



Massimo Costanza

Address: Fondazione IRCCS Istituto Neurologico Carlo Besta, Molecular Neuro-Oncology Unit, via Amadeo 42, 20133, Milan, Italy

Email address: massimo.costanza@istituto-besta.it **Phone number:** (+39) 0223944600

Website: <https://orcid.org/0000-0002-1673-8574>

Gender: Male **Nationality:** Italian

WORK EXPERIENCE

[30/12/2019 – Current] **Biomedical Researcher**

Department of Clinical Neuroscience, Fondazione IRCCS Istituto Neurologico C. Besta

City: Milan

Country: Italy

Main activities and responsibilities:

Principal Investigator of research projects analyzing T cell responses and sterile inflammatory mechanisms in autoimmune and oncologic disorders of the central nervous system, such as multiple sclerosis and glioblastoma.

[2018 – 2019] **Research Fellow**

Department of Clinical Neuroscience, Fondazione IRCCS Istituto Neurologico C. Besta

City: Milan

Country: Italy

Main activities and responsibilities:

Research activity on neuroimmunology, with a specific focus on the role of mitochondrial DNA in the modulation of T cell responses against myelin.

[2012 – 2017] **Post-doctoral Fellow**

Department of Clinical Neuroscience, Fondazione IRCCS Istituto Neurologico C. Besta

City: Milan

Country: Italy

Main activities and responsibilities:

Post-Doc, Laboratory of Dr. Rosetta Pedotti (Neuroimmunology Unit). Research activity focused on the involvement of the hormone prolactin, prokineticins, and allergic components in the development of CNS autoimmune demyelination.

[2008 – 2012] **PhD Fellow**

Department of Clinical Neuroscience, Fondazione IRCCS Istituto Neurologico C. Besta

City: Milan

Country: Italy

Main activities and responsibilities:

PhD, Laboratory of Dr. Rosetta Pedotti (Neuroimmunology Unit). PhD program in Neuroimmunology, aimed at dissecting the contribution of mast cells and histamine to autoreactive T cell responses against myelin.

[2006 – 2007] Internship (Master's Degree)***Neuroimmunology Unit, San Raffaele Scientific Institute***

City: Milan

Country: Italy

Main activities and responsibilities:

Internship in neuroimmunology, Laboratory of Dr. Gianvito Martino. Research training on the immunomodulatory role of neural/progenitor cells transplanted in an experimental model of multiple sclerosis.

[2003 – 2004] Internship (Bachelor's Degree)***Università degli studi di Milano***

City: Milan

Country: Italy

Main activities and responsibilities:

Internship in immunology, Laboratory directed by Prof. Donatella Taramelli. Research activity on the characterization of inflammatory infiltrates present in the hepatic and splenic granuloma following infection with the opportunistic fungus *P.marneffeii*.

EDUCATION AND TRAINING

[2015] Scientific qualification for the practice of the biologist profession***Università degli Studi di Pavia***

Address: Pavia, Italy

[2012] PhD in Translational and Molecular Medicine (DIMET)***Università degli Studi di Milano Bicocca***

Address: Milan, Italy

[2007] Master's Degree in Medical, Molecular and Cellular Biotechnology***Università Vita-Salute San Raffaele***

Address: Milan, Italy

[2004] Bachelor's Degree in Pharmaceutical Biotechnology***Università degli Studi di Milano***

Address: Milan, Italy

ACHIEVEMENTS AND AWARDS

Awards

2016. Anna Paola Batocchi Award (Italian Association of Neuroimmunology), XXV AINI Congress, for best poster presentation entitled "Regulatory and effector T cells display a different profile of histamine production and histamine receptors expression".

Reviewer Activity

Reviewer for the following peer-reviewed journals: Cancer Research, The Journal of Immunology, Frontiers in Immunology, Molecular Neurobiology, International Journal of Molecular Sciences, Vaccines, Mediators of Inflammation, Biology Open, Cells, Clinical Endocrinology, Oncology Letters.

For verified reviews please check Web of Science ResearcherID: K-3080-2016.

Grants

2009-2010. Training Research Fellowship 2008/B2 (Italian MS Foundation, FISM/AISM), entitled "The role of prolactin in experimental autoimmune encephalomyelitis".

2020-2021. Research Grant 2019/R-Single/065 (Italian MS Foundation, FISM/AISM), entitled "The role of T-helper-released extracellular DNAs (THREDS) in autoimmune inflammation and neurodegeneration of the central nervous system".

2021-2024. Unit Coordinator for the Research Grant RF-2019-12371008 (Italian Ministry of Health), entitled: "Radiomics, circulating biomarkers and transcriptomics to dissect immune responses to radiotherapy and immunotherapy of glioblastoma". In this project, I am coordinating the immune monitoring of T cells and other inflammatory mediators in the peripheral blood of patients with glioblastoma.

TECHNICAL SKILLS

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Expertise in neuroimmunology, specifically: a) Animal models: induction and clinical evaluation of chronic, relapsing-remitting, and passive EAE in C57BL/6 and SJL/J mice; b) Cell biology and biochemistry: isolation and culture of mouse and human T cells, thymidine-assays for cell proliferation, suppression assays with regulatory and effector T cells, magnetic-activated cell sorting, ELISA, polychromatic Flow Cytometry; c) Molecular Biology: DNA and RNA extraction, RT-PCR, quantitative PCR; d) Statistics: parametric and non-parametric statistical tests, correlation analyses, ROC curves, etc.

30/07/2022



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