

CURRICULUM VITAE

Stefania Pasqua Mariggìo

Professional Education

- 4 April 2014** **PhD**, Department of Basic and Applied Medical Sciences, ‘G d’Annunzio’ University of Chieti–Pescara. Thesis title: “Metabolism and biological activities of the glycerophosphoinositols, the phosphoinositide-specific phospholipase A₂ derivatives, during the immune response”. Supervisors: Dr. Daniela Corda, Prof. Giorgio Fanò.
- 3 August 2001** **PhD** with the Open University, UK, at the Consorzio Mario Negri Sud. Thesis title: “Regulation of immune receptor functional responses by G protein-coupled receptor kinases (GRKs) and arrestins”. Supervisors: Dr. Antonio De Blasi, Dr. Chris Marshall (CRC Centre for Cell and Molecular Biology, Institute of Cancer Research, London).
- 1 Oct ‘96 - 30 Sep ‘99** Professional Course in the framework of the Special Project in Applied Scientific Research. Project title “Regulation of receptors involved in the chemotaxis of immunocompetent cells”, Laboratory of Molecular Biology and Receptor Pharmacology, Consorzio Mario Negri Sud. Supervisor: Dr. Antonio De Blasi.
- 5 Mar - 26 Jun 1996** Certificate in Life Sciences as: “Expert in Research Methodologies”. Consorzio Mario Negri Sud.
- 16 Jan - 9 Aug 1995** Certificate in Life Sciences as: “Expert in Pharmacological Technology and Advanced Biomedicine in Pharmaceutical and Agroalimentary Research”. Consorzio Mario Negri Sud.
- April 1995** Diploma: Pharmaceutical Specialisation (Abilitazione alla Professione di Farmacista), University of Perugia.
- 11 March 1994** First Degree in Pharmaceutical Chemistry (Chimica e Tecnologia Farmaceutiche) at University of Perugia. Graduated with the highest grade: 110/110 cum laude.

Professional Experience

- Oct 2011 to date** Staff Researcher, Institute of Protein Biochemistry (IBP), Italian National Research Council (CNR).
- 6 -27 Nov 2017** Visiting Researcher, Laboratory of Prof. Barbara Balestrieri, Brigham and Women's Hospital, Division of Rheumatology, Immunology and Allergy, Harvard Medical School of Boston, MA USA.
- 15 Oct '10 - 23 Dec '10** Visiting Researcher, Laboratory of Prof. J. Gumperz, Medical Microbiology and Immunology, University of Wisconsin School of Medicine and Public Health, Madison, WI, USA.
- 1 Jul 2009 - 16 Oct 2011** Visiting Researcher, Institute of Protein Biochemistry (IBP), Italian National Research Council (CNR), Naples.
- 24 Jan 2002 - June 2009** Staff Scientist, Laboratory of Cellular and Molecular Endocrinology, Department of Cell Biology and Oncology, Consorzio Mario Negri Sud.
- 10 January 2001** Researcher, Laboratory of Cellular and Molecular Endocrinology, Department of Cell Biology and Oncology, Consorzio Mario Negri Sud.
- 1 Jan 2000 - 31 Dec 2000** Visiting Student, Laboratory of Prof Federico Mayor, Centro de Biología Molecular "Severo Ochoa", Facultad de Ciencias, Universidad Autonoma de Madrid, Spain.
- 21 Jul '97 - 30 Sept '97** Visiting Student, Laboratory of Dr Paul Insel, Hematology-Oncology Division, University of California San Diego, CA, USA.
- 1 Oct '96 - 30 Sept '99** Postgraduate Fellowship in Life Science (Italian MURST).
- 1 Dec '94 - 30 Nov '99** Fellowship at Consorzio Mario Negri Sud, Laboratory of Molecular Biology and Pharmacology of Receptors.

Invited Reviewer for Journals and Grants

- Reviewer *ad hoc* for Cell Proliferation; Molecular Cancer Therapeutics; Drug Design, Development and Therapy; Neuroscience Letters; Oncotarget; Immunology; Prostaglandins & Other Lipid Mediators
- External Reviewer in the framework of *Biological Sciences Projects - Cell and Molecular Biology* subarea - of the Portuguese Foundation for Science and Technology (FCT - Fundação para a Ciência e Tecnologia) Ministério da Ciência, Tecnologia e Ensino Superior, Lisboa Portugal.

Publications

- 35** - D'Angelo R, Mangini M, Fonderico J, Fulle S, Mayo E, Aramini A, **Mariggìo S** (2020) Inhibition of osteoclast activity by complement regulation with DF3016A, a novel small-molecular-weight C5aR inhibitor. *Biomed Pharmacother.* 123:109764. doi: 10.1016/j.biopha.2019.109764. Epub 2019 Dec 31.
- 34** - Varone A, **Mariggìo S**, Patheja M, Maione V, Varriale A, Vessichelli M, Spano D, Formiggini F, Lo Monte M, Brancati N, Frucci M, Del Vecchio P, D'Auria S, Flagiello A, Iannuzzi C, Luini A, Pucci P, Banci L, Valente C, Corda D. (2019) A signalling cascade involving receptor-activated phospholipase A₂, glycerophosphoinositol 4-phosphate, Shp1 and Src in the activation of cell motility. *Cell Commun Signal.* 17:20.
- 33** - Vessichelli M, **Mariggìo S**, Varone A, Zizza P, Di Santo A, Amore C, Dell'Elba G, Cutignano A, Fontana A, Cacciapuoti C, Di Costanzo G, Zannini M, de Cristofaro T, Evangelista V, Corda D. (2017) The natural phosphoinositide derivative glycerophosphoinositol inhibits the lipopolysaccharide-induced inflammatory and thrombotic responses. *J Biol Chem.* 292:12828-12841.
- 32** - Mangini M, Iaccino E, Mosca MG, Mimmi S, D'Angelo R, Quinto I, Scala G and **Mariggìo S**. Peptide-guided targeting of GPR55 for anti-cancer therapy. (2017) *Oncotarget.* 8:5179-5195. doi: 10.18632/oncotarget.14121.
- 31** - Grauso L, **Mariggìo S**, Corda D, Fontana A and Cutignano A. An improved UPLC-MS/MS platform for quantitative analysis of glycerophosphoinositol in mammalian cells. (2015) *PLoS ONE* 10(4):e0123198. eCollection 2015.
- 30** - Ohshima N, Kudo T, Yamashita Y, **Mariggìo S**, Honda A, Nagano T, Kato N, Corda D, Izumi T and Yanaka N. New membrane-bound glycerophosphodiester phosphodiesterases: GDE4 and GDE7 hydrolyse lysophosphatidylcholine and lyso-PAF. (2015) *J Biol Chem.* 290:4260-71.
- 29** - De Luca AC, Reader-Harris P, Mazilu M, **Mariggìo S**, Corda D and Di Falco A. Reproducible surface-enhanced Raman quantification of biomarkers in multicomponent mixtures. (2014) *ACS Nano.* 8:2575-83.
- 28** - Capestrano M, **Mariggìo S**, Perinetti G, Egorova AV, Iacobacci S, Santoro M, Di Pentima A, Iurisci C, Egorov M, Di Tullio G, Buccione R, Luini A, Polishchuk RS. Cytosolic phospholipase A₂ ϵ drives recycling through the clathrin-independent endocytic route. (2014) *J Cell Sci.* 127:977-93.
- 27** - Corda D, Mosca MG, Ohshima N, Grauso L, Yanaka N and **Mariggìo S**[§]. The emerging physiological roles of the glycerophosphodiesterase family. *FEBS J.* (2014) 281:998-1016.
- [§]Corresponding author.

- 26** - Patrussi L, Mariggio S[§], Corda D and T. Baldari CT. The glycerophosphoinositols: from lipid metabolites to modulators of T cell signaling. *Frontiers in Immunology* (2013) 4:213.
[§]Corresponding author.
- 25** - Zizza P, Iurisci C, Bonazzi M, Leslie CC, Cossart P, Corda D and Mariggio S[§]. Role of phospholipase A₂IV α in FcR-mediated phagocytosis. *J Biol Chem* (2012) 287:16849-59.
[§]Corresponding author.
- 24** - Valente C, Turacchio G, Mariggio S, Pagliuso A, Gaibisso R, Di Tullio G, Santoro M, Formiggini F, Spanò S, Piccini D, Polishchuk R, Colanzi A, Luini A and Corda D. A 14-3-3 γ -dimer-based scaffold bridges CtBP1-S/BARS to PI4KIII β to regulate post-Golgi carrier formation. *Nat Cell Biol.* (2012) 14:343-54.
- 23** - Corda D, Zizza P, Varone A, Bruzik KS and Mariggio S[§]. The glycerophosphoinositols and their cellular functions. *Biochem Soc Trans.* (2012) 40:101-7. [§]Corresponding author.
- 22** - Menniti M, Iuliano R, Sopjani M, Föllner M, Mariggio S, Nofziger C, Perri AM, Amato R, Blazer-Yost B, Corda D, Lang F and Perrotti N. 60kDa lysophospholipase, a new Sgk1 molecular partner involved in the regulation of EnaC. *Cell Physiol Biochem.* (2010) 26:587-96.
- 21** - Okazaki Y, Ohshima N, Yoshizawa I, Kamei Y, Mariggio S, Okamoto K, Maeda M, Nogusa Y, Fujioka Y, Izumi T, Ogawa Y, Shiro Y, Wada M, Kato N, Corda D and Yanaka N. A novel glycerophosphodiester phosphodiesterase GDE5 controls skeletal muscle development via a non-enzymatic mechanism. *J Biol Chem.* (2010) 285:27652-63.
- 20** - San Pietro E, Polishchuk EV, Di Pentima A, Trucco A, Zizza P, Mariggio S, Pulvirenti T, Sallese M, Tetè S, Mironov AA, Luini A and Polishchuk RS. Group IV phospholipase A₂ α controls the formation of inter-cisternal continuities involved in intra-Golgi transport. *Plos Biology* (2009) Sep;7(9):e1000194.
- 19** - Corda D, Zizza P, Varone A, Filippi BM and Mariggio S[§]. The glycerophosphoinositols: cellular metabolism and biological functions. *Cell Mol Life Sci.* (2009) 66:3449-67.
[§]Corresponding author.
- 18** - Corda D, Kudo T, Zizza P, Iurisci C, Kawai E, Kato N, Yanaka N and Mariggio S[§]. The developmentally regulated osteoblast phosphodiesterase GDE3 is glycerophosphoinositol specific and modulates cell growth. *J Biol Chem.* (2009) 284:24848-56. [§]Corresponding author.
- 17** - Egorov MV, Capestrano M, Vorontsova OA, Di Pentima A, Egorova AV, Mariggio S, Ayala MI, Tetè S, Gorski JL, Luini A, Buccione R and Polishchuk RS. Faciogenital dysplasia protein (FGD1) regulates export of cargo proteins from the golgi complex via Cdc42 activation. *Mol Biol Cell.* (2009) 20:2413-27.
- 16** - Ayala I, Giacchetti G, Caldieri G, Attanasio F, Mariggio S, Tetè S, Polishchuk R, Castronovo V and Buccione R. Faciogenital dysplasia protein Fgd1 regulates invadopodia biogenesis and

extracellular matrix degradation and is up-regulated in prostate and breast cancer. *Cancer Res.* (2009) *69*:747-52.

- 15** - Filippi BM, **Mariggio S**, Pulvirenti T and Corda D. Src-dependent signalling regulates actin ruffle formation induced by glycerophosphoinositol 4-phosphate. *Biochim Biophys Acta.* (2008) *1783*:2311-22.
- 14** - **Mariggio S**[§], Filippi BM, Iurisci C, Dragani LK, De Falco V, Santoro M and Corda D. Cytosolic phospholipase A₂ α regulates cell growth in RET/PTC-transformed thyroid cells. *Cancer Res.* (2007) *67*:11769-78. [§]Corresponding author.
- 13** - Patrussi L, **Mariggio S**, Paccani SR, Capitani N, Zizza P, Corda D and Baldari CT. The phosphoinositide metabolite glycerophosphoinositol-4-phosphate enhances T-cell chemotaxis by activating the Rho GTPase exchange factor Vav through the PTK-dependent factor. *Cell Signal.* (2007) *19*: 2351-60.
- 12** - **Mariggio S**[§], Iurisci C, Sebastia J, Patton-Vogt J and Corda D. Molecular characterization of a glycerophosphoinositol transporter in mammalian cells. *FEBS Lett.* (2006) *580*:6789-96. [§]Corresponding author.
- 11** - **Mariggio S**[§], Sebastia J, Filippi BM, Iurisci C, Volontè C, Amadio S, De Falco V, Santoro M and Corda D. A novel pathway of cell growth regulation mediated by a PLA₂ α -derived phosphoinositide metabolite. *FASEB J.* (2006) *20*:2567-9. [§]Corresponding author.
- 10** - **Mariggio S**, Bavec A, Natale E, Zizza P, Salmona M, Corda D and Di Girolamo M. G α 13 mediates activation of the cytosolic phospholipase A₂ α through fine regulation of ERK phosphorylation. *Cell Signal.* (2006) *18*:2200-8.
- 9** - **Mariggio S**, Garcia-Hoz C, Sarnago S, De Blasi A, Mayor F Jr and Ribas C. Tyrosine phosphorylation of G-protein-coupled-receptor kinase 2 (GRK2) by c-Src modulates its interaction with G α q. *Cell Signal.* (2006) *18*:2004-12.
- 8** - Rusk N, Le PU, **Mariggio S**, Guay G, Iurisci C, Nabi IR, Corda D and Symons M. Synaptojanin 2 functions at an early step of clathrin-mediated endocytosis. *Curr Biol.* (2003) *13*:659-63.
- 7** - Mancini R*, Piccolo E*, **Mariggio S***, Filippi BM, Iurisci C, Pertile P, Berrie CP and Corda D. Reorganization of actin cytoskeleton by the phosphoinositide metabolite glycerophosphoinositol 4-phosphate. *Mol Biol Cell.* (2003) *14*:503-15. *Contributed equally.
- 6** - Iacovelli L, Salvatore L, Capobianco L, Picascia A, Barletta E, Storto M, **Mariggio S**, Sallese M, Porcellini A, Nicoletti F and De Blasi A. Role of G protein-coupled receptor kinase 4 and β -arrestin 1 in agonist-stimulated metabotropic glutamate receptor 1 internalization and activation of mitogen-activated protein kinases. *J Biol Chem.* (2003) *278*:12433-42.

- 5 - Mariggio MA, Guarnieri S, **Mariggio S**, Morabito C, Gianfranceschi GL and Fanò G. N-CAM expression and localization in PC12 cells modulated by extracellular peptides. *Peptides*. (2002) 23:2151-61.
- 4 - Sallese M, **Mariggio S**, D'Urbano E, Iacovelli L and De Blasi A. Selective regulation of Gq signaling by G protein-coupled receptor kinase 2: direct interaction of kinase N terminus with activated G α q. *Mol Pharmacol*. (2000) 57:826-31.
- 3 - Iacovelli L, Sallese M, **Mariggio S** and De Blasi A. Regulation of G-protein-coupled receptor kinase subtypes by calcium sensor proteins. *FASEB J*. (1999) 13:1-8.
- 2 - Sallese M, **Mariggio S**, Collodel G, Moretti E, Piomboni P, Baccetti B and De Blasi A. G protein-coupled receptor kinase GRK4. Molecular analysis of the four isoforms and ultrastructural localization in spermatozoa and germinal cells. *J Biol Chem*. (1997) 272:10188-95.
- 1 - Tiecco M, Testaferri L, Tingoli M, Marini F, **Mariggio S**. Electrophilic Phenylselenenylation of Thiophenes. Synthesis of Poly (Phenylseleno) Thiophenes. *Tetrahedron*. (1994) 50:10549.

Chapters of Books

- 4 - **Mariggio S**, Filippi BM, Iurisci C and Corda D. Biological activities of the phosphoinositide derivatives, the glycerophosphoinositols. In “Chemical Probes in Biology” (Schneider M.P., ed.) Kluwer Academic Publisher, The Netherlands. p. 39-49 (2003).
- 3 - **Mariggio S**. Regulation of immune receptor functional responses by G protein-coupled receptor kinases (GRKs) and arrestins. pp 38-48 and
- 2 - **Mariggio S**, Filippi BM, Iurisci C and Corda D. Reorganization of the actin cytoskeleton by the phosphoinositide metabolite glycerophosphoinositol 4-phosphate. P. 49
In “The Joint Academic Programme between Italian Biomedical Research Institutions and the Open University (UK)”. The Embassy of Italy – Office of the Scientific Attaché – London. (March 2002).
- 1 - Iacovelli L, **Mariggio S**, Franchetti R and De Blasi A. Regulation of Peptidergic G protein-coupled receptors by Receptor Kinases and Arrestins. In “Peptidergic G protein-coupled receptors: from basic research to clinical applications” (Werner Muller –Esler, D. Regoli, Thue W. Schwartz and P. Geppetti, eds.) IOS press, Amsterdam, The Netherlands. (1998).

Patents

- 2 - USA Patent n° US9351983 B2, Inventors: Corda D, Zizza P, Luini A, **Mariggio S** (2016) Use of glycerophosphoinositols for the treatment of septic shock.
- 1 - 2012 Italian Patent: IT n. RM2010A000473 “Use of glycerophosphoinositols for the treatment of septic shock”. Corda D, Luini A, Zizza P, **Mariggio S**, National Research Council (CNR).