Daniel Bovet

Introductory article

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(1907–1992) Swiss-born Italian physiologist and pharmacologist who discovered the antihistamine drugs.

Daniel Bovet was born in Neuchatel, Switzerland, and died in Rome. He studied natural science at the University of Geneva, where he gained the degree DSc in 1929 with a thesis on zoology and comparative anatomy. At the same university he qualified as a professor in pharmaceutical chemistry in 1949. In 1940 he became director of the therapeutic chemistry laboratory at the Pasteur Institute in Paris.

It was the Pasteur Institute, that Bovet made two fundamental discoveries in chemotherapy. In 1935, Bovet, Federico Nitti and Jacques and Thérèse Trefouel proved that the antimicrobial action of Prontosil (Sulfamidochrysoidine), could be obtained by using only the sulfamide part of it. Then, in 1937, Bovet and Albert Staub described for the first time the antihistamine action of thymoxidiethylamine, a substance that had been synthesized in 1910. Thymoxidiethylamine was too toxic to be used clinically, but virtually every antihistamine that is used today in counteracting allergic reactions is derived from it. For this discovery Bovet was awarded the Nobel Prize for Physiology or Medicine in 1957.

In 1947 Bovet left Paris to go to Rome, accepting the invitation of the Istituto Superiore di Sanità (Superior Institute of Health) to organize a laboratory of therapeutic chemistry. Here Bovet took up Italian citizenship in 1948 and married Filomena Nitti, sister of Federico, the bacteriologist, with whom he had a long and close collaboration.

In 1964 he became Professor of Pharmacology at the University of Sassari, in Sardinia. Continuing his studies on antihistamine he discovered their hypnotic effects. This led Bovet towards neuropharmacological research. In this field Bovet carried out important researches on the pharmacology of the sympathetic nervous system, on curare and curare-like drugs and the use of curare as an adjuvant to anaesthesia (we owe to Bovet's research the general muscle relaxants in use today), on various drugs used in the treatment of Parkinsonism, and on strychnine and tranquillizers. In 1969 he founded the Laboratory of Psychobiology and Psychopharmacology of the Consiglio Nazionale delle Ricerche (National Research Council) in Rome. He directed this organization until 1976. From 1971 to 1982, when he retired, Bovet held the chair in psychobiology at the University of Rome.

Further Reading

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