Preface

Eduardo De Robertis

Papers contained in this special volume of *Molecular Neurobiology* were presented in the Symposium on "Molecular Events in Neurotransmission" to honor the memory of Prof Eduardo De Robertis. This Symposium was a satellite of the XIII International Society for Neurochemistry (ISN) Meeting held in Sydney, Australia, July 1991, and was organized by one of us (G.R. de L.A.) and Prof Nicolas G. Bazan.

We are deeply grateful to the ISN for sponsoring this recognition to our former master, a pioneer in Neurochemistry, especially in neurotransmission, who discovered the synaptic vesicles and carried out biochemical-structural research on their functional significance.

Eduardo De Robertis was born in Buenos Aires, Argentina, in 1913. His devotion to scientific research began while he was still a medical student, publishing more than twenty papers before his graduation from the University of Buenos Aires. He won a gold medal as the best faculty student and was awarded a prize for his doctoral thesis as well as fellowships from the Rockefeller Foundation, the Guggenheim Foundation, and the NIH. He received his postdoctoral education at Chicago University and the Johns Hopkins University. For several years, starting in 1949, he organized and directed the Department of Cellular Ultrastructure at the Institute of Biological Research in Montevideo, Uruguay. In 1957, he returned to Argentina to organize the Institute of Cell Biology (then called Instituto de Anatomia General y Embriologia) belonging to the Faculty of Medicine, University of Buenos Aires, where he continued working for three decades until a few months before his death.

As Director of the Institute, he imparted great impetus to biochemical, histological, neurophysiological, and anatomical studies of the nervous system. He created a multidisciplinary center that achieved international renown and prestige. Currently, many of his former disciples, some of whom have participated in this symposium, occupy leading positions in Argentina and abroad.

While working in 1953 at the University of Washington, in collaboration with Bennett, he described the synaptic vesicles as components of the nerve terminals, and later presented evidence for their role in neurotransmission. He then focused his interest on the biochemical-structural study of the nervous system. Under his guidance, his team developed subcellular fractionation techniques for the study of the nervous system, and different types of nerve endings, mitochondria,

myelin, synaptic vesicles, synaptosomal membranes, and synaptic complexes were separated; these fractions were further characterized biochemically and ultrastructurally. The paper he and his group published describing the isolation of the nerve ending particles became one of the most cited in the field of life sciences (*J. Neurochem.* **2**,1962, 23–35; Current Contents , 1982). As a consequence of these and other studies, the isolated subcellular structures of the synaptic region became available, and have since become widely used tools for biochemical, pharmacological, and biophysical studies.

In more recent years, he worked devotedly on the biochemical and pharmacological study of synaptic receptors, focusing his research on their isolation and molecular characterization, particularly cholinergic, serotoninergic, adrenergic, aminoacidergic, and benzodiazepine receptors.

The wide dissemination of his more than 300 publications is reflected in the fact that he was named one of the 250 most cited workers in all fields of science (*Science Citation Index*, 1980). His contributions have been recognized by several national and international prizes, such as the Shell Prize to Basic Medicine granted by the Argentine Research Council; the Cuenca Villoro Foundation Prize, from Spain; the Rodriguez Pascual Foundation Prize, also from Spain; the Konex Foundation Prize in Biology; the Bunge and Born Foundation Prize; and the Bernardo Houssay award from the OAS.

He was a member of the ISN Council, and President of the International Union of Biological Sciences. He was honored by several academic institutions, such as the Academy of Exact, Physical and Natural Sciences, Argentina; the New York Academy of Sciences; the Academy of Medicine, Mexico; Loyola University, Chicago; the American Academy of Neurology; the Academy of Sciences of Cordoba, Argentina; the Pan American Medical Association; and the Academy of Medicine, Argentina.

His deep knowledge is illustrated by his books on nervous transmission, *Histophysiology of Synapses and Neurosecretion*, Pergamon Press, Oxford (1964) and *Synaptic Receptors, Isolation and Molecular Biology*, Marcel Dekker Co., New York (1975). He is also widely known in the scientific community for his classic textbook, *Cell and Molecular Biology*, with E. De Robertis, Jr., Saunders, Philadelphia (7th Ed., 1980), which has been translated into nine languages.

The reasons for such a fruitful career were his outstanding talents, his unswerving devotion, his penetrating vision in exploring new experimental lines, and his untiring and enthusiastic presence in the laboratory.

The participants of this Symposium who had started and for many years carried on our scientific work inspired by his example are fully aware of the fortune we had to receive his unfailing encouragement. We gratefully acknowledge the kindness shown by the Editors of *Molecular Neurobiology*, Drs. Nicolas G. Bazan and David C. U'Prichard, for granting us the opportunity to organize this volume.

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