

Riccardo Varrica

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🌐 Riccardo Varrica

Introduction

Molecular biologist with diverse experience in both in vivo and in vitro settings, specializing in preclinical experiments and the manipulation of cellular and animal models. Skilled in advanced techniques such as PCR, qRT-PCR, and Western blot, and proficient in cell culture management, gene expression analysis, and protein interaction studies. Passionate about scientific innovation with a strong ability to collaborate in interdisciplinary teams.

Fully available for relocation and potential business trips.

Education

Master's Degree in Molecular Biology and Health – Molecular Focus

University of Palermo, Palermo

October 2022 - October 2024

110 cum laude, graduated with honors and special mention for academic merits

- During my academic journey, I delved into subjects such as Molecular Genetics and Genetic and Cytogenetic Methodologies, developing a solid understanding of genetic diseases. This passion led me to dedicate my Master's thesis in Molecular Biology and Health to analyzing the effectiveness of readthrough molecules in correcting genetic defects caused by nonsense mutations. Specifically, I evaluated TRIDs molecules on a mouse model carrying a G542X stop mutation on the CFTR gene, contributing to research on new therapies for genetic diseases caused by nonsense mutations.

Bachelor's Degree in Biological Sciences

University of Palermo, Palermo

October 2018 - March 2022

Skills

- **Technical Skills:** Molecular biology techniques, microscopy, cell cultures, genotyping, PCR, transfection, experiment design and execution, biological data analysis;
- **Computer Skills :** Proficient in Office Suite (Word, Excel, PowerPoint, etc.), GraphPad for statistical analysis and graphical representation;
- **Soft skill:** Problem-solving, teamwork, time and delivery management.

Publications

- **POSTER**

Poster title: An innovative approach of personalized medicine in cystic fibrosis: an in vivo study with NV914 molecule as translational readthrough inducing drug

Congress: XVII edition of the Congress of the Italian Federation of Life Sciences (FISV)

Location and date : Padua, September 18-20 2024

- **POSTER**

Poster title: A precision medicine approach for nonsense mutations: study of novel small molecules for the rescue of p53 protein expression

Congress: XVII edition of the Congress of the Italian Federation of Life Sciences (FISV)

Location and date: Padua, September 18-20 2024

- **POSTER**

Poster title: NV914 molecule as a translational readthrough inducing drug: A study on cystic fibrosis G542X stop murine model

Congress: National Forum on Precision Medicine

Location and date: Palermo, June 13-15, 2024

Experience

Thesis Intern

University of Palermo, Palermo

October 2023 - September 2024

Thesis period focused on analyzing the effectiveness of molecules that suppress premature stop codons caused by nonsense mutations. Evaluation of protein recovery through molecular biology analyses like Western Blot and Immunohistochemistry.

Intern

A.O.U.P. Paolo Giaccone, Cladibior Laboratory, Palermo

October 2021 - January 2022

Internship focused on the sterile preparation of blood samples from patients with autoimmune diseases for immunological and flow cytometry analysis. Responsible for the safe handling of samples and their preparation for subsequent analysis, ensuring compliance with laboratory protocols and data quality.

PhD student

University of Palermo, Palermo

December 2024 - Present

Currently engaged in the study of innovative therapies for restoring gene expression in rare genetic diseases using AntiSense Oligonucleotides (ASOs). The research focuses on optimizing molecular strategies for RNA modulation, with particular attention to diseases related to the DMD (Duchenne Muscular Dystrophy) and LMNA (Hutchinson-Gilford Progeria Syndrome) genes. I conduct in vitro experiments to evaluate the efficacy and safety of new therapeutic approaches, utilizing advanced molecular biology techniques such as RT-qPCR, Western Blot, and immunofluorescence.

Languages

- **Italian:** Native;
- **English:** Advanced C1 EF SET Certification

Additional Information

I hold both A and B driving licenses and have a strong passion for both individual and team sports, which I have practiced from a young age. I began judo at the age of 8, reaching the prestigious rank of 1st Dan black belt in 2016. In addition to sports, I have a keen interest in motorcycling, computing, and the gaming world, where I continue to develop technical skills.

I authorize the processing of my personal data included in this curriculum in accordance with Regulation (EU) 2016/679 (GDPR) and applicable national legislation.