

YEVHENII PETROVYCH SIDORIK (1931–2016)

Professor Yevhenii Petrovych Sidorik, well-known scientist in the fields of biophysics and experimental oncology, double Laureate of the State Prize in Science and Technology, Laureate of O.O. Bohomolets Prize and R.E. Kavetsky Prize of the NAS of Ukraine died on the 86th year of his life.



Ye.P. Sidorik was born in 1931 in Gomel region, Belarus. In 1954, he graduated from O.O. Bohomolets Kyiv Medical Institute. In 1954–1957, Ye.P. Sidorik was a postgraduate student at Kyiv Research Roentgenradiologic and Oncological Institute of the Ministry of Health of Ukrainian SSR under the supervision of the famous Ukrainian scientist Academician R.E. Kavetsky.

Ye.P. Sidorik started his research carrier at the Institute of Experimental and Clinical Oncology (nowadays — R.E. Kavetsky Institute of Experimental Pathology, Oncology and Radiobiology of the National Academy of Sciences (NAS) of Ukraine) from the very date when the Institute was founded in 1960. Working at the Institute all his life, Dr. Sidorik rose through the ranks from young entry-level researcher to the Head of the Department of Biophysics of Carcinogenesis (since 1971).

The personality of Dr. Sidorik as a scientist was shaped in the setting of his training in the famous scientific centers such as Lomonosov Moscow State University, Semenov Institute of Chemical Physics (Russia), Harvard University (USA).

In 1969, Dr. Sidorik defended his doctoral thesis. In 1971, he was awarded the academic title of professor in biophysics. Prof. Sidorik is known as a founder of pioneering trend in cancer research — biophysics of cancer. The Laboratory of Biophysics of Cancer set up at the Institute upon the initiative of Academician R.E. Kavetsky was among several pioneering laboratories of such kind throughout the world. In the Department headed by Prof. Sidorik, the priority findings on the molecular carriers of electrons in bioenergetic and detoxifying system of cell membrane in the setting of carcinogenesis have been obtained. Prof. Sidorik made substantial contribution into the discovery of the biochemiluminescence mechanisms and the control of the oxidative free-radical processes by bioantioxidants. The data on the molecular mechanisms of the chronic effects of low intensity ionizing radiation obtained

at the Department headed by Prof. Sidorik are of high importance in studying the stochastic effects of radiation after Chernobyl catastrophe. In the experimental studies provided at the Department, the radical forms of nitrogen oxide and superoxide radical anions were characterized as the markers indicative of the risk of cancer initiation and progression. A series of his research concerned the biophysical approaches to the analysis of the mechanisms of antitumor activity of coordination compounds of platinum with bioactive ligands. The recent scientific interests of Prof. Sidorik and his colleagues were focused on the study of the biophysical aspects of the risks of radiofrequency radiation for the human health, in particular, the radiation emitted by cell phones.

Prof. Sidorik was one of the Laureates of the State Prize in Science and Technology of Ukrainian SSR (1981) awarded to the group of the scientists of the Institute headed by Academician R.E. Kavetsky for the study of the mechanisms of the malignant transformation of cells and the formation of antitumor resistance of the host.

Prof. Sidorik has authored more than 500 publications including 12 monographs, 25 inventor's certificates and the patents. His monograph "Biophysics of cancer" (1976) is a landmark book on the biophysical mechanisms of cancer. He was an author of the first in Ukraine textbook on biophysics for the students (State Prize in Science and Technology of Ukraine, 1992). Prof. Sidorik was a supervisor of 20 PhD and doctoral theses.

Prof. Sidorik was awarded the memorial O.O. Bohomolets Prize of the NAS of Ukraine for the monograph "Biochemiluminescence of cells in neoplastic process" (1991) and the memorial R.E. Kavetsky Prize of the NAS of Ukraine for the monograph "Radical forms of oxygen and nitrogen oxide in neoplastic process" (2012).

Prof. Sidorik combined his research with organizational activity. In particular, for many years he was a member of the Scientific Council of the Institute and a member of Specialized Dissertation Advisory Councils on oncology and radiobiology as well as Scientific Advisory Councils on biophysics and bioinorganic chemistry. Prof. Sidorik was an Editorial Board member of "Experimental Oncology" journal.

The cherished memory of Yevhenii Sidorik, a talented and persevering scientist of creative endeavor will always remain in our hearts.

**Administration, Scientific Council and staff
of R.E. Kavetsky Institute of Experimental
Pathology, Oncology and Radiobiology
of the NAS of Ukraine
Editorial Board of "Experimental Oncology"**