

## iGEM Weekly Meeting – Sunday, February 19, 2012

### Getting card access to IGB

- Take 3 safety quizzes online (Angela will send out the link)
- Take the certificate you get from this to the IGB gatehouse, first floor, and they will give you another certificate
- Take this 2<sup>nd</sup> certificate to the iCard people and get your card access!
- Do this asap!

### EOH

- Will be going into the lab on next Saturday to keep up with the wet lab side of the e.chromi project (we are allowed to be in lab from Monday to Saturday)
- 2<sup>nd</sup> project: coliroid. A red light system would need to be built so that we can illuminate the bacteria. (we already have the necessary e.coli strain).
- Potential projects: making e.coli smell like bananas or wintergreen! Also, seeing strawberry/your own DNA. (these are all really good for kids)
- The budget is \$50. Making a nice printed poster is \$80 through the IGB, so lets go simple (tri-fold, old posters, Adi's computer presentation, hang up Asha's dry erase board)

### Team Work Delegation

- There are no longer any set positions. We are going to self-delegate tasks, but then we are also going to cross our own borders and help each other out.
- Big idea! Everyone needs to work together, collaborate, and do their part.
- We still do need a president, vice president, secretary, treasurer because we are an RSO.
- The engineering council needs us to submit people for these positions. We're going to choose these people, but we're all going to collaborate. Isiah will send out the survey about this.
- There is still the possibility to change positions if as time goes on we see that people have different strengths than originally thought.
- Read the Pubmed "Leading a Successful iGEM Team" by Wayne Materi

### Presentations of Past Winning Teams

- Adi's article has been posted to the facebook page
  - o E. coli were reengineered to be a chemical recording device. Once they were exposed to a certain stimuli, they would lengthen as a function of time. So the longer the e.coli were in length, the longer they had been exposed to the chemical stimuli.
  - o Helpful in a biological context, also a nanorecorder for toxins or pollutants.
  - o Possible project idea: rewire e.coli to detect any type of toxins for a specific environment.
    - Another idea, not only does the e.coli change color when a toxin is detected, but it starts to break the toxin down. Research if past iGEM teams have done this.

- First place: University of Washington
  - o Used e.coli to produce alkanes, a major part of diesel fuel
  - o Used a protease that digested gluten and made it able to digest more gluten (idea of taking pills with the protease in it so gluten intolerant people can take the pill)
  - o Biobricks: magnetic e.coli, magnetism toolkit for future iGEM teams, submitted 65 biobricks!
- Will talk about Imperial College London and JZU – China next week

### Project Ideas!

- The above e.coli that detects and cleans up toxins
- A harmless e.coli that goes in your body and detects trace amount of carcinogens or other toxins
- Bioskins: gloves with e.coli on them that would change color letting you know what different types of chemicals are on your gloves or that there is too much dangerous chemical on your hands
- Getting rid of carbon monoxide. Either in your home through a bacterial system, or putting it in factories to purify the exhaust air before it is released
- Bacteria that make biofuels. Lets repurpose these to make them even more useful. Can we harness photosynthesis or put them in the smokestacks to purify the air?
- Create a bacteria to keep invasive populations in check. (light sensitive so they undergo apoptosis during the day)
- BUT – we need to research these ideas to make sure that we can actually execute these.
- The iGEM categories: Best **food or energy** project, best **environment** project, best **health or medicine** project, best **manufacturing** project, best **new application** area, best **foundational advance**, best **software tool**, best **information processing** project, best **human practices** advance, best **poster**, best **entrepreneurship**
- We REALLY want to register for both iGEM and the new entrepreneurial competition.

### Lab Assignments

- Jin: Uros, Adi, Bob
- Bhalerao: Isiah, Anthony
- Brad: Cara
- Rao: Divya, Asha