

Enrica Boda

Scopus Author ID: 24449190500

ORCID ID: 0000-0002-1006-2577

<http://www.neuroscienze.unito.it/do/docenti.pl/Show? id=eboda>

<http://www.nico.ottolenghi.unito.it/ita/Ricerca/Gruppi-di-ricerca/Fisiopatologia-delle-cellule-staminali-cerebrali/Ricercatori/Enrica-Boda>

Born in Turin (Italy), 08/05/1981

PRESENT POSITION

Associate Professor in Human Anatomy (BIO/16), Dept. Neuroscience Rita Levi Montalcini, Neuroscience Institute Cavalieri Ottolenghi (NICO), Univ. of Turin (UNITO), Italy

PREVIOUS POSITIONS AND EDUCATION

October 2017-September 2020 Assistant Professor on tenure track (RTD-B) in Human Anatomy (BIO/16), Dept. Neuroscience, NICO, UNITO, Italy

May-October 2018 Maternity Leave

2017 Abilitazione Scientifica Nazionale – ASN II fascia, in Human Anatomy (05/H1)

2010-2017 Post-doc Fellow. Dept. Neuroscience, NICO, UNITO, Italy. PI: Prof. A. Buffo (Lab. Physiopathology of neural stem cells). Fellowships granted by Fondazione Veronesi (2014-2015) and Accademia Nazionale dei Lincei (Giuseppe Levi Fellowship 2012-2014). Independent funds (Cariplo Ricerca Biomedica condotta da Giovani Ricercatori; 2015-2017).

June-August 2015 Visiting Scholar in Dr. A. Nishiyama's lab, Dept. Physiology and Neurobiology, Univ. of Connecticut, Storrs, CT (USA), <https://akiko-nishiyama.uconn.edu/>.

May 2015 and Feb 2015 Short stays in Dr. V. Taylor's lab, Embryology and Stem Cell Biology, Dept. Biomedicine, Univ. of Basel, Basel, Switzerland.

2010 PhD in Neuroscience. Dept. Neuroscience, UNITO, Italy. PI: Prof. F. Tempia (Lab. Neurophysiology of Neurodegenerative Diseases)

2005 Master's Degree in Neurobiology. 110/110 cum laude and honors. Dept. Human and Animal Biology, UNITO, Italy. PI: Prof. I. Perroteau (Lab. Cellular and Molecular Biology)

TEACHING (2022-2023)

Anatomy I (3 CFU), Master Program in Medicine and Surgery

Anatomy II (Neuroanatomy; 4 CFU), Master Program in Medicine and Surgery

Human Anatomy (8 CFU), Master Program in Pharmacy

Human Anatomy (2 CFU), Master Program in Biotechnologies for Neuroscience

Human Anatomy (1 CFU), Specialization in Medical Physics

INSTITUTIONAL ACTIVITIES (2021-present)

Member of the "Research Committee" of the Dept. of Neuroscience

Member of the "Public Engagement Committee" of the Dept. of Neuroscience

Member of the "Public Engagement Committee" of the NICO

Member of the "Green Policies Committee" of the NICO

Member of the "Monitoring and Review Commission" of the Master Program in Biotechnologies for Neuroscience

INTERNATIONAL COMMITTEES (2021-2022)

Member of the "Conseil de Perfectionnement" of the Master Program in Neuroscience, Université de Paris, France (<https://master-neuroscience-paris.fr/>)

RESEARCH INTERESTS

Glial cell biology and heterogeneity.

Glia-neurons cross-talk in health and disease.

Molecular mechanisms involved in the regulation of the self-renewal and differentiation of neural progenitors.

Neurodevelopmental and neurodegenerative disorders associated with hypo-/de-myelination (Congenital microcephaly, Leukodystrophies, Multiple Sclerosis).

PRESENT COLLABORATIONS

Prof. Anna Pistocchi (Dept. of Medical Biotechnology and Translational Medicine University of Milan, Italy);

Dr. Marco Cambiaghi (Department of Neuroscience, Biomedicine and Movement Sciences, University of Verona, Italy)

Dr. Eleonora Vannini (Neuroscience Institute, CNR, Pisa, Italy)

Prof. Ferdinando di Cunto (Dept. Neuroscience and NICO, UNITO, Italy);

Dr. Francesca Montarolo, Dr. Antonio Bertolotto (CRESM and NICO, Orbassano, Italy);

Dr. Luca Ferrari, Prof. Valentina Bollati (Dept. Clinical Sciences and Community Health, Univ. of Milan, Italy);

Prof. Stephanie Bielas (Dept. Human Genetics, Univ. of Michigan, Ann Arbor, MI, USA)

ACTIVE RESEARCH GRANTS

2024-2026 PRIN (Research Programs of National Interest) - PNRR 2022 – Italian Ministry of Research: Role of interleukin 6 in the pathogenesis of Rett syndrome: focus on astrocyte-neuron crosstalk and its therapeutic implication (ID: P20225Z3J5). Role: co-PI (PI: Dr. Angelisa Frasca, University of Milan, Italy). EUR: 242,583 tot; 110,888 to our Unit.

2023-2025 PRIN (Research Programs of National Interest) 2022 – Italian Ministry of Research: Targeting glial cell dysfunctions to treat cognitive defects and epilepsy in primary autosomal recessive microcephaly-17 (MCPH17) models (ID: 20224YJBBP). Role: PI (co-PI: Dr. Eleonora Vannini, IN-CNR Pisa, Italy). EUR: 183,910 tot; 95,129 to our Unit.

2023-2025 Telethon Foundation Multiround 21-24 – Round 1 2022 Track Basic: Targeting oligodendrocyte dysfunctions to treat cognitive defects and epilepsy in primary autosomal recessive microcephaly-17 (MCPH17) models (ID: GMR22T1066). Role: PI. EUR: 142,363

PAST RESEARCH GRANTS

2021-2023 Cassa di Risparmio di Torino (CRT) Foundation: Air pollution and Multiple Sclerosis: effects of the exposure to particulate matter (PM) on neuroinflammation and myelin repair (ID 2021.0657). Role: PI. EUR: 20,000

2020-2021 Italian Multiple Sclerosis Foundation (FISM) Pilot Project: Air pollution and Multiple Sclerosis: role of particulate matter (PM) exposure and associated extracellular vesicle trafficking in neuroinflammation and Demyelination (ID: 2019/PR-Multi/003). Role: PI. EUR: 30,000

2015-2018 Cariplo Ricerca Biomedica condotta da Giovani Ricercatori, 3-years project granted by Cariplo Foundation, Milan, Italy. Characterization of a novel microRNA involved in myelination: a new potential pathogenetic mechanisms in Multiple Sclerosis (ID: 2014-1207). Role: co-PI (PI: Davide Lecca, Dept. Pharmacological Sciences, Univ. of Milan). EUR: 80,000

OTHER FUNDS

2023 Departmental Funds. Project: Molecular mechanisms underlying oligodendrocyte physiopathology. Role: PI. EUR 2,626

2022 Departmental Funds. Project: Molecular mechanisms underlying oligodendrocyte physiopathology. Role: PI. EUR 3,847

2021 Departmental Funds. Project: Molecular mechanisms underlying oligodendrocyte physiopathology. Role: PI. EUR 4,782

2020 Departmental Funds. Project: Role of particulate matter (PM) exposure in neuroinflammation and demyelination. Role: PI. EUR: 2,200

2018-2019 Departmental Funds. Project: Unveiling oligodendrocyte precursor heterogeneity in CNS physiology and pathology. Role: PI. EUR: 5,000

2017 Individual funding for basic research (Ffabr), granted by the Italian Agency for the Evaluation of University and Research (ANVUR). EUR: 3,000

FELLOWSHIPS (obtained on a National competitive basis)

2015 Postdoctoral Fellowship granted by Fondazione Veronesi, Milan, Italy. Project: Targeting oligodendrocyte progenitor cell division mode to improve myelin repair in the aging CNS.

2014 Postdoctoral Fellowship granted by Fondazione Veronesi, Milan, Italy. Project: Rejuvenating the brain: targeting neural stem/progenitor cell division mode to improve cognitive functions and repair abilities of the aging CNS.

2012 2-years Postdoctoral Fellowship Giuseppe Levi granted by Accademia Nazionale dei Lincei, Rome, Italy. Project: Oligodendrocyte progenitor self-renewal and differentiation: insights into symmetric and asymmetric divisions and possible implications in dysmyelination following peri-natal hypoxia.

AWARDS AND TRAVEL GRANTS

2016 Poster Prize 23rd Meeting of the French Glial Cell Club, Carry-le-Rouet 1-3 June 2016

2014 Poster prize Basel Stem Cell Network Meeting, 9-10 September 2014, Basel, Switzerland

2006 OPTIME Award 2005-2006 (Best graduate students in Biology, UNITO) by Unione Industriale di Torino

2005 Antonio Marzullo Award (Best undergraduate students in Cellular Biology), granted by Univ. of Trieste, Italy

2015 IBRO International Travel Grant, to attend European Meeting on Glial Cells in Health and Disease 2015, Bilbao, Spain

2015 Travel Grant to attend XVI Congress of the Italian Society for Neuroscience (SINS), granted by SINS

2014 Selected for the *Summer School for Young PIs*, UNITO and Post-Doc Development Center, Imperial College (London, UK), Bardonecchia, Italy

2011 Travel grant to attend the 2011 IBRO congress (granted by SINS)

MEMBERSHIPS OF SCIENTIFIC SOCIETIES:

Federation of the European Neuroscience Societies (FENS)

International Society of Neurochemistry (ISN) & European Society of Neurochemistry (ESN)

Italian Society of Neuroscience (SINS)

Italian Group for the Study of Neuromorphology (GISN)

Italian Society of Neuroimmunology (AINI)

BraYn (Brainstorming Research Assembly for Young Neuroscientists) Association

EDITORIAL DUTIES AND REVIEWER ACTIVITY

Guest Editor for the Research Topic "Methods for Neuroscience Research: from Molecular to Cellular Investigations", Front Mol Neurosci (<https://www.frontiersin.org/research-topics/45851/methods-for-neuroscience-research-from-molecular-to-cellular-investigations>)

Guest Editor for the Research Topic "The Role of Astroglia and Oligodendroglia in CNS Development, Plasticity, and Disease – Novel Tools and Investigative Approaches", Front Cell Neurosci (<https://www.frontiersin.org/research-topics/13033/the-role-of-astroglia-and-oligodendroglia-in-cns-development-plasticity-and-disease---novel-tools-an>)

Review Editor for Frontiers in Cellular Neuroscience – Section Non-neuronal cells, Frontiers in Neurogenesis, Frontiers in Neuroanatomy

Ad-hoc Reviewer (~12 revisions/year) for Nat Commun, Glia, Progress in Neurobiology, Advanced Science, Front Neurosci, Sci Rep, Mech Ageing Dev, Mol Neurobiol, Eur J Neurosci, Journal of Alzheimer's Disease (JAD), Plos One, Biochem Pharm, NeuroToxicology, Gene, J Mol Neurosci, Neurochem Int, Neurochem Res, Purinergic Signal, Int J Mol Sci, BMC Mol Biol, Cells, Exp Mol Pathol, Reviews of Environmental Contamination and Toxicology, SpringerNature NeuroMethods book series.

GRANT REVIEWER ACTIVITY

Italian Foundation Multiple Sclerosis (FISM) (2021-2023)
National Science Center – Poland (2022)
Multiple Sclerosis Research Australia Foundation (2015)
Bando Vinci, Italian-French University (2021)
Giovedì Scienza Award (2022-2023)

PHD THESIS REVIEWER

2023 Dr. Ana Cristina Ojalvo Sanz - Progeny and Cell Potential of NG2-progenitors. Programa de Doctorado en Neurociencia, Universidad Autonoma de Madrid, Spain

2022 Dr. Stefania Zorzin – The role of meninges and meningeal neural stem cells in health and disease. PhD in Neuroscience, Psychological and Psychiatric Sciences, and Movement Sciences, University of Verona, Italy

2021 Dr. Electra Brunialti - β -glucocerebrosidase mediates microglial neuroprotective functions: a possible link between Parkinson's and Gaucher's diseases. PhD Program in Pharmacological, Experimental and Clinical Sciences, University of Milan, Italy

2021 Dr. Elena Albizzati - Searching for novel molecular targets in astrocytes for the treatment of Rett Syndrome. PhD Program in Experimental Medicine and Medical Biotechnologies, University of Milan, Italy.

PHD COMMITTEE MEMBER

2022 Dr. Aïda Padilla-Ferrer - Role of the oligodendroglial ADAM10 in re/myelination of the central nervous system. Doctoral School "Medicine, Toxicology, Chemistry, Imaging", Université Paris Descartes, France.

2021 Dr. Isabella Crisci - A study on the cellular and molecular mechanisms underlying adult hippocampal neurogenic niche response to neuroinflammation. PhD Program in Neuroscience, University of Turin, Italy.

SUPERVISION

2017-present (as a PI)

- Maryam Khastkhodaei Ardakani, PhD student in Neuroscience (3rd year), UNITO – co-supervised with Prof. Annalisa Buffo
- Martino Bonato, PhD student in Complex Systems for Quantitative Biomedicine (2nd year, "Green" PON Fellowship), UNITO – co-supervised with Prof. Alessandra Fiorio Pla
- Anna Incerti Tinteri, Junior fellow (2023 – present, hired on the Telethon grant)
- Cecilia Astigiano, Junior fellow, April-Oct 2021 hired on the CRT grant (now PhD student in Biochemistry in Prof. Santina Bruzzone's Lab, University of Genoa)
- Roberta Parolisi, Postdoc fellow (2017-2020, hired on Cariplo and FISM grants)

Supervision of Master's and Bachelor's students: (2023-present) Chiara Scirocco (Master Program in Biotech for Neuroscience), Arianna De Padova (Bachelor's in Molecular Biotech), Jasmine Sider Padovani (Master Program in Medical Biotech), (2021-2023) Claudio Pandino, Maria Teresa Siddi, Anna Incerti Tinteri (Master Program in Medical Biotech), (2019-2020) Cecilia Astigiano, Cecilia Zen, Gloria Fornaro, Irene Floris, Annapia Vitacolonna (Master Program in Medical Biotech), Giulia Colombero, Francesco Gobbi (Master Program in Pharmacy), Marta Ravizzotti (Bachelor's degree in Molecular Biotech), Alessia Zotta (Master Program in Medical Biotech, co-supervised with Prof. Francesco Retta, Dept. of Biological and Clinical Sciences).

ORGANIZATION OF SYMPOSIA AND CONFERENCES

2023 Symposium: "*Cell intrinsic and extrinsic regulation of oligodendrocyte biology and re-/myelination*", accepted in the program of the XX Meeting of the Italian Society of Neuroscience (SINS), Turin, 14-17 Sept 2023.

2023 Symposium: “*Oligodendrocyte progenitor cell fates and interactions with neurons in the adult and developing brain*”, XVI European Meeting on Glial Cells in Health and Disease, Berlin, 8-11 July 2023.

2018-present Member of the Scientific Committee of BraYn (*Brainstorming Research Assembly for Young Neuroscientists*) (<https://www.braynconference.com/>)

2018-2023 Chair of the *Neurophysiology and Neural Plasticity* session (with Rosa Paolicelli, Univ. Lausanne & Giovanna Calabrese, UniMe)

2020 Workshop: “*Glial cell-neuron crosstalk in health and disease*” 1-3 Oct 2020, Turin, Italy (<https://www.nico.ottolenghi.unito.it/Agenda/GLIAL-CELLS-NEURON-CROSSTALK-IN-CNS-HEALTH-AND-DISEASE>).

2020 XXXI Meeting of the Italian Group for the Study of Neuromorphology (GISN), 13-14 Nov 2020, Turin, Italy

2020 2nd National Meeting “Morfologia e dintorni”, 22-23 Feb 2020, Turin, Italy

2019 Satellite symposium: “*Molecular mechanisms regulating oligodendroglia functions and re-/myelination*” 1 Sept 2019, 23rd ESN (European Society of Neurochemistry) Meeting 2019, Milan, Italy

2015 Symposium: “*Intrinsic and extrinsic regulation of oligodendrocyte progenitor cell self-renewal and differentiation*” 9 Oct 2015, SINS (Italian Society of Neuroscience) Meeting 2015, Cagliari, Italy

OTHER ACTIVITIES

Founder of the *Italian Glia Network* (IGN, together with Valentina Cerrato – Unito; Carmen Falcone – SISSA, Trieste; Gabriele Losi – UniFe; Laura Civiero – UniPd; Nunzio Iraci – UniCt; Francesco Petrelli - UniLausanne), website in preparation: <https://italianglianetwork.wixsite.com/italian-glia-network/>

PUBLICATIONS

Publications: 29 + 2 book chapters

H-index (Scopus 02/08/2023): 18

Total citations (Scopus 26/05/2023): 1017

Mean IF: 6.48 (IF of the year of publication)

1. **Boda E***, Lorenzati M, Parolisi R, Harding B, Pallavicini G, Bonfanti L, Moccia A, Bielas S, Di Cunto F, Buffo A (2022) *Molecular and functional heterogeneity in dorsal and ventral oligodendrocyte progenitor cells of the mouse forebrain in response to DNA damage*. Nat Communications, 13,2331. doi: 10.1038/s41467-022-30010-6. (***Corresp. author**). IF2022: 17.69
2. **Boda E***, Boscia F, Lohr C (2022) *Editorial: The Role of Astroglia and Oligodendroglia in CNS Development, Plasticity, and Disease – Novel Tools and Investigative Approaches*. Front Cell Neurosci,16, 901820. (***Corresp. author**). IF2022: 6.147
3. Parolisi R, Montarolo F, Pini A, Rovelli S, Cattaneo A, Bertolotto A, Buffo A, Bollati V, **Boda E** (2021) *Particulate matter 2.5 (PM2.5) exposure hampers myelin repair in a mouse model of white matter demyelination*. Neurochem Int, 145,104991. IF2021/2022: 4.297
4. Lorenzati M, **Boda E**, Parolisi R, Bonato M, Borsello T, Herdegen T, Buffo A, Vercelli A (2021) *c-Jun N-terminal Kinase 1 (JNK1) modulates oligodendrocyte progenitor cell architecture, proliferation and myelination*. Sci Rep, 11,7264. IF2021/2022: 4.379
5. **Boda E** (2021) *Myelin and oligodendrocyte lineage cell dysfunctions: New players in the etiology and treatment of depression and stress-related disorders*. Eur J Neurosci, 53,281-297. doi: 10.1111/ejn.14621. IF2021: 3.115. IF2022: 3.386
6. Balbo I, Montarolo F, **Boda E**, Tempia F, Hoxha E (2021) *Elovl5 expression in the central nervous system of the adult mouse*. Front Neuroanatomy, 15, 669073. IF2021: 3.856. IF2022: 3.543
7. Marangon D, **Boda E**, Parolisi R, Negri C, Giorgi C, Montarolo F, Perga S, Bertolotto A, Buffo A, Abbracchio MP, Lecca D (2020) *In vivo silencing of miR-125a-3p promotes myelin repair in models of white matter demyelination*. Glia, 68:2001-2014. <https://doi.org/10.1002/glia.23819>. IF2020: 7.452. IF2021-2022: 8.073
8. **Boda E***, Rigamonti AE, Bollati V (2020) *Understanding the effects of air pollution on neurogenesis and gliogenesis in the growing and adult brain*. Curr Opin Pharmacol, 50:61-66. doi: 10.1016/j.coph.2019.12.003. (***Corresp. author**). IF2020: 5.547. IF2022: 4.768
9. Finetti F, Schiavo I, Ercoli J, Zotta A, **Boda E**, Retta SF, Trabalzini L (2020) *KRIT1 loss-mediated upregulation of NOX1 in stromal cells promotes paracrine proangiogenic responses*. Cell Signal. 2020 Jan 6:109527. doi: 10.1016/j.cellsig.2020.109527. IF2020: 4.315. IF2022:4.85
10. Vieceli Dalla Sega F, Mastrocola R, Aquila G, Fortini F, Fornelli C, Zotta A, Cento AS, Perrelli A, **Boda E**, Pannuti A, Marchi S, Pinton P, Ferrari R, Rizzo P, Retta SF (2019) *KRIT1 Deficiency Promotes Aortic Endothelial Dysfunction*. Int. J. Mol. Sci. 20, 4930. doi: 10.3390/ijms20194930. IF2019: 4.556. IF2022: 6.208
11. Kempf A, **Boda E**, Kwok J, Fritz R, Grande V, Kaelin AM, Ristic Z, Schmandke A, Schmandke A, Tews B, Fawcett JW, Pertz O, Buffo A, Schwab ME (2017). *Control of cell shape, neurite outgrowth and migration by a Nogo-A/HSPG interaction*. Dev Cell, 43:24-34.e5. IF2017:9.216. IF2022:13.417
12. **Boda E***, Nato G, Buffo A (2017). *Emerging pharmacological approaches to promote neurogenesis from endogenous glial cells*. Biochem Pharmacol, vol. pii: S0006-2952(17)30453-7, p. 30453-30457, doi: 10.1016/j.bcp.2017.06.129 (***Corresp. author**). IF2017: 4.235. IF2022:6.1
13. Fucà E, Guglielmotto M, **Boda E**, Rossi F, Leto K, Buffo A (2017). *Preventive motor training but not progenitor grafting ameliorates cerebellar ataxia and deregulated autophagy in tambaleante mice*. Neurobiol Dis, 102:49-59. doi: 10.1016/j.nbd.2017.02.005. IF2017: 5.227. IF2022:7.046

14. Joshi P, Gabrielli M, Ponzoni L, Pelucchi S, Stravalaci M, Beeg M, Mazzitelli S, Braidà D, Sala ME, **Boda E**, Buffo A, Gobbi M, Gardoni F, Matteoli M, Marcello E, Verderio C (2017). *Fingolimod limits acute A β neurotoxicity and promotes synaptic versus extrasynaptic NMDA receptor functionality in hippocampal neurons*. *Sci Rep*, 7:41734. doi: 10.1038/srep41734. IF2017: 4.122. IF2021/2022: 4.379
15. Pellegrino PM*, **Boda E***, Montarolo F, Boero M, Saglio G, Buffo A, Roetto A (2016). *Transferrin Receptor 2-dependent alterations of brain iron metabolism affect anxiety circuits in mouse* *Sci Rep*. 6:30725. (***equal contribution**). IF2016: 4.259. IF2021/2022: 4.379
16. **Boda E***, Di Maria S, Rosa P, Taylor V, Abbracchio MP, Buffo A (2015). *Early phenotypic asymmetry of sister oligodendrocyte progenitor cells after mitosis and its modulation by aging and extrinsic factors*. *Glia*. 63:271-86. (***Corresp. author**) IF2015: 5.997. IF2021-2022: 8.073
17. **Boda E***, Buffo A (2014). *Beyond cell replacement: unresolved roles of NG2-expressing progenitors*. *Front. Neurosci.*, 8:122. doi: 10.3389/fnins.2014.00122 (***Corresp. author**). IF2014: 3.656. IF2022: 5.152
18. Montarolo F, Parolisi R, Hoxha E, **Boda E**, Tempia F (2013). *Early enriched environment exposure protects spatial memory and accelerates amyloid plaque formation in APP^{Swe}/PS1^{L166P} mice*. *PLoS One*;8:e69381. IF2013: 3.534. IF2021-2022: 3.752
19. Rolando C, Parolisi R, **Boda E**, Schwab ME, Rossi F, Buffo A (2012). *Distinct roles of Nogo-A and Nogo receptor 1 in the homeostatic regulation of adult Neural Stem Cell function and neuroblast migration*. *J. Neurosci*;32: 17788-17799. IF2012: 6.908. IF2021-2022:6.709
20. **Boda E**, Hoxha E, Pini A, Montarolo F, Tempia F (2012). *Brain expression of Kv3 genes in development, adulthood, aging and in a murine model of Alzheimer's disease*. *J Mol Neurosci*;46:606-15. IF 2012: 3.444. IF2021-2022: 2.866
21. Hoxha E, **Boda E**, Montarolo F, Parolisi R, Tempia F (2012). *Excitability and synaptic alterations in the cerebellum of APP/PS1 mice*. *PLoS One*;7:e34726. IF2012: 3.73. IF2021-2022: 3.752
22. **Boda E**, Viganò F, Fumagalli M, Rosa P, Labat-gest V, Tempia F, Abbracchio MP, Dimou L, Buffo A (2011). *The GPR17 receptor in NG2+ cells: focus on in vivo cell maturation and participation in acute trauma and chronic damage*. *Glia*;59:1958-73. IF2011: 4.82. IF2021-2022: 8.073
23. Bianchi FT, Camera P, Ala U, Imperiale D, Migheli A, **Boda E**, Tempia F, Berto G, Bosio Y, Oddo S, LaFerla FM, Taraglio S, Dotti CG, Di Cunto F (2011). *The collagen chaperone HSP47 is a new partner of APP that modulates the levels of beta-amyloid peptides*. *PlosONE*;6:e22370. IF2011: 4.092. IF2021-2022: 3.752
24. Ceruti S, Viganò F, **Boda E**, Ferrario S, Magni G, Boccazzi M, Rosa P, Buffo A, Abbracchio MP (2011). *Expression of the new P2Y-like receptor GPR17 during oligodendrocyte precursor cell maturation regulates sensitivity to ATP-induced death*. *Glia*;59:363-78. IF2011: 4.82. IF2021-2022: 8.073
25. **Boda E**, Buffo A (2010). *Glial cells in non-germinal territories: insights into their stem/progenitor properties in the intact and injured nervous tissue*. *Arch Ital Biol* 148 (2). IF2010: 0.778. IF2022: 0.78
26. Sacco T*, **Boda E***, Hoxha E, Pizzo R, Cagnoli C, Brusco A, Tempia F (2010). *Mouse brain expression patterns of Spg7, Afg3l1, and Afg3l2 transcripts, encoding for the mitochondrial m-AAA protease*. *BMC Neurosci*;11:55 (***equal contribution**). IF2010: 3.091. IF2021-2022:3.264
27. Di Bella D, Lazzaro F, Brusco A, Plumari M, Battaglia G, Pastore A, Finardi A, Cagnoli C, Tempia F, Frontali M, Veneziano L, Sacco T, **Boda E**, Brussino A, Bonn F, Castelletti B, Baratta S, Mariotti C, Gellera C, Fracasso V, Magri S, Langer T, Pievani P, Di Donato S, Muzi-Falconi M, Taroni F (2010). *Mutations in the mitochondrial protease gene AFG3L2 cause dominant hereditary ataxia SCA28*. *Nat Genet*; 42:313-21. IF2010: 36.377. IF2021-2022: 41.307

28. **Boda E****, Pini A, Hoxha E, Parolisi R, Tempia F (2009). *Selection of reference genes for quantitative real-time RT-PCR studies in mouse brain*. J Mol Neurosci;37:238-53. (**Corresp. author). IF2009: 2.891. IF2021-2022: 2.866
29. Giampietro C, Luzzati F, Gambarotta G, Giacobini P, **Boda E**, Fasolo A, Perroteau I (2005). *Stathmin expression modulates migratory properties of GN-11 neurons in vitro*. Endocrinology;146:1825-34. IF2005: 5.313. IF2022: 5.051

Book chapters

1. Parolisi R, **Boda E** (2018) *NG2 glia: novel roles beyond re-/myelination*. Neuroglia, 1(1), 11. <https://doi.org/10.3390/neuroglia1010011>. In: Sergey Kasparov, Neuroglia, MDPI, ISBN 978-3-03897-991-3.
2. Rolando C, **Boda E**, Buffo A (2012). *Immune system modulation of parenchymal and germinal neural progenitor cells in physiological and pathological conditions*, In: Sun Tao. Neural Stem Cells and Therapy. p. 413-440, 51000 RIJEKA:InTech, ISBN: 9789533079585

ORAL COMMUNICATIONS AT MEETINGS/WORKSHOPS

Forthcoming

1. *Molecular and functional heterogeneity in dorsal and ventral oligodendrocyte progenitor cells of the mouse forebrain in response to DNA damage*. XX Meeting of the Italian Society of Neuroscience (SINS), Turin, 15 Sept 2023.
2. *Oligodendroglia heterogeneity in response to DNA damage (tentative title)*. 5th Neuroglial Physiology and Pathology Symposium, Institute of Neurobiology, Universidad National Autonoma de Mexico, Querétaro, Mexico. 10 October 2024
3. *Molecular and functional heterogeneity in dorsal and ventral oligodendrocyte progenitor cells of the mouse forebrain in response to DNA damage*. XVI European Meeting on Glial Cells in Health and Disease, Berlin (Germany), 11 July 2023.
4. *Molecular and functional heterogeneity in dorsal and ventral oligodendrocyte progenitor cells of the mouse forebrain in response to DNA damage*. FENS Regional Meeting, Algarve (Portugal), 3-5 May 2023.
5. *Air pollution and Multiple Sclerosis: role of particulate matter (PM) exposure and associated extracellular vesicle trafficking in neuroinflammation and demyelination*. Annual Scientific Congress of the Italian Multiple Sclerosis Association (AIMS). 25 May 2022, Rome, Italy
6. *Citron-kinase deletion unveils inherent molecular and functional heterogeneity in dorsal and ventral oligodendrocyte progenitor cells of the mouse forebrain*. 10 Sept 2021, 19th Meeting of the Italian Society for Neuroscience (SINS) (webinar)
7. *Citron-kinase deletion unveils inherent molecular and functional heterogeneity in dorsal and ventral oligodendrocyte progenitor cells of the mouse forebrain*, in the frame of Miltenyi Biotec Italy II Neuroscience Virtual Event, 15 June 2021 (webinar)
8. *Oligodendroglia heterogeneity in physiology and pathology: a confocal microscopy study in vivo and in vitro*. 26 May 2021, in the frame of the 10th workshop "Advanced microscopy techniques for biomedical applications", Dept. of Clinical and Biological Sciences, Orbassano (Turin), Italy (webinar)
9. *Are oligodendrocyte progenitors all born equal? A lesson from a microcephaly model*. 1 October 2020, in the frame of the workshop: "Glial cell-neuron crosstalk in health and disease" 1-3 October 2020, Turin, Italy (webinar).
10. *Oligodendroglia heterogeneity in physiology and pathology: a confocal study in vivo and in vitro*. 26 May 2020, in the frame of the 9th workshop "Advanced microscopy techniques for biomedical applications", Dept. of Clinical and Biological Sciences, Orbassano (Turin), Italy (webinar)
11. *Oligodendroglia differently respond to DNA damage depending on their developmental origin*. 22 Feb 2020, 2nd National Meeting "Morfologia e dintorni", Turin, Italy
12. *Strategies to support neural progenitor survival and maturation during CNS development: a lesson from the microcephalic Cit-K KO mouse model*. November 2019, 39th Meeting of the Italian Society of Pharmacology (SIF), Florence, Italy
13. *Are oligodendrocyte progenitors all born equal? A lesson from a microcephaly model*. 1 September 2019, 23rd ESN (European Society of Neurochemistry) Meeting 2019, Milan, Italy

14. *Heterogeneity of the response to DNA damage in oligodendroglia populations: a functional study in vivo and in vitro.* 24 May 2019, in the frame of the 8th workshop “Advanced microscopy techniques for biomedical applications”, Dept. of Clinical and Biological Sciences, Orbassano (Turin), Italy
15. *Are oligodendrocyte progenitors all born equal? A lesson from a microcephaly model.* 30 November 2018, “More than Neurons Meeting”, Turin, Italy
16. *Are oligodendrocyte progenitors all born equal? A lesson from a microcephaly model.* 1 December 2017, XXVII Meeting of the Italian Group for the Study of Neuromorphology (GISN), Bologna, Italy
17. *Inherent heterogeneity in dorsal and ventral OPCs of the mouse CNS unveiled by Citron-kinase deletion.* 3 December 2016, “More than Neurons Meeting: toward a less neuronocentric view of brain disorders”, Turin, Italy
18. *Inherent heterogeneity in dorsal and ventral OPCs of the mouse CNS unveiled by Citron-kinase deletion.* 23 November 2016, XXVI Meeting of the Italian Group for the Study of Neuromorphology (GISN), Verona, Italy
19. *Balancing self-renewal and differentiation of the oligodendrocyte progenitor pool: insights into cell intrinsic regulatory mechanisms.* 9 October 2015, SINS (Italian Society of Neuroscience) Meeting 2015, Cagliari, Italy
20. *Heterogeneity and balance between proliferation and differentiation in the oligodendrocyte progenitor pool.* 24 September 2015, XVI Congress of the Spanish Society of Neuroscience, Granada, Spain (in place of Prof. Annalisa Buffo)
21. *The GPR17 receptor in oligodendroglial cells: cell maturation, heterogeneity and participation in CNS damage.* November 2011, IV Convegno Monotematico SIF, ‘Immunità e infiammazione nelle malattie del cervello. Nuovi bersagli farmacologici per terapie innovative’, Milan, Italy

INVITED SEMINARS

1. *Molecular and functional heterogeneity in dorsal and ventral oligodendroglia of the mouse forebrain in response to DNA damage.* 4 July 2023, Dept. of Medical Biotechnology and Translational Medicine (BIOMETRA), University of Milan, Italy. Host: Dr. Angelisa Frasca
2. Air pollution and Multiple Sclerosis: role of particulate matter (PM) exposure and associated extracellular vesicle trafficking in de-/re-myelination. 16 June 2023, The Human Exposome: focus on neurodegenerative diseases, PhD Program in Sustainable Development and Climate Change. Host: Prof. Marina Boido
3. *Are oligodendrocyte progenitors all born equal? A lesson from a microcephaly model.* 28 July 2020, Institute of Neuroscience, National Research Council (CNR), Pisa, Italy (via live streaming). Host: Dr. Eleonora Vannini
4. *Heterogeneity and balance between proliferation and differentiation in the oligodendrocyte progenitor pool.* 18 November 2015, Department of Pharmacological and Biomedical Sciences, University of Milan, Italy. Host: Prof. Roberto Melcangi
5. *Dynamics of self-renewal and differentiation of the oligodendrocyte progenitor pool in the CNS parenchyma.* 29 November 2013, CNR, Institute of Neuroscience, Milan, Italy. Host: Dr. Patrizia Rosa.
6. *The GPR17 receptor in oligodendroglial cells: focus on cell heterogeneity, maturation and participation in CNS damage.* July 2012, Advanced School on New Approaches in Glial Cell Research, International Society for Neurochemistry, Barcelona, Spain (poster selected for oral presentation).

Torino, 02/08/2023

Enrica Boda

