LAURA GUERRICCHIO

PhD Student in biotechnology in translational medicine at University of Genova, Italy

I am Laura Guerricchio, a Ph.D. student in Biotechnology for Translational and Precision Medicine at the University of Genova, Italy. I have a Master's Degree in Biomedical Engineering, at the Polytechnic University of Turin, where I've learned the main cellular techniques, especially for adult human cardiomyocytes. Since that time the field of cardioprotection and cardiac regenerative medicine have fascinated me so much that I wanted to continue my studies with a Ph.D., which would allow me to pursue cardiac tissue research. Currently, my doctoral project involves the study of extracellular vesicles (EVs) released from human amniotic fluid stem cells (hAFSC-EVs), which recent studies have shown to have regenerative and protective potential on cardiomyocytes. My research is focused on the surface modification of hAFSC-EVs to specifically target them to cardiac cells in in vitro and in vivo models of anthracycline drug therapy-induced cardiotoxicity.

- Italian- Mother tongue
- English - B2 : **IELTS** British Council certificate 6.5

SPECIFIC SKILLS

- Cell culture (hAFSC, **cardiomyocytes**);
- Cellular imaging (Cytofluorimetry, Immunofluorescence);
- **Extracellular Vesicles Separation and Characterization**
- Imagej Analysis
- Excellent knowledge of Windows Office and Mac OS systems;
- Good knowledge of computer-aided design (CAD), particularly of the Rhinoceros program and SOLIDWORKS;
- Good knowledge of the Nastran-Patran programming language

SOFT SKILLS

- Problem Solving
- Team work and communication skills

QUALIFICATIONS

- BIOLOGY AND MANAGEMENT OF LABORATORY ANIMALS, RODENTS, AND LAGOMORPHS Certificate, Experimental Zooprophylactic Institute of Lombardy and Emilia Romagna "Bruno Ubertini" (2022)

EDUCATION

PHD STUDENT IN BIOTECHNOLOGY FOR TRANSLATIONAL AND PRECISION MEDICINE

University of Studies of Genoa | Genoa, Italy| 2022-present

- **Supervisor**: Sveva Bollini, PhD Assistant Professor, Regenerative Medicine Lab. Department of Experimental Medicine (DIMES) University of Genoa, Italy.
  Tel. +39 010 555 8393 | E-mail: sveva.bollini@gmail.com

- **Project**: Engineering of extracellular vesicles derived from amniotic fluid stem cell secretome (hAFSC-EVs) to optimize their cardioprotective effect in in vitro models of doxorubicin cardiotoxicity

MASTER'S DEGREE IN BIOMEDICAL ENGINEERING

Polytechnic University of Turin| Turin, Italy | 2020-2022

- **Grade**: 110/110 cum Laude

- The course aims to study methods for designing biocompatible materials, biomimetic scaffolds and drug delivery systems, static and dynamic cell culture techniques (bioreactors), methods for gene therapy and cell therapy strategies; methods for designing biomimetic systems for regenerative medicine.

- **Master Thesis**: During my master's thesis, I worked on the development of an in vitro electrostimulation system to induce maturation of adult human cardiomyocytes, to create an easy-to-use and reliable model to test new therapies and evaluate their efficacy on the regeneration of the myocardium. My thesis was part a European project, BIORECAR (Supervisor: Valeria Chiono), which deals with the development of new regenerative medicine techniques for the regeneration of infarcted myocardium.

BACHELOR'S DEGREE IN BIOMEDICAL ENGINEERING

Polytechnic University of Turin| Turin, Italy | 2015-2020