

Laudation

Professor George Kunos

Dr. George Kunos, who started his scientific career at our University, quickly became one of the leading experts on the field of catecholamine receptor biology. His early research identified the presence and function of catecholamine receptors in several tissues and clarified the complex control of these receptors by hormonal and neural inputs. Dr. Kunos and his colleagues were the first to study and to systematically dissect the interplay between adrenoceptors and the endogenous opiate system which led to pivotal observations regarding cardiovascular regulation both in the physiological and the hypertensive state.

Later, Dr. Kunos pioneered the field of the *peripheral* endocannabinoid system by demonstrating that endocannabinoids, acting at cannabinoid receptors outside of the nervous system, control intestinal circulation, play a crucial role in the pathogenesis of hemorrhagic shock and also contribute to the hemodynamic changes associated with liver cirrhosis. He and his coworkers were the first to prove that the hypothalamic endocannabinoid system is regulated by the anorexigenic hormone leptin and demonstrated the utmost significance of this interaction in the regulation of food-intake and energy metabolism. In the last two decades, Dr. Kunos and colleagues made fundamental discoveries regarding the role of endocannabinoids in the pathogenesis of such pandemic diseases as alcoholic liver disease, diet induced obesity, type-2 diabetes and fibrosis associated pathologies. These observations, published in highly cited papers which are now classics of their respective field, have made him, unquestionably, the world leading expert of the peripheral cannabinoid system. In recent years, Dr. Kunos and his colleagues developed and fine-tuned a new class of drugs, the so-called peripherally restricted CB1-receptor antagonists, which have the potential of becoming the first truly safe and efficient anti-obesity medication.

Dr. Kunos is regularly listed on the Thomson Reuters Highly Cited Researchers' List and is one of the highest cited Hungarian scientists. Besides his scientific merits, he was the full professor at McGill University in Montreal, Canada and then at Virginia Commonwealth University in Richmond, Virginia, where he was also the Chair of the Department of Pharmacology & Toxicology for 8 years.

Importantly, throughout his career Dr. Kunos maintained a close and fruitful connection with the Hungarian scientific community: he regularly collaborates with Hungarian colleagues and alumni of the Semmelweis and other Hungarian Universities regularly find position in his laboratory as research fellows. Amongst other prestigious titles, Dr. Kunos is the foreign member of the Hungarian Academy of Sciences as well as the secretary of Worldwide Hungarian Medical Academy.