

Obituary

Annelise Rosenfalck, 1922–2004



Annelise Rosenfalck, who with her background in biomedical engineering was a fundamental and driving force in the development of several aspects of Clinical Neurophysiology, died after a short illness on October 7, 2004 in Copenhagen, at the age of 82 years. Professor Rosenfalck devoted her long and distinguished career to the development of the scientific and technical foundation of clinical neurophysiology and had a unique gift of bridging the basic and clinical aspects of the field. Her career was first based at the Institute of Neurophysiology, University of Copenhagen and in 1978 she was appointed Professor of Biomedical Engineering at Aalborg University, Denmark.

As a result of her achievements in the scientific field and her role in providing a sound basis for standardization of diagnostic methods she was awarded the ‘Honorary Life Membership’ of the International Federation for Medical and Biological Engineering (IFMBE) in Chicago in 2000. Annelise Rosenfalck influenced the scientific development and careers of countless students of medicine and engineering, and was instrumental in the foundation of the Department of Biomedical Engineering, Aalborg University, Denmark.

Annelise Rosenfalck received her degree in electronic engineering from the Danish Technical University in 1947,

and her Master’s project was carried out at the Institute of Neurophysiology, University of Copenhagen. During the next 3 years she worked with DISA Electronics developing electrophysiological equipment, while in her free time she worked with Professor F. Buchthal at the Institute. In 1950–1951 Annelise Rosenfalck studied at MIT, Cambridge and at Yale University, USA, and after her return to Copenhagen in 1951 till 1978 she worked at the Institute of Neurophysiology, first as an assistant and later as Associate Professor, and 1976–1978 as the Director of the Institute.

During these years Annelise Rosenfalck in collaboration with Professor Fritz Buchthal made enormous contributions to the fields of nerve and muscle physiology, and in particular the development of near-nerve electrodes and the reduction of electronic noise for the recording of sensory nerve action potentials in humans. Their combined efforts revolutionized the study of patients with neuropathy. In addition to her scientific work, Annelise Rosenfalck took a deep interest in the teaching and training of the many foreign physicians and scientists who worked both at the Institute and at the Department of Clinical Neurophysiology, National Hospital, Copenhagen, Denmark. She had a unique ability to make electronics and volume conduction accessible to those of us who struggled with these difficult fields. Together with her husband Docent, Dr Sci. Poul Rosenfalck, whom she married in 1955, she made a team of fundamental significance for the development of the Institute, and their book of normal values published in 1975 still forms the basis for most studies at the Department of Clinical Neurophysiology.

In 1978 Annelise Rosenfalck moved to Aalborg, Denmark where she at the new University founded the Biomedical Engineering Department and even after her mandatory retirement in 1992 continued to work with a number of her students in Aalborg. As evidence of her foresight and ability to attract and nurture the development of young and gifted electronic engineers her Department has developed into one of the most dynamic and successful biomedical engineering departments in Denmark and has grown from two faculty positions

and one post doc to 35 faculty positions, 45 PhD students and 20 post docs.

Annelise Rosenfalck had strong sense of civic duty and was involved in several areas of politics and she was chairman of 'Women in Academics' for many years. In addition she was a member of the Danish Research Council, and she played a leading part in European Union biomedical research projects including EMG and Neurophysiological Monitoring in the ICU and had a significant role in standardization of commercial equipment.

Annelise Rosenfalck will be missed by all her colleagues and friends who think of her with great affection and gratitude for her warm personality,

friendship and patience as a teacher and person, and several have contributed thoughts and memories to this obituary. Our thoughts go to her daughter, son-in-law and two grand children of whom she always spoke with affection and pride.

Werner Trojaborg^a, Lars Arendt-Nielsen^b,
Christian Krarup^a

^a*The Department of Clinical Neurophysiology,
Rigshospitalet, 2100 Copenhagen, Denmark*

^b*Department of Health Sciences and Technology,
Center for Sensory-Motor Interaction,
Aalborg University, Denmark
E-mail address: ckrarup@dadlnet.dk*