

U.S. vs. China: Government Action on Key NSCEB Recommendations

In April 2025, the National Security Commission on Emerging Biotechnology (NSCEB) warned policymakers that they had three years to act to secure America’s longstanding lead in biotechnology or risk ceding it to China. Since then, the Chinese Communist Party (CCP) has continued to pull every lever to dominate biotechnology globally, and the window to act is closing. While biotech champions in Congress have made important legislative progress over the last year,

China is actively running the NSCEB’s playbook, outpacing the U.S. to secure global biotechnology leadership.

NSCEB Priorities	U.S. Government Action	Chinese Government Action
<p>National Strategy</p>	<p>The U.S. government does not yet have a national strategy for biotechnology. Bipartisan, bicameral lawmakers introduced the National Biotechnology Initiative Act (S.1387/H.R.2756) in April 2025 to prioritize and coordinate biotechnology at the national level.</p>	<p>China has made biotechnology a strategic priority for the last 20 years. China’s 2026 Five Year Plan (FYP) doubles down on efforts to achieve biotechnology dominance.¹ It lists priority areas including biomedicine, biomanufacturing, brain-computer interface technologies, and pharmaceuticals. The document characterizes these sectors as “future industries,” “priority sectors,” “core technologies,” and “frontier fields,” alongside other emerging technologies such as artificial intelligence (AI) and quantum computing.¹</p>
<p>Regulation</p>	<p>The U.S. government’s current approach to biotechnology regulation creates bottlenecks for innovation. Bipartisan lawmakers in the Senate introduced the Foundation for Enabling Biotechnology Innovation Act and the National Biotechnology Safety Act (S.2696, S.2697) in September 2025 to accelerate commercialization of biotechnology and improve emerging technology risk assessments. A related provision was included in the November 2025 House Continuing Appropriations and Extensions Act (H.R.5371).</p>	<p>China has a two-track regulatory system for drugs and medical products, following a wave of reforms in the 2010s.² These changes streamline the path to market for drugs and allow scientists to get preliminary in-human data faster. As of 2024, China leads the world in number of clinical trials initiated annually, and many U.S.-based pharmaceutical companies are now going to China to initiate first-in-human trials.³</p>

NSCEB Priorities	U.S. Government Action	Chinese Government Action
Infrastructure	<p>The United States lacks sufficient biomanufacturing capacity to scale up domestic innovations. Bipartisan, bicameral lawmakers appropriated a total of \$400 million in fiscal years 2023 and 2024 for a network of open-access, pre-commercial bioindustrial facilities across the country as part of the BioMADE program. BioMADE has announced three facilities, but none are operational yet.</p>	<p>China is pursuing biomanufacturing to eliminate foreign supply chain dependencies. In 2023, the CCP incentivized domestic biotechnology companies to manufacture products from a list of 32 high-value, multipurpose molecules using diverse feedstocks.⁴ In 2025, the government announced public-private partnerships with 43 companies to build biomanufacturing pilot plants nationwide.^{5, ii}</p>
Investment	<p>While America’s strong capital markets remain a core advantage, private capital alone will not carry biotechnologies that are critical to U.S. national security from lab to market; the technical and business risks are too high. Bipartisan lawmakers in the House introduced the Independence Investment Fund Act (H.R.6412) in December 2025 to help seed new private investment in critical and emerging technologies.</p>	<p>China uses investment tools such as Government Guidance Funds (GGFs) to encourage innovation in key industries via public-private funding initiatives. GGFs peaked in 2021 at around 1,800 announced funds with capital goals of over \$1.5 trillion.⁶ The Chinese government renewed its commitment to GGFs by prioritizing the 2025 National Venture Capital Guidance Fund (NVCGF) in its 2026 FYP.⁷ The NVCGF has already announced investments in biomedicine and brain-computer interface technologies.^{8, iii}</p>
Data	<p>The United States does not yet treat biological data as a strategic national resource. Bipartisan, bicameral lawmakers introduced America’s Living Library Act and the AI-Ready Bio-Data Standards Act (S.4023/H.R.7832, S.4069/H.R.7907) in March 2026 to help collect, curate, and standardize high-quality, AI-ready biological data to drive discovery at the intersection of AI, automation, and biotechnology.^{iv}</p>	<p>China leverages biological data as a strategic national resource to train its AI models. A key 2026 FYP directive is to “construct a national data resource system...tailored to sectors such as energy, transportation, manufacturing, education, [and] health; and establish a framework for the responsible and appropriate use of AI training data,” akin to the NSCEB’s proposed Web of Biological Data (WOBD) and AI-ready biological data standards.⁹ China’s 2026 FYP also directs the creation of an internal network of biological data using the country’s natural resources, similar to the NSCEB’s WOBD and Sequencing Public Lands Initiative. China has made substantial progress on several efforts in this area over the past 10 years.^v</p>