



The Royal College of Pathologists

Pathology: the science behind the cure

## Object 49: Petri dish



### What is it?

A Petri dish is a shallow transparent glass or plastic cylindrical lidded dish, used to contain a thin layer of agar on which to grow bacteria and fungi. Millions of Petri dishes are used in microbiology labs every year.

### History

The dish was invented by the German bacteriologist, Julius Petri, who worked with Robert Koch in Berlin in the 1880s. Before the introduction of the Petri dish, bacteria were grown in broths, which made isolation of single colonies impossible. Koch's team experimented with growing bacteria on slices of potatoes and on flat plates of solid media before Petri developed a dish with shallow sides to make handling and storage easier. The dish can be easily picked up for examination without contamination and the transparency allows bacterial growth patterns to be easily viewed.

### Pathology

Petri dish-based technology has recently been given a new lease of life with the development of computerised imaging systems. Robots use bar codes to identify plates and move them rapidly between store, workstations, imaging camera and incubator. Digital images of cultures are interpreted by expert staff on high resolution screens. These systems allow culture times to be standardised, resulting in more accurate and comparable results and image recognition software can measure zone sizes for susceptibility testing.

### Find out more

Visit your local pathology laboratory to see Petri dishes in use – have a look at the [online programme](#) of events to find out if there's a lab open day near you.