

## Team iGEM UFSCar-Brasil – About our Lab

1. What is the Safety Level of your lab?
Level 1 (low risk)
Level 2 (moderate risk)
Level 3 (high risk)
Level 4 (extreme risk)
Our team is not doing any wet-lab work
Other safety level
We have several different lab spaces with different Safety Levels (please describe what experiments you do in each space):
The experiments carried out in the Laboratory of Microbiology (Level 1) will test various concentrations of PEG to promote cell plasmolysis. This objective will be achieved by using laminar flow cabinets, centrifuges and spectrophotometers. The manipulating mediums and plating will be carried out in a laminar flow.
In the Laboratory of Molecular Biology (Level 1), all the handling of biological material will be carried out in a laminar flow. Besides the laminar flow cabinets, we will use biological shakers with monitored temperature and spectrophotometers.
Unknown
2. Which work areas do you use to handle biological materials? Please check all that apply
Open bench
Biosafety cabinet / laminar flow hood
Chemical fume hood
Other work area (please describe):
3. a) Have your team members received any safety training yet?
Yes, we have already received safety training.
We plan to receive safety training in the future
We will not have safety training

3. b) Please briefly describe the topics that you learned about (or will learn about) in your safety training.

Our team has not received specific training on Biosafety destined for iGEM. However, many of the students of the team attended a discipline about basic skills in the laboratory and biosafety, in which the techniques used in laboratory and how to avoid accidents were covered. Other members already have a laboratory routine and are monitoring the experiments. A few members were trained in biosafety unit at the Universidade Federal de Sao Carlos and a member received overseas training (USA). The topics learned was:

Physical, chemical and biological hazards

Best practices in laboratory

Methods of first aid

4. Who is responsible for the safety of biology labs at your institution? What are the guidelines for laboratory biosafety? Please give a link to these guidelines, or briefly describe them if you cannot give a link.

In our university, responsible for biosafety laboratories are the very bosses that coordinate activities and research in the lab. We use a manual of good practices and safety during the work of the iGEM. Our guideline is called "Safety Manual laboratory" 3 <sup>rd</sup> edition.

Link: http://www.iec.pa.gov.br/cibio/arquivos/Manualsegbiol%C3%B3gicalab.pdf

5. In your country / region, what are the laws and regulations that govern biosafety in research laboratories? Please give a link to these regulations, or briefly describe them if you cannot give a link.

Here in Brazil, the Biosafety area is divided into two lines, one which addresses legal issues involved in the handling of genetically modified organisms and stem-cells, and other that is related to health care institutions and involving physical, chemical, biological, ergonomic and psychosocial risks.

Thus, it is of interest to the iGEM knowledge of the legal aspect, represented by the Biosafety Law N°. 11,105 enacted by the Brazilian Government Act in 2005. This law enabled the creation of a collegiate instance in Brazil, called CTNBio, which gives guidance to the technical standards safety and is responsible for establishing the National Policy on

Biosafety on genetically modified organisms. In 2007, Law N°. 11,460 add some criteria for the planting of genetically modified organisms.

Biosafety Law No. 11,105

http://www.ctnbio.gov.br/index.php/content/view/11992.html

Biosafety Law No. 11,460

http://www.ctnbio.gov.br/index.php/content/view/11993.html

## 6. Any further comments about your lab

Our laboratories are located in the Federal University of Carlos and the team's work is accompanied by advisors and instructors. We also get aid from a laboratory equipment supply company and graduate students.

## 7. Comments about this form: Is it easy or difficult to use? Are the questions confusing?

Some questions were a bit complicated and did not fit in some situations our team. In general the questionnaire was to be answered easily.