May 18, 2006 is the 100-anniversary of an outstanding zoologist-evolutionist of the XX century, Academician Artemii Vasil’evich Ivanov. He was born in a Bielorussian town Molodechino in a physician’s family. As early as being a schoolchild, he was enthralled by collecting and determining plants and insects. In 1923, Artemii Vasil’evich was admitted to Gory-Goretsk Agricultural Institute; it is in Proceedings of this Institute that his first article was published in 1925 [1]. The talented student was appreciated and three years later he was transferred to the Department of Invertebrate Zoology of Leningrad University. His supervisor there became Valentin Aleksandrovich Dogel. V.A. Dogel worked in various fields of invertebrate zoology, but it is in development of problems of comparative zoology that A.V. Ivanov became his main pupil and successor. An important role in formation of Artemii Vasil’evich as zoologist was played by his practice at Murmansk Biological Station and by his doing the large practical work on invertebrate zoology during his studentship. At that time, this practical work provided for the students’ independent working activity. For A.V. this allowed a careful study of the structure of animals, which was accompanied by numerous drawings from the living material and histological preparations made with use of many procedures. On graduating from the University in 1930, he was working for 4 years in the Far East and took part in hydrobiological expeditions at the flagship “Rossinante” of the Far East research fleet to study marketable invertebrates and parasitic molluscs. A result of these studies, he published several papers on benthos of the Peter the Great Bay, the Tatar Strait, the Japan, Bering, and Chukotks Seas, on the marketable mollusc Mactra sachalinensis, on the promising for marketing shrimp Sclerocrangon salebrosa,
and a large series of papers on parasitic gastropods [2, 3]. The summarizing paper in the co-authorship with K.M. Deryugin on the benthos of the Chukotsk and Bering Seas was published in 1937 [4], and 18 years later a book was published on marketable invertebrates [5].

After his return to Leningrad University, A.V. Ivanov began teaching and in cooperation with Yu.I. Polyanskii and A.A. Strelkov composed the famous Large Practical Work on Invertebrate Zoology (1938, 1940), for which he wrote a significant part of the general methodical section (description of methods of dissection, injections, specifics of drawing, techniques of reconstruction from sections) and sections on nemertines, dinophilides, archiannelides, polychaetes, echiuroides, priapulides, sipunculides, amphineura, lamellibranchiates, and gastropod molluscs, scorpions, myriopods, and spiders. It is here that his drawings, very precise and informative, have become of great use. The work on the Large Practical Work continued further: the 2nd and 3rd updated editions appeared (1958, 1981, 1983, 1985). A.V. Ivanov also participated in re-editions of V.A. Dogel’s “Invertebrate Zoology.”

In 1938, A.V. Ivanov defended his Candidate of Sciences dissertation “Organization and mode of life of the parasitic mollusc Paedophoropus dicoelobins A. Ivanov.” In 1940, he composed a review on gastropods for the “Textbook of Zoology” [6].

In the beginning of the Great Patriotic War, A.V., on the instruction of the Leningrad City Health Department, was working at the laboratory of fight with infections—transmitting insects. At this period Artemii Vasil’evich is not merely a researcher, but an investigator supervising experiments on nutrition lice; in the 1930s he himself got epidemic typhus. In March 1942, A.V., in the state of dystrophy, was evacuated to Saratov. As soon as he had recovered a little, he continued studies on parasitic molluscs and in 1944 he defended his Doctorate of Sciences dissertation “Parasitic gastropods, their structure and development.” On raising the Leningrad siege at the 27th January 1944, A.V. in the first special train returned to his home University.

For the first postwar years, A.V. was performing a comparative anatomical study of Acoela Turbellariae. This study was based on a careful analysis of four new Acoela representatives that he detected in 1946 in the South Sakhalin. At the same time he studied in detail a peculiar commensal Udonella caligorum with a non-clear position in the system of Platyhelminthes (this material was given to him by B.E. Bykhovskii). A.V reveals in the udonella several peculiar features of organization, first of all in the protonephridial system, and separates this species in the independent class [7]. For these studies, A.V. Ivanov was awarded I.I. Mechnikov Prize (1953).

In the late 1940s, A.V. started studying the mysterious group of Pogonophora. He participated in 5 voyages of the research ship “Vityaz” of Institute of Oceanology of the USSR Academy of Sciences. At the XV International Zoological Congress in London (1958) A.V. Ivanov made a report on the structure of pogonophores and their position in the system. The report attracted a most great interest and was greeted by applause. The monograph of A.V. on pogonophores published in the series “Fauna of the USSR” [8] was greatly appreciated by the Russian and international community. In Russia, A.V. Ivanov was awarded Lenin Prize; abroad, it was translated into English and French. In 1959, A.V. was elected a member of the German Academy of Natural Sciences (Akademie der Naturforschen Leopoldina). In 1965, A.V. published his book about spiders [9]. In parallel with his activity at the University Department, Artemii Vasil’evich was appointed the head of the Laboratory of Embryology of Zoological Institute of the USSR Academy of Sciences to become a successor of I.I. Shmalgauzen; he edited the posthumous additional and updated edition of Shmalgauzen’s book “Problems of Darwinism” (1969). In the Zoological Institute, A.V. Ivanov collected a group of his pupils and founded his own laboratory that in 1968 got the name Laboratory of Evolutionary Morphology. The same year Artemii Vasil’evich published his monograph “Origin of Metazoa” [10] in which he considers in detail and substantiates, on the basis of new facts for objective evaluation, I.I. Mechnikov’s theory of phagocytella. For this book, A.V. Ivanov was awarded I.I. Mechnikov Gold Medal in 1975. In the light of the Mechnikov’s hypothesis of phagocytella, A.V. considers and studies in detail the trichoplax—the most primiti-