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In Memoriam



Prof. Dr. Rainer H. Klinke (1936–2008)

On Monday September 8, 2008, Dr. Rainer Klinke peacefully passed away after a short period of severe illness. Ear and hearing research has lost an outstanding physiologist and dedicated teacher.

Rainer Klinke was born 1936 in Landsberg (Upper Silesia). Displaced at the end of World War II, he grew up in Franken, Bavaria. He studied medicine (1954–1963) in Erlangen, Vienna, and Heidelberg, and mathematics in Heidelberg. After a brief period of medical practice in Heidelberg and Schwäbisch-Hall (1963–1964), he opted for research and became a research assistant at the Institute of Physiology in Erlangen (1964–1966). In 1966 he joined the Physiological Institute of Prof. O.-J. Grüsser at the Free University of Berlin. After his “habilitation” in 1969 he was appointed professor of physiology in 1971. In 1977 Rainer accepted the offer of a chair in physiology and became director of the Institute of Sensory Physiology and Neurophysiology at the J.W. Goethe University in Frankfurt am Main. Here he conducted research on the physiology of the peripheral and central auditory system. He guided the careers of many scientists and students and was a most gifted teacher and textbook author. He retired in 2004 and remained active as an emeritus professor afterward.

Rainer Klinke is well known for many discoveries in the field of auditory neuroscience. As a young physiologist he and his col-

leagues observed that in a regular series of stimuli a specific neuronal response is generated after stimulus omission. At that time (1968), a response without a stimulus was something hardly thinkable – today this signal belongs to the standard investigation repertoire of electroencephalographers and psychologists and is known as “mismatch negativity”. Rainer was the first to demonstrate that glutamate is the main excitatory transmitter in the cochlea (1979). In collaboration with Prof. E.F. Evans (Keele University, UK) Rainer discovered that loop diuretics change the tuning properties of auditory nerve fibers, an early indication of an active cochlear amplification/sharpening process. His team published many influential papers on cochlear physiology, on binaural processing in the superior olive and inferior colliculus, on electrical stimulation of the auditory nerve and central auditory neuroscience related to deafness, and on cochlear implants. The description of cochlear-implant-induced functional maturation of the auditory cortex attracted the attention of the scientific community in recent times. But he never lost his interest in fundamental cochlear physiology: his team continuously published important studies on comparative aspects of auditory physiology, the efferent cochlear system, hearing trauma, and cochlear regeneration.

The diversity of research topics and success in all these fields demonstrate that Rainer Klinke was a gifted thinker, scientist,

and manager of research. He held the position of the deputy speaker and speaker of several research collaboratives of “Deutsche Forschungsgemeinschaft” continuously from 1978 until 2004 (“Sonderforschungsbereich” 45 and 269). He encouraged his collaborators and staff under his supervision to conduct their research in their own ways, allowing them to follow their ideas and inspirations, without losing sight of the central goal of the project.

Rainer Klinke contributed to the scientific community in many additional ways: he served as a reviewer for many important scientific journals in the field as well as on the editorial boards of the journals *Hearing Research* and *Audiology and Neurootology*. He received many honours from scientific and non-scientific institutions. Spreading his great knowledge among young students in lectures, seminars, practical courses, and textbooks was a duty he performed with pleasure. The latest edition of the textbook of physiology he coauthored and coedited was one of his major con-

cerns in his last days. The textbook has been translated into many languages and is read by thousands of students every year.

Rainer is survived by his spouse, Anneliese, his children, Annette and Oliver, and two grandchildren. He will be missed by those of us who knew him well—as a gifted teacher and a dear friend. His “joie de vivre,” irrepressible research-spirit, and concern for those around him will not be forgotten.

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