

Roberto Fattorusso, born in 1969, graduated in Chemistry in 1992 (110/110 *summa cum laude*) at the University of Naples, "Federico II". In 1996 he received the Ph.D degree in Chemistry at the same University, presenting the thesis entitled "Interaction of macrocycles with metal ions". In the period between october 1994 and april 1995 he joined the group of Prof. Aime in Turin where he studied complexes of macrocycles with lanthanides to be used in Magnetic Resonance Imaging for the tumor diagnosis; successively, he also studied paramagnetic porphyrins using NMR techniques. In the period between february 1997 and august 1998, he joined the group of Prof. Wüthrich at the Swiss Federal Institute of Technology (ETH) of Zurich, who received in 2002 the Nobel prize in Chemistry for his development of nuclear magnetic resonance in the three-dimensional structure of biological molecules in solution. In the period between october 2003 and march 2004, he has been visiting professor at the Burnham Institute of San Diego, in the group of Prof. Pellecchia. Since 2000, he is member of the Directive Council of the Division of Biological System Chemistry of the Italian Chemical Society and in 2009-11 he has been President of this Division. Since 2007 he is Full Professor of Inorganic Chemistry at the Department of Environmental, Biological and Pharmaceutical Sciences and Technologies of the University of Campania "Luigi Vanvitelli" and of this Department he is since 2012 Vice-Director. In 2009-2012 he has been Director of the Department of Environmental Sciences. He lectures in Inorganic Chemistry and Structural analysis of biomolecules.

The research activity of Prof. Fattorusso has been initially devoted to the field of the molecular recognition applied to the biomolecules, particularly to the interaction of peptides and porphyrines with metals. The research has been performed using either experimental and computation techniques. Indeed, Prof. Fattorusso was involved in the synthesis of the biomolecules, using the most advanced techniques that have been sometimes also modified to improve the duration and the yields and purity of the products. Prof. Fattorusso made also use of spectroscopic techniques, such as circular dichroism, Nuclear Magnetic Resonance, X-ray diffractometry and Molecular Dynamics to obtain insights of preferred conformation of the molecules, either in the solid state and in solution, thus deriving original data about the molecular recognition. Since 1998, he focused his main scientific activity to the structural and functional study of proteins by means of nuclear magnetic resonance techniques. The structure determination of proteins is an essential steps for the comprehension of the molecular mechanisms at the bases of protein biological activities and allows studies of the interaction of those macromolecules with natural and synthetic ligands. Among various structural studies, in collaboration with the Biochemical group of Prof. Pedone, Prof Fattorusso investigated transcriptional factors containing zinc-finger domains

from plants and bacteria, determining the first high resolution structure of the Cys<sub>2</sub>His<sub>2</sub> Zinc finger domain from prokaryota. Furthermore, Prof. Fattorusso devoted his scientific attention also to the development and application of the nuclear magnetic resonance techniques in the field of the drug discovery. In particular, he developed a new strategy for the identification of candidate drugs through the screening of relatively small library, by means of NMR and other spectroscopic techniques and computational methodologies. Finally, he is recently interested to the fields of in cell NMR and of the protein folding studied by means of NMR methodologies. He is author of more than 100 scientific papers published on international journals.