

ON THE 80th ANNIVERSARY OF ACADEMICIAN VLADIMIR MELNIKOV



Each person is born to live and to create,
To open the door to light...

V.P. Melnikov, December 19, 2015

On July 5, 2020, the renowned scientist Academician Vladimir Pavlovich Melnikov celebrated his 80th anniversary. Thanks to his efforts, the city of Tyumen became a new center of academic life in Siberia in the 1980s. His contribution to development of cryology can hardly be overestimated. Vladimir Melnikov's activity resulted in the foundation of the Institute of the Problems of Northern Development, Siberian branch of

the Academy of Sciences of the USSR, in 1985. In 1990, the Tyumen Scientific Center, SB RAS, was founded, and in 1991, the Earth Cryosphere Institute, SB RAS, headed by Vladimir Pavlovich Melnikov for nearly 25 years. In Tyumen, Vladimir Melnikov established the Earth Cryosphere Institute, SB RAS, the Regional Academy was established, which is supporting those areas of research which are a priority for the region. Academician Melnikov has carried out tremendous work to attract talented researchers from other regions to Tyumen and has established effective mechanisms of raising new generations of researchers. For this task to be solved, Vladimir Pavlovich pays serious attention to integration of the academic science and universities. Beginning with 2001, on the basis of the Tyumen Industrial Institute, Professor Melnikov directly participated in establishment of a number of scientific and educational subdivisions, including the academic chair of the Earth cryology, which he is presently heading. To ensure development of the new paradigm of the science of cryology based on the most recent achievements of the fundamental science, a chair of cryosophy was established in 2016 in the Tyumen State University under the guidance of Academician Melnikov, which united both recognized and young researchers from different countries and was later granted the status of the International Center for Cryology and Cryosophy.

Vladimir Melnikov's authority in science and his outstanding organizing abilities are well known far beyond Siberia. Back in the 1970, when he was a young promising scientist, Vladimir Melnikov became world-famous during his teaching work in Algeria and due to his participation in a number of large international scientific events devoted to the topical issues of cryology. The global recognition of Vladimir Melnikov's achievements considerably grew after the brilliantly organized conference in Yamburg in 1989, which united the leading permafrost scientists from different countries. In 2012, Vladimir Melnikov initiated the X International Permafrost Conference held in Salekhard, which attracted about 600 researchers from nearly 30 countries. As recognition of his merits before the international permafrost community, Vladimir Melnikov served in the Directorate of IPA, International Permafrost Association, from 1988 to 2008, and in 2000, he was elected a corresponding member of the Royal Academy of Sciences of Belgium.

The scientific achievements and the organizing activities of Vladimir Pavlovich Melnikov have been highly evaluated by the academic community and the Russian government. In 1987, he was elected a corresponding member of the Academy of Sciences of the USSR, and in 2000, he became the academician of the Russian Academy of Sciences. Vladimir Pavlovich has several state awards, including the following orders: Sign of Merit (1986), Merit (1997), For Service to Motherland, 4th degree (2011). He was awarded the regional Muravlenko Prize in the area of promoting high technologies in construction of oil and gas production facilities (1999), he has the title of the honored worker of the fuel and energy complex (2000), and is the holder of the Prize of the Government of the Russian Federation of 2004 in the field of science and technology.

Vladimir Pavlovich Melnikov is the chairperson of the Scientific Board on the Earth Cryology of the Russian Academy of Sciences, a member of the Presidium of the Siberian branch of RAS, a member of the RAS Council on the Earth Sciences, a member of the United Scientific Council of the Earth Sciences of SB RAS. In 1997, he initiated establishment of a new scientific journal *Earth's Cryosphere*, which became the main site for publications of the Russian scientists in the area of cryology. In 2005, Vladimir Pavlovich founded the scientific and popular magazine *KholodOK*, in which he also serves as the editor-in-chief.

The range of the scientific interests of Vladimir Pavlovich Melnikov has always been extremely broad. From the very beginning of his scientific career, he displayed great interest for the study of rhythmic phenomena in the behavior of the cryosphere, including the study of the low-frequency rhythms of induced polarization, the rhythms of the electric state and electrochemical activity of permafrost, and the cyclic phases of global warming and cooling periods on the Earth. The variety of the physical and chemical processes in the permafrost zone investigated by Vladimir Pavlovich Melnikov contributed to expansion of the range of objects studied by cryology. An example is the study of gas hydrates investigated in the Earth's Cryosphere Institute, SB RAS, as well as the study of microorganisms living in the permafrost. Vladimir Pavlovich Melnikov made a large contribution to revision of the public attitude to cold, which had been previously associated only with the dangers Mother Nature has for the Man, and now is considered as a cryogenic resource to ensure the Man's creative functions.

The anniversary of any outstanding scientist is normally considered as summarizing his or her contribution to science. However, Vladimir Pavlovich Melnikov may be justly considered to be an exception to the rule. Now, despite his impressive list of achievements in science, he is more inclined to think about expanding the future horizons of the study of the world of cold, rather than relishing his achievements. A good example of this attitude is the concept of cryosophy, actively being developed by Vladimir Pavlovich Melnikov, which may be considered an advanced methodological basis aimed at providing new inter-disciplinary knowledge to the study of the cryosphere and determining its priorities. Therefore, we wish Academician Melnikov all kinds of success in all his initiatives, so that the world of his brilliant life continued to inspire him to make new discoveries!

Colleagues and friends