

119TH CONGRESS
1ST SESSION

S. 1387

To authorize the National Biotechnology Initiative, and for other purposes.

IN THE SENATE OF THE UNITED STATES

APRIL 9, 2025

Mr. YOUNG (for himself and Mr. PADILLA) introduced the following bill; which was read twice and referred to the Committee on Health, Education, Labor, and Pensions

A BILL

To authorize the National Biotechnology Initiative, 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 “National Biotechnology
5 Initiative Act of 2025”.

6 **SEC. 2. DEFINITIONS.**

7 In this Act:

8 (1) **BIOLITERACY.**—The term “bioliteracy” re-
9 fers to the concept of imbuing people, personnel, or

1 teams with an understanding of and ability to en-
2 gage with biology and biotechnology.

3 (2) BIOLOGICAL DATA.—The term “biological
4 data” means the information, including associated
5 descriptors, derived from the structure, function, or
6 process of a biological system(s) that is either meas-
7 ured, collected, or aggregated for analysis.

8 (3) BIOMANUFACTURING.—The term “bio-
9 manufacturing” means the application of bio-
10 technology to manufacturing.

11 (4) BIOTECHNOLOGY.—The term “bio-
12 technology” means the application of science and en-
13 gineering in the direct or indirect use of living orga-
14 nisms, or parts or products of living organisms, in-
15 cluding modified forms.

16 (5) DIRECTOR OF THE NATIONAL BIO-
17 TECHNOLOGY COORDINATION OFFICE.—The term
18 “Director of the National Biotechnology Coordina-
19 tion Office” means the individual appointed pursu-
20 ant to section 4(b)(2)(A).

21 (6) INITIATIVE.—The term “Initiative” means
22 the National Biotechnology Initiative established
23 under section 3.

24 (7) INTERAGENCY COMMITTEE.—The term
25 “Interagency Committee” means the interagency

1 committee designated pursuant to section
2 10403(a)(1).

3 (8) OFFICE.—The term “Office” means the
4 National Biotechnology Coordination Office estab-
5 lished under section 4(b).

6 (9) PARTICIPATING AGENCY.—The term “par-
7 ticipating agency” means a department, office, or
8 agency set forth under section 3(b).

9 **SEC. 3. AUTHORIZATION OF THE NATIONAL BIO-**
10 **TECHNOLOGY INITIATIVE.**

11 (a) INITIATIVE REQUIRED.—

12 (1) IN GENERAL.—The President, acting
13 through the Executive Office of the President, shall
14 implement an initiative to advance national security,
15 economic productivity, and competitiveness through
16 advancement and coordination of Federal activities
17 relating to biotechnology.

18 (2) DESIGNATION.—The initiative implemented
19 pursuant to paragraph (1) shall be known as the
20 “National Biotechnology Initiative”.

21 (b) PARTICIPATING AGENCIES.—The following shall
22 be participants in the Initiative:

23 (1) The Department of Agriculture.

24 (2) The Department of Commerce.

25 (3) The Department of Defense.

1 (4) The Department of Energy.

2 (5) The Department of Health and Human
3 Services.

4 (6) The Department of Homeland Security.

5 (7) The Department of the Interior.

6 (8) The Department of State.

7 (9) The Environmental Protection Agency.

8 (10) The National Aeronautics and Space Ad-
9 ministration.

10 (11) The National Science Foundation.

11 (12) The Office of the Director of National In-
12 telligence.

13 (13) The Office of the United States Trade
14 Representative.

15 (14) Such other Federal departments and agen-
16 cies as the Director of the National Biotechnology
17 Coordination Office considers appropriate.

18 (c) ACTIVITIES.—Each head of a participating agen-
19 cy shall carry out the Initiative, including by carrying out
20 the activities required by section 6 and by addressing and
21 coordinating the following:

22 (1) Federal activities relating to biotechnology,
23 including to create and maintain a national strategy
24 on biotechnology.

1 (2) National security implications of emerging
2 biotechnology.

3 (3) Sustained support for research and develop-
4 ment that accelerates scientific understanding and
5 technological innovation in biotechnology.

6 (4) Sustained support for biological data, data-
7 bases, and related tools as a strategic national re-
8 source.

9 (5) Private sector translation and commer-
10 cialization of products that are produced with bio-
11 technology.

12 (6) Regulatory streamlining for products that
13 are produced with biotechnology.

14 (7) Biosafety and biosecurity issues associated
15 with emerging biotechnology.

16 (8) Development of a domestic workforce, in-
17 cluding the Federal workforce, to advance bio-
18 technology across the United States.

19 (9) Bioliteracy activities that provide clear,
20 easy-to-find information for policymakers,
21 innovators, and the public.

22 (10) International partnerships, including regu-
23 latory and commercial diplomacy.

24 (11) Such other activities relating to bio-
25 technology as the Director of the National Bio-

1 technology Coordination Office and the Interagency
2 Committee jointly determine are needed to advance
3 national security, economic productivity, and com-
4 petitiveness relating to biotechnology.

5 **SEC. 4. INITIATIVE COORDINATION.**

6 (a) INTERAGENCY COMMITTEE.—

7 (1) DESIGNATION.—Not later than 180 days
8 after the date of the enactment of this Act, the
9 President shall, acting through the Executive Office
10 of the President, designate an interagency committee
11 to coordinate activities of the Initiative.

12 (2) DUTIES.—Each member of the Interagency
13 Committee shall—

14 (A) work with the Director of the National
15 Biotechnology Coordination Office to oversee
16 the planning, management, and coordination of
17 the Initiative;

18 (B) ensure the department or agency of
19 the member supports the Initiative through rel-
20 evant activities set forth under section 6;

21 (C) keep the other members of the Inter-
22 agency Committee apprised of the activities de-
23 scribed in subparagraph (B); and

1 (D) communicate activities of the Inter-
2 agency Committee with relevant components of
3 the Department or agency of the member.

4 (3) MEMBERSHIP.—The Interagency Com-
5 mittee shall include 1 member at the Assistant Sec-
6 retary level from each participating agency selected
7 by the head of the participating agency.

8 (4) CO-CHAIRPERSONS.—

9 (A) IN GENERAL.—The Interagency Com-
10 mittee shall have 3 co-chairpersons, of whom—

11 (i) one co-chairperson shall be the Di-
12 rector of the National Biotechnology Co-
13 ordination Office; and

14 (ii) two co-chairpersons shall be se-
15 lected by the members of the Interagency
16 Committee from among the members of
17 the Interagency Committee.

18 (B) TERMS.—Each co-chairperson selected
19 pursuant to subparagraph (A)(ii) shall serve a
20 term of 2 years, except for the first term the
21 Interagency Committee shall select one co-
22 chairperson to serve a term of 3 years, such
23 that subsequent terms are staggered.

24 (C) VACANCIES.—

1 (i) IN GENERAL.—A vacancy under
 2 this paragraph shall be filled in the man-
 3 ner in which the original appointment was
 4 made and shall be subject to any condi-
 5 tions that applied with respect to the origi-
 6 nal appointment.

7 (ii) FILLING UNEXPIRED TERM.—An
 8 individual chosen to fill a vacancy shall be
 9 appointed for the unexpired term of the co-
 10 chairperson replaced.

11 (D) QUORUM.—A majority of the members
 12 of the Interagency Committee shall constitute a
 13 quorum for the purposes of voting for co-chair-
 14 persons under clauses (i)(II) and (ii)(II) of sub-
 15 paragraph (A), with co-chairpersons selected by
 16 the member who receives the highest plurality
 17 of votes.

18 (E) LIMITATION.—A member of the Inter-
 19 agency Committee from a particular Federal
 20 department or agency may not serve consecu-
 21 tive terms as co-chairperson of the Interagency
 22 Committee.

23 (b) NATIONAL BIOTECHNOLOGY COORDINATION OF-
 24 FICE.—

1 (1) ESTABLISHMENT OF NATIONAL BIO-
2 TECHNOLOGY COORDINATION OFFICE.—

3 (A) IN GENERAL.—Not later than 180
4 days after the date of the enactment of this
5 Act, the President shall establish an office in
6 the Executive Office of the President to support
7 the Initiative.

8 (B) DESIGNATION.—The office established
9 pursuant to subparagraph (A) shall be known
10 as the “National Biotechnology Coordination
11 Office”.

12 (2) DIRECTOR OF NATIONAL BIOTECHNOLOGY
13 COORDINATION OFFICE.—

14 (A) APPOINTMENT.—Not later than 180
15 days after the date of the enactment of this
16 Act, the President shall appoint an individual to
17 serve as the Director of the National Bio-
18 technology Coordination Office.

19 (B) DUTIES.—The duties of the Director
20 of the National Biotechnology Coordination Of-
21 fice are as follows:

22 (i) To serve as the principal advisor to
23 the President for biotechnology.

24 (ii) To administer the functions of the
25 Office set forth under paragraph (3).

1 (C) AUTHORITIES.—In support of the Ini-
2 tiative, the Director may—

3 (i) advise the Director of the Office of
4 Management and Budget for the purposes
5 of tracking and adjusting agency spending
6 relating to biotechnology, including to en-
7 sure that Federal efforts are complemen-
8 tary and not duplicative;

9 (ii) convene members of the Inter-
10 agency Committee in order to advance and
11 coordinate Federal activities relating to
12 biotechnology;

13 (iii) coordinate Federal regulation of
14 products that are produced with bio-
15 technology;

16 (iv) select, appoint, employ, and fix
17 the compensation of such officers and em-
18 ployees as are necessary and prescribe
19 their duties;

20 (v) enter into and perform such con-
21 tracts, leases, cooperative agreements, or
22 other transactions, as appropriate, to the
23 conduct of the work of the Office;

1 (vi) utilize, with their consent, the
2 services, personnel, and facilities of other
3 Federal agencies; and

4 (vii) accept voluntary and uncompen-
5 sated services, notwithstanding the provi-
6 sions of section 1342 of title 31, United
7 States Code.

8 (3) FUNCTIONS OF THE OFFICE.—The func-
9 tions of the Office shall be, in support of the Initia-
10 tive, the following:

11 (A) PLANNING AND COORDINATION.—
12 Functions relating to planning and coordination
13 as follows:

14 (i) Working with the Interagency
15 Committee to oversee the planning, man-
16 agement, and coordination of Federal ac-
17 tivities relating to biotechnology.

18 (ii) Providing technical and adminis-
19 trative support to the Interagency Com-
20 mittee.

21 (iii) Assessing the landscape and gaps
22 associated with the different components of
23 the Initiative.

24 (iv) Coordinating a fellowship pro-
25 gram in which Federal employees are de-

1 tailed to 1 or more Federal agencies to
2 gain greater understanding of bio-
3 technology activities outside of their home
4 agency.

5 (v) Building and maintaining a co-
6 ordinated website for Federal activities re-
7 lating to biotechnology pursuant to sub-
8 section (c).

9 (vi) Coordinating development of an
10 annual report under subsection (d) and a
11 national strategy as required by subsection
12 (e).

13 (vii) Conducting such other activities
14 to support the Initiative as the Director
15 considers appropriate.

16 (B) NATIONAL SECURITY.—Functions re-
17 lating to national security as follows:

18 (i) Assessing and addressing the na-
19 tional security and economic security impli-
20 cations of emerging biotechnology.

21 (ii) Identifying and remedying any
22 major needs or information gaps in current
23 national security assessments and activi-
24 ties, including to conduct counterintel-

1 ligence efforts to fill gaps relating to bio-
2 technology.

3 (iii) Providing coordination in ad-
4 dressing foreign investments and acqui-
5 sition from adversarial countries.

6 (C) RESEARCH AND DEVELOPMENT.—

7 Functions relating to research and development
8 as follows:

9 (i) Coordinating sustained support for
10 research and development that accelerates
11 scientific understanding and technological
12 innovation in biotechnology.

13 (ii) Facilitating joint agency solicita-
14 tions for funding for individual grants, col-
15 laborative grants, and interdisciplinary re-
16 search centers.

17 (iii) Developing and proposing focus
18 areas or challenges for research funding
19 meant to advance biotechnology, particu-
20 larly relating to convergence with other
21 technologies such as artificial intelligence.

22 (iv) Developing, standardizing, and
23 deploying robust mechanisms for docu-
24 menting and quantifying the outputs and
25 economic benefits of biotechnology.

1 (D) DATA AND DATABASES.—Functions
2 relating to data and databases as follows:

3 (i) Coordinating sustained support for
4 biological data, databases, and related
5 tools as a strategic national resource to ad-
6 vance human health and the understanding
7 of animals, plants, microbes, and other or-
8 ganisms.

9 (ii) Recommending actions to inte-
10 grate security into biological data access
11 and international reciprocity agreements.

12 (iii) Coordinating frameworks for bio-
13 logical data standardization to create
14 datasets that are interoperable and usable
15 by advanced computation methods such as
16 artificial intelligence.

17 (E) PRODUCT COMMERCIALIZATION.—
18 Functions relating to product commercialization
19 as follows:

20 (i) Strategizing and coordinating on
21 private sector translation and commer-
22 cialization of products that are produced
23 with biotechnology.

1 (ii) Assisting in coordinating a na-
2 tional network of testbeds to enable scale-
3 up of biotechnology research.

4 (F) REGULATORY STREAMLINING.—Func-
5 tions relating to regulatory streamlining as fol-
6 lows:

7 (i) Coordinating the easing of regu-
8 latory burden for types of biotechnology
9 products that have become well-understood
10 by regulators, including products that
11 could have occurred naturally or been de-
12 veloped with conventional means.

13 (ii) Negotiating interagency agree-
14 ments that describe clear regulatory path-
15 ways for each type of biotechnology prod-
16 uct, with information about timelines, deci-
17 sion points, expected data requirements,
18 clear hand-offs between agencies, and
19 other information deemed necessary by the
20 Office to resolve regulatory gaps, overlaps,
21 and ambiguities for biotechnology prod-
22 ucts.

23 (iii) Providing regular status updates
24 to the Office of Management and Budget
25 as to the development of clear regulatory

1 pathways, and in the event that the Office
2 and the Interagency Committee cannot
3 reach timely agreement on a clear regu-
4 latory pathway for any product type, as-
5 sisting the Director of the Office of Man-
6 agement and Budget in carrying out para-
7 graph (5).

8 (iv) Not later than 1 year after the
9 date of the enactment of this Act, jointly
10 with the Interagency Committee developing
11 and making available to the public a plan
12 for regulatory streamlining.

13 (G) BIOSAFETY AND BIOSECURITY.—Func-
14 tions relating to biosafety and biosecurity as
15 follows:

16 (i) Developing strategies and coordi-
17 nating to address biosafety and biosecurity
18 issues associated with emerging bio-
19 technology.

20 (ii) Coordinating on assessment and
21 mitigation of potential biosafety and bio-
22 security threats relating to biotechnology
23 research, including through collaboration
24 with regulatory agencies and industry.

1 (H) WORKFORCE DEVELOPMENT.—Func-
2 tions relating to workforce development as fol-
3 lows:

4 (i) Coordinating and developing strat-
5 egies to develop a domestic workforce for
6 biotechnology.

7 (ii) Coordinating with appropriate
8 agencies to establish a national bio-
9 technology workforce framework to define
10 biotechnology jobs and skills in public and
11 private sectors.

12 (iii) Coordinating with appropriate
13 agencies to conduct an interagency assess-
14 ment of biotechnology workforce needs,
15 and subsequently developing and providing
16 training programs.

17 (I) BIOLITERACY.—Functions relating to
18 bioliteracy as follows:

19 (i) Coordinating development of plain-
20 language materials about biotechnology.

21 (ii) Providing central locations, includ-
22 ing the website required by subsection (c),
23 for clear, easy-to-find information about
24 biotechnology for policymakers, innovators,
25 and the public.

1 (J) INTERNATIONAL PARTNERSHIPS.—

2 Functions relating to international partnerships
3 as follows:

4 (i) Coordinating Federal regulatory
5 and commercial diplomacy activities.

6 (ii) Assessing the current regulatory
7 and commercial diplomacy activities car-
8 ried out across the Federal Government,
9 identifying gaps, and developing an out-
10 reach strategy to improve the regulatory
11 landscape and market access for products
12 of the United States.

13 (iii) Identifying non-regulatory solu-
14 tions for trade and market access concerns
15 (such as the use of identity preservation
16 for certain agricultural biotechnology prod-
17 ucts) and working with relevant govern-
18 ment agencies and stakeholders to imple-
19 ment solutions.

20 (K) OTHER.—Such other activities as the
21 Director considers necessary to advance na-
22 tional security, economic productivity, and com-
23 petitiveness related to biotechnology.

24 (4) ADMINISTRATIVE SUPPORT AND AUTHOR-
25 IZATION OF APPROPRIATIONS.—

1 (A) ADMINISTRATIVE SUPPORT.—The Di-
2 rector of the National Science Foundation shall
3 provide support for the administration and im-
4 plementation of the Initiative, including—

5 (i) appointing and providing com-
6 pensation for employees of the Office, with-
7 out regard to any provision relating to ap-
8 pointment or compensation under title 5,
9 United States Code, including—

10 (I) deputy directors as needed to
11 address the responsibilities in para-
12 graph (3), as determined necessary by
13 the Director of the Office; and

14 (II) other appropriate employees,
15 including experts in the science of bio-
16 technology, biotechnology policy, regu-
17 latory policy, and science communica-
18 tion, legal counsel, and software de-
19 signers and developers, as determined
20 necessary by the Director of the Of-
21 fice;

22 (ii) fixing the compensation of employ-
23 ees of the Office in an amount that does
24 not exceed the amount of annual com-

1 pensation (excluding expenses) specified in
 2 section 102 of title 3, United States Code;

3 (iii) detailing employees of the Na-
 4 tional Science Foundation to the Office
 5 and receiving the detail of employees from
 6 other agencies to the Office; and

7 (iv) assistance with other costs associ-
 8 ated with running the Initiative, including
 9 physical space, other staff, and overhead
 10 support.

11 (B) AUTHORIZATION OF APPROPRIA-
 12 TIONS.—There are authorized to be appro-
 13 priated to the Director of the National Science
 14 Foundation to carry out subparagraph (A)—

15 (i) \$22,000,000 for fiscal year 2026;

16 (ii) \$35,000,000 for fiscal year 2027;

17 (iii) \$25,000,000 for fiscal year 2028;

18 (iv) \$25,000,000 for fiscal year 2029;

19 and

20 (v) \$25,000,000 for fiscal year 2030.

21 (5) REGULATORY STREAMLINING BY OFFICE OF
 22 MANAGEMENT AND BUDGET.—In the event that the
 23 Office and the Interagency Committee cannot reach
 24 timely agreement on a clear regulatory pathway for
 25 a product type, as described in paragraph

1 (3)(F)(iii), the Director of the Office of Management
2 and Budget shall—

3 (A) identify overlaps, gaps, or ambiguities
4 in the regulation for such product type;

5 (B) negotiate an interagency agreement
6 that describes a clear regulatory pathway for
7 such product type, with information about
8 timelines, decision points, expected data re-
9 quirements, clear hand-offs between agencies,
10 and other information deemed necessary by the
11 Office of Management and Budget to resolve
12 regulatory gaps, overlaps, and ambiguities; and

13 (C) recommend and oversee rulemaking or
14 changes to guidance as needed to implement
15 clear regulatory pathways.

16 (6) WIND-DOWN.—

17 (A) IN GENERAL.—The Office shall wind-
18 down its activities on the date that is 20 years
19 after the date of the enactment of this Act, and
20 transition to serving as an executive secretariat
21 for the Initiative.

22 (B) WIND-DOWN ACTIVITIES.—The activi-
23 ties specified in this clause are as follows:

24 (i) The transfer of authorities, re-
25 quirements, resources, personnel, and obli-

gations of the Office to the fullest extent possible to the Interagency Committee and such elements of the Federal Government as the Director and the Interagency Committee consider appropriate.

(ii) The Office shall maintain authorities, requirements, resources, personnel, and obligations necessary to serve as the executive secretariat for the Initiative, including to continue the coordination in subsection (b)(3)(A), the website in subsection (c), and any other activities that the Director and the Interagency Committee consider appropriate.

(C) TREATMENT OF TRANSFERRED FUNCTIONS.—Commencing on the date on which the Office is terminated under subparagraph (A), any reference to a requirement or an authority of the Office that has been transferred to the Interagency Committee or an element of the Federal Government shall be treated as a reference to the Interagency Committee or the element of the Federal Government to which such requirement or authority was transferred pursuant to subparagraph (B).

1 (c) WEBSITE.—

2 (1) IN GENERAL.—Not later than 540 days
3 after the date of the enactment of this Act, the Di-
4 rector of the National Biotechnology Coordination
5 Office and the Interagency Committee shall jointly
6 develop and publish for the public a single, coordi-
7 nated Federal website for biotechnology that adheres
8 to best practices for website design, development,
9 and maintenance.

10 (2) CONTENTS.—The website developed and
11 published pursuant to paragraph (1) shall include
12 the following:

13 (A) A dashboard of Federal Government
14 activities relating to biotechnology, including in-
15 formation about open funding opportunities.

16 (B) Plain-language information about bio-
17 technology, including information for policy-
18 makers, innovators, trading partners, and the
19 public.

20 (C) A mechanism for stakeholders to ask a
21 question and receive a single, coordinated re-
22 sponse.

23 (D) Mechanisms, which may be populated
24 over time, to provide consolidated information
25 about biotechnology product regulation, focus-

ing on products that are regulated by more than 1 Federal agency, with content that includes the following:

(i) A repository of interagency agreements that describe clear regulatory pathways, with links to relevant regulations and guidance documents for each type of biotechnology product.

(ii) A repository of regulatory decision documents for biotechnology products.

(iii) A digital portal that allows submission of a single application and information sharing between Federal agencies.

(3) UPDATES.—The Director and the Interagency Committee shall jointly update the website required by paragraph (1) periodically.

(d) ANNUAL REPORTS.—

(1) IN GENERAL.—Not later than 1 year after the date of the enactment of this Act, and not less frequently than once each year thereafter, except in years in which a national strategy for biotechnology is required under subsection (e), the Director of National Biotechnology Coordination Office and the Interagency Committee shall jointly submit to the Committee on Commerce, Science, and Transpor-

1 tation of the Senate and the Committee on Science,
2 Space, and Technology of the House of Representa-
3 tives an annual report on the Initiative.

4 (2) CONTENTS.—Each annual report submitted
5 pursuant to paragraph (1) shall include, for the pe-
6 riod covered by the report, the following:

7 (A) An inventory and accounting of Fed-
8 eral Government activities and spending in sup-
9 port of the Initiative.

10 (B) Actions that the Director and the
11 Interagency Committee plan to take in support
12 of the Initiative in the next fiscal year.

13 (e) NATIONAL STRATEGY.—

14 (1) IN GENERAL.—Not later than 2 years after
15 the date of the enactment of this Act, and not less
16 frequently than once every 5 years thereafter, the
17 Director of National Biotechnology Coordination Of-
18 fice and the Interagency Committee shall jointly
19 make available to the public and submit to the Com-
20 mittee on Commerce, Science, and Transportation of
21 the Senate and the Committee on Science, Space,
22 and Technology of the House of Representatives a
23 comprehensive national strategy for biotechnology.

1 (2) ELEMENTS.—Each national strategy made
2 available and submitted pursuant to paragraph (1)
3 shall cover the following:

4 (A) Actions, goals, and priorities to ad-
5 vance the Initiative, including how each Federal
6 department and agency will address the require-
7 ments of section 6 and how each Federal de-
8 partment and agency will integrate bio-
9 technology into their own strategies.

10 (B) Activities that are an urgent priority
11 to advance biotechnology in the United States
12 but not currently being conducted by Federal
13 agencies, with an estimated 5-year budget for
14 those activities.

15 (C) Recommendations for legislative or ad-
16 ministrative action to advance biotechnology in
17 the United States.

18 (D) An inventory of all Federal Govern-
19 ment databases with biological data with an as-
20 sessment that identifies opportunities—

21 (i) to improve the utility of such data-
22 bases, in a manner that does not com-
23 promise national security or the privacy
24 and security of information within such
25 databases; and

1 (ii) to inform investment in such data-
2 bases as critical infrastructure for the bio-
3 technology research enterprise.

4 (E) An assessment of United States com-
5 petitiveness in biotechnology relative to peer
6 countries, including—

7 (i) contributions of biotechnology to
8 United States economic growth and other
9 societal indicators;

10 (ii) contributions of biotechnology to
11 economic growth in other countries, espe-
12 cially peer-competitors; and

13 (iii) current barriers to commercializa-
14 tion of biotechnology products, processes,
15 and tools in the United States.

16 (F) A national biological data strategy to
17 ensure biotechnology research fully leverages
18 plant, animal, and microbe biodiversity, as ap-
19 propriate and in a manner that does not com-
20 promise economic competitiveness, national se-
21 curity, or the privacy or security of human ge-
22 netic information.

23 (G) The information that is required as a
24 part of the annual report required by subsection
25 (d).

1 (f) COMPTROLLER GENERAL REVIEW.—The Comp-
2 troller General of the United States shall—

3 (1) not later than 3 years after the date of the
4 enactment of this Act, begin a review to assess the
5 efficacy of interagency coordination and fulfillment
6 of the activities conducted by the Office and the
7 Interagency Committee under the Initiative;

8 (2) not later than 3.5 years after the date of
9 the enactment of this Act, provide Congress a brief-
10 ing on the initial findings of the Comptroller General
11 with respect to the activities described in paragraph
12 (1);

13 (3) not later than 4 years after the date of the
14 enactment of this Act, submit to the Committee on
15 Commerce, Science, and Transportation of the Sen-
16 ate and the Committee on Science, Space, and Tech-
17 nology of the House of Representatives a report with
18 recommendations to improve the Initiative; and

19 (4) repeat the process outlined in paragraphs
20 (1), (2), and (3) every 5 years thereafter until the
21 date that is 20 years after the date of the enactment
22 of this Act.

1 **SEC. 5. CONVENING OF EXPERTS ON BIOTECHNOLOGY RE-**
2 **SEARCH AND DEVELOPMENT.**

3 (a) IN GENERAL.—The Director of the National Bio-
4 technology Coordination Office may, in consultation with
5 the Interagency Committee, convene experts to assess and
6 inform the activities of the Initiative in a time and manner
7 as deemed appropriate and necessary by the Director.

8 (b) APPLICATION OF FEDERAL ADVISORY COM-
9 MITTEE ACT.—Section 1013 of title 5, United States
10 Code, shall not apply to the convening of experts under
11 this section.

12 **SEC. 6. AGENCY ACTIVITIES.**

13 Each head of a participating agency shall, in support
14 of the Initiative and in coordination with the Office, con-
15 duct or support, in a manner consistent with the duties
16 and mission of the respective department or agency, the
17 following activities to advance biotechnology across de-
18 fense, human health, food and agriculture, energy, space,
19 mining, environmental stewardship, and other sectors:

20 (1) PLANNING AND COORDINATION.—Activities
21 relating to planning and coordination as follows:

22 (A) Designating an individual within the
23 respective department or agency at the level of
24 Assistant Secretary to lead the biotechnology
25 activities for the department or agency, if such
26 person is not already designated, and to serve

1 as the department or agency liaison to the Ini-
2 tiative and member of the Interagency Com-
3 mittee.

4 (B) Designating individuals within the re-
5 spective department or agency to serve as mem-
6 bers of subcommittees that may be established
7 by the Interagency Committee.

8 (C) Coordinating activities of the partici-
9 pating agency that relate to biotechnology with
10 the Office.

11 (D) Implementing applicable portions of
12 the national strategy required by section 4(e) in
13 ways that improve government efficiency and
14 reduce redundancy.

15 (E) Providing insight and information
16 about biotechnology to the heads of other Fed-
17 eral departments and agencies and to Congress.

18 (F) Leveraging horizon scanning and tech-
19 nology foresight to ensure United States leader-
20 ship in future biotechnology advancements.

21 (2) NATIONAL SECURITY.—Activities relating to
22 national security as follows:

23 (A) Analyzing ongoing and emerging
24 threats from foreign adversary development and
25 application of biotechnology, including foreign

1 investments and acquisition of United States
2 capabilities, technologies, and biological data.

3 (B) Providing expertise to address foreign
4 investments and acquisition from adversarial
5 countries.

6 (C) Analyzing and identifying actions to
7 mitigate supply chain risks posed by foreign ad-
8 versary involvement in such supply chains.

9 (D) Coordinating and ensuring information
10 sharing with foreign service officers regarding
11 threats to and opportunities for biotechnology.

12 (E) Coordinating with industry on threat
13 information sharing, vulnerability disclosure,
14 and risk mitigation for cybersecurity and infra-
15 structure risks, including risks to biological
16 data and related physical and digital infrastruc-
17 ture and devices.

18 (F) Improving cybersecurity and stress-
19 testing related to sensitive biological data and
20 to biotechnology infrastructure, tools, and in-
21 strumentation.

22 (3) RESEARCH AND DEVELOPMENT.—Activities
23 relating to research and development as follows:

24 (A) Providing sustained support for re-
25 search and development that accelerates sci-

entific understanding and technological innovation in biotechnology.

(B) Conducting joint agency solicitation and selection of applications for funding of individual grants, collaborative grants, and interdisciplinary research centers.

(C) Developing instrumentation, equipment, and infrastructure for biotechnology, including to optimize, standardize, scale, and deliver new products and solutions.

(D) Developing standard reference materials and measurements to promote interoperability between new component technologies and processes for biotechnology discovery, innovation, and production processes.

(E) Increasing understanding of the risks and benefits of biotechnology, including how products developed with biotechnology can affect or protect the environment.

(F) Increasing understanding of the ethical, legal, and social implications of biotechnology, including research that contributes to public understanding of biotechnology.

(4) DATA AND DATABASES.—Activities relating to data and databases as follows:

1 (A) Providing sustained support for bio-
2 logical data, databases, and related tools to ad-
3 vance human health and the understanding of
4 animals, plants, microbes, and other organisms.

5 (B) Establishing, curating, and maintain-
6 ing genomics, epigenomics, and other relevant
7 omics and biological data and databases, such
8 as through a centralized biological data access
9 hub with appropriate protections for the privacy
10 or security of information within such data-
11 bases.

12 (C) Developing standards for biological
13 data and databases, including for curation,
14 interoperability, and protection of privacy and
15 security.

16 (D) Developing computational tools, in-
17 cluding artificial intelligence tools, to accelerate
18 research and innovation using biological data
19 and databases.

20 (E) Developing tools that use omics and
21 associated bioinformatic sciences to improve
22 monitoring, management, assessments, and
23 forecasts.

24 (5) PRODUCT COMMERCIALIZATION.—Activities
25 relating to product commercialization as follows:

1 (A) Providing sustained support for private
2 sector translation and commercialization of
3 products that are produced with biotechnology,
4 including biomanufacturing.

5 (B) Utilizing existing Federal programs,
6 such as the Small Business Innovation Re-
7 search Program and the Small Business Tech-
8 nology Transfer Program (as described in sec-
9 tion 9 of the Small Business Act (15 U.S.C.
10 638)), in support of biotechnology, including to
11 support proof of concept activities, and the for-
12 mation of startup companies.

13 (C) Accelerating the translation, scale-up,
14 and commercialization of new products, proc-
15 esses, and technologies in order to transfer fun-
16 damental research results to industry and accel-
17 erate commercial applications.

18 (D) Facilitating public-private partnerships
19 in biotechnology research and development that
20 address and reduce barriers to scaling up bio-
21 technology innovations.

22 (E) Supporting a national network of
23 testbeds based on open standards, interfaces,
24 and processes, including by repurposing existing

1 facilities, to enable scale-up of biotechnology re-
2 search.

3 (F) Providing incentives for retooling of in-
4 dustrial sites across the United States to foster
5 a pivot to biotechnology.

6 (G) Providing access to user facilities with
7 advanced or unique equipment, services, mate-
8 rials, and other resources, including secure ac-
9 cess to high-performance computing, as appro-
10 priate, to industry, institutions of higher edu-
11 cation, nonprofit organizations, and government
12 agencies to perform research and testing.

13 (6) REGULATORY STREAMLINING.—Activities
14 relating to regulatory streamlining as follows:

15 (A) Conducting and coordinating regu-
16 latory streamlining for products that are pro-
17 duced with biotechnology.

18 (B) Easing regulatory burden for types of
19 biotechnology products that have become well-
20 understood by regulators, including products
21 that could have occurred naturally or been de-
22 veloped with conventional means.

23 (C) Establishing clear regulatory pathways
24 for biotechnology products, including through

1 short-term regulatory trials to establish new or
2 update existing regulatory pathways.

3 (D) Ensuring consistent, risk-propor-
4 tionate regulation of biotechnology research and
5 development activities, including for release of
6 products or organisms into the environment.

7 (E) Conducting horizon scanning to iden-
8 tify novel biotechnology products and develop
9 clear regulatory pathways for such products.

10 (7) BIOSAFETY AND BIOSECURITY.—Activities
11 relating to biosafety and biosecurity as follows:

12 (A) Addressing biosafety, biosecurity, and
13 responsible biology issues associated with
14 emerging biotechnology.

15 (B) Developing an applied management
16 plan to address biological risks of biotechnology
17 research.

18 (C) Creating an adaptable, evidence-based
19 framework to respond to emerging biosecurity
20 challenges that considers and informs updates
21 of existing biosecurity governance policies, guid-
22 ance, and directives and identifies necessary
23 safeguards for new products, processes, and
24 systems of biotechnology.

1 (D) Conducting outreach to industry, insti-
2 tutions of higher education, nonprofit organiza-
3 tions, and government agencies to increase
4 awareness of biosafety and biosecurity implica-
5 tions of biotechnology research.

6 (8) WORKFORCE DEVELOPMENT.—Activities re-
7 lating to workforce development as follows:

8 (A) Providing sustained support for devel-
9 opment of a domestic biotechnology workforce.

10 (B) Ensuring that Congress and Federal
11 departments and agencies have access to nec-
12 essary expertise across national security and
13 emerging biotechnology issues.

14 (C) Supporting Federal biotechnology edu-
15 cation and workforce training programs and ini-
16 tiatives for students and workers.

17 (D) Supporting education and training of
18 undergraduate and graduate students in bio-
19 technology, including biomanufacturing, bio-
20 process engineering, and computational science
21 applied to biotechnology.

22 (E) Connecting researchers, graduate stu-
23 dents, and postdoctoral fellows with entrepre-
24 neurship education and training opportunities,
25 including to award grants, on a competitive

1 basis, that enable institutions to support grad-
2 uate students, and postdoctoral fellows who per-
3 form some of their biotechnology research in an
4 industry setting.

5 (F) Supporting professional development,
6 continuing education, and skills development
7 (such as re-skilling and upskilling) for veterans,
8 industry workers, and technology professionals.

9 (G) Supporting curriculum development
10 and research experiences for secondary, under-
11 graduate, and graduate students in bio-
12 technology, including through support for grad-
13 uate fellowships and traineeships in bio-
14 technology to ensure that students are receiving
15 up-to-date training that keeps pace with bio-
16 technologies as they evolve and meets industry
17 workforce needs so students are qualified for
18 employment.

19 (H) Supporting curriculum development
20 and research experiences in biotechnology and
21 associated data and information sciences across
22 the Federal workforce, including for the mili-
23 tary education system.

24 (9) BIOLITERACY.—Activities relating to biolit-
25 eracy as follows:

1 (A) Providing clear, easy-to-find informa-
2 tion about biotechnology for policymakers,
3 innovators, and the public.

4 (B) Supporting greater evidence-based
5 public discourse about the benefits and risks of
6 biotechnology.

7 (C) Ensuring that public input and out-
8 reach are integrated into Federal biotechnology
9 activities through regular and ongoing public
10 discussions such as workshops, consensus con-
11 ferences, and educational events, as may be ap-
12 propriate.

13 (10) INTERNATIONAL PARTNERSHIPS.—Activi-
14 ties relating to international partnerships as follows:

15 (A) Developing an internal international
16 engagement strategy for the respective depart-
17 ment or agency, in cooperation with relevant
18 interagency partners.

19 (B) Strengthening and developing bilateral
20 and multilateral relationships to advance United
21 States priorities in biotechnology abroad.

22 (C) Providing sustained support and co-
23 ordinating interagency activities in international
24 biotechnology outreach and engagement with al-
25 lies and partners.

1 (D) Engaging in coordinated regulatory
2 and commercial diplomacy to better align bio-
3 technology regulations and expand market ac-
4 cess for biotechnology products.

5 (E) Supporting the development of inter-
6 national standards and norms for bio-
7 technology, including to define shared values
8 and interests.

9 (F) Supporting biological data-sharing
10 agreements with partner countries.

11 (G) Supporting biotechnology talent ex-
12 changes with partner countries, including
13 through fellowships, work authorization pro-
14 grams, and other mechanisms.

15 (H) Supporting harmonization of multilat-
16 eral export controls to protect against misuse of
17 biotechnology.

18 (11) OTHER.—Such other activities as the head
19 of the participating agency determines may be need-
20 ed to advance national security, economic produc-
21 tivity, and competitiveness relating to biotechnology.

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