# Marcello Manfredi PhD

*Curriculum vitae*

## PERSONAL DATA

Born in Casale Monferrato (AL), 25/03/1986.

## BIO AND EDUCATION

He graduated with full marks in Chemistry Sciences in 2010 and he obtained a PhD in Chemistry Sciences in 2014 at the Department of Science and Technological Innovation of the University of Piemonte Orientale (UPO), Italy. In 2019 he moved to the Department of Translational Medicine (UPO) where he founded the Biological Mass Spectrometry Laboratory (www.biomass-spec.com) located at the new Center for Translational Research on Autoimmune and Allergic Diseases (CAAD) in Novara. He is author of more than 100 papers/book chapters on national and international scientific journals (H-index=16 from scopus). He participated to more than 50 National and International Congresses. He was tutor of more than 20 students (PhD students for the degree courses of chemistry, biology, biotechnology, medical biotechnology (PhD) and food health and longevity (PhD).

## UNIVERSITY CAREER

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| 2019 – to date | **Researcher (type A), Biochemistry (BIO10)** |
| 2016 - 2019 | **Contract professor of**: Laboratory of Proteomic Techniques; Bioanalytics. |
| 2014 - 2019 | **Post-doc positions at the University of Piemonte Orientale** |

## SCIENTIFIC HABILITATIONS:

**2020**: MIUR (Italian Ministry of Schools, University and Research) Habilitation as associate Professor of: **Biochemistry**; **Analytical Chemistry**.

## MAIN FIELD OF INTEREST

1- **Multi-omics approaches for biochemical phenotyping**: proteomics, metabolomics and lipidomics analyses of cell lines, tissues and biological fluids, data integration.

2- **Biomarkers and therapeutic targets discovery**: Proteomics and metabolomics to discover new biomarkers, biomarker validation with ELISAs (Cancer, Autoimmune diseases, Multiple Sclerosis, Cystic Fibrosis, etc.).

3- **Multivariate analysis, chemometrics and data integration**: Multivariate analysis, machine learning, integration of metagenomic, metaproteomic and metabolomic data, system biology and modelling.

4- **Development of new analytical methods**: study and development of new method for the analysis of different matrices and surfaces

5- **In vitro and in vivo studies**

## AWARDS

**- Best young researcher award on analytical chemistry 2020**, Division of Analytical Chemistry – Società Chimica Italiana.

**- Award for young scientist 2018,** for the best publication in which mass spectrometry plays a key role. Division of Mass Spectrometry – Società Chimica Italiana.

**- Best Spin-off 2013** of University of Piemonte Orientale with the company ISALIT.

**- Top four best Italian spin-off** with ISALIT (industrial sector), PNI 2013, National Innovation Prize, Genova, November 2013.

- Start Cup Piemonte e Valle d'Aosta, **Business plan competition, Third classified** with the project: ISALIT, 2013.

**- Best poster Award** from the National Society of Near Infrared Spectroscopy, National Conference NIR Spectroscopy, Padova, 2012.

**- Best thesis of Master's Degree of Chemistry Sciences** of the University of Piemonte Orientale for the year 2010, Rotary Alessandria Award – Corrado Tartuferi.

## RECENT FIVE PAPERS

1. Barberis, E.; Timo, S.; Amede, E.; Vanella, V.V.; Puricelli, C.; Cappellano, G.; Raineri, D.; Cittone, M.G.; Rizzi, E.; Pedrinelli, A.R.; Vassia, V.; Casciaro, F.G.; Priora, S.; Nerici, I.; Galbiati, A.; Hayden, E.; Falasca, M.; Vaschetto, R.; Sainaghi, P.P.; Dianzani, U.; Rolla, R.; Chiocchetti, A.; Baldanzi, G.; Marengo, E.; **Manfredi, M**. Large-Scale Plasma Analysis Revealed New Mechanisms and Molecules Associated with the Host Response to SARS-CoV-2. Int. J. Mol. Sci. 2020, 21, 8623.

2. FAM46C and FNDC3A are multiple myeloma tumor suppressors that act in concert to impair clearing of protein aggregates and autophagy, Nicola Manfrini, Marilena Mancino, Annarita Miluzio, Stefania Oliveto, Matteo Balestra, Piera Calamita, Roberta Alfieri, Riccardo Rossi, Marco Sassoè-Pognetto, Chiara Salio, Alessandro Cuomo, Tiziana Bonaldi, **Marcello Manfredi**, Emilio Marengo, Elia Ranzato, Simona Martinotti, Davide Cittaro, Giovanni Tonon, and Stefano Biffo, Cancer Research 2020.Volume 80, Issue 21, pp. 4693-4706.

3. The mutant P53-driven secretome has oncogenic functions in pancreatic ductal adenocarcinoma cells, Giovanna Butera, Jessica Brandi, Chiara Cavallini, Aldo Scarpa, Rita T. Lawlor, Maria Teresa Scupoli, Emílio Marengo, Daniela Cecconi, **Marcello Manfredi*** and Massimo Donadelli*, Biomolecules 2020, 10(6), 884.

4. Mining cancer biology through bioinformatic analysis of proteomic data, **M Manfredi**, J Brandi, C Di Carlo, V Vita Vanella, E Barberis, E Marengo, Expert review of proteomics 16 (9), 733-747.

5. Integrated serum proteins and fatty acids analysis for putative biomarker discovery in inflammatory bowel disease, **M Manfredi***, E Conte, E Barberis, A Buzzi, E Robotti, V Caneparo, et al., Journal of proteomics 195, 138-149, 2019.