Emmanuel Pyle CRN: 21774 Professor Rinehart-Kim Assignment 4

The film of "The race for the double helix" is definitely interesting, and it shows the life and experiments of a research team of scientists that help to come up with knowledge that is the foundation for biology and genetics today. The movie takes place during 1953, which is not that long ago; before then the knowledge was not known about DNA, and how it is structured, and what keeps it together. In the movie, Rosalind Franklin did extensive research and was like the backbone to the research group, along with Raymond who seemed to just watch; Not only did the film describe the experimental process but it also showed how underling problems like unequal women credibility was very prevalent during the time. Rosalind seemed to have known so much and had found so much of the data even before the other colleagues had found out; They would sneak and peak at her records before she showcased them and they ended up putting together the information she recorded about the double helix structure to form their hypothesis using a physical model. The unfairness of the work environment played well with Rosalind's archetype as she definitely proved herself to all of the men that she was super smart and hardworking. James Watson and his colleague were very determined to put together the information and find the secret of DNA. However, all of the researchers seemed to contribute someway in order to make this discovery possible. They all were striving for a Nobel prize, but they also had a great passion for their work and knowledge. In the movie, Francis Crick demonstrated DNA was antiparallel by showing how the hydrogen bonds and forces pulled the DNA strands away from each other or sometimes closer together going down the helix with the model they used. Francis Crick also made some drawings showing how the base pairs come together and he came up with the concept about the 5-prime end and 3-prime end; The photos Rosalind took along with the images of how DNA refracts lights also helped his theory. Something I knew and that was familiar prior to looking at this film was about the double helix regarding the structure and how the two stands had complementary base pairs, and how they join from different ends, like the 5-prime end and 3-prime end starting from the top. I also knew that it had complementary base pairs and that phosphate would be on the outside. One thing that I was not all the way sure about before I watched the movie was which amino acid is a purine or pyrimidines until one of the scientist kept on repeating the group that they belonged in because one of the researchers had gotten it wrong. Overall this was a great movie and it showcased the work ethic of scientist in order to discover such important information.