PROF. DR. OTTÓ FEHÉR IS 70 YEARS OLD

OTTÓ FEHÉR was born in Debrecen in 1927. While still a medical student, he started his scientific career at the Department of Physiology headed at that time by Professor ISTVÁN WENT. He involved in a team which worked on the probem of regulation of heart and blood circulation. He received his M.D. in 1951 and started his postgraduate study in physiology of the nervous system. It is generally not known, that he was the first who proved that in the postsynaptic membrane of the ganglion cells there are two types of acetylcholine receptors: a nicotinic receptor type and a muscarinic one, differing in their physiological role and pharmacological responsiveness. That time he published it in German. Probably, that is the reason of relative unknown of his discovery though, it has been confirmed in the literature repeatedly. Already that time he had several students (SÁNDOR DAMJANOVICH, PÉTER HALÁSZ, FERENC MECHLER, ELEMÉR LÁBOS, TIBOR SZABÓ and GYULA MÓZSIK) who were active as young scientific investigators, and now they are well known personalities of Hungarian science.

He got his C.Sc. degree in 1960 for the work on the „The role of the acetylcholine-cholinesterase system in the ganglionic transmission of impulses". As a young and enthusisastic researcher, he was the first in Hungary, who introduced the recording of action potentials from peripheral nervous structures.

At the beginning of sixties his attention turned to the physiology of the central nervous system. In collaboration with PÉTER HALÁSZ, FERENC MECHLER he made relevant observations on the origin of cortical convulsive potentials and their relation to the sensory evoked potentials.

It was a mile stone in his career when in 1967 he was invited to Szeged to be head of Department of Zoophysiology being founded at the József Attila University, that time. From the beginning he made efforts to organize the training of students in comparative physiology and offer facilities for practical courses. In this work he was assisted by his first colleagues LAJOS ERDÉLYI and GÉZA TURY. That

was the time when he met with young morphologists: ÁRPÁD PÁRDUTZ, FERENC JOÓ and NORBERT HALÁSZ, and activated them to start together an interdisciplinary research to elucidate correlations berween electrophysiological signs of synaptic transmission and morphological changes in synaptic ultrastructure. In the early seventies he initiated a new trend of research on the fate of labelled amino-acids in the cerebral cortex and intorduced — together with IMRE ROJIK — a new method for visualising active nervous structures making use autoradiography.

OTTÓ FEHÉR got his D.Sc. in 1973 for the work on „The origin of cortical evoked and convulsive potentials".

In early seventies he invited young people to be his co-workers. MAGDOLNA SZENTE, ATTILA BARANYI and finally JÓZSEF TOLDI became the new members of the department. Together with ATTILA BARANYI, OTTÓ FEHÉR investigated the heterosynaptic facilitation which is considered to be one of the basic mechanisms underlying formation of memory traces. With MAGDOLNA SZENTE — and temporarily with FERENC PONGRÁCZ — he investigated the central epileptogenic phenomena. This common research brought him to a new scientific field: with the aid of a mathematician TIBOR GYIMÓTI he formulated a computer model of epileptic membrane. Since that time he is interested in formulating computer models (very recently with students: TAMÁS VIRÁG, RÓBERT SCHNELL). Together with JÓZSEF TOLDI he started to work on the scientific problem of neuronal plasticity. This common research lasted until his retirement.

In the eighties his research work with LAJOS ERDÉLYI and ANDRÁS PAPP on *Helix* neurons served as a basis for discovery of new anti-convulsive substances. These substances were tested pharmacologically and toxicologically by HORST SCHULZ, who was also his co-worker for about ten years. In the early eighties he invited FERENC GYULAI an electric engineer to the Department and with his help OTTÓ FEHÉR introduced new techniques and devices into the educational and scientific activity of the Department.

Since 1978 OTTÓ FEHÉR participated in a common scientific research project together with the Institute of Anatomy at Georg August University, Göttingen (headed by professor J. R. WOLFF) and with the Neurobiological Group of the Biological Research Center (headed that time by FERENC JOÓ).

He had a fruitful technical collaboration with the Biological Institute of the former Soviet Academy (Pushchino) and with the Biological Research Institute of the Yugoslavian Academy (Beograd).

In 1977 OTTÓ FEHÉR was awarded the Academy Prize for his pioneer activity in introduction of new electrophysiological methods in Hungary. Together with professor GYÖRGY ÁDÁM he is co-author of the university textbooks Comparative Physiology and Physiology for Biologists. He is also co-author and editor of the practice book of this discipline.

In the late eighties he initiated the teaching of molecular physiology in the course of education of biologists. He was the editor and one of co-authors of the book of „Molecular Basis of Physiological Phenomena", published first in Hungary.

He was active member of several scientific committees and societies. He organized several congresses and international symposiums. Three of his co-workers have been awarded the degree Doctor of Biological Science and another two of his co-workers the degree Candidate of Biological Science. In collaboration he has published more than 105 scientific artickles.

The Department of Comparative Physiology at the József Attila University was founded 30 years ago by professzor FEHÉR. He gave a characteristic educational and scientific profile for his neurobiological school and brought it in many respects to international level. His progressive attitude to scientific issues which is still there and working in each day in his disciples, in the staff of the Department, and that gives the hope in the further successes.

Professor FEHÉR retired in 1996. As a retired professor he is still active, giving lectures, formulating new computer modells e.g. of central nervous structurs.

We all wish professor OTTÓ FEHÉR good health and further successful activity.

Dr. J. Toldi