iGEM 2013 Basic Safety Form

Team name:

S USTC-Shenzhen-A

Deadline: 30th of August 2013

Submission method: email form to the correct email list for your region:

safety_forms_asia@igem.org safety_forms_europe@igem.org safety_forms_north_america@igem.org safety_forms_latin_america@igem.org

Students can complete this safety form, but it must be read and signed (electronic or hard copy) by your team's faculty advisor. Your advisor must verify the information contained in this form and sign it.

The iGEM Safety Committee must be able to easily reach the advisor with questions or other follow-up communication. If you have made changes to your project (new coding regions or organisms) you must resubmit your safety form before wiki freeze (date TBD).

Key points to remember as you complete the safety assessment process:

- For help in completing questions 1 and 2, you may find it useful to consult the Risk Groups section of the Safety Resources List [2013.igem.org/Safety].
- The iGEM Safety Committee will be reviewing your project. To avoid temporary suspensions, answer these questions completely and accurately.
- The Safety Committee needs to be able to communicate with your faculty advisor about any safety concerns. If we cannot reach your advisor in a reasonable amount of time, you may be subject to restrictions at the Jamboree.
- Your safety page, wiki project page and poster should be consistent with each other. If you change your project, submit an updated Basic Safety Page to the iGEM Safety Committee before the wiki freeze. (Your faculty advisor must also read and sign the updated page.)
- We understand that projects may still be changing at a late date. However, large discrepancies between what you submit on the Basic Safety Page and what you present at the Jamborees may result in restrictions at the Jamboree.

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^{*}For additional coding regions, please include a spreadsheet in your submission.

- 4. Do the biological materials used in your lab work pose any of the following risks? Please describe.
 - a. Risks to the safety and health of team members or others working in the lab?

Yes. It may cause irritation to skin, eyes and respiratory tract, affect kidneys. Everyone in the lab are required to wear lab coats and gloves. We don't make new coding regions, only the new arrangement of the genes. The risk is limited to E. Coli K12 strains, and the existing genes.

b. Risks to the safety and health of the general public, if released by design or by accident?

Yes. It may cause irritation to skin and eyes, may affect kidneys, and GI tract if ingested. All the material containing them are subject to autoclave before discarded. Our project is not designed to be released to the environment. E. Coli K12 strains lack the capability to colonize in human and produce enough toxin.

c. Risks to the environment, if released by design or by accident?

Yes. All the material containing them are subject to autoclave before discarded. Our project is not deisgned to be released to the environment. The K 12 derivative strains has limited environment impact based on the EPA assessment: http://epa.gov/oppt/biotech/pubs/fra/fra004.htm

d. Risks to security through malicious misuse by individuals, groups, or countries?

Not likely. The E. Coli strains and the genes used in our project are commercially available for years. The probability of direct malicious misuse is low.

e. What is the Risk Group of your chassis organism(s), as you stated in question 1? If it does not match the BSL rating of your laboratory, please explain what additional safety measures you are taking.

It is risk group 1, and match the BSL rating of the lab. We do have additional BSL 2 lab when deem needed by the university biosafety committee.

Faculty Advisor Name:

Wei Huang

Faculty Advisor Signature: