

ELISA DI PASQUALE

Elisa.dipasquale@irgb.cnr.it; elisadipa@gmail.com; elisa.dipasquale@humanitasresearch.it

CNR-Institute of Genetic and Biomedical Research (IRGB) - UOS of Milan

c/o Humanitas Research Hospital

Via Manzoni, 113

20089 Rozzano (Milan), Italy

Phone: +39 02 82245221, Fax: +39 0282245290

Websites: <http://www.irgb.cnr.it/people/elisa-di-pasquale/>

<https://www.humanitas-research.org/groups/stem-cell-group/>

Researcher ID: A-4751-2014

Scopus ID: 13404730900

Orcid ID: <https://orcid.org/0000-0003-2373-5635>

CURRENT POSITION

12/2011-Present **Tenured Scientist, Researcher III Level** - CNR- Institute of Genetic and Biomedical Research (IRGB), UOS of Milan

04/2012 – present **Responsible Stem Cell Unit** - Humanitas Research Hospital, Rozzano (MI), Italy

EDUCATION

12/2005 **PhD degree in Biotechnology applied to Medical Sciences** - University of Milan, Medical School, Italy

Dissertation: “Genetic and molecular studies in natural models of altered folliculogenesis”

07/2002 **Graduated with honours** (110/100 cum laude) in **Medical Biotechnology – University of Milan, Medical School, Italy**

Thesis: Role of the oocyte-specific TGF β factors in the ovarian folliculogenesis

07/1997 **High school Degree**, B.A Scientific Lyceum (60/60) – Liceo Scientifico “F.lli Palli”, Casale Monferrato (AL), Italy

APPOINTMENTS AND RESEARCH EXPERIENCES

2017 – present **National Scientific Qualification for Associate Professor**
(*Abilitazione Scientifica Nazionale, ASN, II Fascia*).

Academic Disciplines: Applied Biology (05/F1); Professional sanitary and applied Medical Technologies Sciences (06/N1)

2012 – present **Responsible Stem Cell Unit** - Humanitas Research Hospital, Rozzano (MI), Italy

01/2008 – 11/2011 Senior Post-Doctoral Fellow – Cardiovascular Research Laboratory, IRCCS Multimedica, Milan, Italy

11/2005 – 12/2007 **Postdoctoral Associate** – Laboratory of Molecular Vertebrate Embryology (Brivanlou Lab), The Rockefeller University, New York (USA)

11/2005 – 10/2006	Research collaborator – Institute of Endocrine Sciences, University of Milan, Medical School, Milan, Italy
11/2004	Visiting student - Department of Physiology of Reproduction and Behaviours, National Institute for Agricultural Research (INRA) - Nouzilly (France)
2002 – 2005	PhD student – Laboratory of Experimental Endocrinology, IRCCS Istituto Auxologico Italiano and Institute of Endocrine Sciences, University of Milan (Italy)
2000 – 2002	Undergraduate trainee – Laboratory of Experimental Endocrinology, IRCCS Istituto Auxologico Italiano and Institute of Endocrine Sciences, University of Milan (Italy)

HONORS AND AWARDS

2015: Premio Eccellenza – Best Oral Presentation, Italian Society of Cardiovascular Researches (SIRC)

2011: “New Investigator” Travel Award – Basic Cardiovascular Sciences (BCVS) Conference,

2006: Women & Science Postdoctoral Research Fellowship, The Rockefeller University, New York

TEACHING ACTIVITY

- Supervisor of graduate students in Medical Biotechnology, Biology and Medicine (total students: 4)
- Tutoring activity to PhD students (University of Milan, Open University -Milton Keynes, UK, Humanitas University and University of Verona) (total students: 5)
- Occasional teaching activity (University Elective Course in Molecular Cardiology; various ECM accredited courses)
- Scientific Mentor, Frontiers for Young Minds

MEMBERSHIP OF SCIENTIFIC SOCIETIES

European Society of Cardiology: member of the Working Groups in “Cell Biology of the Heart” and “Development, Anatomy and Pathology”

Stem Cell Research Italy

Italian Society of Cardiovascular Researches (SIRC)

International Society for Stem Cell Research (ISSCR)

American Heart Association

EDITORIAL ACTIVITY

Reviewer for the international peer reviewed journals: Cardiovascular Research, Journal of Cardiovascular Medicine, Circulation Research, Stem Cells and Development, Heart Rhythm, Nucleus, Journal of Cellular Medicine, Frontiers for Young Minds

Review Editor on the Editorial Board of Frontiers in Bioengineering and Biotechnology (Tissue Engineering and Regenerative Medicine)

INVITED LECTURES

- **International Winter School “Molecular Medicine”- 2020** “iPSC technology applied to cardiac disease: from mechanisms to therapies”, University La Sapienza, Rome (Italy) – December 14, 2020 (webinar)

- **International Winter School “Molecular Medicine” - 2019** “Round Table: CRISPR revolution”, University La Sapienza, Rome (Italy) – December 19, 2019
- **European Society of Cardiology (ESC) Congress 2019** “The challenge of mature cardiac tissue formed from pluripotent stem cell-derived cardiomyocytes”, Paris, France – August 31, 2019
- **International Meeting on Laminopathies 2017** “iPSC for modelling LMNA-dependent Cardiomyopathy”, Bologna, Italy – April 6-8, 2017
- **Humanitas Research Day** “Development of iPSC-based models for studying and treating inherited cardiac diseases”, Rozzano (Milan), Italy – May 10, 2016
- **Rome Cardiology Forum 2014** “Stem cells as a model of cardiovascular diseases”, Rome, Italy – January 29-31, 2014
- **University of Milan, Aperitivo per EXPO** “Cellule staminali personalizzate per il cuore”, Milan, Italy – May 24, 2014
- **Italian Society of Cardiology (SIC)** – “Genetica e genomica delle cardiomiopatie: dal laboratorio alla pratica clinica - Modelli cellulari di cardiomiopatia umana”, Rome, Italy – October 12, 2012

COMMUNICATIONS TO INTERNATIONAL CONFERENCES (selected – last 5 years)

- **Italian Society of Cardiovascular Researches (SIRC) 2019** “Investigation of mechanisms of contractile dysfunctions due to LMNA mutations in a iPSC-based cardiac model of laminopathy”, Imola, Italy – November 6-8, 2019 (oral presentation)
- **9th UK Nuclear Envelope and Chromatin Organization Meeting - 3rd International Meeting on Laminopathies” (joint meeting)** “Epigenetic inhibition of SCN5A by K219T-Lamin A/C induces myocardial conduction defects in an iPSC-based human model of cardiac laminopathy”, London, UK – September 2-5 2019 (oral presentation and Chair of the session” Cardio-Laminopathies”)
- **Basic Cardiovascular Sciences (BCVS) 2017** “LaminA/C mutations epigenetically dysregulate SCN5A gene expression, perturbing action potential properties in iPSC-derived cardiomyocytes”, Portland (OR), USA – July 10-13 2017 (oral presentation – Crasto S et al)
- **ISSCR 2017 – International Society for Stem Cell Research** “The K219T mutation in LMNA gene perturbs cardiac function through epigenetic modulation of SCN5A gene expression in a iPSC-based cardiac model of laminopathy”, Boston (MA), USA – June 14-17 2017 (oral presentation)
- **Italian Society of Cardiovascular Researches (SIRC) 2015** “Generation of iPSC-based cardiac models to investigate mechanisms of dilated cardiomyopathy due to lamin A/C mutations”, Imola, Italy – November 26-28, 2015 (oral presentation) (Di Pasquale E et al, *Vascular Pharmacology* 75 (Dec 2015), 49-50).

FUNDINGS (last 5 years)

2021-2024	Italian Ministry of Health – Ricerca Finalizzata: RF-2019-12370413, “PANTHER, Personalized medicine for primary cardiomyopathies: assessment of prognostic, diagnostic and therapeutic value of iPSC-based models in a large cohort of patients with dilated cardiomyopathy”, € 290.000, Role: PI-UO
05/2019-04/2023	H2020-FETOPEN, (PI-UO; Co-Pi: Dr. Leonardo Elia) – “LIONHEARTED - Light and Organic Nanotechnology for Cardiovascular Disease”, € 435.000
10/2018-09/2021	Italian Ministry of Health – Ricerca Finalizzata, (PI-UO) RF-2009-1504427 – <i>ELF induced maturation and differentiation of human cardiac stem cells and their implantation in nude mice: a preclinical study for treating heart attacks</i> , € 230.000

- 07/2018-06/2023 BIORECAR – (ERC – CoG - Valeria Chiono - Poli TO) (PI-UO) – *Direct cell reprogramming therapy in myocardial regeneration through an engineered multifunctional platform integrating biochemical instructive cues*, € 125.000
- 02/2017-02/2020: MIUR – PRIN 2015, (PI-UO) 2015583WMX_005 – *LMNA-related cardiomyopathy as a paradigm of cardiovascular precision medicine: innovative diagnostic, prognostic and therapeutic approaches*, € 89.000
- 11/2014-10/2018: Italian Ministry of Health – Young Researcher, (PI - Coordinator) GR-2011-02347743 - *Combining exome sequencing and induced pluripotent stem cells for identification of novel pathogenetic mechanisms and therapies in human cardiomyopathies.*, € 320.000
- 01/2015-12/2018: CNR - Flagship Project Interomics, Precision Medicine: cell-based omics for biomedical research applications, (PI- Coordinator) - *Chromatin signature of dilated cardiomyopathy due to Lamin A/C mutations: a comprehensive study through next-generation sequencing approaches and iPSC technology.*, € 200.000

PUBLICATION STATISTICS (January 2021)

Full articles in peer-reviewed journals: 35; Book Chapters: 2

h-INDEX: 17 (Scopus)

Total citations: 1512 (Scopus)

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