

# Eureka Moments!

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

## Science Definitions

### Alexander Fleming

- **bacteria** are simple life forms. They are alive and can be seen with a microscope. Bacteria are spherical or rod-shaped cells usually surrounded by a tough coating.
- **antibiotics** are drugs which can either kill bacteria or stop them growing. The best known antibiotic is **penicillin** a type of **mold**. Molds are small parasitic plants that reproduce using tiny spores that blow in the wind.

#### Antibiotics have no effect on viruses

- **viruses** are even more simple than bacteria, and are so small that they can not be seen with a microscope. They are a small piece of DNA genetic material. You could think of them as being just a message. For a virus to multiply and cause a disease it has to hijack a human cell and reprogram the cell to start producing more virus cells. Colds and flu are both viruses.
- **inoculation** is the only way to stop viruses multiplying. By giving a **vaccine** it is possible to build up a resistance to viruses. The body learns how to recognize the virus and how to create a defense against it.