

Professor Schreiber – a Pioneer in TRH Research



Photo: Karel Meister

Only very few representatives of Czech medicine who founded and excelled in a new discipline in our country became truly respected and memorable worldwide. Professor Schreiber represents without any doubts such a personality. In contrast to mostly clinical focus of his teacher and founder of Czech endocrinology professor Josef Charvát, professor Schreiber rose to fame mostly as an experimental endocrinologist. His discovery of the hypothalamic factor stimulating the secretion of thyroid stimulating hormone (TSH) would have been under normal circumstances by right appraised by the Nobel price. Unfortunately, professor Schreiber worked under very difficult conditions of the communist regime. Nevertheless, he never infringed his moral rules and never collaborated with the governing communists.

Vratislav Schreiber was born on 29th of June, 1924 in Prague. He started his medical studies in 1945 and soon became acquainted with professor Charvát, with whom he shared his passion for scouting. Charvát recommended the talented medical student to professor Vilém Laufberger, the head of the Institute of Physiology. He wanted Schreiber to learn skills in the experimental research that he could later use in the Laboratories of the 3rd Department of Medicine. In the Institute of Physiology, Schreiber got acquainted with neurophysiology and published his first scientific papers.

The number of papers was truly impressive, as Schreiber has published 15 original scientific papers during his medical studies, three of them in prestigious journals including one paper in “Nature”.

After graduation, Dr. Schreiber was called up to military service, yet the two standard years of service were extended to five due to the Korean War. He has not stopped his scientific work even during the military service and has written several books in this period including the monograph “The Basics of Experimental Endocrinology” together with his future wife Olga. This book has been used by numerous generations of scientists for many years on.

In 1955 he reported back in the 3rd Department of Medicine where he started working as junior doctor. Only one year later he defended his candidate thesis and after two years he became a research associate in the Laboratory of Endocrinology and Metabolism headed by professor Charvát. He spent his entire career in this laboratory and, although remotely, he still inspires his followers with novel and original research questions and suggestions. He was awarded a degree of Associated Professor of Physiology in 1963 and in 1968, he became the first Professor of Clinical Physiology in Czech Republic.

The main research interest of professor Schreiber was experimental endocrinology, in particular neuroendocrinology. He explored the brain regulation of anterior pituitary and studied the influence of hypothalamus on this endocrine gland. In 1960, he obtained the evidence for the existence of a specific hypothalamic factor regulating the secretion of pituitary thyroid stimulating hormone, later called TRH (thyrotropin-releasing hormone). Owing to this priority and outstanding discovery, professor Schreiber became a worldwide respected endocrinologist. His biography was incorporated into the prestigious monograph „Pioneers in Neuroendocrinology II“ (Plenum Press 1977). His monograph „Hypothalamo-hypophysial System“, published in English, has been widely cited by many leading endocrinologists worldwide. Another important discovery of professor Schreiber was the digitalis-like activity of blood serum demonstrated firstly in the adrenal gland extracts. His later research was focused on the role of nitric oxide in the endocrine regulations and anterior pituitary function, the regulatory role of estrogens in the anterior pituitary and the influence of ceruloplasmin, ascorbic acid and dopaminergic agonists on the anterior pituitary. The exceptionality of professor Schreiber lied in his broad understanding of human physiology and never-ending diligence and interest in novel discoveries. He has always spent his time productively, focused on reading scientific journals, working on his experiments or writing papers or seeing his patients. In addition, owing to his extraordinary broad knowledge and scientific experience, he has inspired many other discoveries by other groups in the Laboratory of Endocrinology and Metabolism including the focus on the hormone leptin and the endocrine function of adipose tissue in 1994, shortly after the discovery of leptin published in “Nature”. During his long and outstanding research career, professor Schreiber has published 7 monographs, 463 scientific papers, 9 chapters in monographs and many chapters in textbooks.

Although the unfavorable political circumstances did not allow professor Schreiber to reach the highest international scientific attainment, his work was acknowledged by two national awards, two awards of the Czech Endocrine Society, a honorable membership of the Czech Endocrine Society and the Czech Medical Society of Jan Evangelista Purkyně and many other prizes including the prestigious „Premium Bohemiae“ of the foundation „Českému ráji“ of B. J. Horáček in 2002 and

most notably the state “IInd degree Order of Merit” awarded by the President of Czech Republic in 2003. Professor Schreiber has also been a founding member of the Learned Society of Czech Republic and the Czech Medical Academy.

In addition to his scientific discoveries, professor Schreiber has the unique capability of explaining difficult scientific processes in lay language, which makes him an outstanding popularizer of science. His popularizing books “The Medicine on the Edge of Millenium”, “The Hormones and Human Mind” as well as many of his papers in the scientific-popular journal “Vesmír” have inspired many young readers to pursue a scientific career. His regular performance in the scientific radio program Meteor had acquired many loyal listeners. Professor Schreiber had also markedly contributed to the development of Czech science and medicine by translating English textbooks and scientific books to Czech language – he has translated 7 English monographs.

One of the exceptional abilities of professor Schreiber was his art of lecturing and art of asking difficult and inspiring scientific questions. For that matter, he was a very popular debater always asking stimulating, though tough, questions. The Czech Society of Endocrinology has acknowledged the important contribution of professor Schreiber to the development of endocrinology, medicine and science in general by naming the prestigious lecture “News in Endocrinology” at the annual Congress of the Czech Endocrine Society the “Professor Schreiber Lecture”. Professor Schreiber was also very popular for his friendly and open personality and keen sense of humor that made him the leader of many social events organized in the Laboratory for Endocrinology and Metabolism and the 3rd Department of Medicine.

Even at his blessed age, professor Schreiber has not lost anything from the sharpness of his mind and his passion for science. Still being a regular subscriber and reader of the “Science” journal, he is always the first one to know the most striking scientific discoveries and advances and one of the few able to fully understand their significance and to transform them into clinical practice and research. We sincerely wish him all the best and steady health, so that professor Schreiber can continue his incredible scientific pursuit and spread inspiration for many more years. Ad multos annos!

Martin Haluzík, Štěpán Svačina