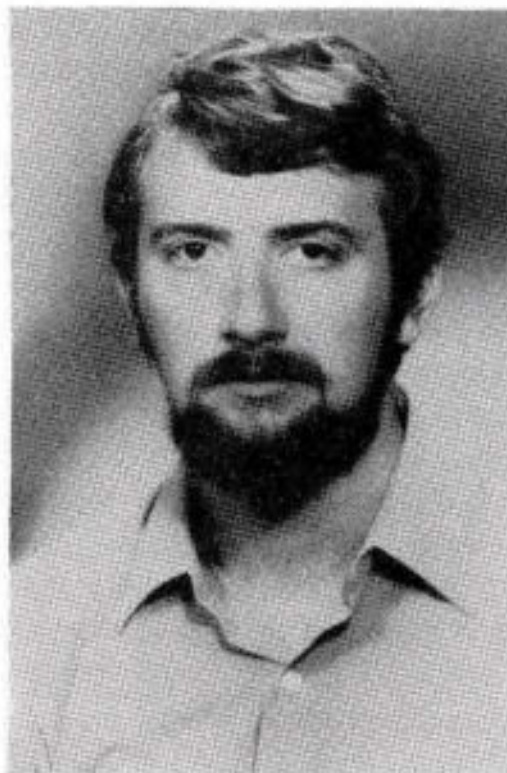


Peter Černaj (April 6th 1953 - July 2nd 1993)

Obituary



On July 2nd, RNDr. P. Černaj, CSc., the head of Department of Experimental Botany and Genetics of the Faculty of Science, P. J. Šafárik University in Košice passed away.

At the age of mere 40 he died of treacherous and insidious melanoma with which he struggled bravely to the very end, but, unfortunately, had no chance to win. We are missing man in a thousand, even-minded, friendly and altruistic person, excellent organizer and specialist in secondary metabolites of some medicinal plants research, enthusiastic research worker and propagator of their cultivation.

He was born on April 6th, 1953 in Betliar village in southern Slovakia in the family of iron-ore mines deputy director. His mother became the director of primary school. Early after his birth the family (together with Peter's sister Danica) moved to the town of Spišská Nová Ves. As early as a primary school pupil Peter was very interested in plants and participated in all natural-historical competitions in plant determination organized by the Station of Young Scientists in Spišský Hrhov village every year. Later he successfully went through many natural-historical olympiads and prepared a herbarium collection.

Thus, naturally, having finished a secondary school, he went on to study

biology at the University of P. J. Šafárik in Košice, Faculty of Science, and took part in the medicinal plants research already during his studies. His diploma work was devoted to camomile secondary metabolites using gas chromatography. After having finished his studies in 1976 he started to work at the Department of Special Biology, first as a postgraduate student, later as research worker. His work was continued by candidate dissertation under supervision of Doc. RNDr. K. Erdelský, CSc., Faculty of Science, Comenius University in Bratislava. It looked into some aspects of essential oil formation in the species *Achillea collina*. The dissertation was finished in 1982, when he was awarded the title RNDr. as well. It dealt with essential oil content and composition in some milfoils, especially in the species *A. collina*, differences in essential oil composition and content in individual plant parts and between populations (he proved heterogeneity of East-Slovakian populations of *A. collina* in essential oil content), he studied changes in essential oil composition and content in the course of ontogeny as well. He worked out the method for trace amounts of terpenoids determination by means of gas chromatography on capillary columns, he investigated the question of terpenoid formation in callus cultures as well (he proved increase of terpenoids by culture differentiation) and also dealt with inhibitory effect of essential oils of the species *Achillea collina* and their fractions on elongatory growth of sub apical segments of wheat coleoptiles. His stay at RNDr. K. Tesářík in Institute of Analytic Chemistry of Czechoslovak Academy of Sciences in Brno was very important for this work.

After finishing his thesis he participates at the medicinal plant growing research headed by prof. Hončariv and devotes much attention to organizational activities when ensuring its tasks.

Besides the Department P. Černaj had another working place - the Base for Medicinal Plants Growing Development in Nová Lubovňa village founded by himself. There, in cooperation with Ing. V. Oravec, CSc., he directed his attention mainly to the development of medicinal plant production in Slovakia. He doesn't avoid the solution of many practical and technical tasks connected with it. At the Department he participates in giving lectures on anatomy, morphology, embryology and physiology of plants.

Because of heterogeneity of particular essential oil components in natural population of *Achillea collina* (this fact follows from his thesis), he was aware of necessity to introduce growing of this species in culture. Thus he pays more attention to agroecological and agrotechnical aspects of cultivation of the species and studies the questions of mineral nutrition influence on above-ground mass yield and essential oil content (he proved the effect of nitrogenous fertilization in stem number increase which provides finer and better drug, and a considerable importance of the genetic base of variability on essential oils content at the species studied).



Later his efforts were devoted to the study of several similar problems also in the species *Agrimonia procera* (tannic content, mineral nutrition influence). He pays considerable attention also to milfoil and agrimony improvement which resulted in cultivar "Alba" of *Achillea collina*.

After the totalitary regime fall in Czechoslovakia in 1990 Peter Černaj became the head of the Department. Despite his great sensitiveness and talent to organize, the function saddles him too much because of his great efforts to ensure conceptional and free of conflict Department development so that the personalities which had crystalized here, could fully realize their research activities. Thus, less time remains him for the research work.

At that period, cooperation with prof. Ing. A. Sopková, CSc. (from the Department of Inorganic Chemistry, Faculty of Science, University of P. J. Šafárik, Košice) concerning the use of inclusive compounds (zeolits) as ecological fertilizers in effective medicinal plant nutrition started. He entered wide

cooperation with domestic and foreign institutions: Pharmaceutical Faculty of Comenius University in Bratislava, Institute of Analytical Chemistry of Czech Academy of Sciences in Brno, Experimental Garden of Medicinal Plants in Brno, Department of Toxicology and Forensic Medicine of Charles University in Prague, Research Institute of Vegetable Growing in Olomouc, Agricultural University in Budapest, Research Institute of Medicinal Plants in Budakalász, Scottish Horticultural College in Auchincruive, Horticultural Research Centre - South Savo Experimental Station in Finland, Pharmaceutical Department of the University in Helsinki, Research Institute for Hop, Sorghum and Medicinal Plants in Novi Sad, Yugoslavia, Research Institute of Alpine Plants in Trento, Italy. He visited many of these institutions personally (e.g. Scotland in 1992) and presented papers in many international conferences dealing with medicinal plants. The participation in the international conference about medicinal plants in Japan 1994 remains only in the sphere of his plans.

He took part in further research tasks solution, first of all in the study of agroecology, secondary metabolites and their location in camomile, study of diurnal rhythms of its sesquiterpenes, product variability, essential oil composition in this species, but also its composition and content changes in diploid and tetraploid types during the anthodium development etc. The study of medicinal plants was not only an occupation, but a hobby as well. However, he succeeded to put some time aside for further of his interests, e.g. hiking (connected with his love of nature and high mountains), fishing, aquarium, serious music and reading of travels and humoristic prose. Therefore no wonder that he organized scientific expeditions: In 1985 inland one aimed in foundation of medicinal plants germplasm collection for the Base for Medicinal Plants Growing Development in Nová Ľubovňa, in 1987 the never-to-be-forgotten 5 week expedition to Turkey and Greece (book of travels was planned from this journey, but only one paper about Pontic Mts. was written), in 1988 Moravian expedition to Hrubý Jesenník Mts. and, finally, in 1989, 3 week expedition to amazing high mountains of the Central Asia - Tadjikistan. An expedition to Finland was planned next, but, unfortunately, family and health difficulties disabled him to realize this and the other plans.

His wife Hedviga, a fellow student, who studied biology on the Faculty of Science, P. J. Šafárik University in Košice, working at the Department of Cattle-breeding of the University of Veterinary Medicine in Košice, provided him with indispensable base as well as his two sons, Martin and Tomáš. However, the first of them died of lymphosarcoma in 1992, and this fact, among the others, influenced Peter's psychophysical condition and indisputably took part in his untimely death.

All of his friends would confirm his humanness, sensitiveness, aversion to sentimentality associated with high degree of empathy as well as his practicality,

unusual modesty, industry and diligence. And also his specific sense of humour and respect for the others expressed in almost unlimited tolerance to human imperfection and respecting of every human being in his exceptionality and specificity.

Both in the field of science and in the field of everyday life P. Černaj belonged among those exceptional personalities who didn't care about themselves, for whom his own ego was almost unimportant.

Slovak science lost a specialist in the field of medicinal plants, excellent organizer, vigorously solving actual problems. In many aspects he can hardly be substituted by anybody else. His friends lost reliable partner who helped them selflessly many times, partner always willing to give them a hearing and help to raise when they were falling.

Many thanks for everything, Peter. We will never forget. Your spiritual power, impossible to seize, transcending all the limits of human being, is giving us a stimulation, support, an inspiration, remains a mirror, a memento to follow.

V. Mikoláš

M. Repčák

(Translated by L. Mihoková)

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