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Section: Monday 2-3pm

Rosalind Franklin's Perspective on "The Double Helix": A Fictional Recount

Looking back on the years preceding the discovery of DNA's molecular structure, I can't help but allow a pained smile cross my face. For me, those were years of constant confrontation necessitated by my fight to prove women's worth in the scientific field. I was surrounded by men, most of whom didn't like the sight of a woman, much less a feminist, taking up the valuable research space that could have been filled by a smarter, quieter male. While I now laugh at the tense relationships developed with Francis Crick, James Watson, Maurice Wilkins and the others, I remain no less concerned about the status of women in the scientific community. Unfortunately, I have been diagnosed with cancer, and my days on this earth are numbered. Therefore, I will use this letter to leave on this earth my memories of one of the greatest scientific discoveries since the Darwinian age, one that I had the fortune to be apart of.

My main contribution to the discovery of DNA's structure was through X-ray photos of DNA itself. While Wilkins and his boss Randall were trying to get me ousted from my position at King's College, I was using water concentration to develop two different pictures of DNA, which I labeled A-DNA and B-DNA. Watson and Crick used the photographs, before being publicized and without my permission, to solidify their theory on DNA structure. Based on my photographs, I postulated that the sugar-phosphate backbone was situated on the outside of the DNA molecule, a theory that I asserted during many debates with Watkins and the others.

I also originally argued against the possibility of DNA having a helical structure. Up until the convergence of the Watson and Crick structural model with my latest X-ray photographs there was no legitimate evidence for the helical structure of DNA. One day, Watson burst into my lab while I was working and began ranting about Pauling's newest three-chain-helix theory as proof for DNA's general helical structure. After showing him my newest X-ray photographs that disproved Pauling's theory, Watson attacked my basic knowledge of X-ray interpretation. Not one to be insulted or belittled, I forcibly ordered him to leave. As the only women with a major role in the discovery process, I felt obligated to hold my ground like any of the other male scientists would. Therefore, many encounters, with Watson, Wilkins, or anyone else, ended in this way.

Eventually I decided that I no longer wanted to continue working with DNA, and arranged to transfer to Bernal's lab at Birkbeck College. However, my last few weeks at King's College still stand as the epitome of my scientific career. My latest pictures of DNA immersed in large quantities of water began showing irrefutable evidence of a helical structure. While my other photographs of DNA surrounded by less or no water prevented the argument from solidifying, these new pictures, despite my skepticism, left no other possibility. However, this breakthrough was only the beginning. When Watson brought his new structural model and compared it with my photographs, we realized we had the makings for the solution to the structure of life itself. And for the first time in months, we both left the room smiling.

With discovery of the structure of DNA documented and published, the men with whom I worked with became less misogynistic and regarded me as more of an equal. I became good friends with Francis Crick, and remained in touch with Watson long after we stopped working together. Although we continued to debate the relevance and implication of new biological findings, no longer were we burdened by the stress of the

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race for discovery. In addition, Watson and Crick eventually acknowledged the difficulty that women face in establishing themselves in the scientific community, and understood the need for my past aggressiveness.