
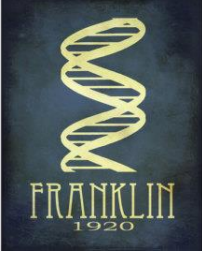
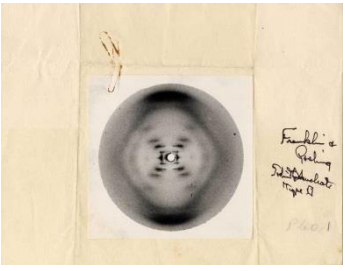


Thème 1 - La Terre dans l'Univers, la vie, l'évolution du vivant

1-A – Le brassage génétique et sa contribution à la diversité génétique.

Explain in what this researcher advanced the scientific knowledge about DNA.

Rosalind Franklin: A Crucial Contribution

		
<p>Rosalind Franklin</p>	<p>© 2013 Nature Education A Collaborative Learning Space for Science.</p>	<p>Picture of the famous Franklin X-ray . Photo 51</p>

Rosalind Franklin made a crucial contribution to the discovery of the double helix structure of DNA, but some would say she got a raw deal. [...]

In 1946, Franklin moved to Paris where she perfected her skills in X-ray crystallography, which would become her life's work [...] Friends and close colleagues considered Franklin a brilliant scientist and a kind-hearted woman. However, she could also be short-tempered and stubborn, and some fellow scientists found working with her to be a challenge. Among them was Maurice Wilkins, the man she was to work with at King's College.

An unhappy time. A misunderstanding resulted in immediate friction between Wilkins and Franklin, and their clashing personalities served to deepen the divide. The two were to work together on finding the structure of DNA, but their conflicts led to them working in relative isolation. While this suited Franklin, Wilkins went looking for company at "the Cavendish" laboratory in Cambridge where his friend Francis Crick was working with James Watson on building a model of the DNA molecule.

Unknown to Franklin, Watson and Crick saw some of her unpublished data, including the beautiful "photo 51," shown to Watson by Wilkins. This X-ray diffraction picture of a DNA molecule was Watson's inspiration (the pattern was clearly a helix). Using Franklin's photograph and their own data, Watson and Crick created their famous DNA model. Franklin's contribution was not acknowledged, but after her death Crick said that her contribution had been critical.