



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

DEPARTMENT
OF MEDICAL
AND SURGICAL SCIENCES

RiboMod2025

Tools and Methods for
the Annotation and Study
of snoRNA-Mediated
Ribosomal RNA Modifications

June 12-13, 2025
Bologna, Italy

DAMSLab
Piazzetta P.P. Pasolini 5b



• June 12th, 2025 • Small nucleolar RNAs •

8.30 AM Registration and Welcome Coffee

9 AM **Welcome and Introduction**
Lorenzo Montanaro (University of Bologna, Italy)
Sherif Abou Elela (Université de Sherbrooke, Canada)

SESSION 1

Moderator – Sherif Abou Elela
(Université de Sherbrooke, Canada)
Methods for Detecting and Characterizing snoRNA

9.20 AM **Introduction by Session Chair**
Katherine Bohnsack (University of Göttingen, Germany)

9.35 AM **Toward Reliable snoRNA Quantification:
Benchmarking Reverse Transcriptases and
Methodological Controls**
Sherif Abou Elela (Université de Sherbrooke, Canada)

9.45 AM **snoRNAs or snoRTs: how can we accurately quantify
them?**
Giulia Venturi (University of Bologna, Italy)

9.55 AM **Expanding the Capabilities of snoRNA Detection and
Modification Profiling with NERD-seq**
Athanasios Zovoilis (University of Manitoba, Lethbridge,
Canada)

10.05 AM Panel Discussion and Conclusion

10.20 AM Coffee Break

SESSION 2

Moderator – Michelle Scott
(Université de Sherbrooke, Canada)
Databases, Classification, and Validation of snoRNA

10.50 AM **Introduction by Session Chair**
Blake Sweeney (EMBL-EBI, UK)

10.55 AM **Nomenclature issues from the perspective of
RNAcentral and Rfam**
Blake Sweeney, (EMBL-EBI, UK)

11.05 AM **Annotating snoRNAs in GENCODE**
Zoe Hollis (EMBL-EBI, UK)

11.15 AM **Identification of rRNA modifications and their
corresponding snoRNAs in *Drosophila melanogaster***
Jean-Yves Roignant (University of Lausanne, Switzerland)

11.25 AM	Comprehensive Annotation and Expression Dynamics of the Zebrafish snoRNAome Renata Hamar (Eötvös Loránd University, Budapest, Hungary)
11.35 AM	Nomenclature and annotations to facilitate the study of snoRNAs eukaryote-wide Michelle Scott (Université de Sherbrooke, Canada)
11.45 AM	Panel Discussion and Conclusion
	SESSION 3 Moderator – Davide Ruggero (University of California, San Francisco) Methods for Functional Analysis of snoRNAs and rRNA modifications
12 PM	Introduction by Session Chair Carsten Müller-Tidow (Heidelberg University Hospital, Germany)
12.05 PM	Assigning functions to ribosomal 2'-O-methylations Anders Lund (University of Copenhagen, Denmark)
12.15 PM	An Unexpectedly Large Repertoire of Box C/D Small RNAs Revealed in Mouse Tissues Jérôme Cavaillé (CNRS, Toulouse, France)
12.25 PM	Decoding specialized ribosomes: challenges in functional validation of rRNA modifications Mie Monti (Centre for Genomic Regulation – CRG, Barcelona, Spain)
12.35 PM	Panel Discussion and Conclusion
12.50 PM	Lunch Break
2 PM	TOPIC DISCUSSIONS • snoRNA Detection Workshop and Development of Recommendations Sherif Abou Elela, Michelle Scott • snoRNA Nomenclature, Cross-Species Comparison, and annotation Michelle Scott, Blake Sweeney • Standardization of Methods for Studying Functions of snoRNA Carsten Müller-Tidow, Davide Ruggero
4 PM	POSTER SESSION / Coffee break
7.45 PM	Guided Tour / Walk Meeting point: ▼ Piazza Maggiore, Fountain of Neptune
8.30 PM	Dinner / Party ▼ Palazzo Isolani, Via Santo Stefano 16

• June 13 th , 2025 • Ribosomal RNAs •	
8.30 AM	Welcome Coffee
	SESSION 4 Moderators – Katherine Bohnsack (University of Göttingen, Germany), Virginie Marcel (Cancer Research Center of Lyon, France) Methods for Detecting and Quantifying Ribosomal RNA Modifications
9 AM	Introduction by Session Chair Denis L.J. Lafontaine (Université libre de Bruxelles, Belgium)
9.05 AM	First generation sequencing-based methods for RNA-guided rRNA modifications Henrik Nielsen (University of Copenhagen, Denmark)
9.15 AM	LC-MS based quantification of modified ribonucleosides: an effort towards global harmonization of protocols and standards Mark Helm (Johannes Gutenberg University of Mainz, Germany)
9.25 AM	Decoding the rRNA modification landscape using native RNA nanopore sequencing Eva Novoa (Centre for Genomic Regulation – CRG, Barcelona, Spain)
9.35 AM	Sci-ModoM: roadmap to facilitate access to and sharing of high-throughput transcriptome-wide RNA modification data, to harmonize data exchange formats and interoperability standards Etienne Boileau (Heidelberg University Hospital, Germany)
9.45 AM	Computational limitations and future needs to unravel the full potential of 2'-O-Methylation and C/D Box snoRNAs Christian Ramirez (Università degli Studi di Trento, Italy)
9.55 AM	Panel Discussion and Conclusion
10.10 AM	Coffee Break
	SESSION 5 Moderator – Lorenzo Montanaro (University of Bologna, Italy) Methods for Assaying the Function of Ribosomal RNA Modifications
10.40 AM	Introduction by Session Chair Marianna Penzo (University of Bologna, Italy)

10.45 AM **Cell-free translation assays: corner-stone approaches to explore ribosome-based translation regulation**
Marianna Penzo (University of Bologna, Italy)

10.55 AM **rRNA Chemical Modifications as Dynamic Translational Regulators in Cancer and Chemoresistance**
Jean-Jacques Diaz (Cancer Research Center of Lyon, France)

11.05 AM **Workflows and methods for assessing impact of dynamic rRNA 2'-O-methylations on translation and cell phenotypes**
Martin Jansson (University of Copenhagen, Denmark)

11.15 AM **Challenges in Linking snoRNA-Guided rRNA Modifications to Translation Regulation**
Laurence Faucher-Giguere (Université de Sherbrooke, Canada)

11.25 AM **Uncovering the impact of snoRNA-guided rRNA modification heterogeneity in a model of non-small cell lung cancer invasion**
Sarah Webster (Emory University, Atlanta, Georgia, USA)

11.35 AM Panel Discussion and Conclusion

SESSION 6

Moderators –

Homa Ghalei (Emory University, Atlanta, Georgia, USA),
Denis L.J. Lafontaine (Université libre de Bruxelles, Belgium)

Methods and Approaches for Identifying RNA Binding by snoRNAs

11.50 AM **Introduction by Session Chair**
Ute Kothe (University of Manitoba, Lethbridge, Canada)

11.55 AM **Discriminating Between Catalytic and Non-Catalytic Functions of snoRNPs**
Brigitte Pertschy (University of Graz, Austria)

12.05 PM **RNA binding by H/ACA snoRNPs – near-cognate interactions beyond pseudouridine formation**
Ute Kothe (University of Manitoba, Lethbridge, Canada)

12.15 PM **H/ACA snR30 snoRNP guides independent 18S rRNA subdomain formation**
Matthias Thoms (Ludwig Maximilian University of Munich, Germany)

12.25 PM **Mapping RBP-specific snoRNA interactions with chimeric eCLIP**
Eric Van Nostrand (Baylor University, Waco, Texas, USA)

12.35 PM Panel Discussion and Conclusion

12.50 PM Lunch Break

2 PM

TOPIC DISCUSSIONS

- **Development of Methods for Standardizing Modification Detection and Quantification Methods**
Katherine Bohnsack, Virginie Marcel, Denis L.J. Lafontaine
- **Tools and Approaches for Systematic Identification of snoRNAs for rRNA Modifications**
Homa Ghalei, Denis L.J. Lafontaine, Ute Kothe
- **Standardization of Inhibiting and Studying the Effect of Ribosomal rRNA Modification**
Lorenzo Montanaro, Marianna Penzo

4 PM

Coffee Break

5 PM

GENERAL ROUND TABLE

Presentation of Recommendations and Reaching Consensus

6 PM

CEREMONY AWARD

6.15 Concluding Remarks and Planning for Manuscript Publishing a Guideline for the Study of Ribosomal RNA Modifications and snoRNAs

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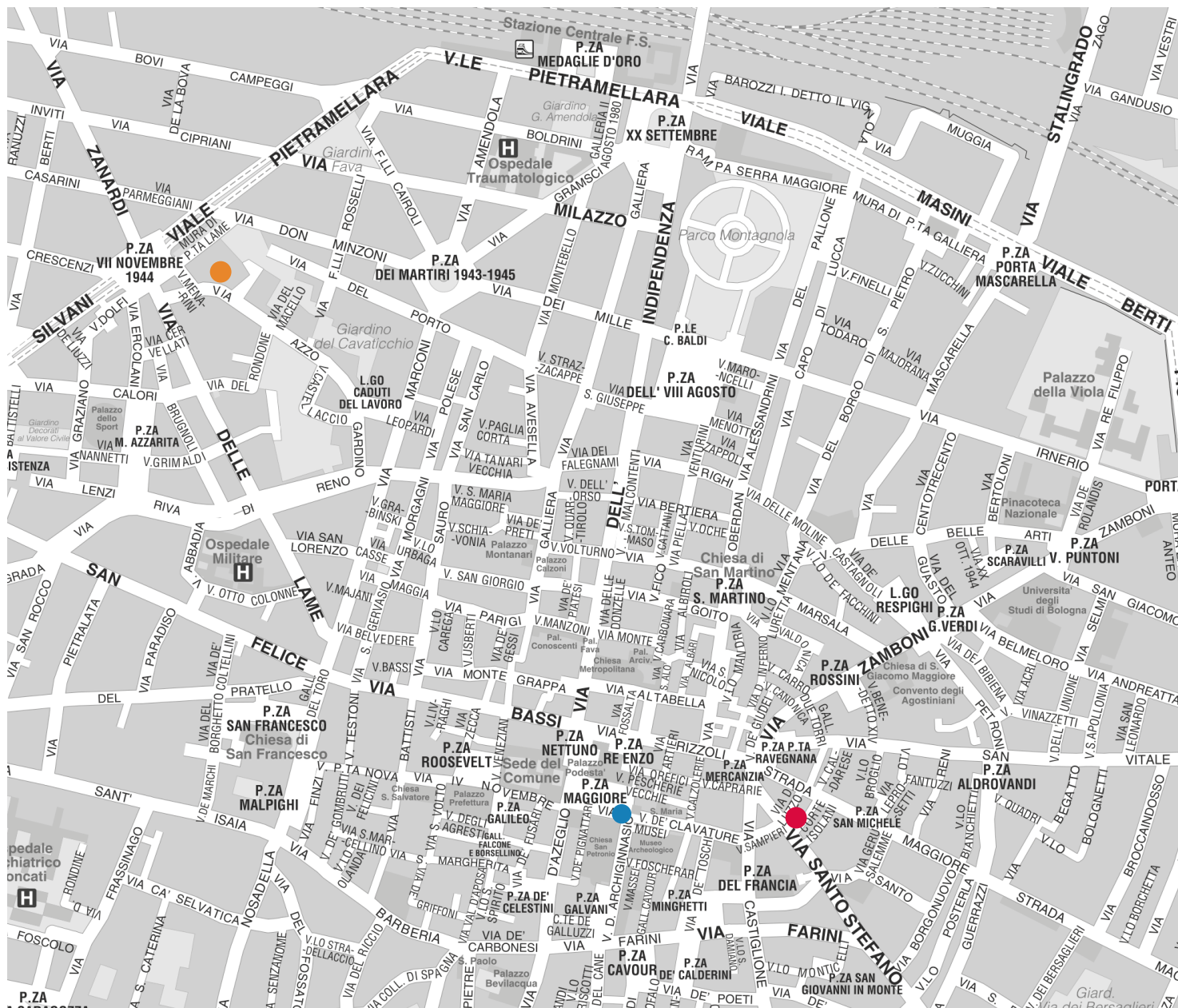


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VENUES

- DAMSLab – Piazzetta P.P. Pasolini 5b
- Piazza Maggiore
- Palazzo Isolani – Via Santo Stefano 16

WEBSITE

events.unibo.it/ribomod2025

