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Poster Abstract
Title: Synthetic Biology Practices at SynBERC

The mission of the multi-university Synthetic Biology Engineering Research Center (SynBERC) is to make biology into an engineering discipline. Alongside the development of technologies enabling the engineering of complex biological systems, the Center's Practices Thrust was established to help evaluate and guide best practices and policies for synthetic biology, and biotechnology more broadly. To scale, sustain and tailor consideration of best practices, Practices programs aim to enable Center researchers and Partners in industry and government to identify and assume their roles and shared responsibilities for shaping, and governing, biotechnology in practice.

Here we describe ongoing efforts in our Center to create and evaluate programs for researcher training and engagement in the societal ramifications of synthetic biology. We describe mechanisms employed to solicit researcher self-identification of interests and uncertainties surrounding the broader context of their work and developments in the field. We highlight researchers' views on opportunities and challenges associated with anticipating and responding to the economic, political, and cultural milieu of synthetic biology. We describe activities designed to improve researcher education and leadership in practice and policy issues coupled to improved capacities to engineer biology - such as safety, security and intellectual property. Lastly, we discuss frameworks for evaluating these programs, including the extent to which they succeed – and fail - in improving biotechnology in practice.