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By Luna

*The following article was written by **Luna**, a Year 12 student who has chosen biotechnology as her field of study. This article is part of the work students do during the techclass in English on Monday afternoons.*

Useful vocabulary :

- **Colony** : a mass formed by a large number of bacteria.
- **Macroscopic analysis** : observation of the size, colour, shape, and appearance of a colony.
- **Suspension** : bacteria in solution.

1. What is the goal of the experiment?

Isolation involves spreading a bacterium in a place where it can multiply and form some colonies. It aims at performing a macroscopic and microscopic analysis.
If we take the suspension, we can determine through isolation whether the strain is pure or not and also look at it through a microscope. The purity of the strain serves to prove the reliability of the results of a manipulation.

2. The description of the experiment.

To perform isolation, the bacterium which is going to be isolated must be into a liquid (a suspension). This suspension is then collected using a laboratory instrument called a loop which forms a circle. Closely spaced streaks (straight lines) are made onto a nutrient agar plate by following a precise path. The plate is then incubated for 24 hours at 37°C.

3. The result of the experiment.

We can see on the picture below white masses corresponding to colonies. In the upper left corner of the plate, they are well isolated. They all look alike, which means there is only one type of bacteria, therefore the strain is pure.

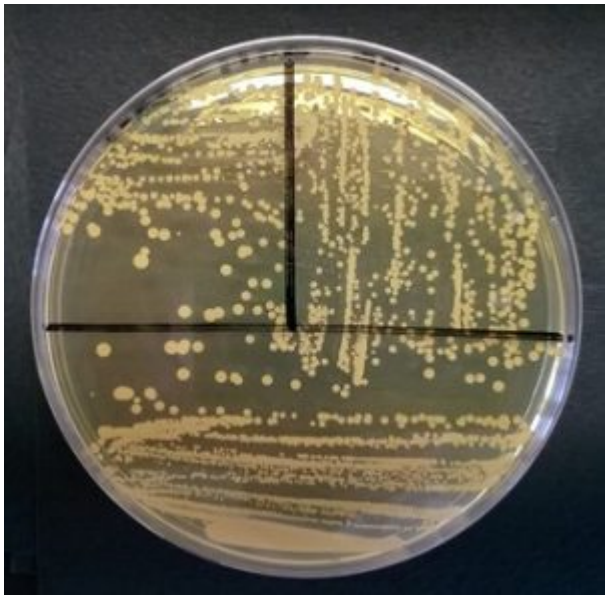


Figure 1: Streaks and visible colonies.

Isolation is a technique widely used in our laboratory class for numerous and varied analyses as well as to validate the quality of our work.