

Luca Bonfanti – Curriculum vitae

Born in Turin on 19.05.1962. Italian.

Current position:

Associate Professor (Anatomy) at the Department of Veterinary Sciences of the University of Turin (teaching), and group leader at Neuroscience Institute Cavalieri Ottolenghi (NICO, Orbassano - research)

Education:

1987: Degree in Veterinary Medicine (with honors)

1993: Post-doctoral scholarship from the University of Turin for research at the Department of Veterinary Morphophysiology.

1993: Post-doctoral stage at INSERM Unity 378 (Bordeaux), within a CNR/INSERM partnership.

1992: PhD in Veterinary Functional Neuroanatomy

1992: "Elba International Neuroscience Program" (Isola d'Elba, Italy)

1991: Two year stage at INSERM Unity 176 and "Laboratoire de Neuroendocrinologie Morphofonctionnelle", University of Bordeaux II.

1987: Master degree in Veterinary Medicine (cum laude, University of Turin)

Previous professional and academic appointments (from the most recent to the most remote)

1994-2000: Assistant Professor at Dipartimento di Morfofisiologia Veterinaria, University of Turin

2000 to present: Associate Professor of Anatomy of the Domestic Animals, at Department of Veterinary Sciences (Turin)

Research awards and honors:

2010: Recruited as group leader at the Neuroscience Institute Cavalieri Ottolenghi (a Research Centre in Neuroscience established by a private Foundation of the Turin University)

2011: Two months stay at NorthEastern University, Dept. of Biology (Boston, USA) as Invited professor (Stem cell biology)

Editorial Board memberships

2015 to present: Editor in Chief of "Frontiers in Neurogenesis" (Frontiers series, Lausanne, CH)

2012-2015: Associate Editor of "Frontiers in Neurogenesis"

2013 to 2017: Associate Editor of "Neurogenesis" (Taylor and Francis, Philadelphia, USA)

Trustee positions, memberships:

From 2001: member of the PhD Council "Veterinary Sciences for Animal Health and Food Safety".

2010: evaluation of S.B.R.I. (Stem cell and Brain Research Institute, Lyon, France) for AERES (Agence d'Evaluation de la Recherche et des établissements d'Enseignement Supérieur)

2015-2016: Member of the Italian VQR (national evaluation of Research Quality)

PhD program

Since 2001, member of the Council for "PhD course in Basic Sciences and Veterinary Biotechnology", now "PhD Doctorate in Veterinary Sciences".

PhD students: Giovanna Ponti, Angela Gritti, Nadia Canalia, Maria Armentano, Paola Crociara, Roberta Parolisi, Chiara La Rosa, Marco Ghibaudi, Yifei Liu.

Member in final PhD thesis evaluation committee:

- PhD in co-sharing Italy-France, Dr. Samuele Chiamarello: Brain Derived Neurotrophic Factor

(BDNF) et régulation de la neurogenèse dans le système olfactif de la souris adulte (Lyon, France, 2008)

- Dr. Ramón Guirado Guillén: Neuronal structural plasticity of the rodent telencephalon: Role of PSA-NCAM and modulation by the antidepressant Fluoxetine (València, Spain, 2012)

Guest referee for international scientific journals: Nat. Rev. Neurosci.; PLoS Biol.; Neuroscience; J. Neuroendocrinol.; Stem Cells; J. Comp. Neurol.; Glia; J. Anat.; Eur. J. Neurosci.; Exp. Neurol.; J. Neurochem.; Neurobiol. Dis.; Brain Res.; Brain Res. Bull.; Int. J. Dev. Neurosci.; Curr. Stem Cell Res. Ther.; Int. J. Neuropsychopharm.; BMC-Dev. Biol.; Neurosci. Lett.; J. Neurosci. Res.; J. Neurosci; Plos One; Cereb Cortex.

Membership in research centers: Neuroscience Institute Cavalieri Ottolenghi - NICO (Turin).

Membership in Research Networks: NIT (Neuroscience Institute of Turin)

Guest Editor for Special Issues:

- Neural stem cell niches and parenchymal progenitors (2010) Archiv. It. Biol. (with A. Mackay-Sim)
- Towards a comparative understanding of adult neurogenesis (2011) Eur. J. Neurosci. (with G.H. Zupanc)
- Adult neurogenesis twenty years later: physiological function versus brain repair (2014) Front. Neurosci. (with P. Peretto)
- Adult neurogenesis: beyond rats and mice (2017-18) Front. Neurosci. (with I. Amrein)
- Neuron and Brain Maturation (2020-21) IJMS (with S. Couillard-Despres)

International Book Editing:

- Bonfanti L. (2008) Postnatal and Adult Neurogenesis, RESEARCH SIGNPOST, Trivandrum, pp. 290.
- Bonfanti L. (2013) Neural stem cells: new perspectives, INTECH OPEN ACCESS PUBLISHER, Rijeka, pp. 420.
- Peretto P., Bonfanti L. (2014) eBook Adult neurogenesis twenty years later: physiological function versus brain repair. FRONTIERS.

Grants obtained (as project/unit scientific coordinator)

- FIRB Progetti Negoziali 2001 (Grant RBNE01YRA3): [www*.neuralstemcells.it](http://www.neuralstemcells.it) (*where,when,why) (Unit coordinator, 71.000 Euros)
- PRIN 2005: Caratterizzazione, plasticità differenziativa e capacità di integrazione di cellule staminali in modelli animali (Project coordinator; Unit: 25,600 Euros)
- Marie Curie action - International Outgoing Fellowships (IOF) Call: FP7-PEOPLE-2007-4-1-IOF; project "NEURALSTEMIMAGING" (2009-2011; Scientific supervisor). Researcher: Giovanna Ponti. Partner: Arturo Alvarez-Buylla (130.000 Euros)
- Fondazione CRT: " 'Endogenous' sources of stem/progenitor cells for brain repair" 2014 (Project coordinator; 25.000 Euros)
- PRIN 2015 (Grant 2015Y5W9YP): new non-invasive approach to the investigation of cerebral activity in domestic animals using functional near-infrared spectroscopy: Implications on animal welfare and on comparative system and cognitive neuroscience (Unit coordinator, 32.500 Euros)

Main invited seminars and lectures:

Glial-glia and glial-neuronal interactions in the subependymal layer and CNS migratory streams. 2nd International Conference on Glial Interfaces in the Nervous System. Uppsala (2001).

The subependymal layer as a source of cells for the adult mammalian brain: anatomical and comparative aspects. Satellite Symposium S.I.N.S. (Neural stem cells: a multipotential system for biology and therapy; Turin (2001).

Glia-independent chains of neuroblasts in the adult brain parenchyma. F.E.N.S. Forum, Simposium: Understanding the different steps of adult neurogenesis. Lisbon (2004).

Postnatal/adult neurogenic sites in mammals: a morphological approach. Istituto scientifico San Raffaele, Milano (2006).

Neurogenesis in the adult rabbit: from olfactory system to cerebellum. Inserm U 862; Université Victor Segalen-Bordeaux II, Bordeaux (2008).

Structural plasticity in the rabbit brain and cerebellum: with and without germinal layers. Department of Physiology, Anatomy and Genetics, University of Oxford, Oxford, UK (2008).

Neurogenesis in the adult rabbit: from olfactory system to cerebellum. Neurophysiologie et Nouvelles Microscopies INSERM U603, Université Paris Descartes, Paris (2008).

Adult neurogenesis in mammals, with and without germinal layers. International Neuroscience Winter Conference, Solden, Austria (2009).

Evolutionary, anatomical and molecular constraints to therapeutically-aimed modulation of adult neurogenesis. VI SIF Symposium: The pharmacological modulation of adult neural stem/progenitor cells. Novara (2010).

Adult neurogenesis in aquatic mammals devoid of olfaction. Adult Neurogenesis: Evolution, Regulation and Function. Dresden (2015).

Postnatal and adult neurogenesis in aquatic mammals devoid of olfaction. The Role of Adult Neurogenesis in Plasticity: Evolutionary Insights. J.B. Johnston club - SFN, Chicago (2015).

From adult neurogenesis to immature neurons: Heterogeneity of mammalian brain plasticity. INRA, Nouzilly, France (2018).

Is there adult neurogenesis in the mammalian neocortex? Adult Neurogenesis Digital talks. Abcam (2020)

Neuronal plasticity in large-brained mammals: Adult neurogenesis or immature neurons? J.B. Johnston Club (2020)

Reviewer in international grant projects:

- European Commission's 7th Framework Programme for Research (topic: HEALTH-2007-2.2.1-7)
- ELA Foundation (2009)
- Neurological Foundation of New Zealand (2009)
- Japanese-Israeli scientific and technological cooperation agreement in LIFE SCIENCES (Topic: Stem Cell Research, 2010).
- Deutsche Forschungsgemeinschaft (German Research Foundation; 2011)
- Swiss National Science Foundation (2011)

Visiting committees

Evaluation of S.B.R.I. (Stem cell and Brain Research Institute, Lyon, France - 2010) for AERES (Agence d'Evaluation de la Recherche et des établissements d'Enseignement Supérieur)

Main scientific collaborations:

- Sébastien Couillard-Després, Paracelsus Medical University: Salzburg, Austria
- Angela Gritti, San Raffaele Telethon Institute for Gene Therapy (TIGET), Milan
- Irmgard Amrein, D-HEST, ETH Zurich and Institute of Anatomy, University of Zurich, Zurich, Switzerland
- Chet Sherwood, Inst. of Anthropology, University of Washington (USA)
- Frederic Lévy, INRA - University of Tours (France)
- Juan Nacher, Neurobiology Unit, BIOTECMED, Universitat de València, and Spanish Network for Mental Health Research CIBERSAM - 46100, Spain
- Bruno Cozzi, Department of Comparative Biomedicine and Food Science, University of Padova, Italy
- Arturo Alvarez-Buylla, UCSF Neurological Surgery faculty, San Francisco, California (USA)

Research fields:

Research carried out by the group led by Prof. Bonfanti concerns the study of spontaneous adult neurogenic processes in mammals, with particular reference to in vivo studies of neural stem cell

compartments. In this field, the group has a solid experience since two decades, confirmed by the list of publications. More recently the focus has been put also on non-newly generated, "immature" neurons. Technical competences: neuroanatomical studies with morphological and immunocytochemical techniques in light, confocal and electronic microscopy. Ultrastructural analysis through a combination of immunocytochemical techniques in pre- and post-embedding. In vivo identification of cell proliferation and differentiation, as well as characterization of immature neurons. Comparative adult neurogenesis and structural plasticity in different mammals. Since 2010 research has been conducted at the Neuroscience Institute Cavalieri Ottolenghi (NICO)

PUBLICATIONS

Articles on peer-reviewed journals

La Rosa C, Bonfanti L (2021) **Searching for alternatives to brain regeneration.** *NEURAL REG RES* (in press)

La Rosa C, Cavallo F, Pecora A, Chincarini M, Ala U, Faulkes CG, Nacher J, Cozzi B, Sherwood CC, Amrein I, Bonfanti L (2020) **Phylogenetic variation in cortical layer II immature neuron reservoir of mammals.** *eLIFE* 9:e55456.

La Rosa C, Parolisi R, Bonfanti L (2020) **Brain structural plasticity: From adult neurogenesis to immature neurons.** *FRONT NEUROSCI* 14:75.

Cozzi B, Bonfanti L, Canali E, Minero M (2020) **Brain waste: The neglect of animal brains.** *FRONT NEUROANAT* 14:573934.

La Rosa C, Ghibaudi M, Bonfanti L (2019) **Newly generated and non-newly generated "immature" neurons in the mammalian brain: A possible reservoir of young cells to prevent brain ageing and disease?** *J CLIN MED* 8(5), pii: E685.

Piumatti M, Palazzo O, La Rosa C, Crociara P, Parolisi R, Luzzati F, Lévy F, Bonfanti L (2018) **Non-newly generated, "immature" neurons in the sheep brain are not restricted to cerebral cortex.** *J NEUROSCI* 38: 826-842.

Parolisi R, Cozzi B, Bonfanti L (2018) **Humans and dolphins: Decline and fall of adult neurogenesis.** *FRONT NEUROSCI* 12:497.

La Rosa C, Parolisi R, Palazzo O, Lévy F, Meurisse M, Bonfanti L (2018) **Clusters of DCX+ cells "trapped" in the subcortical white matter of early postnatal Cetartiodactyla (*Tursiops truncatus*, *Stenella coeruleoalba* and *Ovis aries*).** *BRAIN STRUCT FUNCT* 223(8):3613-3632.

Palazzo O, La Rosa C, Piumatti M, Bonfanti L (2018) **Do large brains of long-living mammals prefer non-newly generated, immature neurons?** *NEURAL REG RES* 13: 633-634.

Parolisi R, Cozzi B, Bonfanti L (2017) **Non-neurogenic SVZ-like niche in dolphins, mammals devoid of olfaction.** *BRAIN STRUCT FUNCT* 222: 2625-2639.

Bonfanti L (2016) **Adult neurogenesis 50 years later: Limits and opportunities in mammals.** *FRONT NEUROSCI* 10:44.

Lipp HP, Bonfanti L (2016) **Adult neurogenesis in mammals: variations and confusions.** *BRAIN BEHAV EVOL* 87:205-221.

Bonfanti L (2016) **Adult neurogenesis 50 years later: Limits and opportunities in mammals.** *FRONT NEUROSCI* 10:44.

Nacher J, Bonfanti L (2015) **New neurons from old beliefs in the adult piriform cortex?** *FRONT NEUROANAT* 9:62.

Feliciano DM, Bordey A, Bonfanti L (2015) **Noncanonical sites of adult neurogenesis in the mammalian brain.** *COLD SPRING HARB PERSPECT BIOL* 7(10) pii: a018846

Peretto P, Bonfanti L. (2015) **Adult neurogenesis 20 years later: physiological function vs. brain repair.** *FRONT NEUROSCI* 9:71.

Parolisi R, Peruffo A, Messina S, Panin M, Montelli S, Giurisato M, Cozzi B, Bonfanti L. (2015) **Forebrain neuroanatomy of the neonatal and juvenile dolphin (*T. truncatus* & *S. coerulealba*).** *FRONT NEUROANAT* 9:140.

Lattanzi W, Parolisi R, Barba M, Bonfanti L. (2015) **Osteogenic and neurogenic stem cells in their own place: unraveling differences and similarities between niches.** *FRONT CELL NEUROSCI* 9:455.

Luzzati F, Nato G, Oboti L, Vigna E, Rolando C, Armentano M, Bonfanti L, Fasolo A, Peretto P (2014) **Quiescent neuronal progenitors are activated in the juvenile guinea pig lateral striatum and give rise to transient neurons.** *DEVELOPMENT* 141:4065-4075.

Peretto P, Bonfanti L (2014) **Major unsolved points in adult neurogenesis: doors open on a translational future?** *FRONT NEUROSCI* 8:154.

Cattaneo E, Bonfanti L (2014) **Therapeutic potential of neural stem cells: greater in people's perception than in their brains?** *FRONT NEUROSCI* 8:79.

Kreiner G, Bierhoff H, Armentano M, Rodriguez-Parkitna J, Sowodniok K, Naranjo JR, Bonfanti L, Liss B, Schütz G, Grummt I, Parlato R (2013) **A neuroprotective phase precedes striatal degeneration upon nucleolar stress.** *CELL DEATH AND DIFFERENTIATION* (ISSN:1350-9047), pp. 1455-1464. Vol. 20.

Crociara P, Parolisi R, Conte D, Fumagalli M, Bonfanti L (2013) **Cellular and molecular characterization of multipolar Map5-expressing cells: a subset of newly generated, stage-specific parenchymal cells in the mammalian central nervous system.** *PLOS ONE* (ISSN:1932-6203), pp. e63258, 1-18. Vol. 8.

Bonfanti L (2013) **The (real) neurogenic/gliogenic potential of the postnatal and adult brain parenchyma.** *ISRN NEUROSCIENCE* (ISSN:2314-4661), pp. 1-14. Vol. 2013.

Ponti G, Obernier K, Guinto C, Jose L, Bonfanti L, Alvarez-Buylla A (2013) **Cell cycle and lineage progression of neural progenitors in the ventricular-subventricular zones of adult mice.** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA (PNAS - ISSN:1091-6490)*, pp. E1045-E1054. Vol. 110.

Santambrogio S, Ricca A, Maderna C, Ieraci A, Aureli M, Sonnino S, Kulik W, Aimar P, Bonfanti L, Martino S, Gritti A (2012) **The galactocerebrosidase enzyme contributes to maintain a functional neurogenic niche during early post-natal CNS development,** *HUMAN MOLECULAR GENETICS* (ISSN:0964-6906), pp. 4732-4750. Vol. 21.

- Bonfanti L, Nacher J (2012) **New scenarios for neuronal structural plasticity in non neurogenic brain parenchyma: the case of cortical layer II immature neurons.** *PROGRESS IN NEUROBIOLOGY* (ISSN:0301-0082), pp. 1-15. Vol. 98.
- Bonfanti L, Peretto P (2012) **The missing chain.** *FRONTIERS IN NEUROSCIENCE* (ISSN: 1662-453X), pp. 1-1. Vol. 6.
- Bonfanti L, Peretto P (2011) **Adult neurogenesis in mammals: A theme with many variations.** *EUROPEAN JOURNAL OF NEUROSCIENCE* (ISSN:0953-816X), pp. 930-950. Vol. 34.
- Bonfanti L, Rossi F, Zupanc G (2011) **Towards a comparative understanding of adult neurogenesis,** *EUROPEAN JOURNAL OF NEUROSCIENCE* (ISSN:0953-816X), pp. 845- 846. Vol. 34.
- Bonfanti L (2011) **From hydra regeneration to human brain structural plasticity: a long trip through narrowing roads.** *THESCIENTIFICWORLDJOURNAL* (ISSN:1537-744X), pp. 1270- 1299. Vol. 11.
- Martino GV, Pluchino S, Bonfanti L, Schwartz M (2011) **Brain regeneration in physiology and pathology: the immune signature driving therapeutic plasticity of neural stem cells.** *PHYSIOLOGICAL REVIEWS* (ISSN:0031-9333), pp. 1281-1304. Vol. 91.
- Armentano M, Canalia N, Crociara P, Bonfanti L (2011) **Culturing conditions remarkably affect viability and organization of mouse subventricular zone in ex-vivo cultured forebrain slices,** *JOURNAL OF NEUROSCIENCE METHODS* (ISSN:0165-0270), pp. 65- 81. Vol. 197.
- Ponti G, Crociara P, Armentano M, Bonfanti L (2010) **Adult neurogenesis without germinal layers: the 'atypical' cerebellum of rabbits.** *ARCHIVES ITALIENNES DE BIOLOGIE* (ISSN:0003-9829), pp. 147-158. Vol. 148.
- Bonfanti L, Mackay-Sim A (2010) **Exploring neurogenesis outside the niche: atypical location of mammalian neural stem/progenitor cells.** *ARCHIVES ITALIENNES DE BIOLOGIE* (ISSN:0003-9829), pp. 43-45. Vol. 148.
- Ponti G, Reitano E, Aimar P, Cattaneo E, Conti L, Bonfanti L (2010) **Neural-specific inactivation of ShcA function results in anatomical disorganization of subventricular zone neural stem cell niche in the adult brain.** *NEUROSCIENCE* (ISSN:0306-4522), pp. 314-322. Vol. 168.
- Gritti A, Dal Molin M, Foroni C, Bonfanti L (2009) **Effects of developmental age, brain region and time in culture on long-term proliferation and multipotency of neural stem cell populations.** *JOURNAL OF COMPARATIVE NEUROLOGY* (ISSN:0021-9967), pp. 333-349. Vol. 517.
- Bonfanti L, Aimar P, Ponti G, Canalia N (2008) **Immuno-electromicroscopic approach for the study of neural stem cell niches.** *VETERINARY RESEARCH COMMUNICATIONS* (ISSN:0165-7380), pp. S107- S109. Vol. 32.
- Bonfanti L, Theodosis DT (2009) **Polysialic acid and activity-dependent synapse remodeling.** *CELL ADHESION & MIGRATION* (ISSN:1933-6918), pp. 43-50. Vol. 3.
- Bonfanti L, Peretto P, Fasolo A (2002) **Adult structural plasticity and neurogenesis in the mammalian olfactory system.** *ATTI DELLA ACCADEMIA NAZIONALE DEI LINCEI. RENDICONTI LINCEI. SCIENZE FISICHE E NATURALI* (ISSN:1120-6349), pp. 145-179. Vol. s. 9. v. 13.
- Peretto P, Bonfanti L, Merighi A, Fasolo A (1998) **Carnosine-like immunoreactivity in astrocytes of the glial tubes and in newly-generated cells within the tangential part of the rostral migratory stream of rodents.** *NEUROSCIENCE* (ISSN:0306-4522), pp. 527-542. Vol. 85.

Luzzati F, Bonfanti L, Fasolo A, Peretto P (2009) **DCX and PSA-NCAM expression identifies a population of neurons preferentially distributed in associative areas of different pallial derivatives and vertebrate species.** *CEREBRAL CORTEX* (ISSN:1460-2199), pp. 1028-1041. Vol. 19.

Gritti A, Bonfanti L (2007) **Neuronal-glia interactions in central nervous system neurogenesis: the neural stem cell perspective.** *NEURON GLIA BIOLOGY* (ISSN:1740-925X), pp. 309-323. Vol. 3.

Bonfanti L, Bellardi S, Ghidella S, Gobetto A, Polak JM, Merighi A (1991) **Distribution of five peptides, three general neuroendocrine markers, and two synaptic vesicle-associated proteins in the spinal cord and dorsal root ganglia of the adult and newborn dog: an immunocytochemical study.** *THE AMERICAN JOURNAL OF ANATOMY* (ISSN:0002-9106), pp. 154-166. Vol. 191.

Bonfanti L, Candeo P, Piccinini M, Carmignoto G, Comelli MC, Ghidella S, Bruno R, Gobetto A, Merighi A (1992) **Distribution of protein gene product 9.5 (PGP 9.5) in the vertebrate retina: evidence that immunoreactivity is restricted to mammalian horizontal and ganglion cells.** *JOURNAL OF COMPARATIVE NEUROLOGY* (ISSN:0021-9967), pp. 35-44. Vol. 322.

Ponti G, Peretto P, Bonfanti L (2008) **Genesis of neuronal and glial progenitors in the cerebellar cortex of peripuberal and adult rabbits.** *PLOS ONE* (ISSN:1932-6203), pp. 1-19. Vol. 3(6):e2366.

Ponti G, Conti L, Cataudella T, Zuccato C, Magrassi L, Rossi F, Bonfanti L, Cattaneo E (2005) **Comparative expression profiles of ShcB and ShcC phosphotyrosine adapter molecules in the adult brain.** *NEUROSCIENCE* (ISSN:0306-4522), pp. 105-115. Vol. 133.

Bonfanti L, Ponti G (2008) **Adult neurogenesis and the New Zealand White Rabbit,** *THE VETERINARY JOURNAL* (ISSN:1090-0233), pp. 310-331. Vol. 175.

Bonfanti L, Peretto P (2007) **Radial glial origin of the adult neural stem cells in the subventricular zone.** *PROGRESS IN NEUROBIOLOGY* (ISSN:0301-0082), pp. 24-36. Vol. 83.

Ponti P, Peretto P, Bonfanti L (2006) **A subpial transitory germinal zone forms chains of neuronal precursors in the rabbit cerebellum.** *DEVELOPMENTAL BIOLOGY* (ISSN:0012-1606), pp. 168-180. Vol. 294.

Bonfanti L, Peretto P, De Marchis S, Fasolo A (1999) **Carnosine-related dipeptides in the mammalian brain.,** *PROGRESS IN NEUROBIOLOGY* (ISSN:0301-0082), pp. 333-353. Vol. 59.

Folli F, Bonfanti L, Renard E, Kahn CR, Merighi A (1994) **Insulin receptor substrate-1 (IRS-1) distribution in the rat nervous system.** *THE JOURNAL OF NEUROSCIENCE* (ISSN:0270-6474), pp. 6412-6422. Vol. 14.

Fasolo A, Peretto P, Bonfanti L (2002) **Cell migration in the rostral migratory stream.** *CHEMICAL SENSES* (ISSN:0379-864X), pp. 581-582. Vol. 27.

Camoletto P, Peretto P, Bonfanti L, Manceau V, Sobel A, Fasolo A (1997) **The cytosolic phosphoprotein stathmin is expressed in the olfactory system of the adult rat.** *NEUROREPORT* (ISSN:0959-4965), pp. 2825-2829. Vol. 8.

Peretto P, Merighi A, Fasolo A, Bonfanti L (1997) **Glial tubes in the rostral migratory stream of the adult rat forebrain.** *BRAIN RESEARCH BULLETIN* (ISSN:0361-9230), pp. 9-21. Vol. 42.

Peretto P, Merighi A, Fasolo A, Bonfanti L (1999) **The subependymal layer in rodents: a site of structural plasticity and cell migration in the adult mammalian brain.** *BRAIN RESEARCH BULLETIN* (ISSN:0361-9230), pp. 221-243. Vol. 49.

- Peretto P, Luzzati F, Bonfanti L, De Marchis S, Fasolo A (2000) **Aminoacylhistidine dipeptides in the glial cells of the adult rabbit forebrain.** *PEPTIDES* (ISSN: 0196-9781), pp. 1717-1724. Vol. 21.
- Luzzati F, Peretto P, Aimar P, Ponti G, Fasolo A, Bonfanti L (2003) **Glia independent chains of neuroblasts through the subcortical parenchyma of the adult rabbit brain.** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA (PNAS - ISSN:0027-8424)*, pp. 13036-13041. Vol. 100.
- Bonfanti L, Merighi A, Theodosis DT (1996) **Dorsal rhizotomy induces transient expression of the highly sialylated isoform of the neural cell adhesion molecule (PSA-NCAM) in neurons and astrocytes of the adult rat spinal cord.** *NEUROSCIENCE* (ISSN:0306-4522), pp. 619-623. Vol. 74.
- Bonfanti L (2006) **PSA-NCAM in Mammalian Structural Plasticity and Neurogenesis,** *PROGRESS IN NEUROBIOLOGY* (ISSN:0301-0082), pp. 129-164. Vol. 80.
- Ponti G, Aimar P, Bonfanti L (2006) **Cellular Composition and Cytoarchitecture of the Rabbit Subventricular Zone (SVZ) and its Extensions in the Forebrain.** *JOURNAL OF COMPARATIVE NEUROLOGY* (ISSN:0021-9967), pp. 491-507. Vol. 498.
- Bonfanti L, Aimar P, Ponti G (2006) **The rabbit subventricular zone (SVZ): ultrastructural and immunocytochemical study.** *VETERINARY RESEARCH COMMUNICATIONS* (ISSN:0165-7380), pp. 163- 165. Vol. 30 (Suppl. 1).
- Peretto P, Giachino C, Aimar P, Fasolo A, Bonfanti L (2005) **Chain formation and glial tube assembly in the shift from neonatal to adult subventricular zone of rodent forebrain.** *JOURNAL OF COMPARATIVE NEUROLOGY* (ISSN:0021-9967), pp. 407-427. Vol. 487.
- Bonfanti L, Ponti G (2005) **Tangential chains of neuroblasts in the subpial layer of the adult rabbit cerebellum.** *VETERINARY RESEARCH COMMUNICATIONS* (ISSN:0165-7380), pp. 161-163. Vol. 1 (suppl 2).
- Theodosis DT, Bonfanti L, Olive S, Rougon G, Poulain DA (1994) **Adhesion molecules and structural plasticity of the hypothalamo-neurohypophysial system.** *PSYCHONEUROENDOCRINOLOGY* (ISSN:0306-4530), pp. 455-462. Vol. 19.
- Bonfanti L, Poulain DA, Theodosis DT (1993) **Putative factors implicated in the structural plasticity of the hypothalamo-neurohypophysial system.** *REGULATORY PEPTIDES* (ISSN:0167-0115), pp. 165-170. Vol. 45.
- Bonfanti L, Poulain DA, Theodosis DT (1993) **Radial glia-like cells in the supraoptic nucleus of the adult rat.** *JOURNAL OF NEUROENDOCRINOLOGY* (ISSN:0953-8194), pp. 1-5. Vol. 5.
- Bonfanti L, Olive S, Poulain DA, Theodosis DT (1992) **Mapping of the distribution of polysialylated neural cell adhesion molecule (PSA-N-CAM) immunoreactivity in the central nervous system of the adult rat.** *NEUROSCIENCE* (ISSN:0306-4522), pp. 419-436. Vol. 49.
- Galli R, Gritti A, Bonfanti L, Vescovi AL (2003) **Neural stem cells: an overview.** *CIRCULATION RESEARCH* (ISSN:0009-7330), pp. 598-608. Vol. 92.
- Gritti A, Bonfanti L, Doetsch F, Caille I, Alvarez-Buylla A, Lim DA, Galli R, Garcia-Verdugo JM, Herrera DG, Vescovi AL (2002) **Multipotent neural stem cells reside into the rostral extension and olfactory bulb of adult rodents.** *THE JOURNAL OF NEUROSCIENCE* (ISSN:0270-6474), pp. 437-445. Vol. 22.
- Conti L, Sipione S, Magrassi L, Bonfanti L, Rigamonti D, Pettirossi V, Peschanski M, Haddad B, Pelicci P, Milanesi G, Pelicci G, Cattaneo E (2001) **Shc (s) signalling in differentiating neural progenitor cells.** *NATURE NEUROSCIENCE* (ISSN: 1097-6256), pp. 587-596. Vol. 4.

Bonfanti L, Theodosis DT (1994) **Expression of polysialylated neural cell adhesion molecule (PSA-N-CAM) by proliferating cells in the subependymal layer of the adult rat, in its rostral extension and in the olfactory bulb.** *NEUROSCIENCE* (ISSN:0306-4522), pp. 291-305. Vol. 62.

Folli F, Ghidella S, Bonfanti L, Kahn CR, Merighi A (1996) **The early intracellular signaling pathway for the insulin/insulin-like growth factor receptor family in the mammalian central nervous system.** *MOLECULAR NEUROBIOLOGY* (ISSN:0893-7648), pp. 155-183. Vol. 13.

Bonfanti L, Peretto P, Merighi A, Fasolo A (1997) **Newly-generated cells from the rostral migratory stream in the accessory olfactory bulb of the adult rat.** *NEUROSCIENCE* (ISSN:0306-4522), pp. 489- 502. Vol. 81.

Book chapters

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