

Synopsis

When esteemed biologist Rosalind Franklin took Photograph 51 in 1951, it changed the course of the discovery of DNA forever. Statistics shows the side-by-side stories of two female scientists, separated by half a century, embroiled in their own races against the clock. Each heroine's story plays out on one side of the stage. In the 1950s, Rosalind Franklin works at King's College London to discover the structure of DNA and trains PhD student Raymond Gosling while struggling against misogyny. In the 2010s, Rose, the picture-perfect overachieving premedical student on the surface, struggles with her admissions essay discussing how she is inspired by Rosalind Franklin. The show opens with Rosalind working through her experiments while Rose writes the dreaded 7-hour long Medical College Admissions Test (MCAT) 'Stuck' Rosalind shuts down Wilkins' requests to build a model based on pre-emptive hypotheses about the structure of DNA stating that she prefers to stick to clear, methodical crystallography work. In the aftermath of the test, Rose explains to her best friend Angie that every student needs to beat the sobering statistics – 95% of medical school applicants do not receive admission. The two reminisce about enjoying their time in their science undergraduate program despite the stress and pressure 'Lifesci Culture' while Rosalind marvels at how she truly loves research. Rose turns back to struggling with her admissions essay and Angie asks her to distill what inspires her about Rosalind Franklin. A flashback of Rosalind's life plays out on the other stage, showcasing how she persevered against sexism and made it to where she is today 'Twice Over' The song ends with showing the current state of affairs in the 1950s, where Watson, Crick, Wilkins, and Rosalind are in a race to discover the structure of DNA 'Two Steps' Adamant about sticking to her methodology despite attempts to convince from her colleagues, Rosalind Franklin takes 'photograph 51', or an x-ray crystallography photograph of the structure of DNA displaying a clear x-shape and proving that the shape is a helix. 'Stuck Reprise' After an argument with Watson where he once again undermines her, Wilkins shows Watson and Crick the photograph without Rosalind's knowledge, allowing them to successfully deduce the structure of DNA and publish the alpha helix paper without crediting Rosalind 'Two Steps Reprise' Rose's stress mounts as she continues to experience writer's block and neglects to attend an important event Angie is organizing, and the two fight as Angie challenges Rose's toxic worldview and overly competitive nature. Rosalind has now taken on a new job six years later and is battling ovarian cancer. As Rosalind reflects on her life close to her death, Rose realizes that her idol continued working even after losing out on the double helix – simply because she loved research. 'What'll Be' As Rosalind passes away, Rose finally writes her admission essay outlining the importance of passion and loving what you do. She receives an invite to interview for medical school and Rosalind's spirit congratulates her 'What'll Be Reprise'