Dorothy Crowfoot Hodgkin, Nobel Prize Winner (1964)
Her work in Protein Crystollagrophy led to advances in drug development

Dorthy Crowfoot Hodgkin

Biochemist

Dorothy Crowfoot Hodgkin's life as a researcher began when she received a chemistry book containing experiments with crystals as a child. After studying at Oxford University and despite graduating with good grades, as a woman, she had difficulty finding work. Finally, J.D. Bernal of Cambridge University, a pioneer of modern molecular biology, gave her a chance. After receiving her PhD from Cambridge University, Dorothy Crowfoot Hodgkin returned to Oxford University in 1934 where she remained for the rest of her career, achieving a host of brilliant discoveries in the field of molecular biology.

When X-rays pass through a crystalline structure, the patterns formed can be captured as photographic images, which are then used to determine the crystal's structure. During the 1930s, this method was used to map increasingly large and complex molecules. A mass of X-ray diffraction images, extensive calculations, and astute analysis helped Dorothy Crowfoot Hodgkin to successfully determine the structure of penicillin in 1946 and, in 1956, also the structure of vitamin B12, which has the most complex structure of all vitamins.