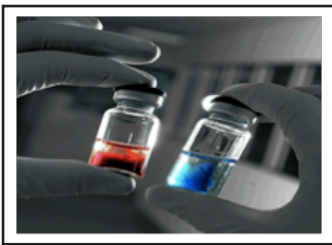


“Synthetic biology is likely to create new risks for society, including possible unintended harmful consequences for human health and environment, or deliberate misuse for hostile purposes.”<sup>a</sup>



## THE RISKS



## ENVIRONMENT

“Unknown risks include various levels of harm to humans, animals, plants, other microorganisms and the environment in the event of an unplanned release.”<sup>b</sup>

“The lack of attention to the ecological harms posed by synthetic biology is irresponsible and dangerous”<sup>c</sup>

## How Safe Are Biolabs?

- “No one knows precisely how many accidents occur at the lower containment levels”<sup>h</sup>
- 1,495: the number of registered biolabs in 2010, triple the number from 2004<sup>e</sup>
- 105: The number of deaths traced to anthrax at a biological warfare facility<sup>e</sup>
- The new and emerging field of synthetic biology is steeped in scientific uncertainty.<sup>d</sup>
- Currently there is no comprehensive regulatory apparatus for the oversight and governance of synthetic biology
- “There is no reason that someone couldn’t modify a virus; you could release it on an airplane or subway, and it could have profound terror effects.” – *NY Times*<sup>i</sup>
- “New biological materials, nanomaterials, there are many things where we don’t have adequate information, and we think workers need to have protection.” - *David Michaels, Assistant Secretary of Labor for Occupational Safety and Health*

## HEALTH

- “There have been many reported cases of laboratory-acquired infections involving dangerous pathogens.. including 2 medical researchers with SARS virus.”<sup>d</sup>
- “Government officials are not able to get access to select agent research being done....this information would be useful so agencies could prepare for the possibility of a laboratory accident that spreads to the general community.”<sup>d</sup> -*NYC Dept. of Health.*
- Three lab employees at Boston Univ were exposed to Pahvant Valley Plague, a potential bioweapons agent, when it was mistakenly tested in a low level lab. The FBI and CDC were not properly notified.<sup>h</sup>
- 1979-2004: 1,448 symptom causing infections in biolabs resulting in 36 deaths- “substantial underestimation”<sup>c</sup>



## KEEP THE BIOLABS UNDER CONTROL

“All organisms...should be studied under a high level of biocontainment until their safety can be demonstrated”<sup>a</sup>

“Over the past decade, new labs have experienced repeated problems caused by withholding of information about safety and risks.”<sup>f</sup>

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