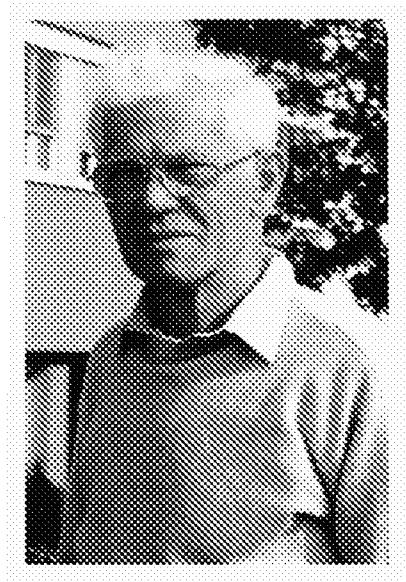


Miroslav Kamínek

septuagenarian



Miroslav ("Mirek") Kamínek's encyclopaedic knowledge of plant hormone physiology, inspiring logical reasoning and marvellous skill in writing scientific papers and grant proposals has established him as an élite member of the international scientific community and a peerless authority on cytokinins. He continues to pursue so many scientific and non-scientific activities with such vigour that it is difficult to believe that he will celebrate his seventieth birthday this year.

*Being a son of a Prague businessman (who spent his apprenticeship in the shop of Franz Kafka's father), Mirek was not allowed by communist regime to enter a high school and he had to work in horticulture for a year. The work with plants developed his enthusiasm for plant biology and, when he finally went to a high school, he focused on horticulture. His commitment was so intense that he published his first research paper, dealing with *Morus* species, as a high school student. He went on to study at the Agricultural University in Prague. While he was there he met Dr Milan Kutáček, who focussed his attention on plant hormones and, in due course, became his good friend. Later, at Mendel's University of Agriculture and Forestry in Brno, Czechoslovakia, he defended his diploma thesis on frost hardiness of fruit tree blossoms.*

In 1959 Mirek became a PhD student at the Institute of Biology, Czechoslovak Academy of Sciences. His PhD thesis was devoted to the metabolic effects of plant growth regulators on adventitious root formation in pea. That institute was, in 1962, split into several independent institutes, including the Institute of Experimental Botany. Mirek remained loyal to this Institute and, in due course, he became the Head of the Laboratory of Hormonal Regulation in Plants.

*In 1965 he accepted the position of Assistant Professor in Plant Physiology at the University of Bagdad, College of Agriculture and Forestry in Mosul (Iraq). There he delivered courses of lectures and established a research laboratory for plant physiology and biochemistry. He lived in a small house just under the walls of the Biblical town of Nineveh and near to the other ancient towns of Nimrud and Khorsabad. Inevitably he became interested in the history of Mesopotamia and in old agricultural practices. During his two-year stay in Iraq he became an able teacher (he also experienced an attempted army coup and cholera epidemics). Mirek left Iraq just after the 7-day war in 1967, travelling home with his small Škoda car via Iran and Turkey. He exploited this long journey by collecting samples of *Morus* species so that he could correct the classification of a "new" species, *Morus trnaviensis* Dom.*

Professor Folke Skoog's invitation to work in his laboratory at the University of Wisconsin, Madison, USA, transformed Mirek's scientific life. In the laboratory where cytokinins were discovered, he became very enthusiastic about cytokinin research and his commitment and achievements ensured that this field has been a focus of plant science research in Czechoslovakia, and later the Czech Republic. Mirek's affection for America and his appreciation of the excellent conditions for research there, drew him back to the USA in 1986 - 1987 (Visiting Scientist at ARCO Plant Cell Research Institute, Dublin, California and then Visiting Professor at the Department of Botany and Plant Pathology, Oregon State University, Corvallis, Oregon). In the ARCO Laboratories he worked with Dr Eugene Fox on cytokinin-

binding proteins, while in OSU his research with Professor Donald Armstrong was focussed on the main cytokinin degrading enzyme - cytokinin oxidase/dehydrogenase. He returned to the USA again in 1992 to continue his research on cytokinin oxidase/dehydrogenase in maize as a Visiting Professor, with Professor Roy Morris, at the Department of Biochemistry, University of Missouri, Columbia, Missouri.

Mirek has published over 130 scientific papers and is the co-author of two patents, so it is difficult to summarize his achievements. His scientific activities include studies of the role of plastids in plant cell cytokinin autonomy and the functions of tRNA cytokinins in hormonal regulation of plant growth and development. He elaborated a concept of the metabolic mechanisms regulating cytokinin levels in plant cells. This involves autoinductive transient cytokinin accumulation in competent cells in response to extracellular cytokinins, followed by the establishment of cytokinin homeostasis by induction of cytokinin oxidase/dehydrogenase by its substrates. He has written several reviews on the metabolism and functions of cytokinins. His work on cytokinin binding sites led to the study of the function of novel cytokinin-binding proteins in the regulation of levels of free aromatic cytokinins in plant cells. Since the beginning of his scientific career Mirek has been driven to find practical applications for his basic research outcomes. His studies of the function of plant hormones in cereal nitrogen economy and grain development have very important practical implications. Mirek's development of highly active synthetic cytokinins has had a great practical impact in improvement of productivity of crop plants.

Mirek initiated and participated in several international symposia, which, thanks to his many personal contacts, attracted the world's most prominent plant scientists to Czechoslovakia/the Czech Republic. These symposia, especially those held in Liblice castle, became popular for their high scientific quality as well as their friendly and highly cultural atmosphere. They represented a unique opportunity, especially for young people, to meet outstanding scientists from abroad and to establish personal contacts with them. Since 1999 these symposia, devoted to the role of auxins and cytokinins in plant development, have continued in Prague.

Mirek's international contacts enabled him to include the Department of Plant Physiology of Charles University and the Biological Faculty of the South Bohemian University as well as his own Institute in the international programme of the EC TEMPUS project JEP-2216 "Teaching and Practice of New Approaches to Crop Improvement" which he coordinated in the Czech Republic. He was also Director of the Czech Centre of The Norman Borlaug Institute for Plant Science Research and the leader of a co-operative research project with Novartis.

Mirek has a special sense of humour. He highlights the benefit of a "bird's eye view" of problems as a basis for their solution and he had to exploit this approach during the supervision of 11 PhD students from the Czech Republic and abroad.

As the Chairman (1990 - 1992) and later a Member (1994 - 1996) of the Scientific Board of the Institute of Experimental Botany, Mirek vigorously participated in the formulation of its scientific policy. He has been an external member of the Department of Plant Physiology, Faculty of Science, Charles University. He utilized his experience on the Subject Board for Anatomy and Physiology of Plants, Faculty of Science, Charles University (as a member from 2000 - 2003). In 2001 - 2002 he was a member of the Panel of Experts for Agriculture and Foodstuff of the National Programme for Orientated Research and Development, since 2000 he has been a member of the Board for International Contacts of the Academy of Science of the Czech Republic.

Mirek is a member of a wide range of scientific societies (the Czech Society for Biochemistry and Molecular Biology, the Czech Society for Experimental Plant Biology, Federation of European Societies of Plant Biology, the American Society of Plant Biologists). Since 1993 he has been a member of the Editorial Board of the journal *Plant Growth Regulation*. He works as a reviewer for several scientific journals, e.g. *Biologia Plantarum*, as well as grant agencies (both in the Czech Republic and abroad). Since 1997 he has been a member of the Awards and Grants Committee of FESPB (Federation of European Societies of Plant Biology). His achievements in plant research were recognized by the Award of the Agriculture Collegium of the Czechoslovak Academy of Sciences (1978) and by the Award of the Czechoslovak Academy of Sciences (1989).

Mirek has always delivered fine science in a stimulating way. He has been blessed with so much energy and vitality that he retains his youthful aura into his 70th year.

Dear Mirek, on behalf of your colleagues and friends - we wish you good health and success for many years to come and we entreat you to stay the same! You are a wonderful man.

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