## A tribute to Samuel MacDonald McCann

(1925-2007)

## In honor of one of the last pioneers of Neuroendocrinology

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Samuel MacDonald McCann was born in Houston, Texas, USA, on September 8, 1925, the only child of parents dedicated to university life. He received his basic education at Rice University, Houston. However, his interest in science developed during high school at Culver Military Academy. He obtained his MD at the Medical School of the University of Pennsylvania in 1948 in only three years, always as one of the best students in the course. During this period he published two papers in the American Journal of

Physiology demonstrating the role of stress and of adrenocortical hormones in triggering hypertension. He did his internship and medical residency at Massachusetts General Hospital, Boston, where he conducted studies on the artificial kidney.

Two years later he returned to the University of Pennsylvania as a Physiology Instructor and then served in the American Armed Forces at Walter Reed Hospital (Army Medical Corps), where he continued his studies on stress and on the control of vasopressin secretion. In the



Department of Physiology of the University of Pennsylvania he started his pioneering studies in Neuroendocrinology, demonstrating the existence of neuropeptides secreted by the hypothalamus and responsible for the control of adenohypophyseal functions. He was the first to demonstrate the role of vasopressin in the control of ACTH secretion, the biological existence of LH-releasing factor (LHRF) in the basal middle hypothalamus, and of FSH-RF, GHRF and GHIF, the last known as somatostatin. At

the University of Pennsylvania he held all the academic positions from Instructor to Full Professor of Physiology in 1964.

In 1965 he was invited to be Chairman of the Department of Physiology of Tulane University, New Orleans, and of the University of Texas, Southwestern Medical School, Dallas. He chose the University of Texas, where he built one of the best Neuroendocrinology nuclei in the country. At that time, one of us (JAR) had the privilege of accompanying him from Philadelphia to Dal-

The authors were colleagues who worked under the supervision of Prof. McCann in the Department of Physiology of the University of Texas, Southwestern Medical School, Dallas, Texas, USA

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las, remaining with him for two years working under his supervision in order to isolate biologically and to purify the hypothalamic factors that control the functions of the adenohypophysis.

The scientific career of Dr. McCann was very productive: he published more than 700 full papers and many chapters in books, acting as editor of several other books. These data represent the profile of a born researcher, very dynamic and with privileged intellectual capacity. Throughout his life he received many prizes, honors and medals. In 1987 he was elected a member of the National Academy of Sciences of the United States, one of the positions most sought after by scientists worldwide.

He had a special gift regarding the stimulation and training of young investigators. Many of those he trained progressed greatly in their countries of origin, thus multiplying his ability to train human resources. To the young people who worked at his side he transmitted security and confidence regarding free thinking, scientific independence and autonomous activity. One of his main characteristics was to stimulate the scientific development of each disciple, respecting his individuality. He molded students, not in his own likeness, but by encouraging them to develop their own scientific abilities. He trained people and not tools for his own work. Many investigators from all over the world passed through his laboratory.

At 70 years of age he was honored by the Pennington Biomedical Research Center, Louisiana State University at Baton Rouge, which conferred to him the Endowed Chair title.

Dr. McCann belonged to many scientific societies and was a member of the Council of the American Physiological Society and Endocrine Society. In addition, he was a member of the National Academy of Science of the United States and an honorary member of various international scientific societies, among them Sociedade Brasileira de Fisiologia (Brazilian Physiological Society). He was the President of the International Neuroendocrine Federation, of the Society for Experimental Biology and Medicine, of the International Society of Neuroendocri-

nology, and of the International Society of Neuroimmunomodulation. He was also Editor-in-Chief of Neuroendocrinology.

Until his last days, Prof. McCann accompanied the scientific evolution of Brazilian groups and the increasing body of scientific knowledge of the Brazilian society, providing guidance to the young with precise attitudes and opinions inducing the humanistic training complementary to modern scientific qualification. He used to say that "in science there is no substitute for the brain". The brain implies intelligence and the heart, charity.

He was a pioneer. He delighted in opening new research lines, "opening roads". His intellectual ability was impressive, as confirmed by his publications.

Prof. McCann died on March 16, 2007. The feeling of loss of a Teacher and friend is very painful, but we must look back at all those times of pleasure, camaraderie and mutual cooperation that we experienced together. It was all worth it! We are sure that he did all he could for Physiology and especially for Neuroendocrinology. Now he rests in peace.

Last year, during the closing ceremony of the International Symposium of Neuroendocrinology "Neuroendocrine control of body fluid homeostasis: past, present and future", Ribeirão Preto, SP, Brazil, September 1-3, 2006, we asked the participants to applaud Dr. McCann for all he represented for Neuroendocrine Physiology. After the ovation, he addressed Dr. Antunes and said: "José, this is one of the happiest moments of my life!" The Teacher is gone, but he leaves behind that exemplary flame that will light up the path for many young people dedicated to science.

Prof. McCann will always be remembered as one of the pioneers in contemporary Neuroendocrinology and as a human being of invaluable worth. His wisdom, culture and humanistic vision of science made of him a model to be followed by all of us. He built a fundamental opus, of those that mark a time, define paths and serve as an example. To him, our everlasting gratitude.