
St. Mark's School of Texas
Biology Club • Biotechnology Initiative • iGEM Team

BIOTECHNOLOGY INITIATIVE

The Biotechnology Initiative begun in September 2013 and ended in May 2014. In the first year involved with the International Genetically Engineered Machine (iGEM) competition, we achieved the following.

- Regular access to a radiation oncology lab at UT Southwestern Medical Center (UTSW)
- Established relationships with industry leaders at UTSW
- Received nearly \$2000 in grants from St. Mark's
- Two offers of corporate sponsorship from leading, multinational biotechnology companies
- Exclusive laboratory space at St. Mark's
- A more than four-fold increase in the membership of the Biology Club to twenty-two members

BIOTECHNOLOGY INITIATIVE & IGEM TEAM LEADERSHIP

Faculty Sponsors: Mark Adame, Douglas Rummel

Captain: Halbert Bai '14

Vice-Captains: Tim O'Meara '16

Directors of Fundamental Research: Rohin Maganti '17, Raymond Guo '15, and Rohan Pinto '15

Directors of Applied Research: Akshay Malhotra '16 & Kevin Wu '16

Director of Outreach: Abhi Thummala '16, Killian Green '17

Director of Web Development: Vikrant Reddy '17; Interim Director of Web Development: Kevin Wu '16

Mentors & Advisors: Jay Sylvester, Fletcher Carron, Moez Aziz, Milan Savani, Galen Gao, Reid Weisberg

UTSW Contact: Dr. Sandeep Burma

2013-2014 BIOLOGY CLUB LEADERSHIP

Faculty Sponsor: Mark Adame

President: Halbert Bai '14

Vice President: Jeffrey Wu '14

Secretary: Raymond Guo '15

Projects Managers: Akshay Malhotra '16

Treasurer: Rohan Pinto '15

2013-2014 MEMBERS

Vikrant Reddy	Gopal Raman	Abhinav Thummala	Umer Nadir
Killian Green	Jonathan Ng	Rohan Pinto	Andrew Chuka
Halbert Bai	Rohin Maganti	Aarohan Burma	Brian Buckenham
Shaheer Khan	Jeffrey Lee Wu	Andrew Gatherer	Parker Kirby
Nicholas Brodsky	Raymond Guo	Mitchell So	Luke Williams
Timothy O' Meara	Akshay Malhotra	Kunal Dixit	Kevin Choi

From the "St. Mark's School of Texas Biology Club & iGEM Team Leadership Policy"

Written by Halbert Bai '14

President of the 2012-2014 Biology Club

Founder and Captain of the iGEM Team & Biotechnology Initiative

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ONE ORGANIZATION

STRUCTURE

The Biology Club is directly affiliated with the iGEM Team. All activities are integrated and the ultimate goal is the pursuit and promotion of biological investigations and scientific inquiry. As part of the Biology Club, the iGEM Team blends the setup of a traditional club with the highly efficient structure of a professional laboratory. Meetings are held regularly every Wednesday and Thursday 3:10 to 3:55 PM in S120. The Team is divided into four Committees: Pure (Fundamental) Research, Applied Research, Outreach, and Web Development. During meetings, the Captain first conducts a general meeting, leaving roughly half an hour each meeting for Committees to work independently. Committees are required to work outside of meetings to complete assigned goals. Every three weeks, the leaders of the Team meet to evaluate progress made over the course of the month and establish new goals for the following three weeks. Goals are posted online by the Captain at bit.ly/smbiology.

IGEM COMMITTEES

PURE (FUNDAMENTAL) RESEARCH TEAM

The Pure Research Team is responsible for designing the proposed construct at the theoretical level. Working with the Applied Research Committee, the Pure Research Team helps implement the actual synthetic biological system. The Team conducts extensive literature reviews, contacts professionals working in the field, and presents findings to the team on a regular basis.

APPLIED RESEARCH TEAM

The Applied Research Team is responsible for bringing theoretical ideas into fruition. Working in the laboratories, the Applied Research Team implements the design construct the Pure Research Team creates. Members of this Team collaborate with the Pure Research Team and help with their research efforts. The Team is responsible for sending the BioBrick part we create to iGEM Headquarters.

OUTREACH COMMITTEE

The image of the iGEM Team is largely be determined by the efforts of the Outreach Committee. The Committee is responsible for promoting the iGEM Team and the field of biotechnology. The Committee strives to educate the school community on synthetic biology and put a spotlight on its significance. Biotechnology will likely be the defining human endeavor of the 21st century, and we want to make sure Marksmen become increasingly interested and involved in this field.

WEB DEVELOPMENT COMMITTEE

The Web Development Committee is responsible for the online presence of the iGEM Team. By creating and updating the Wiki, the Committee is required to keep track of progress on a weekly basis. Members of this Committee collaborate with the Outreach Committee. The Committee must also follow guidelines set by Lion Tracks and the requirements of the iGEM Competition.

The 2013-2014 iGEM Team wiki can be found at bit.ly/smbiotech.

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LEADERSHIP POLICY

By Halbert Bai

The leadership positions within the iGEM Team and the Biology Club are determined solely by merit and the discretion of the organizations' faculty sponsors. The Biology Club and the iGEM Team will continue to be affiliated with participants simultaneously holding membership in both organizations. All members must annually sign the "The Contract of Commitment" found in this document.

CAPTAIN SELECTION

The Captain(s) of the iGEM Team simultaneously hold the position of President on the Biology Club. No more than two Marksmen hold the position of Captain at one time. A thorough selection process is conducted annually for the appointment of the Captain(s). Candidates must submit "The Application for President & Captain" along with the "The Contract of Commitment." Faculty sponsors will automatically consider candidates for potential positions as Directors or Biology Club leaders; submitting an additional application would not be necessary. Interviews are conducted for standout applicants to determine the Captain(s) for the following year. Captains who wish to retain their position for more than one year must also go through this process annually, and the Faculty sponsors will decide whether to extend the term of the Captain and President. Faculty sponsors will make all final selections.

Captain(s) must abide by the following criteria.

- Unwavering commitment to excellence, justice, and honor
- Genuine passion for learning and teaching biology/biotechnology
- Promotes biology/biotechnology at St. Mark's and the greater community
- Leads with humility
- Conducts meetings and presentations
- Keeps alumni Presidents and Captains informed
- Seeks to ultimately serve humanity through efforts within the Club and Team
- Abides by the iGEM Team's Mission Statement: "To improve the community by pioneering investigations into biotechnology by solving real-world problems in order to promote scientific inquiry and educate the future leaders of biological engineering."

COMMITTEE DIRECTORS

Faculty sponsors and the Captain(s) annually select the iGEM Team Board of Directors. These leaders must uphold a strong work ethic, complete assigned goals, and meet with their Committees regularly. The Captain will personally make recommendations on the behalf of standout individuals for the following year's Board of Directors at the conclusion of the iGEM season. No more than two Marksmen hold the Directorial position within a Committee.

CLUB LEADERS

Faculty sponsors and the Captain(s) annually select the leaders of the Biology Club. These leaders must uphold a strong work ethic and complete assigned goals.

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Biology Club • iGEM Team

THE APPLICATION FOR PRESIDENT & CAPTAIN

Date: _____

Full Name: _____

Primary E-mail: _____

Cell Phone Number: (____) _____ - _____

Captains must not have major obligations during the month of June the following year. Jamboree attendance is required.
Will you be able to spend the majority of your time in June working on iGEM? _____ (Yes/No)

List Your Extracurricular Activities Besides the Biology Club and the iGEM Team:

_____	_____
_____	_____
_____	_____
_____	_____

List All AP and Honors Classes You Have Taken:

Discuss your interests in the biological sciences.

Describe how your interests and achievements demonstrate a capacity for effective leadership and a commitment to promoting intellectual discovery through scientific inquiry.

What makes you unique?

What is the larger motivation that drives the work that you do?

Submit this application electronically to the faculty sponsors.

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THE APPLICATION FOR BIOLOGY CLUB LEADERSHIP POSITIONS

Date: _____

Full Name: _____

Primary E-mail: _____

Cell Phone Number: (____) ____ - _____

The Biology Club has four available positions besides President. They include Vice-President, Secretary, Project Manager, and Treasurer.

First Choice Leadership Position: _____

Second Choice Leadership Position: _____

List Your Extracurricular Activities Besides the Biology Club and the iGEM Team:

_____	_____
_____	_____
_____	_____
_____	_____

Discuss your interests in the biological sciences.

Why have you decided to apply for this position?

Submit this application electronically to the Captain(s).

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THE CONTRACT OF COMMITMENT

By signing "The Contract of Commitment" you are making a pledge to attend iGEM Team and Biology Club meetings on a regular basis, apply yourself to all activities, and conduct relevant research to the best of your ability. Once you have three unexcused absences, you will no longer be a member of the Team/Club and will be relieved of your leadership position if applicable.

Signature _____

Printed Name _____

Date _____ / _____ / _____

"The Contract of Commitment" may be submitted in print to one of the Captain(s).
An electronic signature would be as equally binding.

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APPEALS FOR IMPEACHMENT

Leaders in the iGEM Team and Biology Club may be impeached through an appeal process. Appeals can be made anonymously and will be evaluated by the faculty sponsors. Members must submit “The Appeal” found in this document.

Upon reaching a simple majority with half of the iGEM Team and Biology Club in consensus to impeach one or both Captain(s), the faculty sponsor(s) would consider the impeachment of the Captain(s). Upon a successful impeachment, the Captain would lose both his position in the iGEM Team and in the Biology Club. Directors may be impeached at the discretion of faculty sponsors; a poll would not be necessary. A simple majority with half of the Committee in consensus would, however, impeach one or both Director(s) of the Committee. A new leader would be selected upon a successful impeachment by either a simple majority vote or direct appointment by the faculty sponsor(s).

Impeached leaders, however, may continue to be a member if they uphold the terms in “The Contract of Commitment.”

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THE APPEAL

Appeals must be made with rightful intentions and justified reasons.

Name of the Leader: _____

Position Held by the Leader: _____

Reason for the Appeal:

Appeals may be submitted in print or electronically to the faculty sponsors and/or the Captain(s).
