

# obituary

## B. E. Bykhovskii

ACADEMICIAN BORIS EVSEEVICH BYKHOVSKII, a leading Soviet parasitologist, and Director of the Institute of Zoology of the Academy of Sciences of the USSR, died on January 26, 1974.

Bykhovskii was born in 1908, in St Petersburg, and was educated at Leningrad University, graduating from the Biology Department in 1930. His first scientific post was as a laboratory assistant at the Institute of the Fishery Industry; by 1939, when he left the Institute, he had risen to the rank of senior scientist. In 1939, he moved to the Institute of Zoology of the Academy of Sciences of the USSR, which was from then onwards the centre of his scientific activity. From 1940–44 he worked in Tadjikistan as Deputy Chairman of the Tadjik branch of the Academy, playing a great part in the transformation of this branch into the

new Academy of Sciences of the Tadjik SSR. From 1942–59 he was Head of the Laboratory of Helminthology of the Institute of Zoology of the Academy of Sciences of the USSR, and, simultaneously and until 1962, Deputy Director of the Institute of Zoology. In 1962 he became director of the Institute, a post which he was to hold for the rest of his life. In 1960 he was elected a Corresponding Member and in 1964 a Full Member of the Academy of Sciences of the USSR.

Bykhovskii's main field of research was the helminths of fish. His publications, however, deal with a considerable range of associated problems of general parasitology, ecology and evolution. He organised over twenty-five scientific research expeditions and was founder and Editor in Chief of the journal *Parazitologiya*.

His best-known papers include *Contributions to Knowledge about Monogenic Trematodes with a Primitive Fastening Armature* (1955); *Informa-*

*tion on Monogenic Trematodes in the Fishes in Tadjikistan* (1960); *The Monogenic Trematodes of Silarus glanis* (1966); and *Results and Further Prospects of the Work of Soviet Parasitologists in the Study of Parasites of Fish in the Seas of the USSR*.

In September 1965, at the joint session of the Presidium of the Academy of Sciences of the USSR and other scientific institutions, Bykhovskii was among those who strongly criticised Lysenkoism and its adverse effect on Soviet science. His support for the anti-Lysenkoists was of particular importance, as, unlike several other critics, Bykhovskii was a keen Party member with an active interest in politics, and from time to time held official positions in the Leningrad City and Regional Party organisations.

For his services to science and to the fishing industry, Bykhovskii was awarded a number of Soviet decorations including the Order of Lenin and the Order of the Red Banner of Labour.

## P. K. Anokhin

ACADEMICIAN PETR. KUZ'MICH ANOKHIN, the eminent Soviet physiologist and brain specialist, died on March 6, 1974.

Anokhin was born on January 27, 1898, in Tsaritsyn (later Stalingrad and now Volgograd). The son of a worker, he began his studies at the local agricultural and technical college, but, in 1917, these studies were interrupted by the revolution. Anokhin, whose sympathies were with the revolutionaries, took an active part in the defence of Trassitsyn and in the establishment of Soviet rule in the Don area, becoming, towards the end of the civil war, Commissar of Publications in Novocheboksak, and editor of the newspaper *Krasnyi Don*. In this latter capacity, while browsing for subject matter for popularised science articles, he happened upon a publication of the Leningrad Brain Institute, and became fascinated by the work of Bekhterev and Pavlov on conditioned reflexes.

When the civil war ended, Anokhin was able, through the intervention of A. V. Lunacharskii, People's Commissar for Culture, to transfer his studies to the Leningrad Institute of Medical Science where he graduated in 1926. After graduation, he proceeded to Pavlov's own laboratory, working and

studying under Pavlov and Bekhterev until 1930, when he was appointed Professor of the Department of Physiological Medicine at the University of Gor'kii, a post which he held until 1934. Later positions included Head of the Department of General Physiology of the Higher Nervous System at the All-Union Institute of Experimental Medicine (1934–46), Director of the Institute of Physiology of the Academy of Medical Sciences of the USSR (1946–49), Head of the Departments of Physiology and Pathology of the Higher Nervous System at the Central Post-Graduate Medical Institute (1936–49 and 1953–55), and Head of the Department of Normal Physiology of the I. M. Sechenov Moscow Medical Institute. During the Second World War he served as neurosurgeon and assistant to the renowned surgeon Nikolai N. Burdenko.

Throughout his working life, Anokhin maintained the interest in conditioned reflexes and the action of the brain, which had first attracted him to neurophysiology. He extended and amended Pavlov's fundamental ideas in the light of later research and put forward a highly complex picture of brain reaction to stimuli, involving a number of areas of the brain, including subcortical areas. One of his postulates was that some 'intention' to perform an action must

emerge between stimulus and reaction. Other fields in which he did notable work included the physiological theory of the neural cicatrix, the theory of pathogenesis of amputation pains and central paralysis, and medical cybernetics.

His numerous publications include *Problem of the Central and Peripheral Nervous systems in the Physiology of Nervous Activity* (1935); *Neuroplasty for Battle Injuries of the Peripheral Nervous System* (1944); *Systemogenesis as a General Rule of the Evolutionary Process* (1948); *General Principles of the Compensation of Functional Perturbances and their Physiological Basis* (1954); *Internal Inhibition as a Problem of Physiology* (1958); and *The Biology and Neurophysiology of the Conditioned Reflex* (1967) for which he was awarded a Lenin Prize in 1972. He also wrote a life of Pavlov (1949), edited a number of collections of essays (the most recent being *Cybernetic Aspects in Studying Brain Action* (1970)), was Physiology Editor for the large and small medical encyclopaedias and contributed a preface to the Russian edition of R. Ashby's *Construction of the Brain*.

He was a member of the Executive Committee of the International Organisation for Brain Research, and represented his country at a number of international conferences, including the