

Paola Viani
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Present address

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Education

- MSc. in Pharmaceutical Chemistry and Technology (1981).
- Graduate School in Clinical Chemistry and Biochemistry (1986)

Professional Employment

- Graduate School Fellow, Department of Medical Chemistry and Biochemistry, School of Medicine, University of Milan, Italy (1982-1986).
- Visiting Researcher, Dept. of Membrane Biochemistry and Neurochemistry, Hadassah Medical School, Hebrew University, Jerusalem, Israel (1987).
- Research Fellow; Department of Medical Chemistry and Biochemistry (1988-1990)
- CNR (National Research Council) Fellow, Department of Medical Chemistry and Biochemistry (1990-1992) University of Milan, Italy
- Research Scientist, Department of Medical Chemistry and Biochemistry, School of Medicine, University of Milan, Italy (1992-2000).
- Associate Professor of Biochemistry, Department of Medical Chemistry, and Biochemistry (2001-2002) and Department of Medical Chemistry, Biochemistry and Biotechnology, School of Medicine, University of Milan, Italy (2003-2007).
- Full Professor of Biochemistry, Department of Medical Chemistry, Biochemistry and Biotechnology, School of Medicine, University of Milan, Italy (2008-2012) and Department of Medical Biotechnology and Translational Medicine, University of Milan, Italy (2012-).

Teaching

BSc Medical Biotechnology

- lecturer and course coordinator of Biochemistry and Human Biochemistry (2001-)

MSc Medical Biotechnology and Molecular Medicine

- course of Pathophysiology from Cell to Clinic: coordinator and lecturer of Human Biochemistry (2003-)
- course of Pharmacology Applied to Biotechnology: lecturer of Cellular Biochemistry (2003-)
- course of Human Biochemistry (2014-)

Committees and institutional activities

Member of Departmental Board, Department of Medical Chemistry and Biochemistry, University of Milan (1993 -1999);

Member of Departmental Board of the Department of Medical Chemistry, Biochemistry and Biotechnology, University of Milan (2003-2012)

Director of BSc program in Medical Biotechnology and member of the interfaculty committee for BSc programs in Biotechnology, University of Milan (2007-2012)

Member of Advisory Board of the School of Medicine, University of Milan (2007-2012)

Member of the standing National committee for BSc and MSc programs in Biotechnology (2007-2012)

Member of the board of PhD in Biomedical and Experimental Clinical Sciences (2009-2012)

Deputy Director of the Dept. Medical Biotechnology and Translational Medicine (2012-2014)

Member of the Academic Senate of the University of Milan (2012-)

Director of the Dept. Medical Biotechnology and Translational Medicine (2014-)

Activity within scientific societies, organization of meetings

Member of the Italian Society of Biochemistry and Molecular Biology (SIB), the European Society of Neurochemistry (ESN), the American Society of Biochemistry and Molecular Biology (ASBMB), the Sphingolipid Club

Member of the program committee and the scientific committee of the annual meeting of the Italian Society of Biochemistry and Molecular Biology (SIB I LLP section (2008)

Member of the scientific committee of the meeting "Free Will between Scientific and Philosophical-Religious Thought; 2009

Member of the program committee of International Conference on Membrane Domains in CNS Physiology and Pathology, 2010

Member of the program committee and the scientific committee of the 55th National Meeting of the Italian Society of Biochemistry and Molecular Biology (SIB) 2010

Member of the scientific board of Sphingolipid Club (2013-)

Research

Author of 87 papers on international scientific journals and of more than 100 communications at national and international congresses, also as invited speaker. Recipient for grants from the Italian Ministry of University and Research, and from the University of Milano; participant to research units in research projects granted by Italian Ministry of University and Research and by the National Council of Research. Head of Functional Biochemistry and Fluorescence Microscopy laboratories, Dept. Medical Biotechnology and Translational Medicine, University of Milano.

The research activity, also in collaboration with other national and international research groups, has been mainly addressed to the biochemistry of lipids, focusing of the metabolism, the chemical-physical properties and the functional aspects of membrane lipids.

The more recent research interest is on sphingolipid-mediated signaling in cancer cells and in neurodegenerative diseases, mainly focusing on ceramide and sphingosine 1-phosphate (S1P), two bioactive lipids which often exert opposing functions in the cell. Ceramide has been shown to mediate cell cycle arrest and cell death in response to cell stress, whereas S1P has been shown to promote cell survival and proliferation. The flux between sphingolipid metabolites is tightly controlled through several enzymes which are

critical in regulating the levels and function of these bioactive sphingolipids. Her research contributed to understand the role of metabolism and traffic of ceramide and S1P in the signal transduction mechanisms involved in the control of glioma cell biology, in the molecular mechanisms of resistance in cancer cells and in neuron-glia cell communication.