HOSTING GROUPS FOR INTERNATIONAL MOBILITY

Molecular Genetics Lab

The Molecular Genetics Lab research group focuses on investigating gene expression regulation, genomic stability, and mechanisms involved in human diseases, with a particular interest in cancer biology and rare genetic disorders. Our multidisciplinary approach integrates molecular biology, cell biology, and advanced genomic techniques to explore the functional impact of genetic alterations and the study of therapeutic strategies. The group is actively engaged in both basic and translational research, aiming to identify and develop therapeutic targets for various diseases. We are committed to fostering a dynamic and collaborative scientific environment, welcoming international students and researchers to participate in mobility programs, internships, and collaborative projects.

Lentini group

Team members:

Prof. Laura Lentini (Group Leader)
Dr. Ilenia Cruciata (Researcher)
Dr. Sefora Marino (Postdoctoral Fellow)
Dr. Michele Menditto (PhD student)
Dr. Riccardo Varrica (PhD student)
Dr. Emanuele Vitale (PhD student)
Dr. Elisa Ciulla (MSc student)
Dr. Anita Sammarco (MSc student)

Selected publications:

1. *Lentini L, Perriera R, Corrao F, et al. A precision medicine approach to primary immunodeficiency disease: Ataluren strikes nonsense m utations once again. Mol Ther. 2025 Mar 28:S1525-0016(25)00220-5. doi: 10.1016/j.ymthe.2025.03.045. PMID: 40158206*

2. *Fiduccia I, Corrao F, Zizzo MG, et al. Promoting readthrough of nonsense mutations in the CF mouse model: Biodistribution and efficacy of NV848 in rescuing CFTR protein expression. Mol Ther. 2024 Dec 4;32(12):4514–4523. doi: 10.1016/j.ymthe.2024.10.028. PMID: 39473179*

3. *Perriera R, Vitale E, Pibiri I, et al. Readthrough approach using NV translational readthrough-inducing drugs (TRIDs): A study of the possible off-target effects on natural termination codons (NTCs) on TP53 and housekeeping gene expression. Int J Mol Sci. 2023 Oct 11;24(20):15084. doi: 10.3390/ijms242015084. PMID: 37894764*

4. *Carollo PS, Tutone M, Culletta G, et al. Investigating the inhibition of FTSJ1, a tryptophan tRNA-specific 2'-O-methyltransferase by NV TRIDs, as a mechanism of readthrough in nonsense-mutated CFTR. Int J Mol Sci. 2023 Jun 1;24(11):9609. doi: 10.3390/ijms24119609. PMID: 37298560*

5. *Corrao F, Zizzo MG, Tutone M, et al. Nonsense codons suppression. An acute toxicity study of three optimized TRIDs in a murine model, safety and tolerability evaluation. Biomed Pharmacother. 2022 Dec; 156:113886. doi: 10.1016/j.biopha.2022.113886. PMID: 36265311*