New and hoped for the last one Project Proposal

New goal : We want to study the impact of pH on the secretion of organic acids by Lactobacillus acidophilus.

We will quantify the secretion of organic acid by measuring the pH of the environment of the cells along time (Lactobacillus acidophilus will be placed in liquid media).

We will test 3 pH different for incubation : 4.5 ; 5.5 and 5.0

Protocol :

1. Prepare the medium for the lactobacillus acidophilus
   1. Recepe :
      1. 500 mL of tomato juice, filtered and purified
      2. 2.5 g Yeast Extract
      3. 50g of low fat Milk
      4. 450 mL Distilled Water
2. Prepare three equal medium erlenmeyer : 48 mL per erlenmeyer = 100 mL per erlenmeyer so 300 mL in total. We will do 2 erlenmeyer per concentration.
3. Regulate the pH in each erlenmeyer by putting HCl or KOH to reach the wanted pH. Drop by drop
4. Put the cells in the media
5. Do the first measurement of pH (t=0)
6. Diluate the 1 mL for the spectrophotometer
7. Measure the optical density of the solution.
8. Place in the incubator at 37°C
9. Repeat measurement every hour