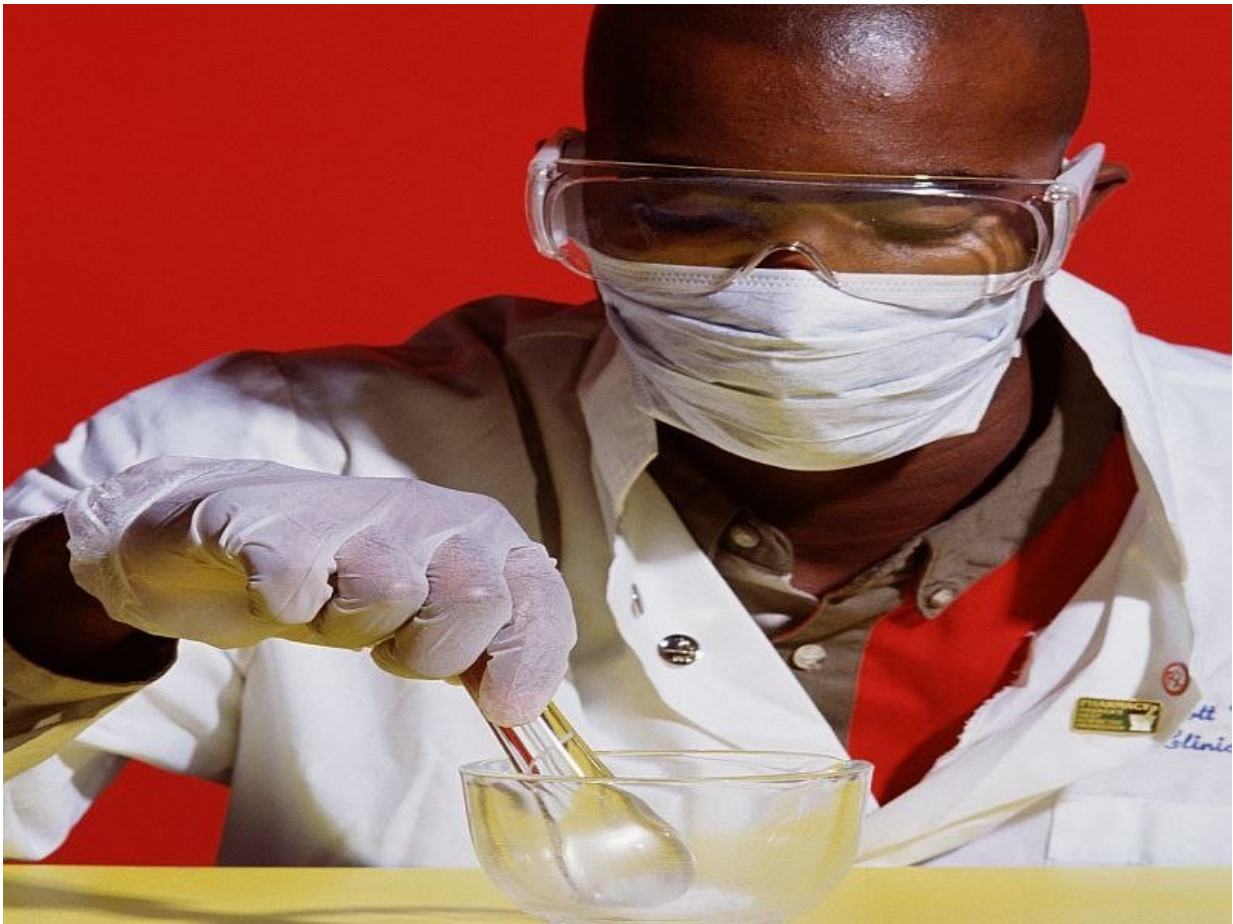


Experts warn of synthetic 'bioweapons' danger

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(HealthDay)—The burgeoning field of "synthetic biology" research

could lead to the creation of dangerous new bioweapons, and U.S. defense officials need to be alert to assess the potential threat.

So concludes a new [report](#) by the National Academies of Sciences, Engineering, and Medicine, which advises the U.S. federal government.

In [synthetic biology](#), scientists use technologies to engineer or create organisms. These methods have been used for a variety of beneficial purposes such as treating diseases, boosting agricultural production and cleaning up pollution.

But even though synthetic [biology](#) offers a number of benefits, it also opens the door to the creation of new bioweapons, the panel warned. That includes making existing bacteria and viruses more lethal, and shrinking the time it takes to create such organisms, according to the report, which was sponsored by the U.S. Department of Defense.

"In and of itself, synthetic biology is not harmful," stressed report committee chair Michael Imperiale, a professor of microbiology and immunology at the University of Michigan. Speaking in a committee news release, he said that "the level of concern depends on the specific applications or capabilities that it may enable."

Imperiale noted, "The U.S. government should pay close attention to this rapidly progressing field, just as it did to advances in chemistry and physics during the Cold War era."

Weapons created through synthetic biology might be unpredictable and hard to monitor or detect, the panel's report said, so U.S. defense officials should assess how to strengthen the nation's public health system to recognize a potential attack from such weapons.

"It's impossible to predict when specific [weapons] enabling

developments will occur; the timelines would depend on commercial developments as well as academic research, and even converging technologies that may come from outside this field," Imperiale said.

"So it is important to continue monitoring advances in synthetic biology and other technologies that may affect current bottlenecks and barriers, opening up more possibilities," he explained.

More information: The Synthetic Biology Project has more on [synthetic biology](#).

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