

Curriculum Vitae
Massimo M. Santoro

Current position

Full Professor in Cellular and Molecular Biology, Department of Biology, University of Padua, IT
ORCID: 0000-0003-4605-5085

Education

1994 BS in Biology "*summa cum laude*" and Special Award, University of Torino (Italy)
1996 Master in Biology and Biochemistry, University of Torino (Italy)
2001 Ph.D. in Cellular and Molecular Biology, Open University, London (UK)

Professional experience

1992-1996 Undergraduate student, Department of Biomedical Sciences and Oncology, University of Turin.
1996-2001 PhD student, Open University c/o Department of Biological and Technological Research (Dibit), University of Vita e Salute San Raffaele, HSR.
2001-2008 Assistant Professor, Faculty of Science, University of Piemonte Orientale "A. Avogadro".
2001-2004 Post-doc fellow, Department of Medical Science, University of Piemonte Orientale "A. Avogadro".
2004-2008 Post-doc fellow, Department of Biochemistry and Biophysics, University of California, San Francisco, UCSF
2008-2014 Assistant Professor and Group Leader at Molecular Biotechnology Center, University of Turin, Italy
2013-2017 Full Professor, Dept of Oncology, KUL and Group Leader, VIB, Belgium
2013-2016 Associate Professor in Molecular Biology and Group Leader at Molecular Biotechnology Center University of Turin, Italy
2016-2017 Full Professor, Dept. of Biotechnology and Health, University of Turin, Italy
Since 2017 Full Professor, Dept. of Biology, University of Padua, Italy
Since 2020 Group Leader, Venetian Institute of Molecular Medicine (VIMM), Padova, IT

Research Activities

- Molecular and metabolic basis of health and diseased angiogenesis.
- Lipid metabolism in cancer spreading.
- ROS signaling and antioxidants in vascular homeostasis and cancer progression.

Patent

- Patent number PCT/EP2011/051738. UBIAD1 for cellular coenzyme Q10 synthesis and cardiovascular oxidative protection.
- In vivo redox and metabolic endothelial biosensors (submitted).
- UBIAD1 inhibitors UBIAD1i® (under evaluation).

International Awards and Honours

2020 ERC-PoC
2015 ERC Consolidator Grant
2014 Odysseus FWO Awards
2010 Marie Curie Reintegration Award and Grant
2008 HFSP Career Developmental Award and Grant
2005 HFSP Long-term fellow
2004 EMBO Long-term fellow

Invited speaker at National or International meeting

Cardiac regeneration and Vascular Biology, Venice, IT. Cell death and disease, Garda, IT. SFRR Symposia, Belgrade, SE. GfMVB, Heidelberg, DE. Angiogenesis Gordon Conference, Maine, US. EVBO-ESM Meeting, Maastricht, NL. Fusion Conference in Cell Death, Cell Stress and Metabolism, Puerto Vallarta, ME. Dutch German vascular biology meeting, Amsterdam, NL. European Zebrafish PI Meeting, Trento, IT. 7th Oxidative Stress, Calcium Signaling and TRP Channel World Congress Antalya, Turkey. Dutch German Vascular Biology meeting, Amsterdam, NL. International Munich ROS Meeting, Munich, DE. APVBO Guangzhou, China. Cardiovascular Meeting, ESC, Padua, IT. EMBO Redox Meeting, Moscow, RU. Redox Biology Meeting, Paris, FR. EVBO meeting, Geneva, CH; 10th Zebrafish European Meeting, Budapest, HU. CRISPR-based Genome Engineering Meeting, Leuven, BE; YUM Meeting, Velen, DE; Gordon Conference in Redox Biology, Vermont, USA; Gordon Conference in Endothelial Cell Phenotype, Spain; Cancer Metabolism, San Francisco, USA. Cell Symposia Multifaceted Mitochondria, Chicago, USA; XVII Telethon Convention, Trento, Italy; Angiogenesis: Basi molecolari ed implicazioni terapeutiche VI, Pontignano, Italy; Gordon Conference on Endothelial Cell Behaviour, Rode Island, USA; 8th international CoQ10 conference, Bologna, Italy; 83rd EAS Congress, Glasgow, Scotland. 8th International Kloster Seeon Meeting "Angiogenesis", Seeon, Germany; 4th International Conference on Ophthalmology, Maryland, USA; International Vascular Biology Meeting, Kyoto, Japan; Keystone Symposia on Metabolism and Angiogenesis, USA. NAVBO meeting, Vascular Biology, Hyannis, MA, USA; 8th European Zebrafish meeting, Barcelona, Spain; ABCD meeting, Ravenna, Italy; Angiogenesis: Basi molecolari ed implicazioni terapeutiche V, Pontignano, Italy. Vesalius Research Center, VIB, Leuven, Belgium, ABCD meeting, Keynote lecture, Parma, Italy; Fondazione Guido Bernardini, Milano, Italia, Fondazione Guido Bernardini, Milano, Italia; "6th European Zebrafish meeting", Cardiovascular workshop, Rome, Italy; 1st Italian Zebrafish meeting, Brescia, Italy. Angiogenesis: basi molecolari ed implicazioni terapeutiche III, Pontignano, Italy; FISV meeting, Stem cell and regeneration workshop, Riva del Garda, Italy. Gordon Conference on Endothelial Cell Behaviour, Maine, USA. BaStaG meeting USCF retreat, San Francisco, USA. FISV meeting, workshop on Signal Transduction of Cell Adhesion, Proliferation and Differentiation, Riva del Garda, Italy. FISV meeting, Workshop on Signal Transduction of Cell Adhesion, Proliferation and Differentiation, Riva del Garda, Italy. Structures and Function of Interacting Protein Domains in Signal and Energy Transduction, NATO Conference, Napoli, Italy; ABCD-AGI-SIBBM Conference, S. Gimignano, Italy.

Invited lectures at Institute or University

GIGA, Liege, FR; University of Udine, Udine, IT. Linkoping University, Linkoping, Sweden. IBPS, Paris, FR; Karolinska Institute, Stockholm, Sweden. University of Padova, IT. Pasteur Institute, Paris, FR; International Centre for Genetic Engineering and Biotechnology (ICGEB), Trieste, IT; Institute Curie, Pole de Biologie du Développement et Cancer, Paris, FR; BHF Centre for Cardiovascular Science, University of Edinburgh, UK. Department of Anatomy, University of Basel, CH; Department of Biology, University of Padova, Italy. Department of Molecular Biology, Université Libre de Bruxelles, BE. Department of Biology, University of Milan, Italy; Max Planck Institute for Heart and Lung Research, Bad Nauheim, Germany; Institute of Molecular Life Sciences Universität Zürich UZH, Swiss; NIH, Bethesda, Maryland, USA; KU Leuven Medical School, Stem Cell Instituut, Leuven, Belgium. IRIBHM- ULB, (Université Libre de Bruxelles), Brussels, Belgium; Lecture, Stazione Zoologica A. Dohr, Napoli, Italy. IFOM-IEO Campus, Milan, Italy; VIB Vesalius Research Center, KU Leuven, Belgium. Yale University, School of Medicine, Cardiovascular Department, USA; University of Bordeaux, France; PARCC retreat, Keynote Lecture, Paris, France. University of Padova, Italy; Cardiovascular Network, Molecular Biotechnology Center, University of Torino, Italy. TIGEM, Napoli, Italy; Seminar, UNITre, Torre Pellice, Italy. Lecture, Stazione Zoologica A. Dohr, Napoli, Italy. Faculty Candidate talk, Albert Einstein - Yeshiva University, New York, USA. PASS-UCSF, San Francisco, USA. DISCAFF, University of Piemonte Orientale, Novara, Italy; Department

of Biology, University of Torino, Italy. Seminar, Regina Elena Cancer Institute, Rome, Italy. Cancer Research UK London Research Institute, London, UK.

Service to Professional and Academic Organization

Organizer and Chair, 3th Italian Zebrafish Meeting, Naples, IT 2022. Organizer and Chair, 16th SIBBM Seminar: Frontiers in Metabolic Research, 2021, Padua, Italy. Chair, 11th European Zebrafish Meeting, Prague, Czech Republic. Organizer and Chair, 1st Italian Zebrafish Meeting, Pisa, IT. Chair, EVBO Meeting, Maastricht, NL. Chair, International Munich ROS Meeting, Munich, DE. Chair, European Zebrafish PI Meeting, Trento, IT. Chair, 7th Oxidative Stress, Calcium Signaling and TRP Channel World Congress Antalya, Turkey. Organizer and Chair, Genome Engineering and Synthetic Biology, Bruges, BE. Organizer and Chair, 5th International Metabolism Mini Symposium, Leuven, BE. Organizer and Chair, 1st Italian Zebrafish Meeting, Padova, IT. CNR, ERC PI centric event, Rome. IT. PhD committee member in Molecular Life Sciences, IMLS, University of Zurich, CH. VIB Group Leader Committee, BE. Department of Oncology, Council Member, KU Leuven, BE. Chairman, Molecular Basis of Cardiovascular diseases, 36th FEBS Congress, IT. Executive Board Member, Department of Biotechnology, University of Torino, IT. PhD committee in Molecular Biology, Dept of Biology, University of Padua, IT. Organizing committee “6th European Zebrafish meeting”, Rome, IT. Chairman, Cardiovascular session, “6th European Zebrafish meeting”, Rome, IT.

Editorial Activities

Editorial Board: Cardiovascular Research (Associate Editor), Frontiers in Cell and Developmental Biology (Associate Editor), Scientific Reports (Associate Editor), Cancers (Editorial Board Member) Solicited reviewer for: Science, Developmental Cell, Cell Reports, Nature Communications, EMBO Molecular Medicine, ATVB, Cardiovascular Research, Science Signaling, Developmental Biology, Experimental Cell Research, Mechanism of Development, Zebrafish, British Journal of Pharmacology, Science Signaling, PLOS One, Scientific Reports. Solicited reviewer of grants and Ad Hoc Study Sections for: European Research Council (ERC), HFSP, Cancer Research UK, EMBO, Wellcome Trust, MRC, Swedish Research Council, AICR, Telethon, AIRC, FWO grant, Italian National Academy of Science, University of Padua, Australian National Grant Association, Czech Science Foundation.

Professional memberships

Since 2017 Executive Council Member EVBO
Since 2010 European Vascular Biology Organization (EVBO)
2005-2016 North American Vascular Biology Organization (NAVBO)
2005-2010 American Society Cell Biology (ASCB)
Since 2002 Italian Society of Biochemistry and Molecular Biology (SIBBM)
Since 2000 Italian Association of Biological and Cellular Differentiation (ABCD)

Major Grants

2005-2007 PRIN, Italian Research Council, Italy €150.000
2008-2010 Career Developmental Award HFSP, EU €300.000
2008-2012 Marie Curie International Reintegration Grant, EU €100.000
2010-2013 AIRC grant, Italy €100.000
2011-2013 Telethon GGP101095, Italy €350.000
2013-2016 AIRC IG Grant €400.000
2014-2019 Odysseus Grant, Belgium €800.000
2014-2018 VIB, Belgium €1.5 mio

2015-2018	Italian Ministry of Health, Italy €300.000
2016-2022	ERC Consolidator Rendox 647057, EU €2.0 mio
2017-2020	FWO Grant, Belgium €0.500 mio
2018-2022	AIRC IG Grant €700.000
2021-2022	ERC-PoC 963865, €150.000
2021-2023	Telethon Grant, €238.000
2022-2024	PRIN Grant, €300.000

List of publications

Peer-reviewed publications (in reverse chronological order).

1. Brian G. Coon, Sushma Timalisina, Matteo Astone, Minhwan Chung, Jennifer Fang, Jinah Han, Karen Hirschi, Louis-Eric Trudeau, **Massimo M. Santoro**, Martin A. Schwartz. Shear stress induction of Klf2 through mitochondrial remodeling. *Journal of cell Biology*, 2022, in revision.
2. Liaisan Arslanbaeva, Giovanni Tosi, Marco Ravazzolo, Manuela Simonato, Paola Cogo, and **Massimo M. Santoro**. UBIAD1 AND COQ10 PROTECTS MELANOMA CELLS FROM LIPID PEROXIDATION-MEDIATED CELL DEATH. *Redox Biology*, 2022, in revision.
3. Roxana E. Oberkersch, Giovanna Pontarin, Matteo Astone, Emiliano Panieri, Marianna Spizzotin, Liasian Arslanbaeva, Giovanni Tosi, Sara Ricciardi, Maria Francesca Allega, Stefano Biffo, Paolo Grumati, Saverio Tardito, and **Massimo M. Santoro**. GLUTAMINOLYSIS AND ASPARTATE TRANSAMINASE CONTROL VEGFR2 TRANSLATION DURING ANGIOGENESIS. *Developmental Cell*, 2022 in revision.
4. Nicola Facchinello, Matteo Astone, Marianna Spizzotin, Matteo Audano, Enrica Calura, Mihaela Crisan, Nico Mitro, and **Massimo M. Santoro**. HEMODYNAMIC FORCES CONTROL VASCULAR MYOGENESIS VIA OXIDATIVE PPP-DEPENDENT CONTROL OF ELASTIN. *Nature Metabolism*, 2022, in press.
5. Clair M. Kelley, Nicole O. Glenn, Dafne Gays, **Massimo M. Santoro**, and Wilson K. Clements. SCLEROTOME-DERIVED VASCULAR SMOOTH MUSCLE PROGENITORS CONTRIBUTE TO THE HAEMATOPOIETIC STEM CELL SPECIFICATION NICHE. *Communication Biology*, 2021 in revision.
6. Chiara Camillo[§], Nicola Facchinello[§], Dafne Gays, Noemi Gioelli, Matteo Astone, Roxana Oberkersch, Chiara Sandri, Giulia Villari, Luca Tamagnone, Donatella Valdembri, **Massimo M. Santoro**^{*} and Guido Serini^{*}. LATROPHILIN 2 CONTROLS VASCULAR MORPHOGENESIS AND FUNCTION BY INHIBITING ENDOTHELIAL CELL ADHESION AND YAP/TAZ MECHANOSIGNALING. *Journal Cell Biology*, 2021 220(11):e202006033. doi: 10.1083/jcb.202006033.
[§] co-first author, ^{*}co-senior and corresponding authors.
7. Michael Donadon and **Massimo M. Santoro**. ORIGIN AND MECHANISMS OF SMOOTH MUSCLE CELLS DEVELOPMENT IN VERTEBRATES. *Development*, 148: dev197384 doi: 10.1242/dev.197384
8. Matteo Astone and **Massimo M. Santoro**. TIME TO FIGHT: TARGETING THE CIRCADIAN CLOCK MOLECULAR MACHINERY IN CANCER THERAPY. *Drug Discovery Today*, 37,101753, 2021.
9. Nicola Facchinello, Claudio Laquatra, Lisa Locatello, Giorgia Beffagna, Raquel Brañas Casas, Chiara Fornetto, Alberto Dinarello, Laura Martorano, Andrea Vettori, Giovanni Risato, Rudy Celeghin, Giacomo Meneghetti, **Massimo Santoro**, Agnes Delahodde, Francesco Vanzi, Andrea Rasola, Luisa Dalla Valle, Maria Berica Rasotto, Tiziana Lodi, Enrico Baruffini, Francesco Argenton, and Natascia Tiso. EFFICIENT CLOFILIUM TOSYLATE-MEDIATED RESCUE OF POLG-RELATED DISEASE PHENOTYPES IN ZEBRAFISH. *Cell Death & Disease*, 12, 100, 2021.
10. Liasian Arslanbaeva and **Massimo M. Santoro**. ADAPTIVE REDOX HOMEOSTASIS IN CUTANEOUS MELANOMA. *Redox Biology*, 37, 2020.

11. **Santoro, M. Massimo.** THE ANTIOXIDANT ROLE OF NON-MITOCHONDRIAL COQ10: MYSTERY SOLVED! *Cell Metabolism*, 31(1), 13–15. 2020.
12. **Santoro, M. Massimo,** Beltrame M., Panáková D., Siekmann A. F. Tiso, N., Venero Galanternik M., Hyun Min Jung and Brant M. Weinstein. ADVANTAGES AND CHALLENGES OF CARDIOVASCULAR AND LYMPHATIC STUDIES IN ZEBRAFISH RESEARCH. *Frontiers in Cell and Developmental Biology*, 7, 946, 2019.
13. Roxana E. Oberkersch and **Massimo M. Santoro.** ROLE OF AMINO ACID METABOLISM IN ANGIOGENESIS. *Vascular Pharmacology*, 17-23, 2019.
14. Thomas Dickmeis, Yi Feng, Maria Caterina Mione, Nikolay Ninov, **Massimo Mattia Santoro**, Herman P Spaink, Philipp Gut. NANO-SAMPLING AND REPORTER TOOLS TO STUDY METABOLIC REGULATION IN ZEBRAFISH. *Frontiers Cell and Developmental Biology*, 7, 1-9. 2019.
15. Dougall Norris and **Massimo M. Santoro.** BEFORE THE PUMP. *Arteriosclerosis, Thrombosis, and Vascular Biology*, 38, 2763–2764, 2018.
16. Oliver A. Stone, Mohamed El-Brolosy, Kerstin Wilhelm, Xiaojing Liu, Ana M. Romão, Elisabetta Grillo, Jason K.H. Lai, Stefan Günther, Sylvia Jeratsch, Carsten Kuenne, I-Ching Lee, Thomas Braun, **Massimo M. Santoro**, Jason W. Locasale, Michael Potente and Didier Y.R. Stainier. LOSS OF PYRUVATE KINASE M2 LIMITS GROWTH AND TRIGGERS INNATE IMMUNE SIGNALING IN ENDOTHELIAL CELLS. *Nature Communications* 9, 4077-4087, 2018.
17. Rupel, K., Zupin, L., Colliva, A., Kamada, A., Poropat, A., Ottaviani, G., Margherita Gobbo, Lidia Fanfoni, Rossella Gratton, **Massimo M. Santoro**, Roberto Di Lenarda, Matteo Biasotto, and Serena Zacchigna. PHOTOBIO-MODULATION AT MULTIPLE WAVELENGTHS DIFFERENTIALLY MODULATES OXIDATIVE STRESS IN VITRO AND IN VIVO. *Oxidative Medicine and Cellular Longevity*, 2, 1–11, 2018.
18. Zulato E., Ciccarese F., Agnusdei V., Pinazza M., Nardo G., Iorio E., Curtarello M., Silic-Benussi M., Rossi E, Venturoli C., Panieri E., **Santoro M. Massimo**, Quintieri L., Ciminale V, Indraccolo S. LKB1 LOSS IS ASSOCIATED WITH GLUTATHIONE DEFICIENCY UNDER OXIDATIVE STRESS AND SENSITIVITY OF CANCER CELLS TO CYTOTOXIC DRUGS AND γ -IRRADIATION. *Biochem Pharmacology*, 156, 479-490, 2018.
19. Sanjay Sinha and **Massimo M. Santoro.** NEW MODELS TO STUDY VASCULAR MURAL CELL EMBRYONIC ORIGIN: IMPLICATIONS IN VASCULAR DISEASES. *Cardiovascular Res.* 114(4):481-491, 2018.
20. Jacoba J. Louw, Ricardo Nunes Bastos, Xiaowen Chen, Céline Verdood, Anniek Corveleyn, Yaojuan Jia, Jeroen Breckpot, Marc Gewillig, Hilde Peeters, **Massimo M. Santoro**, Francis Barr, Koenraad Devriendt: COMPOUND HETEROZYGOUS LOSS-OF-FUNCTION MUTATIONS IN *KIF20A* ARE ASSOCIATED WITH A NOVEL LETHAL CONGENITALCARDIOMYOPATHY IN TWO SIBLINGS. *PLOS Genetics*, 22;14 (1):e1007138, 2018.
21. **Massimo M. Santoro.** FASHIONING BLOOD VESSELS BY ROS SIGNALLING AND METABOLISM. *Seminars in Cell & Developmental Biology*, 80, 35-42, 2018.
22. Emiliano Panieri, Carlo Milia and **Massimo M. Santoro.** IN VIVO REAL-TIME MONITORING AND IMAGING OF SUBCELLULAR H₂O₂ AND GLUTATHIONE REDOX POTENTIAL IN CARDIOVASCULAR TISSUES. *Free Radical Biology and Medicine*, 109, 189-200, 2017.

23. Emiliano Panieri and **Massimo M. Santoro**. DATA ON METABOLIC-DEPENDENT ANTIOXIDANT RESPONSE IN THE CARDIOVASCULAR TISSUES OF LIVING ZEBRAFISH UNDER STRESS CONDITION. *Data in Brief*, 12, 427-432, 2017.
24. Dafne Gays, Christopher Hess, Annalisa Camporeale, Ugo Ala, Paolo Provero, Christian Mosimann and **Massimo M. Santoro**. AN EXCLUSIVE CELLULAR AND MOLECULAR NETWORK GOVERNS INTESTINAL SMOOTH MUSCLE CELLS DIFFERENTIATION IN VERTEBRATES. *Development*, 144, 1-15, 2017.
25. Xiaowen Chen, Dafne Gays, Carlo Millia and **Massimo M. Santoro**. CILIA CONTROL VASCULAR MURAL CELL RECRUITMENT IN VERTEBRATES. *Cell Reports*, 18, 1-15, 2017.
26. Saravana K. Ramasamy, Anjali P. Kusumbe, Maria Schiller, Dagmar Zeuschner, M. Gabriele Bixel, Carlo Milia, Jaba Gamrekelashvili, Anne Limbourg, Alexander Medvinsky, **Massimo M. Santoro**, Florian P. Limbourg, and Ralf H. Adams. BLOOD FLOW CONTROLS BONE VASCULAR FUNCTION AND OSTEOGENESIS. *Nature Communications*. 7, 13601, 2016.
27. Giulia Mana, Fabiana Clapero, Emiliano Panieri, Valentina Panero, Hui-Yuan Tseng, Federico Saltarin, Elena Astanina, Mark Morgan, Martin J. Humphries, **Massimo M. Santoro**, Guido Serini, and Donatella Valdembri. PPF1A1 DRIVES ACTIVE $\alpha 5\beta 1$ INTEGRIN FIBRILLOGENESIS AND VASCULAR MORPHOGENESIS. *Nature Communications*. 7, 13546, 2016.
28. Xiaowen Chen, Dafne Gays, and **Massimo M. Santoro**. TRANSGENIC ZEBRAFISH. *Methods in Molecular Biology In Mitochondrial* 1464, pp. 107–114, 2016.
29. Raj Sewduth and **Massimo M. Santoro**. “DECODING” ANGIOGENESIS: NEW FACETS CONTROLLING ENDOTHELIAL CELL BEHAVIOR. *Frontiers in Physiology*. 306, 1-7, 2016.
30. Emiliano Panieri and **Massimo M. Santoro**. ROS HOMEOSTASIS AND METABOLISM: A DANGEROUS LIASON IN CANCER CELLS. *Cell Death & Disease*. e2253, 2016.
31. Martano Chiara, Mugoni Vera, Dal Bello Federica, **Santoro M. Massimo** and Medana, Claudio. RAPID HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY-HIGH RESOLUTION MASS SPECTROMETRY METHODOLOGY FOR MULTIPLE PRENOL LIPIDS ANALYSIS IN ZEBRAFISH EMBRYOS. *Journal of Chromatography A*, 1412, 59–66, 2015.
32. Emiliano Panieri and **Massimo M. Santoro**. REDOX SIGNALING IN ENDOTHELIAL CELLS. *Cell Mol Life Sci May*, 72: 3281-303, 2015.
33. Vitor Fortuna, Luc Pardanaud, Isabelle Brunet, Roxana Ola, Emma Ristori, **Massimo M. Santoro**, Stefania Nicoli, Anne Eichmann. VASCULAR MURAL CELLS INSTRUCT NORADRENERGIC DIFFERENTIATION OF EMBRYONIC SYMPATHETIC NEURONS. *Cell Reports*, 11: 2211-1247, 2015.
34. Giulia Garaffo, Daniele Conte, Paolo Provero, Daniela Tomaiuolo, Zheng Luo, Patrizia Pinciroli, Clelia Peano, Ilaria Ilaria D’Atri, Yorick Gitton, Talya Etzion, Yoav Gothif, Dafne Gays, **Massimo M. Santoro**, Giorgio Roberto Merlo. THE DLX5 AND FOXG1 TRANSCRIPTION FACTORS, LINKED VIA MIRNA-9 AND -200, ARE REQUIRED FOR THE DEVELOPMENT OF THE OLFACTORY AND GNRH SYSTEM. *Mol Cell Neurosci*. 68:103-119, 2015.
35. Sonia Mercurio, Sara Petrillo, Deborah Chiabrando, Zuni Irma Bassi, Dafne Gays, Annalisa Camporeale, Andrei Vacaru, Barbara Miniscalco, Giulio Valperga, Lorenzo Silengo, Fiorella Altruda¹, Margaret H Baron, **Massimo M. Santoro** and Emanuela Tolosano. HEME EXPORTER FLVCR1 REGULATES EXPANSION AND DIFFERENTIATION OF COMMITTED ERYTHROID PROGENITORS BY CONTROLLING INTRACELLULAR HEME ACCUMULATION. *Hematologica*, 100(6): 720-9, 2015.

36. Elisa De Luca, Gian Maria Zaccaria, Maura Hadhoud, Giovanna Rizzo, Roberto Ponzini, Umberto Morbiducci and **Massimo M. Santoro**. ZEBRABEAT: A FLEXIBLE PLATFORM FOR THE ANALYSIS OF THE CARDIAC RATE IN ZEBRAFISH EMBRYOS. *Scientific Reports*. 4, 4898, 2014.
37. **Massimo M. Santoro**. ZEBRAFISH AS A MODEL TO EXPLORING CELLULAR METABOLISM AND METABOLIC DISEASES. *Trends in Endocrinology and Metabolism*. 10, 546-54. 2014.
38. **Massimo M. Santoro**. ANTI_ANGIOGENIC CANCER DRUGS USING THE ZEBRAFISH MODEL. *Arteriosclerosis, Thrombosis, and Vascular Biology*, 34, 1846, 2014.
39. Giulia Garaffo, Paolo Provero, Ivan Molineris, Patrizia Pinciroli, Clelia Peano, Cristina Battaglia, Daniela Tomaiuolo, Talya Etzion, Yoav Gothif, **Massimo M. Santoro**, and Giorgio R. Merlo. PROFILING, BIOINFORMATIC, AND FUNCTIONAL DATA ON THE DEVELOPING OLFACTORY/GNRH SYSTEM REVEAL CELLULAR AND MOLECULAR PATHWAYS ESSENTIAL FOR THIS PROCESS AND POTENTIALLY RELEVANT FOR THE KALLMANN SYNDROME. *Frontiers in Endocrinology*, 4, 203. 2014.
40. Thomas R. Whitesell, Regan M. Kennedy, Alyson D. Carter, Evvi-Lynn Rollins, Sonja Georgijevic, **Massimo M. Santoro** and Sarah J. Childs. A SMOOTH MUSCLE ACTIN (ACTA2/ASMA) ZEBRAFISH TRANSGENIC LINE MARKING VASCULAR MURAL CELLS AND VISCERAL SMOOTH MUSCLE CELLS. *PLoS One* 9(3), e90590. 2014.
41. Vera Mugoni, Annalisa Camporeale and **Massimo M. Santoro**. EXPLORING OXIDATIVE STRESS IN ZEBRAFISH EMBRYOS. *JoVe* 89, 2014.
42. Vera Mugoni, Claudio Medana and **Massimo M. Santoro**. ¹³C-ISOTOPE BASED PROTOCOL FOR PRENYL LIPID METABOLIC ANALYSIS IN ZEBRAFISH TISSUES. *Nature Protocols*, 8, 2337-2347, 2013.
43. Carlo Follo, Matteo Ozzano, Claudia Montalenti, **Massimo M. Santoro** and Ciro Isidoro. KNOCK-DOWN OF CATHEPSIN D IN ZEBRAFISH FERTILIZED EGGS DETERMINES CONGENITAL MYOPATHY. *BioScience Report*, 33, 371-378, 2013.
44. **Massimo M. Santoro** and Stefania Nicoli. miRNAs IN ENDOTHELIAL CELL SIGNALING: The endomiRNAs. *Experimental Cell Research*, 319, 1324-1330, 2013.
45. Vera Mugoni, Ruben Postel, Valeria Catanzaro, Elisa De Luca, Giuseppe Digilio, Emilia Turco, Lorenzo Silengo, Michael P. Murphy, Claudio Medana, Didier Y. Stainier, Jeroen Bakkers and **Massimo M. Santoro**. UBIAD1 IS AN ANTIOXIDANT ENZYME THAT REGULATES eNOS ACTIVITY BY CoQ10 SYNTHESIS. *Cell* 152, 504–518, 2013.
46. Dafne Gays and **Massimo M. Santoro**. THE AD-MIR-ABLE ADVANCES IN CARDIOVASCULAR BIOLOGY THROUGH THE ZEBRAFISH MODEL SYSTEM. *Cell Mol Life Sci* 70, 2489-2503, 2013.
47. **Massimo M. Santoro**. "FISHING" FOR ENDOTHELIAL MICRORNA FUNCTIONS AND DYSFUNCTION. *Vascular Pharmacology*, 5, 60-68, 2011.
48. Juanita Lopez, Sidonie Wicky John, Tencho Tenev, Gilles J. P. Rautureau, Mark G. Hinds, Floriana Francalanci, Rebecca Wilson, Meike Broemer, **Massimo M. Santoro**, Catherine L. Day and Pascal Meier. CARD-MEDIATED AUTOINHIBITION OF CIAP1'S E3 LIGASE ACTIVITY SUPPRESSES CELL PROLIFERATION AND MIGRATION. *Molecular Cell*, 42: 569–583, 2011.

49. Carlo Follo, Matteo Ozzano, Vera Mugoni, Roberta Castino, **Massimo M. Santoro** and Ciro Isidoro. KNOCK-DOWN OF CATHEPSIN D AFFECTS THE RETINAL PIGMENT EPITHELIUM, IMPAIRS SWIM-BLADDER ONTOGENESIS AND CAUSES TO PRAECOX DEATH IN ZEBRAFISH. *PLOS One*, 6(7):e21908, 2011.
50. Adrian C. Grimes, Ana Carmen Durán, Valentin Sans-Coma, Danyal Hami, **Massimo M. Santoro** and Miguel Sanchez Torres. THE SECONDARY HEART FIELD AND CARDIAC OUTFLOW TRACT STRUCTURE: A PROPOSED COMMON THEME AMONG VERTEBRATES. *Evolution & Development*, 12:6, 552 –567, 2010.
51. **Massimo M. Santoro**, Gabriella Pesce and Didier Y Stainier. CHARACTERIZATION OF VASCULAR MURAL CELLS DURING ZEBRAFISH DEVELOPMENT. *Mechanisms of Development*, 126: 638-49, 2009. *Highlighted in Faculty of 1000*.
52. Jason E. Fish, **Massimo M. Santoro**, Sangho Yu, Didier Stainier and Deepak Srivastava. MIR-126, AN ENDOTHELIAL-SPECIFIC MICRORNA, REGULATES ANGIOGENESIS AND VASCULAR INTEGRITY BY TARGETING SPRED-1. *Developmental Cell*, 15: 272-284, 2008
53. Mads Gyrd-Hansen, Maurice Darding, Maria Miasari, **Massimo M. Santoro**, Tencho Tenev, Paula da Fonseca, Marketa Zvelebil, Janusz M. Bujnicki, John Silke and Pascal Meier. IAPs CONTAIN AN EVOLUTIONARILY CONSERVED UBIQUITIN-BINDING DOMAIN THAT REGULATES NF-KB AS WELL AS CELL SURVIVAL AND ONCOGENESIS. *Nature Cell Biology* 10, 1309-1317, 2008.
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