

BIOGRAPHICAL SKETCH

NAME MAURO FASANO	POSITION TITLE FULL PROFESSOR OF BIOCHEMISTRY		
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education,, include postdoctoral training and residency training if applicable)</i>			
INSTITUTION AND LOCATION	DEGREE	MM/YYYY	FIELD OF STUDY
Università di Torino, Italy	MS in Chemistry	07/1989	General Chemistry
Università di Torino, Italy	PhD in Chemical Sciences	09/1992	Biochemistry

A. Personal Statement and research activities

I am a Full Professor of Biochemistry and my research interests are mainly devoted, in the most recent times, at understanding perturbations of metabolic stress pathways in neurodegenerative diseases. This main research interest is in turn focused on two main objectives: a) to understand molecular mechanisms leading to neurodegeneration to eventually block them by neuroprotective drugs, and b) to discover and validate peripheral markers of the disease to allow early and differential diagnosis so that neuroprotective or neurorestorative strategies could be attempted. Both objectives are mainly pursued by means of proteomics techniques, where a first look by a global, hypothesis-free approach is followed by a bioinformatics screening of functional information available in the literature by means of network-based methods to end up in the generation of a new hypothesis to be confirmed experimentally by classical, hypothesis driven methodologies. In the last years, my focus was on biochemistry of metabolic stress pathways in neurodegenerative diseases, including Parkinson's disease and amyotrophic lateral sclerosis. Also, I have recently worked on Autism Spectrum Diseases, using several statistics and systems biology approaches to perform a prioritization of candidate genes from database and a bioinformatics analysis of experimental data. I'm also active in research valorisation in STEM and life science fields.

I have participated in and coordinated several projects, among which (in the last five years) are:

- 2017 – 2020: local unit coordinator of the Italian University ministry project 201534HNXC_003 "The role of tandem repeats in neurodegenerative diseases: a genomic and proteomic approach".
- 2018-2020: local unit coordinator of the Interreg Swiss-Italian project LEUCITI.
- 2022-2025: local unit coordinator of the Italian University ministry project 20203P8C3X_005. "Unveiling the hidden side of NEUrodevelopmental Disorder Genetics (NEUDIG): a multidisciplinary pathway to new molecular diagnoses by integrating genomic, transcriptomic, and functional analyses".
- 2023-2025: scientific coordinator of the Italian University ministry project 202287R9RX. "The interplay between dopamine and α -synuclein in the early pathogenesis of Parkinson's disease"

Selected Publications (Selected from 191 peer-reviewed publications)

- Shallak M, Alberio T, **Fasano M**, Monti M, Iacobucci I, Ladet J, Mortreux F, Accolla RS, Forlani G. The endogenous HBZ interactome in ATL leukemic cells reveals an unprecedented complexity of host interacting partners involved in RNA splicing. *Front Immunol.* 2022; 13:939863. doi: 10.3389/fimmu.2022.939863.
- Lualdi M, Shafique A, Pedrini E, Pieroni L, Greco V, Castagnola M, Cucina G, Corrado L, Di Pierro A, De Marchi F, Camillo L, Colombrita C, D'Anca M, Alberio T, D'Alfonso S, **Fasano M**. C9ORF72 Repeat Expansion Affects the Proteome of Primary Skin Fibroblasts in ALS. *Int J Mol Sci.* 2021; 22:10385. doi: 10.3390/ijms221910385.
- Lualdi M, Alberio T, **Fasano M**. Proteostasis and Proteotoxicity in the Network Medicine Era. *Int J Mol Sci.* 2020; 21:6405. doi: 10.3390/ijms21176405.
- Zilocchi M, Finzi G, Lualdi M, Sessa F, **Fasano M**, Alberio T. Mitochondrial alterations in Parkinson's disease human samples and cellular models. *Neurochem Int.* 2018; 118:61-72. doi: 10.1016/j.neuint.2018.04.013.
- Bondi H, Zilocchi M, Mare MG, D'Agostino G, Giovannardi S, Ambrosio S, **Fasano M**, Alberio T. Dopamine induces mitochondrial depolarization without activating PINK1-mediated mitophagy. *J Neurochem.* 2016; 136:1219-1231. doi: 10.1111/jnc.13506.

B. Positions, Scientific Appointments, and Honors

Positions and Scientific Appointments

2020-present	Full Professor, Biochemistry, University of Insubria
2000-2020	Associate Professor, Biochemistry, University of Insubria
1992- 2000	Assistant Professor, General Chemistry, University of Torino

Other professional experience

2023-present	Director of the Doctoral School (Univ. Insubria)
2023-present	Coordinator of the PhD program in Experimental and Translational Medicine (Univ. Insubria)
2019-present	Executive Deputy Chancellor for Innovation and Technology Transfer (Univ. Insubria)
2017-2022	Center of Bioinformatics, Scientific Director (Univ. Insubria)
2014-2022	Chair, mitochondrial Human Proteome Project (EuPA and HUPO)
2018-2020	Founder and CSO Parkintest (Best growing startup at Open Accelerator 2018)
2011-2016	Center of Neuroscience, Scientific Director (Univ. Insubria)
2010-2015	Member of the Scientific Council, Italian Proteomics Association (ItPA)
2006-2008	President of the Division of Chemistry of Biological Systems, Italian Chemical Society (SCI)

Memberships

2009-2011	President of the biological chemistry division of the Italian Chemical Society
2006-2011	Member of the scientific board of the proteome chemistry group of the Italian Chemical Society
2003-2011	Deputy-director of the Department of Structural and Functional Biology of the University of Insubria

2011-2013 Coordinator of the biotechnology group of the Italian Chemical Society,
2009-2013 Deputy-director of the Center of NeuroScience of the University of Insubria
2014-2016 Director of the Center of NeuroScience of the University of Insubria,
2010-2015 Member of the scientific advisory board of the Italian Proteome Association

Member of the Italian League against Parkinson's Disease, of the Italian NMR Discussion Group, of the Human Proteome Organization and of the Italian Society of Biochemistry and Molecular Biology.

Patents

ITMI952020. Complessi paramagnetici come agenti di contrasto nell'imaging funzionale. Inventors: Silvio Aime, **Mauro Fasano**.

ITRM20010239. Derivati di composti guanidinici, loro usi in campo medico e procedimento di preparazione. Inventors: Rodolfo Federico, Paolo Ascenzi, Maria Marino, Giorgio Venturini, **Mauro Fasano**.

WO2013/098786. Method for the in vitro diagnosis of Parkinson's disease. Inventors: Tiziana Alberio, **Mauro Fasano**, Leonardo Lopiano.

IT102020000006400. Saggio rapido per la diagnosi in vitro di infezione da SARS-CoV-2 in un fluido biologico. Inventors: Tiziana Alberio, Lorenzo Azzi, Andreina Baj, **Mauro Fasano**, Marta Lualdi.

Research Performance (28 August 2024) (Scopus# 7005020337)

Publications: 191 publications in peer-reviewed international journals, 9756 citations, H-index: 43.

FWCI: 1.32

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