



## Sveva Bollini

Associate professor

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### *Education and training*

2009

#### **PhD**

University of Padova - Padova - IT

### *Academic experience*

2017 - ONGOING

#### **Associate Professor**

Università di Genova - Genova - IT

Comprehensive characterization of the human amniotic fluid stem cell secretome for myocardial regeneration

2014 - 2017

#### **Tenure Track Assistant Professor (Ricercatore Tempo Determinato Tipo B)**

Università di Genova Dipartimento di Medicina Sperimentale - Genova - IT

Analysis of the cardio protective potential of the human amniotic fluid stem cell secretome

2011 - 2013

#### **Post Doc Research Associate on a British Heart Foundation Programme Grant**

University of Oxford Dept. Physiology Anatomy and Genetics - Oxford - GB

Functional characterization of different subpopulation of resident epicardial derived progenitor cells in a preclinical murine model of myocardial infarction

2009 - 2011

#### **Post Doc Research Fellow on a British Heart Foundation Programme Grant**

UCL - University College London Institute of Child Health - London - GB

Analysis of the regenerative potential of resident epicardial derived progenitor cells in a preclinical mouse model of myocardial infarction

2008 - 2009

#### **Visiting PhD Student**

UCL - University College London Institute of Child Health - London - GB

Analysis of the cardiomyogenic regenerative potential of fetal stem cells

2006 - 2009

### **PhD Student**

Università di Padova - Padova - IT

Analysis of the cardiomyogenic regenerative potential of human fetal stem cells

## ***Language skills***

### **English**

Proficient

CAE Advanced

English Certificate

## ***Teaching activity***

2016 – 2019:

Member of the Institute of Higher Education (IANUA-ISSUGE) of University of Genova, Italy in charge of arranging seminars and lectures given by Italian experts in preclinical and clinical cardiac regenerative medicine for undergraduate medical and biotechnology students.

2014 - present:

Lecturer in Biology and Basic Genetics for the Bachelor of Science in Nursing, Physiotherapy and Physical Education and in Cell Biology II and Laboratory for the Master of Science in Medical-Pharmaceutical Biotechnology at the University of Genova, Italy.

## ***Postgraduate research and teaching activity***

### **Supervision of PhD students, residents and post-doctoral fellows**

- 2018-present: Supervisor of Ms. Ambra Costa, PhD student in Biotechnology for Translational Medicine, XXXIV Cycle, Experimental Medicine Department, University of Genova, Genova, Italy.
- 2019-present: Supervisor of Ms. Sara Turturo, Master of Science student in Medical Biotechnology, University of Genova
- 2017-2018: Co-Supervisor of Ms. Francesca Campagnoli, PhD student in Biotechnology for Translational Medicine, XXXIII Cycle, Experimental Medicine Department, University of Genova, Genova, Italy.
- 2017-2018: Supervisor of Ms. Ambra Costa, Master of Science student in Medical Biotechnology, University of Genova;
- 2015-2017: Supervisor of Ms. Carolina Balbi, PhD student in Biotechnology for Translational Medicine, XXX Cycle Experimental Medicine Department, University of Genova, Genova, Italy.
- 2014-2017: Supervisor of Mr. Edoardo Foscoli, Bachelor student in

Biotechnology, University of Genova, Genova, Italy.

- 2006-2007: Co-Supervisor of Ms. Elisa Bertacco for her MSc. thesis from the Biology Department of the University of Padova, Padova, Italy.

- 2006-2007:

Co-Supervisor of Ms. Sara Pizzato for her MSc. thesis from the Chemical Engineering Department of the University of Padova, Padova, Italy.

## **PhD committees membership**

2015 - present:

Member and Scientific Secretary of the PhD School in Biotechnology in Translational Medicine, University of Genova, Italy.

## ***Research interests***

1. Characterization of the cardiac regenerative paracrine potential of human amniotic fluid stem cells (hAFS) isolated from leftover samples of II trimester amniotic fluid obtained via amniocentesis prenatal screening or from III trimester clinical waste amniotic fluid from scheduled C-section delivery (perinatal hAFS) in preclinical rodent models of myocardial infarction and drug-induced cardiotoxicity;
2. Comprehensive profiling of fetal versus perinatal hAFS secretome fractions (including extracellular vesicles - EV)
3. Analysis of the myocardial renewal potential of hAFS secretome in extending the neonatal regenerative potential up to adulthood via functional restoration of resident cardiomyocyte proliferation
4. Biological and molecular profile of extracellular vesicles from II trimester amniotic fluid as informative markers

## ***Grants***

2019 - ONGOING

### **CARDIO-STAR Triggering CARDIOmyocyte renewal by harnessing the STem cell pARacrine potential**

University of Genova 'Curiosity Driven' Starting Grant - IT

59.500 Euro - Pricipal investigator

2014 - 2017

### **Analysis of the cardioprotective potential of human amniotic fluid stem cells**

Italian Ministry of University and Research (MIUR) - Bando 2012 Rita Levi Montalcini - IT

247.273 Euro - Pricipal investigator

## ***Editorial activity***

- Editorial Board Member of the European Journal of Extracellular Vesicles (EJEV) from 2020.

- Associate Editor of the Stem Cell Research section for *Frontiers in Cell and Developmental Biology*, *Frontiers in Genetics*, *Frontiers in Oncology* from 2017.
- Guest Editor of the Special Issue “Exosomes as Drug Carriers” in *Pharmaceutics* journal, 2020
- Reviewer for several international peer-reviewed journals, including the *Journal of Molecular and Cellular Cardiology*, *PLOSOne*, *Placenta*, *Stem Cells Translational Medicine*, *Pediatric Research*, *Frontiers in Bioengineering and Biotechnology*, section *Tissue Engineering and Regenerative Medicine*, *Cells*, etc. etc.
- Author of 35 peer-reviewed articles published on international journals and of 2 book chapters; H-index (from [www.scopus.com](http://www.scopus.com), Author ID: 22933852600): 19. Total Citations: 1637

### ***Assignments abroad***

31/03/2020: External Co-Examiner for the Research Degree PhD Candidate Miss E. Antoniadou at UCL- University College London

01/10/11-15/03/13: Post Doc Research Fellow, Department of Physiology, Anatomy and Genetics, University of Oxford, Oxford OX1 3PT, UK. Project title: Lineage Characterization of Adult Epicardium-Derived Progenitor Cells: Stemness, Multipotency and Contributions to Cardiovascular and Endogenous Repair.

07/01/09-30/09/11: Post Doc Research Fellow, Molecular Medicine Unit, UCL- Institute of Child Health, London WC1N 1EH, UK. Project title: Lineage Characterization of Adult Epicardium-Derived Progenitor Cells: Stemness, Multipotency and Contributions to Cardiovascular and Endogenous Repair.

### ***Other professional activities***

2019 - present: Invited Member of the International Society for Cell & Gene Therapy Cardiovascular Committee

2019 - present: Elected Member of the European Society of Cardiology Scientists of Tomorrow (ESC SoT) Nucleus from 2019.

2019 - present: Member of the Board of Directors e Founder member of Stem Cell Research Italy

2018 - present: Founder member of the Italian Society for Extracellular Vesicles (EVIta)

2018 - present: Member of the Boards of Directors of the International Placenta Stem Cell Society (IPLASS), from 2018.

2018 - present: Member of the COST Action “International Network for Translating Research on Perinatal Derivatives into Therapeutic Approaches (SPRINT) CA17116” (<https://www.sprint-cost.org>), Working Group 2: Preclinical Studies and Models, from 2018

2018 – present: Member of the Research Quality Control Working Group of the Department of Experimental Medicine, University of Genova.

2017 - present: Member of University of Genova Working Group for

promoting collaborative interaction with the Life Science Committee in Regione Liguria.

2016- present: External Reviewer for the H2020 Programme Future and Emerging Technologies (FET) Open and Pro-Active Initiative.

2015: External Expert for the European Cooperation in Science and Technology (COST) programme.

Member of the following scientific societies: European Society of Cardiology (ESC), Perinatal Stem Cell Society, International Placenta Stem cell Society (IPLASS), Italian Federation of Cardiology (FIC or SIC, Società Italiana di Cardiologia), Italian Society of Cardiovascular Research (SIRC, Società Italiana di Ricerca Cardiovascolare), Stem Cell Research Italy, Italian Society of Mesenchymal Stem Cells (GISM, Gruppo Italiano Staminali Mesenchimali), Italian Society for Biology and Genetics (AIBG, Associazione Italiana Biologia e Genetica), International Society of Extracellular Vesicles (ISEV).