

BIOGRAPHY

International Society for Animal Genetics

Jan Rendel was born in 1927 in a small town in central Sweden. He graduated in 1952 with a Bachelor of Science in Agronomy from the Royal Agricultural College in Uppsala, Sweden, now known as the Swedish University of Agricultural Sciences. Rendel spent about 1 year at the Department of Genetics in Madison, Wisconsin studying immunogenetics, in general, and cattle and sheep blood groups, in particular. Professor Irwin and his group in Madison had a world-wide reputation in this scientific field and several other young scientists from Europe visited his laboratory at about the same time as Jan, among them M. Braend from Norway, A. Neimann-Sørensen from Denmark and J. Bouw from the Netherlands. Jan received a Masters degree in Genetics during his stay in Madison.

Jan returned to Uppsala and carried out extensive scientific work on cattle and sheep blood groups. He successfully defended his thesis for PhD in 1957 and for Doctor of Science in 1958. The title of his thesis was 'Genetic Studies on Blood Groups in Cattle and Sheep'. During this time, he also established a cattle blood typing service laboratory.

From 1953 to 1963, Jan Rendel held several research positions in Animal Breeding at the Royal Agricultural College in Uppsala. In 1964 he was appointed professor in Animal Breeding at the College, a position which he held until his retirement in 1992. From 1968 to 1982, Jan Rendel was on leave for service with the UN Food and Agriculture Organization (FAO) in Rome. During the final 4 years of this appointment, he served as Chief of Animal Production Service.

Jan has published more than 100 scientific papers in the field of animal breeding and genetics with specialization in immunogenetics and physiological traits. A series of papers published during 1953–54 demonstrated that the R-O blood groups in sheep were controlled by two separate loci showing epistasis. Prior to this, the dogma was 'one gene/one antigen'.

At the 1959 Blood Group Conference in Munich, Jan presented a study on the relationship between cattle blood groups and production traits. He used the so-called grandparent design for this study. A. Neimann-Sørensen independently presented similar results at the same conference. These studies showed that the B locus had a small but highly significant effect on some production traits, particularly on milk fat percentage. One could say that Rendel and Neimann-Sørensen carried out QTL-studies before the term QTL was invented.

In 1963, Rendel together with M. Braend, Professor Gahne and Professor Adalsteinsson, presented results from a study on Icelandic cattle, which have been isolated more than 1000 years with no immigration. In their study the cattle B locus was found to be a useful indicator of the loss of genetic variation under these conditions and also a useful indicator on the relationship between Icelandic cattle and other breeds. There was an obvious relationship with Norwegian landraces, although the populations had been separated for more than 1000 years.

Jan Rendel is the author and coauthor of chapters on animal breeding and genetics in several textbooks. The best known of these books is *Genetics and Animal Breeding* written by Jan and



Professor Jan Rendel Honorary Member (2000)

Professor I. Johansson. This book has appeared in seven languages, including Swedish.

Jan Rendel is an honorary member of the Italian Society of Veterinary Science and of the Polish Academy of Science. He is Doctor Honoris Causa in Animal Science at the Veterinary Faculty at Pisa University, Italy.

The group of young, European scientists who had become friends during their stay in Madison met on an annual basis, with the first meeting in Copenhagen in 1954. The formal foundation of the European Society for Animal Blood Group Research occurred. Jan Rendel was a member of both the Constituting Committee and the Steering Committee during those first years and also served on the Executive Committee in connection with the ISAG Conference held in Helsinki in 1986, for which he was Chairman of the Organizing Committee. It was very much because of his influence that molecular genetics became a major scientific area at that conference.

Professor Jan Rendel is one of the founders of the Society which developed into our present International Society for Animal Genetics. He is also one of the pioneers within the study of immunogenetics which is one of the main scientific fields to which this Society is devoted. In appreciation of these efforts, the International Society for Animal Genetics designates Dr Jan Rendel as an Honorary Member.

Submitted by Dr Kaj Sandberg