

The 110th Anniversary of the Birthday of Doc. MUDr. Karel Šilink, DrSc.



(August 24, 1908, Nový Bydžov – June 23, 1973, Prague)

This year marked 110 years since the birth of Doc. MUDr. Karel Šilink, DrSc., founder of the Institute of Endocrinology in Prague.

For those of us who still remember Dr. Šilink, there is great sadness in the fact that the current generation of endocrinologists is gradually losing sight of his life and accomplishments. While his name is still honored in the title of the prestigious Šilink lectures at meetings of the Czech Society of Endocrinology and in the Šilink Foundation, we would also like him to be remembered as the doctor and scientist who founded the now 60-year-old Institute of Endocrinology, who started the laboratory that initiated radioisotope therapy in this country and that later became the Nuclear Medicine Clinic, who was not afraid of introducing computers in the 1960s, and who was one of the first in Europe (just behind Switzerland) to initiate the prophylactic treatment of goiter using iodized kitchen salt, becoming one of the pioneers in conquering the iodine deficit problem. He was also a propagator and creative force behind the new scientific field of cybernetics, having lively discussions with the founder of that field, Norbert Wiener of Massachusetts Institute of Technology. And last not but not least we remember his experiments with physiological hormonal regulation and the fact that he was the first university lecturer in the country to teach comparative endocrinology.

He started his experiments in physiology already as a student, and then later in 1935 became an assistant in the Internal Medicine Clinic of Professor Pelnář. In this role he published papers on cholesterol and creatine metabolism, and experimented with adrenal extracts, using them to keep cats alive that had undergone adrenalectomies. These nighttime experiments were done without the knowledge of his superiors, but he was eventually given away by the complaints of the cleaning staff that had to empty his overflowing ashtrays.

He lectured at the university level until the closing of Czech universities by the Nazis in 1939, and worked in the Clinic until 1945. Since 1941 he led the Social Health Advisory Center for patients with endocrine glandular disorders. At that time, Dr. Šilink's main interests were in endocrinology and biochemistry. During and just after the war, his laboratory employed numerous doctors and chemists who later became leaders in their fields, such as Professors Košťř and Schreiber. In addition he was active in the national resistance movement, and was later awarded the Czechoslovak War Cross.

After the war he moved to the newly created Third Internal Medicine Clinic of Professor Charvát, where he worked as an unpaid assistant until August 1948, acting as the vice-chairman of the department. He finished his habilitation in internal medicine in 1945, and

was commissioned by the anti-goiter committee of the Health Ministry to organize research and rehabilitation in endemic thyropathy. He undertook this work with great enthusiasm and professionalism, as it was dear to his scientific nature. However, the difficulty of this activity and his individualism led him away from his university career, and he focused his remaining efforts on building his own institute. After various moves of his laboratory within the health system hierarchy, these efforts finally came to fruition when the Endocrinology Research Institute was founded in 1957.

Throughout that period Dr. Šilink continued to perform examinations across the country, seeing 672,541 patients from 2,815 towns, providing detail mapping of the incidence of goiter in Bohemia and Moravia. He founded so-called T-stations (54 in total) to provide a country-wide network of endocrinology advisory centers, and was responsible for introducing iodized salt, in effect wiping out the most serious consequences of iodine deficiency in the country. This was accompanied by his interests in natural goitrogenic substances in the environment that influence thyroid function.

At those times, the founding of an independent institute by someone not in the Communist Party was basically unthinkable, but somehow he managed it, starting an Endocrinology Department in the General Faculty Hospital and leading it since 1951 in the prior St. Ursula convent in Prague. After the Institute became independent and transformed into the Endocrinology Research Institute on January 1, 1957, Dr. Šilink and his co-workers finally began to implement their grand plans. They strengthened the biochemical activities of the institute in the areas of enzymology and steroid hormones, and expanded the research capacity with an animal housing facility for experiments on rodents and amphibians. In 1958 he pushed through the founding of a radioisotope ward at the Motol Hospital under the auspices of his Institute, mainly focusing on the treatment

of thyroid gland carcinomas, which became a model for similar departments of nuclear medicine at other hospitals. He devoted himself to the use of radioisotopes in medicine, particularly in the diagnosis and treatment of serious thyropathies.

In addition he expanded his interest in cybernetics, which at the time was denounced as a “bourgeoisie pseudoscience”. At the final phase of his inquisitive scientific career he introduced the rapidly expanding field of computer technology, allowing the modeling of several biochemical and pathophysiological pathways, and his publications in those fields are considered to be pioneering. With the relaxations of the totalitarian regime during the late 1960s his aspirations to become a professor were revived, but rather than applying at one of the medical faculties, Dr. Šilink decided to try the Natural Sciences Faculty of Charles University. He lectured for several semesters on comparative endocrinology in the Department of General Zoology and Comparative Physiology, studied regulatory pathways in amphibians, and wrote a technical textbook.

In 1969 Dr. Šilink and his colleagues organized the IV European Conference in Comparative Endocrinology in Carlsbad. The conference became renowned for not just the excellent scientific discussions, but for Šilink’s social charm, friendly contacts with worldwide leaders in the field, and the organizational perfection displayed by the Institute’s organizing team. With the same level of professionalism he also organized the European Thyroid Association Congress in Prague in 1972. However, he was unable to attend as fate finally caught up to him at the height of his creative energies and international collaborations. He passed away on June 24th, 1973, in the radioisotope ward of the institute that he founded.

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