Monday Lab notebook : Groupe A

Morning: Brainstorm session

→ bacteria, yeast, microalgue, pheromones

Anti-bacterial liquids: does it really kill bacteria?
→ different brands, compare with marketing values
→ different concentration: measure with electronic sensor → alcohol sensor
1 type of bacterium
plates vs. 96-well plate
1 bacterium, 1 fungus
modified bacteria

2 liquids (two different brands or 1 gel/alcohol à 70°): 1 bacterium
1 liquid: 2 bacteria or 1 bacterium/1 fungus

How does anti-bacterial work? does it target one type of bacteria or as many as possible?

pharmacy antifungal cream

b subtilis, e coli, : make sure the absorbance measurements will be homogeneous
most fungi and pseudomonas form clumps: not consistent

how many replicates?

Make sure to work on: biological noise, sample size, replicate, repetition, positive and negative control
Different things to measure: accuracy, précision, response time, saturation point, sensitivity

Reference of normal bacterial flora on hands:
http://www.ncbi.nlm.nih.gov/books/NBK144001/

Afternoon: Feedback sessions

Tamara and Dule

A hand gel contains many different things: difficult to use in a scientific experiment since we won't know what will have had active role.

What is affected? How do the bacteria die (by what process)? Do they burst, or stop dividing?

Measure of lethality

Things to measure that are affected by the environment: growth rate, cell shape (filaments if they don't divide properly), modify their environment (release toxins), cluster (biofilms), move to avoid.

pure chemicals: triclosan, ethanol, vinegar, SDS, drugs

We could use a device to make sure that the environment stays stable: track variations in temperature and humidity.

Ivan and Aimen

no need to wash cells since not doing fluorescence
Use CFU or counting chamber to obtain the number of cells
same amount of toxic agent but different ratios
make sure the amount is not killing them completely already