

Biosecurity Really: A Strategy for Victory

Biosecurity risks are increasing. Pandemics are emerging more often. Lab accidents remain possible. Bad actors have unprecedented access to powerful tools. Despite these trends, biosecurity victory is possible and within reach.

In *Biosecurity Really*, Hoover's Bio-Strategies & Leadership team provide a frank assessment of increasing biosecurity risks and a holistic strategy for making biosecurity real in perpetuity. Nine sets of actions are needed, including:

- **Creating a sustained biological intelligence (BIOINT) program.**
- **Creating private-sector bioaudits.**
- **Disallowing research with pandemic-potential pathogens by default.**
- **De-escalating and disarming nation-state bioweapons programs.**
- **Creating a national biosecurity institute.**
- **Creating new governance and coordination offices.**
- **Leading on DNA synthesis and AI x Bio, from technology to governance.**
- **Reconsidering and strengthening indoor air quality standards.**
- **Promoting bioliteracy and rewarding biosecurity leadership.**

Biosecurity Really breaks new ground in terms of recommended actions and approach, including:

- **PRICE IN AI & PERVASIVE BIOTECHNOLOGY.** Biotechnology is destined to become a general-purpose technology and will soon be pervasive. Artificial intelligence is also here to stay. Such shifts mean we can no longer rely on strategies that only seek to limit access to powerful tools.
- **DISTRUST BUT VERIFY.** Biosecurity strategies must assume distrust as the default state, just as finance does. A private-sector system of "bioaudits" is needed to govern labs, companies, and universities to certify safety, catch risks early, and build public trust.
- **USE BIOLOGY TO SECURE BIOLOGY.** To secure biology we must harness the very technologies that create new risks. Emerging biotechnologies can strengthen surveillance, vaccines, diagnostics, and treatments.
- **DEVELOP BIOLOGICAL INTELLIGENCE (BIOINT).** Just as GEOINT transformed security during the Cold War, BIOINT can enable real-time, threat-agnostic detection of biological threats. BIOINT would unify, expand, and sustain existing efforts to help prevent biological threats.
- **CHANGE OUR GOVERNANCE REGIMES FOR PATHOGENS RESEARCH.** The real lesson of COVID origins is not where or how the pandemic began but why it is so hard to answer such questions. Rules built for when creating viruses was difficult no longer suffice. Research on pandemic-potential pathogens should follow a "default-no" rule, allowed only if needed for diagnostics, treatments, or vaccines.
- **PREVENT STUPIDLY ASSURED DESTRUCTION (SAD).** Pursuing bioweapons risks repeating nuclear-era mistakes. Unlike mutual assured destruction (MAD), which imposed stability, "stupidly assured destruction" (SAD) would reflect failure and insecurity, fueling bioweapons expansion, eroding norms, and endangering global health and security.

While biosecurity risks are real and increasing, the tools for biosecurity victory are within reach. We can build a world where COVID-19 is the last pandemic. We need not be ruled by fear. Victory is possible if we act together now.

Biosecurity Really is a publication of Bio-Strategies & Leadership (BSL) at the Hoover Institution. BSL ensures that the United States and its allies understand biology as a strategic domain and act accordingly. BSL products are designed to help leaders realize flourishing and democratic futures. Ongoing work is focused on economic and technical competitiveness, national security, and public health. To learn more about BSL please visit: victory.stanford.edu.

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