Professor O. S. Buiko, a legend at SI "The Filatov Institute of Eye Diseases and Tissue Therapy of the NAMS of Ukraine"

This year, the distinguished ophthalmologist and ophthalmic oncologist, Professor Olexander S. Buiko, Doctor of Medical Sciences, marked his 90th birthday alongside with the State Institution "The Filatov Institute of Eye Diseases and Tissue Therapy of the National Academy of Medical Sciences of Ukraine." Coincidentally, 90 years earlier, in 1936, the Scientific Research Institute of Eye Diseases and Tissue Therapy was founded in Odesa, and on the 30th of March? The same year, a boy was born in Kyiv who would later become a leading scientist and bring great honor to this institution.

Alexander Sergeyevich Buiko, who shares the same age as the Institute, has dedicated 66 years to serving science and ophthalmology, particularly ophthalmic oncology. He studied at the M. I. Pirogov Odessa State Medical Institute in the Faculty of Medicine from 1954 to 1960, and upon graduation, he worked as an ophthalmologist in the village of Starokozache in the Odessa region. Following this, from 1963 to 1965, he pursued postgraduate studies at the Odessa Research Institute of Eye Diseases and Tissue Therapy named after Academician V. P. Filatov. Upon completing his studies in 1966, O. S. Buiko successfully defended his candidate's dissertation on the topic "The Constant Potential of the Eye in Normal Conditions and in Certain Eye Diseases."

Between 1970 and 1972, he undertook a mission to offer ophthalmological care to the people of Algeria, which he performed diligently and to the highest standard.

In 1981, Olexander Buiko began developing cryosurgical instruments for the treatment of neoplasms of the eye and its adnexa. The first cryodestructor for use in ophthalmology was developed in 1983 in collaboration with colleagues from the Omsk NPO "Microcryogenics." The development and refinement of cryogenic instruments continued in collaboration with researchers at the Odessa Institute of Refrigeration and the Odessa NPO "Storm" until 1990, resulting in the development of two further liquid nitrogen cryodestructors and a cryodestructor with a throttling system.

Following the defence of his candidate dissertation, O.S. Buiko became interested in researching the potential application of liquid crystals in diagnosing eye diseases, particularly neoplasms, and in 1983 he successfully defended his doctoral dissertation, "Liquid-Crystal Thermography and Rheography in the Diagnosis of Certain Orbital Neoplasms and Melanoblastomas of the Choroid."

In 1985, the "Liquid Crystal Thermography" group was established within the Department of Ophthalmic Oncology, with 15 beds, to carry out research focused on developing new methods for the diagnosis and treatment of tumors of the eye, its adnexa, and the orbit; for this work, the group's researchers received All-Union grants three times. Dr. O.S. Buiko, MD, a senior research fellow (a title he received in 1982), was appointed head of the group; in 1991, he became the lead researcher, and in 1994 — chief research fellow after being awarded the title of professor on July 21, 1994, in the specialty of "Ophthalmology." Professor O. S. Buiko led the "Liquid Crystal Thermography" group until 2000. Members of this department have developed liquid-crystal-based thermal indicators, an infrared radiometer, an original cryogenic device, and a method for the cryodestruction of epibulbar neoplasms and ocular adnexa, in particular stage I–II carcinomas, which has increased the treatment efficacy for such tumors to 95% with a 5-year recurrence-free period. Oleksandr Serhiyovych personally developed surgical instruments (forceps, elevator) for the removal of orbital tumors. In addition, O. S. Buiko, together with his colleagues—his students, Candidate of Medical Sciences V. A. Elagina and

Doctor of Medical Sciences I. O. Safronenko — have been working for many years on the development of new, more effective methods for treating malignant melanocytic and epithelial tumors of the conjunctiva of the eye and eyelids, as well as the eyelid skin, using a combination of cryodestruction, microwave hyperthermia, and various types of radiation therapy. Together, they have authored more than 150 scientific articles, hold 12 patents, and regularly present at domestic and international conferences, symposia, and congresses.

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Professor O. S. Buiko is a corresponding member of the international scientific and clinical website "Eye Cancer", which comprises the world's leading ophthalmic oncologists, and an honorary member of the Bulgarian Ophthalmological Society. He has been a member of the editorial board of the "Ukrainian Journal of Medical Equipment and Technology" in Kyiv for many years.

Oleksandr S. Buiko was one of the first in Ukraine to introduce methods of statistical data analysis into ophthalmology, employing techniques such as fuzzy set theory, Bayes' theorem, cluster analysis, neural networks, the Kaplan-Meier method for determining cancer patient survival, and others, even before the concept of evidence-based medicine became established. The proper systematization of scientific data and the processing of results with a high degree of reliability were enabled, which were consistent with the findings of leading ophthalmologists and ophthalmic oncologists in Europe and the United States. Professor O. S. Buiko, along with his students and colleagues at the Odesa branch of the Scientific and Engineering Center of the Ministry of Health of Ukraine, and the small enterprise "YUGTEKHNIKA," developed a database containing information on 3,500 patients with choroidal melanoma who were treated at the Filatov Institute from 1960 to 2000, as well as the "OCULIST" program for recording and organising information in ophthalmic oncology.

Professor Oleksandr S. Buiko continues to be an active member of the Institute's scientific and medical staff. A man of principle and modesty, he continues to work diligently and conscientiously for the advancement of ophthalmology and ophthalmic oncology, and cannot conceive of a life outside of this work.

Professor Oleksandr S. Buiko was awarded a Certificate of Appreciation in 2026 by the Committee of the Verkhovna Rada of Ukraine, in recognition of his outstanding personal contribution to Ukraine's scientific potential, his significant achievements in medical science, the introduction of advanced innovative technologies into clinical practice, his high level of professionalism, and to mark the 90th anniversary of the SI "The Filatov Institute of Eye Diseases and Tissue Therapy of the National Academy of Medical Sciences of Ukraine".

The staff of the Filatov Institute and the Department of Ophthalmic Oncology wish Oleksandr S. Buiko continued good health, ongoing inspiration in his work, and future new achievements and discoveries.