>> Sally: Dude!

No running in the laboratory.

>> Dude: Sorry Sally, but have you heard about this competition?

It's called iGEM and I think my bacterial bubble could totally win this year.

>> Sally: I thought you were done with bacterial bubbles.

What do you know about iGEM?

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

>> Sally: 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.

>> Dude: Working together?

Where's the competitive spirit in that?

The Dude works alone.

That way, the Dude gets all the credit.

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

>> Dude: But I heard it was a student competition?

>> Sally: 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.

>> Dude: So that's my competition?

That's a lot of people.

>> Sally: 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?

>> Dude: Biology's not too complicated for me!

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.

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?

>> Sally: Maybe a better question would be what isn't possible.

>> Dude: Ok, so first off: What should our standard, interchangeable part be?

Actually, what parts exist?

Do we have to make those?

>> Sally: 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.

>> Dude: And help the other teams?

What kind of competition is that?

Or is that how so many teams got cool projects going last year?: Pleasant smelling bacteria, 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!

>> Sally: Alright well let's brainstorm for a little while before I have to get back to work.

How does that sound?

>> Dude: Great!

Can you show me this Registry?

Maybe we can find some good parts to use!

>> Sally: Good idea, Dude.

Let's start there.