Ivar Asbjørn Følling


Ivar Asbjørn Følling was the son of Iver F. Følling (1852-1925), a farmer, and Mathilde Kaldahl (1848-1926). Asbjørn Følling attended Trondhjem Katedralskole and subsequently studied chemistry at Norges Tekniske Høyskole (Norway's only polytechnical university) in Trondheim, graduating in 1916. He received a position at the physiological institute at the University of Kristiania (Oslo), and started the study of medicine besides his work. He graduated in medicine from the University of Kristiania in 1922. The following years he held several positions as an assistant, and travelled extensively. He undertook postgraduate studies in Denmark and England, and in 1927 he received a Rockefeller scholarship which he used for further studies in America. He also worked for five months in the physiological laboratory in Vienna. He received his medical doctorate in 1929.

In 1930 Asbjørn Følling married Guri Opsahl, a Red Cross Nurse. They got two children, Ragna, born 1931 and Ivar Asbjørn, born 1938. Ivar Følling is a clinical endocrinologist at the University of Trondheim Hospital, Norway.

On November 11, 1932 Følling was appointed professor of nutritient research at the University of Oslo, and from 1935 was professor of physiology at Norges Veterinaerhøyskole. From 1953 he was professor of biochemistry and head physician at the central laboratory at the Rikshospitalet (the national research hospital) in Oslo. He retired in 1958.

Følling is particularly remembered for his demonstration of a recessively inheritable form of mental retardation, now known as Følling's disease. For this discovery he received Jahreprisen (named for the Norwegian shipowner and whaler Anders Jahre) in 1960 and in 1962 the Joseph P. Kennedy International Award in Mental Retardation, founded by President John F. Kennedy in memory of the his elder brother who was killed during World War II, and one of his sister who has spent most of her life institutionalised. Følling, the first winner of the prize, received it from President John F. Kennedy. In 1958 he was made a Knight of the Order of St. Olav.

Følling is by many considered the most important medical scientist not to receive the Nobel Prize for Physiology or medicine.
Among the many who encouraged Følling, after he had won the Jahre prize, was Pearl Sydenstricker Buck, herself the mother of a retarded “Følling-child”.

Følling himself never sought money or honour. In medical history he marks a watershed because he elucidated and documented that psychiatric diseases can have an entirely chemical cause. He disproved the saying of the American physician and author Lewis Thomas, “the reason why so little medical history is taught is very simple: it is so embarrassing.”

**Følling's disease**

In January, 1934, a young mother, Borgny Egeland, visited Følling at the Rikshospitalet in Oslo. Her two children, the daughter Liv and the son Dag, both normal at birth, were in the process of becoming mentally retarded. None of the parents were carriers of a disease that might explain the tragedy, and they had exploited every available expertise, but to no avail.

When the son, Dag, was about one year old and already strongly affected by the disease, the mother noticed a strong smell of urine from the children's room. She had heard of Asbjørn Følling who had become professor of nutrient diseases, and would not let leave anything untried.

The timing was perfect. The young mother came to a young scientist at the beginning of his career and with a unique competence, being both a chemist and a physician.

Følling asked for urine samples and started working, a process in which the chemist eventually took over for the doctor. After numerous tests Følling established that the substance causing the green and odorous urine was phenylpyruvic acid. This substance was well known in biochemistry, but no one had previously seen it in the urine from a human.

Følling eventually discovered that the body of these people lack the ability to break down the amino acid fenylanananin in the blood. Phenylalanine is one of the 20 amino acid building blocks used by the body to construct proteins, including the proteins that act as catalysts – the enzymes. Later the same substance was found in a large number of patients in an institution for the mentally retarded, Emma Hjorths Hjem. The term “Følling's disease” was born and Følling himself became world famous. However, it took another 15-20 years to find the diet necessary for the child to develop normally.

Such an association between a defect in the metabolic process of the body and the developmental retardation was previously unknown.

Correctly treated with a strict modern diet, children born with Følling's disease develop normally. The diet must continue for as long as the patient lives.

It is a very rare disease, with a frequency of about one in 12,000 newborns. Liv Egeland’s son, Dag, died at the age of 6, while his sister Liv, who never learned to speak, but was physically strong and healthy, died in an institution at the age of 51.

A blood test done on the newborn child now safely demonstrates the presence of the disease. In many countries it is mandatory to make this test, which has saved thousands of children from becoming mentally retarded.
Riferimenti

http://www.whonamedit.com/doctor.cfm/2400.html

storia, ricerca