

Curriculum vitae

DE MARCHIS SILVIA

Born in Torino, Italy, 14/09/1966
Nationality: Italian
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Position

Since May 2015: Associate Professor, University of Turin, Italy.
Actual Teaching Activity: Histology and Neurodevelopmental Biology.

Education

1994-Honor degree in Biology, University of Turin, Italy.
2000-Ph.D. in Neuroendocrinology, University of Milan, Italy.

Fellowships

Erasmus Scholarship (1993)
Biotechnology Foundation of Turin short-term mobility fellowship (1997)
National Research Centre (CNR) short-term mobility fellowship (1997)
Compagnia di San Paolo fellowship for post-doctoral studies (2000-2001)
University of Turin young investigator award (1999)

Scientific Experience

2002: 4 months research activity at the Department of Neuroanatomy; School of Medicine, University of Baltimore, USA.
2000-2001: Post-doctoral research contract, Department of Human and Animal Biology, University of Turin, Turin, Italy.
2000: 4 months research activity at the Department of Neuroanatomy, School of Medicine, University of Baltimore, USA.
1995-1999: PhD in Neuroendocrinology at the Department of Human and Animal Biology, University of Turin, Italy.
1997: 1 month laboratory training at the Laboratory of Neuroendocrinology Univ. Rouen (France)
1997: 1 month laboratory training at the Laboratorio di Fisiopatologia di Organo e Sistema, Istituto Superiore di Sanità (Rome, Italy).
1996-1997: 2 months stage at the Istituto di Endocrinologia University of Milan, Italy.
1994-1995: Practical laboratory training and research activity at the Department of Animal Biology, University of Turin, Italy.
1993-1994: Practical laboratory training and research activity at the Laboratory of Neuroendocrinology, Univ. of Rouen (France)

Scientific Collaborations

Dr. Michèle Studer, INSERM U636, Nice Sophia Antipolis, France

Prof. Jeroen Pasterkamp, University Medical Center, Utrecht, The Netherlands

Dr. Paolo Giacobini, Inserm, Jean-Pierre Aubert Research Center, Unité 837; UDSL, School of Medicine, Lille, France

Prof. Saadia Bamhamed, Cadi Ayyad University Marrakech, Morocco.

Main research lines: My research activity is focused on neurogenesis in the postnatal and adult mammalian central nervous system. In particular, I work on cellular/molecular aspects involved in the control of progenitor proliferation/migration and differentiation during development and in the adult mammalian forebrain. The main model system in my research is the olfactory system and the subventricular zone of rodents. I'm author of more than 30 full papers published in peer-reviewed high-impact factor journal in the field of neuroscience.

Guest Editor in 'Special Issues' on peer reviewed journals:

Cellular Imaging and Emerging Technologies for Adult Neurogenesis Research (2012)
Front. Neurosci.

Guest referee for international scientific journals: PLoS ONE; Neuroscience; J. Comp. Neurol.; J. Neurosci.; Eur. J. Neurosci.; Exp. Neurol.; J. Neurochem.; Neurobiol. Dis.; Brain Res.; Brain Res. Bull.; Int. J. Dev. Neurosci.; Neurosci. Lett.; J. Neurosci. Res.; Front. Neuroscience; Brain Structure and Function; Journal of Visualized experiments (JoVE)

Reviewer in international grant projects:

Medical Research Council (UK) – Research Grants applications

Croatian Science Foundation - Research Grants applications

Main publications

1. **Semaphorin7A Regulates Neuroglial Plasticity in the Adult Hypothalamic Median Eminence.** Parkash J, Messina A, Langlet F, Cimino I, Loyens A, Mazur D, Gallet S, Balland E, Malone S, Pralong F, Cagnoni G, Schellino R, De Marchis S, Mazzone M, Pasterkamp J, Tamagnone L, Prévot V and Giacobini P. *Nature Communications* 2015 6:6385
2. **Odour enrichment increases adult-born dopaminergic neurons in the mouse olfactory bulb.** Bonzano S, Bovetti S, Fasolo A, Peretto P, De Marchis S. *European Journal of Neuroscience* 2014 Nov;40(10):3450-7. doi: 10.1111/ejn.12724. Epub 2014 Sep 12.
3. **The interplay between reproductive social stimuli and adult olfactory bulb neurogenesis.** Peretto P., Schellino R., De Marchis S., Fasolo P. *Neural Plasticity* 2014;2014:497657. doi: 10.1155/2014/497657. Epub 2014 Jul 22.
4. **COUP-TFI controls activity-dependent tyrosine hydroxylase expression in adult dopaminergic olfactory bulb interneurons.** Bovetti S., Bonzano S., Garzotto D., Giannelli S.G., Iannielli A., Armentano M., Studer M., De Marchis S. *Development* 140, 4850-4859, 2013.
5. **Transitory and activity-dependent expression of Neurogranin in olfactory bulb tufted cells during mouse postnatal development.** Gribaudo S., Bovetti S., Friard O., Denorme M., Oboti L., Fasolo A., De Marchis S. *Journal of Comparative Neurology*, vol. 520, p. 3055-3069, 2012.
6. **Cellular imaging and emerging technologies for adult neurogenesis research.** De Marchis S., Puche A.C. *Frontiers in Neuroscience* 6, 41, 1-2 2012.
7. **From chemical neuroanatomy to an understanding of the olfactory system.** Oboti L., Peretto P., De Marchis S., Fasolo A. *European Journal of Histochemistry* 55:e35, 194-199

- 2011.
8. **New striatal neurons in a mouse model of progressive striatal degeneration are generated in both the subventricular zone and the striatal parenchyma.** Luzzati F., De Marchis S., Parlato R., Gribaudo S., Schutz G., Fasolo A., Peretto P. *PlosONE* 6(9), e25088,1-16; 2011.
 9. **From progenitors to integrated neurons: role of neurotransmitters in adult olfactory neurogenesis.** Bovetti S., Gribaudo S., Puche C.A., De Marchis S., Fasolo A.. *Journal of Chemical Neuroanatomy* 42, 304-316; 2011.
 10. **Wnt5a is a transcriptional target of Dlx homeogenes and promotes differentiation of interneuron progenitors in vitro and in vivo.** Paina S., Garzotto D., De Marchis S., Marino M., Moiana A., Conti L., Cattaneo E., Perera M., Corte G., Calautti G., and Merlo G. *The Journal of Neuroscience* 31(7), 2675-2687; 2011.
 11. **Eps8 involvement in neuregulin1-ErbB4 mediated migration in the neuronal progenitor cell line ST14A.** Fregnan F, Petrov V, Garzotto D, De Marchis S., Offenhäuser N, Grosso E, Chiorino G, Perroteau I, Gambarotta G. *Exp Cell Res.* 317 (6) 757-769; 2011
 12. **Extracerebellar progenitors grafted to the neurogenic milieu of the postnatal rat cerebellum adapt to the host environment but fail to acquire cerebellar identities.** Rolando C., Gribaudo S., Yoshikawa K., Leto K., De Marchis S., Rossi F.. *European Journal of Neuroscience* 31, 1340-1351; 2010.
 13. **Olfactory enrichment influences adult neurogenesis modulating GAD67 and plasticity-related molecules expression in newborn cells of the olfactory bulb.** Bovetti S., Veyrac A., Peretto P., Fasolo A., De Marchis S. *PloSONE* 4(7), e6359; 2009.
 14. **Expression and localization of the Calmodulin-binding protein neurogranin in the adult mouse olfactory bulb.** Gribaudo S., Bovetti S., Garzotto D., Fasolo A., De Marchis S. *Journal of Comparative Neurology* 517(5), 683-694; 2009.
 15. **Integration and sensory experience-dependent survival of newly-generated neurons in the accessory olfactory bulb of female mice.** Oboti L., Savalli G., Giachino C., De Marchis S., Panzica G.C., Fasolo A., Peretto P. *European Journal of Neuroscience* 29(4), 679-692, 2009.
 16. **Hepatocyte Growth Factor regulates migration of olfactory interneuron precursor in the rostral migratory stream through Met-Grb2 coupling.** Garzotto D., Giacobini P., Crepaldi T., Fasolo A., De Marchis S. *Journal of Neuroscience* 28(23), 5901-5909, 2008.
 17. **BDNF/TrkB interaction regulates migration of SVZ precursor cells via PI3-K and MAP-K signalling pathways.** Chiamarello S., Dalmaso G., Bezin L., Marcel D., Jourdan F., Peretto P., Fasolo A., De Marchis S. *European Journal of Neuroscience* 26, 1780-1790, 2007.
 18. **Spatio-temporal specification of olfactory bulb interneurons.** Bovetti S., Peretto P., Fasolo A., De Marchis S. *Journal Molecular Histology* 38 (6), 563-569, 2007.
 19. **Generation of distinct types of periglomerular olfactory bulb interneurons during development and in adult mice: implication for intrinsic properties of the SVZ progenitor population.** De Marchis S., Bovetti S., Carletti B., Hsieh Y., Garzotto D., Peretto P., Fasolo A., Puche A., Rossi F. *The Journal of Neuroscience* 27(3), 657-664 2007.
 20. **Adult neurogenesis and local neuronal progenitors in the striatum.** Luzzati F., De Marchis S., Fasolo A., Peretto P. *Neurodegenerative Disease* 4(4), 322-327, 2007.
 21. **Differential expression of neuregulins and their receptors in the olfactory bulb layers of the developing mouse.** Bovetti S., De Marchis S., Gambarotta G., Fasolo A., Perroteau I., Puche A.C., Bovolín P. *Brain Research* 1077, 37-47 2006.
 22. **Neurogenesis in the caudate nucleus of the adult rabbit.** Luzzati F., De Marchis S., Fasolo A., Peretto P. *The Journal of Neuroscience* 26, 609-621 2006.
 23. **cAMP response element-binding protein regulates differentiation and survival of newborn neurons in the olfactory bulb.** Giachino C., De Marchis S., Giampietro C., Parlato R., Perroteau I., Schütz G., Fasolo A., Peretto P. *The Journal of Neuroscience* 25, 10105-10118 2005.

24. **GABAergic phenotypic differentiation of a subpopulation of subventricular derived migrating progenitors.** De Marchis S., Temoney S., Erdelyi F., Bovetti S., Bovolin P., Szabo G., Puche AC. *European Journal of Neuroscience* 51307-1317 2004 .
25. **Expression of the secreted factors noggin and bone morphogenetic proteins in the subependymal layer olfactory bulb of the adult mouse brain.** Peretto P., Dati C., De Marchis S., Hee Kim H., Ukhanova M., Fasolo A., Margolis F. *Neuroscience* 128, 685-696 2004.
26. **Subventricular Zone-Derived Neuronal progenitors migrate into the subcortical forebrain of postnatal mice.** De Marchis S., Fasolo A., Puche A.C. *Journal of Comparative Neurology* 476, 290-300; 2004.
27. **Unique neuronal tracers show migration and differentiation of SVZ progenitors in organotypic slices.** De Marchis S., Fasolo A., Shipley M., Puche A. *Journal of Neurobiology* 49, 326-338; 2001.
28. **Carnosine-like immunoreactivity in the central nervous system of rats during postnatal development.** De Marchis S., Modena C., Peretto P., Giffard C., Fasolo A *Journal of Comparative Neurology* 426(3):378-390; 2000.
29. **Aminoacyl-histidine dipeptides in the glial cells of the adult rabbit forebrain.** Peretto P., Luzzati F., Bonfanti L., De Marchis S., Fasolo A.. *Peptides* 21(11):1717-1724; 2000.
30. **Carnosine related dipeptides in neurons and glia.** De Marchis S., Modena C., Peretto P., Migheli A., Margolis F.L., Fasolo A. *Biochemistry (Moscow)* 65, 969-980; 2000.
31. **Carnosine-related dipeptides in the mammalian brain.** Bonfanti L., Peretto P., De Marchis S., Fasolo A. *Progr. Neurobiol.* 59,333-353; 1999.
32. **Identification of the glial cell types containing carnosine-related peptides in the rat brain.** De Marchis S., Melcangi R.C., Modena C., Cavaretta I., Peretto P., Agresti C., Fasolo A. *Neuroscience Letters* 237, 1-4 1997.
33. **Glutamatergic deafferentation of olfactory bulb modulates the expression of mGluR1 and mRNA.** Ferraris N., Perroteau I., De Marchis S., Fasolo A., Bovolin P. *Neuroreport* 8, 1949-1953 1997.
34. **Stem cells in the adult central nervous system.** De Marchis S., Perroteau I., Bonfanti L., Peretto P., Fasolo A. *Minerva Biotechnologica* 8, 16-22 1996.
35. **In vitro study of the effect of Urotensin II on Corticosteroid Secretion in the Frog *Rana ridibunda*.** Feuilloley M., Lesouhaitier O., Delarue C., De Marchis S., Conlon J.M., Bern H.A. and Vaudry H. (1994). - *J. Steroid Biochem. Molec. Biol.* 48, 287-292. 1994.
36. **Pituitary adenylate cyclase-activating polypeptide (PACAP) stimulates both adrenocortical cells and chromaffin cells in the frog adrenal gland.** Yon L., Chartrel N., Feuilloley M., De Marchis S., Fournier A., De Rijk E., Pelletier G., Roubos E. and Vaudry H. (1994). *Endocrinology* 135 (6), 2749-2758. 1994.