



## The Serendipity of Science: Saving Lives

*Alexander Fleming and Accidental Mould Juice*

### **Narrator:**

Having been brought up on a farm in Scotland, scientist Alexander Fleming wasn't afraid of getting his hands dirty, examining nasty bacteria like *Staphylococcus aureus* – which in humans as well as horses, can cause death as well as vomiting and boils.

One day, in 1928, Fleming came back from his holiday he found some cultures of the *Staphylococcus aureus* bacteria, which he'd meant to throw away, had died.

But, instead of throwing them away, he stopped to think what might have caused some of his sample to die and the rest to live.

After a lot of time and effort in his lab, Fleming worked out that some of his sample had been contaminated by a particular fungus – which he then managed to grow himself.

As an ex-soldier in World War I, he'd seen hundreds of soldiers die due to bacterial infection, and he figured that, if the fungus could kill bacteria on his bench, it might also kill bacteria in wounded soldiers.

And he was right.

Having renamed his mould juice Penicillin it was ready for public consumption in time for the next war, on D-Day.

Penicillin has saved the lives of millions of people, and horses, but - due to overuse – some bacteria is becoming resistant and *Methicillin-resistant Staphylococcus Aureus* is now widespread among humans – known by its more popular name: MRSA.