

CURRICULUM VITAE ET STUDIORUM

Valeria Militello was born on 07/17/64 in Palermo, Italy. Mother of two sons (born on 1994 and 1996). Legally separated. **Associate Professor in Applied Physics (FIS07)** at Department of Physics and Chemistry (**DiFC**) University of Palermo, ITALY, School of Medicine and School of Sciences from 2006. (<http://www.unipa.it/dipartimenti/dipartimentofisicaechemica>) **My Research group** is **MBSM (Molecular Biophysics and Soft Matter)** (<http://fisicaechemica.unipa.it/biophysmol/>) at DiFC and at **ATeN Center** laboratories (<http://www.atencenter.com>). **Scientific Products**: more than 100 international and national scientific publications, proceedings and communications (oral and poster). **Academic Positions and Education**: 1989/...: Researcher in Biophysics (SSD E10X) and Applied Physics (SSD FIS07). Several **Post-Doctoral Fellowships** in Biophysics from Italian Ministry, CNR and INFN. **Master Schools** in Biophysics. 1994: PhD in Chemical Sciences (**Physical Chemistry**) with training period at Dept. of Biological Chemistry, Medical School, **University of Maryland, Baltimore** (USA), director prof. Enrico Bucci. From this experience a scientific collaboration is born. 1989: degree in Biological Sciences with **Biophysics orientation** and experimental **thesis on Biophysics**. High school diploma in **humanities studies**. **English language**: advanced level B2 in writing and speaking. Very good competence in the use of **Microsoft and Apple Software**.

TEACHING EXPERIENCE

1999/...: Teaching activity in **Applied Physics** and **Molecular Biophysics** in several courses at the **Faculties of Medicine and Sciences** (also in English).

RESEARCH EXPERIENCE

Bibliometric index in 2017 September:
Scopus: Total Citations 1220, h-index 20
Google Scholar: Total Citations 1498; h-index 21; i10-index 40
More than 100 publications and communications. An Italian No. RM2010A000174 and an international patent N. WO2011/128855 A1.

1989/...: The main interest of my **research group (Molecular Biophysics and Soft Matter, MBSM, <http://fisicaechemica.unipa.it/biophysmol/>)** is the experimental study of physical systems characterized by a complex landscape of configurational energies, ranging from proteins to vitreous systems, by innovative spectroscopy and microscopy techniques. **Protein Biophysics** is the main topic of my scientific interest: the aim of my studies is to understand molecular mechanisms in which are involved pathological proteins and to put in relation their structure, function and dynamics. **Recent research**: structural and conformational changes involved on thermal aggregation proteins, from native proteins to oligomers and fibrils; protein aggregation in presence of metal ions or glucose; toxicity of different aggregates in cells; interactions between aggregates and cellular membranes. Structural characterization of proteins hydrogels, nanoparticles and biomaterials. **Personal scientific interests** in the past: study on the structural, functional and dynamic relationship in native and recombinant proteins. Heme-proteins and model systems studied by FTIR spectroscopy. **Expertise areas**: absorption and emission spectroscopy (IR, visible, UV-VIS), AFM, protein sample preparations (chemical solutions, purifications, electrophoresis, chromatography, centrifugation). November 2000 measurements at Grenoble IN13 dell'ILL (Institut Laue Langevin) and December 2014 measurements at SOLEIL synchrotrons (proposal 20140127).

RECENT RESEARCH PROJECTS

CORI 2011 (cooperation for international relation) project between Italy and France with Dr. P. Rondeau of the Université de la Réunion (France), for studying glycosylated albumins with spectroscopic techniques to insert in his PhD thesis (see publications), **supervisor** prof. Valeria Militello. **PON 2007-2013** Research and Competitiveness Project, “**SIB-PON01-01287**, Project on the “Study of specific biomaterials for cartilage regeneration”, **supervisor** of Palermo Unit prof. Valeria Militello. Personal scientific contribution as participate in: **PON 2007-2013** Research and Competitiveness Project “Mediterranean Center for Human Health Advanced Biotechnologies (**Med-CHHAB**)”- **PONa3_00273** for the creation of this new Center.

PON Misura 4.1.1.2- "HIPPOCRATES – PON02_00355_2964193 Project on "Micro and Nano-Technology and advanced systems for Human Health".

PO FESR 2007-2013 "CAFIS Project on quality control in the coffee production chain with innovative physics techniques. Several **National Projects** on "Molecular bases of the conformational diseases", on "Biophysics of Proteins: Aggregation Mechanisms".

SCIENTIFIC AND POLITICAL POSITIONS

Manager of the laboratory of **Optical Spectroscopy** at the ATeN Center (<http://www.atencenter.com>) in University of Palermo (funds from project PONa3_00273); Manager of laboratory of **FTIR Spectroscopy** at the DiFC in the University of Palermo.

Tutor of degree, PhD and postdoctoral thesis on "Protein Aggregation and Amyloid Formation" and tutor of several fellowships in **Protein Biophysics**.

2017/... Board Member of PhD in "Technologies and Sciences for Human Health" in **Biophysics orientation** at University of Palermo. In the past, Board Member of PhD in "Molecular Medicine and Biotechnology" in **Biophysics orientation** at University of Palermo.

2017/... Scientific Committee of COBS onlus (Center of Experimental Oncological Biology) at Palermo Hospital "La Maddalena". Already Vice-President and Administrative Committee of COBS.

2014/...: elected in Executive Board of **SIBPA** (Italian Biophysics Society, Società Italiana Biofisica Pura e Applicata).

2013/16 elected in **Administrative Committee** of University of Palermo and **President** of "Budgetary Policy" Commission.

2009/12: elected in **Administrative Committee** of University of Palermo and President of "Policy between University and Teaching Hospital" Commission.

2003/06 elected in **Academic Senate** as researchers representative.

Selected as **expert in evaluation** for the ANVUR-MIUR, number 304 (Italian University and Research Ministry). **MIUR Referee for ERC** PE3_20 Biophysics, PE4_2 Spectroscopic and spectrometric techniques, LS1_6 Biophysics.

Last Chair of international conference: **RBC2016** Regional Biophysics Conference 2016, Session: Supramolecular Assemblies and Aggregation, Trieste Italia; **IUPAB 2014** Session: Amyloids and intrinsically disordered states, Brisbane Australia; **Last Chair** of national conference: XXIII Congresso **SIBPA 2016**, Molecular Biophysics, Cortona (AR) Italia).

Member of : **CNR** (National Research Center, at Institute of Biophysics, Palermo Unit), **CNISM** (National Interuniversity Consortium for the Physical Sciences of Matter), **IUPAB** (International Union Pure and Applied Biophysics), **EBSA** (European Biophysical Society), **SIBPA** (Italian Society of Pure and Applied Biophysics).

Already Member of **INFN** (National Institute of Matter Physics), **NABLA** (Nano-functional Biomaterials Laboratories) and Scientific Board of the **CIBA** (Interdepartmental Centre of Applied Biotechnology).

Referee for international journals: Biophysical Chemistry, BBA-Proteins and Proteomics, Journal of Controlled Release, Journal of Agriculture and Food Chemistry, BioMacromolecules.

Several participation to **Scientific Committees and Organizations** of National Conferences.

OTHER INTERESTS

Sport, travels, music, theater. Very good competence in use of Social Networks (ResearchGate, Facebook, Twitter @UnipaVM).