SENATE COMMITTEE ON APPROPRIATIONS
Senator Sabrina Cervantes, Chair
2025 - 2026 Regular Session

AB 1864 (Berman) - Gene synthesis equipment manufacturers and providers

Version: May 18, 2026
Urgency: No
Hearing Date: August 3, 2026

Policy Vote: HEALTH 10 - 0, JUD. 13 - 0
Mandate: No
Consultant: Agnes Lee

Bill Summary: AB 1864 would impose requirements on synthetic nucleic acid providers and benchtop nucleic acid synthesis equipment manufacturers, as specified.

Fiscal Impact:

- The California Department of Justice estimates General Fund costs of $1,238,000 in 2026-27 and $2,307,000 in 2027-28 and ongoing thereafter for state administration. This includes costs for increased workload to work with an expert to assess when there is a violation, and to litigate violations of the law. The department would work with the California Department of Public Health (CDPH) on the regulatory, administrative enforcement, and reporting requirements.

- The CDPH indicates no fiscal impact for state administration.

- Unknown, potential workload costs to the courts related to enforcement of civil penalties under the bill (Trial Court Trust Fund, General Fund). While the courts are not funded on a workload basis, an increase in workload could result in delayed court services and would put pressure on the General Fund to increase the amount appropriated for trial court operations.

Background: According to the National Human Genome Research Institute, nucleic acids like DNA and RNA are polymers of molecules called nucleotides. While nucleic acids may replicate in nature, scientists have developed methods that enable the assembly of nucleotides into custom nucleic acid sequences for molecular biology research. The ability to synthesize nucleic acids has since transformed the life sciences, underpinning advances such as the construction of minimal bacterial genomes, disease diagnostics, crop improvement, and the manufacturing of biofuels.

In June 2018, in response to a request from the U.S. Department of Defense, the National Academy of Sciences released a report regarding synthetic biology and potential biodefense concerns. The report found that synthetic biology and related biotechnologies could enable new modes of attack, some of which may not be detectable or treatable with current approaches to disease containment and biodefense mitigation. The advent of sophisticated algorithms and artificial intelligence (AI) have also heightened biosecurity risks by reducing the scientific expertise required to create bioweapons.

The 2024 Framework for Nucleic Acid Synthesis Screening is the product of the National Science and Technology Council and is intended to reduce the risks of misuse

of synthetic nucleic acids and improve related biosecurity measures. As a condition of receiving federal government life sciences research funding, the framework establishes requirements for synthetic nucleic acid providers and benchtop nucleic acid synthesis equipment manufacturers. Under the framework, nucleotide sequences are screened for sequences of concern and for purchase orders containing sequences of concern, the provider must verify customer legitimacy, including that the customer is affiliated with a legitimate life sciences-oriented institution and has a legitimate need to use synthetic nucleic acids.

Proposed Law: Specific provisions of the bill would:

- Define “framework” to mean the Framework for Nucleic Acid Synthesis Screening issued by the Fast Track Action Committee on Synthetic Nucleic Acid Procurement Screening of the National Science and Technology Council, as revised in September 2024.

- Prohibit a manufacturer, as defined, from producing benchtop nucleic acid synthesis equipment in this state or selling or delivering benchtop nucleic acid synthesis equipment to a customer in this state unless the manufacturer adheres to the framework with respect to the produced, sold, or delivered equipment.

- Prohibit a provider, as defined, from producing synthetic nucleic acids subject to screening in this state or selling or delivering synthetic nucleic acids subject to screening to a customer in this state unless the provider adheres to the framework with respect to the produced, sold, or delivered nucleic acids.

- Impose civil penalties on a manufacturer or provider for violations, in an amount dependent on the severity of the violation that does not exceed $1,000 per day that the violation continues; and require a civil penalty assessed to be recovered in a civil action brought only by the Attorney General.

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