

119TH CONGRESS  
1ST SESSION

# S. 3452

To restrict the export to foreign entities of concern of United States intellectual property and sensitive information related to synthetic biology, and for other purposes.

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## IN THE SENATE OF THE UNITED STATES

DECEMBER 11, 2025

Mr. COTTON (for himself, Ms. HASSAN, and Mr. BUDD) introduced the following bill; which was read twice and referred to the Committee on Banking, Housing, and Urban Affairs

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## A BILL

To restrict the export to foreign entities of concern of United States intellectual property and sensitive information related to synthetic biology, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Biological Intellectual  
5 Property Protection Act of 2025”.

6 **SEC. 2. SENSE OF CONGRESS.**

7 It is the sense of Congress that—

8 (1) the People’s Republic of China is con-  
9 ducting a systematic campaign to access and exploit

1 sensitive United States data and intellectual prop-  
2 erty to modernize its military, intelligence, and other  
3 security apparatuses, enable human rights abuses,  
4 and develop dual-use strategic technologies;

5 (2) access by the People’s Republic of China to  
6 sensitive United States data and intellectual prop-  
7 erty poses grave and direct threats to United States  
8 national security;

9 (3) the efforts of the People’s Republic of China  
10 to access such data and intellectual property are  
11 supported by a military-civil fusion strategy, through  
12 which the People’s Republic of China increases the  
13 size of its military-industrial complex by compelling  
14 civilian Chinese companies and research institutions  
15 to support its military and intelligence activities,  
16 which results in ostensibly private and civilian com-  
17 panies that access United States capital supporting  
18 the modernization of the People’s Liberation Army;

19 (4) the law of the People’s Republic of China  
20 requires that all citizens of the People’s Republic of  
21 China cooperate with national security priorities, en-  
22 abling the modernization of the People’s Liberation  
23 Army, including through—

24 (A) the National Security Law of 2015,  
25 which states that citizens of the People’s Re-

1 public of China “shall have duties and obliga-  
2 tions to maintain national security”;

3 (B) the National Intelligence Law of 2017,  
4 which states that “all organizations and citizens  
5 shall support, assist, and cooperate with na-  
6 tional intelligence work”;

7 (C) the Data Security Law of 2021, which  
8 states that “where a public security organ or  
9 national security organ needs to obtain data for  
10 the sake of national security or for investigating  
11 crimes in accordance with the law . . . the rel-  
12 evant organizations and individuals shall co-  
13 operate”; and

14 (D) the Counterespionage Law, revised in  
15 2023, which states that citizens of the People’s  
16 Republic of China “have the duty to maintain  
17 the security, honor and interests of the state,  
18 and shall not engage in any act that endangers  
19 the security, honor or interests of the state”;

20 (5) the export of novel synthetic DNA and  
21 RNA sequences provides insight into the designs and  
22 research of biotechnology entities, leading to a high  
23 potential for intellectual property theft by foreign  
24 adversaries; and

1 (6) the United States should therefore control  
2 the export of synthetic DNA and RNA sequences to  
3 foreign adversaries.

4 **SEC. 3. LICENSE REQUIREMENT TO PROTECT UNITED**  
5 **STATES INTELLECTUAL PROPERTY AND SEN-**  
6 **SITIVE INFORMATION RELATED TO SYN-**  
7 **THETIC BIOLOGY.**

8 Part I of the Export Control Reform Act of 2018 (50  
9 U.S.C. 4811 et seq.) is amended by inserting after section  
10 1758 the following:

11 **“SEC. 1758A. LICENSE REQUIREMENT TO PROTECT UNITED**  
12 **STATES INTELLECTUAL PROPERTY AND SEN-**  
13 **SITIVE INFORMATION RELATED TO SYN-**  
14 **THETIC BIOLOGY.**

15 “(a) LICENSE REQUIREMENT.—Not later than 1  
16 year after the date of the enactment of this section, the  
17 Secretary shall, except as provided for in subsection (b),  
18 require a license for the export, reexport, or in-country  
19 transfer to a foreign entity of concern of a digital sequence  
20 of synthetic DNA or RNA designed by humans or artifi-  
21 cial intelligence systems.

22 “(b) EXCEPTION.—The requirement for a license  
23 under subsection (a) shall not apply with respect to infor-  
24 mation described in section 734.3(b) of the Export Admin-  
25 istration Regulations.

1 “(c) DEFINITIONS.—In this section:

2 “(1) DIGITAL SEQUENCE.—The term ‘digital  
3 sequence’ means a binary file or other digital rep-  
4 resentation containing symbols representing the  
5 identity, order, and any chemical modification for  
6 each position in a DNA or RNA molecule.

7 “(2) FOREIGN COUNTRY OF CONCERN.—The  
8 term ‘foreign country of concern’ has the meaning  
9 given that term in section 10612(a) of the Research  
10 and Development, Competition, and Innovation Act  
11 (42 U.S.C. 19221(a)).

12 “(3) FOREIGN ENTITY OF CONCERN.—The  
13 term ‘foreign entity of concern’ means—

14 “(A) a government entity of a foreign  
15 country of concern;

16 “(B) a foreign person subject to the juris-  
17 diction of, or organized under the laws of, a for-  
18 eign country of concern; or

19 “(C) a foreign person owned, directed, or  
20 controlled by an entity described in subpara-  
21 graph (A) or (B).

22 “(4) SYNTHETIC DNA OR RNA.—The term ‘syn-  
23 thetic DNA or RNA’ means—

24 “(A) molecules that are constructed by  
25 joining nucleic acid molecules and can replicate

1 in a living cell, such as recombinant nucleic  
2 acids;

3 “(B) nucleic acid molecules that are chemi-  
4 cally or by other means synthesized, including  
5 such molecules that are chemically or otherwise  
6 modified but can base pair with naturally occur-  
7 ring nucleic acid molecules, such as synthetic  
8 nucleic acids; or

9 “(C) molecules that result from the rep-  
10 lication of molecules described in subparagraph  
11 (A) or (B).”.

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