

Lise G. Heding, 1936–2008

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As late as the 1970s invited lecturers at the meetings of the EASD and International Diabetes Federation were mostly male. It was therefore rather exceptional when the speaker presenting new and exciting data was a beautiful young woman with long reddish-blonde hair. I became acquainted

with this leading female scientist in the early 1970s, and this led to a long and close professional collaboration and a personal friendship between our two families.

The Division of Paediatrics at the Department of Clinical and Experimental Medicine of Linköping University became, for some time, the paediatric counterpart to the Novo Research Institute in Copenhagen, at which many advances in diabetes research were made. Within 5 years in the 1970s, Lise G. Heding published three papers related to the determination of islet-derived peptides in the blood, namely, C-peptide, total serum insulin and glucagon [1–3]; she also described a method for the determination of proinsulin [4]. Her research was of major importance for studies on the pathogenesis of juvenile diabetes, later designated as type 1 diabetes, and her methods enabled diabetes researchers to obtain a new picture of the natural course of this disease. Thus, we learned that even children have quite significant residual insulin secretion at diagnosis; therefore, it appeared reasonable to try to preserve this function. Lise took an active part in the initial efforts to intervene in the autoimmune process by using plasmapheresis, and she was also involved in the first experiments to prevent autoimmune diabetes in experimental animals by the use of insulin, after we had discussed these ideas during a car trip together from a meeting of the International Study Group of Diabetes in Children and Adolescents (known nowadays as the International Society of Pediatric and Adolescent Diabetes) in St George (UT, USA) on our way to the American Diabetes Association meeting in Las Vegas (CA, USA) in 1984.

Lise Heding graduated as a chemical engineer from the Technical University of Denmark (Kongens Lyngby, Denmark) in 1960, and between 1960 and 1963 studied for a PhD in microbiology at the same institution. From 1963 to 1964 she was a research fellow at the Department of Molecular Biology of Rutgers State University (NJ, USA), where she studied characterisation of mRNA. Lise gained the degree of Licentiate in Microbiology in 1965, but waited until 1988 to put together some of the most important papers in a thesis entitled *Radioimmunoassays*

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for insulin, C-peptide and proinsulin, to gain a doctorate in medicine (MD) at the University of Copenhagen (Copenhagen, Denmark). Two years later, she was granted an honorary Doctorate in Medicine at Linköping University.

Lise's work was of fundamental significance to the research carried out at the Novo Research Institute, Copenhagen. The Institute enjoyed a very good international reputation, not least due to Lise. She was an excellent supervisor, always positive and encouraging, and beloved by her staff. In 1976, she became Head of the Immunochemical Laboratory at the Institute, and in 1979, Head of the Medical Department. In 1983, Lise was appointed Vice President of Diabetes Research and Development at Novo Industri, and in 1989, Senior Vice President of Diabetes Research at the Diabetes Care Division at Novo Nordisk, a post she held until 1993, when she decided to retire. In the following year she was chosen to deliver the Claude Bernard Lecture at the EASD—the highest ranking award in Europe within the field of diabetes. However, she declined, explaining to Prof. K. G. M. M. Alberti, the then President of the EASD, that as she had left diabetes research she was of the opinion that a person active in the field of diabetes research should deliver the lecture instead.

When *Diabetologia* celebrated its 25th anniversary in 1990 the Editorial published in the journal on this occasion [5] revealed that, remarkably, the same author, Lise Heding, is the first and only name [1–3] on the top three of the list of most cited of the articles published in the journal! Lise was certainly one of the most important scientists in the field of diabetes research in recent decades, in addition to being a much appreciated lecturer and a very good friend. We travelled together to many national and international meetings, and met at conferences.

It was always rewarding to meet up with her at the Novo Research Institute, and very pleasant and enjoyable to visit her and her wonderful family at their home in Vaerløse; I still have fond memories of her sons catching their very first fish in lake Stensjön at our summer cottage in Småland.

Lise lost her first husband, Henrik Heding, MSc, PhD, a senior lecturer at the Technical University of Denmark, in 1977. She remarried in 1992. After her retirement, Lise accompanied her husband, Nils Pagh, to Zimbabwe, where they spent several years, her husband being in charge of a Danida (Danish International Development) project under the auspices of the Danish Ministry of Foreign Affairs.

Lise Heding leaves her husband Nils Pagh, and her two sons, Anders and Peter, from her first marriage, as well as five grandchildren.

Editor's note

On 12 October 1993 the Council of the EASD wrote to inform Lise Heding that she had been awarded the 1994 Claude Bernard lectureship. Lise wrote back declining the honour, pointing out that she had been out of active research for 18 months. 'I do not regard it as fair to the EASD nor to Novo Nordisk,' she said, '—and my happy 29 years with diabetes research—to present a less interesting lecture than at previous occasions.' This response was typical of Lise Heding, who did herself greater honour by declining this award than others—alas—have done by accepting.

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