



### **In Memoriam: Stanislav Malyuta (1938–2022)**

On December 8, 2022, one of the leading geneticists of Ukraine, laureate of the State Prize of Ukraine, Corresponding Member of the National Academy of Sciences of Ukraine, Chief researcher of the Department of Molecular Genetics of the Institute of Molecular Biology and Genetics of the National Academy of Sciences of Ukraine, Doctor of Biological Sciences, Professor Stanislav Stanislavovich Malyuta passed away.

S. S. Malyuta is an outstanding scientist in the field of general and molecular genetics, molecular biology and genetics of microorganisms. His name is associated with the priority research on the mutagenic effect of viruses and nucleic acids, transgenesis, the structural and functional organization of genes, the development and implementation of molecular biological test systems. He made a significant contribution to the restoration of genetics in Ukraine, which was destroyed during the “Lysenkivshchyna” period, and to solving a number of problems of general and molecular genetics.

Stanislav Stanislavovich was born on February 23, 1938 in the village of Kovalivka, Yarmolynetsky district, Khmelnytskyi region. After graduating from the Ukrainian Agricultural Academy (now the National University of Bioresources and Nature Management of Ukraine) in 1960, he worked at the Pervomaysk Research and Selection Station (Krasnodar Territory, Russia) where he, first in the USSR, discovered the forms of sugar beet with cytoplasmic male sterility.

In 1961, Stanislav Stanislavovych entered the postgraduate course of the Central Republican Botanical Garden of the Academy of Sciences of the Ukrainian SSR (now the National Botanical Garden named after M. M. Hryshko of the National Academy of Sciences of Ukraine) majoring in “genetics” and

joined the Genetics Department headed by Prof. V. P. Zosymovych. During 1961–1968, Stanislav Stanislavovich worked under the guidance of Academician S. M. Gershenzon at the Institute of Microbiology and Virology named after D. K. Zabolotny, and since 1968 — in the Department of Molecular Biology and Genetics, which in 1973 was reorganized into the Institute of Molecular Biology and Genetics (IMBG). In our institute S. S. Malyuta made his way from a junior researcher to the head of the Department of Molecular Genetics, which he headed for thirty consecutive years starting in 1978. In 2002–2003, Stanislav Stanislavovych held the position of deputy director for scientific work of the IMBG of the National Academy of Sciences of Ukraine. For several years, he was the deputy academician-secretary of the Department of Biochemistry, Physiology and Molecular Biology of the National Academy of Sciences of Ukraine.

In the 80s of the last century, S. S. Malyuta conducted the research aimed at solving the problem of transferring foreign genetic information. The data he obtained together with his colleagues indicate that the plant and mammalian cells can absorb foreign viruses (bacteriophages) and DNA. He showed that the absorption process is completely controllable and its efficiency can be greatly increased by creating special conditions. The sequences of absorbed DNA are preserved in cells for many cell generations; the absorbed genes are able to be expressed in new conditions; genetic engineering manipulations are accompanied by various cytogenetic and genetic effects. In a series of studies devoted to the research of structural and functional organization of the elements of the genetic system of bacteria and humans, S. S. Malyuta proved that all structural genes that encode lysine biosynthesis in *B. Subtilis* are localized on the chromosome in a single cluster. Stanislav Stanislavovich's achievements in the study of the mutagenic effect of viruses received international recognition. In 1998, he was awarded the State Prize of Ukraine in the field of science and technology. He proved that viruses, both infectious and non-infectious, are capable of causing mutations, and established that the mutagenic effect of viruses is characterized by high specificity.

In the Department of Molecular Genetics, which was headed by Stanislav Stanislavovych, a new scientific direction “molecular oncohematology” was launched in Ukraine. Currently, this research area is on the rise in the development and implementation of test systems for the diagnostics and monitoring of myeloproliferative diseases of the blood system. The test systems are created and successfully implemented in many medical institutions of Ukraine. From 1987, Malyuta S. S. worked as the part-time professor, in 1989–1992 — as the head of the Department of Genetics and Physiology of Plants and

Biotechnology of the National Agrarian University. In 1996–2002 he lectured at the National University “Kyiv-Mohyla Academy”. He was awarded the title “Outstanding Educationist of Ukraine”. Under the leadership of S. S. Malyuta one doctor’s and 16 PhD theses were prepared.

Stanislav Stanislavovich carried out enthusiastic social activities. He was elected a member of the Interdepartmental Council for Biotechnology under the Cabinet of Ministers of Ukraine, for several years in a row he was a member of the Scientific and Publishing Council under the Presidium of the National Academy of Sciences of Ukraine, for six terms he was a member of the expert council of the Higher Attestation Commission of Ukraine, a member of the Presidium of the Ukrainian Society of Geneticists and Breeders and the Ukrainian Biochemical Society, was a member of two specialized scientific councils for the defense of PhD and doctoral theses of the IMBG of the National Academy of Sciences of Ukraine, a member of the presidium of the Ukrainian Society of Geneticists and Breeders named after N. Vavilov and the Ukrainian Biochemical Society, a member of the editorial board of the scientific journals “Biopolymers and Cell”, “Cytology and Genetics”, “Ukrainian Biochemical Journal”, “Bulletin of the Ukrainian Society of Geneticists and Breeders” and “Studia Biologica”. Stanislav Stanislavovich’s creative output comprises more than 300 scientific works, including 1 monograph, 4 books and scientific methodical manuals, 2 copyright certificates for inventions. The life path was not smooth, but Stanislav Stanislavovich steadfastly endured all difficulties, always remained a decent and sensitive person. S. S. Malyuta contribute to science throughout his life, was distinguished by sharp mind, high level of scientific thinking and professionalism, humanity and concern for people. The bright memory of Stanislav Stanislavovich Malyuta will forever remain in the hearts of all who knew him.