ChEMS professor helps MSU's first iGEM team earn a bronze medal in international contest

MSU's first iGEM team earned a bronze medal in the International Genetic Engineered Machine Foundation competition.

The team, dubbed Frosty the Cyanos, comprised three undergraduate students and a team of professors and advisors. Together they traveled to Boston, Massachusetts, earlier this fall to debut their project, which sought to engineer cold and freezing adaptations to cyanobacteria.

Assistant professor Tim Whitehead from the MSU Department of Chemical Engineering & Materials Science served as PI.

The iGEM competition challenges teams with two goals; to create a project with elements that will add characterized biological parts to the Registry of Standardized Biological Parts, and to incorporate community outreach and interactive education on iGEM and synthetic biology.

After deliberation on how the team wanted to address both aspects of the competition, they decided to focus on developing a low-cost, DIY cyanobacterial bioreactor for growing cyanobacteria in a continuous culture, and engaging the community at Lansing's Impression 5 Science Center. Engineering cheaper alternatives to expensive lab equipment is significant because it lowers the economic barriers associated with synthetic biology, and it brings the capacity to do science to more communities.

At the competition the team gave a 20-minute presentation about its project, followed by a question and answer session and nightly discussions about the team's work in front of posters designed to also showcase its research.
In addition to being recognized with a bronze medal, the team created a new cyanobacterial part that was added to the Registry of Standard Biological Parts.

A complete list of team members advisors and mentors can be found at http://2016.igem.org/Team:MSU-Michigan.

Related Website: MSU iGEM Team
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