



## BEACON Summer Program

July 7-11, 2013



### Audience

32 juniors and seniors were invited to attend the BEACON program this year. Invitations were granted to high achieving students interested in Computer Science, Engineering and Biology. Most of the participants were women (66%).

### Program Funding

This program has no cost for invited students and the funding comes from a grant provided by the National Science Foundation, NSF.

### Objectives

- To educate students about BEACON related science and engineering college majors
- To teach students about evolution in action in biological and non-biological systems.
- To educate students about the importance of conducting research

### Description

This NSF-funded Science and Technology Center program focuses on preparing a diverse new generation of scientists and engineers with the advanced STEM skills necessary to advance interdisciplinary research on evolution in action, and develop innovative applications with actively evolving biological and technological systems.

### Outcomes

Pre and post program surveys were administered to students and the results show:

- The majority of students (93%) rated the program good or excellent. When asked if they would recommend this program to a friend, (90%) students said, "yes,"
- The majority of students rated the sessions as good or excellent in terms of preparing them to respond to questions about evolution.
- Overall, participants enjoyed the research projects; they agreed that the projects were interesting and that allowed them to use and apply evolutionary principles.
- Students were pleased not only with instructors' knowledge and passion, they also were satisfied with their instructional techniques, found instructors helpful, and most perceived instructors as being interested in students' learning.

- The staff and student mentors had numerous favorable mentions made of them by participants who agreed about them being helpful and easy to approach.
- In general, the impacts on student learning was highly satisfactory. Students provided more coherent responses to the post evaluation questionnaire that tested their knowledge about evolution, engineering and science.

### Additional Significant Information

The BEACON Summer program is the K-12 Outreach component of the BEACON Center for the Study of Evolution in Action which brings together faculty from the College of Engineering, Natural Science, Agriculture and Natural Resources and Lyman Briggs. The BEACON program was run at the Kellogg Biological Station, KBS, near Battle Creek,

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