



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 Zovoillis (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 13th, 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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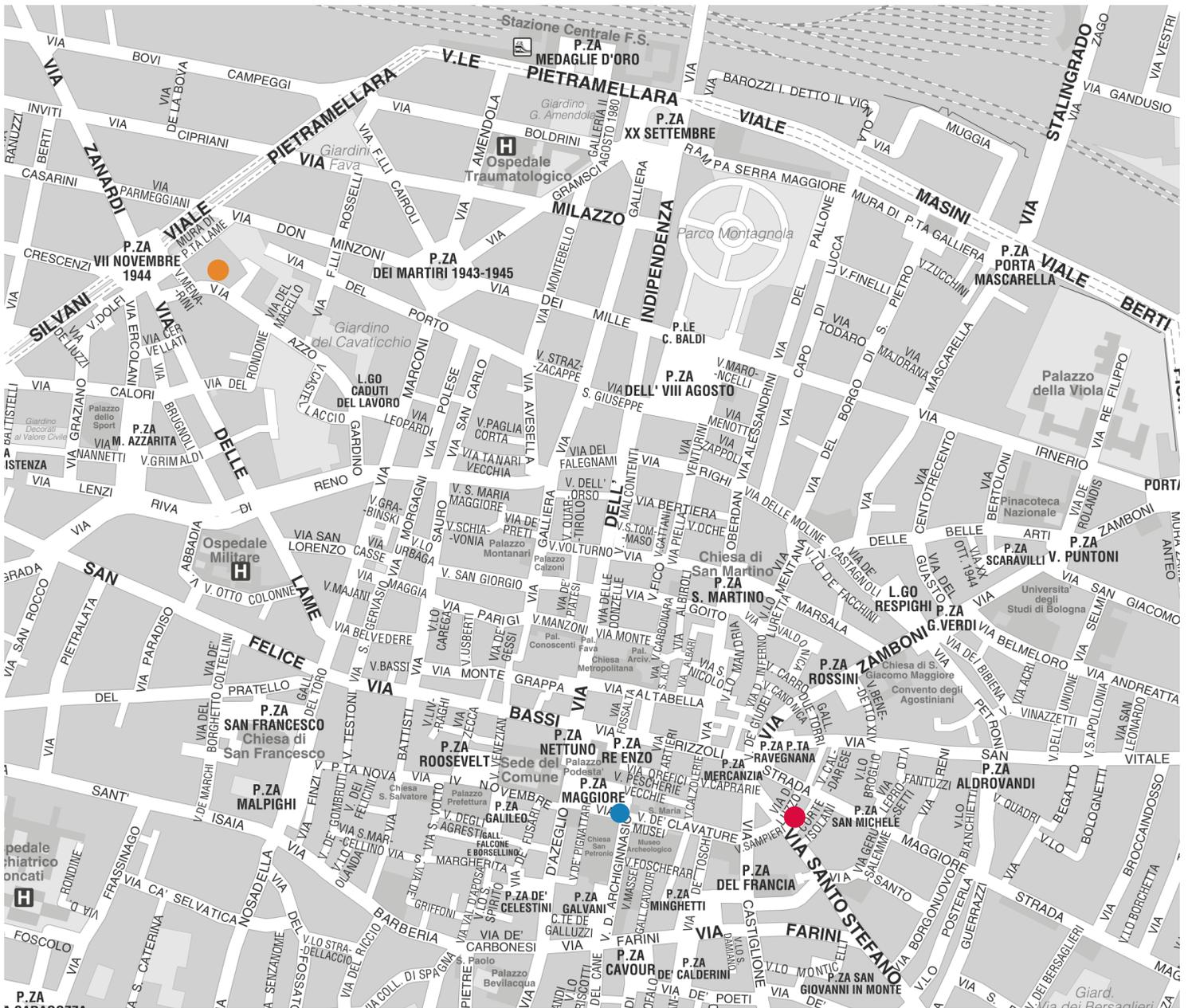


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VENUES

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

WEBSITE

events.unibo.it/ribomod2025

