

Curriculum Vitae

1974 - Degree in Biological Sciences at the University of Padua.

1981 to 1983 - Research Associate in the University of Padua.

1983 to 1992 - Research Associate at the University of Bologna.

In 1981 and 1984 - Visiting scientist as an EMBO fellow at the Neurochemistry Lab of prof. David G. Nicholls, Dundee University, Ninewells Hospital, Scotland.

From 1992, present position: associate professor of biochemistry, Department of Biology, University of Bologna, .

Research activity

The research interests have dealt initially with bioenergetics in isolated mammalian and plant mitochondria, and subsequently, the studies were mainly focused on the field of cellular biochemistry. The pathways of chloride transport activated by elevation of intracellular second messengers (Ca^{2+} , cAMP) or by osmotic swelling in normal and pathological cells have been elucidated. Calcium-dependent stimulation of potassium and chloride currents, triggered by activation of G protein-coupled receptors in human epithelial cells has also been characterized. More recently, the molecular mechanisms of signal transduction (cytosolic $[\text{Ca}^{2+}]$ elevation, PLC, PLA2, PLD, Src and PKC activation) by G protein-coupled membrane receptors of the edg- family, selective for sphingosine-1-phosphate and lysophosphatidic acid, have been described. In the last years, the interest was focused on the characterization of cells bearing different mutations in the mitochondrial genome, to assess the role in neurodegenerative diseases and in cancer. In particular the interest deals with bioenergetics, organization of the oxidative phosphorylation complexes and apoptosis predisposition. She is also interested in the study of OPA1 protein function, which is involved in regulation of mitochondrial network dynamics, and whose alterations cause autosomal dominant optic atrophy.

Author of more than 90 publications in international journals, mostly quoted in the SCI Journal Citation Reports, invited speaker at several national and international meetings, reviewer ad hoc of international journals.

Present research grants

2009-2011 - Progetto Regionale AIRC Responsabile U.O. del progetto: Translational significance of mitochondrial mutations in cancer, Coordinator Prof. Giovanni Romeo

Progetto PRIN 2009-2010 I mitocondri come bersaglio terapeutico nelle malattie croniche degenerative. Coordinator Prof. P. Bernardi

Progetto E-RARE (2009-2011) European Research project on Mendelian Inherited Optic Neuropathies. Coordinator of the research unit.

Progetto Nazionale AIRC 2009-2012 TRANSMIT-Translational significance of mitochondrial mutations in tumors.

NIH grant "Administrative Supplements for collaborative Sciences 2011-2013 with prof. Fevzi Daldal, University of Pennsylvania, Philadelphia, US, on Bacterial cytochrome bc1: structure, functions and bioenergetics.

Liddy Shiver Sarcoma Foundation 2011-2013 . CD99 engagement and apoptosis in Ewing's sarcoma: role of mitochondria and mitochondrial DNA mutations. with Dr. Katia Scotlandi.

Progetto PRIN 2012-2014 Meccanismi mitocondriali nella tumorigenesi. P. I. Prof. P. Bernardi