

Genova, 09/12/2024

Dear ISHR-ES Council Members,

I am writing this letter to express my willingness to self-nominate for the next ISHR-European Section Council Member election.

Currently, I serve as Associate Professor in Experimental Biology and Group Leader at University of Genova, in the Department of Experimental Medicine, in Genova, Italy. I graduated Summa Cum Laude from the University of Padova, in Italy, in Medical Biotechnology in 2005 and obtained the PhD from the same University in 2009 with a study on the regenerative potential of human amniotic fluid-derived progenitor cells for cardiac repair, under the supervision of Prof. Paolo De Coppi (currently NIHR Professor, Nuffield Professor of Paediatric Surgery at Great Ormond Street Hospital for Children, UCL, London, UK). From 2009 until 2013 I worked on the reactivation of endogenous mechanisms of cardiac regeneration as Post-Doctoral Research Associate first in the Molecular Medicine Unit, at the UCL-Institute of Child Health and then in the Department of Physiology, Anatomy and Genetics at the University of Oxford, UK, in the research team led by Prof. Paul Riley. My research activity at the time significantly contributed to a landmark study in Nature (as equal first author: Smart N. & Bollini S., Nature 2011, doi.org/10.1038/nature10188), which demonstrated the de novo functional paracrine reactivation of epicardial progenitors in supporting cardiac repair.

In 2014 I was awarded the prestigious Young Investigator Award from the “Rita Levi Montalcini” Program for Young Scientists by the Italian Ministry of Research and Education to attract back to Italy young promising scientists working abroad. I was allowed to choose any Italian University to start my independent career as Assistant Professor and I decided to join the University of Genova, at the Department of Experimental Medicine; I was then promoted to Associate Professor in Experimental Biology in 2017, being the youngest one in my Department covering that position.

In the last years I have obtained funding to research the potential of the human perinatal progenitor cell secretome to enhance endogenous cardiac regeneration via paracrine effects, including the recently funded AmnioSMART (“*Defining the ideal human Amniotic progenitor Secretome for Mulation for future cArDioprotective paRacrine Therapy*”) project, as part of the European ERA4Health CARDINNOV program. The main topic of my research activity focuses on the functional paracrine role of the human fetal amniotic fluid stem cell-derived extracellular vesicles (EVs) in resurging endogenous mechanisms of cardioprotection and myocardial renewal; from 2014 I have contributed to this field with several publications (Lazzarini et al. Scientific Reports 2016; Balbi et al. Stem Cells Translational Medicine 2017; Balbi et al. International Journal of Cardiology 2019; Villa et al. Cancers 2021; Costa et al. Frontiers in Bioengineering and Biotechnology 2022). Recently, we have also reported the relevant paracrine anti-

oxidant effect of EVs directly separated from leftover samples of human amniotic fluid on 3D human cardiac microtissues (Senesi, et al. Redox Biology 2024).

I am an active member of numerous relevant national and international stem cell- and cardiac research societies. From 2019 I am a board member of the Cardiovascular Sub-Committee of the International Society for Cell and Gene Therapy (ISCT); from 2019 to 2022, I have also been selected as one of the six international members of the Scientists of Tomorrow Nucleus, within the Council of Basic Cardiovascular Science in the European Society of Cardiology (ESC): a group of young and international basic and clinical investigators, with the primary goal of supporting young scientists in the cardiovascular field to successfully develop their scientific career. Such experience has helped me further implementing important soft skills, including communication and dissemination abilities, thus allowing me to significantly contribute to educational and advocacy activities for trainees, PhD students and early career scientists. In 2024 I was also nominated Nucleus Member of the ESC Working Group on Cardiovascular Regenerative and Reparative Medicine ([www.escardio.org/Working-groups/Working-Group-on-Cardiovascular-Regenerative-and-Reparative-Medicine/About](http://www.escardio.org/Working-groups/Working-Group-on-Cardiovascular-Regenerative-and-Reparative-Medicine/About)).

Therefore, I would love to further join a new community so to use such acquired abilities and connections to help shape the future goals of the ISHR. I believe I can significantly contribute to the ISHR mission, especially to support and promote early- and mid-career scientists to attend international meetings and contribute to relevant events in the field of cardiovascular medicine and basic translational research.

I am ready to actively contribute and share my expertise and my enthusiasm for this field with others. By joining the ISHR-ES Council, I wish to contribute to their mission of promoting and supporting basic science, especially among early and mid-career members.

Thank you for taking the time to consider this application and I look forward to hearing from you in the near future.

Sincerely



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## Personal Information



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 ResearchGate profile: [https://www.researchgate.net/profile/Sveva\\_Bollini2](https://www.researchgate.net/profile/Sveva_Bollini2)  
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## Research Interests

My research activity mainly focuses on the functional characterization of the therapeutic paracrine potential of the secretome of human fetal and perinatal stem cells obtained from leftover and clinical waste samples of human amniotic from prenatal diagnosis. I am particularly keen on profiling the extracellular vesicles (EVs) secreted by these developmentally juvenile stromal progenitors as candidate therapeutics to enhance mechanisms of cardioprotection following ischemic and cardiotoxic injury and to rejuvenate myocardial renewal. More recently, I have been also interested in evaluating whether the EVs within leftover samples of human amniotic fluid can counteract and inhibit pathological ageing and oxidative stress. I have developed major expertise in the field of stem cell paracrine biology and cardiac regenerative medicine and I would like to apply my know-how also to translational research against inflammaging disorders.

## Current and Previous Employment

- 14/09/17- present **Associate Professor in Experimental and Cellular Biology**, Dept. of Experimental Medicine (DIMES), University of Genova, Genova, Italy. Main research interest: paracrine profiling of the human progenitor cell secretome for regenerative medicine.
- 15/09/14-14/09/17 **Tenure Track Assistant Professor**, Dept. of Experimental Medicine (DIMES), University of Genova, Italy.
- 18/03/13-14/09/14: **Post Doc Research Fellow**, in prof. Ranieri Cancedda's lab, Regenerative Medicine Unit, IRCCS Ospedale Policlinico San Martino, Genova, Italy
- 01/10/11-15/03/13: **Post Doc Research Associate** in prof. Paul Riley's lab at British Heart Foundation Centre of Research Excellence, Department of Physiology, Anatomy and Genetics, University of Oxford, Oxford, UK.
- 07/01/09-30/09/11: **Post Doc Research Associate** in prof. Paul Riley's lab, Molecular Medicine Unit, UCL- Institute of Child Health, London, UK.
- 11/01/08-31/12/08: **Visiting PhD Student** in Dr. Paolo De Coppi's lab, UCL - Institute of Child Health and Great Ormond Street Hospital, London, UK.
- 01/01/06-10/01/08: **PhD Student**, Stem Cell Processing Laboratory, Pediatric Department, University of Padova, Italy.
- 01/05/05-31/12/05: **Post-graduate Research Fellow**, Stem Cell Processing Laboratory, Pediatric Department, University of Padova, Italy.

## Education

- 10/11/2020 **Italian national qualification as Full Professor in Experimental and Cellular Biology.**
- 20/03/2009 **PhD** in Developmental Medicine and Reprogramming Science, Immunology and Onco-hematology curriculum, Pediatric Department, University of Padova. Padova, Italy.
- 06/04/2005 **Master of Science in Medical Biotechnology Summa Cum Laude**, University of Padova, Padova, Italy.

## Professional Skills

- Great communication and leadership skills. Great team-work and mentoring attitude
- **Daily supervision of Undergraduates, PhD students and Post Doc fellows:**
  - 2014-present: 4 Post-Docs; 2 Research Fellows, 4 PhD Students in "Biotechnology in Translational Medicine", 4 Bachelor Students in Biotechnology, 2 Master Students in Medical-Pharmaceutical Biotechnology, Dept. of Experimental Medicine, University of Genova, Genova, Italy.
  - 2011-2012: Co-Tutor 1 PhD Student, Dept. of Physiology, Anatomy and Genetics, University of Oxford, UK.
  - 2006-2007: 1 Master Student of Medical Biology; 1 Master Student in Chemical Engineering, University of Padova, Italy.
- **Academic Responsibility:**
  - 2024-present: **Coordinator of the PhD Course "Biotechnology in Translational Medicine", Dept. of Experimental Medicine, University of Genova.**

2022-present: **Representative for the Technology Transfer Office, Dept. of Experimental Medicine, University of Genova.**  
 2018 - 2024: Member of the Research Committee of the Dept. of Experimental Medicine, University of Genova, Italy.  
 2014-present: Lecturer in Biology and Basic Genetics; Stem Cell and Regenerative Medicine and Animal Models in Biotechnology, at University of Genova, Italy.  
 14/07/2021: External Co-Examiner for Miss C. McQuitty, PhD candidate at King's College London, London, UK.  
 31/03/2020: External Co-Examiner for Miss E. Antoniadou, PhD candidate at UCL- University College London, London, UK.

#### ▪ Scientific Responsibility:

- Member of the COST Action "International Network for Translating Research on Perinatal Derivatives into Therapeutic Approaches (SPRINT) CA17116", 2017-2022;
- Member of national Board of Directors and Founder of Stem Cell Research Italy, from 2019 (<http://stemcellitaly.it/consiglio-direttivo-della-scr-italy/gallery/302/>)
- Founder member of the Italian Society for Extracellular Vesicles (EVIta) in 2018;
- Member of the international Board Committee of the International Placenta Stem Cell Society (IPLASS), from 2018 (<https://www.iplassociety.org/board-of-directors>)
- Remote Evaluator for the European Innovation Council for the Pathfinder programme;
- External Expert for in Science and Technology (COST) programme;
- External Evaluator for the UK Medical Research Council (MRC) grant programme;
- External Reviewer for the H2020 Future and Emerging Technologies (FET) Open and Proactive and programme;
- Reviewer for international journals including: Journal of Molecular and Cellular Cardiology, Journal of Cellular and Molecular Medicine, Stem Cells, Placenta, Stem Cells Translational Medicine, Pediatric Research, Cells, International Journal of Molecular Sciences, Frontiers in Bioengineering and Biotechnology, Cardiovascular Research, etc.;

#### ▪ Editorial Activity:

- Junior Editorial Board Member of Extracellular Vesicles & Nucleic Acids.
- Guest Editor for the Special Issue: "Exosomes as Drug Carriers for Cancer Therapy", in the Pharmaceutics journal
- Section Editor for the section "Stem cell therapy" in the Current Stem Cell Research & Therapy journal
- Member of the Editorial Board of Pharmaceutics.
- Guest Editor of the Special Issue "Exosomes as Drug Carriers" in Pharmaceutics journal
- Guest Editor for the Research Topic "Rejuvenation of Multiple Tissues: What Works and What Does Not?" in Frontiers in Cell and Developmental Biology Molecular Medicine.
- Guest Editor for the Research Topic "Novel Strategies to Repair the Infarcted Heart?" and "Volume II Novel Strategies to Repair the Infarcted Heart?" in Frontiers in Cardiovascular Medicine Cardiovascular Biologics and Regenerative Medicine.
- Associate Editor of the Stem Cell Research section for Frontiers in Cell and Developmental Biology, Frontiers in Genetics, Frontiers in Oncology.

### Honors and Awards

- Elected Member of the international European Society of Cardiology, **Nucleus** of the **Working Group on Cardiovascular Regenerative and Reparative Medicine** (from 2024 to 2027);
- Elected Member of the international European Society of Cardiology, Council of Basic Cardiovascular Science **Scientist of Tomorrow Nucleus** (from 2019 to 2021);
- Invited Member of national **Board of Directors and Founder of Stem Cell Research Italy** (from 2019: <http://stemcellitaly.it/consiglio-direttivo-della-scr-italy/gallery/302/>);
- Invited Member of the **Cardiovascular Sub-Committee of the International Society for Cell and Gene Therapy** (ISCT, from 2019: <https://www.isctglobal.org/about/isct-committees/targeted-organ>);
- Front Cover of Stem Cells Translational Medicine, Volume 6, Issue 5, April-May 2017
- February 2014: **Young Investigator Award by the Italian Ministry of University and Research (MIUR) as part of the 2012 Rita Levi Montalcini Programme for Young Researchers** to invite back to Italy scientists working abroad

### Funding

Funding Programme	Project Title	Total Allocated Budget	Duration	Role
<b>Marie Skłodowska-Curie Action - Doctoral Network</b> Horizon 2023	Exploring the therapeutic potential of perinatal cell SECRETomes – SECRET	259,438 Euros	2024-2028	<b>Beneficiary</b>
<b>ERA4Health Joint Transnational Call for Proposals 2023 CARDINNOV</b> , EU partnership	Defining the ideal human Amniotic progenitor Secretome for Mutation for future cArDioprotective paRacrine Therapy – <i>AmnioSMART</i>	1,171,493 Euros	2024-2027	<b>Coordinator of Consortium – Main Applicant</b>

<b>PRIN PNRR 2022</b> Italian Ministry of University and Research (MUR), Italy	Precise cardiac organ-on-chip modeling to improve extracellular vesicle-based paracrine therapy against myocardial injury – <i>RECOVERY</i>	224,971 Euros	2023-2025	<b>Unit Leader – Co-Applicant</b>
<b>PRIN 2022</b> Italian Ministry of University and Research (MUR), Italy	Design and validation of an advanced delivery system for microRNAs and stem cell-derived extracellular vesicles for direct cardiac reprogramming through a mechanically-stimulated human cardiac scar model – <i>DESIRE</i>	197,500 Euros	2023-2025	<b>Unit Leader – Co-Applicant</b>
<b>Curiosity Driven Under 40 Starting Grant –</b> University of Genova, Genova, Italy	Triggering CARDIOmyocyte renewal by harnessing STem cell pARacrine potential – <i>CARDIOSTAR</i>	59,500 Euros	2019-2021	<b>Principal Investigator – Main Applicant</b>
<b>2012 Rita Levi Montalcini Programme for Young Researchers</b> Italian Ministry of University, Education and Research (MIUR), Italy	Analysis of the cardiac regenerative potential of the human amniotic fluid stem cell Secretome.	247,273 Euros	2014-2017	<b>Principal Investigator – Main Applicant</b>

### Organization and Faculty Roles in National and International Meetings

- Member of the **Scientific Board for the International Placenta Stem Cell Society (IPLASS)** and **CTESS Joint Meeting**, Izola, Slovenia, 19-20/09/2024.
- Nominated Social Media Congress **Twitter Ambassador for European Society of Cardiology (ESC) Frontiers in Cardiovascular Biomedicine 2022 - FCVB 2022 Congress**, 29/04/22-01/05/22, Budapest, Hungary.
- Member of the **Scientific Board for the 6th International Placenta Stem Cell Society (IPLASS) Meeting** and Final Meeting of the COST Action (CA17116) “International Network for Translating, Research on Perinatal Derivatives into Therapeutic Approaches”, Brescia, Italy, 02-03/09/2022.
- Head of the **Organizing and Scientific Committee** of the 11th Meeting of the **Italian National Stem Cell Research Italy** society, 08-10/06/2022 Genova, Italy.
- Invited member of the **Congress Program Committee (CPC) as European Society of Cardiology Scientists of Tomorrow Nucleus representative for the 2022 ESC Frontiers in Cardiovascular Biomedicine Congress, FCVB 2022**, Budapest, Hungary, 29/04-01/05/2022.
- Invited member of the **Congress Program Committee (CPC) as European Society of Cardiology Scientists of Tomorrow Nucleus representative for the 2019 ESC annual meeting in Paris**, France, 31/08-04/09/2019.
- Member of the **Scientific Committee** member for the **Italian Society of Cardiovascular Research (SIRC - Società Italiana di Ricerca Cardiovascolare)** for the XXIV Congress, 18-20/10/2023, Imola, Italy, for the III National Forum of the “New Roads in Cardiovascular Research” (<http://www.sirccardio.it/attivita/forum-2016>) at University of Genova, Genova, Italy, 18/06/2016.

### Membership of Scientific Societies

Member of: International Society for Heart Research (**ISHR**); the Scientists of Tomorrow Nucleus (2019-2023), the Working Group (WG) on Myocardial Function, WG Cardiovascular Regenerative & Reparative Medicine (CARE), and of WG on Cellular Biology of the heart, within the European Society of Cardiology (**ESC**); Member of the Council on Basic Cardiovascular Science (ESC); International Society for Placenta Stem Cells (**IPLASS**); International Society for Extracellular vesicles (**ISEV**); Italian Society for Extracellular Vesicles (**EVIta**); Italian Society for Cardiovascular Research (**SIRC**); Italian Stem Cell Research Italy; Italian Association of Experimental Biology and Genetics (**AIBG**).

### Invited and Selected Podium Presentations

- **Invited seminar** at UK Essen - Universitätsklinikum Essen, Essen, Germany, 16/12/2024.
- **Invited Faculty Speaker** at International Placenta Stem Cell Society (IPLASS) and CTESS Meeting, Izola, Slovenia, 19-20/09/2024.

- **Invited Faculty Speaker** at the Biennial Meeting of the ESC Working Groups on Cellular Biology of the Heart & Myocardial Function, 25-27/11/2023, Naples, Italy.
- **Invited Faculty Speaker** at the International Pancreas & Islet Transplant Association-International Xenotransplantation Association-Cell Transplantation and Regenerative Medicine Society (IPITA-IXA-CTMRS) 2023 joint congress, 26-29/10/2023, San Diego, US.
- **Invited Speaker** for the “Extracellular Vesicles In Cardiovascular Disease: Therapeutic Approach And Biomarker Tools” webinar for the Extracellular Vesicles And Circulating Nucleic Acids – EVCNA (Extracellular Vesicle and Circulating Nucleic Acid) Journal, 05/05/23.
- **Invited online seminar** for the PhD School in Experimental Medicine At University Of Milan, 21/06/2022.
- International Journal of Molecular Sciences (IJMS) 2021 **invited Lecture** for the “Amniotic Fluid and Placental Membranes As Sources Of Stem Cells” webinar, 11/11/2021.
- **Invited online Lecture** for Fondazione Istituto Di Ricerca Pediatrica, 07/04/2021, Padova, Italy
- **Invited online Lecture** for The Institute of Hepatology, 29/09/2020, King's College London, London, UK.
- **Invited Faculty Speaker** at IX Stem Cell Research Italy National Meeting, 21-23/6/2018, Milan, Italy.
- **Invited Lecture** at CardioCentro Ticino Foundation, 26/04/2018 Taverne, Switzerland.
- **Invited Faculty Speaker** at 51st ESCI (European Society for Clinical Investigation) Annual Meeting, 17-19/5/2017, Genova, Italy
- **Invited seminar** at Ludwig Boltzmann Institute of Experimental and Clinical Traumatology, 19/12/2016 Vienna, Austria.
- **Invited Faculty Speaker** at the IV EUSTM (European Society for Translational Medicine) Meeting 17-20/10/2016, Praga, Czech Republic.
- **Invited Faculty Speaker** at VII Stem Cell Research Italy Meeting, 21-23/6/2016, Bologna, Italy
- **Invited Lecture** at IRCCS Centro Cardiologico Monzino, 15/9/2015 Milan, Italy.
- **Invited Faculty Speaker** at the IV International Symposium on Thymosins in Health and Disease, 23-25/10/2014, Rome, Italy.
- **Invited seminar** at Leiden University Medical Center, 26/8/2014, Leiden, The Netherlands.
- **Invited Faculty Speaker** at Baby on Bypass Meeting, IRCCS Fondazione Gaslini, 28-29/3/2014, Genova, Italy
- Selected oral presentation at 2021 TERMIS 6th World Congress on-line meeting, 15-19/11/2021.
- Selected oral presentation at TERMIS EU 2019 Meeting, 27-31 Maggio 2019, Rodi, Greece.
- Selected oral presentation at IV IPLASS Meeting, 19-21/9/2016, Riyadh, Saudi Arabia.
- Selected oral presentation at 2016 FCVB (Frontiers in CardioVascular Biology) Meeting 8-10/07/2016, Florence, Italy.
- Selected oral presentation at III IPLASS Meeting, 10-12/9/2014, Granada, Spain.

### Publications in International Peer-Reviewed Journals

Publications: **62**. Articles: 60. Volume Chapters: 2. H-index: **28** (www.scopus.com, Author ID:22933852600); 31 (Google scholar). Total Citations: **3486** (www.scopus.com); 4795 (Google scholar). Selected publications are reported here.

- Senesi G, Guericchio L, Ghelardoni M, Bertola N, Rebellato S, Grinovero N, Bartolucci M, Costa A, Raimondi A, Grange C, Bolis S, Massa V, Paladini D, Coviello D, Pandolfi A, Bussolati B, Petretto A, Fazio G, Ravera S, Barile L, Balbi C, **Bollini S**. *Extracellular vesicles from the trimester human amniotic fluid as paracrine conveyors counteracting oxidative stress*. Redox Biol. 2024 Jun 17;75:103241. doi: 10.1016/j.redox.2024.103241
- Welsh JA et al. *Minimal information for studies of extracellular vesicles (MISEV 2023): From basic to advanced approaches*. J Extracell Vesicles. 2024 Feb; 13(2):e12404. doi:10.1002/jev2.12404.
- Evans PC, Davidson SM, Wojta J, Bäck M, **Bollini S**, Brittan M, Catapano AL, Chaudhry B, Cluitmans M, Gnechchi M, Guzik TJ, Hofer I, Madonna R, Monteiro JP, Morawietz H, Osto E, Padró T, Sluimer JC, Tocchetti CG, Van der Heiden K, Vilahur G, Waltenberger J, Weber C. *From novel discovery tools and biomarkers to precision medicine - basic cardiovascular science highlights of 2021/2022*. Cardiovasc Res. 2022 Jul 28;cvac114. doi: 10.1093/cvr/cvac114.
- Costa A, Balbi C, Garbati P, Palamà MEF, Reverberi D, De Palma A, Rossi R, Paladini D, Coviello D, De Biasio P, Ceresa D, Malatesta P, Mauri P, Quarto R, Gentili C, Barile L, **Bollini S**. *Investigating the Paracrine Role of Perinatal Derivatives: Human Amniotic Fluid Stem Cell-Extracellular Vesicles Show Promising Transient Potential for Cardiomyocyte Renewal*. Front Bioeng Biotechnol. 2022 Jun 8;10:902038. doi: 10.3389/fbioe.2022.902038. eCollection 2022.
- Villa F, Bruno S, Costa A, Li M, Russo M, Cimino J, Altieri P, Ruggeri C, Gorgun C, De Biasio P, Paladini D, Coviello D, Quarto R, Ameri P, Ghigo A, Ravera S, Tasso R, **Bollini S**. *The human fetal and adult stem cell secretome can exert cardioprotective paracrine effects against cardiotoxicity and oxidative stress from cancer treatment*. Cancers (Basel). 2021 Jul 24;13(15):3729. doi: 10.3390/cancers13153729
- Costa A, Ceresa D, De Palma A, Rossi R, Turturo S, Santamaria S, Balbi C, Villa F, Reverberi D, Cortese K, De Biasio P, Paladini D, Coviello D, Ravera S, Malatesta P, Mauri P, Quarto R, **Bollini S**. *Comprehensive Profiling of Secretome Formulations from Fetal- and Perinatal Human Amniotic Fluid Stem Cells*. Int J Mol Sci. 2021 Apr 2;22(7):3713. doi: 10.3390/ijms22073713.
- Davidson SM, Padró T, **Bollini S**, Vilahur G, Duncker DJ, Evans PC, Guzik T, Hofer IE, Waltenberger J, Wojta J, Weber C. *Progress in cardiac research: from rebooting cardiac regeneration to a complete cell atlas of the heart*. Cardiovasc Res. 2021 Aug 29;117(10):2161-2174. doi: 10.1093/cvr/cvab200.
- **Burrello J**, **Biemmi V**, Dei Cas M, Amongero M, Bolis S, Lazzarini E, **Bollini S**, Vassalli G, Paroni R, Barile L. *Sphingolipid composition of circulating extracellular vesicles after myocardial ischemia*. Sci Rep 2020 Sep 30;10(1):16182. doi: 10.1038/s41598-020-73411-7.
- Balbi C, Lodder K, Costa A, Moimas S, Moccia F, van Herwaarden T, Rosti V, Campagnoli F, Palmeri A, De Biasio P, Santini F, Giacca M, Goumans MJ, Barile L, Smits AM, **Bollini S**. *Reactivating endogenous mechanisms of cardiac regeneration via paracrine boosting using the human amniotic fluid stem cell secretome*. Int J Cardiol. 2019 Jul 15;287:87-95. doi: 10.1016/j.ijcard.2019.04.011. Epub 2019 Apr 4.

- Vieira JM, Howard S, Villa del Campo C, **Bollini S**, Dubè K, Masters M, Barnette D, Rohling M, Xin S, Hankins L, Gavriouchkina D, Williams R, Metzger D, Chambon P, Sauka-Spengler T, Davies B, Riley PR. *BRG1-SWI/SNF-dependent regulation of the Wt1 transcriptional landscape mediates epicardial activity during heart development and disease*. Nat Comm, 2017 Jul 24;8:16034. doi: 10.1038/ncomms16034.
- Balbi C, Piccoli M, Barile L, Papait A, Amirotti A, Principi P, Reverberi D, Pascucci L, Becherini P, Varesio L, Mogni M, Coviello D, Bandiera D, Pozzobon M, Cancedda R, **Bollini S**. *First characterization of human amniotic fluid stem cell extracellular vesicles as a powerful paracrine tool endowed with regenerative potential*. Stem Cells Transl Med. 2017 May;6(5):1340-1355.
- Lazzarini E, Balbi C, Altieri P, Pfeffer U, Gambini E, Canepa M, Varesio L, Bosco MC, Coviello D, Pompilio G, Brunelli C, Cancedda R, Ameri P, **Bollini S**. *The human amniotic fluid stem cell secretome effectively counteracts doxorubicin-induced cardiotoxicity*. Sci Rep. 2016 Jul 21;6:29994. doi: 10.1038/srep29994.
- Klotz L, Norman S, Vieira JM, Masters M, Rohling M, Dubé KN, **Bollini S**, Matsuzaki F, Carr CA, Riley PR. *Cardiac lymphatics are heterogeneous in origin and respond to injury*. Nature. 2015 Jun 4;522(7554):62-7.
- Balmer GM\*, **Bollini S**\*, Dubé KN, Martinez-Barbera JP, Williams O, Riley PR. *Dynamic haematopoietic cell contribution to the developing and adult epicardium*. Nat Commun. 2014 Jun 6;5:4054. \* **Joint first authorship**.
- **Bollini S**, Vieira JM, Howard S, Dubé KN, Balmer GM, Smart N, Riley PR. *Re-activated adult epicardial progenitor cells are a heterogeneous population molecularly distinct from their embryonic counterparts*. Stem Cells Dev. 2014 Aug 1;23(15):1719-30.
- Evans MA, Smart N, Dubé KN, **Bollini S**, Clark JE, Evans HG, Taams LS, Richardson R, Lévesque M, Martin P, Mills K, Riegler J, Price AN, Lythgoe MF, Riley PR. *Thymosin  $\beta$ 4-sulfoxide attenuates inflammatory cell infiltration and promotes cardiac wound healing*. Nat Commun. 2013;4:2081. doi: 10.1038/ncomms3081.
- Smart N\*, **Bollini S**\*, Dubé KN, Vieira JM, Zhou B, Riegler J, Price AN, Lythgoe MF, Davidson S, Yellon D, Pu WT and Riley PR. *De novo cardiomyocytes from within the activated adult heart after injury*. Nature. 2011; 474(7353): 640-4. \* **Joint first authorship**.
- **Bollini S**, Cheung KK, Riegler J, Dong X, Smart N, Ghionzoli M, Loukogeorgakis SP, Maghsoudlou P, Dubé KN, Riley PR, Lythgoe MF, De Coppi P. *Amniotic Fluid Stem Cells Are Cardioprotective Following Acute Myocardial Infarction*. Stem Cell and Development. 2011; 20(11):1985-94.

## Reference Contacts

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### **Prof. Paolo De Coppi**

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As for December 2024,

Sincerely,

Sveva Bollini

