

The 2017 UT Austin iGEM team: Research Opportunity in Synthetic Biology

The UT Austin iGEM team is composed of undergraduate students with an interest in synthetic biology. This emerging discipline integrates genetic engineering, biochemistry, molecular biology, microbiology, computer science, and many other fields to reprogram living cells to address societal challenges.

What is iGEM? iGEM stands for international "Genetically Engineered Machine". It is an annual competition for undergraduate students engaging in synthetic biology research. <u>iGEM Main Page</u>

Each year the team develops one or more *student-initiated* research projects. This is your chance to be creative! Past iGEM projects have involved creating caffeine-addicted bacteria for bioremediation, improving technology for expanding the genetic code with novel 21st amino acids, and engineering the community of microbes in the Kombucha SCOBY. If you are interested in graduate school or a career in bioengineering, iGEM can be a very valuable in-depth research experience. Past projects have led to peer-reviewed publications for iGEM team members in *ACS Synthetic Biology* and the *Journal of Biological Engineering*. Three iGEM alumni have also been awarded NSF Graduate Research Fellowships

During the spring and summer, the team works on their project(s) under the guidance of Professors Jeffrey Barrick and Dennis Mishler. In the fall, select members of the team travel to the iGEM Jamboree in Boston to present the team's research with hundreds of other iGEM teams from around the world!

There are two ways to join the team

1. If you are a freshman, you <u>must</u> be enrolled in the FRI stream "Microbe Hackers" in spring 2017. Students who excel during the Spring semester in the stream and attend additional iGEM meetings can qualify to be on the 2017 team and continue working with us over the summer. If you are not placed in the Microbe Hackers stream during stream sort, you should contact Professor Mishler immediately.

3. If you are not a freshman, you can apply in Fall 2016 for one of a limited number of spots to join the team. No previous research experience is required, but you need to submit a CV and a 1 page personal statement. Your personal statement should include why you are interested in synthetic biology and propose a potential research project for the 2017 iGEM team. Be sure to reference relevant papers or past iGEM projects, if applicable. Successful applicants will highlight their enthusiasm for synthetic biology and research while also demonstrating that they are capable of doing independent research.

Applications are due October 24th, 2016.

Promising applicants will be interviewed, and decisions will be announced prior to **November 4th, 2016**.

Our first meeting with these new team members will occur the following week and continue on a weekly basis for the remainder of the fall semester.

What time commitments are required? You will be expected to attend:

- 1. A weekly (1 hr) team meeting that will introduce synthetic biology and facilitate project brainstorming. These will begin in mid Fall 2016.
- 2. A weekly lab time (**4+ hr block**) starting **Spring 2017** to learn all the requisite techniques. More advanced students can use this time to begin working on their project.
- 3. Conduct research with the team during **Summer 2017** (20+ hrs/week).
- 4. Help the team finish its project prior to the annual conference during **Fall 2017**, which will be held in Boston in October 2017.

If you have questions, please contact Professor Mishler at <u>dennis.mishler@utexas.edu</u>. Applications should also be sent to this e-mail address.

For more information, please visit us at our UT Austin website: <u>http://barricklab.org/igem</u>

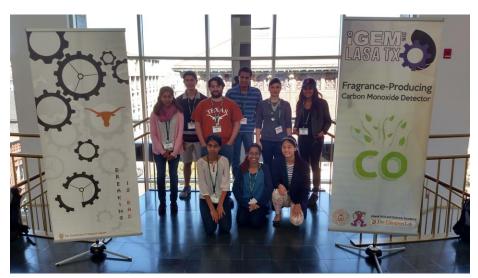
For previous UT Austin iGEM team pages, and the 2016 team page, see below. The 2016 team page is currently being built and will be finalized on October 19th.

http://2012.igem.org/Team:Austin_Texas

http://2014.igem.org/Team:Austin_Texas

http://2015.igem.org/Team:Austin_UTexas

http://2016.igem.org/Team:Austin_UTexas



iGEM team at the Hynes Convention Center in Boston during the 2015 Jamboree