

ANNA MARIA ELEUTERI



ANNA MARIA ELEUTERI, born in Civitanova Marche (Italy) in 1965.

PRESENT POSITION

Full Professor in Clinical Biochemistry and Molecular Biology, University of Camerino (UNICAM)
Member of the Faculty board of the PhD curriculum Life and Health Sciences (since 2008)
Rector's delegate for the implementation of the principles of the European Charter for Researchers and Code of Conduct for their Recruitment (since 2005)
Rector's delegate for Open Science (since 2020)
Coordinator of the Quality Steering Committee for Human Resources in Research (since 2015)
Advanced assessor of Research Institutions' Human Resources Strategy for Researchers for the European Commission (since 2011).

RESEARCH AND ACADEMIC CAREER

1994 Visiting scientist in the laboratory of prof. Marian Orłowski, dept. of Pharmacology, Mount Sinai School of Medicine, New York, USA
1995-1996 Postdoc position granted by Signal Pharmaceutical, San Diego, in the laboratory of prof. Marian Orłowski, dept. of Pharmacology, Mount Sinai School of Medicine, New York, USA
1998-2010 Researcher in Clinical Biochemistry and Clinical Molecular Biology, UNICAM
2004-2008 Member of the Administrative Board of UNICAM
2010-present Associate Professor in Clinical Biochemistry and Clinical Molecular Biology, UNICAM
2016 National Scientific Qualification (ASN) as full professor in Clinical Biochemistry and Clinical Molecular Biology (SSD BIO/12).
2018 qualified to be a Committee member for the National Scientific Qualification (ASN).
2021 Full Professor in Clinical Biochemistry and Molecular Biology, UNICAM.
Member of:
Italian Society of Clinical Biochemistry and Clinical Molecular Biology,
Society for Free Radical Research International
International research group "Groupe polyphenols"
International Natural Products Sciences Taskforce (INPST)

RESEARCH ACTIVITY

The research activity, carried out in collaboration with national and international research centers, has

been focused on the following fields:

- 1) identification of kallikrein inhibitors and multiple forms of granulins in biological fluids;
- 2) functional and structural characterization of proteasomes purified from different bovine organs;
- 3) evaluation of the effects of oxidation induced by chemicals (peroxynitrite, H₂O₂) or by physical media (electromagnetic fields) and the effects of antioxidants on the structure and functionality of constitutive and interferon-gamma inducible 20S proteasomes isolated from bovine brain and thymus, respectively; the same studies are performed on cell lines in culture;
- 4) characterization of proteasomes present in brain of animal affected, and not, by prion diseases and in vitro analyses of prion proteins processing by isolated 20S proteasomes with the aim of understanding the potential role of the complex on the onset of these pathologies;
- 5) analysis of the impairment of proteolytic processes (ubiquitin-proteasome system and autophagy), involving the mechanisms included in their cross-talk, and effects of protein aggregates on the aetiology of neurodegenerative disorders, using proper cellular and animal models;
- 6) microbiota modulation by exogenous compounds (for example probiotics) able to affect gut-brain axis and the inflammatory pathway in the prevention and progression of neurodegenerations, using the triple transgenic mouse model of Alzheimer's disease 3xTg-AD;
- 7) study of effects of the oral administration of p62 engineered Lactobacilli as a therapeutic strategy in Alzheimer's disease using the triple transgenic AD mouse model 3xTg-AD;
- 8) evaluation of the cytotoxic and proapoptotic effects of synthetic/semi-synthetic compounds containing Ruthenium (II) on cancer cells and their normal counterparts through the use of chromatographic, spectrophotometric/spectrofluorimetric methods and surface optical biosensor based analysis (enzymatic modulation, protein-binding, DNA-binding);
- 9) modulatory activities of plant derived dietary polyphenols on proteolytic (20S and 26S proteasomes and serine proteases) and redox enzymes involved in cholesterol biosynthesis (i.e. HMG-CoA reductase), besides their anti-oxidant function in cells and cell-free systems;
- 10) role of antinutraceutical agents from cereals, alpha-amylase/trypsin bifunctional inhibitors, on the onset of intestinal and extra-intestinal inflammatory disorders based on wheat consumption. A total of more than 100 peer-reviewed articles on journals with a wide scientific impact (some of them

highly cited) in the category Biochemistry and Molecular Biology (94% in Q1) and two book chapters are the results of her scientific contribution, which resulted in a H-index 33 (Scopus) and more than 4000 citations.

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Since 2013 prof. Eleuteri is a member of the editorial board of the journal BMC Biochemistry (Protein and Enzyme Biochemistry).

AWARDS

2011 the FEBS JOURNAL Top Cited Paper Award with the article "Natural polyphenols as proteasome modulators and their role as anti-cancer compounds", THE FEBS JOURNAL, 2008, vol. 275, p. 5512-5526,

ISSN: 1742-464X.

FUNDINGS

Prof. Eleuteri has been responsible for numerous research projects funded by national and international agencies on a competitive basis. It actively collaborates with biopharmaceutical industries that fund the carrying out of research projects.