

## **CURRICULUM VITAE ET STUDIORUM**

**Name:** Angela Trovato Salinaro  
**Citizenship:** Italian.  
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**Degree:** M.D., October 24, 1995. University of Catania (Italy), vote 110/110 and laude.

May 1996: Ability to exercise the Medical Profession, University of Catania.

**Specialty Degree:** 2000 - Specialty Degree in Clinical Biochemistry, University of Catania (Italy), obtaining an excellent judgment in the final exam: vote 70/70 and laude.

**PhD in Neurobiology,** 2005- University of Catania, ITALY.

**Research experience:** October 1994 to 1998, Institute of Biological Chemistry, University of Catania, from 1998 to 2014 Section of Biochemistry and Molecular Biology, Department of Chemical Sciences, from 2014 to date Section of Medical Biochemistry, Department of Biomedical Sciences and Biotechnology.

**Department:** Department Biomedical Sciences and Biotechnology, Section of Medical Biochemistry.

**Institution:** University of Catania, "Torre Biologica", Via Santa Sofia, n 97- 95125 - Catania, ITALY.

Prof. Angela Trovato Salinaro is:

- -Researcher at the School of Medicine of the University of Catania for the Scientific-Disciplinary Sector BIO/12.
  - Author of research at the Department of Biomedical Sciences and Biotechnology, University of Catania various issues of role of Oxidative Stress in Neurodegenerative disorders and Longevity, nutritional Antioxidants and Modulation of cellular redox state, all aimed at protecting the health of the community. Thanks to its experience in the laborator Prof. Trovato Salinaro has developed and acquired specific competences in analytical methodologies for the study of protein expression in aging, neurodegenerative disorders and oxidative stress markers analyses. Neurotransmitter receptors in glial cells; structure; molecular biology of neuronal connexins.

### Grants

- 1998-1999 University Projects
- 2000-2001 University Projects
- 2002-2003 University Projects
- 2004-2005 University Projects
- 2006-2007 University Projects
- 2008-2009 University Projects
- PRIN 1998-1999 National Program for Italian Research
- PRIN 1999- 2000 National Program for Italian Research
- PRIN 2003-2004 National Program for Italian Research
- PRIN 2008 National Program for Italian Research
- FIRB 2001-2003
- Telethon Grant 2000-2002
- ASI 2001-2003
- FIRB 2008-2013 Italian Human ProteomeNet
- PIACERI 2020-2022 Linea Intervento 2 and Linea Intervento 3.

#### Relevant activities:

1) *Molecular biology*: extraction, purification and spectrophotometric quantification of DNA, RNA and proteins from human cells and tissues and rat. Electrophoretic techniques for the separation of nucleic acids and proteins, analysis with restriction enzymes and Southern blotting. Analysis to assess the levels of mRNA (Northern blotting, Ribonuclease Protection Assay, RT-PCR, real time PCR) and protein (Western blot). Preparation of probes for hybridization techniques non-isotopic methods. Screening of genomic libraries; sub-cloning into plasmid vectors and PCR amplification. Gene silencing techniques of immunoblotting, immunoprecipitation, immunocytochemistry and immunohistochemistry. Enzymatic activity assays, ELISA. Sequencing techniques: method of Sanger and next-generation systems: sequencing using capillary electrophoresis, pyrosequencing. Sample preparation for global analysis of the genome with NGS platforms (Next Generation Sequencing) and microarray.

2) *Cell biology*: preparations of cell cultures from human, rat and mouse (astrocytes, oligodendrocytes, microglia cultures, 3T3 fibroblasts, human lung fibroblasts, tumor cell lines and not); operation and repair of equipment of the clean room for cell cultures (CO<sub>2</sub> incubator, laminar flow hoods, inverted phase contrast microscopes, autoclaves). Preparation of culture media of various types, supplemented with fetal bovine serum or defined chemical composition (hormones, vitamins, and growth factors). Cryopreservation of various human cell lines and murine tumor and not. Separation of leukocytes, lymphocytes and monocytes from peripheral blood. Marking and cell analysis by flow cytometry. Techniques for cell transfections (temporary and stable) for the study of gene expression and for the analysis of proteins. Preparations for microscopy and microscopy techniques brightfield, darkfield and fluorescence. Confocal microscopy techniques.

#### Research Interests:

Nutritional antioxidants and modulation of cellular redox state. Role of oxidative stress and mitochondrial dysfunction in aging, neurodegenerative disorders and longevity. Heat shock signal pathway and brain cell stress response. Role of hydrogen sulfite (H<sub>2</sub>S) in the regulation of gene expression. Redox proteomics: modulation by polyphenols as target for novel therapeutic interventions in neurodegeneration. Hormesis.