A grateful tribute to Professor Helen KORNEVA

While the physiology and pathological implications of neuroimmune interactions are well recognized today, it is extremely important to pay homage to those who acted as true pioneers in the field, especially since they had to face the skepticism that is usually associated with the opening of novel scientific perspectives. Professor Helen KORNEVA is one of these brilliant, brave and open-minded pioneers. She stands in the direct line of Russian greatest physiologists and immunologists such as Ivan Pavlov, Ilya Metchnikoff, and Sergei Metalnikov.

Already in 1963, she was the first to report that experimental lesions in the dorsal hypothalamus reduced the formation of complement-fixing antibodies (Sechneko Physiol J USSR 49, 52-62, 1963). She also showed that the hypothalamic region regulates the process of immunogenesis (Zh Mikrobiol Epidemiol Immunobiology 1964; Oct: 7-12), and that the course of the immune response is altered by stimulation of mesencephalic structures (Fyziol Zh SSR IM Sechenova 1967; Jan: 42-47). She also investigated the pathogenesis of auto-allergic lesions of the nervous system following the inoculation of purified myelin in rabbits, which induced circulating antibodies against myelin as determined by the complement-fixation procedure. This autoimmune response was significantly modulated by stereotaxic destruction of the posterior hypothalamic area (Brain Res 29: 383-386, 1971).

This pioneering role in neuroimmunology led to the foundation of the International Society of Neuromodulation (ISNM) in 1989 by Novera Herbert Spector, Bransilav D. Jankovic, Helen Korneva and Nicola Fabris, and I had the chance to be a charter member of this new society. In 2011, Novera Herbert Spector has provided an exciting overview of Helen Korneva’s seminal contributions to neuroimmunomodulation in a article entitled “A Tribute to Helen Korneva” (Neurosc Behav Physiol 41: 102-111, 2011).

In more recent years, Helen Korneva’s laboratory was pursuing her central research theme, i.e. the study of brain responses to antigenic challenges. They were so more and more involved in the thorough investigation of the central orexigenic system in response to lipopolysaccharide (LPS) and different antigen stimuli (Neuroimmune Biology, 2010, Volume 9; Adv Neuroimmune Biology 5: 171-180, 2014; Brain Behavior & Immunity 40: e1-e2, 2014).

In addition to a remarkable scientist, Helen Korneva was also an excellent organizer and a charming person. In collaboration with the Institute of Experimental Medicine (Saint Petersburg), her colleagues and friends Hartmut Wekerle (Max Planck Institute of Neurobiology) and Keith Kelley (University of Illinois), the Pavlov First Saint Petersburg State Medical University, and the Russian Society of Immunology, seven international symposia on “Interactions of nervous and immune systems” were organized in Saint Petersburg. I had the privilege to present two lectures at the last editions of this symposium and this will remain a vivid remembrance for all my life. She also contributed to the organization of the 1st Congress on Autoimmunity, also in Saint Petersburg.

For all these important reasons, the quality of the person and on behalf of the scientific community, I wish to pay a vibrant homage to Professor Helen Korneva.

Prof. Dr. Vincent Geenen
Research Director of F.S.R.-NFSR of Belgium
University of Liège GIGA Research Institute
GIGA-I² Neuroimmunoendocrinology
Liège-Sart Tilman, Belgium