

Vittoria Pandolfi

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EDUCATION

- PhD in Biomedical Engineering** February 2013 - present
Université de Technologie de Compiègne – UTC
Major: Liver Tissue Engineering
Subject: Microencapsulation of hepatic cells in alginate beads for bioartificial liver design
- Master of Science in Biomedical Engineering** October 2012
Politecnico di Milano, Milan, Italy
Major: Cellular and Tissue Engineering, Biotechnology
Thesis: A fully-derived human placenta extract to induce the vascularization of engineered tissues
Passing Mark: 106/110
- Internship at the Tissue Engineering and Regenerative Medicine Laboratory** September 2011 – September 2012
J. Crayton Pruitt Family - Department of Biomedical Engineering - University of Florida, Gainesville, FL
- Bachelor of Science in Biomedical Engineering** March 2009
Università Alma Mater Studiorum di Bologna, Bologna, Italy
Thesis: Computational modeling analysis of “Acquired Long QT Syndrome” mechanisms in dialyzed patients
Passing Mark: 97/110

EXPERIENCE AND BACKGROUND

- Research scholar** September 2011 – September 2012
University of Florida, Gainesville, FL
Angiogenesis stimulation *in vitro* using a novel substrate derived from placenta
- Preparation of placenta-extract; protocol
 - Placenta-extract characterization: protein assay, spectrophotometry, and immunoassay (Human Cytokine Antibody Assay)
 - Cell isolation: endothelial cells and smooth muscle cells respectively from umbilical vein and artery
 - Formed microvessels analysis: optical and fluorescence microscope, SEM, RT-PCR
 - Dynamic cell culture: dual-perfusion bioreactor
- Laboratory safety training** May 2011
Department of Chemical Engineering at Politecnico di Milano; Milan, Italy
- Basic laboratory rules
 - Specific hazards: gas, electrical, chemical, and biological
 - Evacuation Procedures
 - Medical aid
- Laboratory workshop** October 2010 - January 2011
Department of Biomedical Engineering at Politecnico di Milano; Milan, Italy
Cell culture and micro-nanotechnologies
- Scaffold production by using soft-litography and electrospinning
 - Biological validation of the biomaterials: models and assays (*in vitro* and *in vivo*)
 - Morphological and chemical characterization of biological substrata by scanning electron microscopy (SEM) and laser profilometry
- Collaboration with C3MIG** November 2008 – May 2009

Università Alma Mater Studiorum Di Bologna; Bologna, Italy

- Electrophysiology of the heart
- Computational modeling of human cardiac myocyte through Matlab - Simulink
- Simulation of cardiac physiological and pathological events

SKILLS

Operating System: Microsoft Windows, Mac OS X

Programming Languages: Java

Applications: Microsoft Office, Matlab (Simulink), Eclipse, ImageJ, SketchUp, Photoshop

Languages: Italian (native), English (fluent – TOEIC 805/990), French (pre-intermediate)

Lab Techniques: Mammalian Cell Culture (Cell Isolation, Maintenance of Cells in Culture, and Manipulation of Cultured Cells), Electrophoresis, RT-PCR, Tissue Decellularization Methods, Histology, Immunoassay, and Basic Biochemistry Assays

Lab Equipment: Optical and Fluorescence Microscope, Scanning Electron Microscope (SEM), Spectrophotometer, Freeze-Dryer, Oscilloscope (Analogical and Digital), Laser Profilometer