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Decreto Rettore Università di Roma “La Sapienza” n. 1820/2019 del 13.06.2019

MAURILIO SAMPAOLESI

Curriculum Vitae

Place: Leuven

Date: 4 March 2020

Part I – General Information

Full Name	Maurilio Sampaolesi
Place of Birth	Rome
Citizenship	Italian
Spoken Languages	Italian

Part II – Education

Type	Year	Institution	Notes (Degree, Experience,...)
University graduation	1991	Sapienza University of Rome	Biological Sciences (110/110)
Post-graduate studies	1994	Sapienza University of Rome	Nat. Board Biologist n.044660
PhD	1997	Tor Vergata Univ. of Rome	Cardiovascular Pathophysiology

Part III – Appointments

IIIA – Academic Appointments

Start	End	Institution	Position
2005	2011	University of Pavia	Assistant Professor (ricercatore)
2008	present	University of Leuven, Belgium	Translational Cardiomyology Lab, PI
2011	present	University of Pavia	Associate Professor

IIIB – Other Appointments

Start	End	Institution	Position
1989	1991	National Institute of Health Rome	Training Fellow in Immunology
1997	1997	Pharmaceutical SIFI SpA, Italy	Product Specialist
1997	1999	NCVC, Suita Osaka, Japan	Post-doctoral fellow
1999	2000	Pharmaceutical Dompe' SpA, Italy	Associate Researcher
2000	2005	San Raffaele Hospital Milan, Italy	Associate Researcher

Part IV – Teaching experience

Year	Institution	Lecture/Course
since2018	LOGOPEDIA, FISIOTERAPIA	ANATOMIA E ISTOLOGIA triennale (L)
since2018	TECN. RIABILIT. PSICHIATRICA	ANATOMIA E ISTOLOGIA triennale (L)

since2018	TER.NEURO/PSICOMOTR.ETÀ EV.	ANATOMIA E ISTOLOGIA triennale (L)
since2018	TERAPIA OCCUPAZIONALE	ANATOMIA E ISTOLOGIA triennale (L)
since2018	BIOTECNOLOGIE	ANATOMIA E ISTOLOGIA triennale (L)
since2008	BIOTEC MEDICHE E FARM.	MORFOLOGIA AVANZATA special. (LM)
till 2018	BIOTECNOLOGIE	ANAT. E FISIOL. UMANA triennale (L)
till 2015	MEDICINA E CHIRURGIA	ANATOMY 2 (English)
till 2017	SCIENZE BIOLOGICHE	CITOLOGIA ED ISTOLOGIA triennale (L)
till 2014	MEDICINA E CHIRURGIA	ANATOMY 1 (English)
since2017	BIOMEDICAL SCIENCES	ADVANCES in STEM CELL BIOL (English)
since2017	BIOMEDICAL SCIENCES	HOT TOPICS STEM CELL BIOL (English)

Part V - Society memberships, Awards and Honors

Year	Title
2017-19	Erasmus+-Supporting biotechnology students oriented towards an entrepreneurial path
since2016	Belgian Society for Stem Cell Research (BESSCR).
since2008	European Society of Gene and Cell Therapy
since2005	International Society for Stem Cell Research (ISSCR)
since2018	Academic Editor for Scientific Reports
since2018	Academic Editor for International Journal of Molecular Sciences
since2013	Deputy Editor (till 2017) and Academic editor (ongoing) Cardiovascular Research
since2012	Academic Editor for Frontiers Journals, Stem Cell Research Panel
since2010	Academic Editor for PLOS ONE
since2012	Research Grants Council (RGC) of Hong Kong
since2014	Clinical and Applied Biomedical Research, Health Research Board of Ireland
since2010	Panel reviewer ERC starting (2010-) consolidator (2014-) and advanced grants (2018-)
since2012	Stem Cell Panel member for AFM-Telethon Foundation Paris, France

2018	Awarded the best Oral /Poster Prof. Paolo Bianco award, IX Stem Cell Res, Milan, Italy
2011	Awarded the best Poster Presentation, ASCR EMBO Meeting, Paris, France
2008	Awarded the scientific project on cardiac regeneration, FWO-Odysseus, Belgium
2007	Awarded the best scientific project on Stem Cells, Mai Foundation, Milan, Italy
2007	Awarded the best scientific project on Stem Cells, Mai Foundation, Milan, Italy
2006	Awarded the best scientific team, San Raffaele Scientific Institute Retreat, Italy
1997	Awarded the best scientific project on Muscular Dystrophy. JISTEC Osaka, Japan

Part VI - Funding Information [grants as PI-principal investigator or I-investigator]

Year	Title	Program	Grant value
2020/24	Generate Your Muscle (GYM) [I]	EU-INTERREG	€464.569
2020/22	Botox muscle effects (MITOX) [I]	FTBO	€240000
2018/21	Cardiac organoids (3DMUSYC) [I]	C1-KUL	€440.000

2017/20	Enhance muscle regeneration [PI]	FWO #G0d4517N	€378.420
2017/19	Entrepreneurial path(SupBioEnt) [I]	EU-Higher Educ. Erasmus+	€156.110
2015/19	Cell therapy Pelvic floor diseases [I]	FWO #G069715N	€254.402
2015/18	Ghrelin and sarcopenia [I]	CARIPLO Foundation	€350.0000
2014/18	Bipotential progenitor cells [PI]	FWO #G088715N	€463.649
2014/18	iPSCs / TALEN myog. regen. [PI]	Opening the future EJJO2010	€400.000
2015/16	Biodistrib. bipot. progenitors [PI]	AFM-Telethon, France	€46.395
2012/17	DevRepair– Paracrine effects [I]	IUAPVII-07	€550.800
2012/15	Mesoangioblast reprogramming [PI]	FWO #G060612N	€180.000
2010/15	Growth factor signal in stem cells[I]	GOA #11-012	€1.070.000
2010/15	Endogenous cells CARE-MI [I]	EU FP7 #242038	€11.000.000
2009/12	Renewal and differentiation [PI]	OT #09-053	€300.000
2008/12	Stem cell therapy for MDs [PI]	Wicka Funds USA # zkb8720	\$400.000
2008/12	Stem cell therapy for LGMDs [PI]	FWO-Odysseus# G.0907.08	€500.000
2010/11	Drug screening cardiac tissues [PI]	IOF #HB-10-044	€100.000
2006/08	Bioreactors and stem cells [I]	PRIN-COFIN	€71.429
200/02	Stem Cell therapy in SGb-null [PI]	Telethon, Italy T.F. #463/bi	€107.423

Part VII – Research Activities

Keywords	Brief Description
myogenesis	
iPS cell technology	
single cell RNAseq	
CRISPR/CAs9	
epigenetic memory	We demonstrated that despite reprogramming of somatic cells to a pluripotent state, the myogenic potential is retained due to a durable epigenetic memory. Combining RNA- and miRNA-sequencing studies and more recently using single cell RNAseq technology, we defined miRNA cocktails that promote the myogenic potential of human mesodermal progenitors. Thus, epigenetically imprinted pluripotent stem cells represent an interesting source of cells for both medical and more general scientific studies and applications that we are pursuing.

Part VIII – Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
Papers [international]	121	PubMed	1995	2020
Papers [national]				
Books [scientific]	1			
Books [teaching]	2 (chapters)			
Total Impact factor	723,505 (WOS)			
Total Citations	7109 (SCOPUS)			
Average Citations per Product	54,27 (SCOPUS: 7109/131)			
Hirsch (H) index	41 (google scholar) 37 (scopus); 34 (WOS)			
Normalized H index*	1.48 (SCOPUS Hindex 37 / 25 years)			

*H index divided by the academic seniority.

Part IX– 16 Selected Publications for the evaluation

List of the publications selected for the evaluation. For each publication report title, authors, reference data, journal IF (if applicable), citations, press/media release (if any).

1. Costamagna D, Duelen R, Penna F, Neumann D, Costelli P, Sampaolesi M. Interleukin-4 administration improves muscle function, adult myogenesis, and lifespan of colon carcinoma-bearing mice. **J Cachexia Sarcopenia Muscle**. 2020 Feb 27. doi:10.1002/jcsm.12539. (most recent **IF: 10.754**) (citations: **0**)
2. Balli M, Vitali F, Janiszewski A, Caluwé E, Cortés-Calabuig A, Carpentier S, Duelen R, Ronzoni F, Marcelis L, Bosisio FM, Bellazzi R, Luttun A, De Angelis MGC, Ceccarelli G, Lluis F, Sampaolesi M. Autologous micrograft accelerates endogenous wound healing response through ERK-induced cell migration. **Cell Death Differ.** 2019 Oct 25. doi:10.1038/s41418-019-0433-3. (most recent **IF: 8.086**) (citations: **1**)
3. Rotini A, Martínez-Sarrà E, Duelen R, Costamagna D, Di Filippo ES, Giacomazzi G, Grosemans H, Fulle S, and Sampaolesi M. Aging affects the in vivo regenerative potential of human mesoangioblasts. **Aging Cell**. 2018; 17(2). doi:10.1111/acel.12714. Epub 2018 Feb 4. (**IF: 7.346**) (citations: **7**)
4. Giacomazzi G, Holvoet B, Trenson S, Caluwé E, Kravic B, Grosemans H, Cortés-Calabuig Á, Deroose CM, Huylebroeck D, Hashemolhosseini S, Janssens S, McNally E, Quattrocelli M, Sampaolesi M. MicroRNAs promote skeletal muscle differentiation of mesodermal iPSC-derived progenitors. **Nat Commun.** 2017;8(1):1249. doi:10.1038/s41467-017-01359-w. (**IF:12.353**) (citations: **4**)
5. Quattrocelli M, Giacomazzi G, Broeckx SY, Ceelen L, Bolca S, Spaas JH, Sampaolesi M. Equine-Induced Pluripotent Stem Cells Retain Lineage Commitment Toward Myogenic and Chondrogenic Fates. **Stem Cell Reports**. 2016 Jan 12;6(1):55-63. doi:10.1016/j.stemcr.2015.12.005. (**IF: 7.338**) (citations: **10**)
6. Loperfido M, Jarmin S, Dastidar S, Di Matteo M, Perini I, Moore M, Nair N, Samara-Kuko E, Athanasopoulos T, Tedesco FS, Dickson G, Sampaolesi M*, VandenDriessche T*, Chuah MK*. piggyBac transposons expressing full-length human dystrophin enable genetic correction of dystrophic mesoangioblasts. **Nucleic Acids Res.** 2016 Jan 29;44(2):744-60. doi:10.1093/nar/ gkv1464. *shared senior authorship. (**IF: 10.162**) (citations: **16**)
7. Quattrocelli M, Swinnen M, Giacomazzi G, Camps J, Barthélémy I, Ceccarelli G, Caluwé E, Grosemans H, Thorrez L, Pelizzo G, Muijtjens M, Verfaillie CM, Blot S, Janssens S, Sampaolesi M. Mesodermal iPSC-derived progenitor cells functionally regenerate cardiac and skeletal muscle. **J Clin Invest.** 2015 Dec;125(12):4463-82. doi:10.1172/JCI82735. (**IF: 12.575**) (citations: **26**)
8. Quattrocelli M, Costamagna D, Giacomazzi G, Camps J and Sampaolesi M. Notch signaling regulates myogenic regenerative capacity of murine and human mesoangioblasts. **Cell Death Dis.** 2014 Oct 9; 5:e1448. (**IF: 5.014**) (citations: **20**)
9. Cassano M, Quattrocelli M, Dellavalle A, Salvade A, Ronzoni F, Cossu G and Sampaolesi M. Alpha sarcoglycan is required for FGF dependent myogenic progenitor cell proliferation in vitro and in vivo. **Development** 2011 138(20): 4523-33. (**IF: 6,898**) (citations: **22**)
10. Crippa S, Cassano M, Messina G, Galli D, Galvez BG, Curk T, Altomare C, Ronzoni F, Toelen J, Gijsbers R, Debysen Z, Janssens S, Zupan B, Zaza A, Cossu G and Sampaolesi M. miR669a and miR669q act as cell fate switch between cardiac and skeletal muscle lineages. **J Cell Biol** 2011; 193(7): 1197-212. (**IF: 10,264**) (citations: **45**) *selected for the journal cover*

11. Quattrocelli M, Palazzolo G, Floris G, Schöffski P, Anastasia L, Orlacchio A, Vandendriessche T, Chuah MKL, Cossu G, Verfaillie C and Sampaolesi M. Intrinsic cell memory reinforces myogenic commitment of pericyte-derived iPS. **Journal of Pathology** 2011; 223(5):593-603. (IF: 6,318) (citations: 63)
12. Dellavalle A*, Sampaolesi M*, Tonlorenzi R, Tagliafico E, Sacchetti B, Perani L, Galvez BG, Messina G, Morosetti R, Sheng Li, Peretti G, Chamberlain J S, Wright WE, Torrente Y, Ferrari S, Bianco P, and Cossu G. Pericytes of human post-natal skeletal muscle are committed myogenic progenitors, distinct from satellite cells, and efficiently repair dystrophic muscle. **Nature Cell Biology** 2007; 9(3): 255-267 *equally contributors. (IF: 17,623) (citations: 689)
13. Sampaolesi M, Blot S, D'Antona G, Granger N, R. Tonlorenzi, A. Innocenzi, P. Mognol, J.L. Thibaud, B. Galvez, I. Barthélémy, L. Perani, S. Mantero, M. Guttinger, O. Pansarasa, C. Rinaldi, M. G. Cusella De Angelis, Y. Torrente, C. Bordignon, R. Bottinelli and Cossu G. Mesoangioblast stem cells ameliorate muscle function in dystrophic dogs. **Nature** 2006; 444(7119): 574-9. (IF: 26,681) (citations: 549)
14. De Palma M, Venneri MA, Galli R, Sergi Sergi LS, Politi LS, Sampaolesi M, Naldini L. Tie2 identifies a hematopoietic lineage of proangiogenic monocytes required for tumor vessel formation and a mesenchymal population of pericyte progenitors. **Cancer Cell** 2005; 8(3): 211-26. (IF: 18,725) (citations: 923)
15. Palumbo R*, Sampaolesi M*, De Marchis F, Tonlorenzi R, Colombetti S, Mondino A, Cossu G., Bianchi ME. Extracellular HMGB1, a signal of tissue damage, induces mesoangioblast migration and proliferation. **J Cell Biol** 2004; 164 (3): 441-449 *equally contributors. (IF: 11,602) (citations: 359)
16. Sampaolesi M, Torrente Y, Innocenzi A, Tonlorenzi R, D'Antona G, Pellegrino MA, Barresi R, Bresolin N, De Angelis MG, Campbell KP, Bottinelli R, Cossu G. Cell therapy of alpha sarcoglycan null dystrophic mice through intra-arterial delivery of mesoangioblasts. **Science** 2003; 25; 301(5632): 487-92. (IF= 29,162) (citations: 502)

Book chapters (partial selection)

Duelen R, Corvelyn M, Tortorella I, Leonardi L, Chai YC and **Sampaolesi M**. Chapter 5 - Medicinal Biotechnology for Disease Modeling, Clinical Therapy and Drug Discovery. Introduction to Biotech Entrepreneurship: From Idea to Business. **Springer Nature 2019**, ISBN:978-3-030-22140-9

Rotini A, Giacomazzi G, Di Filippo ES, **Sampaolesi M**. Chapter 6 - MicroRNAs (miRs) in Muscle Gene Therapy - Muscle Gene Therapy Stem Cells - **Springer Nature 2019**, ISBN:978-3-030-03094-0,

Sampaolesi M. Chapter 7 - Stem cells and muscle regeneration: 95-116. Bagnara - Stem Cells IV Ed. Società Editrice Esculapio 2019,

Duelen R., Costamagna D. and **Sampaolesi M**. The Plasticity of Skeletal Muscle - From Molecular Mechanism to Clinical Applications Chapter 3: 55- Stem Cell Therapy In Muscle Degeneration. Sakuma, Kunihiro Ed., **Springer Nature 2017** ISBN: 978-981-10-3292-9

Camps J., Duelen R., Pozzo E. and **Sampaolesi M**. Chapter title: Dilated cardiomyopathy associated to muscular dystrophies: novel therapies, achievements and setbacks. Cardiomyopathies **InTech (Eds.) 2017**

Sampaolesi M. Stem Cells. IX Appendix. **Treccani encyclopaedia 2016**: pp 579-582

Sampaolesi M. Capitolo 7 - Cellule Staminali e sistema muscolare: 95-116. Bagnara - Cellule Staminali - II Ed. Società Editrice Esculapio 2016, ISBN: 978-887-48-8997-6

Berardi E. and **Sampaolesi M**. Novel Therapeutic Approaches for Skeletal Muscle Dystrophies. Muscle Cell and Tissue, Chapter 14: 394-412 **InTech (Eds.) 2015**. ISBN: 978-953-51-2156-5

Tedesco S, **Sampaolesi M** and Cossu G. Stem Cells for the Treatment of Muscular Dystrophy. Handbook of Stem Cells, Volume 2: Adult & Fetal Stem Cells, Robert Lanza **Editor ELSEVIER 2012 Chapter 56**: 641-651

Sampaolesi M. Stem Cells ed. by Il Mulino 2011 “Le cellule staminali” in Italian
<https://www.mulino.it/isbn/9788815149756>

Sampaolesi M, De Angelis MG and Cossu G. Stem cells for the treatment of Muscular Dystrophy: more than a wishful thinking? Essentials of Stem Cell Biology, **Robert Lanza Editor ELSEVIER 2006** Chapter 58: pp 431-437

Sampaolesi M, De Angelis MG and Cossu G. Stem cells for the treatment of Muscular Dystrophy: more than a wishful thinking? Handbook of Stem Cells, Volume 2: Adult & Fetal Stem Cells. **Robert Lanza Editor ELSEVIER 2004** Chapter 65: pp 721-730

Valorisation and patent portfolio

Sampaolesi group has extensive experience in the field of stem cells and their use for the treatment of skeletal muscle dystrophies. Basic studies related to the roles of epigenetics (methylation and histone code) and miRNAs in myogenic commitments are also main research tasks. R&D project with MonaCell bvba, Belgium sponsored by IWT. In addition, Dompé, Biotech (Italy) Coretherapix S.L. (Spain), iTeos therapeutics (Belgium) and Evox therapeutics (United Kingdom) are directly involved in ongoing projects mainly related to miRNA technologies. This research activity resulted in 2 Patent Applications:

1. Skeletal muscle differentiation of mesodermal iPSC derived progenitors. UK Patent Application Ref. No GB1717939.1. Filed in the UK October 31st 2017. WO 2019086515. PCT/EP2018/079826 P.R. Maurilio Sampaolesi Giorgia Giacomazzi and Enrico Pozzo.
2. Mesodermal progenitor cells. UK Patent Application Ref. No. GB1408712.6. Filed in the UK May 16th 2014. WO 2015172207 A1. PCT/BE2015/00002 P.R. Maurilio Sampaolesi and Mattia Quattrocelli.

History of mentoring and supervision

Since 2008, an internationalization agreement between Pavia and Leuven Universities, allowed exchanges of students and Professors. Sampaolesi is/was promoter for 25 PhD students (4 ongoing), 25 undergraduate/master students, and mentored 12 postdoctoral fellows. Young researchers that he supervised are now independent scientists (Stefano Biressi, Associate Professor University of Trento Italy; Lieven Thorrez, Associate Professor, KU Leuven, Belgium; Flavio Ronzoni, Assistant Professor Humanitas, Milan Italy) others got FWO postdoctoral fellowships (Emanuele Berardi working as postdoc at VIB, KU Leuven, and Mattia Quattrocelli currently Assistant Professor tenure track at Northwestern University, Feinberg School of Medicine US).

Complete list of publications (**Maurilio Sampaolesi ORCID: 0000-0002-2422-3757 - ResearcherID: H-6509-2013; Scopus, Author ID: 6602542439**)

1. Costamagna D, Duelet R, Penna F, Neumann D, Costelli P, Sampaolesi M. Interleukin-4 administration improves muscle function, adult myogenesis, and lifespan of colon carcinoma-bearing mice. *J Cachexia Sarcopenia Muscle*. 2020 Feb 27. doi: 10.1002/jcsm.12539. (*most recent IF: 10.754*).
2. Balli M, Chui JS, Athanasouli P, Abreu de Oliveira WA, El Laithy Y, Sampaolesi M, Lluis F. Activator Protein-1 Transcriptional Activity Drives Soluble Micrograft-Mediated Cell Migration and Promotes the Matrix Remodeling Machinery. *Stem Cells Int.* 2019 Dec 31; 2019:6461580. doi: 10.1155/2019/6461580. (*most recent IF: 3.902*).
3. Ronzoni FL, Lemeille S, Kuzyakiv R, Sampaolesi M, Jaconi ME. Human fetal mesoangioblasts reveal tissue-dependent transcriptional signatures. *Stem Cells Transl Med.* 2020 Jan 23. doi: 10.1002/sctm.19-0209. (*most recent IF: 5.962*).
4. van Tienen F, Zelissen R, Timmer E, van Gisbergen M, Lindsey P, Quattrocelli M, Sampaolesi M,

Mulder-den Hartog E, de Coo I, Smeets H. Healthy, mtDNA-mutation free mesoangioblasts from mtDNA patients qualify for autologous therapy. *Stem Cell Res Ther.* 2019 Dec 21;10(1):405. doi: 10.1186/s13287-019-1510-8. (*most recent IF: 4.627*).

5. Balli M, Vitali F, Janiszewski A, Caluwé E, Cortés-Calabuig A, Carpentier S, Duelen R, Ronzoni F, Marcelis L, Bosisio FM, Bellazzi R, Luttun A, De Angelis MGC, Ceccarelli G, Lluis F, Sampaolesi M. Autologous micrograft accelerates endogenous wound healing response through ERK-induced cell migration. *Cell Death Differ.* 2019 Oct 25. doi: 10.1038/s41418-019-0433-3. (*most recent IF: 8.086*).
6. Giordano FM, Burattini S, Buontempo F, Canonico B, Martelli AM, Papa S, Sampaolesi M, Falcieri E, Salucci S. Diet Modulation Restores Autophagic Flux in Damaged Skeletal Muscle Cells. *J Nutr Health Aging.* 2019; 23(8):739-745. doi: 10.1007/s12603-019-1245-3. (*most recent IF: 2.660*).
7. Patel AM, Wierda K, Thorrez L, van Putten M, De Smedt J, Ribeiro L, Tricot T, Gajjar M, Duelen R, Van Damme P, De Waele L, Goemans N, Tanganyika-de Winter C, Costamagna D, Artsma-Rus A, van Duyvenvoorde H, Sampaolesi M, Buyse GM, Verfaillie CM. Dystrophin deficiency leads to dysfunctional glutamate clearance in iPSC derived astrocytes. *Transl Psychiatry.* 2019 Aug 21;9(1):200. doi: 10.1038/s41398-019-0535-1. (*most recent IF: 5.182*).
8. Breuls N, Giacomazzi G, Sampaolesi M. (Epi)genetic Modifications in Myogenic Stem Cells: From Novel Insights to Therapeutic Perspectives Cells. 2019 May 9;8(5). pii: E429. doi: 10.3390/cells8050429. (*most recent IF: 5.656*).
9. Camps J, Grosemans H, Gijsbers R, Maes C, Sampaolesi M. Growth Factor Screening in Dystrophic Muscles Reveals PDGFB/PDGFRB-Mediated Migration of Interstitial Stem Cells. *Int J Mol Sci.* 2019 Mar 5;20(5). pii: E1118. doi: 10.3390/ijms20051118. (*IF: 4.183*).
10. Sampaolesi M, Pozzo E, Duelen R. Stem Cell Investig. In the heart of the in vivo reprogramming. 2018 Oct 29;5:38. doi: 10.21037/sci.2018.10.03.
11. Bloise N, Berardi E, Gualandi C, Zaghi E, Gigli M, Duelen R, Ceccarelli G, Cortesi EE, Costamagna D, Bruni G, Lotti N, Focarete ML, Visai L, Sampaolesi M. Ether-Oxygen Containing Electrospun Microfibrous and Sub-Microfibrous Scaffolds Based on Poly(butylene 1,4-cyclohexanedicarboxylate) for Skeletal Muscle Tissue Engineering. *Int J Mol Sci.* 2018; 19(10). pii: E3212. doi: 10.3390/ijms19103212. (*IF: 3.864*).
12. Mori da Cunha MGMC, Giacomazzi G, Callewaert G, Hympanova L, Russo F, Vande Velde G, Gijsbers R, Albersen M, Sampaolesi M, Deprest J. Fate of mesoangioblasts in a vaginal birth injury model: influence of the route of administration. *Sci Rep.* 2018; 8(1):10604. doi: 10.1038/s41598-018-28967-w (*IF: 4.122*).
13. Walravens AS, Vanhaverbeke M, Ottaviani L, Gillijns H, Treton S, Driessche NV, Luttun A, Meyns B, Herijgers P, Rega F, Heying R, Sampaolesi M, Janssens S. Molecular signature of progenitor cells isolated from young and adult human hearts. *Sci Rep.* 2018; 8(1):9266. doi: 10.1038/s41598-018-26969-2 (*IF: 4.122*).
14. Neyrinck K, Breuls N, Holvoet B, Oosterlinck W, Wolfs E, Vanbiljoen H, Gheysens O, Duelen R, Gsell W, Lambrechts I, Himmelreich U, Verfaillie CM, Sampaolesi M, Deroose CM. The human somatostatin receptor type 2 as an imaging and suicide reporter gene for pluripotent stem cell-derived therapy of myocardial infarction. *Theranostics.* 2018; 8(10):2799-2813. doi: 10.7150/thno.22980 (*IF: 8.063*).

15. Giovannelli G, Giacomazzi G, Grosemans H, **Sampaolesi M**. Morphological and functional analyses of skeletal muscles from an immunodeficient animal model of limb-girdle muscular dystrophy type 2E. **Muscle Nerve.** **2018** Feb 24. doi: 10.1002/mus.26112. (**IF: 2.393**).
16. Sahakyan V, DueLEN R, Tam WL, Roberts SJ, Grosemans H, Berckmans P, Ceccarelli G, Pelizzo G, Broccoli V, Deprest J, Luyten FP, Verfaillie CM, **Sampaolesi M**. Folic Acid Exposure Rescues Spina Bifida Aperta Phenotypes in Human Induced Pluripotent Stem Cell Model. **Sci Rep.** **2018**; 8(1): 2942. doi: 10.1038/s41598-018-21103-8 (**IF: 4.122**).
17. Rotini A, Martínez-Sarrà E, DueLEN R, Costamagna D, Di Filippo ES, Giacomazzi G, Grosemans H, Fulle S, Sampaolesi M Aging affects the in vivo regenerative potential of human mesoangioblasts. **Aging Cell.** **2018**; 17(2). doi: 10.1111/acel.12714. Epub 2018 Feb 4 (**IF: 7.346**).
18. Rotini A, Martínez-Sarrà E, Pozzo E, **Sampaolesi M**. Interactions between microRNAs and long non-coding RNAs in cardiac development and repair. **Pharmacol Res.** **2018**; 127:58-66. doi: 10.1016/j.phrs.2017.05.029. (**IF: 5.574**).
19. Giacomazzi G, Holvoet B, Trendon S, Caluwé E, Kravic B, Grosemans H, Cortés-Calabuig Á, Deroose CM, Huylebroeck D, Hashemolhosseini S, Janssens S, McNally E, Quattrocelli M, **Sampaolesi M**. MicroRNAs promote skeletal muscle differentiation of mesodermal iPSC-derived progenitors. **Nat Commun.** **2017**;8(1):1249. doi: 10.1038/s41467-017-01359-w. (**IF:12.353**).
20. Sipido KR, Gal D, Luttun A, Janssens S, **Sampaolesi M**, Holvoet P. Peer review: (r)evolution needed. **Cardiovasc Res.** **2017**; 113(13):e54-e56. doi: 10.1093/cvr/cvx191 (**IF: 6.290**).
21. Sahakyan V, Pozzo E, DueLEN R, Deprest J, **Sampaolesi M**. Methotrexate and Valproic Acid Affect Early Neurogenesis of Human Amniotic Fluid Stem Cells from Myelomeningocele. **Stem Cells Int.** **2017**; 2017:6101609. doi: 10.1155/2017/6101609 (**IF: 3.989**).
22. **Sampaolesi M**, Van Calsteren K. Physiological and pathological gestational cardiac hypertrophy: what can we learn from rodents? **Cardiovasc Res.** **2017**;113(13):1533-1535. doi: 10.1093/cvr/cvx192 (**IF: 6.290**).
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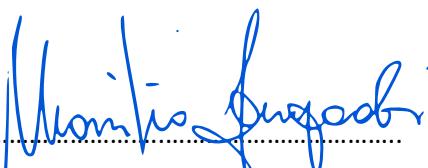
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Firma 

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