

In Memory of Lev Ovchinnikov

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Abstract—Lev Ovchinnikov was a true man of Science. Until the end of his life, he retained not only loyalty to strict scientific principles, but also a benevolent attitude towards the people around him. He devoted his scientific career to the study of mRNP and regulation of protein biosynthesis. He created a unique scientific school that received international recognition.

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INTRODUCTION

Lev Pavlovich Ovchinnikov, an outstanding Russian scientist, a teacher to hundreds, a mentor to many, and a friend to all – passed away at the age of 77 on September 29, 2020. A severe disease robbed the Institute of Protein Research of a brilliant investigator and a great person.

IN MEMORY OF LEV OVCHINNIKOV

Born in 1943, Lev Ovchinnikov became a student of the Lomonosov Moscow State University at the age of 17, and following graduation after five years of studying started his scientific carrier at the Bach Institute of Biochemistry, Russian Academy of Sciences, where he completed his doctoral thesis under the mentorship of Professor Alexander S. Spirin and was awarded his Ph. D. degree.

In 1968 Lev was offered a position in the newly created Institute of Protein Research (IPR) and joined the Laboratory of Protein Biosynthesis headed by Alexander Spirin. Since then, the whole life of Dr. Ovchinnikov was inseparable from this institution. His early works were on physicochemical properties of ribonucleoprotein particles, so-called RNPs or informosomes, their protein composition and occurrence in eukaryotes, and *in vitro* mRNP modeling [1-5]. For these studies, Dr. Ovchinnikov and

colleagues were awarded the 1976 Lenin Prize, one of the most prestigious awards in Soviet Union.

In 1981, Dr. Ovchinnikov defended his Doctor of Science thesis and was appointed as a head of his own research group focused on regulation of protein biosynthesis. He remained the leader of this group until the very end of his life. His principles of leadership created a unique atmosphere of scientific freedom and mutual assistance in the group and resulted in many discoveries including regulatory mechanism of protein biosynthesis based on the changing degree of compartmentalization of translational regulatory proteins and effect of covalent modifications of the eukaryotic translation elongation factors on their affinity for RNA and on protein synthesis [6-16].

One of the visionary ideas suggested by Dr. Ovchinnikov was to address the role of cytoplasmic mRNP proteins in translational regulation. That started his life-long love affair with YB-1, the major structural protein of mRNPs [17-41]. Comprehensive studies of the properties and translational activities of YB-1 and its role in cancers and neuronal pathology made his name well-known in the world.

Achievements of Dr. Ovchinnikov were recognized in Russia: in 1997 he became a full member of the Russian Academy of Sciences and served at the Bureau of Biological Sciences, Russian Academy of Sciences.

An outstanding biologist, Dr. Ovchinnikov was also a talented administrator: for many years he was Deputy Director (1988-2001) and then Director of the Institute of Protein Research (2001-2015) (figure).

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Lev Pavlovich Ovchinnikov

Contribution of Dr. Ovchinnikov to education of young scientists cannot be overestimated. He was the founder of the IPR Education Center and a long-term lecturer on protein biosynthesis regulation there; many students and postgraduates did their B.Sc., M.Sc., and Ph. D. dissertations under his mentorship; and for more than three decades, he was a distinguished Professor in the Department of Molecular Biology at Lomonosov Moscow State University.

Lev Ovchinnikov was an amazingly open, sympathetic, and good-natured person ready to share the most entertaining stories about his fishing and hiking trips. A demanding leader could easily turn into a smiling and supportive teacher and a loyal friend. Regardless all his titles and high station in life, Lev was a humble person willing to admit his mistakes. People sought his advice and benefited from his council. He dearly loved life; he was sure that any problem has a solution if you put enough efforts to work it out. Until the very end, he retained clear mind and a desire to learn new things.

For many years Lev Ovchinnikov has been a professional and moral guide for several generations of his stu-

dents, a shining beacon in the stormy sea of Russian science. All of us, his colleagues and friends, will do our best to develop further his scientific ideas, preserve his unflinching work ethic and life principles, and gratefully remember his intellectual generosity and freedom, depth and humanity.

This issue of *Biochemistry* includes reviews by students and colleagues of Lev Pavlovich Ovchinnikov.

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