

Hugo de Vries, For. Mem. R.S.

HUGO DE VRIES, who died on May 21, 1935, at the age of eighty-seven, was one of the founders of the modern science of genetics. From his earliest youth he was an enthusiastic botanist, and he broke away from family tradition in order to study natural science at the University of Leiden. After receiving his doctorate in 1870 he went to Germany, where he studied first under Hofmeister and later under Sachs. The next few years were divided between Holland and Germany, but in 1878 he was appointed to the staff of the University of Amsterdam where he remained as Professor of Botany until his retiral in 1918.

Whilst still a student at Leiden, de Vries was profoundly influenced by reading Darwin's *Origin of Species*, and during the whole of his subsequent career he took a keen interest in the problems of evolution. Viewed superficially, his work can be divided into two distinct phases: first, researches in experimental physiology; and secondly, the investigation of evolutionary problems. De Vries himself, however, explained that one fundamental idea underlay all his work, namely, the desire to carry Darwin's work a stage further and to learn more about the causes of the vital phenomena.

The classic researches on osmosis and plasmolysis which he carried out during the period 1870-85 won him a great reputation as a plant physiologist, but it is primarily as a pioneer in the experimental study of evolution that his name will go down to posterity. His theory of intracellular pangensis, published in 1889, was an important addition to the existing knowledge of the mechanism of heredity, and all the subsequent work in this field has only served to demonstrate the essential accuracy of de Vries' conclusions. But probably his most famous contribution to science was *The Mutation Theory*, published in 1901-3, which was based on his exhaustive studies of the Evening Primrose, *Oenothera Lamarckiana*. In addition to these outstanding researches, de Vries published a vast amount of other valuable work. His collected scientific papers, republished in book form during the years 1918-27, fill seven volumes, with a total of more than 4300 pages.

After his retiral in 1918 de Vries lived in the little village of Lunteren, where he had a private experimental garden and a laboratory attached to his house. For the remaining seventeen years of his life he devoted

his time to the further study of *Œnothera*. He possessed a boundless enthusiasm for science and a tireless energy that enabled him, in spite of his failing strength, to continue his work until a day or two before his death.

He received many distinctions from universities and scientific societies both in Holland and in other countries, and was elected an Honorary Fellow of this Society in 1910. (See also *Obituary Notices of Fellows of the Royal Society*, No. 4, 1935, p. 371; and "Aus dem Leben und Wirken von Hugo de Vries," by T. Stomps in *Tübing. naturw. Abh.*, pt. 12, 1928, pp. 7–16.)

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