George P. Chrousos MD, ScD, MACE, MACP, FRCP, ΣΞ (Sigma Xi)

George P. Chrousos, MD, ScD, is Professor Emeritus of Pediatrics and Endocrinology, Director, University Research Institute for Maternal and Child Health and Precision Medicine (2017-), National and Kapodistrian University of Athens (NKUA) School of Medicine. From 2001-2018 he was Chairman of the First Department of Pediatrics at the NKUA School of Medicine, Athens, Greece. From 2005 he has served as Head of the Laboratory of Endocrinology and Metabolism at the Biomedical Research Foundation of the Academy of Athens. Since 2010, he holds the *UNESCO Chair on Adolescent Health Care* at the NKUA. Before returning to Greece, he was Chief of the Pediatric and Reproductive Endocrinology Branch of the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD), National Institutes of Health (NIH), Bethesda, Maryland. In 2011, he held the *John Kluge Distinguished Chair in Technology and Society* at the US Library of Congress.

Dr. Chrousos' research program has focused on the Biology and Medicine of Stress, the Physiology and Pathophysiology of the Hypothalamic-pituitary-adrenal (HPA) Axis and the molecular actions of the end-hormones of the latter, the glucocorticoids. He has worked on acute and chronic adaptations to changes in exogenous/endogenous states and conditions, which represent perhaps the most central feature of life, and on the neuroendocrine stress system, which is pivotal to the implementation of these processes. He examined the key roles of stress mediators, not only in endocrine, behavioral and physical/energetic adaptations, but also as major pathogenic factors, responsible for the most important pathologies of today's societies, the high impact and cost "chronic non-communicable disorders", which account for most of morbidity and mortality plaguing contemporary societies. He has also made contributions to the understanding of the molecular actions of glucocorticoids and of their effects on the genome and epigenome, which underlie their involvement in human physiology and pathophysiology. In this context, he elucidated crucial aspects of the intensive molecular dialogue between the glucocorticoid and other major cell signaling systems and described novel diseases of the tissue sensitivity to glucocorticoids. On a practical level, Chrousos's studies have also contributed to the way we study, diagnose, classify and treat classic endocrine disorders of the HPA axis, including Cushing syndrome, Addison disease and Congenital Adrenal Hyperplasia. In summary, Dr. Chrousos has performed biomedical research from the basic molecular/cellular level, to translational investigation, all the way to the diagnosis, treatment and management of diseases. His experimental work and the concepts he has advanced over the years have opened new horizons in our understanding of a wide spectrum of human complex disorders related to stress, beyond the classic non-communicable ones, including melancholic, atypical, seasonal and postpartum depression, the post-traumatic stress disorder, the eating disorders, the very prevalent obesity/osteosarcopenia/metabolic syndrome, the psychosomatic diseases, the sleep disorders, such as insomnia and sleep apnoea, and the inflammatory/autoimmune and allergic diseases. His contributions to Biomedical Science and Medicine span and influence a broad range of medical disciplines, including Pediatrics, Internal Medicine, Psychiatry, Psychology, Rheumatology, Allergy, Sleep Medicine, Psychosomatic Medicine, Reproduction, Surgery, and Oncology.

Dr. Chrousos has authored or co-authored over 1000 original scientific papers and over 700 journal reviews and book chapters. In terms of his current bibliometrics, his H-index is >204, and his work has been cited in >180,000 scientific articles (Google Scholar, reaearch.com, Oct. 2022); he is one of the 100 most cited physician-scientists internationally and the highest cited clinical endocrinologist or pediatrician in the world. He has been included in the *ISI highly cited* lists of *Clinical Medicine* and *Biology and Biochemistry*.

Dr. Chrousos has received numerous national and international awards and has given many named lectures in the USA, Europe, Latin America and Japan. His awards include the 1987 Richard E. Weitzman Memorial Award of the US Endocrine Society, the 1992 Superior Service Award of the U.S. Public Health Service, the 1997 Clinical Investigator Award of the US Endocrine Society, the 1997 Hans Selye Award of the Hans Selye Foundation, Montreal, Canada, the 1999 Pharmacia-

Upjohn International First Prize for Excellence in Published Clinical Research of the US Endocrine Society, the 1999 Novera Herbert Spector Award of the International Society for Neuroimmunomodulation, Lugano, Switzerland, the 2000 Henning Andersen Prize, of the European Society for Pediatric Endocrinology, Brussels, Belgium, the 2002 Sir Edward Sharpey-Schafer Medal of the British Endocrine Societies, the 2004 Lifetime Achievement Award of the International Society for Psycho-Neuro-Endocrinology, Glasgow, UK, the 2007 Henning Andersen Prize of the European Society for Pediatric Endocrinology, Helsinki, Finland, and the 2008 Geoffrey Harris Prize in Neuroendocrinology of the European Society of Endocrinology, Berlin, Germany. He was honored with the 2011 Aristeion Bodossaki Award, the highest distinction for accomplishment in the Sciences in Greece. In 2012, he received the Albert Struyvenberg Medal of the European Society of Clinical Investigation (ESCI). He is a distinguished visiting scientist at the Eunice Kennedy Shriver NICHD, NIH, Bethesda MD, USA. He served as Board Member and President of the International Society of Neuroimmunomodulation, ESCI, and European Society of Pediatric Endocrinology. In 2014, he received the highest honor of the US Endocrine Society, the Fred Conrad Koch Award. In 2015, he was awarded the first George Papanicolaou Award of the University of Athens. In 2018, he delivered the Litchfield Lecture at the University of Oxford. In 2022, he received the Delbert Fisher Research Scholarship Award Award of the US Endocrine Society and delivered the 2022 Carl Sawin Lecture on the History of Endocrinology. He recently delivered the 2022 Carl Gemzell Award Lecture of the University of Uppsala, Sweden.

He is a *Doctor Honoris Causa* of the University of Liege, Liege, Belgium (2003), Universita Politechnica delle Marche, Ancona, Italy (2006) and University of Patras, Patras, Greece (2011). He is an *Honorary Professor* of the University of Warwick, Coventry, UK, St. Petersburg State Pediatric Medical University, St. Petersburg, Russia, Xi'an Medical University, Xi'an, China, and Democritean University of Thrace, Alexandroupolis, Greece.

Dr. Chrousos was inducted as a *Master* of both the American College of Endocrinology and the American College of Physicians and a *Fellow* of the Royal College of Physicians. He is an elected member of the *American Society for Clinical Research*, the *Association of American Physicians*, the *US National Academy of Medicine*, and the *Academia Europaea*.

At the NIH, Dr. Chrousos run one of the leading pediatric endocrine training programs and laboratories in the world and fostered the careers of over 60 distinguished, award-winning, world-class physician-scientists and basic scientists. Throughout his tenure, he collaborated closely with the National Institute of Mental Health (NIMH), and performed pioneering work on the psychoneuroendocrinology of psychiatric disorders. After a distinguished career in the Intramural Program of the NIH, where he made seminal original contributions and trained a generation of international leaders in Pediatric, Adult and Reproductive Endocrinology and Psychoneuroendocrinology, Dr. Chrousos returned to Greece and assumed leadership roles in Greek and European Medicine and Academia.

In Greece, Dr. Chrousos directed the oldest, largest and most prestigious Department of Pediatrics in the country and has had major impact on the way Pediatrics and Medicine are practiced. For instance, he developed new national growth curves, initiated a national campaign against childhood obesity, chaired the National Council on Breast Feeding, developed an administrative mechanism for certifying baby-friendly hospitals, started a national successful campaign for breast feeding (UNICEF Award 2011), initiated a longitudinal study of children conceived by assisted reproductive technologies and discovered significant epigenetic effects of these procedures on childhood cardiometabolic health (Academy of Athens Award 2011), established two graduate programs in "Pediatric and Nursing Research", and in the "Science of Stress and Health Promotion", established the first Adolescent Medicine Program in the country and helped with the founding of a new biomedical research institute (Biomedical Research Foundation of the Academy of Athens). In 2010, the prototypic Adolescent Medicine Program that he established at the NKUA was recognized as the unique *UNESCO Chair in Adolescent Health Care*. He served as vice-President of the Greek National Council of Research and Technology and currently serves as vice-President of the Supreme Council of the National Hellenic

Authority of Higher Education. He founded the Hellenic College of Pediatrics, the Hellenic Society of Developmental and Behavioral Pediatrics and Adolescent Medicine, the Institute of Stress Biology and Medicine, the Hellenic College of Lifestyle Medicine, and the NGO "Health for All", the latter for the healthcare support of vulnerable populations in Greece.

Dr. Chrousos has an encompassing global outlook. He is intimately familiar with the strengths and weaknesses of both European and US biomedical science. He has an unwavering commitment to promote and nurture the international leadership and excellence of research in Endocrinology, Pediatrics, Medicine, and the Biomedical Sciences.