

Enrica Boda

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<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 (05/BIOS-12), 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 (2024-2025)

Anatomy I (4 CFU), Master Program in Medicine and Surgery 1st year

Anatomy II (Neuroanatomy; 4 CFU), Master Program in Medicine and Surgery 2nd year

Human Anatomy (8 CFU), Master Program in Pharmacy

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

INSTITUTIONAL ACTIVITIES (2021-present)

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

Member of the "Public Engagement Committee" and "Green Policies Committee" of the NICO

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

RESEARCH INTERESTS

Oligodendroglial cell biology and heterogeneity.

Myelination and myelin repair.

Glia-neurons cross-talk in health and disease.

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

PRESENT COLLABORATIONS

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

Prof. Francesco Ferrini (Dept. of Veterinary Sciences, University of Turin, Italy)

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

ACTIVE RESEARCH GRANTS

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

2024-2025 (12 months) PNRR Bando a cascata MNESYS Spoke3 – University of Naples Federico II: A fully humanized integrated cellular system for scalable modeling of inflammatory demyelination (UNFOLD). Role: co-PI (PI: Prof. Annalisa Buffo, NICO e UNITO, Italy). EUR: 200,000.

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.

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

2018 - present Departmental Funds (Ricerca Locale ex-60%). Project: Molecular mechanisms underlying oligodendrocyte physiopathology. Role: PI. EUR approx. 2,500/year

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.

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 Society of Neuroimmunology (AINI)

BraYn (Brainstorming Research Assembly for Young Neuroscientists) Association

EDITORIAL DUTIES AND REVIEWER ACTIVITY

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) (2021-2024)

National Science Center – Poland (2022)

Multiple Sclerosis Research Australia Foundation (2015)

Bando Vinci, Italian-French University (2021)

PhD THESIS REVIEWER

2024 Dr. Juliana Castro E Silva - In vitro remyelinating strategies focusing on oligodendrocytes: targeting inflammation and drug repurposing. PhD in Pharmacological Biomolecular Sciences, University of Milan, Italy

2024 Dr. Marco Fogli - PhD in Neuroscience, University of Turin, Italy

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

2024 - present Advisor for Dr. Giacomo Turrini, PhD Program in Neuroscience, XXXIX cycle, University of Turin, Italy

2024 Dr. Giuseppina De Rocco – Dr. Valeria Casiraghi – Dr. Zulkifal Malik. PhD Program in Experimental Medicine and Medical Biotechnologies, XXXVI cycle, University of Milan, Italy.

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 OF STUDENTS

2017-present (as a PI)

- Maryam Khastkhodaei Ardakani, PhD student in Neuroscience (4rd year), UNITO – co-supervised with Prof. Annalisa Buffo
- Martino Bonato, PhD student in Complex Systems for Quantitative Biomedicine (3rd year, “Green” PON Fellowship), UNITO – co-supervised with Prof. Alessandra Fiorio Pla
- Niccolò Di Cintio, Junior fellow (2023 – present, hired on the Telethon grant)
- Anna Incerti Tinterri, Junior fellow (2023 – 2024, 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 (now Senior Technician in charge of the Microscopy facility of the NICO)

Supervision of Master’s and Bachelor’s students: (present) Filippo Balducci, Federico Ferrari, Chiara Corpetti (Master Program in Biotech for Neuroscience), Manuel Felling (Master Program in Neurobiology, University of Trieste).

Alumni: (2023-2024) Arianna De Padova (Bachelor’s in Molecular Biotech), (2023) Chiara Scirocco (Master Program in Biotech for Neuroscience), (2021-2023) Jasmine Sider Padovani, Claudio Pandino, Maria Teresa Siddi, Anna Incerti Tinterri (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*”, 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/>

Member of World Women in Neuroscience (<https://worldwomenneuro.org/>), an association aimed at improving career development, mentoring and networking opportunities for female neuroscientists around the world, with special attention to women in disadvantaged regions.

PUBLICATIONS

Publications: 33 + 2 book chapters

H-index (Scopus 26/08/2024): 19

Total citations (Scopus 26/08/2024): 1129

Accepted:

Pallavicini G, Moccia A, Iegiani G, Parolisi R, Peirent ER, Berto GE, Lorenzati M, Tshuva RY, Balzac F, Turco E, Salvi S, Myklebust HF, Wang S, Chitale M, Girgla N, **Boda E**, Reiner O, Buffo A, Di Cunto F, Bielas SL. *Modelling primary microcephaly with human brain organoids reveals fundamental roles of CIT kinase activity* (Journal of Clinical Investigation, ID: #175435-JCI-RG-1 – last revision submitted on the 19 August 2024).

1. Ghibaudi M, **Boda E**, Bonfanti L (2025). *From mice to humans: A need for comparable results in mammalian neuroplasticity*. Neural Regeneration Research 20:464-466. doi: 10.4103/NRR.NRR-D-24-00143.
2. Marangon D, Castro e Silva JH, Cerrato V, **Boda E**, Lecca D (2024). *Oligodendrocyte progenitors in glial scar: a bet on remyelination*. Cells 13, 1024; <https://doi.org/10.3390/cells13121024>.
3. Albizzati E, Florio E, Breccia M, Cabasino C, Postogna FM, Grassi R, **Boda E**, Battaglia C, De Palma C, De Quattro C, Pozzi D, Landsberger N, Frasca A (2024). *Mecp2 KO astrocytes affect synaptogenesis by IL-6 dependent mechanisms*. iScience. 27:109296. doi: 10.1016/j.isci.2024.109296.
4. **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**).
5. **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**).
6. 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.
7. 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.
8. **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.
9. 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.
10. 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>.

11. **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.**).
12. 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.
13. 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.
14. 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.
15. **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**).
16. 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.
17. Joshi P, Gabrielli M, Ponzoni L, Pelucchi S, Stravalaci M, Beeg M, Mazzitelli S, Braida 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.
18. 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**).
19. **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**)
20. **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**).
21. 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.
22. 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.
23. **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.
24. 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.
25. **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.

26. 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.
27. 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.
28. **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).
29. 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**).
30. 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.
31. **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**).
32. 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.

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 (last 5 years)

Forthcoming

1. *Oligodendroglia heterogeneity in response to DNA damage: impact on neurodevelopment and adult CNS functions (tentative title)*. 25th Biennial Meeting of the International Society Developmental Neuroscience (ISDN), Montpellier (France), 21-24 Sept 2024
2. *Oligodendroglia heterogeneity in response to DNA damage: impact on neurodevelopment and adult CNS functions (tentative title)*. 5th Neuroglial Physiology and Pathology Symposium, Institute of Neurobiology, Universidad Nacional Autonoma de Mexico, Querétaro, Mexico. 10 October 2024

Past

3. *Oligodendroglia heterogeneity in response to DNA damage: impact on neurodevelopment and adult CNS functions*. Sino-German Workshop “Advanced Concepts of Neuron-Glia Interactions”, Center for Integrative Physiology and Molecular Medicine (CIPMM) University of Saarland, Hömburg (Germany), 3 July 2024.

4. *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, 16 Sept 2023.
5. *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.
6. *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.
7. *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
8. *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)
9. *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)
10. *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)
11. *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).
12. *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)
13. *Oligodendroglia differently respond to DNA damage depending on their developmental origin.* 22 Feb 2020, 2nd National Meeting "Morfologia e dintorni", Turin, Italy

INVITED SEMINARS (last 5 years)

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

Torino, 26/08/2024

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