

Obituary

Georg Becker (1961–2003)

In gratitude, admiration and friendship we think of Prof. Dr. med. Georg Becker, whose unexpected death has deprived us of a dear friend, colleague and cooperation partner. Georg Becker combined in a unique fashion the capacities of an excellent and emphatic medical doctor, an enthusiastic scientist and a devoted academic teacher. His death means a great loss for his patients, colleagues and students.

Born on the 12th of May 1961 in Bad Homburg, Germany, as the third of nine children, Georg Becker decided already as a young teenager that he wanted to become a medical doctor. After studying medicine in Kiel and Würzburg and the completion of his M. D. thesis Georg Becker trained as neurologist under Prof. K. V. Toyka at the Department of Neurology, University of Würzburg, from 1988 to 1995. In 1993 he board certified as neurologist, and with his “Habilitation” on “Transcranial colour coded sonography” in 1995 became a member of the academic staff at the University of Würzburg. The exploration of the potential of ultrasound beyond cerebrovascular diagnostics led him to the pioneering work beyond the cerebrovascular application. When Georg Becker won the Chair of Neurology at the University of Homburg/Saar, Germany, in April 2001, he was only 39 years of age. There he enthusiastically promoted his manifold projects until the tragic drowning accident of August 5th 2003.

Outstanding features in the scientific work of Georg Becker were his willingness to try unorthodox techniques and apply them when found reliable, and his determination never to give up. In 1989 he first encountered the technique of B-mode transcranial ultrasound, a technique that had only started to emerge a year before and was mainly used in children. Although the scanning quality of the ultrasound machines was limited in those days, Georg Becker was fascinated by the possibility to visualize the brain parenchyma through the intact skull with an easily applicable, broadly available method. In the following years Georg Becker performed a multitude of studies on transcranial sonography (TCS) in patients with brain tumours, cerebrovascular and cerebrospinal fluid as well as neurodegenerative disorders. In 1992, at an early stage of progress, his work was awarded the science prize of the American Society of Neuroimaging. Notwithstanding



critical questions from many sides, Georg Becker and his group were determined to prove the diagnostic and therapeutic relevance of TCS findings. Many publications from him and his group demonstrate that this effort was successful. Georg Becker had an impressive scientific oeuvre of more than 80 scientific publications and an additional series of book articles and invited reviews. He was a member of numerous national and international scientific societies including the American Academy of Neurology.

One of Georg Becker's most pioneering interests was the visualisation of characteristic features in extrapyramidal disorders and depression. Neither in Parkinson's disease, nor in dystonia or depression it had been possible to detect pathologic hallmarks by routine structural neuroimaging techniques like computer tomography or magnet resonance tomography. Georg Becker and his group provided evidence that TCS could easily depict characteristic ultrasound features of these disorders. Moreover, they proved the potential of TCS beyond diagnostics to elucidate the pathogenesis of those diseases. Applying other neuroimaging techniques, the hypotheses that structural changes were visualized by TCS could be corroborated. These studies were followed by histological, biochemical and genetic studies of the respective structures, showing that the alterations seen in dystonia and Parkinson's disease were at least in part due to changes in heavy metal deposition and metabolism. Georg Becker and his group showed that the changes of echogenicity seen in Parkinsonian patients could serve as a vulnerability marker when found in healthy controls, implying the possibility of neuroprotective therapies. It is these discoveries that he will be remembered for most.

Georg Becker was open minded, creative and strongly followed an interdisciplinary cooperation to problem solving. With his enthusiasm, fairness, endurance and teamwork approach he incorporated many aspects of his beloved sports into his professional work. The tragedy of his sports accident in a fateful cascade of events abruptly terminated all his personal developments and his splendid future career. We have lost a friend and research partner but above all an outstanding human personality with a natural gift of leadership.

In Georg Becker's life there were two sources of power that motivated him to give the best he could, i.e. his deeply rooted religious conviction and the happiness with his family. He leaves behind a wife and two sons who tragically witnessed the accident. Those who were privileged of having worked with him feel committed to continue his ideas and to carry on the spirit that made him an outstanding example of personal integrity, endurance and devotion to patient care and medical progress.

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Manfred Gerlach, Würzburg
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