



Academician
Lev G. Magazanik
90th Birthday

ESN Members from the Institute of Evolutionary Physiology and Biochemistry of the Russian Academy of Sciences (IEPhB RAS) are pleased to announce that on April 19, 2021 one of the most prominent scientists of the Institute, Full member of Russian Academy of Sciences, **Professor Lev Girshevich Magazanik** has celebrated his 90th Birthday. To commemorate this event, the Institute had a one-day Zoom-based scientific symposium “Biophysics of synaptic processes” on April 23, 2021 and the Russian Physiological Journal has published a special issue of the Journal dedicated to Prof. Magazanik ([to see the issue please click here](#)).

Academician Lev Girshevich Magazanik is a leading Russian neurophysiologist and neurochemist whose scientific life is closely linked with the I.M. Sechenov Institute of Evolutionary Physiology and Biochemistry in Saint Petersburg. He and his laboratory made a significant contribution to the study of synaptic transmission mechanisms. Science attracted Lev Magazanik early in his school years when he was the winner of various city Olympiads in chemistry. After graduating from secondary school with a medal in 1949, he entered the 1st Leningrad Medical Institute named after I.P. Pavlov and in his first year started to learn the basics of chemical synthesis in the Department of Organic Chemistry and later at the Department of Biochemistry, where he published his first research paper. During the last three years of his studies, Lev was deeply involved in studying a main problem in molecular physiology - synaptic transmission in the nervous system - at the Department of Physiology and Pharmacology led by Professor M.J. Michelson. After graduating from the Institute with a first-class diploma he was assigned as the chief physician of a small tuberculosis hospital in the rural village of Kurkiyoki, Republic of Karelia, north of Saint Peterburg, where he worked for more than two years.

When the I.M. Sechenov Institute of Evolutionary Physiology and Biochemistry was established in Saint Petersburg (at that time Leningrad) in 1956, his former supervisor Professor M.J. Michelson invited Lev Magazanik to join his new laboratory as a senior postgraduate laboratory technician. The focus of the Laboratory of Comparative Pharmacology and Biochemistry of Mediator Systems was to study synaptic transmission processes using biologically active substances as experimental tools, and the molecular processes of cholinergic transmission became the subject of Lev Magazanik's study and the subject of his PhD thesis. In 1970, he became the head of his own laboratory focusing on the

molecular mechanisms of synaptic transmission and employing a wide range of methods and techniques, including the use of microelectrode recordings or the analysis of the electrical activity of muscle and nerve cells. These studies led to the discovery of new molecular mechanisms of action of various biologically active compounds, including various toxins, on cholinergic transmission. For this cycle of work L.G. Magazanik was awarded the State Prize of the USSR in 1989.

In the 1990s, the scientific interests of Prof Magazanik shifted towards the studies of glutamatergic transmission. During this period, he and his colleagues analysed the molecular structure and functions of the main subtypes of glutamate receptors. As a result, the main principles of molecular design of selective channel-blockers of ionotropic glutamate receptors were developed leading to the design of new high-performance compounds that are now widely used around the world. Currently the scientific interests of Prof L.G. Magazanik lie in the study of pathophysiological mechanisms of epilepsy associated with synaptic transmission disorders.

Prof L.G. Magazanik enjoys scientific recognition worldwide. He worked in research laboratories of the universities of Paris (1990-1991), Geneva (1993), Nottingham (1994-1995) and Munich (1998), and his collaborators are spread in more than a dozen countries. L.G. Magazanik is a professor of the Medical Faculty of St. Petersburg State University and his lectures on physiology are very popular with students and never missed. In recognition of his scientific and pedagogical merits L.G. Magazanik has been awarded the title of an Honorary Professor at Kazan Medical University (2001) as well as receiving the Order of Friendship (2002) and L.A. Orbeli Prize (2016). In 2016 L.G. Magazanik has been elected a full member of the Russian Academy of Sciences with the official title of Academician.

Numerous PhD students and postdocs of Prof Magazanik now work in various neuroscience laboratories in Russia and around the globe. Many of them are members of ESN. On behalf of ESN, we congratulate Prof Magazanik with his 90th birthday and wish him many years of active life and new contributions to science.

Michael Firsov (Director of IEPHB RAS)

Kira Kim (Vice-Director of IEPHB RAS)

Natalia Nalivaeva (President ESN)