

Paolo Ruzza was born in Padova on February 15, 1961.

**Current position:** Director of Research of the Italian National Research Council (CNR), Institute of Biomolecular Chemistry, Padova Unit.

### **Education**

**1985(12)** - Degree in Medicinal Chemistry (Laurea in Chimica e Tecnologia Farmaceutiche) with honors (110/110 e Lode), Faculty of Pharmacy, University of Padova.

**1986(12)** - Passed qualifying examination for the profession of Pharmacist, University of Padua, Italy.

### **Previous position(s)**

**From 1986(9) to 1987(9)** - Research fellow of the "Accademia Nazionale dei Lincei" at the Biopolymers Research Centre of CNR, Padova.

**From 1999 (1) to 2002(5)** - Research fellows of CNR at the Biopolymers Research Centre of CNR, Padova

**From 1992(12) to 1997(7)** - Temporary position as CNR researcher (Biopolymers Research Centre of CNR, Padova).

**From 1997(8) to 2019(11)** – CNR Researcher (Biopolymers Research Centre of CNR, Padova, and then Institute of Biomolecular Chemistry, Padova Unit).

**2001(7)** - Visiting researcher at the School of Biomedical & Health Sciences (Pharmaceutical biophysics) of the King's College of London (UK).

**2004(7)** - Visiting researcher at the School of Biomedical & Health Sciences (Pharmaceutical biophysics) of the King's College of London (UK).

**From 2019 (11) to 2020(12)** - CNR Senior Researcher (Institute of Biomolecular Chemistry, Padova Unit).

### **Institutional Responsibilities**

**From 2020 (1)** Head of the Secondary Office (RSS) of ICB in Padua.

**From 2009 to 2019** Advisory Committee, Institute of Biomolecular Chemistry.

**From 2014 to 2019** Advisory Committee, Società Chimica Italiana – Sezione Veneto (SCI-Veneto).

### **Teaching activities**

**From 2011** - Adjunct Professor in "Organic Chemistry and Biochemistry" School of Agricultural Sciences and Veterinary Medicine (degree course: Viticulture and Enology Science and Technology) 72 hours, 8CFU, University of Padova.

**From 2002 to 2005** - Adjunct Professor in "Protecting groups and activation methods in peptide synthesis" integrative course to the "Bioorganic Chemistry" teaching, Faculty of Science (degree course: Chemistry) 16 hours, University of Padova.

**2000** - Adjunct Professor in "Chromatographic Applications in Biochemistry" integrative course to the " Physical Biochemistry " teaching, Faculty of Science (degree course: Chemistry) 16 hours, University of Padova.

**1999** - Adjunct Professor in "Adjustment of the metabolic activity" integrative course to the "Physical Biochemistry" teaching, Faculty of Science (degree course: Biological Science) 16 hours, University of Padova.

**Research activities:**

Since 1986, Ruzza's research has been focused in the field of the biopolymer studies, specifically peptides and proteins, with the goal of determining relationships between the biological activity and the secondary structure of molecules, either naturally occurring or synthetic, and to elucidate the mechanisms of natural processes and to be able to alter them with specific drugs. His research interests focus on chemistry and biochemistry of peptides including their synthesis and conformational analysis. In particular, solid- and liquid-phase synthesis of biologically active peptides and their conformational characterization by means of different techniques (fluorescence, circular dichroism, IR, NMR). The main research fields are: studies on the interaction of metal ions with peptides and proteins; development of peptides as substrates and/or inhibitors of protein kinases; studies on the binding to protein receptors of neuropeptides and melatonin; development of peptides capable of translocating covalently tagged membrane-impermeable compounds across the cell membrane (CPPs) and studies on the cell penetration mechanism; studies on peptide-protein interactions, in particular SH2 and SH3 domains, in membrane mimicking media.

He was Principal Investigator of the research project "Sintesi e studi di relazione struttura-funzione di peptidi substrato e/o inibitori di protein chinasi (PTKs) e fosfatasi (PTPs) tirosiniche" inside the programme "Controlli post-trascrizionali dell'espressione genica" in 1998-2001. In 1997 and 2002, he was Principal Investigator of the research project "Sintesi e studi di relazione struttura-funzione di peptidi substrato e/o inibitori di protein chinasi (PTKs) e fosfatasi (PTPs) tirosiniche" at the Biopolymers Research Centre of CNR. He is Principal Investigator of the research project "Peptidi internalizzanti" inside the activity "Peptidi attivi sulle membrane per lo sviluppo di farmaci e diagnostici" since 2007. He is Principal Investigator of the research project "SRCD studies on unfolded and amyloid alpha-synuclein forms" at the Diamond Light Source Ltd., Didcot (UK).

He is scientific tutor of ungraduated, graduated and PhD student projects. He has several cooperations with national and international research groups. He is authors of 130 articles in international journals, and of 150 communications at national and international congresses. Co-author of one national patent.

Dr Ruzza has been a regular referee for the following international journals: Current Drug Discovery Technologies, Chirality, Journal of Peptide Science, Acta Biochimica Polonica, Anti-Cancer Agents in Medicinal Chemistry, Expert Opinion On Therapeutic Patents, Biopolymers: Peptide Science, Expert Opinion on Investigational Drugs, Letters in Drug Design & Discovery, Current Nanoscience, Journal of Organic Chemistry.