

IDENTIFYING BIOSECURITY RISKS AND OPPORTUNITIES IN THE RAPIDLY EVOLVING BIOTECHNOLOGY INDUSTRY

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ABSTRACT:

As biotechnology capability continues to rapidly advance, the next decades will see new applications to a variety of technical disciplines beyond biomedicine, to include energy, agriculture, and materials sciences. Driven primarily by small startups and larger biotechnology commercial interests, novel products will be marketed as well as novel technological approaches and manufacturing platforms to produce them. While the commercial regulatory implications of this have been recently examined, there has not been a comprehensive analysis of biosecurity risks that may be inherent as biotechnology advances, or that may lead to adversarial capability from a WMD perspective. Further, it is clear that any assessment of biosecurity concerns and their potential mitigating solutions must be accomplished through a comprehensive engagement with the commercial sector.

In this study, we proposed to provide a pilot analysis of the biosecurity risks associated with biotechnology, through the creation of a public-private partnership with the biotechnology community (to include interviews with industry representatives and a full workshop). Products of the research will include an analysis of the biotechnology landscape, and a workshop report which highlights industry recommendations for biosecurity approaches.

Research in Progress describes ongoing PASCC research. For more information please contact INSS@usafa.edu.