

## **BEREZHNA NINEL MYKHAILIVNA (1928–2023)**

On August 10, 2023, an outstanding Ukrainian scientist, Doctor of medical sciences, Professor, pathophysiological, oncoimmunologist, laureate of the State Prize of Ukraine in the field of science and technology and laureate of the prizes of the NASU named after I.I. Mechnikov, R.E. Kavetsky, and O.O. Bohomolets, the leading scientist of the Laboratory of Oncoimmunology and Antitumor Vaccine Design of R.E. Kavetsky Institute of Experimental Pathology, Oncology and Radiobiology of the NASU Ninel Mykhailivna Berezhna passed away.

N.M. Berezhna was born on March 19, 1928 in the Kharkiv Oblast. Upon graduating from Bohomolets Kyiv Medical Institute, she began her career as a scientist at the Kyiv Research Institute of Epidemiology, Microbiology and Parasitology of the Ministry of Health of the Ukrainian SSR, where she defended her PhD thesis in 1959. In 1964, she was awarded the title of senior researcher in the specialty “pathophysiology”. In 1972, N.M. Berezhna defended her doctoral thesis. The sharp, inquisitive mind of a scientist and the insatiable passion of a researcher inherent to Ninel Mykhailivna led her in 1974 to the Institute of Oncology Problems of the Academy of Sciences of Ukraine, presently R.E. Kavetsky Institute of Experimental Pathology, Oncology and Radiobiology of the National Academy of Sciences of Ukraine, with which her entire scientific and creative life was inextricably linked until her last breath. From 1980, she was heading the Department of Immunology and Allergology for over 25 years. In 1983, N.M. Berezhna was awarded the scientific title of Professor in the specialty “allergology and immunology”.

Oncoimmunology became the main area of research activity of Prof. Berezhna. She focused on the potential of immunotherapy of cancer accounting for the interactions between lymphocytes and cancer cells, the mechanisms of tumor-associated suppression, interleukin-2 production, and the expression of its receptors on lymphocytes and cancer cells in the dynamics of tumor growth. The scientific achievements and the practical developments by Prof. Berezhna contributed much to the national theoretical and applied oncoimmunology justifying that the result of the lymphocyte-cancer cell in-



teraction depends equally on the functional activity of the immune system and the biological features inherent to the tumor. In recent years, Prof. Berezhna focused on studying the physiological system of the connective tissue as a key factor of the tumor microenvironment.

Prof. N.M. Berezhna is the author of 10 monographs and more than 300 scientific works on various aspects of oncoimmunology. The monographs of recent years “The Interleukin System and Cancer (New Aspects of the Tumor-Host Interaction)” (2000), “Immunology of Malignant Growth” (2005), and “Interleukin Families: Biology and Oncogenesis” (2013) are real encyclopedic publications for specialists in oncoimmunology, pathophysiology, and oncology.

Prof. N.M. Berezhna combined her fruitful scientific research with organizational activities. She was a member of the Specialized Council for Thesis Defense at Bohomolets Kyiv Medical Institute and R.E. Kavetsky Institute of Experimental Pathology, Oncology and Radiobiology, an honorary member of the Presidium of the International Society on Immune Rehabilitation, a member of the Board of the Ukrainian Society of Pathophysiologists, a member of the Scientific Council on Malignant Neoplasms. Prof. Berezhna was also a member of the editorial boards of “Experimental Oncology”, “Oncology”, “Allergology and Immunology”, and “Dermatology and Venereology”.

Prof. N.M. Berezhna contributed much to the shaping of the scientific outlook of the young generation of scientists and their training. She supervised 3 doctoral and 19 Ph.D. theses. For all scientists who were fortunate to work with Ninel Mykhailivna, she remains a symbol of high devotion to science forever.

Ninel Mykhailivna was an extremely bright, multifaceted personality with the talent of an extraordinary scientist, organizer of science, brilliant lecturer and polemicist, and the decency of a deeply intelligent person were harmoniously combined.

Modesty, simplicity, and sincerity were the characteristic features in her communication with people, in whose memory she will forever remain an ideal worthy of emulation. Her entire life was a vivid example of high professionalism and dedication to the work. A bright memory of Ninel Mykhailivna Berezhna will forever remain in our hearts.

***The team of R.E. Kavetsky Institute of Experimental Pathology, Oncology and Radiobiology of the National Academy of Sciences of Ukraine  
“Experimental Oncology” Editorial Board***