Ivan Divac in Memoriam

Ivan Divac died in his home in Copenhagen on February 25, 1999 surrounded by his two sons and beloved wife Gunilla Øberg. His numerous friends spread in scientific institutions over three continents learned about his rapidly deteriorating health and the death only afterwards. He will be deeply missed by his family, his personal friends, and colleagues. The Nencki Institute has lost an old and devoted friend and the scientific community has lost a creative member.

Ivan Divac was born in 1932 in Aleksinac, Jugoslavia. His father, an engineer and architect, was taken prisoner in Germany during the second world war. Unwilling to return to communist Yugoslavia, he spent the rest of his life in the US, but he stayed in a close contact with the family and friends in his native country. He is remembered for his generous gifts of medical equipment and other commodities to the community. Ivan’s mother studied medicine in Geneva and worked as a pediatrician in Belgrade and Aleksinac. Ivan was very close to his mother - a lover of Dostoyevski, opera and the French language - and as a child he often accompanied her as she treated her patients. Ivan graduated from highschool in Aleksinac and attended Medical School in Belgrade. During his compulsory service in the Army, he served as a medical doctor in a rugged part of Bosnia, at times riding a donkey to remote villages.

Already as a student Divac was involved in research and shortly after finishing his medical studies in 1960 was appointed as an Assistant Professor in the Department of Pathological Physiology of Belgrade Medical School. He was working with Dr. Ljubodrag Mihailovic on the physiology of the caudate nucleus and consolidation mechanisms of the memory processes. This early experience
imprinted him for his life-long research interest in the role of the basal ganglia in learning and behaviour. In 1963 Ivan Divac received a research scholarship to work in the Section of Neuropsychology at the National Institute of Mental Health in Bethesda, one of the leading American laboratories in the field of brain and behaviour. Dr. Enger Rosvold and Maria Schwarzbach were his mentors and collaborators in a now classical experiment which demonstrated the functional heterogeneity and "cognitive" functions of the caudate nucleus. The same laboratory in Bethesda was the very last place Ivan worked from the fall of 1998 until he fell ill in February of this year. He was involved in a research project led by his old friend Mortimer Mishkin.

Working in Bethesda as a young man, Ivan had the opportunity to meet a number of young scientist from different countries, many of whom remained his friends for life. He also met for the first time Professor Jerzy Konorski, whose enthusiastic and selfless devotion to science became an ideal to be followed. Having profited greatly from a year of American neuroscience, Ivan wanted to learn from a different tradition and accepted an invitation to the Department of Neurophysiology of the Nencki Institute in Warsaw where he worked from 1965 to 1967. He continued his research on the caudate nucleus. Questioning the prevailing view that basal ganglia were purely motor structures, Ivan was able to show that selective lesions in the caudate nucleus impair performance of delayed responses in cats as well as in monkeys. In 1967 Ivan Divac defended his doctoral dissertation on the functions of the caudate nucleus at the Nencki Institute.

It was an exciting time to work and live in Warsaw. Ivan, who was called in the house "Pan Janek" and who already knew several languages from before, acquired a fair command of Polish. This allowed him to enjoy Polish film, theatre, art, literature and conversation, and he always spoke fondly of cultural life in Warsaw. He also took great interest in politics - but Polish newspapers were not among his favourites. The friendships he found during his stay in Warsaw lasted for life.

During his stay in Warsaw Ivan had met his future wife, a scientific companion and the most devoted friend, Gunilla @berg. Over the next three decades, Ivan and Gunilla shared their private and professional life. They published together a number of papers, edited an influential monograph on the functions of the basal ganglia, worked and travelled together and shared a joy of bringing up their son Marko. Gunilla become a second mother for Srdjan, Ivan’s son from a previous marriage.

In 1968-1970, Ivan worked at the Department of Psychology, Pennsylvania State University in the laboratory of J. Michael Warren. Ivan got increasingly interested in comparative and evolutionary aspects of frontal lobe anatomy and function, an interest which influenced his research and thinking from then on. In 1970 Ivan received at first a research scholarship and later a senior lectureship at the Institute of Neuropsychology of Copenhagen University, which became his "home base" for the rest of his life. From here he engaged in active collaborative projects with neuroscientists in Sweden, Norway, England, Germany, Polen, Hungary, Russia, Spain, Italy, USA and Australia.

In addition to several younger Danish colleagues who were trained by and worked with Ivan for a few years, there were no less then 27 scientists from 8 different countries who worked in his laboratory for shorter or longer periods of time. For most of those visitors Ivan was not only a mentor but also a generous host, a cook and a great companion. His private home was always a natural extension of the laboratory, and many scientific visitors become personal friends.

It is difficult to summarize the span of Ivan Divac’s scientific contribution. He published over 135 papers and articles, organized symposia, edited and reviewed books, taught at international courses and served as a reviewer in several prestigious neurobiological journals, including Acta Neurobiologiae Experimentalis. Ivan Divac has left an impressive legacy in the number of young scientists trained in his laboratory. During his early experimental work Ivan moved constantly from the monkey to cats and rats depending on a problem, conditions and tasks available, local expertise and the skills of his collaborators. Later, his growing interest in comparative neuroanatomy and behaviour resulted in the expansion of his experimental repertoire to include birds, monotremes (the Australian spiny anteater - echidna), hedgehog and any interesting brain that he could get hold of. His style of doing science was very personal. Ivan was the thinker, the explorer and the craftsman at the same
time. He was always working in the laboratory, had full control over the methods used, experimental material
and the process of writing. His scientific writing was precise and lucid to the point of perfection.

Ivan was also a great traveller and a welcomed guest in other laboratories. He spent "sabbaticals" in Boston,
Melbourne, Los Angeles and Perth and at different times frequently visited collaborators in Honolulu, Grand
Canaria, Piza and Konstanz, to mention but a few destinations. Constant travelling across Europe was natural
commuting for Ivan who felt at home both as a scientist and as a tourist in many of those places. Ivan’s interest
in politics, music, art, literature and exotic food made every visit at his home a memorable experience. His
lifelong passion for chess allowed him to challenge professional players. Perhaps, it made him also aware of the
serendipity of the thought process.

Ivan Divac will be remembered by his friends and colleagues as a warm, attentive and unpretentious person.
He was a keen and critical observer of life around him and had a great sense for philosophical humour which
protected him against intrusion of trivia. Above all, he will be remembered as a genuine and a deeply dedicated
scientist.

In the name of many friends spread all over this unquiet globe,

Bolek Srebro, Bergen