Expected Outcome 1: Doctoral Training Program
Promote excellence in graduate education and facilitate research in the cellular and molecular biosciences through an Interdisciplinary doctoral training program through encouragement of publication and participation in professional scientific meeting at local, regional, national and international levels.

Assessment Method 1: Recruitment: Annual GRA

Assessment Method Description
Results are used to develop recruitment strategies aimed at increasing the size and quality (as reflected by academic records and performance on standardized examinations such as the 'Graduate Record Exam') of the pool of applicants for Doctoral Graduate Research Assistantships.

Findings
A total of 16 applications were received and reviewed during February, 2014. Of these, 5 applicants were recommended for acceptance. Offers were made to these 5 candidates; and 3 candidates accepted, while 2 declined and 1 withdrew to accept an offer from another college. This is the third year in a row in which the program was able to recruit a high percentage of the top applicants, although there was a drop-off in the number of total applications and applicants who accepted our offer.
Furthermore, the selection committee noted that while the general quality of the applications has improved significantly over those past years, this year’s applicant pool was shallower than that of the last two years. We trace this overall trend directly to a new initiative, now in its third year that raised the CMB Fellowship from $18,300 to $22,500, making the award competitive with similar fellowships from other institutions nation-wide.

How did you use findings for improvement?
We used these findings to determine that we need to extend our recruitment efforts to a wider range of schools and a wider range of CMB-related scientific disciplines. This year we are including Biochemistry in our recruiting efforts.

Additional Comments
Assessment Method 2: Recruitment: Summer GRA

Assessment Method Description
Results are used to continue and expand a new initiative: summer graduate research assistantships for students currently enrolled and performing research in the laboratories of CMB faculty. The goal of this program is to give productive graduate students, who are supported during the academic year on a teaching assistantship (GTA), release time to concentrate on their thesis/dissertation research full-time during the summer semester.

Findings
A total of 24 applications were received and reviewed during February, 2014. Of these, 15 applicants were recommended and accepted the fellowship.

How did you use findings for improvement?
Extended recruitment efforts. This is the third year of this program, so we used the information in the student applications to refine our application form and criteria for ranking.

Additional Comments
None

Assessment Method 3: Scientific Productivity: Annual GRA

Assessment Method Description
Results are used to track progress of doctoral students.

Findings
Through a structured performance evaluation and laboratory rotation program, data indicative of academic performance, documented by grades in coursework, and research productivity, documented though submission of written rotation summaries, were collected.

How did you use the findings for improvement?
Results are used to place doctoral students in research programs appropriate to their interests.

Additional Comments
None
Expected Outcome 2: Strengthen Faculty
Strengthen, improve and retain a valued, productive faculty through enhancements of technical infrastructure, interdisciplinary communication and new faculty hires.

Assessment Method 1: Enhance Infrastructure

Assessment Method Description
Equipment and software acquisition and training have enhanced teaching and research capacity for faculty and students. Enhanced capacities are used to leverage existing resources in order to further enhance technical capabilities necessary for research competitiveness in the cellular and molecular biosciences. CMB split funding of Agilent TapeStation Nucleic Acid System (Halanych) purchase with Biological Sciences, split cost of VWR Biocabinet with DBS (Liles), split cost of CytoViva Hyperspectral Imaging System with Biological Sciences (Barbaree), split cost of Nikon Upgrade to existing A1RSI, split cost of MSOFT inVision with Drug Discovery and others, paid for Year 3 of GE ImageQuant and paid for Year 3 of three year service on Real Time PCR.

Findings
Improvement of scientific/technological infrastructure and facilitation of programmatic communication has enabled continued, extramural programmatic support and facilitated recruitment and retention of faculty in the life sciences. We also use the CMB infrastructure support to leverage extramural grant support from NSF-EPSCoR (in a ratio of 1:2 CMB:NSF).

How did you use findings for improvement?
Documentation of and environment conducive to development of competitive life science research/educational programs.

Additional Comments
Additional comments: Further action planned: Continue encourage and facilitate infrastructure development. One major instrument upgrade planned for the coming year.

Assessment Method 2: Improve Web-Based Resources

Assessment Method Description
Results are used to improve efforts to recruit outstanding applicants from the
Auburn University student population into the graduate ranks, and to develop effective recruitment strategies that will ultimately be aimed at regional and (or) national student pools.

**Findings**
Programs, seminar and research from 5 AU Colleges were promoted through the AU-CMB web site.

**How did you use findings for improvement?**
Web-based VOIP technologies will be used to maintain communication with AU-CMB affiliated satellite institutions.

**Additional Comments**
Further action planned: continue to develop/encourage use of web-based resources.

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**Expected Outcome 3: Undergraduate Summer Research Scholars Program**
Promote excellence in undergraduate education in the cellular and molecular biosciences through undergraduate research training that involves written and oral presentation of research results from life science disciplines.

Related typical general education outcomes:
2. Analytical and Critical Reading  
6. Ability to Solve Open-Ended Problems  
8. Oral Communication

**Assessment Method 1:** Recruitment

**Assessment Method Description**
Results are used to improve efforts to recruit outstanding applicants from the Auburn University student population into the graduate ranks, and to develop effective recruitment strategies that will ultimately be aimed at regional and (or) national student pools.

**Findings**
A total of 25 applications were received, 20 students were selected to participate and 20 accepted.

**How did you use findings for improvement?**
Results are also used in report to the National Science Foundation Experimental Program to Stimulate Competitive Research (NSF-EPSCoR) to promote support to augment this program.

**Additional Comments**
**Assessment Method 2:** Research

**Assessment Method Description**
Abstract and oral presentation of 2014 USRS participants are now ready for submission to and presentation at the 4rd Auburn University Research Week during Spring semester, 2015.

**Findings**
All Undergraduate Summer Research Scholar students participated in a colloquium in which summer research findings were shared as written abstracts and presented in a public forum as PowerPoint-based oral presentations to an audience of their peers and participating AU faculty mentors.

**How did you use findings for improvement?**
Use student research output, documented in abstracts, to promote the Undergraduate Summer Research Scholars Program and to enhance competitiveness in efforts to obtain extramural support for expansion of this program. Results are also used in reporting to the National Science Foundation Experimental Program to Stimulate Competitive Research (NSF-EPSCoR), to obtain augmentation to this program.

**Additional Comments**
The CMB program was used to help leverage support for a Howard Hughes Medical Institute proposal (5 year, $2 M total) to improve retention in STEM undergraduate majors by increasing involvement in undergraduate research.