

# **Mentorship for Developing Course-based Undergraduate Research Experiences (CUREs): The CUR Mentorship for Integrating Research into the Classroom (MIRIC) Program**

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The life science education community has responded to the recommendations of the American Association for the Advancement of Science (AAAS) Vision and Change document with several initiatives designed to improve the way in which undergraduates learn science. These initiatives have often taken the form of one-time workshops that generate awareness of and interest in developing authentic research experiences for undergraduate STEM classrooms. However, they have been less successful with respect to generating the sustainable change necessary to bring real reform to undergraduate science education. To create sustainable change, long-term faculty development initiatives focused on mentorship are needed so that instructors seasoned in developing and implementing course-based undergraduate research experiences (CUREs) can convey their experiences to mentees interested in using these pedagogical techniques as the centerpiece of their own teaching. The Council on Undergraduate Research (CUR) Biology Division has created the Mentorship for Integrating Research Into the Classroom (MIRIC) program to provide a means for members with an interest in developing improved and sustainable active learning techniques to gain experience in this style of teaching through close, long-term interaction with a veteran teaching mentor. MIRIC focuses on the development of instructors who wish to develop a dynamic CURE. Current and future life science instructors pair themselves up with seasoned veterans of CURE development and work with them and their students over the course of a semester or longer to develop a CURE that will allow the mentee to bring authentic research into his or her classes.

In our pilot studies, we collected qualitative and quantitative data based on participant interviews and coding videos of student and instructor actions during classroom activity (Smith et al., 2013), respectively, that suggest that MIRIC mentorships have made positive gains in promoting sustainable active learning techniques among participants. Going forward, we wish to use instruments like the Laboratory Course Assessment Survey (Corwin et al., 2015) and Experimental Design Ability Test (Sirum and Humburg 2011) to assess the effectiveness of the MIRIC laboratory intervention.

**Keywords:** mentoring; CUREs

**Link to Original Poster:** <http://www.ableweb.org/volumes/vol-40/poster?art=74>

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