

Introduction

It is a great honor and privilege for the Prague Institute of Endocrinology to present, in celebration of the 50th anniversary of its foundation, a set of research papers in a special issue of *Physiological Research*. The foundation of the institute on the 1st of January, 1957 was made possible by the great personal efforts of Professor Karel Šilink. He succeeded in establishing the institute in the fifties in spite of strong political pressure towards a preference of the Soviet „Lysenko biomedicine“ and an official underestimation of the importance of endocrinology and hormonal regulations. At that time Šilink carried out unique epidemiological surveys on iodine deficiency in the Czech Republic, which became a model applied in many other countries. Later on, his collaborators and successors provided a crucial contribution to the complete elimination of the iodine deficiency in our country. However, in his research projects Šilink focused not only on the thyroid gland but also implemented the use of radioisotopes, enzymology and even cybernetics (in those times a discipline which was heavily frowned upon) in endocrinology. It should be mentioned that among the first laboratories established was also a steroid laboratory led by Dr. Luboslav Stárka, later to be the director of the institute. In addition to Professor Šilink, Professor Stárka also represents another reputable personality for his pioneering works and visions, many of which opened new frontiers in endocrinology and biochemistry. We should highlight his unique studies into the role of intraocular steroids, the mechanism of the action of anabolic steroids, and into the physiological role of steroids, until recently believed to lack any physiological function.

Fifty years ago endocrine research paid attention to the endocrine glands and their pathologies focusing mainly on the consequences of hormonal overproduction and deficiencies. Modern endocrinology represents a much broader discipline which includes not only the classical endocrine glands but also several other organs and tissues which produce hormones, such as brain, heart, stomach, intestine, adipose tissue etc. Psycho-neuroendocrinology provides an important tool in the holistic approach to understanding the pathophysiology of diseases. This integrative approach is of great importance in current medicine with its tendency to split medicine into a number of subdisciplines, which do not take into account the links of particular organs with whole body function.

The current research of the Prague Institute of Endocrinology covers a broad spectrum of topics in endocrinology, which include thyroid and steroid hormone research, neuroendocrinology, immuno-endocrinology, molecular endocrinology, endocrinology of aging as well as diabetes, obesity and bone research. Investigations currently performed in the institute include not only clinical research but also basic science and epidemiological studies. About 25-30 research projects are conducted in the institute each year. The output of this scientific activity is reflected in the nearly 90 research articles published each year. It should be emphasized that one third of these papers appears in internationally impacted journals.

As the seat of the Division of Postgraduate Education in Endocrinology, the institute significantly contributes to education of endocrinologists in the Czech Republic. Each endocrinologist must go through extensive training courses in the institute before passing the final examination qualifying him or her for specialization in endocrinology. The Obesity Management Center of the institute offers a unique one-week training program for obesity specialists organized by the Czech Association for the Study of Obesity. The institute also participates in pre-graduate teaching activities at the Charles University (Medical Faculties and the Faculty of Science in Prague), the University of South Bohemia in České Budějovice and the University of Pardubice.

In collaboration with the universities, the institute is involved in the training of PhD students in biomedicine. Regular seminars organized by the institute on „Selected Problems of Endocrinology and Metabolism“ provide an opportunity for young scientists to present their research projects and discuss the results with senior scientists.

I wish to express deep thanks to the Editorial Board of the *Physiological Research* for this exceptional opportunity to devote a special issue of the journal to the anniversary of our institute. The papers presented here reflect the current profile of the main research activities of the Institute of Endocrinology. I am pleased that particularly young colleagues actively contributed to this anniversary supplement.

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