

Rosalind Franklin

(1920 - 1958)

The Dark Lady of DNA

Rosalind Franklin studied physical chemistry at Cambridge University, earning her Ph.D. in 1945. She moved to Paris in 1947, where she worked at the Laboratoire Central des Services Chimiques de l'Etat, learning X-ray diffraction techniques.

When she was offered a three-year research scholarship at Kings College in 1951, she returned to England. X-ray crystallography was being studied at King's College by Maurice Wilkins, and Franklin arrived while he was away. When Wilkins returned, he assumed she had been hired as his assistant.

Working with student Raymond Gosling, Franklin was able to produce two sets of high-resolution photographs of crystallised DNA fibres. One of her photographs provided key insights into DNA structure, and she was able to deduce the basic dimensions of the DNA strands, with the phosphates on the outside of what was likely a helical configuration.

She presented her findings at a lecture in King's College in front of James Watson. Watson, along with Francis Crick, had been working on DNA structure at the Cavendish Laboratory. Wilkins showed Franklin's X-ray data to Watson and Crick, providing critical evidence for the 3D structure of DNA.

Franklin left Cambridge in 1953 and began working at the Birkbeck lab. She died in 1958 of ovarian cancer, perhaps brought on by her work with X-rays. She was 37. Four years later the Nobel Prize in Physiology or Medicine was awarded to James Watson, Francis Crick, and Maurice Wilkins for solving the structure of DNA.



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