



Massachusetts Institute of Technology

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January 24, 2005

RE: 2005 iGEM Competition

Dear Colleague:

During this past summer, student teams from five schools, Boston University, Caltech, Princeton, University of Texas at Austin, and MIT specified, designed, built, and tested simple biological systems made from standard, interchangeable biological parts. At the November jamboree, the student teams presented systems that performed functions from detecting caffeine to implementing bacterial photographic film. We found the project design and competition format to be an exceptionally motivating and effective teaching method. For example, biology students learned about approaches for organizing complex systems and practical tools for design, modeling, and simulation; engineering students were able to immerse themselves in biology via their base instincts, to design and build.

During the summer of 2005, the MIT node of the Registry of Standard Biological Parts will be hosting the next competition in this series – the 2005 Intercollegiate Genetically Engineered Machine (iGEM) competition. We would like to invite your school to field a student team(s) and participate in this event. We are expecting between 8 and 10 schools to participate.

The current schedule for iGEM 2005 is:

- (1) Now through May 2005, team formation at participating schools
- (2) May 2005, ‘teach-the-teachers’ class at MIT (required for teaching assistants)
- (3) June through August 2005, student design of parts, devices, and systems, Registry-based synthesis of new parts and assembly of new devices and systems, initial tests of new systems at each school
- (4) September through October 2005, continued experimental testing of systems at each school
- (5) November 5-6 2005, end-of-competition Jamboree in Cambridge, MA

Participation in iGEM 2005 will require each school to (i) organize and support a student team (e.g., supply work and laboratory space, student stipends, and travel and lodging costs associated with the end-of-competition Jamboree), (ii) provide two teaching assistants to serve as local instructors and day-to-day points of contact, and (iii) pay a \$25,000 registration fee to the Registry. In turn, the Registry will (i) teach a one-week ‘teach-the-teachers’ workshop, required for all teaching assistants, (ii) provide TA travel and lodging for the ‘teach-the-teachers’ workshop, (iii) provide commercial de novo DNA synthesis of new student-designed parts, (iv) assemble new and existing parts into student-designed devices and systems, and (v) organize and host the end-of-competition Jamboree.

If you are interested in participating in iGEM 2005 or have any questions/comments, please contact Randy Rettberg at the email address below. We are happy to work with you to secure local support for your school’s iGEM 2005 team and hope that you will be able to participate!

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2005 Intercollegiate Genetically Engineered Machine Competition

Organizers

Drew Endy
Thomas F. Knight, Jr.
Randy Rettberg

Operations

Registry of Standard Biological Parts