

Obituary

László I. Horváth (1949–2006)



With the deepest regret we announce that László Horváth died on the 29th of September 2006 at the age of 57, after a long period of illness, which he bore with extreme patience and fortitude. He was among the first members of the Institute of Biophysics of the Biological Research Centre of the Hungarian Academy of Sciences in Szeged when the Centre was opened in 1973. He stayed affiliated with that Institute, for which he also acted as the deputy director over a period of time during the 1980s. Later, he was the head of the Membrane Biophysics Group at the Institute of Biophysics until 1999, when his illness prevented him from working further. Since then he remained an honorary member of this active research group, now called Membrane Structure and Dynamics, for which he has set high standards of excellence to follow in the future.

László Horváth devoted his research work to spin-label electron paramagnetic resonance (EPR) spectroscopy applied to membrane lipids and proteins. He published more than a hundred papers in international

journals, mainly on this subject. He will be best remembered scientifically for his seminal work on lipid–protein interactions in native and synthetic membranes, and the applications and methodological developments in saturation transfer EPR spectroscopy. In collaboration with Peter J. Brophy and Derek Marsh, he delineated the factors determining selectivity in lipid–protein interactions. His major contribution – at a time in the late 1980s when lipid–protein interactions were hotly debated – was to determine the exchange rates of lipids at the transmembrane protein interface and to demonstrate their relation to lipid selectivity. In this way, the controversy that raged between the results of ^2H NMR and spin-label EPR on lipid–protein interactions was neatly resolved. This work was summarised in a comprehensive review, which he co-authored in 1998 and is widely quoted. His other area of research, that of studying slow rotational mobility by saturation transfer EPR, he was subsequently able to adapt to make more precise measurements of lipid exchange rates. In pioneering studies, he developed this non-standard application of saturation-transfer EPR, augmented by progressive-saturation EPR experiments, into a general method for determining slow exchange rates, weak spin–spin interactions and proximity relations in membranes. This latter work should be of lasting benefit to the spin-label community. Proximity measurements based on spin-relaxation studies have been developed further by his former research group and became their primary method of spectroscopy-based structural biology for membranes and membrane proteins.

László Horváth was not only skilled in the lab, but he was also a gifted and dedicated teacher. Clear communication and theoretical treatment of his experimental results were important for him. He was involved in regular teaching of membrane biophysics and spin-label EPR for post-graduate students. His linguistic excellence, up-to-date knowledge of the literature and his truly

remarkable sense for didactic style and visual presentation made him the most favoured lecturer by students and colleagues during his active period in research and teaching. Not surprisingly, one of his latest co-authored works is a step-by-step manual for students on the methods of scientific research and publication.

László was a source of joy to those who met him and inspirational as a scientist. He impressed us all with his calm, quiet and confident manner and by his absolute integrity. His soundness, lexical knowledge, his motivation, excellent teaching skills, colourful and friendly personality, his organised and balanced life served as an example for many of us. The saying on his old office door “*Lieber im Sumpf übernachten als über Nacht versumpfen*” keeps reminding his colleagues of the exemplary life he led. Importantly, László was a good friend to many who knew him, both in science and private life. It is a tribute to his scientific dedication and expertise that his collaborations were unfailingly successful. He was an excellent ambassador for Hungarian science and culture, at a time when scientists from other Eastern-Bloc countries found it difficult if not impossible to travel to the West. It is a tragedy that he had to leave

us when his career was reaching its prime and when – though financially not much better for academic research – freer opportunities opened up for scientists in Hungary.

He leaves a widow Krisztina, who tirelessly supported him throughout his illness, two daughters and three grandchildren.

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