

## Fighting Disease Key People



### Paul Erlich 1854-1915

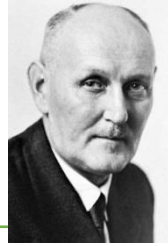
**Key Discovery:** Created the Chemical Magic Bullet Salvarson 606

**Before:** Treatments for disease had been fairly dire. Mercury was used to treat Syphilis but could lead to poisoning including teeth and hair loss and even death.

**After:** Salvarson quickly became a very popular treatment and was used widely. The idea of a Magic Bullet to cure illness was used by Domagk and Florey and Chain and even into today. Salvarson was quickly overtaken by antibiotics.

**During:** His work was widely accepted.

**Factors:** Chance, Individual Genius (he used Koch's work), technology



### Gerhard Domagk 1895-1964

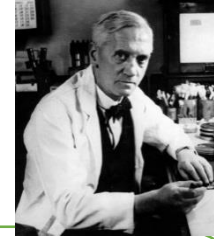
**Key Discovery:** Created Protosil against Blood Poisoning.

**Before:** Salvarson 606 had been widely used. Domagk thought there would be other cures.

**After:** Sulphonamides would go onto be the precursors to antibiotics. They were widely used and very popular. Quickly surpassed by antibiotics

**During:** Ideas widely accepted.

**Factors:** Chance (he tested this out on his daughter when she caught blood poisoning whilst playing in his lab), Technology, Individual Genius



### Alexander Fleming 1881-1955

**Key Discovery:** Discovered that Penicillium mould killed bacteria

**Before:** Chemical cures were widely used but little has been done on natural cures. Lister had noticed that some mould killed bacteria in the 1870s.

**After:** His work was used by Florey and Chain to discover and mass produce Penicillin. We still used Penicillin today

**During:** Work was forgotten as he only wrote a few lines about his discovery in another paper. Collected the Nobel Prize alongside Florey and Chain after the mass production of Penicillin.

**Factors:** Chance (he went on holiday mould contaminated his samples), Technology, Individual Genius



### Florey and Chain 1898-1968, 1906-1979

**Key Discovery:** Mass produced Penicillin

**Before:** Fleming had discovered Penicillium mould and Lister had said some mould killed bacteria.

**After:** Penicillin is widely used today and more antibiotics were produced. There are still problems around antibiotic resistance though.

**During:** The work was recognised and they shared the Nobel Prize with Fleming. It is possible they helped us win WW2 as Penicillin was produced in time for D-Day meaning we had more soldiers remaining fit for fighting.

**Factors:** Government, War, Technology, Individual Genius