Neuroendocrinology Letters ISSN 0172–780X

Neuroendocrinology Letters 2000; **21**:353–354
pii: NEL210500L01

LAUDATIO

to Professor Marian JUTISZ, outstanding scientist, great humanist and patriot, on his 80th Anniversary

We seek to find nature one, a coherent unity. This gives to scientists their sense of mission, and lets us acknowledge it, their aesthetic fulfillment: that every research carries the sense of drawing together the threads of the world into a patterned web.

Jacob Bronowski, The Common Sense of Science

Professor Marian Jutisz was born on April 13, 1920 in Porohy, a village of the Carpathian Mountains in southeast Poland, close to the Czechoslovakian frontier, as it was before 1939. He joined the military service in September 1938. As a soldier in the Polish Army, he defended Poland against the German invasion. Then he was interned in Hungary in a camp for military refugees, from which he escaped in March 1940, helped by a clandestine Polish organization, and joined the reconstituted Polish Army in France. He was active in the underground during whole German occupation of France.

He joined the college and in October 1945 he received the diploma of Chemical Engineer. Professor Claude Fromageot, the eminent French biochemist, introduced him to Dr. Edgar Lederer and offered Marian Jutisz a position in his laboratory in Paris from Autumn 1947. In Paris, he worked under the supervision of both Prof. Fromageot and Prof. Lederer, until receiving a Ph.D. degree in November 1949.

During the time between 1949 and 1956, Marian Jutisz continued investigations on the amino acid sequence of insulin, lysozyme, ovomucoid and salmin. He set up a new method for identification of carboxyl free amino acids in proteins making specific reduction of free carboxyl groups with lithium aluminum hydride, together with Prof. Fromageot, Prof. J. Roche and coworkers. He was the author of several review papers in important books on biochemistry.

In 1957 Dr. Marian Jutisz received a position of associate director in the laboratory of Prof. Robert Courrier in the College de France in Paris.

In June 1957, he joined the laboratory of Prof. C.H. Li in California and worked there until the autumn of 1958. This period was scientifically very fruitful to him. After the return from the U.S.A. to France, he started to organize the Laboratory of Experimental Morphology and Endocrinology in the College de France. He and his coworkers continued the subject studied in Prof. C.H. Li's laboratory on the purification and physicochemical characterization of gonadotropins in relation to their biological activity.

In June 1960 Dr. Roger Guillemin arrived in France and collaborated with Dr. Marian Jutisz until 1963 on the isolation of GnRH and later on the isolation of TRH. In 1961 the

first paper was published on the characterization of GnRH (then LRF) in the extract of sheep hypothalami in the Comptes Rendus de l'Academie des Sciences with Prof. Courrier as a first author. Afterwards, seven publications appeared on this subject with Marian Jutisz as coauthor.

In 1965 the Committee of Physiology of the C.N.R.S. proposed to Dr. M. Jutisz to create a team for isolation and purification of ovine and bovine pituitary hormones (LH, FSH and prolactin) for the purpose of research laboratories in France. During one year he was able to purify a quantity of ovine LH and FSH for distribution to many laboratories. He distributed highly purified hormones to more than 30 laboratories in France and to 15 laboratories in other countries.

In 1964 M. Jutisz was appointed Research Director of the C.N.R.S., which was a permanent position equal to that of University Professor.

In 1970 the Scientific Director of the C.N.R.S. created a laboratory for Dr. Marian Jutisz and proposed to place it in the C.N.R.S. campus at Gif-sur-Yvette near to Paris. Professor Marian Jutisz moved there with his coworkers in the spring of 1972. His research team was comprised of himself, 8 doctors, 1 foreign scientist, 2 graduate students, 11 technicians and a secretary.

He named the laboratory "Polypeptide Hormone Laboratory" and the General Director of the C.N.R.S. appointed him as Director of the Laboratory. The Laboratory worked intensively to the end of 1989 when Prof. Marian Jutisz retired from the position as the Research Director of the C.N.R.S.

During these years the staff of the laboratory comprised up to 32 persons with technicians in four different research teams. About 28 Ph.D. dissertations and other scientific diplomas were prepared, and over 300 papers were published. They permanently had 2–3 foreign scientists or students.

One of the research subjects was the effect of *in vivo* immunoneutralization of GnRH in female rats on gonadotropins and prolactin secretion and showed that, following a rapid blockade of the LH and FSH surge, a late hyperprolactinemia appears, after a single injection of anti-GnRH antiserum. This antiserum was also utilized to determine the localization of GnRH in cell bodies, axons and nerve terminals of the rat hypothalamus by immunocytochemical techniques. Different aspects of the cellular mechanism of GnRH action on the gonadotropic cell of the pituitary was investigated in cooperation with Dr. R. Counis: they confirmed their previous observation from 1966, demonstrating that GnRH also stimulated the synthesis of the polypeptide chains of LH and that cyclic AMP and diacylglycerols are intracellular mediators of this action. With A. Berault and M. Theoleyre he studied different parameters of GnRH binding to its membrane receptor sites of the pituitary gland in relation to the response of gonadotropins.

Starting from 1977 Prof. Marian Jutisz together with Dr. Raymond Counis introduced techniques of molecular biology to study mechanisms of gonadotropin synthesis and release. His laboratory was among the first to achieve an acellular synthesis of LH and FSH subunits and to show that gonadotropin subunits are synthesized as precursors. With close cooperation with R.Counis and A. Starzec, he established that synthesis of pituitary gonadotropin subunits is under opposite hormonal control, by gonadal steroids, estradiol and progesterone, which exert an inhibitory effect and GnRH, which has a stimulatory action. They evidenced that the GnRH stimulates gene expression and the synthesis of gonadotropin subunits and that these effects can be reproduced by direct activation of protein kinase A and C in a manner which suggests a coordinate mediation of intracellular signaling pathways (cyclic AMP and phosphatidyl inositol hydrolysis).

Professor Marian Jutisz has been a member of the Polish Academy of Sciences since May 1985 and his contact with Polish science has always been very intensive.

Currently, Professor Marian Jutisz' scientific ideas are continued by Prof. Raymond Counis and many other pupils in France and abroad. I also feel like I am a pupil of Professor Marian Jutisz as I have worked three years in his laboratory under his supervision. We cordially wish Professor Marian Jutisz excellent health and thank him sincerely for the outstanding research he has done in neuroendocrinology.

Prof. Kazimierz Kochman, Ph.D.