

Curriculum Vitae

Tedesco, Barbara

Researcher unique identifiers

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Current position

Assistant Professor in Experimental Biology

Dept. Pharmacological and Biomolecular Sciences (DiSFeB), Università degli Studi di Milano,

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Education

23/02/2021: PhD in Integrative Biomedical Research, Università degli Studi di Milano

16/03/2017: MSc Pharmaceutical Biotechnology (110/110 cum laude), Università degli Studi di Milano

14/12/2014: BSc Pharmaceutical Biotechnology (110/110 cum laude), Università degli Studi di Milano

Professional Appointments/ Previous Positions

Dec 2022 - Jan 2023: Post-doctoral fellow at DiSFeB, IRCCS Istituto Neurologico Carlo Besta, Milan

Dec 2021 - Nov 2022: Post-doctoral fellow at DiSFeB, IRCCS Istituto Neurologico Carlo Besta, Milan

Dec 2020 - Nov 2021: Post-doctoral fellow at DiSFeB, IRCCS Istituto Neurologico Carlo Besta, Milan

Apr 2019 - July 2029: Visiting PhD student at the research group "IPS Cells and Neurodegenerative Disease" (Prof. Jared Sternecker), Technische Universität Dresden (Dresden, Germany)

Oct 2017 – Nov 2020 PhD student in Integrated Biomedical Research, Università degli Studi di Milano, Milan

Apr 2017 - Sep 2017: pre-doctoral Fellow, DiSFeB, Università degli Studi di Milano

Awards and Honors:

2023: "Guido Tarone" Award for young researcher under 35 – XXI National Congress A.I.B.G.

2019: Neuroinflammation Award 2019, 18th National Congress of the Italian Society for Neuroscience (SINS)

2017: Reward for an Experimental Thesis on Amyotrophic Lateral Sclerosis, "Io Corro con Giovanni"

Publications (total number, citation index, 5 selected):

Publications: 31 (7 as first/co-first; 1 as co-last); H-index: 15 (Scopus, Sep 25); Citations: 995 (Scopus, Sep 25)

1. Tedesco B*, Peric S*, Kocak GS* et al., Novel HSPB8 mutations in severe early-onset myopathy with involvement of respiratory and cardiac muscles cause proteostasis defects in cell models. *Eur J Hum Genet.* 2025 Jun 4. doi: 10.1038/s41431-025-01868-z.
2. Tedesco B*, Vendredy L* et al., HSPB8 frameshift mutant aggregates weaken chaperone-assisted selective autophagy in neuromyopathies. *Autophagy.* 2023 Aug;19(8):2217-2239. doi: 10.1080/15548627.2023.2179780.
3. Tedesco B*, Vendredy L*, Timmerman V, Poletti A. The chaperone-assisted selective autophagy complex dynamics and dysfunctions. *Autophagy.* 2023 Jun;19(6):1619-1641. doi: 10.1080/15548627.2022.2160564.
4. Tedesco B, et al., Insights on Human Small Heat Shock Proteins and Their Alterations in Diseases. *Front Mol Biosci.* 2022 Feb 25;9:842149. doi: 10.3389/fmolb.2022.842149.
5. Adriaenssens E*, Tedesco B*, Mediani L* et al., BAG3 Pro209 mutants associated with myopathy and neuropathy relocate chaperones of the CASA-complex to aggresomes. *Sci Rep.* 2020 May 29;10(1):8755. doi: 10.1038/s41598-020-65664-z. PMID: 32472079; PMCID: PMC7260189.

*Co-first authors

Research Interests and major collaborations:

My research focuses on cellular and molecular mechanisms involved in neuromuscular diseases (ALS, SBMA, hereditary spastic paraplegia, CMT/dHMN, and myopathies). I study intracellular system alterations, particularly the role and dysfunction of protein quality control (PQC) and ribosome quality control (RQC) pathways—such as chaperone systems, proteasome, and autophagy—and the effects of proteotoxicity caused by protein misfolding and aggregation, and how these pathways can be modulated to counteract the diseases.

Major ongoing collaborations: Prof. Vincent Timmerman (University of Antwerp), Prof. Virginia Kimonis (University of California-Irvine), Prof. Carlo Rinaldi (University of Oxford).