

Richard Henri **MARTIN**

Born: May 4, 1914 (Geneva)

Died: July 8, 1995 (Ukkel)

### **Biography**

Martin enrolls at the University of Geneva in 1933 and graduates as a chemical engineer in 1938. The next years he works mainly in Great Britain. Doing his first research at the Royal Cancer Institute of London (Professor J.W. Cook) he moves on to Oxford in 1941 where he studies at the Dyson Perrins Laboratory with the future Nobel Prize winner for chemistry of 1947, Sir Robert Robinson. He obtains his doctorate in 1944 at the University of Oxford with a dissertation on the "*Synthesis of polycyclic acids related to steroid hormones*".

Starting his continental career in Geneva in 1946 at the laboratory of organic and pharmaceutical chemistry, he is appointed lecturer and in charge of the department of organic chemistry at the ULB succeeding Henri François Hubert Wuyts.

In 1950 he marries Madeleine Hauptert.

R.H. Martin is a contemporary of Jean Timmermans. In 1950 he is appointed associate professor of organic chemistry and the following year he becomes professor of a.o. organic chemistry and laboratory experiments.

From 1967 till 1970 he is the vice-dean of the faculty of Sciences and from 1971 till 1975 he functions as commissioner general (ombudsman) of the ULB.

In 1995 he becomes a corresponding member of the Académie Royale des Sciences, Lettres et des Beaux-arts de Belgique. He is also vice-chairman of the Société Chimique de Belgique and member of the Chemical Society (London) and the American Chemical Society.

He is co-editor of the following journals: *Tetrahedron*, *Tetrahedron Letters*, *Revue Européenne du Cancer* and *Synthetic Communications*.

He is also awarded the Chevreul Medal (1965) and the Jaubert Prize of the University of Genève (1973), followed by becoming doctor honoris causa of this university (1976).

### **Scientific Achievements**

At the Royal Cancer Institute, Martin studies the polycyclic aromatic hydrocarbons and their carcinogenic characteristics and does further research on chemically induced cancers and chemotherapy.

At Dyson Perrins he analyses the structure of sex hormones, an interdisciplinary study of chemistry and biology.

His main topic of interest concerns organic syntheses.

From the moment NMR equipment becomes available he acquires a spectrometer and together with his assistant Nicole Defay (1923-1986) they launch into the spectral analysis of aromatic compounds and lectures at international conferences. In 1967 he wins world fame by discovering a synthesis of helicenes. Whilst his assistant Daisy Bogaert-Verhoogen (1900-1984) focuses on the thermal synthesis, Martin applies a photochemical method. He obtains better results by exposing a mixture of diarylethenes, air and iodine to light. Helicenes consist of coupled benzene rings three-dimensionally linked to make up a helix (a spiral staircase).

### **University Lectures**

He is the first professor to organize his lectures of organic chemistry on the basis of the study of the reaction mechanisms instead of dry enumeration of the properties of the compounds. He prefers to appeal to general principles of the organic groups to understand and anticipate their behaviour instead of memorizing the properties.