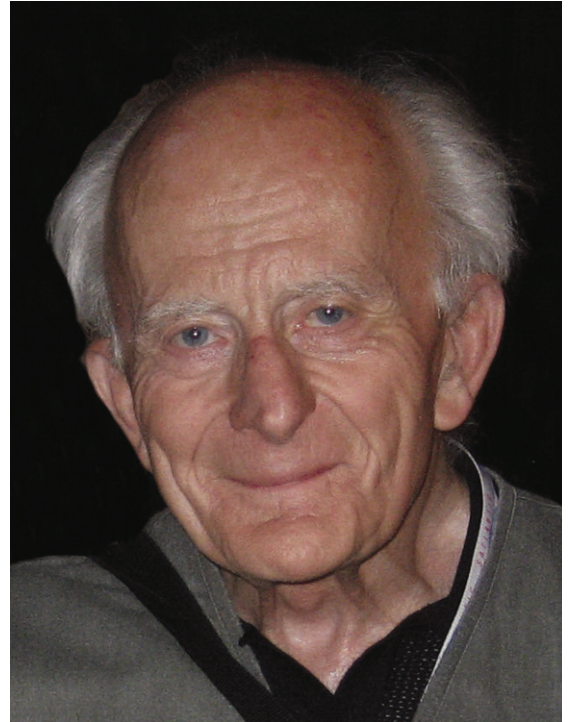


## Ivan Šetlík

4 December 1928 – 13 April 2009



*Ivan Šetlík had devoted his life to science and research in photosynthesis, algal biology and biotechnology. During his professional life in the second half of the 20<sup>th</sup> century he had influenced and shaped the photosynthetic research community in the former Czechoslovakia.*

*Ivan was born in Prague on December 4, 1928, and grew up in an intellectually stimulating family environment. He began his studies in biology at the Charles University just after the end of the World War II. Ivan received a PhD in plant physiology under the supervision of Prof. Silvestr Prát. Already during his early years in science, he showed unusual passion for experimental science and gift for design and construction of unique scientific devices. His charisma and fascination by science attracted students and followers to his group during his entire professional life. As a doctor's degree student, Ivan spent not only long hours, but literally whole days experimenting in his basement laboratory where he studied the kinetics of oxygen evolution in cyanobacteria. Under usual conditions, Ivan's career would soon move him to a tenured faculty position. However, political atmosphere in the communist Czechoslovakia during the 1950s was far from standard and Ivan's adherence to his non-conformist ideas soon clashed with the official establishment. Ivan had to leave the university in Prague, but managed to establish a research group at the botanical garden in Košice, eastern Slovakia. While working on new techniques of quantifying productivity of higher plants, he started to be interested in algal mass cultures. In 1960, with the support of Prof. Ivan Málek (later the first Editor-in-Chief of *Photosynthetica*), he moved his group to Třeboň and there he fully devoted his research to algal biotechnology. New and unique ways of highly efficient mass algal culturing, using well illuminated and aerated thin layers of algal suspension were designed and soon pilot large-scale units started to be operated. After the feasibility of the pioneering technology was proven, Ivan became interested in understanding the underlying photosynthetic mechanisms that limited the efficiency of algal mass cultures. At that time, the initial group of Ivan's colleagues and students gradually grew to become a new department of the Institute of Microbiology. The research at this department in Třeboň covered not only photosynthesis, but*

*linked all aspects of algal biology – taxonomy, genetics, physiology and biotechnology. Ivan helped to shape Photosynthetica in 1967 and has served on its editorial board since the first issue. In 1969, Ivan organized in Třeboň a well accepted international meeting on the 'Productivity of Photosynthetic systems'. Since the 1970s, his research interests gradually expanded and included regulation of algal cell cycles. In particular, he was deeply involved with the regulation of photosynthetic activity during the cell cycle of his favorite model organism, green alga Scenedesmus quadricauda. This brought him later to study the problems of photoinhibition and dynamics of Photosystem II. Any subject that Ivan decided to study, he tackled with enormous devotion, determination and honesty. Complex experiments, in collaboration with students and assistants, were conducted that lasted all nights or weekends. Further, instrumentation was continuously improved till perfection was reached. As a mentor, Ivan was known to be extremely demanding and critical, but always kind and gentle. For students of plant physiology he compiled several comprehensive textbooks and chapters on photosynthesis. During the last 20 years, Ivan was instrumental in establishing the University of South Bohemia in České Budějovice, its new Faculty of Biology and later also the research Institute of Physical Biology in Nové Hradky. This involved a lot of teaching, but Ivan never stopped working in his laboratory. As one of his last projects, he developed with his students the fluorescence kinetic microscope and became interested in photosynthesis of single algal cells. During his life, Ivan produced 150 publications.*

*Although he devoted and sacrificed his life to science, Ivan was a very versatile person. He maintained lifelong interest in philosophy, art and music and was always a charming and entertaining companion to his friends and colleagues. For Ivan the Science has been an integral part of human culture that brought him enjoyment and filled his life with sense. In science, he always highly valued communication and sharing of knowledge above competition and personal benefits. Ivan has worked till the very last days of his life and passed away suddenly on April 13, 2009, at the age of 80.*

Ondřej PRÁŠIL (Třeboň)