

Alice Ball

Discovered the most effective treatment for leprosy until the 1940s

ABOUT

Alice Ball was born in Seattle in 1891. From a young age, she was intrigued by chemistry. She would see her father complete several chemical processes as he was one of the first black daguerreotypists, a person who would develop a photograph by exposing it to mercury vapour. She graduated with two bachelor degrees in pharmaceutical chemistry and science of pharmacy from the University of Washington. In 1914, she published an article, "Benzoylations in Ether Solution", alongside her pharmacy instructor in the *Journal of the American Chemical Society*. As a black woman being a co-author on a paper was an incredible achievement.

Alice Ball was the first African American woman to receive a masters from the University of Hawaii and was also the university's first female and African American chemistry professor. During her masters, Alice focused on researching the chemical properties of chaulmoogra oil. Her research led her to develop the 'Ball Method', which was the best treatment for leprosy until the 1940s. She was able to isolate the ethyl esters from chaulmoogra oil and modifying them to create a water-soluble injection, meaning that it could be easily absorbed from the bloodstream.

Alice Ball passed away at the age of 24, before she could publish her treatment for leprosy. The President of the College of Hawaii, Arthur Dean, continued her research and published it without giving any credit to Alice Ball. He also renamed the method the 'Dean Method'. However Harry Hollmann, who Alice Ball worked with, and was also an assistant surgeon in the hospital where leprosy patients were treated, published a paper giving Alice Ball the credit she deserved for her revolutionary discovery.



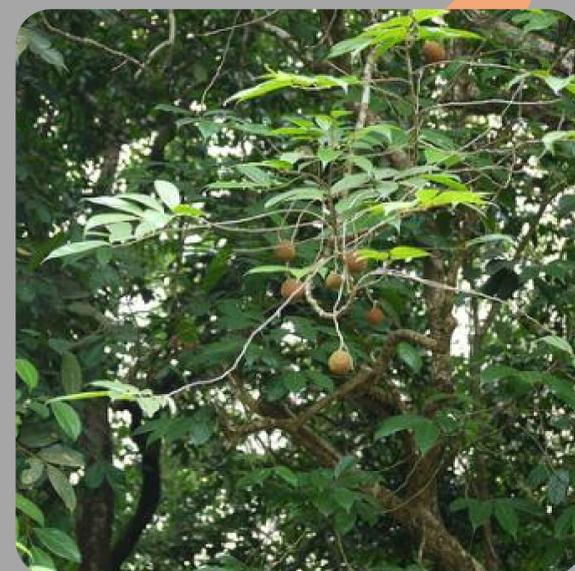
Picture credit: New Scientist

Did you know?

In 1915, Alice Ball was co-author to a paper published in the *Journal of the American Chemical Society*. This was a fantastic achievement for an African American woman.

In Hawaii, February 29th is celebrated every four years as 'Alice Ball Day' to highlight her achievements and to honour the fact that she saved the lives of thousands of patients.

On November 6, 2020, a satellite, "Alice", named after Alice Ball, was launched into space by NASA.



The *Hydnocarpus wightianus* tree from which chaulmoogra oil is extracted.