Online Ethics Center
FOR ENGINEERING AND SCIENCE

Graduate Student Discussion - Synthetic Biology

Description

Part of unit 2 of the Course on Genomics, Ethics, and Society, this graduate-level case study discusses issues of ethics, genomics, and synthetic biology.

Body

Directions: Read the following scenario to prepare for the discussion.

Imagine there's a group of scientists working to create a synthetic organism, assembled by BioBricks, to be used as a biosensor to detect arsenic in groundwater used for drinking - a particular problem in Bangladesh. What are the main social and ethical issues that this research might pose? What considerations do you think would have to be taken into account (including risks, benefits and cultural concerns) before releasing such a synthetic organism into the Bangladesh environment? Do you think such an organism should ever be created or released?

In this discussion forum, create or respond to a thread discussing the risks and benefits, and other social and ethical issues, that you think conducting this research and releasing the resulting synthetic organism into the environment raises. At some point in your response, you should say whether you think such a synthetic organism should ever be released into the environment. We expect lively discussion, not an essay, and it is OKAY to change your views more than once during the discussion, or stick to your original views throughout the discussion. Post your brief initial entry on the FIRST DAY so that everyone can respond to others' ideas

throughout the discussion. You should contribute at least three times to the discussion. The graduate grading rubric explains what we're looking for in this discussion: good writing quality, clarity and relevance, a response on the first day of discussion, then a collegial exchange with other members of the discussion; your posts should show knowledge and understanding of the readings, and you should try to develop an argument for which you provide support, and that engages critically and thoughtfully with the course materials.

Continue to Case Analysis and Instructions

Rights

Resource Type

Case Study / Scenario
Instructor Materials

Topics

Emerging Technologies
Risk

Discipline(s)

Synthetic Biology
Genetics and Genomics
Life and Environmental Sciences