

Curriculum Vitae et Studiorum

Luisa Campagnolo

Born July 3rd 1968

1) Compendium:

- Total IF: 162.68
- H-Index: 15
- Times cited: 755

2) Qualifications:

1995: B.Sc. (Biology) – University of Rome “La Sapienza”

1999: Ph.D. (Medical Embryology), University of Rome “Tor Vergata”

3) Current Positions:

2002-: University of Rome "Tor Vergata", Rome, IT

Research Scientist, Assistant Professor in Histology and Embryology, Faculty of Medicine

2007-: Weill Cornell Medical College, New York, USA

Visiting Assistant Professor, Department of Cell and Developmental Biology

4) Past Positions:

The Scripps Research Institute, La Jolla, CA, USA

2000-02: Research Fellow in the Dept. of Vascular Biology

2002-03: Research Fellow in the Dept. of Cell Biology

The University of Rome “Tor Vergata”, Rome, ITALY

1995-1999: PhD Student in Medical Embryology

5) Honors/Achievements:

2001: “Servier New Investigator Award” Second Conference on Arteriosclerosis, Thrombosis and Vascular Biology (Washington DC)

2009: Award as best presentation, AIPE Meeting, Rome, ITALY

2010: Award as best poster presented, Nanotoxicology Meeting, Edinburgh, UK.

6) Editorial Activity:

Member of the International Advisory Board of the Journals:

Particle and Fibre Toxicology

International Journal of Stem Cell Research and Transplantation

Reviewer activity for: Human Reproduction Update; Reproductive Toxicology; Experimental Cell Research; Nanotoxicology; Particle and Fibre Toxicology; Toxicological Research; Nanoscale; Basic Clin Pharmacol Toxicol; ACS Nano;

7) Key Funding:

2012-2016 Coordinator of Unit 2 in “Finalizzato Salute” RIF-2009-1536665 "Impact of engineered nanoparticles on reproductive health and embryonic development"

2012- Italian representative for the Management Committee of the Project “Modelling the risk of Nanomaterials” (MODENA) supported by the European Cooperation in Science and Technology (COST).

2013- Scientific Responsible in the FP7 EU project NANOREG (Regulation of Nanomaterials);

2014- Co-PI in the project “Role of EGFL7 in implantation, placental development and PE” funded by March of Dime Foundation #6-FY14-411.

8) Invited Seminars:

2009, Weill Cornell Medical College, New York, “EGFL7, lessons from the gonads and more”, invited by Prof Heidi Stuhlmann;

2012 EMPA, Sant Gallen, Switzerland “Mechanisms of trophoblast invasion: molecular and toxicological aspects”, invited by Dr Peter Wick;

2012, Catholic University of the Sacred Heart, Rome, “Impact of engineered nanoparticles on reproductive health and development”, invited by Prof A. Sgambato.

2013, Nanoforum, University of Rome “La Sapienza”, “The Repro-Tox Effect of Engineered Nanoparticles: from *In Vivo* to *In Vitro*”, invited by the COST ACTION “ENTER”

2015, Graduate Course in Nanotoxicology, The Karolinska Institute, “Reproductive Toxicity of Engineered Nanomaterials”, invited by Prof Bengt Fadeel

2015, NanoItaly, Cloister San Gallo, Rome 21-24 Sept, “Nanoparticles across the placental barrier: insights into the reproductive toxicology of nanomaterials”, invited by Prof. Marco Rossi.

2016, Invited speaker at the 55th Annual Meeting of the Society of Toxicology, March 13th-17th, “The Reprotoxic Effect of Engineered Nanoparticles, in vivo and in vitro”

2016 Invited speaker at the XIV International Congress of Toxicology, October 2-6, “Developmental toxicity of Engineered Nanoparticles, in vivo and in vitro”

9) Publications:

1. Polimeni M, Gulino GR, Gazzano E, Kopecka J, Marucco A, Fenoglio I, Cesano F, Campagnolo L, Magrini A, Pietroiusti A, Ghigo D, Aldieri E. Multi-walled carbon nanotubes directly induce epithelial-mesenchymal transition in human bronchial epithelial cells via the TGF- β -mediated Akt/GSK-3 β /SNAIL-1 signalling pathway. *Part Fibre Toxicol.* 2016 Jun 1;13(1):27.
2. Pietroiusti A, Magrini A, Campagnolo L. New frontiers in nanotoxicology: Gut microbiota/microbiome-mediated effects of engineered nanomaterials. *Toxicol Appl Pharmacol.* 2015 Dec 23. pii: S0041-008X(15)30162-9. doi: 10.1016/j.taap.2015.12.017. [Epub ahead of print]
3. Campagnolo L, Telesca C, Massimiani M, Stuhlmann H, Angelico M, Lenci I, Manzia TM, Tariciotti L, Lehmann G, Baiocchi L. Different expression of VEGF and EGFL7 in human hepatocellular carcinoma. *Dig Liver Dis.* 2016 Jan;48(1):76-80. doi: 10.1016/j.dld.2015.09.019. Epub 2015 Oct 9..
4. Hougaard KS, Campagnolo L, Chavatte-Palmer P, Tarrade A, Rousseau-Ralliard D, Valentino S, Park MV, de Jong WH, Wolterink G, Piersma AH, Ross BL, Hutchison GR, Hansen JS, Vogel U, Jackson P, Slama R, Pietroiusti A, Cassee FR. A perspective on the developmental toxicity of inhaled nanoparticles. *Reprod Toxicol.* 2015 Aug 15;56:118-40. doi: 10.1016/j.reprotox.2015.05.015. Epub 2015 Jun 4.
5. Farcal L, Torres Andón F, Di Cristo L, Rotoli BM, Bussolati O, Bergamaschi E, Mech A, Hartmann NB, Rasmussen K, Riego-Sintes J, Ponti J, Kinsner-Ovaskainen A, Rossi F, Oomen A, Bos P, Chen R, Bai R, Chen C, Rocks L, Fulton N, Ross B, Hutchison G, Tran L, Mues S, Ossig R, Schnekenburger J, Campagnolo L, Vecchione L, Pietroiusti A, Fadeel B. Comprehensive In Vitro Toxicity Testing of a Panel of Representative Oxide Nanomaterials: First Steps towards an Intelligent Testing Strategy. *PLoS One.* 2015 May 21;10(5):e0127174.
6. Massimiani M, Vecchione L, Piccirilli D, Spitalieri P, Amati F, Salvi S, Ferrazzani S, Stuhlmann H, Campagnolo L. Epidermal growth factor-like domain 7 promotes migration and invasion of human trophoblast cells through activation of MAPK, PI3K and NOTCH signaling pathways. *Mol Hum Reprod.* 2015 (ePub ahead of print)
7. Pietroiusti, A., Magrini, A., Campagnolo, L. Mechanisms of nanomaterial toxicity (2014) *Health and Environmental Safety of Nanomaterials: Polymer Nanocomposites and Other Materials Containing Nanoparticles*, pp. 28-43.
8. Campagnolo, L., Costanza, G., Francesconi, A., Arcuri, G., Moscatelli, I., Orlandi, A. Sortilin expression is essential for pro-nerve growth factor-induced apoptosis of rat vascular smooth muscle cells (2014) *PLoS ONE*, 9 (1)

9. Lacko, L.A., Massimiani, M., Sones, J.L., Hurtado, R., Salvi, S., Ferrazzani, S., Davisson, R.L., Campagnolo, L., Stuhlmann, H. Novel expression of EGFL7 in placental trophoblast and endothelial cells and its implication in preeclampsia (2014) *Mechanisms of Development*, 133, pp. 163-176.
10. Colicchia, M., Campagnolo, L., Baldini, E., Ulisse, S., Valensise, H., Moretti, C. Molecular basis of thyrotropin and thyroid hormone action during implantation and early development (2014) *Human Reproduction Update*, 20 (6), pp. 884-904.
11. Campagnolo, L., Fenoglio, I., Massimiani, M., Magrini, A., Pietroiusti, A. Screening of nanoparticle embryotoxicity using embryonic stem cells (2013) *Methods in Molecular Biology*, 1058, pp. 49-60.
12. Campagnolo, L., Massimiani, M., Palmieri, G., Bernardini, R., Sacchetti, C., Bergamaschi, A., Vecchione, L., Magrini, A., Bottini, M., Pietroiusti, A. Biodistribution and toxicity of pegylated single wall carbon nanotubes in pregnant mice (2013) *Particle and Fibre Toxicology*, 10 (1),
13. Pietroiusti, A., Campagnolo, L., Fadeel, B. Interactions of engineered nanoparticles with organs protected by internal biological barriers (2013) *Small*, 9 (9-10), pp. 1557-1572.
14. Hougaard, K.S., Campagnolo, L. Reproductive Toxicity (2012) *Adverse Effects of Engineered Nanomaterials*, pp. 225-242.
15. Carbone, M., Campagnolo, L., Angelico, M., Tisone, G., Almerighi, C., Telesca, C., Lenci, I., Moscatelli, I., Massoud, R., Baiocchi, L. Leptin attenuates ischemia-reperfusion injury in the rat liver (2012) *Transplant International*, 25 (12), pp. 1282-1288.
16. Lehmann, G., Cacciotti, I., Palmero, P., Montanaro, L., Bianco, A., Campagnolo, L., Camaioni, A. Differentiation of osteoblast and osteoclast precursors on pure and silicon-substituted synthesized hydroxyapatites (2012) *Biomedical Materials (Bristol)*, 7 (5),
17. Campagnolo, L., Massimiani, M., Magrini, A., Camaioni, A., Pietroiusti, A. Physico-chemical properties mediating reproductive and developmental toxicity of engineered nanomaterials (2012) *Current Medicinal Chemistry*, 19 (26), pp. 4488-4494.
18. Legramante, J.M., Sacco, S., Crobeddu, P., Magrini, A., Valentini, F., Palleschi, G., Pallante, M., Balocchi, R., Iavicoli, I., Bergamaschi, A., Galante, A., Campagnolo, L., Pietroiusti, A. Changes in cardiac autonomic regulation after acute lung exposure to carbon nanotubes: Implications for occupational exposure (2012) *Journal of Nanomaterials*.
19. Vecchione, L., Diano, L., Campagnolo, L., Rocchi, L., Ferrè, F., Mehta, J.L., Novelli, G., Amati, F. Functional characterization and expression analysis of novel alternative splicing isoforms of Olr1 gene during mouse embryogenesis (2012) *Gene*, 491 (1), pp. 5-12.
20. Pietroiusti, A., Massimiani, M., Fenoglio, I., Colonna, M., Valentini, F., Palleschi, G., Camaioni, A., Magrini, A., Siracusa, G., Bergamaschi, A., Sgambato, A., Campagnolo, L. Low doses of pristine and oxidized single-wall carbon nanotubes affect mammalian embryonic development (2011) *ACS Nano*, 5 (6), pp. 4624-4633.
21. Amati, F., Diano, L., Campagnolo, L., Vecchione, L., Cipollone, D., Bueno, S., Prosperini, G., Desideri, A., Siracusa, G., Chillemi, G., Marino, B., Novelli, G. Hif1 α down-regulation is associated with transposition of great arteries in mice treated with a retinoic acid antagonist (2010) *BMC Genomics*, 11
22. Lehmann, G., Palmero, P., Cacciotti, I., Pecci, R., Campagnolo, L., Bedini, R., Siracusa, G., Bianco, A., Camaioni, A., Montanaro, L. Design, production and biocompatibility of nanostructured porous

- HAp and Si-Hap ceramics as threedimensional scaffolds for stem cell culture and differentiation (2010) *Ceramics - Silikaty*, 54 (2), pp. 90-96
23. Moscatelli, I., Pierantozzi, E., Camaioni, A., Siracusa, G., Campagnolo, L. p75 neurotrophin receptor is involved in proliferation of undifferentiated mouse embryonic stem cells (2009) *Experimental Cell Research*, 315 (18), pp. 3220-3232.
 24. Bianco, A., Di Federico, E., Moscatelli, I., Camaioni, A., Armentano, I., Campagnolo, L., Dottori, M., Kenny, J.M., Siracusa, G., Gusmano, G. Electrospun poly(ϵ -caprolactone)/Ca-deficient hydroxyapatite nanohybrids: Microstructure, mechanical properties and cell response by murine embryonic stem cells (2009) *Materials Science and Engineering C*, 29 (6), pp. 2063-2071.
 25. Campagnolo, L., Moscatelli, I., Pellegrini, M., Siracusa, G., Stuhlmann, H. Expression of EGFL7 in primordial germ cells and in adult ovaries and testes (2008) *Gene Expression Patterns*, 8 (6), pp. 389-396.
 26. Sorrentino, E., Nazzicone, V., Farini, D., Campagnolo, L., De Felici, M. Comparative transcript profiles of cell cycle-related genes in mouse primordial germ cells, embryonic stem cells and embryonic germ cells (2007) *Gene Expression Patterns*, 7 (6), pp. 714-721.
 27. Niola, F., Evangelisti, C., Campagnolo, L., Massalini, S., Buè, M.C., Mangiola, A., Masotti, A., Maira, G., Farace, M.G., Ciafrè, S.A. A plasmid-encoded VEGF siRNA reduces glioblastoma angiogenesis and its combination with interleukin-4 blocks tumor growth in a xenograft mouse model (2006) *Cancer Biology and Therapy*, 5 (2), pp. 174-179.
 28. Kuhnert, F., Campagnolo, L., Xiong, J.-W., Lemons, D., Fitch, M.J., Zou, Z., Kiosses, W.B., Gardner, H., Stuhlmann, H. Dosage-dependent requirement for mouse *Vezf1* in vascular system development (2005) *Developmental Biology*, 283 (1), pp. 140-156.
 29. Campagnolo, L., Leahy, A., Chitnis, S., Koschnick, S., Fitch, M.J., Fallon, J.T., Loskutoff, D., Taubman, M.B., Stuhlmann, H. EGFL7 is a chemoattractant for endothelial cells and is up-regulated in angiogenesis and arterial injury (2005) *American Journal of Pathology*, 167 (1), pp. 275-284.
 30. Fitch, M.J., Campagnolo, L., Kuhnert, F., Stuhlmann, H. *Egfl7*, a novel epidermal growth factor-domain gene expressed in endothelial cells (2004) *Developmental Dynamics*, 230 (2), pp. 316-324.
 31. Puglianiello, A., Campagnolo, L., Farini, D., Cipollone, D., Russo, M.A., Siracusa, G. Expression and role of PDGF-BB and PDGFR- β during testis morphogenesis in the mouse embryo (2004) *Journal of Cell Science*, 117 (7), pp. 1151-1160.
 32. Hooper, J.D., Campagnolo, L., Goodarzi, G., Truong, T.N., Stuhlmann, H., Quigley, J.P. Mouse matriptase-2: Identification, characterization and comparative mRNA expression analysis with mouse hepsin in adult and embryonic tissues (2003) *Biochemical Journal*, 373 (3), pp. 689-702.
 33. Campagnolo, L., Russo, M.A., Puglianiello, A., Favale, A., Siracusa, G. Mesenchymal cell precursors of peritubular smooth muscle cells of the mouse testis can be identified by the presence of the p75 neurotrophin receptor (2001) *Biology of Reproduction*, 64 (2), pp. 464-472.