

We have a great honor and pleasure to congratulate Professor **Vladislav Zikmund**, the Honorary Editor of this Journal at the occasion of his 85<sup>th</sup> birthday on February 2, 2010.

Prof. Zikmund belongs to those prominent Czech and Slovak scientists, who influenced substantially the content and the scientific standards of this journal. In 1960 he was one of the organizers of the International Symposium in Smolenice Castle in Slovakia which laid down the opportunity for grounding the CIANS.

Dear Professor Zikmund, dear Vladko, we wish you from all of our hearts many years to come in good health and spirit, keeping your characteristic and charismatic sense of humor, unceasing and continuous flow of always new scientific ideas and concepts.

We all admire the strength of your mental capacity – a great inspiration for us and for many younger colleagues. Your precise wording is as sharp as unexpected – a matter of great appreciation and so often an enjoyable surprise for your colleagues and friends.

We wish you and us to have a privilege to spend together many, many years filled with successful endeavors and pleasant adventures in both professional and private lives.

In the name of many,  
*Peter G. Fedor-Freybergh and Fedor Jagla*



## V. ZIKMUND: AD BIOGRAPHY

The main subject of the clinical and scientific interests of Vladislav Zikmund has been the relationship between the human mind and brain in health and disease.

At the beginning of the second half of the 20th century, when Zikmund began his professional work, research of the brain functions in Czechoslovakia was markedly influenced by the Pavlovian concept of conditioned reflexes. In the Clinic of Psychiatry of Comenius University in Bratislava, Guensberger and Zikmund demonstrated the method of elaboration of the optokinetic nystagmus as conditioned reflex on acoustic stimulus (Guensberger & Zikmund 1956), which was later used in some other studies.

Eye movement regulations dominated also in his following research. These movements are programmed visually and are closely related to several mental processes. As the head of the Laboratory of Psychophysiology of the Institute of Normal and Pathological Physiology of Slovak Academy of Sciences in Bratislava, Zikmund organized in the year 1970 an international

colloquium on this topic, in which several prominent scientist of Europe and U.S.A. took part (Zikmund 1973).

Zikmund discovered that optokinetic nystagmus and the smooth pursuit eye movements respectively may serve as specific physiological indicators of subjective experience of vision during vivid visual imagination of moving objects. This phenomenon was closely analyzed in several studies with respect to factors influencing visual imagination ability (Zikmund 1972, 1985).

The movement of series of visual stimuli moving continuously to the right and to the left at the same time (the so called ambivalent optokinetic stimulation) cannot be perceived simultaneously but successively only in several versions. The most common of them is perception of stimuli as moving in one direction with periodical reversals to the opposite side. Zikmund demonstrated the close connection between reversal in perception of the direction of stimuli motion and reversals in the pursuit component of the eye movements.

Studies of this relationship contributed to the elucidation of the visual - oculomotor integrations and became another example of the close connection between a specific physiological and specific subjective in mental processes (Zikmund 1985, 2003a).

Physiological characteristics of the pursuit and saccadic eye movements under various conditions of visual stimulation, the relationship of these movements to functional asymmetry of the brain hemispheres, and brain mechanisms of programming and regulation of these movements by various brain structures were studied in cooperation with several coworkers, namely F. Jagla.

The other research orientation of Zikmund has concerned the role of the ability to cope with stressful life events on the development of somatic disorders in the longer course of time on one side, and of the immediate effect of particular mental stimuli on somatic functions, on the other side.

The method was elaborated of the psycho-biographical analysis of the *curricula vitae* which has dealt with the evaluation of the ability of an individual to cope with various actually experienced stressful life situations as indicator of certain more general functional efficiency of the central nervous system (Ruttikay-Nedecky, and Zikmund 1957). The method was used in studies of the psychosomatic component of various somatic disorders (ref. for instance in Zikmund 2003b).

The immediate effect of the psychic stimuli on physiological functions was studied under experimental conditions starting from a general orienting reaction (Zikmund 1969) up to the effect of suggestion under hypnosis on water economy, peripheral blood circulation and several other physiological functions. The results of these studies were used also in the treatment of the polydipsia nervosa and the Raynaud's disease respectively (Zikmund 1963).

In some rather conceptual studies, health has been considered by Zikmund as a functional optimum of biological, mental and social life manifestations of an individual. As one of these manifestations has been also viewed a certain resistance against the disorder, ability to limit it, and renewing of the functional optimum from internal sources of the organism. Quality of life has been regarded as the problem of values. Problem of interests and preferences in an individually wide spectrum of abilities and possibilities to "live in a certain way", to attain certain goals, and to avoid certain kinds of distress. That is, to live in a fully satisfying manner in various spheres of personal and social life (ref. in Zikmund 2003b).

For more than twenty years, Zikmund has been taking part in the organization of the higher brain functions research in the frame of the Czechoslovak and Slovak Medical Society, and in the frame of the Slovak Academy of Sciences at the international level.

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