

Curriculum vitae Max LAFONTAN

Max Lafontan, Ph. D., D.Sc., 67, is main investigator at the Institut National de la Santé et la Recherche Médicale (Inserm). He was appointed as assistant-professor at this Paul Sabatier University in Toulouse in 1970 and associate-professor in 1979. In 1985, he moved to the Institut National de la Santé et de la Recherche Médicale (Inserm) as main Inserm Investigator and since 1988 to 2002, headed the Inserm Unit 317 (Adrenergic Regulations and Metabolic Adaptations) and the Institute Louis Bugnard from 1990 to 1997 in Toulouse.

In 1971 he became interested in the mechanism of action of catecholamines. Rabbit isolated fat cells were utilized as a cell model to study the mechanisms of catecholamines and ACTH action on lipolysis. He rapidly shifted to the study of human fat cells as a model. His initial team contributed to the identification of fat cell α_2 -adrenergic receptors and the definition of molecular determinants of the interplay between beta- and α_2 -adrenergic receptor mediated-events. The research aimed to further understand the biochemical, physiological, and pharmacological aspects of the adrenergic control of lipolysis; the contribution of adenosine and NPY were also studied. The discovery of the original role of atrial natriuretic peptides (ANP) in the control of lipolysis and lipid mobilization in humans in 2000 has opened another unsuspected field of research which is still under exploration. The pioneering observation of lysophosphatidic acid (LPA) production by fat cells has been at the origin of the identification of autotaxin secretion by adipocytes (a new adipokine). More recently research attention was focused on the study of the role of the cells located in the stroma-vascular fraction of adipose tissue (macrophages, lymphocytes and fat cell progenitors (adipose-derived stromal cells)) and the control of angiogenesis in adipose tissue. Studies have contributed to the discovery of the pro-angiogenic but also pro-inflammatory action of leptin.

Dr. Lafontan's group collaborated with laboratories in Canada, Germany, Spain, Sweden, U.S.A and Switzerland and published around 200 original papers. Research perspectives consist of analysis of the various pathways involved in the control of lipolysis and lipid mobilization in humans and the biological events contributing to adipose tissue remodelling (cellular and molecular approaches).

Max Lafontan was Council Member of and President of the Association Française d'Etudes et de Recherches sur l'Obésité (AFERO) and Council Member of the European Association for the Study of Obesity (EASO). He co-organized the congresses of EASO (Nice, 1992) and IASO (Paris, 1998) and was awarded the Prix de l'Institut Roche de l'Obésité in 2001 and the Friederich Wasserman Award of EASO in 2003 for his outstanding contribution in the field of obesity research.