



PROFESSOR GEORGE L. GERSTEIN

Professor George L. Gerstein, who passed away at the age of 85, was a neurobiologist known for his work in both experimental research and computer modeling of neuronal assemblies in the brain. His analysis of the time structure of spike trains provided an insight into the dynamic organization of the observed neurons and their networks, and advanced the understanding of how they handle information. This approach to neuroscience stemmed from his university background.

Professor Gerstein received a BSc and PhD in physics from Harvard University, but soon decided to switch his scientific field of interest to neurobiology. In 1958, he was appointed as a postdoctoral fellow at MIT, Cambridge, subsequently becoming a junior faculty member. His time at MIT resulted in fundamental papers introducing the application of mathematical methods to the analysis of electrophysiological signals recorded from the brain, from histogram averaging of single neuron activity to a multitude of mathematical tools critical for the analysis of interactions within and between neuronal assemblies. It is difficult to overestimate Gerstein's achievements in this field, as the methods he introduced are in constant use by electrophysiologists all over the world, allowing a better understanding of the physiological meaning of electrical communications within neuronal networks.

In 1964, Gerstein was appointed Assistant Professor of Biophysics at the University of Pennsylvania School of Medicine, where he spent the rest of his scientific career. He became Professor of Physiology in 1969 and Professor of Neuroscience in 1992. After his official retirement, he successfully continued his research as Emeritus Professor of Neuroscience.

Over the years Professor Gerstein developed fruitful cooperation with neuroscience groups all over the world, including the Nencki Institute of Experimental Biology, PAS, Warsaw, Poland. He was hosted by our institute many times and let us benefit from his extensive knowledge, experience, and friendship. During his last visit in 2008, we celebrated the 90th anniversary of the Nencki Institute and announced Professor Gerstein as the first winner of the annual Nencki Award.

Thanks to an initiative by Professors Jerzy Konorski, Elliot Stellar, George Gerstein and the support of Sloan Foundation, several young neuroscientists from the Nencki Institute, including ourselves, had a unique opportunity of postdoctoral training at the University of Pennsylvania School of Medicine, and most of us worked in George's laboratory. The time we spent in Philadelphia was important and exciting. George and his family surrounded us with exceptional hospitality and care, and we not only benefitted from the superb scientific atmosphere in the laboratory but were also fully immersed in American culture.

In 1978, Elliot Stellar decided to make use of the funds donated by Jerzy Konorski for the purchase of advanced equipment to be used at the Department of Neurophysiology, Nencki Institute (which came from royalties for J.K.'s book, *Integrative activity of the brain*, 1967, University of Chicago Press). George was asked to make the selection, and based on his decision, two personal computers were bought to support our electrophysiological laboratories. George was aware that without his knowledge and expertise we would not be able to take full advantage of this gift. Therefore, he decided to spend his sabbatical in Warsaw, together with his family. With George's invaluable help, we obtained not only two PCs, but also a fantastic teacher for a group of young, enthusiastic neuroscientists. The time George and his family spent in Poland (1978/1979) was extremely difficult, both economically and politically, so George's help mattered very much to all of us.

We deeply mourn his loss. George was genuinely important to us, not only because of his intellectual and professional achievements, but also because of his extraordinary personality. He remains in our memory as a very sensitive, deeply understanding friend of great wisdom.

Julita Czarkowska-Bauch
Andrzej Wróbel