About Our Lab

1.a) Does your country use a four-part BioSafety Level rating system for laboratories? If so, what rating is the most dangerous?

☒Yes. Level 4 is the most dangerous. (True for most countries in Asia, the European Union, and North/South America; the WHO also uses this system)

☐Yes. Level 1 is the most dangerous. (True for some countries, especially those that were formerly part of the Soviet Union)

☐No, our country uses a different system (please describe the system here):

b) What is the BioSafety Level of your lab? (Use the WHO numbering system, in which Level 4 is the most dangerous.)

☐Level 1 (low risk, ~= WHO BSL 1)

☐Level 2 (moderate risk, ~= WHO BSL 2)

☐Level 3 (high risk, ~= WHO BSL 3)

☐Level 4 (extreme risk, ~= WHO BSL 4)

☐Other (please describe):

☒Choose this option if you have several different lab areas with different BioSafety Levels. Please describe what procedures you do in each area:

Our team has got BSL 1 and BSL 2 labs available for developing the iGEM project. As we haven't decided the experimental procedures accurately, we are still not sure if using BSL 2 will be necessary.

BSL 2 lab may be used to cultivate and extract Streptomyces pneumonia DNA. BSL 1 lab will be used to achieve all the genetic manipulations and to cultivate Escherichia coli and Bacillus subtilis.

2. a) What type of work environments do you use to handle biological materials? Please check all that apply.

☒Open bench top

☒Laminar flow hood / biosafety cabinet with open front

☐Glove box (biosafety cabinet with closed front)

☐Other (describe):

b) If you handle different materials in different places, please describe what materials you handle where.

Laminar hood flow: cultivate bacteria; Streptomyces DNA extraction.

Open bench top: All of the DNA manipulation procedures, such as restriction analysis, miniprep, ligation, etc.;.

3. a) What personal protective equipment do you use in the lab? Please check all that apply.

☒Appropriate clothes (long pants/skirts, shoes that cover your toes, etc.)

☒Lab coats

☒Gloves

☒Safety glasses / goggles

☐Full face shields

☒Surgical masks

☐Respirators (what kind?)

☐Other (describe):

b) If you use different protective equipment for different procedures, please describe what equipment you use in what situations.

Appropriate clothes, lab coats and gloves will be worn at all procedures on BSL 1 and BSL 2 labs.

Safety glasses and surgical masks may be used for experiments with Streptomyces, on BSL 2 labs.

4. How do you dispose of biological waste? (For example: liquid cell cultures, agar plates, used pipette tips.)

Liquid cell cultures are autoclaved and, after reaching room temperature, disposed on the sink. Used agar plates are autoclaved inside a bag and disposed on common waste. Pipette tips are incinerated before being disposed.

There is also the possibility of using a powder disinfectant called Virkon. Usually, Virkon is mixed with the contaminated material for 30 minutes. After that, the materials are discarded on common waste.