

Giacomo Boffa

Date of birth 19/10/1989

Nationality Italian

CONTACT INFORMATION

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APPOINTMENTS/EMPLOYMENT

- 2009 Medical student, Protein Transport and Secretion Lab, University Vita-Salute San Raffaele Milan
- 2014 Medical student, Neuroimaging Research Unit, University Vita-Salute San Raffaele Milan
- 2014 Medical student, Department of Neurology, University Vita-Salute San Raffaele Milan
- 2015-2019 Neurology Registrar, Department of Neurology, University of Genoa
- 2018 Visiting scholar, Inglese Laboratory, Icahn School of Medicine at Mount Sinai New York
- 2019 Neurology Registrar, Bone Marrow Transplant Unit, Policlinico IRCCS San Martino Genoa
- 2020 Independent contractor, Sistema Sanitario Regione Liguria (ALISA), COVID center
- 2019-2022 PhD candidate in Neuroscience, University of Genoa
- 2020-2022 Visiting scholar, Repair in multiple sclerosis: from biology to clinical translation Lab - Sorbonne University Paris
- 2023-ongoing Assistant Professor, University of Genoa, Policlinico IRCCS San Martino Genoa

EDUCATION

- 2008 Baccalaureate, Literature and classics 100/100
- 2014 San Raffaele Vita-Salute University, Medical Doctor cum laude
- 2019 University of Genoa, Registrar in Neurology cum laude

CERTIFICATION AND LICENSURE

- 2015 San Raffaele Vita-Salute University, MD Italian board
- 2016 United States Medical Licensing Examination (USMLE) step 1 and step 2

HONORS/AWARDS

- 2017 First prize for the best poster at the "VI Giornata dello Specializzando"
- 2017 First prize for the best oral presentation at the "Clinical tournament for neurologists in training, European Academy of Neurology"
- 2020 First prize for the best oral presentation at the "Italian IRCCS network of neuroscience and neurorehabilitation"
- 2021 MS International Federation Young Investigator Award at the "European Committee for Treatment and Research in Multiple Sclerosis"
- 2024 Young Investigator Award Winner at the "European Committee for Treatment and Research in Multiple Sclerosis"
- 2024 Awarded the National Scientific Qualification ("Abilitazione Scientifica Nazionale") as Associate Professor in Neurology, issued by the Italian Ministry of University and Research.

GRANTS AWARDED

- 2019 Italian Multiple Sclerosis Foundation funded Research Fellowship “Contribution Of Grey Matter Demyelination To Neuronal Damage Evaluated With 11C] Flumazenil Positron Emission Tomography In Multiple Sclerosis”
- 2020 Bando 5x1000 “Sviluppo di metodiche basate sulla cinetica e la geometria del segnale per la quantificazione dell’imaging PET della microglia attivata: effetto di età, sesso e background genetico per la translocator protein in controlli sani”
- 2020 Progetto Speciale FISM “Nessuna evidenza di attività della malattia dopo trapianto autologo di cellule staminali ematopoietiche nella Sclerosi Multipla aggressiva: lo studi NET-MS”
- 2023 Italian Multiple Sclerosis Foundation funded Pilot Project “Using MRI And TSPO-PET To Study The Effect Of Autologous Hematopoietic Stem Cell Transplantation On Compartmentalized CNS Inflammation In Multiple Sclerosis”

OTHERS PROFESSIONAL ROLES

- Reviewer for Neurology, Brain Communication, Journal of Neurology, Journal of the Neurological Sciences, Frontiers in Neurology, Brain Sciences and Journal of Clinical Medicine
- Treating Physician and Rater of Several Clinical Trials in Multiple Sclerosis at the Department of Neurology, University of Genoa, IRCCS San Martino
- Member of the local scientific committee of the Junior Academy Multiple Sclerosis 2024
- Scientific chairperson at the Neuroimaging-Multiple Sclerosis Section at EAN 2021
- 2020 Member of “Neuroimaging panel group” European Academy of Neurology
- Topic Editor for Frontiers in Radiology for the Research Topic “Imaging Biomarkers in Neurological Diseases: Driving Precision Neurology Forwards”
- 2019-2025 Thesis Supervisor and Co-supervisor of five MD candidates

INVITED LECTURES/PRESENTATIONS

- 2018 Invited speaker at the “XLIX Congresso annuale Società Italiana di Neurologia”
- 2022 Invited speaker at the “ECTRIMS focused workshop on Autologous haematopoietic stem cell transplantation for treatment of MS and related diseases”
- 2022 Invited speaker at the “Les pathologies de la myéline du système nerveux central- Sorbonne University”
- 2024 Invited speaker at the “ECTRIMS focused workshop on Expectations, outcomes and study designs for regenerative studies in MS”

SELECTED PUBLICATIONS

Invited reviews

- Autologous haematopoietic stem cell transplantation for treatment of multiple sclerosis and neuromyelitis optica spectrum disorder - recommendations from ECTRIMS and the EBMT.
Muraro PA, Mariottini A, Greco R, Burman J, Iacobaeus E, Inglese M, Snowden JA, Alexander T, Amato MP, Bø L, **Boffa G**, Cicarelli O, Cohen JA, Derfuss T, Farge D, Freedman MS, Gaughan M, Heesen C, Kazmi M, Kirzigov K, Ljungman P, Mancardi G, Martin R, Mehra V, Moiola L, Saccardi R, Tintoré M, Stankoff B, Sharrack B; Attendees of the ECTRIMS Focused Workshop on HSCT.
Nat Rev Neurol. 2025 Mar;21(3):140-158. doi: 10.1038/s41582-024-01050-x. Epub 2025 Jan 15.
- Intense immunosuppression followed by autologous haematopoietic stem cell transplantation as a therapeutic strategy in aggressive forms of multiple sclerosis.
Mancardi G, Sormani MP, Muraro PA, **Boffa G**, Saccardi R.
Mult Scler. 2018 Mar;24(3):245-255. doi: 10.1177/1352458517742532. Epub 2017 Nov 10.

- Ultra-high-field 7-T MRI in multiple sclerosis and other demyelinating diseases: from pathology to clinical practice.

Bruschi N, **Boffa G**, Inglese M.

Eur Radiol Exp. 2020 Oct 22;4(1):59. doi: 10.1186/s41747-020-00186-x.

Books and Book chapters

- Hematopoietic stem cell transplantation for multiple sclerosis.

Boffa G, Inglese M, Mancardi GL.

Handb Clin Neurol. 2024;202:153-167. doi: 10.1016/B978-0-323-90242-7.00011-0.

- HSCT for stiff person syndrome and myasthenia gravis.

Boccia VD, **Boffa G**, Inglese M.

Handb Clin Neurol. 2024;202:239-247. doi: 10.1016/B978-0-323-90242-7.00020-1.

- Ongoing randomized clinical trials on HSCT in multiple sclerosis.

Inglese M, Cohen JA, Sharrack B, **Boffa G**.

Handb Clin Neurol. 2024;202:307-315. doi: 10.1016/B978-0-323-90242-7.00019-5.

- Functional neuroradiology of traumatic brain injury. Functional Neuroradiology: Principles and Clinical Applications

Boffa G., Raz, E., Inglese, M.

2nd edition, Drs. Scott H. Faro and Feroze B. Mohamed, Springer International Publishing 2023

- Sclerosi Multipla e malattie demielinizzanti del sistema nervoso centrale

Uccelli A., **Boffa G**, Vigo T., Inglese M.

Prof. G. Comi, Edizioni Minerva Medica 2022

Peer review original contributions

Long-term Clinical Outcomes of Hematopoietic Stem Cell Transplantation in Multiple Sclerosis.

Boffa G, Massacesi L, Inglese M, Mariottini A, Capobianco M, Moiola L, Amato MP, Cottone S, Gualandi F, De Gobbi M, Greco R, Scimè R, Frau J, Zimatore GB, Bertolotto A, Comi G, Uccelli A, Signori A, Angelucci E, Innocenti C, Ciceri F, Repice AM, Sormani MP, Saccardi R, Mancardi G; Italian BMT-MS Study Group.

Neurology. 2021 Feb 22;96(8):e1215-e1226. doi: 10.1212/WNL.0000000000011461.

Hematopoietic Stem Cell Transplantation in People With Active Secondary Progressive Multiple Sclerosis.

Boffa G, Signori A, Massacesi L, Mariottini A, Sbragia E, Cottone S, Amato MP, Gasperini C, Moiola L, Meletti S, Repice AM, Brescia Morra V, Salemi G, Patti F, Filippi M, De Luca G, Lus G, Zaffaroni M, Sola P, Conte A, Nistri R, Aguglia U, Granella F, Galgani S, Caniatti LM, Lugaresi A, Romano S, Iaffaldano P, Cocco E, Saccardi R, Angelucci E, Trojano M, Mancardi GL, Sormani MP, Inglese M; Italian BMT-MS Study Group and the Italian MS Register.

Neurology. 2023 Mar 14;100(11):e1109-e1122. doi: 10.1212/WNL.0000000000206750. Epub 2022 Dec 21

Multiparametric Characterization and Spatial Distribution of Different MS Lesion Phenotypes.

Tazza F*, **Boffa G***, Schiavi S, Lapucci C, Piredda GF, Cipriano E, Zacà D, Roccatagliata L, Hilbert T, Kober T, Inglese M, Costagli M.

AJNR Am J Neuroradiol. 2024 Aug 9;45(8):1166-1174. doi: 10.3174/ajnr.A8271.

Cognitive changes in patients with relapse-free MS treated with high efficacy therapies: the predictive value of paramagnetic rim lesions.

Boccia VD, Leveraro E, Cipriano E, Lapucci C, Sirito T, Cellerino M, Rebella G, Nasone L, **Boffa G**, Inglese M.

J Neurol Neurosurg Psychiatry. 2025 Jan 31;jnnp-2024-335144. doi: 10.1136/jnnp-2024-335144. Online

ahead of print.

Relationship between sodium and diffusion MRI metrics in multiple sclerosis.

Cipriano E, **Boffa G**, Graziano N, Wigley C, Petracca M, Schiavi S, Mancardi GL, Klineova S, Boada F, Lublin F, Inglese M, Fleysher L.

Brain Commun. 2025 Jan 6;7(1):fcae446. doi: 10.1093/braincomms/fcae446. eCollection 2025.

An aggressive form of MOGAD treated with aHSCT: A case report.

Sbragia E, **Boffa G**, Varaldo R, Raiola AM, Ghiso A, Gambella M, Benedetti L, Angelucci E, Inglese M.

Mult Scler. 2024 Apr;30(4-5):612-616. doi: 10.1177/13524585231213792. Epub 2023 Nov 24.

Positron Emission Tomography with [18 F]-DPA-714 Unveils a Smoldering Component in Most Multiple Sclerosis Lesions which Drives Disease Progression.

Hamzaoui M, Garcia J, **Boffa G**, Lazzarotto A, Absinta M, Ricigliano VAG, Soulier T, Tonietto M, Gervais P, Bissery A, Louapre C, Bottlaender M, Bodini B, Stankoff B.

Ann Neurol. 2023 Aug;94(2):366-383. doi: 10.1002/ana.26657. Epub 2023 May 3.

Predictors of Ocrelizumab Effectiveness in Patients with Multiple Sclerosis.

Cellerino M*, **Boffa G***, Lapucci C, Tazza F, Sbragia E, Mancuso E, Bruschi N, Minguzzi S, Ivaldi F, Poirè I, Laroni A, Mancardi G, Capello E, Uccelli A, Novi G, Inglese M.

Neurotherapeutics. 2021 Oct;18(4):2579-2588. doi: 10.1007/s13311-021-01104-8. Epub 2021 Sep 22.

Aggressive multiple sclerosis: a single-centre, real-world treatment experience with autologous haematopoietic stem cell transplantation and alemtuzumab.

Boffa G, Lapucci C, Sbragia E, Varaldo R, Raiola AM, Currò D, Roccatagliata L, Capello E, Laroni A, Mikulska M, Gualandi F, Uccelli A, Angelucci E, Mancardi GL, Inglese M.

Eur J Neurol. 2020 Oct;27(10):2047-2055. doi: 10.1111/ene.14324. Epub 2020 Jun 16.

Preserved brain functional plasticity after upper limb task-oriented rehabilitation in progressive multiple sclerosis.

Boffa G, Tacchino A, Sbragia E, Schiavi S, Droby A, Piaggio N, Bommarito G, Girardi G, Mancardi GL, Brichetto G, Inglese M.

Eur J Neurol. 2020 Jan;27(1):77-84. doi: 10.1111/ene.14059. Epub 2019 Sep 20.

In vivo evidence of hippocampal dentate gyrus expansion in multiple sclerosis.

Rocca MA, Longoni G, Pagani E, **Boffa G**, Colombo B, Rodegher M, Martino G, Falini A, Comi G, Filippi M.

Hum Brain Mapp. 2015 Nov;36(11):4702-13. doi: 10.1002/hbm.22946. Epub 2015 Aug 19.

FOREIGN LANGUAGES KNOWN

-English Fluent

-French Fluent

Genoa, 05.06.2025

