
CURRICULUM VITAE

Carola Lauritano

E-mail carola.lauritano@gmail.com
Nationality Italian
Date of birth 21/02/1981

WORK EXPERIENCES

2009-2012 PhD

- Isolation, characterization and functional studies of human renal CD133⁺ progenitor cells
- Expansion and production of inducible lentiviral constructs.
- Molecular and pharmacological study of papillary progenitor cells focused on the synthesis and release erythropoietin under hypoxia.
- Analysis of the regulation of the glycoprotein CD133 by siRNA approaches, in particular the study of its role in glucose metabolism

MOLECULAR BIOTECHNOLOGY CENTER (MBC), University of Torino (Italy), Laboratory of Renal Immunopathology. Tutor: Prof. Benedetta Bussolati

2008 Fellowship

- Study the modulation of phenotype and biological effects of microvesicles released by Kaposi cells
- Analysis of stimulus by HIV-1-derived proteins or subjected to hypoxia and different pharmacological agents such as rapamycin.

Center for Research in Experimental Medicine (CeRMS), University of Torino (Italy), Laboratory of Renal Immunopathology and Angiogenesis. Tutor: Prof Giovanni Camussi.

2007-2008 Collaboration with Fresenius Medical Care

- Isolation, characterization and functional studies of endothelial progenitor cells
- Analysis of microvesicles release by endothelial progenitor cells and their regenerative function in acute kidney injury
- Development strategies for removal from the circulation of biologically active microvesicles released in the course of inflammatory

c/o Center for Research in Experimental Medicine (CeRMS), University of Torino (Italy), Laboratory of Renal Immunopathology and Angiogenesis. Tutor: Prof Giovanni Camussi.

Dr. Carola Lauritano

2006-2007 Thesis training

- Purification and characterization of adipose-derived stem cells from patients with lipoaspirate transplant
- Development of a cell encapsulation technology in alginate, for cell controlled release or three-dimensional cultures

Department of Drug Sciences, Laboratory of Pharmaceutical Chemistry and Technology, University of Pavia. Tutor: Prof. Maria Luisa Torre

2005-2006 Fellowship

- Techniques histological, histochemical and molecular study of congenital diseases

Pediatric Surgery, Laboratory of Pathological Anatomy, IRCCS Policlinico S. Matteo di Pavia. Tutor: Prof. Giuseppe Martucciello

EDUCATION AND TRAINING

2009-2012 PhD in Medical Pathophysiology at the Molecular Biotechnology Center (MBC), University of Torino (Italy), Laboratory of Renal Immunopathology. Tutor: Prof. Benedetta Bussolati.
Project title: *Molecular and pharmacological modulators of HIF in renal progenitors.*

2007 Master Degree in Medical and Pharmaceutical Biotechnology Sciences (Laurea Specialistica), University of Pavia

Thesis title: *Three-dimensional culture of stem cells from adipose tissue: an innovative biotech therapy for scars of burns.*

2004 Degree in Biotechnology Sciences (Laurea di Primo livello), University of Pavia

Thesis title: *Use of restriction enzymes for the study of gene mutation in the SBDS.*

PERSONAL SKILLS AND COMPETENCES

Language:

Mother tongue Italian

Other language: French, English and Portuguese

- Understanding B1
- Speaking A2
- Writing B1

Lab skills:

- Cell culture techniques: primary in vitro culture of adipose-derived stem cells, papillary progenitor cells (CD133⁺ cells) and endothelial progenitor cells. Culture of cell lines (HUVEC, HMEC, tumor cell lines, 293T ect.)
- Primary cell purification with immunomagnetic selection and cell sorting
- Cells cryopreservation
- Flow-cytometric analysis
- Immunofluorescence on cells or tissues
- Immunohistochemistry technique
- RNA purification
- Gene expression analysis techniques (PCR, RT-PCR, Real time PCR)
- Proteomic techniques (western blot and ELISA)
- Transfection techniques
- *In vitro* assays (migration, invasion, tube formation assay etc.)
- Gene transfer with lentiviral vectors
- Cloning techniques of lentiviral vectors
- Lentiviral particle production
- Purification of genomic and plasmidic DNA
- Preparation of alginate controlled-release capsules (3D culture system)

List of Publications:

- S. Villani, M. Marazzi, **C. Lauritano**, M. Faustini, M. Klinger, F. Crovato, S. Veronese, V. Rapisarda, M. Klinger, M.L. Torre, D. Vigo Statistical approach in alginate membrane

formulation for cell encapsulation in a GMPbased cell factory / - In: 34. annual meeting and exposition of the Controlled release society [S.I.] : Curran associates, 2007. - pp. 334-334

- Cantaluppi V, Weber V, **Lauritano C**, Figliolini F, Beltramo S, Biancone L, De Cal M, Cruz D, Ronco C, Segoloni GP, Tetta C, Camussi G. Protective effect of resin adsorption on septic plasma-induced tubular injury. Crit Care. 2010 Jan 11;14(1).
- Bussolati B, **Lauritano C**, Moggio A, Collino F, Mazzone M, Camussi G. Erythropoietin is produced by renal CD133⁺ progenitors under hypoxia and propyl hydroxylase inhibition. *Paper in press*