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Strategies for integrating responsible and ethical conduct of research (RECR) education into CUREs.

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Abstract

Responsible and ethical conduct of research (RECR) is critical for promoting the integrity of the scientific enterprise. However, previous studies indicate that RECR education is often both limited and highly variable for undergraduate researchers in STEM. This is particularly worrisome in light of the proliferation of course-based undergraduate research experiences (CUREs), which seek to engage students in novel, broadly relevant scholarship. In this interactive mini-workshop, we will first provide evidence detailing the extent to which RECR education is currently integrated into CUREs nationwide and engage in whole-group discussion to "unpack" these findings. We will then share examples of successful RECR activities and strategies for use in CUREs, which have resulted from implementation of the Ethics Network for Course-based Opportunities In Undergraduate Research (ENCOUR) Fellowship Program, co-directed by the session facilitators. Small-group dialogue and concept mapping will subsequently be employed to aid attendees in outlining how they might incorporate RECR education into their own CUREs/laboratory curricula (e.g., what key personnel will be involved, what RECR topics will be addressed, what resources are necessary to implement RECR education). Finally, attendees will have an opportunity to receive feedback on their concept maps via participation in a gallery walk exercise. Collectively, these interactive elements are designed to enhance attendees' knowledge and value of RECR education in CUREs while simultaneously empowering them to effectively integrate RECR into their own laboratory courses.

Keywords: CURE, ethics, research

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