Prof. Ernest Gutmann
16. 7. 1910 – 6. 8. 1977

In August of this year, forty years have passed since the death of Prof. Ernest Gutmann, one of the founders of this journal, initially called Physiologia Bohemoslovaca.

Ernest Gutmann was an exceptional personality of Czechoslovak Science. He was born in Ústí nad Labem in 1910, the middle one of three children. He graduated in Medicine at the German Section of the Charles' University in Prague in 1936. Three years later he emigrated to England with his wife Malka. He worked at the Anatomical Institute of Oxford University under supervision of the well-known English zoologist Prof. John Zachary Young. He obtained his PhD for the work on the effects of long-term denervation on human muscle and on the mechanisms that regulate the regeneration of injured peripheral nerves, a topic relevant to the treatment of war injuries. Ernest's enthusiasm for the studies of neuromuscular interactions started in England where he learned to appreciate discussions with colleagues he befriended, such as Peter Medawar, Alan Hodgkin, Ludwig Guttmann and Andrew Huxley.

After the war, although his supervisor urged him to stay and continue with his research in England, Ernest returned without delay to the liberated Czechoslovakia to work as a physician in the Theresienstadt concentration camp afflicted by the Typhus epidemic. Most of Malka's and Ernest's family members perished in the holocaust and the few remaining relatives became very precious to the young family; two daughters were born in England and a son later on in Prague. Initially, because of his German Medical Diploma and his background in German speaking Sudetenland, Ernest couldn't find work in Prague easily. After six years of occupation, Czechs distrusted anybody even vaguely related to anything German. Thus, the post of pathologist in a dissection room was the only job he could get. In due course, however, he could continue with his research on nerve regeneration at the Institute for Brain Research of the Charles University.

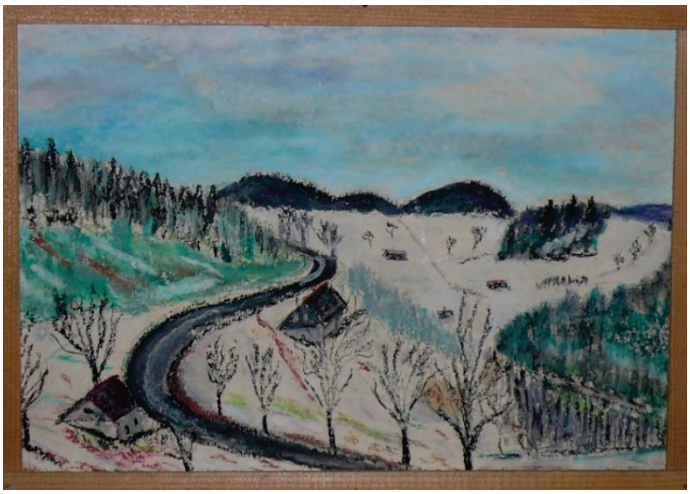
In 1954, when the Institute of Physiology of the Czechoslovak Academy of Sciences was established, Ernest Gutmann founded and became head of the Department for Neuro-muscular Research. He transferred there with a number of his students and colleagues, among others Radan Beránek, Gerta Vrbová, A. Fantiš, L. Polák, and later on Olga Hudlická, Zdeněk Vodička,

Pavel Hník, Arnošt Bass and Jiřina Zelená. The main research topic was the study of nerve-muscle interactions, and that of course included the study of denervated muscle. The unique feature of the Department was the way they tackled problems using a multidisciplinary approach. The Department included experts in biochemistry, morphology and electrophysiology, as well as in the study of blood circulation. Ernest inspired his colleagues by his charm and intellectual stimulation, by maintaining an atmosphere of friendship, solidarity and mutual help. Despite the difficult conditions and the isolation due to the Cold War, the innovative approach of Ernest's group led to international recognition and to the publication in 1962 of the still much appreciated and recognized book, The Denervated Muscle, that summarized the work of the Department.

The work concentrated mainly on the study of various functions of skeletal muscle that are affected by denervation, such as metabolic impairment, changes in the muscle membrane properties, electrolyte equilibrium, blood flow and protein metabolism, changes that finally lead to loss of muscle mass. While studying these events the question whether they are caused by a special influence of the motor nerve or simply by the loss of activity was always looming in the background. This initiated an international conference at Liblice in Sep 1962, designed to address these issues. The meeting was unique in that it brought together scientists from countries as varied as China, Russia, France, Australia, Great Britain and others. It was extraordinary that in the middle of the cold war, Ernest was able to overcome the gap between communist and western countries and show that science has no boundaries; those who practice it can interact with each other wherever they come from. Ernest's leadership encouraged not only an atmosphere of friendship among the members of his group but his influence extended on an international scale.

It was in this spirit that during the so called "Prague Spring" in 1968 Ernest signed "Two thousand words", a manifesto which backed the reforms of that era. In August 1968, the invasion of Czechoslovakia by Soviet troops put an end to any hopes for a change. The Russian-imposed government introduced a so-called process of "normalization", which included the demand that the signatories of "Two thousand words" either retract their signature or they will be subjected to sanctions, such as loss of their position. Ernest's 'normalization' started with a summons to the Presidium of the Czechoslovak Academy of Sciences, where he was asked to renounce his signature. A series of disciplinary meetings and warnings followed, but he consistently refused to retract. Finally, in April 1970, he was expelled from the Communist Party and lost his position as head of Department. Although Ernest was offered several attractive positions by his colleagues abroad he, as ever loyal to his country, decided to stay.

In 1970, he celebrated his 60th birthday at the family holiday cottage in Janov, in his beloved Jizera Mountains. It was the place to which he could escape and get away from the constant worries at the Institute. There he relaxed and indulged his hobby, painting. The 60th birthday was a memorable occasion; friends and colleagues hired a bus covered with streamers proclaiming: *'We love Ernest!'* It made him feel that his efforts were not in vain. "*The most important department is the department of human relations*" he noted in his diary on that day.



Ernest's painting: Winter in Jizera Mountains

Ernest continued to work as an ordinary research scientist, but his position was insecure since his contracts were only short-term. Numerous days were spent compiling applications to prolong the contracts. There were frequent insinuations that he could not be trusted. He was not allowed to lecture, travel abroad or accept any invitations and scholarship rewards. Miraculously, even under these conditions he still produced high quality experimental work. It was during this time that his work branched out into new avenues and he with his colleagues started to explore changes in skeletal muscles during ageing, a topic that is becoming very important at present with the increase in ageing population. He also researched the effects of hormones on muscles. The latter studies were initiated due to his characteristic intense curiosity. One day, when he was in the animal house, he noticed that male guinea pigs use their teeth to hold female partners by their neck when mating. This led to the discovery that the size of their temporal muscle, one of several chewing muscles, was dependent on testosterone**.** This discovery was followed by a more thorough research on specialized sex hormone dependent muscles.

Despite the obstacles, Ernest kept his spirits up and never stopped being himself; the joke-cracking, witty, charming, self deprecating, forgetful professor. But the stress was taking its toll. In November 1976, he wrote in his diary: *"The vague fatigue I feel so often is caused by this chronic uncertainty. Is it worth it? But that is the price I have to pay for being able to continue working in my country."*

He endeavored to keep in touch with his colleagues abroad by correspondence. The first scientific meeting Ernest was allowed to attend since 1968 was in Hungary in 1977, where he met and exchanged ideas with several colleagues from the west. Shortly after that meeting, Ernest and his wife Malka were finally given the obligatory permission to travel to England to visit their daughter Anna. It was during this visit that he tragically died on his way from Cambridge back to London, just after he had visited his friend and colleague, Prof. Sir Andrew Huxley.

Gerta Vrbová, Anna Kofferová-Gutmannová