

Eureka Moments!

Reliving the experience of critical moments of discovery in medical science that have changed the way we live

Marie Curie - Story Outline

In 1898 Marie Curie was just starting work in Paris on the research for her doctorate. She had decided to try and find out what sort of radiation was coming from uranium that made photographic plates go cloudy even when they still wrapped up. At that time nobody understood how it happened.

Because she was only a student the university did not give her much money or much help for her work. Only her husband, who was a professor at the university, gave her any help. This meant that she eventually had to spend 4 years preparing the materials for her experiments.

A whole truck load of pitchblende had to be mixed up and then purified with chemicals to make just a few crystals. Sometimes she had to mix and stir the pitchblende all day until she was exhausted. On other days she had to carry out a complex chemical purification of the crystals.

It was all very hard work. She did not know it at the time, but the radiation was burning her hands and they must have been very painful. Marie Curie was often very tired and the shed that she had to work in was very cold in winter, but she kept going.

Then one evening in 1902 she went back to the shed with her husband to check something. When she opened the door it was dark inside and she saw a faint blue glow coming from some of the crystals that she had made. She would have been very excited when she first saw the light because it meant that her research was working— all the tiredness and pain had been worthwhile.

Later on when she had purified more crystals she and her husband used to go back to the shed in the evening just to see all the bottles and test tubes glow with the blue light.

Marie Curie's research was very important and she was given the Nobel Prize in 1903. She was the first person to find the elements Polonium and Radium, and she was the first person to describe elements that spontaneously produced radiation as being 'radio-active'.

Later on in the First World War Marie Curie used her radium to make mobile X-ray units so that wounded soldiers could be treated quickly. For the rest of her life she investigated and promoted the use of radium as a treatment for cancer. Marie Curie died in 1934 after years of overwork and radiation exposure, but with a lasting reputation.