
Woman of science

Rosalind Franklin

Adolescence

Rosalind Franklin was born in July 25th 1920 in London. She studied in several prestigious schools including a stay in France with a program which included, sport and sewing, a debate room and, over all.

She went back home and passed the admission exam for the Newnham College, in Cambridge, to study experimental sciences and, specifically, chemistry. Her father did not accept Rosalind's decision and took away her assignment, but one of her aunts, her father's sister, paid the costs and allowed her to study in the center she had chosen. It wasn't long until her father accepted his daughter's decision and paid the costs once again.

In 1941, she graduated in physics and chemistry and, immediately, she obtained a scholarship to begin her doctoral thesis, but a year after, in 1942 and the middle of the Second World War, she went to the Association for the Use of Coal and with her investigations she helped to the development of war. She did an important job in her studies about coal which led her, once the war was over in 1946, to defend her doctoral thesis.

It was a French scientific refugee in England during the war, Adrienne Weill, the one who orientated her postdoctoral job and, in 1947, encouraged her to go to France, to the Central Laboratory of Chemical Services of the State, in Paris. It was a very active investigation group, open to women, unlike in England.

Difficulties because of being a women

She was direct and passionate, she loved the debate, she was serious and, sometimes, harsh and abrasive. She was determined not to highlight her feminine attributes, although she had energetic traits, she wasn't unattractive, and could have been deeply pretty if she had showered the least interest in dressing appropriately. But she didn't. She never wore lipstick and, at 31 years old, all of her dresses showed the imagination typical of an English nerd.

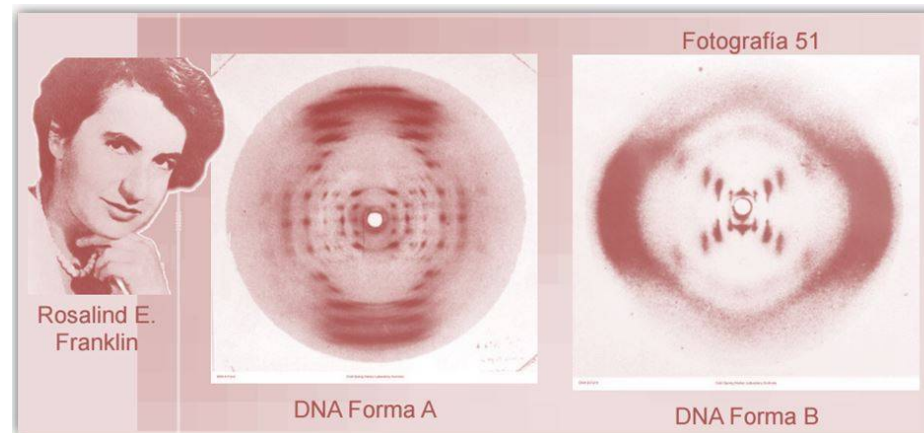


Discoveries

In Paris she became an expert in the x-ray diffraction technique. After this, she used her knowledge to take a photograph of the DNA molecule. Besides, she loved Paris and bistros, country food, cooking, mountains, skiing and camping. She made lifelong friends and in 1951, she returned to England, and she got a place at King's College London. There, John Randall, the director of her department, suggested she to study the structure of DNA.

But King's College was, within the chauvinistic panorama of English science, the center that seemed in charge of keeping the essences. The women of King's College staff were treated with respect but they knew, without a doubt, that they would never achieve the status of men. It was the center where the "triviality", according to Crick, of not letting women into the staff room, was maintained.

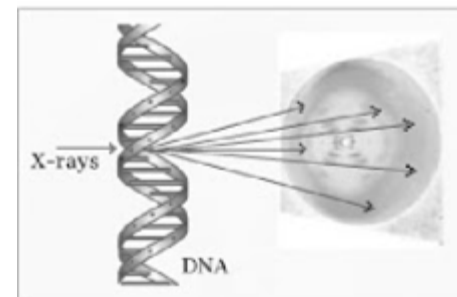
Her work was essential for the discovery of molecular DNA, RNA, coal, virus and graphite structures.



DNA Molecule

In November 1951 she gave a talk exposing her results to her colleagues at King's College. Among the audience were Watson and Crick, also interested in the structure of DNA, and who worked at the Cavendish Laboratory in Cambridge, about 90 kilometers north of London. It was Maurice Wilkins, a companion of Rosalind Franklin at King's College, and also a student of the structure of DNA and a good friend of Watson and Crick, who had invited them. At that seminar, Watson and Crick began to learn about Rosalind Franklin's work and to use her data.

In February 1953, they saw three images and, among them, the famous number of photographs 51. By then, Watson and Crick had not achieved anything positive for more than a year. As far as is known, Rosalind Franklin never knew that Watson had seen the photograph.



Last years

Rosalind Franklin's death certificate says: a single, scientific/investigator, daughter of Ellis Arthur Franklin. It is used as a definition of her and as a memory. She died in 1958 with 37 years old.

<https://youtu.be/BIP0IYrdirl>

