

Newsletter of the Russian Society of Nematologists

80th Anniversary of Svetlana Vasilievna Zinovieva

On December 25, 2022, the phytohelminthologist, Doctor of Biological Sciences, Svetlana Vasilievna Zinovieva, celebrated her anniversary. After graduation from the Faculty of Biology, Moscow State University, M.V. Lomonosov in 1965, she began her career at the Helminthological Laboratory of the USSR Academy of Sciences (now the Center of Parasitology of the IPEE RAS), headed by Academician K.I. Skryabin, and the famous scientist phytohelminthologist, Professor A.A. Paramonov. These were the heydays of helminthological science. Extensive faunistic and taxonomic studies were carried out in the laboratory, then biochemical studies were launched on the relationship between helminths and their hosts.

In 1980, Svetlana Vasilievna defended her Ph.D. thesis “Influence of some elements of plant mineral nutrition on host-parasite relations in phytohelminthiasis” under the guidance of well-known scientists – biochemist and helminthologist O.A. Shishova-Kasatochkina and phytohelminthologist E.S. Turlygina. Working together with the staff of the laboratory of phytoimmunity of the Institute of Biochemistry named after A.N. Bach, she focused on research on plant immunity to nematodes. She has published a large number of articles devoted to the study of the relationship of plant-parasitic nematodes with host plants from the standpoint of plant resistance mechanisms, which made a significant contribution to the general theory of plant immunity. Subsequently, she developed an immunological concept of the formation and regulation of host-parasite relations in plant systems – parasitic nematodes; the main patterns of co-adaptation of partners, which ensure the stability of the existence of parasitic systems, were established, and the main directions and successive stages of the evolution of parasitism in plant-parasitic nematodes were also characterised. Based on original experimental studies, a hypothesis of plant resistance to parasitic nematodes has been proposed; the possibility of inducing plant resistance to these parasites is shown and its mechanisms are revealed. All these studies were summarised in her Doctoral Thesis “Immunobiological mechanisms of co-adaptation and the evolution of host-parasite relationships in plants and nematodes”, which she defended successfully in 1999.

A large portion of Svetlana Vasilievna’s fundamental research is occupied by questions of biology, morphology and population characteristics of plant-parasitic nematodes. A significant part of fundamental research by S.V. Zinovieva has found practical implementation in the field of plant protection against parasitic nematodes. She is the author of more than 200 scientific papers, more than a dozen copyright certificates and patents for inventions. Among her most popular and frequently cited works are monographic generalisations on the most pathogenic nematode species: *Parasitic Nematodes of Plants and Insects* (2004), *Applied Nematology* (2006) and *Plant-Parasitic Nematodes of Russia* (2012), published with co-authors. She took an active part in the creation and maintenance of the collection of the Scientific Helminthological Museum at the Center of Parasitology together with the Center’s employees. Svetlana Vasilievna was also the initiator of the creation and maintenance of the electronic database of this museum.

In addition to her scientific career, Svetlana Vasilievna has been engaged very successfully in scientific and administrative activities. From 2001 to 2015, she headed the Laboratory of Phytoparasitology of the Center of Parasitology of the IPEE RAS, and from 2006 to 2015 she was a deputy Director of the Center. Under her editorship, the Proceedings of the Center of Parasitology were



published, and she was one of the organisers of regular conferences of parasitologists at the the Center of Parasitology of the IPEE RAS. In addition, she is actively involved in the training of scientific personnel.

To date, Svetlana Vasilievna is the chief researcher of the Center of Parasitology of the IPEE RAS. She is a member of three Scientific Councils for awarding Doctor of Biology degrees, Deputy Chairman of the Problem Council on Parasitology at the Department of General Biology of the Russian Academy of Sciences, a member of the Commission for awarding prizes and medals to young scientists in the field of biology of the Presidium of the Russian Academy of Sciences, a member of the Commission on nematode diseases of agricultural crops at the Agro-industrial complex of the Russian Federation, a member of several scientific societies (Plant Physiology, All-Russian Society of Helminthologists, Russian Society of Nematologists, Russian Society of Parasitologists), and is also a member of the editorial board of the journals: *Russian Journal of Nematology*, *Journal of Balkan Ecology* and *Russian Journal of Parasitology*. For her active work, Svetlana Vasilievna was awarded a departmental award with the Medal "For Impeccable Labour and Distinction".

The staff of the Center of Parasitology of the IPEE RAS, the Editorial Board of the Journal and Russian Society of Nematologists congratulate Svetlana Vasilievna on her Jubilee and wish her good health and further creative success.

Staff of the Centre of Parasitology IPEE RAS and Russian Society of Nematologists