

PIONEERS IN RHEUMATOLOGY

Tadeus Reichstein

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Tadeus (Tadeusz) Reichstein was born on 20th July 1897 in Wloclawek, Poland. He was named after Tadeus Kosciuszko who was the chief commander of Polish uprising (called Kosciuszko Insurrection) of 18th century.¹ His father was an engineer at Kiev, where Reichstein spent his early childhood. As a child Reichstein had shown interest in alchemy when he had spent some time with his aunt's husband who owned a pharmacy. On his return from aunt's place, he

tried to transform iron into gold. He had converted his bedroom into a laboratory.³ He started schooling at Jena, but when his family moved to Zurich (to escape oppression of the Jews), he joined Oberrealschule (technical school of junior college grade) and then Eidgenössische Technische Hochschule (ETH) (state technical college)². After completing schooling in 1916 Reichstein obtained diploma in chemistry at ETH in 1920. He completed doctorate in 1922, under the guidance of Prof. Staudinger. From 1922-1931 he researched on the composition of flavouring substances present in roasted coffee, initially under Prof. Staudinger and later with financial help from an industrial firm. He published many papers describing these substances, methods of their demonstration, and methods of making them.²

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Reichstein was a lecturer at ETH from 1929 to 1931. In 1934 he was appointed Titular Professor, followed by appointments of Associate Professor in 1937, Professor in Pharmaceutical Chemistry in 1938, and Director of the Pharmaceutical Institute University of Basel in 1938. Additionally he held the Chair of Organic Chemistry from 1946 to 1950. In 1960 Reichstein was appointed Director of the (new) Institute of Organic Chemistry. (In the years 1948-52 Reichstein had supervised the building and equipment of the institute). After retirement Reichstein studied cardenolides, and ferns (his life-long passion) and published many papers on ferns.³

Contributions to Medicine and Rheumatology

- Reichstein had great interest in vitamins because of their medicinal value. In 1933 he synthesized Vit. C in his laboratory and developed a process for its mass production, thus drastically reducing its cost. The process is known by his name³. He has been described as an Alchemist of vitamins
- Isolated adrenosterone from bovine adrenal glands in 1936.¹
- Synthesized from cholesterol and bile salts, deoxicorticosterone and in 1937, developed method for its production. In 1938, isolated deoxicorticosterone from adrenal gland.¹
- Reichstein extracted in all 29 adrenal cortex substances possessing hormonal activity.¹
- Improved the efficacy in cortisone production for commercial purposes.¹

- Discovered aldosterone in 1953 and explained its constitution.¹

Reichstein was a tireless worker, full of passion all through his life. He radiated joy. An eternal optimist, he maintained equanimity even in difficult conditions. He was a true researcher, a teacher and a writer. Modest by nature, he had a network of scientific collaboration. He combined daring thinking with attention to details.³ The spectrum of his research from coffee, to vitamins, to hormones, and ultimately ferns is remarkable.

Honours

For his work on adrenal cortex he was a co-recipient of 1950 Nobel Prize in Physiology or Medicine along with Hench and Kendall. He received Honorary

Doctorate of Sorbonne, Paris (1947) and was elected foreign member of the Royal Society, London.²

Reichstein died on 1 August 1996 at the age of 99 years at Basel, Switzerland.

References

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