

View Abstract

ABSTRACT SYMPOSIUM NAME: Bridging the Divide: Relating Chemistry to Biology and the Humanities

ABSTRACT SYMPOSIUM PROGRAM AREA NAME: CHED

CONTROL ID: 3112747

PRESENTATION TYPE: Oral Preferred : Consider for Sci-Mix

TITLE: Leveraging Philosophy to Cultivate a Culture of Ethical and Responsible Conduct in Chemistry and Beyond

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ABSTRACT BODY:

Abstract: This contribution reports how the investigators are bridging across chemistry, philosophy, and other disciplines to study the landscape of ethics and responsible conduct (ERC) of research at the University of Central Florida (UCF) and to develop ongoing initiatives that cultivate a campus-wide culture of ERC in science. A multi-modal approach is employed to assess the ethics landscape at UCF, which is one of the most populated, rapidly emerging, minority-serving metropolitan universities in the United States. Stakeholders are consulted to develop new initiatives. In one example, the team created case-study driven workshops that help students discover through discussion how decision making and the sense of what is right can be affected by culture, discipline, past experience, and the availability or lack of information. Participants discuss topics closely related to chemistry -- including CRISPR, climate science, putative links between autism and vaccination, recalls related to vehicle emissions systems, and other examples from science, technology, and industry -- that help them understand how ERC impacts society at all levels and why it must be central to their professional practice. Philosophical arguments, like the Trolley Problem and normative theory, are used to focus students' thinking on the key value judgements that define the moral landscape and lead to ethical or unethical outcomes. The investigators are exploring means for bridging across hierarchies that are inherent in higher education -- and which create natural but often unhelpful divisions between students, faculty, staff, administrators, and alumni -- so that all stakeholders develop and contribute to a shared sense of ERC. The investigators examine how chemistry students engage with interdisciplinary colleagues and how faculty in chemistry and closely related disciplines are engaging with the initiatives. Advances in the assessment of ERC and the development of vehicles for promoting a culture of ERC are described.

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