

#PLRNA2023 Program

DAY 01: September 28, 2023 (Thursday)

- 08:00 - 09:00 Registration
- 09:00 - 09:15 **Opening**
- 09:15 - 10:00 **Keynote Lecture**
Chair: **Andrzej Dziembowski**, International Institute of Molecular and Cell Biology in Warsaw, Poland
Witold Filipowicz, Friedrich Miescher Institute for Biomedical Research, Basel, Switzerland
Traversing the RNA world: lessons from the past and some ideas for the future
- 10:00 - 10:30 Coffee break
- 10:30 - 12:15 **Session I**
Chair: **Dominika Nowis**, Medical University of Warsaw, Poland
Bertrand Seraphin, Institute of Genetics, Molecular and Cellular Biology, France
HELZ2: a new, interferon-regulated, human 3'-5' exoribonuclease of the RNB family is expressed from a non-canonical initiation codon
Paweł Sikorski, University of Warsaw, Poland
Modifications of mRNA 5'-end defining transcripts as 'self' for innate immune system
Magdalena Wołczyk, International Institute of Molecular and Cell Biology in Warsaw, Poland
Sequence specificity of RIG-I/IFN signaling
Elżbieta Wanowska, Adam Mickiewicz University, Poznan, Poland
The role of OIP5-AS1 lncRNA in breast cancer
Aleksandra Brouze, International Institute of Molecular and Cell Biology in Warsaw, Poland
Immunoglobulin production is enhanced by cytoplasmic polyadenylation mediated by TENT5C acting in concert with FNDC3 proteins
Paweł Krawczyk, International Institute of Molecular and Cell Biology in Warsaw, Poland
SARS-CoV-2 mRNA vaccine is re-adenylated in vivo, enhancing antigen production and immune response
Maria Górna, University of Warsaw, Poland
Hold my cap(0): a 5' dependent mRNA capture method to analyze the yeast transcriptome
Renata Grzela, University of Warsaw, Poland
Crosstalk of cap structure modifications and innate immune response factors
- 12:15 - 13:45 Lunch
- 13:45 - 14:30 **Keynote Lecture**
Chair: **Kinga Kamieniarz-Gdula**, Adam Mickiewicz University, Poznan, Poland
Lori Passmore, MRC LMB, Cambridge, UK
Molecular machines that regulate mRNA poly(A) tails

14:30 - 16:15

Session II

Chair: **Gracjan Michlewski**, International Institute of Molecular and Cell Biology in Warsaw, Poland

Katarzyna Bandyra, University of Warsaw, Poland

Polynucleotide phosphorylase - an exoribonuclease and an RNA chaperone in one

Lidia Lipinska-Zubrycka, University of Warsaw, Poland

Dual role of uridylation in bulk mRNA Decay

Daria Riabov, Research Institute of Molecular Pathology, Austria

Structure of the recycling human U5 snRNP

Tomasz Turowski, Institute of Biochemistry and Biophysics PAS, Warsaw, Poland

Co-transcriptional adenylation of nascent RNA polymerase I transcripts

Łukasz Szewc, Adam Mickiewicz University, Poznan, Poland

The involvement of A. thaliana CFI polyadenylation factor in termination of transcription and U1 snRNP-dependent suppression of premature polyadenylation

Szymon Swiezewski, Institute of Biochemistry and Biophysics PAS, Warsaw, Poland

Promoter-pervasive transcription pausing Pol II to boost transcription

Michaela Ristová, University of Edinburgh, UK

A bridge through time: Pin4 links rapid post-transcriptional and transcriptional stress responses to maintain energy homeostasis in S. cerevisiae

Sebastian Sacharowski, Institute of Biochemistry and Biophysics PAS, Warsaw, Poland

Uridylation of lncRNAs enhances their chromatin tethering and ability to control seed dormancy through DOG1 gene activation

16:15 - 16:45

Coffee break

16:45 - 18:15

Session III

Chair: **Magdalena Dziembowska**, University of Warsaw, Poland

Agnieszka Fiszer, Institute of Bioorganic Chemistry PAS, Poznan, Poland

Separation of RNA- and protein-induced pathogenesis in novel Huntington's disease mouse models

Anna Baud, Adam Mickiewicz University, Poznan, Poland

Identification of RNA binding proteins which influence translational efficiency of toxic polyglycine protein in fragile X-associated tremor/ataxia syndrome

Katarzyna Tutak, Adam Mickiewicz University, Poznan, Poland

RPS26 a novel RAN translation modifier of RNA harboring expanded CGG repeats in Fragile X-associated syndrome

Filip Stefaniak, International Institute of Molecular and Cell Biology in Warsaw, Poland

Structural Interaction Fingerprints for analysis of nucleic acid-ligand interactions

Tim Kolberg, Leipzig University, Germany

Led-Seq - ligation-enhanced double-end sequence-based structure analysis of RNA

Vladyslava Liudkovska, IMoL PAS, Warsaw, Poland

Dissecting the splicing landscape of human embryonic differentiation

18:15 - 19:45

Dinner

18:15 - 22:00

Poster Session I

DAY 02: September 29, 2023 (Friday)

08:45 - 09:15 Registration

09:15 - 10:00 Keynote Lecture

Chair: **Sebastian Glatt**, Malopolska Centre of Biotechnology, Jagiellonian University in Krakow, Poland

Alfredo Castello, MRC-University of Glasgow Centre for Virus Research, Glasgow, UK
When viral RNA met the cell: a story of protein-RNA interactions

10:00 - 10:30 Coffee break

10:30 - 12:15 Session IV

Chair: **Michał Gdula**, Adam Mickiewicz University, Poznan, Poland

Marta Sztachera, Institute of Bioorganic Chemistry PAS, Poznan, Poland
Investigation of RNA-protein interactions and brain-specific RBPome in the mouse brain tissue

Mikołaj Olejniczak, Adam Mickiewicz University, Poznan, Poland
RNA recognition by FinO-domain proteins

Rafał Mańka, University of Opole, Poland
A study of the RNA interactions with membrane vesicles

Kishor Gawade, Adam Mickiewicz University, Poznan, Poland
FUS modulates the level of ribosomal RNA modifications in health and disease

Mateusz Bajczyk, Adam Mickiewicz University, Poznan, Poland
The cross-talk between PCF11-similar proteins and CstF64 in flower development in Arabidopsis thaliana

Ewa Anna Grzybowska, Maria Skłodowska-Curie National Research Institute of Oncology, Warsaw, Poland
The spectrum of RNA targets of intrinsically disordered HAX1 protein indicates predominant binding to coding regions and points to the role in ribosome biogenesis and translation

Joanna Krupka, University of Cambridge, UK
In search of lost ORFs: ultra-sensitive map of noncanonical Open Reading Frames essential for lymphoid cells

12:15 - 13:45 Lunch

13:45 - 14:30 Keynote Lecture

Chair: **Elzbieta Kierzek**, Institute of Bioorganic Chemistry PAS, Poznan, Poland

Magda Konarska, IMol PAS, Warsaw, Poland
Dynamic changes within the RNA catalytic core leading to the second step of splicing

14:30 - 16:15 Session V

Chair: **Marcin Nowotny**, International Institute of Molecular and Cell Biology in Warsaw, Poland

Maja Cieplak-Rotowska, IMol PAS, Warsaw, Poland
Cwc25's role in choosing the right adenosine as the branch site during the first step of splicing

Ishani, IMol PAS, Warsaw, Poland
Introns defective for the second step of splicing accumulate in the first step spliceosomal conformation, generating dysfunctional, jammed spliceosomes

Olga Gewartowska, International Institute of Molecular and Cell Biology in Warsaw, Poland

dTag system allows for in vivo studies of essential genes involved RNA metabolism

Monika Kwiatkowska, Institute of Bioorganic Chemistry PAS, Poznan, Poland

Making zebrafish the dark horse in long noncoding RNA research

Klaudia Skrzypek, Jagiellonian University Medical College, Krakow, Poland

Potential of SNAIL-dependent small RNAs as regulatory molecules in rhabdomyosarcoma progression

Przemysław Płociński, University of Łódź, Poland

Bacterial PNPase as a candidate for antimicrobial drug discovery

Mario Mörl, Leipzig University, Germany

Living in the past: reconstruction of an ancestral tRNA nucleotidyltransferase candidate

Agnieszka Kiliszek, Institute of Bioorganic Chemistry PAS, Poznan, Poland

Structural studies of small ligands targeting disease-related RNA molecules

16:15 - 16:45 Coffee break

16:45 - 18:15 Session VI

Chair: **Marta Koblowska**, University of Warsaw, Poland

Leszek Błaszczyk, Institute of Bioorganic Chemistry PAS, Poznan, Poland

Exploring long-range RNA interaction in p53 mRNA

Kaspar Burger, University Hospital Würzburg & University of Würzburg, Germany

NONO nucleolar re-localisation promotes genome stability by shielding nascent transcripts from DNA double-strand breaks

Monika Józwiak, Adam Mickiewicz University, Poznan, Poland

The role of DRH1, RH46 and RH40 in miRNA biogenesis in Arabidopsis thaliana

Ewa Stępnia-Konieczna, Adam Mickiewicz University, Poznan, Poland

Therapeutic modulation of MBNL1 splicing factor in myotonic dystrophy

Agata Stępień, Adam Mickiewicz University, Poznan, Poland

Transcription termination in carcinogenesis

Monika Zakrzewska-Płaczek, University of Warsaw, Poland

Arabidopsis DXO1 affects the processing of precursors of cytoplasmic and chloroplast ribosomal RNA

Piotr Gerlach, IMoL PAS, Warsaw, Poland

Bunyaviral strategies to reorganize and exploit cellular translation

18:15 - 19:45 Dinner

18:15 - 22:00 Poster Session II

DAY 03: September 30, 2023 (Saturday)

08:45 - 09:15 Registration

09:15 - 10:00 Keynote Lecture

Chair: **Jacek Jemielity**, University of Warsaw, Poland

Andrea Rentmeister, Institute of Biochemistry, Department of Chemistry and Pharmacy, University of Münster, Germany

Optochemical control of mRNA translation

10:00 - 10:15	<p>Sponsor Talk</p> <p>Chiara Reggio, Scale Bioscience / Altium <i>Single Cell RNAseq at SCALE: Unlock single-cell gene expression for every researcher and experiment with ScaleBio</i></p>
10:15 - 10:45	Coffee break
10:45 - 12:00	<p>Session VII</p> <p>Chair: Agata Starosta, Institute of Biochemistry and Biophysics PAS, Warsaw, Poland</p> <p>Guillem Ylla, Jagiellonian University, Krakow, Poland <i>The transcriptomics of the evolution of insect metamorphosis</i></p> <p>Dilek Cansu Gurer, Izmir Institute of Technology, Turkey <i>Genome-wide identification and classification of sisRNAs in human cells</i></p> <p>Rahul Mehta, Malopolska Centre of Biotechnology, Jagiellonian University, Poland <i>Structural and biophysical characterization of non-coding RNAs</i></p> <p>Tales Rocha de Moura, International Institute of Molecular and Cell Biology in Warsaw, Poland <i>Structural studies of the Betacoronaviruses 5'-proximal regions</i></p> <p>Małgorzata Sierant, Centre of Molecular and Macromolecular Studies PAS, Lodz, Poland <i>Intracellular damage of mcm5S2U-tRNA induced by oxidative stress</i></p> <p>Oleg Dmytrenko, Helmholtz Institute for RNA-based Infection Research, Germany <i>Cas12a2 nucleases form three functionally-distinct clades</i></p>
12:00 - 12:15	Awards & closing ceremony

Sponsors of the Best Posters and Talks Awards



LEXOGEN

Platinum Sponsor



Silver Sponsors

