

## 20.020 Week 2 Studio

### iGEM v4 Script

Sally is just working in her lab when DD comes running in waving a piece of paper.

SS: Dude! No running in the laboratory.

DD: Sorry Sally, but have you heard about this competition? It's called iGEM and I think my bacterial bubble could totally win this year.

SS: I thought you were *done* with bacterial bubbles. (*an imagination bubble from SS with the bacterial balloon floating up in it so that people know what DD's idea is, incase they haven't read the comic book*) What do you know about iGEM?

DD: Uh, not much, except that there's going to be a bunch of *losers* and me.

SS: I don't think you understand the nature of this competition. iGEM, the International Genetically Engineered Machine Competition, is a way to get young scientists and engineers working together to engineer biological systems.

DD: Working together? Where's the competitive spirit in that? The Dude works alone. That way, the Dude gets all the credit.

SS: You need to be a member of a team to join iGEM, and you need a professor to lead it.

DD: But I heard it was a student competition?

SS: Well, yes. The competition started in 2004 based on an undergraduate class developed at MIT in 2003 for their short winter session, and it continues to be an undergraduate experience. But not without guidance and support. Last year there were more than thirty teams who competed, from all over the world.

(*Maybe one frame from the 2006 Jamboree that could be based on a photograph on the wiki? Or maybe integrate a still of the aerial shot below? Eg <http://www.igem2006.com/meet.htm>*)

DD: So *that's* my competition? That's a lot of people.

SS: A lot of people, all asking the same question. "Can simple biological systems be built from standard, interchangeable parts and operate in living cells? Or is biology simply too complicated to be engineered in this way?" What do you think?

DD: Biology's not too complicated for me! *(maybe a type of overconfident/under informed/arrogant voice,*  
*Maybe have DD imagine himself and bacterial bubbles at next year's competition, in his mind they travel from the lab to what DD pictures the next jamboree to be like: show Stata center (image below) then a great auditorium where DD is dressed in a suit and tie answering the question from the front of the hall, maybe with the goals on a powerpoint slide behind DD and bacterial bubble at the podium to reinforce question/goals both verbally and visually. Text here is for hall if it's needed DD, in overly professional voice:*  
The goals of this competition are to enable systematic engineering of biology, promote open and transparent development of tools for engineering biology, and help construct a society that can productively apply biological technology.  
*(As Dude is voicing the goals, he could check them off as "accomplished" with a smug smile of achievement.)*

DD *(out of dream...maybe with bacterial balloon popping)*: OK, I've got a lot of work ahead of me. If we're not going to use my bubble idea, what else is possible?

SS: Maybe a better question would be what *isn't* possible.

DD: Ok, so first off: What should our standard, interchangeable part be? Actually, what parts exist? Do we have to make those?

SS: You'll probably need more than one but the Registry of Standard Biological Parts is a great resource with lots of parts already designed. And if we make parts of our own, we should add them to the Registry in case other teams can use them too.

DD: *(surprised)* And help the other teams? What kind of competition is that? *(then it makes sense)* Or is that how so many teams got cool projects going last year?: Pleasant smelling bacteria *(note on smells: the project made bacteria smell like bananas or wintergreen)*, a bacterial night-light, a DNA drug delivery system. I heard one team even made up bacterial freeze tag! To beat those, we should get started right now!

SS: Alright well let's brainstorm for a little while before I have to get back to work. How does that sound?

DD: Great! Can you show me this Registry? Maybe we can find some good parts to use!

SS: Good idea, Dude. Let's start there. *(show the computer screen of the registry main page and fade out, maybe faded voices, for instance "wow!" "I like that, could we use that?" or more basic like Sally saying, "This is where you'll be able to search")*

<http://jamesmuspratt.com/images/338.jpg>



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