

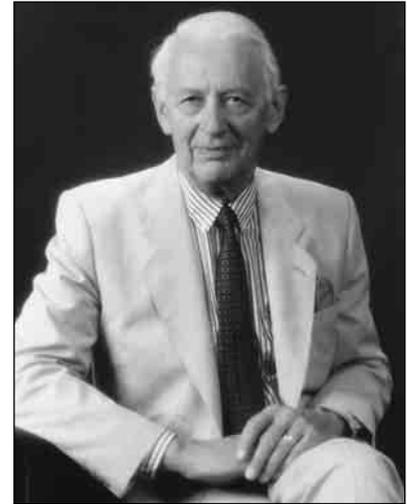
## Lars Friberg, 1920–2006

Professor Emeritus Lars Friberg, passed away on August 12, 2006, at the age of 86 years. A father of modern occupational and environmental medicine, he is best known to the readers of *Twin Research and Human Genetics* as one of the founders of the Swedish Twin Registry (STR). His outstanding research career lasted for more than half a century, starting with his pioneering PhD thesis in 1950 concerning the health effects of chronic cadmium poisoning. Over the years, his research covered a wide range of topics, including health risks of toxic metals, air pollution, noise and smoking. In 1957, Lars Friberg became Professor and head of the Department of Environmental Hygiene at Karolinska Institutet, and in 1980 he also became the Director of the Institute of Environmental Medicine, Karolinska Institutet. He retired in 1988, but continued to be active until recently.

In the late 1950s, Lars Friberg, influenced by his brother-in-law, the late Professor of Psychiatry Lennart Kaj, came to understand the value of studying twins. As Lars was interested in the health consequences of environmental exposures, the discordant twin design was an intuitively appealing approach. At the time, the debate concerning smoking as a risk factor for lung cancer was relatively new. Friberg and colleague Rune Cederlöf saw the discordant smoking twin approach as the best

way to establish whether there was a risk unbiased by confounds.

They started the STR in the late 1950s through a laborious procedure of manually contacting all the parish offices in Sweden to obtain records of all twin births in Sweden between 1886 and 1925. Simply knowing the names of the twins and their parents was not enough. The record tracking procedure was followed from the parish of birth until the twin was either reported as dead or located with an address in 1947, when Swedes received the personal registration number and could be tracked through national records. Friberg and Cederlöf sent out the first questionnaire to the subset of like-sexed twins in 1959–1960; the nearly 12,000 responding pairs constitute the oldest cohort of the STR. Subsequent questionnaires to the cohort included not only information on exposures such as smoking and alcohol consumption, diet, physical activity, and job stress, but also included information concerning cardiovascular disease, respiratory symptoms, asthma and allergy and migraine. They were instrumental in providing the NAS-NRC with the outline of the questionnaire for the WWII Vets registry. When the second cohort of the STR was initiated in 1972, Friberg and Cederlöf had the foresight to include a shortened version of the Eysenck Personality Inventory. Their interests in environmental health also led to inclusion of information on environmental irritants, and occupational exposures.



Lars was an impressive figure, referred to affectionately behind his back as the ‘great white boss’, (given his thick white hair). He was exacting and rigorous, yet socially competent and generous. He was a brilliant speaker, stimulating supervisor for many graduate students, and recognized internationally as a leader of expert committees. The recipient of numerous awards, he was a member of the Nobel assembly at Karolinska Institute.

Although Lars Friberg was most well known for his work on the effects of toxic metals, his legacy in twin research is perhaps even greater today, as the fruits of his foresight are now coming to fruition, and the STR is a vital resource for not only environmental medicine but also behavioral genetics and genetic epidemiology (see Lichtenstein et al., pp. 875, in this special issue). The world of twin research has lost one of its pioneering fathers.