

Enrico Maria DALDELLO, CNRS researcher (CRCN) Birthdate: November 15, 1987 Nationality: Italy

Email: enrico.daldello@upmc.fr

Professional address: "Development, Adaptation and Ageing" (Dev2A) - CNRS UMR 8263, Inserm U1345- Institut de Biologie Paris Seine (IBPS), Sorbonne University-CNRS-Inserm.

Research activities

I am a molecular and cellular biologist working at the interface of protein translation, cell cycle, and developmental biology. My research aims at understanding the regulation of mRNA translation during oocyte meiosis, using translational approaches to identify how specific transcripts are selectively translated in time and space. This level of regulation is particularly critical in oocytes, where transcription is silent and gene expression is entirely controlled post-transcriptionally. During my Ph.D. at Sorbonne University (2015), I uncovered how DNA replication is inhibited during meiotic divisions and characterized key early steps in meiotic signaling. At UCSF (USA), I then explored how Cdk1 activation modulates the translational program in mouse oocytes. These experiences gave me a comprehensive toolbox to study gene expression through both biochemical and high-throughput approaches. In 2021, I was recruited by CNRS in Section 21. In 2025, I have started my research team after being selected at an international call for group leader at IBPS.

Motivation

My work lies at the crossroads of transcriptional and translational control, and I believe Section 21 is uniquely positioned to promote integration across all layers of genome regulation. Translation, while essential to understanding genome function, remains relatively underrepresented in genomic research. I want to help reinforce its recognition in this scientific landscape. Having trained and worked in multiple countries, I am also deeply committed to international collaboration, which I see as essential for scientific progress. In a context of limited funding and growing national pressures, I believe the Comité National must advocate for a transparent, collegial, and merit-based evaluation system, both for researchers and institutions. If elected, I would bring an interdisciplinary mindset and a commitment to fundamental research as the driving force behind innovation.

Professional experience

Present position:	CNRS researcher and team leader of "Oocyte meiosis Group". https://www.ibps.sorbonne-universite.fr/fr/Recherche/umr-developpement-adaptation-et-vieillesse/divisions-meiotiques-de-ovocyte
2021-2024	CNRS researcher. Team "Biology of the oocyte" directed by Catherine Jessus. Laboratory of Developmental Biology -UMR7622- Institut de Biologie Paris Seine (IBPS), Sorbonne University, France.
2015-2020	Postdoctoral Scholar. Team directed by Marco Conti. Center for Reproductive Sciences, ObGyn department, University of California – San Francisco (UCSF), San Francisco, California, USA
2011- 2015	Ph.D. Team "Biology of the oocyte" directed by Catherine Jessus. Laboratory of Developmental Biology - UMR7622- Institut de Biologie Paris Seine (IBPS), Sorbonne University, France.

Five relevant publications

16 publications: ORCID-ID: 0000-0002-0456-8950_ [google scholar](#)

- Decoding protein phosphorylation during oocyte meiotic divisions using phosphoproteomics.
Leonid Peshkin*, **Enrico Maria Daldello***, Elizabeth Van Itallie, Matthew Sonnett, Johannes Kreuzer, Wilhelm Haas, Marc W Kirschner and Catherine Jessus. (***Co-first authors**). *eLife* December 31, 2024. doi: 10.7554/eLife.104255.1
- Unraveling the Interplay between PKA Inhibition and Cdk1 Activation during Oocyte Meiotic Maturation.
Martina Santoni, Ferdinand Meneau, Nabil Sekhsouk, Sandrine Castella, Tran Le, Marika Miot, and **Enrico Maria Daldello***. (***Corresponding author**) *Cell Reports* 43, 113782, February 27, 2024 <https://doi.org/10.1016/j.celrep.2024.113782>
- The M-phase regulatory phosphatase PP2A-B55δ opposes protein kinase A on Arpp19 to initiate meiotic division.
Tom Lemonnier*, **Enrico Maria Daldello***, Robert Poulhe, Tran Le, Marika Miot, Catherine Jessus, and Aude Dupré. (***Co-first authors**) *Nature Communication* 12, 1837 (2021). <https://doi.org/10.1038/s41467-021-22124-0>
- Translational control of *Xenopus* oocyte meiosis: toward the genomic era.
Ferdinand Meneau, Aude Dupré, Catherine Jessus, and **Enrico Maria Daldello*** (***Corresponding author**) *Cells* 2020, 9(6), 1502; <https://doi.org/10.3390/cells9061502>
- Genome-wide analysis reveals a switch in the translational program upon oocyte meiotic resumption.
Xuan G. Luong*, **Enrico Maria Daldello***, Gabriel Rajkovic, Cai-Rong Yang, and Marco Conti. (***Co-first authors**) *Nucleic Acids Research*. 2020 Apr 6;48(6):3257-3276. doi: 10.1093/nar/gkaa010.