CARLOTTA MONDADORI

curriculum vitae

Personal Information

Date of Birth 5 April 1990
Citizenship: Italian
E-mail: carlottamondadori@gmail.com
carlotta.mondadori@grupposandonato.it

Education

- February 2013 – July 2015
  Master of Science Degree in Biomedical Engineering – Cells, Tissues and Biotechnology
  Politecnico of Milan, Milan (Italy)
  Graduation Thesis title: "*In situ* cardiovascular tissue engineering: study of MCP-1 delivery by Mesoporous Silica Nanoparticles and *in vitro* evaluation of response to chemokine releasing scaffolds"
  Final grades: 110/110 magna cum laude
- September 2009 – February 2015
  Bachelor of Science Degree in Biomedical Engineering
  Politecnico of Milan, Milan (Italy)
  Graduation Thesis title: "Quantitative assessment of obese adolescent ambulatory strategy and evaluation of degenerative process of obesity"
  Final grades: 99/110
- September 2004 – July 2009
  Secondary School Diploma
  Liceo Classico "Virgilio", Mantua (Italy)
  Secondary school specializing in humanities
  Final Grades: 84/100

Master Thesis

- Title:
  "*In situ* cardiovascular tissue engineering: study of MCP-1 delivery by Mesoporous Silica nanoparticles and *in vitro* evaluation of response to chemokine releasing scaffolds"
- Supervisors:
  Prof. Silvia Farè (Politecnico of Milan),
  Prof. Carlijn Bouten (Eindhoven University of Technology – TU/e),
  PhD candidate Shraddha Thakkar (Eindhoven University of Technology – TU/e)
- Thesis summary**:**
  My thesis was part of the research project "Cardiovascular *in situ* tissue engineering" at TU/e. The goal was to create an electrospun scaffold that could be directly implanted in the human body to exploit the body's native regenerative potential. Theprocess of *in situ* regeneration is guided by monocytes (Mo) that are attracted by monocyte chemoattractant protein-1 (MCP-1) through the process of chemotaxis. Attracted Mo infiltrate inside the scaffold and start to differentiate towards macrophages promoting the *in situ* regeneration. The main aim of the thesis was the development of a drug delivery system using Mesoporous Silica Nanoparticles (MSN) to obtain a controlled release of MCP-1 and to evaluate how Mo recruitment wasinfluenced by the release of MCP-1. The second aim of the study was to evaluate the recruitment of Mo both in static and dynamic conditions in response to the controlled release of MCP-1 obtained using MSN and the *burst* release of MCP-1.

Certifications

TOEIC (2012) - Score: 755

Work experience, stages, studies abroad

- November 2016 so far
  Ph.D. Student
  Cell and Tissue Engineering Laboratory – Galeazzi Orthopaedic Institute, Milan (Italy)
- March 2016 – October 2016
  Clinical Engineer
  Biomedicale Srl, Milan (Italy)
  Management of acceptance and safety testing of electrical medical equipment according toIEC62353 standard
  Management of electrical medical device inventory at ULSS 6 Vicenza

- September 2015– March 2016 — Internship
  Primavera Srl, Milan (Italy)
  Management of acceptance testing and electrical medical device inventory at ULSS 6 Vicenza and Sant'Antonio Abate hospital in Gallarate
- October 2014 – May 2015 — Research Internship - Master thesis project abroad with the scholarship "Thesis abroad"
  Laboratory for Cell and Tissue Engineering at TU/e, Eindhoven (The Netherlands)
  Research activity related to the development of a bioactive scaffold for in situ cardiovascular tissue engineering
- July 2006 — English Summer School organized by Study Tours
  University of St Andrews, St Andrews (Scotland)
  Attendance of lectures, conversation sessions and workshops to improve my speaking skills

Languages

- **English**
  Writing: Excellent – Speaking: Good
- **Spanish**
  Writing: Elementary – Speaking: Elementary

Social skills and competences

- Good interpersonal skills
- Ability to communicate with people from different cultures and backgrounds
- Predisposition to team-working with good collaborative skills
- Ability to work independently
- Good adaptability to unexpected and/or negative situations

Organisational skills and competences

- Well-developed critical thinking and analytical skills
- Strong motivation toreach the goals
- Problem-solving and decision-making skills
- Good planning skills with ability to prioritize tasks
- Predisposition and willingness to acquire new scientific competences

Technical skills and competences

- Laboratory skills:
  - Electrospinning technique
  - Biaxial testing
  - Microfluidics Techniques
  - Cell culture
  - ELISA (Enzyme-Linked ImmunoSorbent Assay)
  - Chemotaxis assays
  - Fluorescent cell staining
  - Use of confocal microscope
  - Basic knowledge of scanning electron microscopy (SEM)
  - Basic knowledge of Ibidi pump
  - Good command of Microsoft Office™ tools: Word™, Excel™ and PowerPoint™
- Statistical software: GraphPad Prism 5
- Software: Comsol, AutoCAD
- Programming languages : C++, MATLAB

I authorize the processing of my personal information under Legislative Decree 196/03