

PERSONAL INFORMATIONS

Ignazio Niosi



 Palermo, Italy



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Gender Male | Year of birth 1997 | Nationality Italian

EDUCATIONAL QUALIFICATION

Biomedical engineer (LM-21)

Professional experience

11/2023-Present **Ph.D. Student in Mechanical, manufacturing, management and aerospace innovation (M3AI), XXXIX Cycle.**
Università Degli Studi di Palermo (IT).

- Experimental and numerical modelling of biomaterials degradation and endogenous tissue growth. ERC Founded BioMitral Project, Cardiovascular Tissue Engineering D'Amore Lab, Fondazione Ri.MED.
- Tutoring and guiding figure for trainee thesis students.

01/2023-09/2023 **Research Assistant**
Istituto di Biorobotica of Scuola Superiore Sant'Anna, Pontedera (IT).

- Sizing, fabrication, mechanical and physico-chemical and biological characterization of an innovative bio-actuated catheter for targeted drug delivery: BioMeld project, funded by the European Commission, HORIZON-CL4-2021-DIGITAL-EMERGING-01-27.
- Tutoring and guiding figure for trainee thesis students.

03/2022-12/2022 **Trainee thesis student**
Istituto di Biorobotica of Scuola Superiore Sant'Anna, Pontedera (IT).

- Design, early development and feasibility study of a novel gelatin-based composite hydrogel conceived as injectable for the treatment of osteochondral defects. Framework of AD MAIORA project, funded by the European Commission, Union's Horizon 2020 Research and Innovation Programme (Grant Agreement No. 814413)

Experimental research activity, biomedical field.

EDUCATION AND FORMATION

03/2020-12/2022 **Master degree in Biomedical Engineering for tissue, cells and biotechnologies (BCT)**

Politecnico di Milano, Milan (IT).

Main courses:

- Biomaterials, Cellular bioengineering, Transport phenomena in biological systems, Biomolecules: structure and function, Bioengineering of the respiratory system,

Neuroengineering, Technologies for regenerative medicine, Biocompatibility and cell cultures lab, Bioinformatics and functional genomics

09/2021-03/2022

▪ **Erasmus+ Programme**

Universidade de Coimbra, Coimbra (PT).

Main activities:

- Tissue engineering lab activities: preparation of (1) composites having potential bone tissue engineering applications, (2) an injectable hydrogels for biomedical applications, (3) a bioactive glasses (Bioglasses) by an aqueous sol-gel method, (4) preparation of porous scaffolds using the foaming/mixing process with supercritical carbon dioxide.
- Biocompatibility course

10/2016-10/2019

Bachelor degree in Biomedical Engineering, biomaterials curriculum

Università degli studi di Palermo, Palermo (IT).

Main courses:

- Technologies for regenerative medicine, Tissue engineering, Membrane technologies for biomedical engineering, Biomaterials, Chemistry of biological molecules, Science and technologies of materials, Science of constructions and mechanics of biomaterials, Transport phenomena and thermodynamics, Biomechanical constructions.

09/2011-07/2016

Classical High School Diploma

Liceo Classico Giovanni Meli, Palermo (IT).

PERSONAL SKILLS

Native language Italian

Other languages

	COMPREHENSION		SPEAKING		WRITING ABILITY
	Listening	Reading	Interaction	Oral production	
<u>English</u>	B2	B2	B2	B2	B2
	TOEIC, B2.				
<u>Portuguese</u>	A2	A2	A1	A1	A1

Levels: A1/A2: Basic user - B1/B2: Intermediate user - C1/C2: Advanced user
[Common European Framework of Reference for Languages](#)

Communication skills

- I possess good communication skills acquired during subject my Master's degree courses. Different projects had an expository in English, supporting in my self-public speaking ability. Furthermore, thanks to my experience within the Erasmus+ program, my communication and exposition skills were additionally trained in Portuguese. In addition, working within the environment of European projects I had the opportunity to interface with different Institutes; attending meetings in which I had to relate and interact with others, contributing to my arguments and technical knowledges.

Organisational and management skills

- I autonomously proposed a master thesis activity that was enthusiastically accepted by my tutors, after I had thoroughly and critically studied the state of the art of the subject area chosen. In the course of my work, I had to interface with several reference figures from different institutions, learning to work with each one. I have always tried to be clear in the presentation and justification of the results, giving appropriate reasons for the choice of strategies followed. The work was developed between two different institutes, leading me to develop organizational skills to complete the work efficiently. Thanks to the unforeseen events I encountered, I developed the ability to reinvent myself and cope with schedule changes enthusiastically.
- Excellent ability in organizing work and managing the material needs of a laboratory with big technicians' affluence.

Professional skills

- Knowledge of laboratory standards in chemical, biological, silicon labs in addition to clean room environment, with the associated insight of the operating principles of the equipments.
- Expertise in natural derived hydrogels: storage, manipulation, shelf-life and biological and physico-chemical properties knowledges.
- Hydrogels characterization from a viscoelastic point of view: rheometer, dynamic mechanical analyzer, MTS instrumentation mastery.
- Knowledge of the electrospinning instrumentations and operating principles, common materials used for the fabrication of electrospun structures.

Contributions

-**Ignazio Niosi**, Lorenzo Vannozi, Diego Trucco, Silvia Farè and Leonardo Ricotti, “Injectable gelatin-based photocurable fiber-reinforced hydrogel for the treatment of osteochondral defects”, Conference contribution GNB2023, ISBN: 978-8-855-58011-3.

-Carlotta Salvatori, Diego Trucco, **Ignazio Niosi**, Leonardo Ricotti & Lorenzo Vannozi, “A Novel Steerable Catheter Controlled with a Biohybrid Actuator: A Feasibility Study”, Conference Paper Live Machine 2023, ISBN: 978-3-031-39504-8.

ADDITIONAL INFORMATION**Personal data**

The undersigned is aware that, pursuant to art. 26 of Law 15/68, and Articles. 46 and 47 of Presidential Decree 445/2000, false statements, falsified acts and use of false acts are punishable under the Penal Code and special laws. Moreover, the undersigned authorizes the processing of personal data, in accordance with the provisions of Law 675/96 of 31 December 1996.

Palermo, 25/05/2024