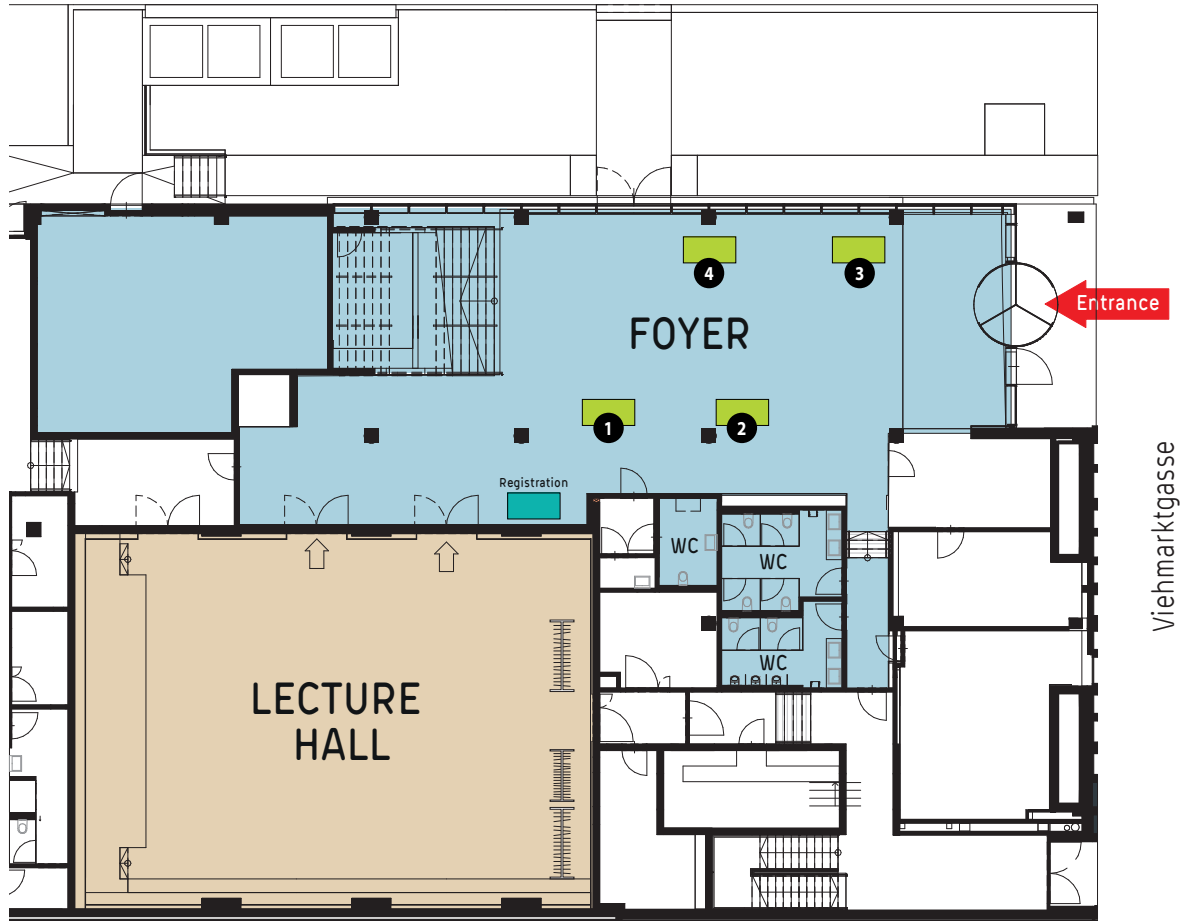
Vienna BioCenter, April 6th - 8th 2022



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2022 EXHIBITORS

1. New England Biolabs
2. World Courier
3. VWR
4. Cytiva

R reception / information desk

16th MICROSYMPOSIUM_{on} RNA Biology

Wednesday, April 06th

11:00 **Welcome & introduction**

Session 1: **Translational control**

11:30 **Rachel Green** (Johns Hopkins University)
Colliding ribosomes function as a signaling hub for mediating cell fate decisions

12:00 **Axel Innis** (Institut Européen de Chimie et Biologie)
The ribosome as a small molecule sensor

12:30 **Pratik Dave** (Friedrich Miescher Institute for Biomedical Research)
Single-molecule imaging reveals the coupling of translation and mRNA decay

12:50 *lunch break*

13:50 **Julie Aspden** (University of Leeds)
What are neuronal long non-coding RNAs doing in the cytoplasm?

14:20 **Laura Lorenzo-Orts** (Research Institute of Molecular Pathology)
Mechanistic insights into maternal mRNA repression and storage in the egg via a non-canonical eIF4E

Session 2: RNA modifications

14:40

Jean-Yves Roignant (University of Lausanne)

Loss of Pseudouridine synthase 7 alters codon specific translation efficiency in the *Drosophila* brain

15:10

Omri Wurtzel (Tel Aviv University)

m6A is required for resolving the identity of planarian stem cells

15:40

coffee break

PhD workshop pt.1

16:10

David Wiener (Weizmann Institute of Sciences)

Decoupling of degradation from deadenylation rescues poly(A) tail length in yeast meiosis

16:30

Vytaute Boreikaite (Medical Research Council Laboratory of Molecular Biology)

RBBP6 activates the pre-mRNA 3' end processing machinery in humans

16:50

Samoil Sekulovski (Goethe University Frankfurt)

Structure of the human tRNA splicing endonuclease defines substrate recognition

17:10

Ionut Atanasoai (Karolinska Institute)

RNA affinity purification followed by sequencing (RAPseq) enables versatile biological applications by profiling in vitro innate RBP-RNA interactomes.

17:30

end of talks

Free evening for attendees

Thursday, April 07th

Session 3: RNA processing

- 09:00 **Karla Neugebauer** (Yale School of Medicine)
How coordination between transcription and splicing determines gene output
- 09:30 **Clemens Plaschka** (Research Institute of Molecular Pathology)
mRNA recognition and packaging by the transcription-export complex
- 10:00 **Alexandra Bergfort** (Yale University)
Function of C9ORF78 in alternative splicing through an interplay with the RNA helicase BRR2

10:20 coffee break

- 10:50 **Karina Jouravleva** (University of Massachusetts Medical School)
Structural basis for accurate and efficient microRNA biogenesis in flies
- 11:10 **Daniel Zenklusen** (University of Montreal)
Single-molecule imaging suggests compact and spliceosome dependent organization of long introns

11:40 coffee break

PhD workshop pt.2

- 12:10 **Julie Autaa** (Sorbonne Université)
The H3K9 demethylase KDM3 prevents auto-immune piRNAs production in Drosophila
- 12:30 **Lisa Baumgartner** (Institute of Molecular Biotechnology Austria)
A sequence-specific DNA binder guides the chromatin reader protein Rhino to piRNA sources
- 12:50 **Salman Shehzada** (Institut de Génétique Humaine)
A SUMO E3 ligase is involved in target-directed small RNA degradation during DNA elimination in Tetrahymena

13:10 lunch break

Session 4: Development and imaging

- 14:10 **Johann Danzl** (Institute of Science and Technology Austria)
High-resolution optical imaging to decode RNA in spatial context
- 14:40 **Mounia Lagha** (Institut de Génétique Moléculaire de Montpellier)
Regulation of gene expression during the awakening of the zygotic genome
- 15:10 **Xiaoqi Feng** (John Innes Centre)
Epigenetic reprogramming in plant germlines
- 15:40 **Kseniya Khamina** (TAmiRNA)
A MicroRNA Next-Generation-Sequencing Discovery Assay (miND) for Genome-Scale Analysis and Absolute Quantitation of MicroRNAs across Sample Types and Species

16:00 *coffee break*

PhD workshop pt.3

- 16:30 **Yael Admoni** (Hebrew university of Jerusalem)
Functional characterization of a "plant-like" HYL1 homolog in the cnidarian *Nematostella vectensis* indicates a conserved involvement in microRNA biogenesis
- 16:50 **Giulia Corbet** (University of Colorado Boulder)
dsRNA-induced condensation modulates PKR activation
- 17:10 **Marieke Trasser** (Gregor Mendel Institute of Molecular Plant Biology)
Chromatin determinants of de novo transposon silencing in *Arabidopsis thaliana*

17:30 *Poster Session I*

19:00 *Symposium dinner*

Friday, April 08th

Session 5: RNA decay

- 09:00 **Elena Conti** (Max Planck Institute of Biochemistry)
Molecular mechanisms and regulation of the cytoplasmic RNA-degrading exosome
- 09:30 **Thomas Welte** (Friedrich Miescher Institute for Biomedical Research)
Convergence of distinct RNA-silencing pathways on GW182/Tnrc6
- 09:50 **Christopher Lima** (Memorial Sloan Kettering Cancer Center)
Targeting RNA for decay

10:20 *coffee break*

Session 6: small RNA biology

- 10:50 **Zissimos Mourelatos** (University of Pennsylvania)
Molecular and Biological functions of piRNPs in mice and flies
- 11:20 **Walter Bronkhorst** (Institute of Molecular Biology Mainz)
A nuage-localized Vreteno-GTSF2-Ago3 complex drives piRNA biogenesis in *Bombyx mori*
- 11:40 **Sebastian Falk** (Max Perutz Labs Vienna)
Mechanistic insights into *C. elegans* piRNA biogenesis
- 12:10 **Marc Friedlaender** (Stockholm University)
agoTRIBE detects miRNA-target interactions in single cells

12:40 *Lunch & Poster Session II*

Session 7: RNA & Disease

- 14:40 **Yorgo Modis** (University of Cambridge)
How do cells sense viral RNA? Role of MDA5 as a mechanical proofreader
- 15:10 **Marco Incarbone** (Gregor Mendel Institute of Molecular Plant Biology)
A hormone-activated mobile RNAi mechanism defends plant stem cells from virus invasion
- 15:30 **Julien Gagneur** (Technical University of Munich)
Calling and predicting aberrant splicing for rare disease diagnostics

16:00 PhD award & closing remarks

16:30 *Light bites & socializing*

Poster Abstracts

Please note that although all posters will be exhibited at the same time, the presentations will take place on different days. Please refer to the lists below for the day of your presentation.

SESSION 1 – Thursday April 07th

NR	Name	Poster title
2	Alex Horanszky	The effects of Bisphenol-A exposure on the neural differentiation of hiPSCs
4	Andrea Tripepi & Huma Shakoor	Effects of SSM deletion on human Staufen1 dimerization and RNA binding
6	Anita Sós-Hegedűs	Analysis of molecular background of leaf developmental abnormality in tomato
8	Anton Kermanov	Preservation of genome integrity during male gametogenesis in <i>Physcomitrium patens</i>
10	Belén Moro	ARGONAUTE1 shuttling regulates sRNA cellular partitioning in <i>Arabidopsis</i>
12	Daniel Inácio	A key role for microRNAs in the development and functional differentiation of $\gamma\delta$ T cell subsets
14	Diego Florián	Strategies for activating canonical RNAi in human cells
16	Enrico Bortoletto	Epitranscriptomic ADAR signature in patients with keratoconus: first evidence of altered RNA-editing in an eye disorder.
18	Federica Lamberto	Evaluation of the effects of Bisphenol A levels on cardiomyocytes differentiation of human iPSCs
20	Giulia Cantini	Identification of protein-RNA binding sites in T cells via iCLIP2
22	Ilektra-Chara Giassa	miRBind: a Deep Learning method for miRNA binding classification
24	Ionut Atanasoai	Large-scale identification of RBP-RNA interactions by RAPseq refines essentials of post-transcriptional gene regulation
26	Laura Arribas-Hernández	Redundancy vs specialization among m6A readers
28	Lizaveta Pshanichnaya	Phase separation in small RNA pathways
30	Marcos Iuri Roos Kulmann	Antiviral effects of enhanced RNAi in vivo
32	Maria Luz Annacondia Lopez	Reprogramming of RNA silencing triggered by cucumber mosaic virus infection in <i>Arabidopsis</i>
34	Matthias Vorländer	Nuclear mRNA recognition and packaging by the human transcription-export complex
36	Michael Lohmüller	Molecular regulation of the oncogenic miR-17-92 cluster
38	Mohd Isar, Sepideh Mohamadi Koubjari & Priyadharshini Selvaraj	Targeting mRNA Ribonucleoprotein Complexes with Small Drug-like Molecules
40	Nandan Mysore Varadarajan & Václav Hejret	Noncanonical small RNA chimeras identified by AGO2-CLASH
42	Ona Marija Singh	Dissecting the molecular functions of the RNA-binding, LCD-containing protein Rbfox1 in ovaries
44	Rajagopal Varada	Characterization of endogenous RNAs triggering MDA5 activation
46	Sascha Wani	Context-dependent essentiality of RNA modifications in human cells
48	Simone Larivera	An unbiased analysis of YTHDF2 protein functions
50	Sophie Mockly	A rationalized definition of tumor suppressor microRNAs excludes miR-34a
52	Tünde Nyikó	Role of IDM3 α -Crystallin Domain Protein in tomato trichome development
54	Valeria Buccheri	Effects of reactivation of RNA interference pathway in mammals
56	Xué Strobl	PHF3 regulates neuronal differentiation at the interface of transcription and mRNA stability

SESSION 2 – Friday April 8th

NR	Name	Poster title
1	Ágnes Dalmadi	AGO-unbound pool of miRNAs is influenced by miRNA duplex structure
3	Alison Goulois	Sequestration of Trnc6 by Ago2 attenuates Trim71 activity
5	Anika Neuschulz	Measuring transcriptional dynamics in a live vertebrate
7	Antinéa Ravet	Extracellular vesicle (EV)-associated small RNAs direct gene silencing in a phytopathogenic bacterium
9	Anže Božič	Scaling properties of viral RNAs as branched polymers
11	Daniel Buendia Avila	How does <i>Wolffia</i> (Lemnaceae) silence Transposable Elements?
13	Deborah Donzel	The synergistic role of SMN and eIF3e in translation regulation
15	Emma Busarello	Harmonizing annotation of single cells with the Cell Marker Accordion
17	Fabio Miloro	IDENTIFICATION OF BARLEY AGO4 GENES AND COMPLEMENTATION ASSAY IN ARABIDOPSIS
19	Gersende Lepère	The bacterial effector HopT1-1 suppress microRNA activity through a novel host susceptibility factor
21	Ilaria Bruno	Towards reconciling splicing and translational defects in Spinal Muscular Atrophy
23	IMEN MEKKI	miRNAs in <i>Ixodes ricinus</i> tick-host interactions
25	Jens Schröder	Non-cell autonomous small RNA silencing in female gametes and early embryo of Arabidopsis
27	Lisa Emmenegger	Optogenetic-based DICER1 perturbation to study microRNAs function in Herpes Simplex Virus 1 infection
29	Lukas Englmaier	Characterizing molecular consequences of defective tRNA thiolation
31	Maria Zlobina	Mango aptamer as a tool for a high throughput analysis
33	Marina Pletzer	NRDE2 regulates the activity of the RNA helicase MTR4 via two distinct binding sites
35	Melinda Bence	Drosophila PIWI protein utilizes molecular mimicry of SUMO to recruit Su(var)2-10 to the site of transposon repression
37	Milan Gerovac	"Giant phages hijack post-transcriptional regulation and translation in the host"
39	Morten Venø	Detection of biofluid non-coding RNA biomarkers associated with Pancreatic Ductal Adenocarcinoma (PDAC)
41	Nathalie Agudelo Duenas	Decoding the transcriptional landscape at nanoscale resolution
43	Radhika Verma	The roles and regulation of TFIIIS elongation factor during heat stress response in plants.
45	Salman Shehzada	A SUMO E3 ligase is involved in target-directed small RNA degradation during DNA elimination in <i>Tetrahymena</i>
47	Sebastian Herzog	A conserved motif of negatively charged amino acids in the N-terminal region of DGCR8 is critical for cluster assistance
49	Sofia Bertone	SERS detection of subnanomolar concentrations of miRNAs
51	Toni Manolova	CCDC174 – a novel component of the EJC
53	Umberto Rosani	Opening the Pandora's box of RNA-mediated host-virus interactions in a non-model species
55	Virginia Busetto	MUT-7: a conserved exonuclease of the piRNA pathway?