

Igor S. Magura – 90



Igor S. Magura, Academician of the National Academy of Sciences of Ukraine, Doctor of Biological Sciences, Professor, Honored Worker of Science and Technology of Ukraine, celebrates his 90-year jubilee!

Igor Magura was born in November 22, 1928, in Kyiv, in the family of a scientist. He was graduated from the Navy Department of the Pavlov Medical Institute in Leningrad and, till 1958, served in the USSR Navy. After discharge from military service, he in 1958 began his scientific career in the Department of Electrophysiology of the Bogomolets Institute of Physiology of the Academy of Sciences of the Ukrainian SSR, under the guidance of a prominent Ukrainian physiologist, “father” of Ukrainian electrophysiology, Academician D. S. Vorontsov. Magura’s successful studies demonstrated that the mechanisms of electrical excitability of the neuronal soma significantly differ from those of the axon. He found that, in the course of rhythmic generation of action potentials, noticeable changes are observed in the role of distinct types of voltage-directed ion channels (sodium, potassium, calcium) in the generation of action potentials. Thus, important aspects of the mechanisms of regulation of electrical excitability of neurons and plasticity of integrative activity of these cells were discovered. During subsequent years, Magura continued successful research work in this and adjacent fields. He is the author/coauthor of several hundred scientific publications. In 1983, he, together with P. G. Kostyuk, O. A. Kryshchal’, and V. I. Pidoplichko, was awarded the State Prize

of the USSR for his studies on the cellular/molecular mechanisms of electrical activity of nerve cells. His success in the studies of physical and chemical parameters of potassium channels – the largest group of ion channels in the membranes of excitable cells responsible for the fundamental properties of electrical activity and plasticity of these properties – should be specially mentioned; these studies have received international recognition. In theoretical research, Magura and his colleagues used such approach as nonlinear dynamics to detect the deterministic behavior of neuronal systems from stochastic noise. A Magura’s monograph, *Problems of Electrical Excitability of the Neuronal Membrane* and a textbook, *Biophysics* (Magura is one of its coauthors), were highly appreciated by the scientific community. The latter textbook was awarded the State Prize of Ukraine in the field of science and technologies (1992). Magura also directed several projects related to the effects of immunomodulators and second messengers of their actions on nerve cells. For the studies of neuron-immune interactions, Magura and colleagues were awarded the Bogomolets Award of the NAS of Ukraine.

From 1965, Igor Magura has been teaching in the fields of biophysics and molecular physiology in the Kyiv Taras Shevchenko National University, National Technical University of Ukraine “Kyiv Polytechnical Institute,” and Kyiv Academic University. Regardless of age, he continues active experimental research work in the Bogomolets Institute of Physiology.

Our journal cordially wishes Igor Magura good health and great success in his work!