iGEM Synthetic Biology Research Application
Summer 2010

NSF Grants DMS-0733952 and 0733955 provide stipends for eight summer research students from Davidson College and Missouri Western State University combined. Students must be US citizens or permanent residents. Each student will be paid a **$4000.00 stipend** and a **$500 housing allowance**.

Student researchers will be expected to work full-time (40 hours per week) on this project for the **10-week period from May 24 through July 30, 2010**.

All summer research students will be expected to travel to the alternate campus (Davidson goes to Missouri May 25-29 and MWSU goes to Davidson July 25-29). All students will travel to the iGEM Jamboree held at MIT, November 5-8. In the appropriate place on the application, please list any conflicts that you may have with these travel plans. **All travel expenses are paid for by the grant.**

All application materials may be sent to the project mentors electronically, in person, or by campus mail. A complete application for this position consists of the following four items:

1. A letter of interest from the applicant, 2-3 pages long, addressing the following questions:
    - What qualifications do you have for the position? Describe how courses and other experiences qualify you for work in synthetic biology.
    - Why are you interested in this specific position?
    - How does synthetic biology research help you accomplish your future career goals?
    - Explain why you think you can work independently as well as within a large interdisciplinary team. Give specific examples.
    - Do you view yourself as a follower or a leader? Explain.
    - Describe your attitude toward learning new concepts, methods, and research strategies, and how you feel about asking for help.
2. A completed application form (below)
3. Two letters of recommendation (using the attached form) from faculty other than the project mentors. Letters should be sent directly to the project mentors.
4. An unofficial transcript

Applications are due by March 1, 2010. Selected applicants will be notified by March 5.

2010 iGEM Synthetic Biology Student Researcher

Application

1. Name:

2. E-mail:

3. Major/minor/concentration:

4. Number of courses you will have completed through Spring 2010:

5. Indicate grades for courses that you have taken from the following list, and others that you think are relevant. Write "in progress" if you are currently enrolled in the course.

MAT 110 (Finite Math)	BIO 111 (Molecules, Genes & Cells)
MAT 130 or 130M (Calculus I)	BIO 301 (Genetics)
MAT 135 or 137 (Calculus II)	BIO 302 (Microbiology)
MAT 210 (Mathematical Modeling)	BIO 304 (Molecular Biology)
MAT 235 (Differential Equations)	BIO 308 (Cell Biology)
MAT 340 (Probability)	BIO 309 (Genomics)
CSC 121 (Programming - Java)	BIO 343 (Laboratory Methods in Genomics)
CSC/BIO 310 (Bioinformatics)	

6. We ask that summer researchers take at least four of the above courses, and at least one from each discipline (BIO and MAT/CSC) within one year of their summer research program. What additional courses from the above list are you currently taking or can commit to take by the end of next year?

7. Can you commit to being available for Bio-Math Connections at 4:00 each Friday afternoon for the rest of the Spring 2010 semester? Explain any prior commitments that would make you unable to attend Bio-Math Connections regularly.

8. Can you commit to traveling with the team to Missouri Western State University May 25-29, and to the iGEM Jamboree in November, 2010 (expenses paid by grant)? If not, explain why not.

9. Can you commit to working full time during the ten-week period from May 24 to July 30, 2010? If not, explain why not.

10. Can you commit to presenting a poster at Davidson in September, and working with the team to prepare for iGEM in November of 2010? Describe any prior commitments that might prevent you from participating in these activities.

Recommendation form for iGEM Synthetic Biology Research Team Application

Name of Applicant: _____

____ I waive _____ I do not waive
my right to review this recommendation.

_____ _____
Student Signature **Date**

Name of Faculty Evaluator: _____

Instructions to applicant: Sign the above waiver before delivering a hard copy of this form to the faculty evaluator.

Instructions to faculty evaluator: Please write your answers directly on this form, and send it by intercampus mail, or scan it and email it to one of us. If you prefer, you can attach a letter of recommendation that addresses the following six questions. Please send your comments by March 3, so we can make our selections by March 5.

Thank you for your candid assessment of this applicant.

Malcolm Campbell, macampbell@davidson.edu, Box 7118
Laurie Heyer, laheyer@davidson.edu, Box 6959

1. How long have you known the applicant, and in what capacity?

2. What is your assessment of the applicant's academic ability and preparation for summer research?

3. Do you think the applicant can work independently with creativity and confidence? Do you view the applicant as a follower or a leader? Why?

4. Describe the applicant's attitude toward learning new concepts and methods. How comfortable is the applicant with asking for help?

5. How effective do you think the applicant would be as a member of a multidisciplinary and multi-institutional research team? How does the applicant interact socially with people, particularly those with diverse backgrounds?

6. Please share any additional comments you might have about this applicant.

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Faculty Evaluator Signature