

ON THE ANNIVERSARY OF D. SC., PROF. ALEKSANDER SOLDATOV



On 31 October, 2022, the outstanding hydrobiologist Aleksander Soldatov celebrated his 65th birthday – D. Sc., Prof., chief researcher, and head of IBSS animal physiology and biochemistry department.

A. Soldatov has devoted more than 30 years to work at the institute. He has been working at the animal physiology and biochemistry department for more than 20 years and has headed it since 2008.

Aleksander Soldatov is a highly qualified specialist in ecological physiology and biochemistry of hydrobionts who enjoys a well-deserved reputation both in Russia and abroad. He is the author of more than 270 publications, *inter alia* 3 collective monographs.

He is the supervisor of six successfully defended PhD theses and leads many research projects. His scientific activity is diverse. It was he who proposed a classification of hypoxic conditions for hydrobionts, determined the mechanisms of short- and long-term regulation of tissue partial pressure of oxygen in marine fish, and studied the significance of tissue lipid level in correcting the diffusion capacity of skeletal muscles in terms of oxygen. Moreover, he established the fact of low diffusion capacity of the histo-hematic barrier in lower vertebrates.

A. Soldatov deeply studied hematopoiesis processes in teleost fish. For the first time, he established the fact of monocycles in the functioning of the erythroid germ of the hematopoietic tissue during the annual cycle and showed its relationship with spawning. He discovered and described colony-forming units in the hematopoietic tissue (anterior kidneys, spleen). Under experimental conditions, he analyzed the effect of hypoxia and hypothermia on hematopoiesis. He reported the process of balanced inhibition of membrane and metabolic functions (metabolic arrest) in fish red blood cells during adaptation to extreme external conditions. Also, he determined the morphological and functional characteristics of erythroid blood elements during cellular differentiation.

He described the functional effects of the use of anesthetics on teleost fish. Moreover, he developed a methodology for applying urethane anesthesia during experimental studies.

Under the leadership of Aleksander Soldatov, complex field and experimental research was carried out: functional, metabolic, and molecular bases of adaptation of representatives of the Black Sea malacofauna to existence under conditions of extreme ecotopes (hypoxia (anoxia), hydrogen sulfide load,

and hypo- and hyperosmotic environments) were studied. Within the framework of these investigations, the results were obtained that reflect the state of cellular systems and antioxidant enzymatic complex; qualitative and quantitative composition of carotenoids was determined.

A. Soldatov is a talented scientist and an outstanding mentor generously sharing his experience with new generations of researchers. For more than 20 years, he has been teaching at the Sevastopol State University (department of technogenic safety and metrology) and in several other universities in Sevastopol, and he is one of the best lecturers in the city in hydrobiology, physiology, and ecology. Currently, he supervises the work of four postgraduate students and serves as a professor of IBSS postgraduate department. At SevSU, he graduated about 15 masters and 30 bachelors.



To date, Aleksander Soldatov is a member of the expert council of the Higher Attestation Commission and chairman of IBSS scientific council. Moreover, he serves on editorial boards of several scientific journals, as well as dissertation councils of our institute and V. I. Vernadsky Crimean Federal University. For some years, he was involved in activity of program committees of key scientific conferences in hydrobiology and physiology.

For the work done, he was awarded the titles of Honorary Worker of Science and High Technologies (Ministry of Science and Higher Education of the Russian Federation, 2021) and Professor of the Year (Russian Professors' Meeting, 2021).

A. Soldatov is a helpful person and a wonderful family man. This eminent hydrobiologist is a true enthusiast of his work, who inspires with his passion and instills a love for science in young researchers.

On behalf of all colleagues, friends, and grateful students, we congratulate dear Aleksander Soldatov on his anniversary! We wish success in further work, new discoveries, great accomplishments, happiness, and prosperity!

Team of IBSS animal physiology and biochemistry department

К ЮБИЛЕЮ ДОКТОРА БИОЛОГИЧЕСКИХ НАУК, ПРОФЕССОРА АЛЕКСАНДРА АЛЕКСАНДРОВИЧА СОЛДАТОВА

31 октября 2022 г. исполнилось 65 лет Александру Александровичу Солдатову — д. б. н., проф., руководителю отдела физиологии животных и биохимии ФИЦ ИнБЮМ. Александр Александрович является специалистом в области экологической физиологии и биохимии морских организмов, автором более чем 270 научных публикаций, председателем учёного совета ФИЦ ИнБЮМ и заместителем главного редактора «Морского биологического журнала».