



WEB OF BIOLOGICAL DATA ACT OF 2026

Key Provisions

- **Establishes a Web of Biological Data** to provide researchers streamlined access to high-quality biological data while supporting the development of cutting-edge AI tools for scientific innovation.
- **Requires cybersecurity safeguards** for the Web to ensure secure access and proper management of the data.
- **Creates an expert advisory board** to maximize the usability of the Web.

Background

In 2025, the National Security Commission on Emerging Biotechnology determined that China exploits publicly available biological data from the U.S., while closing off its domestic datasets from the rest of the world, strategically disadvantaging the U.S. In addition, China is investing heavily in biobanks and research centers in an effort to become a leader in bioscience breakthroughs.

The U.S. currently lacks coordination for biological data, making large datasets difficult to collect and burdensome to use. Biological data in the U.S. is generated from a wide variety of sources and organized differently depending on intended use. Current biological databases are insufficient to keep up in a future where researchers must leverage artificial intelligence. A new resource is needed to consolidate biological datasets, allowing U.S. researchers to spend less time curating datasets, and more time developing biological innovations to keep America ahead of competitors like China.

What the Bill Does

The Web of Biological Data Act of 2026 directs the Department of Energy (DOE) to establish a centralized data resource to serve as a single access point for high-quality biological data from different sources, especially those managed by the federal government. Consolidating this data into a single resource also contributes to training AI models that can be leveraged to facilitate novel biological research that helps the U.S. outcompete strategic competitors.

The legislation requires the Web to include cybersecurity and access controls at the earliest stages of design and development, ensuring that such safeguards are proportionate to the sensitivity of the data. These security considerations protect our biological data from malignant actors who seek to exploit this data.

Lastly, this bill requires the DOE to form an advisory board to oversee the implementation of the Web and maximize the usability of biological datasets across sectors. The board would be comprised of biological and biosecurity experts across industry, academia, National Laboratories, and Federal agencies.