

119<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION

# H. R. 7907

To direct the Director of the National Institute of Standards and Technology to facilitate the establishment of definitions, standards, resources, and frameworks to ensure certain biological datasets are ready for use in artificial intelligence models, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

MARCH 12, 2026

Mr. KHANNA (for himself and Mr. OBERNOLTE) introduced the following bill;  
which was referred to the Committee on Science, Space, and Technology

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## A BILL

To direct the Director of the National Institute of Standards and Technology to facilitate the establishment of definitions, standards, resources, and frameworks to ensure certain biological datasets are ready for use in artificial intelligence models, 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 “AI-Ready Bio-Data  
5        Standards Act”.

1 **SEC. 2. DEFINITIONS, STANDARDS, RESOURCES, AND**  
2 **FRAMEWORKS BY THE NATIONAL INSTITUTE**  
3 **OF STANDARDS AND TECHNOLOGY FOR CER-**  
4 **TAIN BIOLOGICAL DATASETS.**

5 (a) ESTABLISHMENT.—

6 (1) IN GENERAL.—Not later than 2 years after  
7 the date of the enactment of this Act, the Director  
8 of the National Institute of Standards and Tech-  
9 nology (in this section referred to as the “Direc-  
10 tor”), pursuant to recommendations from the advi-  
11 sory group under subsection (f) and taking into ac-  
12 count any feedback received under subsection (e),  
13 shall facilitate the establishment of definitions,  
14 standards, resources, and frameworks to ensure each  
15 biological dataset generated as a result of qualified  
16 federally funded research is artificial intelligence-  
17 ready.

18 (2) REQUIREMENTS FOR DEFINITIONS, STAND-  
19 ARDS, RESOURCES, AND FRAMEWORKS.—

20 (A) DEFINITIONS.—

21 (i) IN GENERAL.—In carrying out  
22 paragraph (1), the Director shall facilitate  
23 the establishment of definitions for the fol-  
24 lowing terms:

25 (I) Artificial intelligence-ready.

26 (II) Biomanufacturing.

1 (III) Biotechnology.

2 (IV) Qualified federally funded  
3 research.

4 (ii) REQUIREMENTS FOR DEFINITION  
5 OF ARTIFICIAL INTELLIGENCE-READY.—

6 (I) IN GENERAL.—In facilitating  
7 the establishment of the definition of  
8 the term “artificial intelligence-ready”  
9 under clause (i)(I), the Director shall  
10 take such actions as may be necessary  
11 to ensure such definition, when ap-  
12 plied to a biological dataset, requires  
13 such dataset be generated and for-  
14 matted in a manner that—

15 (aa) enables the effective use  
16 of the dataset for training artifi-  
17 cial intelligence models; and

18 (bb) supports advancements  
19 in research relating to artificial  
20 intelligence and biotechnology.

21 (II) DISCRETION.—With respect  
22 to a biological dataset that otherwise  
23 satisfies the definition of “artificial in-  
24 telligence-ready” under clause (i)(I),  
25 the Director may, in consultation with

1 the Chief Data Officer of the Federal  
2 department or agency that is respon-  
3 sible for such biological dataset, deter-  
4 mine that such dataset is not artificial  
5 intelligence-ready.

6 (iii) REQUIREMENTS FOR DEFINITION  
7 OF QUALIFIED FEDERALLY FUNDED RE-  
8 SEARCH.—In facilitating the establishment  
9 of the definition of the term “qualified fed-  
10 erally funded research” under clause  
11 (i)(IV), the Director shall take such ac-  
12 tions as may be necessary to include in  
13 such definition certain conditions that, if  
14 satisfied, will result in certain federally  
15 funded research being qualified federally  
16 funded research. Such conditions shall in-  
17 clude the following:

18 (I) The amount of Federal fund-  
19 ing awarded to a recipient.

20 (II) The capability of the recipi-  
21 ent to generate a biological dataset  
22 that is artificial intelligence-ready.

23 (III) The expertise of the recipi-  
24 ent in generating a biological dataset  
25 that is artificial intelligence-ready.

1 (IV) The size of the biological  
2 dataset generated by the recipient.

3 (V) Any other condition the Di-  
4 rector considers appropriate.

5 (B) STANDARDS.—In carrying out para-  
6 graph (1), the Director shall facilitate the es-  
7 tablishment of standards relating to making bi-  
8 ological datasets artificial intelligence-ready, in  
9 accordance with the definition of artificial intel-  
10 ligence-ready under subparagraph (A)(i)(I).

11 (C) RESOURCES AND FRAMEWORKS.—In  
12 carrying out paragraph (1), the Director shall  
13 facilitate the establishment of data management  
14 resources and cybersecurity frameworks for the  
15 following:

16 (i) Federal departments and agencies  
17 that provide either full or partial Federal  
18 funding for research that generates biologi-  
19 cal datasets.

20 (ii) Federally funded researchers who  
21 are collecting, cleaning, curating, or gener-  
22 ating biological datasets to make the  
23 datasets artificial intelligence-ready.

24 (D) ADDITIONAL REQUIREMENTS.—The  
25 Director shall take such actions as may be nec-

1           essary to ensure the definitions, standards, re-  
2           sources, and frameworks referred to in para-  
3           graph (1)—

4                   (i) are not overly burdensome on re-  
5                   cipients of funding for qualified federally  
6                   funded research, such that the act of gen-  
7                   erating biological datasets that are artifi-  
8                   cial intelligence-ready requires resources  
9                   and expertise beyond those available to the  
10                  recipients; and

11                   (ii) are tested and evaluated in ac-  
12                  cordance with subsection (c).

13           (3) ANNUAL UPDATES.—Not later than 1 year  
14           after the date of the establishment of the definitions,  
15           standards, resources, and frameworks under para-  
16           graph (1), and annually thereafter, the Director  
17           shall review such definitions, standards, resources,  
18           and frameworks and, as the Director considers ap-  
19           propriate, shall update such definitions, standards,  
20           resources, and frameworks in accordance with this  
21           section.

22           (4) CONSULTATION.—To facilitate the estab-  
23           lishment of the definitions, standards, resources, and  
24           frameworks under paragraph (1), and any update

1 under paragraph (3), the Director shall carry out  
2 the following:

3 (A) Assess any existing standard related to  
4 biotechnology or artificial intelligence, including  
5 any standards inventoried pursuant to sub-  
6 section (b)(1)(A), and, if appropriate, facilitate  
7 the incorporation of any such standards in the  
8 establishment of the standards referred to in  
9 paragraph (2)(B).

10 (B) Consult with the following:

11 (i) The Secretary of Agriculture.

12 (ii) The Secretary of Defense.

13 (iii) The Secretary of Energy.

14 (iv) The Director of the National Aer-  
15 onautics and Space Administration.

16 (v) The Director of the National Insti-  
17 tutes of Health.

18 (vi) The Administrator of the Na-  
19 tional Science Foundation.

20 (vii) The head of any other Federal  
21 department or agency the Director con-  
22 siders appropriate.

23 (C) Seek to consult with the following:

24 (i) Private sector entities from the  
25 biotechnology industry.

1 (ii) Members of academia.

2 (5) PERSONNEL.—To facilitate the establish-  
3 ment of the definitions, standards, resources, and  
4 frameworks under paragraph (1), and any update  
5 under paragraph (3), the Director shall hire staff as  
6 the Director determines necessary.

7 (b) INFORMATION GATHERING.—

8 (1) IN GENERAL.—Not later than 1 year after  
9 the date of the enactment of this Act, the Director  
10 shall inventory the following:

11 (A) Existing biotechnology standards uti-  
12 lized by recipients of Federal funding for bio-  
13 technology research to generate biological  
14 datasets.

15 (B) Existing biological datasets generated  
16 by recipients of Federal funding for bio-  
17 technology research.

18 (2) PUBLICATION.—Not later than 1 year after  
19 the Director completes the inventory requirement  
20 under paragraph (1), the Director shall make any  
21 information inventoried under that paragraph avail-  
22 able to the public through a website of the National  
23 Institute of Standards and Technology.

24 (c) TEST AND EVALUATION.—Not later than 2 years  
25 after the date of the enactment of this Act, the Director

1 shall coordinate with the Administrator of the National  
2 Science Foundation to conduct a test and evaluation of  
3 the definitions, standards, resources, and frameworks re-  
4 ferred to in subsection (a)(1) on a sample of biological  
5 datasets generated as a result of qualified federally funded  
6 research to determine the following:

7           (1) Whether such definitions, standards, re-  
8           sources, and frameworks are clearly written, easy to  
9           follow, and easily applicable for the generation of bi-  
10          ological datasets that are artificial intelligence-ready.

11          (2) Whether compliance with such definitions,  
12          standards, resources, and frameworks when gener-  
13          ating or curating biological datasets results in an  
14          undue burden on the recipients of such qualified fed-  
15          erally funded research, and if so, how to modify such  
16          definitions, standards, resources, or frameworks, as  
17          the case may be, so as to reduce such burden.

18          (d) **ADVICE AND ASSISTANCE RELATED TO FEDERAL**  
19 **DEPARTMENT OR AGENCY DATA STANDARDS.—**

20           (1) **IN GENERAL.**—Not later than 2 years after  
21          the date of the enactment of this Act, the head of  
22          a Federal department or agency that provides fund-  
23          ing for qualified federally funded research and that  
24          seeks to utilize a biological dataset of such depart-  
25          ment or agency to train an artificial intelligence

1 model may make a request to the Director to pro-  
2 vide advice or assistance with respect to developing  
3 the following:

4 (A) Data standards for such training.

5 (B) Any data management plan related to  
6 such data standards.

7 (2) RESOURCES.—A head of a Federal depart-  
8 ment or agency that makes a request pursuant to  
9 paragraph (1) may enter into an agreement with the  
10 Director to provide to the Director any resources as  
11 may be necessary for the Director to provide any ad-  
12 vice or assistance related to such request.

13 (3) OVERSIGHT MECHANISMS.—The Director  
14 shall establish the following:

15 (A) A regularly updated central repository,  
16 made available to the public as the Director de-  
17 termines appropriate, on which the head of any  
18 Federal department or agency may publish any  
19 data standards, and data management plan re-  
20 lated to such standards, relating to utilizing a  
21 biological dataset of such department or agency  
22 to train an artificial intelligence model.

23 (B) A publicly available database to serve  
24 as a single point of access, updated as the Di-  
25 rector determines necessary, on which the head

1 of any Federal department or agency may pub-  
2 lish artificial intelligence-ready biological  
3 datasets.

4 (C) A mechanism available to each Federal  
5 department or agency to make a request pursu-  
6 ant to paragraph (1).

7 (4) PUBLIC INPUT.—The Director may solicit  
8 input and feedback from the public with respect to  
9 any advice or assistance related to a request made  
10 pursuant to paragraph (1).

11 (e) PUBLIC INPUT AND FEEDBACK; CONSULTA-  
12 TION.—In carrying out subsection (a)(1), the Director  
13 shall carry out the following:

14 (1) Solicit input and feedback from the public  
15 regarding the definitions, standards, resources, and  
16 frameworks referred to in such subsection.

17 (2) Consult the heads of Federal departments  
18 and agencies that provide funding for qualified fed-  
19 erally funded research to ensure such departments  
20 and agencies are able to develop data standards, and  
21 any data management plan associated with such  
22 data standards, related to utilizing a biological  
23 dataset of such department or agency to train an ar-  
24 tificial intelligence model, including the following:

25 (A) The Secretary of Agriculture.

1 (B) The Secretary of Defense.

2 (C) The Secretary of Energy.

3 (D) The Director of the National Aero-  
4 nautics and Space Administration.

5 (E) The Director of the National Institutes  
6 of Health.

7 (F) The Administrator of the National  
8 Science Foundation.

9 (G) The head of any other Federal depart-  
10 ment or agency as determined by the Director.

11 (f) ADVISORY GROUP.—

12 (1) IN GENERAL.—Not later than 180 days  
13 after the date of the enactment of this Act, the Di-  
14 rector shall establish an advisory group to carry out  
15 the following:

16 (A) Provide recommendations relating to  
17 the definitions, standards, resources, and  
18 frameworks referred to in subsection (a)(1).

19 (B) Review and provide feedback with re-  
20 spect to any advice or assistance related to a re-  
21 quest made pursuant to subsection (d)(1).

22 (C) Provide recommendations to academic  
23 journals for guidelines relating to artificial in-  
24 telligence-ready biological datasets.

1 (D) Solicit recommendations from the aca-  
2 demic community regarding implementation of  
3 the definitions, standards, resources, and  
4 frameworks.

5 (E) Provide any other guidance the Direc-  
6 tor may request.

7 (2) MEMBERSHIP.—

8 (A) IN GENERAL.—The advisory group es-  
9 tablished under paragraph (1) shall be com-  
10 posed of not fewer than 12 members. The Di-  
11 rector shall carry out the following:

12 (i) Appoint representatives of Federal  
13 departments or agencies that award funds  
14 to recipients to carry out qualified federally  
15 funded research.

16 (ii) Seek to appoint representatives of  
17 academia, private sector entities, and aca-  
18 demic publishers.

19 (B) TERMS.—

20 (i) IN GENERAL.—Each member shall  
21 serve for a term of 2 years.

22 (ii) RENEWAL.—Subject to the discre-  
23 tion of the Director, the term of each  
24 member may be renewed for an additional  
25 2-year term.

1 (3) CHAIRPERSON.—

2 (A) APPOINTMENT.—The Chairperson of  
3 the advisory group shall be designated by the  
4 Director from among the members.

5 (B) TERM.—The term of the Chairperson  
6 shall be 1 year.

7 (C) RENEWAL.—Subject to the discretion  
8 of the Director, the term of a Chairperson may  
9 be renewed for an additional 1-year term.

10 (4) REPORTS.—

11 (A) INTERIM REPORT.—Not later than 1  
12 year after the date of the enactment of this Act,  
13 the advisory group shall submit to the Director  
14 an interim report that contains advice and guid-  
15 ance with respect to the matters described in  
16 paragraph (1).

17 (B) SUBSEQUENT REPORTS.—If the advi-  
18 sory group or the Director determines appro-  
19 priate, the advisory group shall submit to the  
20 Director subsequent reports relating to the mat-  
21 ters described in paragraph (1).

22 (g) FEDERAL ACQUISITION REGULATION REVI-  
23 SIONS.—The Federal Acquisition Regulatory Council shall  
24 revise the Federal Acquisition Regulation as necessary to

1 implement the definitions, standards, resources, and  
2 frameworks established under subsection (a)(1).

3 (h) ANNUAL REPORT.—

4 (1) INTERIM REPORT.—Not later than 1 year  
5 after the date of the enactment of this Act, the Di-  
6 rector shall submit to Congress and the Comptroller  
7 General of the United States an interim report that  
8 includes information relating to the progress of fa-  
9 cilitating the establishment of the definitions, stand-  
10 ards, resources, and frameworks under subsection  
11 (a)(1) and any advice or assistance related to a re-  
12 quest made pursuant to subsection (d)(1).

13 (2) SUBSEQUENT REPORTS.—Not later than 2  
14 years after the date of the enactment of this Act,  
15 and annually thereafter, the Director shall submit to  
16 Congress and the Comptroller General of the United  
17 States a report that includes information relating to  
18 the following:

19 (A) The establishment, implementation,  
20 and, if applicable, revision, of the definitions,  
21 standards, resources, and frameworks referred  
22 to in subsection (a)(1).

23 (B) Any advice or assistance related to a  
24 request made pursuant to subsection (d)(1).

1           (3) ADDITIONAL REQUIREMENT FOR FIRST  
2           SUBSEQUENT REPORT.—With respect to the first  
3           subsequent report under paragraph (2), the Director  
4           shall include a summary of the testing and evalua-  
5           tion under subsection (c) that includes information  
6           relating to the following:

7                   (A) The findings of the testing and evalua-  
8                   tion.

9                   (B) The manner by which the Director ad-  
10                  dressed any concern identified as a result of the  
11                  testing and evaluation.

12                  (C) An assessment of any burden on re-  
13                  cipients of funding for qualified federally fund-  
14                  ed research regarding ensuring that biological  
15                  datasets are artificial intelligence-ready.

16                  (D) A cost-benefit analysis of the value of  
17                  ensuring that biological datasets are artificial  
18                  intelligence-ready in relation to any such bur-  
19                  den.

20           (i) GOVERNMENT ACCOUNTABILITY OFFICE RE-  
21           PORT.—Not later than 5 years after the date of the enact-  
22           ment of this Act, the Comptroller General of the United  
23           States shall submit to Congress a report on the impact  
24           of the definitions, standards, resources, and frameworks  
25           referred to in subsection (a)(1), including the following:

1           (1) An assessment of the effectiveness of the  
2 definitions, standards, resources, and frameworks in  
3 ensuring each biological dataset generated by a re-  
4 cipient of funding for qualified federally funded re-  
5 search is artificial intelligent-ready.

6           (2) An assessment of whether the implementa-  
7 tion of the definitions, standards, resources, and  
8 frameworks as the case may be, has resulted in an  
9 undue burden on any recipient of Federal funding.

10           (3) Any recommendations with respect to the  
11 implementation of the definitions, standards, re-  
12 sources, and frameworks.

13           (j) SUNSET.—This section shall terminate on the  
14 date that is 10 years after the date of the enactment of  
15 this Act.

16           (k) DEFINITIONS.—In this section:

17           (1) BIOLOGICAL DATA.—The term “biological  
18 data” means information that is measured, collected,  
19 or aggregated for analysis, including associated  
20 descriptors, derived from the structure, function, or  
21 process of a biological system.

22           (2) BIOLOGICAL DATASET.—The term “biologi-  
23 cal dataset” means a discreet collection of biological  
24 data.

1           (3) BIOLOGICAL DATA REPOSITORY.—The term  
2           “biological data repository” means any centralized  
3           data storage capacity meant for managing or storing  
4           biological data.

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