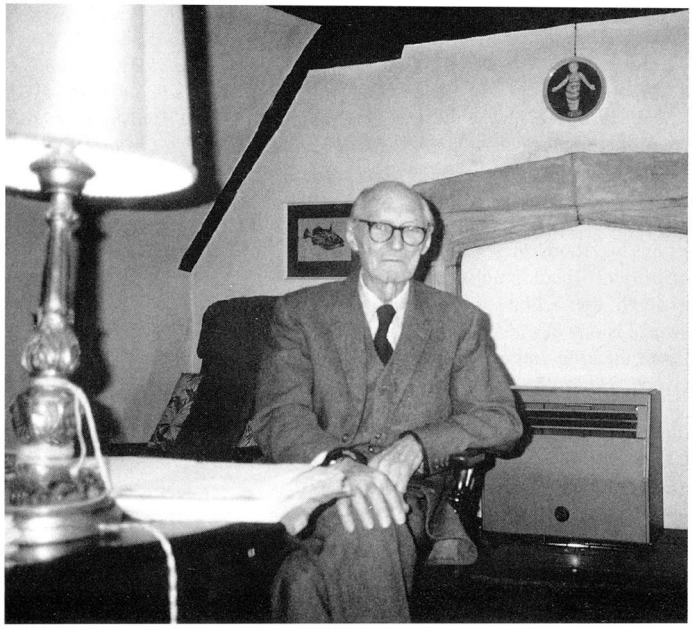

The nestor of insect physiologists, Sir Vincent Wigglesworth

Vincent Wigglesworth was the world's greatest insect physiologist and one of the most productive biological scientists of the century. His name is known to most students of invertebrate physiology through his comprehensive textbook *Principles of Insect Physiology* (1939), which has been updated in seven editions.

In 1926 Wigglesworth started his scientific work in The London School of Hygiene and Tropical Medicine investigating some medically important insects, mainly the bug *Rhodnius prolixus*, vector of Chagas' disease. Later on, in 1945 he moved to Cambridge as Reader in Insect Physiology. He continued his experimental work on *Rhodnius*, and made numerous discoveries in the field of insect morphology, physiology and endocrinology. Due to these findings the species became famous among entomologists as the "Wigglesworth's bug". The greatest scientific achievement of VBW was the elucidation of the role of *corpus allatum* and juvenile hormone in insect growth, development and reproduction (1936). His transplantation, implantation and parabiosis experiments on *Rhodnius* became classics in invertebrate endocrinology. Some older books of Wigglesworth on insect hormone action, *The Physiology of Insect Metamorphosis* (1954) or *Insect Hormones* (1970) are still frequently used as valuable guides and exciting sources of information. He published over 300 original scientific papers, of which he was mostly the sole author. Insect endocrinology of other countries has been greatly influenced or directly originated from the work of Wigglesworth. The studies on insect hormones in the Czech Republic also started in his laboratory in Cambridge where Dr V.J.A. Novák spent a year in 1948, and brought back with him some of Wigglesworth's remarkable gifts for experimentation.

The first time I met Prof. Wigglesworth was on the occasion of the insect hormone conference in Prague, 1959. He was a gentle, reserved and formal person with a wry sense of humour. His interpretation of scientific facts was strictly analytical, always very reasonable and based on a wide general knowledge. The miracle is that he continued to work actively for three and half decades maintaining the same enthusiasm, innovative spirit and humour, while most of us passed through the whole rise and fall of our scientific careers. When the

synthetic analogues of juvenile hormone became available in the early sixties, it was again VBW who immediately elaborated the best methods for their evaluation in *Rhodnius*. The best illustration of the scientific potential of VBW was the way he recently shocked professionals working in insect respiration by a series of innovative papers on the functions of aeriferous tracheae, which were written when he was over 90. The last time I met Sir Vincent was in his room in Caius College, Cambridge, April 1992 (photograph). We discussed in great depth the action of insect hormones. Wigglesworth is one of the few people who can be credited with creating and advancing some discipline of science. He is the Father of Insect Physiology.

Karel Sláma

Vincent Brian Wigglesworth, entomologist: born Kirkham, Lancashire 17 April 1899; Lecturer in Medical Entomology, London School of Hygiene and Tropical Medicine 1926–45; Reader in Entomology, London University 1936–44; FRS 1939; Director, ARC Unit of Insect Physiology 1943–67; Reader in Entomology, Cambridge University 1945–1952; Quick Professor of Biology 1952–66; CBE 1951; Knight 1964; married 1928 Katherine Semple (died 1986; three sons, one daughter); died Cambridge, 11 February 1994.