

112TH CONGRESS
2^D SESSION

H. R. 4720

To establish the American Innovation Bank, to improve science and technology job training, to authorize grants for curriculum development, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

APRIL 25, 2012

Mr. HOLT introduced the following bill; which was referred to the Committee on Science, Space, and Technology

A BILL

To establish the American Innovation Bank, to improve science and technology job training, to authorize grants for curriculum development, 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 “America Innovates Act
5 of 2012”.

1 **TITLE I—AMERICAN**
2 **INNOVATION BANK**

3 **SEC. 101. ESTABLISHMENT OF THE AMERICAN INNOVATION**
4 **BANK.**

5 (a) ESTABLISHMENT.—There is established in the
6 Executive Branch of the Government an independent
7 agency to be known as the American Innovation Bank (re-
8 ferred to in this title as the “Bank”).

9 (b) BOARD AND DIRECTOR.—

10 (1) IN GENERAL.—The Bank shall consist of an
11 American Innovation Board (referred to in this title
12 as the “Board”) and a Director of the American In-
13 novation Bank (referred to in this title as the “Di-
14 rector”).

15 (2) APPOINTMENT.—The Director and mem-
16 bers of the Board shall be appointed by the Presi-
17 dent, by and with the advice and consent of the Sen-
18 ate.

19 (3) DUTIES OF THE BOARD.—The Board
20 shall—

21 (A) advise the Director on new and emerg-
22 ing areas of research and industry that would
23 benefit from investment from the Bank; and

24 (B) critically evaluate the success of the
25 Bank’s investments in helping to commercialize

1 scientific discoveries and create new companies
2 and jobs.

3 **SEC. 102. FUNCTIONS OF THE BANK.**

4 (a) IN GENERAL.—The Bank is authorized and di-
5 rected to promote the commercialization of science and en-
6 gineering discoveries.

7 (b) PROVISION OF GRANTS, LOANS, AND OTHER AS-
8 SISTANCE.—The Bank shall provide grants, loans, and
9 other assistance to eligible entities and individuals to en-
10 able the entities and individuals to perform the necessary
11 research and development to make research discoveries at-
12 tractive for private investment that will lead to the devel-
13 opment of new companies, products, and jobs.

14 **SEC. 103. ANNUAL REPORTS.**

15 (a) IN GENERAL.—The Board, in consultation with
16 the Director, shall submit an annual report to Congress
17 on or before the 15th day of April of each year summa-
18 rizing the activities of the Bank and making such rec-
19 ommendations as the Board, in consultation with the Di-
20 rector, determines appropriate.

21 (b) SPECIFIC METRICS.—Each annual report sub-
22 mitted under subsection (a) shall include specific metrics
23 that quantify the success of the Bank’s investments, in-
24 cluding information about—

1 (1) patents for discoveries and products sup-
2 ported by the Bank;

3 (2) products commercialized with the help of
4 Bank investments;

5 (3) new companies started because of Bank in-
6 vestments; and

7 (4) jobs that have resulted because of Bank in-
8 vestments.

9 **SEC. 104. GRANTS TO INSTITUTIONS OF HIGHER EDU-**
10 **CATION AND RESEARCH INSTITUTES.**

11 (a) **IN GENERAL.**—The Bank, acting through the Di-
12 rector, shall award grants to eligible entities to carry out
13 activities described in this section.

14 (b) **ELIGIBLE ENTITIES.**—In this title, the term “eli-
15 gible entity” means—

16 (1) an institution of higher education (as de-
17 fined in section 101 of the Higher Education Act of
18 1965 (20 U.S.C. 1001)); or

19 (2) a nonprofit research institution that focuses
20 on science research.

21 (c) **ADVISORY PANEL.**—Before awarding grants
22 under this section, the Director shall convene an advisory
23 panel of experts on technology transfer, including business
24 leaders and scientific researchers, who shall make rec-
25 ommendations to the Director about those eligible entities,

1 that apply for funding under this section, most likely to
2 be able to use grant funds awarded under this title to fos-
3 ter the development of new companies, products, and jobs.

4 (d) AWARDING OF GRANTS.—The Director shall
5 award grants, on a competitive basis, to eligible entities
6 to enable the eligible entities to develop new companies,
7 products, or jobs and technologies in a specific research
8 area, including the following:

9 (1) Life sciences and medicine.

10 (2) Computer sciences, communications, and
11 technology.

12 (3) Physical sciences and engineering.

13 (4) Other research areas determined important
14 for economic development by the Director.

15 (e) PRIORITY.—In awarding grants under this sec-
16 tion, the Director shall give priority to entities that—

17 (1) receive a significant amount of Federal
18 funding to conduct science research from the Na-
19 tional Science Foundation, the Department of En-
20 ergy, the National Institutes of Health, or other
21 agencies that the Director determines appropriate;

22 (2) do not have a significant proof of concept
23 fund already established at the entity;

24 (3) have established relationships with business
25 and industry that are likely to be able to use and

1 commercialize science and engineering discoveries
2 and may be in close proximity to such industry and
3 businesses;

4 (4) demonstrate an institutional environment
5 that is supportive of business development, includ-
6 ing—

7 (A) an institutional strategic plan for busi-
8 ness development; and

9 (B) a plan to leverage Federal investments
10 with State, local, private, or other investments;
11 and

12 (5) demonstrate the appropriate administrative
13 capacity to encourage the disclosure, patenting, and
14 development of new companies, products, or jobs.

15 (f) USE OF FUNDS.—

16 (1) IN GENERAL.—An eligible entity that re-
17 ceives a grant under this section may use the grant
18 funds for the following:

19 (A) Supporting researchers that seek to
20 develop science and engineering discoveries into
21 new companies, products, or jobs, including ad-
22 ditional research or data collection with the goal
23 of making a particular discovery attractive to
24 investment from private entities such as cor-
25 porations and venture capital firms.

1 (B) Awarding subgrants to individual in-
2 vestigators to carry out the activities described
3 in subparagraph (A).

4 (C) Constructing facilities and creating
5 business incubators to carry out the activities
6 described in subparagraph (A).

7 (D) Attracting additional private invest-
8 ment to grow and maintain the eligible entity's
9 proof of concept funding.

10 (2) SUBGRANTS.—

11 (A) IN GENERAL.—In awarding subgrants
12 to individual investigators as described in para-
13 graph (1)(B), an eligible entity shall consult
14 with business leaders in relevant economic sec-
15 tors to identify technologies that are most
16 promising and likely to attract private invest-
17 ment with research and development funded by
18 the proof of concept funding.

19 (B) ADVISORY COMMITTEE.—

20 (i) IN GENERAL.—An eligible entity
21 shall convene an advisory committee of re-
22 searchers and business leaders in the ap-
23 propriate sector to review and recommend
24 applications for subgrants under this sub-
25 section.

1 (ii) CONSIDERATION OF REC-
2 COMMENDATIONS.—An eligible entity shall
3 take into consideration the recommenda-
4 tions of the advisory committee convened
5 under clause (i) when making decisions
6 about subgrants under this subsection.

7 (iii) WRITTEN JUSTIFICATION.—If an
8 eligible entity’s grant making decision is
9 different from the recommendations of the
10 advisory committee under this subpara-
11 graph, the entity shall submit written jus-
12 tification for the decision to the Director.

13 (3) CONSTRUCTING FACILITIES.—

14 (A) IN GENERAL.—In using funds to con-
15 struct facilities pursuant to paragraph (1)(C),
16 an eligible entity shall consult with business
17 leaders in relevant economic sectors to identify
18 facilities that would most help the eligible entity
19 meet the goals under paragraph (1)(A).

20 (B) ADVISORY COMMITTEE.—

21 (i) IN GENERAL.—An eligible entity
22 shall convene an advisory committee of re-
23 searchers and business leaders in the ap-
24 propriate sector to make recommendations
25 about facilities construction.

1 (ii) CONSIDERATION OF REC-
2 COMMENDATIONS.—An eligible entity shall
3 take into consideration the recommenda-
4 tions of the advisory committee convened
5 under clause (i) when making decisions
6 about facilities construction.

7 (iii) WRITTEN JUSTIFICATION.—If an
8 eligible entity’s decision is different from
9 the recommendations of the advisory com-
10 mittee under this subparagraph, the entity
11 shall submit written justification for the
12 decision to the Director.

13 (g) REPORTS.—

14 (1) IN GENERAL.—Each eligible entity that re-
15 ceives a grant under this section shall submit a re-
16 port to the Director each year during the grant pe-
17 riod and for 5 years after the grant period has
18 ended.

19 (2) CONTENT OF REPORTS.—The reports sub-
20 mitted under paragraph (1) shall—

21 (A) detail the subgrants and facilities con-
22 struction decisions the entity has made since
23 submitting its last report to the Director;

1 (B) update the Director on the status and
2 results of subgrants and facilities construction
3 made from grant funding;

4 (C) report on the companies, products,
5 jobs, venture capital, and other investments and
6 funding that have resulted from funding pro-
7 vided by the grant awarded under this section;

8 (D) report on the degree to which Federal
9 investments have been leveraged, including ap-
10 propriate measures of returns on Federal in-
11 vestments; and

12 (E) provide other information that the Di-
13 rector determines necessary to evaluate the effi-
14 cacy of the grant.

15 **SEC. 105. GRANTS TO INDIVIDUALS.**

16 (a) IN GENERAL.—The Bank, acting through the Di-
17 rector, shall award grants to individual investigators at eli-
18 gible entities, as defined in section 104(b), who seek to
19 develop new science and engineering discoveries into new
20 companies, products, or jobs.

21 (b) APPLICATION.—Each individual who desires a
22 grant under this section shall submit an application jointly
23 with the technology transfer office, or other similar office,
24 at the individual's institution. Such application shall—

1 **SEC. 107. AUTHORITY TO RESCIND FUNDING.**

2 (a) RESCISSION.—The Director shall rescind grants
3 and loans awarded and loans made to individuals, eligible
4 entities, or private companies under this title that do not
5 use such grants or loans to make reasonable attempts to
6 develop discoveries into new companies, products, or jobs.

7 (b) REPAYMENT.—The Director shall require the re-
8 payment of grants and loans made under this section from
9 individuals, eligible entities, and private companies that
10 are significantly unsuccessful at creating new companies,
11 products, or jobs.

12 **TITLE II—IMPROVING SCIENCE**
13 **AND TECHNOLOGY JOB**
14 **TRAINING**

15 **SEC. 201. IMPROVING SCIENCE AND TECHNOLOGY JOB**
16 **TRAINING.**

17 Section 510 of the National Science Foundation Au-
18 thorization Act of 2010 (42 U.S.C. 1869) is amended by
19 adding at the end the following:

20 “(e) ADDITIONAL INDUSTRY-FOCUSED IGERT PRO-
21 GRAM FUNDING AUTHORIZED.—

22 “(1) IN GENERAL.—The Director of the Na-
23 tional Science Foundation shall award grants, on a
24 competitive basis, to eligible institutions to enable
25 such institutions to support students who perform

1 some or all of their graduate research in an industry
2 setting.

3 “(2) ELIGIBLE INSTITUTION.—The term ‘eligi-
4 ble institution’ means an institution of higher edu-
5 cation that—

6 “(A) is receiving, as of the date of the ap-
7 plication submitted under paragraph (3), fund-
8 ing under the Integrative Graduate Education
9 and Research Traineeship (referred to as
10 ‘IGERT’) program; and

11 “(B) enrolls students who are interested in
12 performing some or all of their graduate re-
13 search in an industry setting.

14 “(3) APPLICATION.—An eligible institution that
15 desires to receive a grant under this subsection shall
16 submit an application to the Director of the Na-
17 tional Science Foundation at such time, in such
18 manner, and accompanied by such information as
19 the Director may require.

20 “(4) PEER REVIEW AND PRIORITY.—In award-
21 ing grants under this subsection, the Director of the
22 National Science Foundation shall—

23 “(A) consider the recommendations from a
24 peer-review process; and

1 “(B) give priority to eligible institutions
2 that—

3 “(i) have strong pre-existing relation-
4 ships with companies that are located near
5 the institution and with companies whose
6 research, development, and products are
7 related to the type of research training
8 that the institution’s IGERT supports; and

9 “(ii) are likely to find career place-
10 ments in industry for students described in
11 paragraph (2)(B).

12 “(5) RENEWAL.—Grants awarded under this
13 subsection may be renewed on a similar timeframe
14 as other IGERT programs.

15 “(6) USE OF FUNDS.—An eligible institution
16 that receives funding under this subsection shall use
17 such funding to award grants to, and otherwise sup-
18 port, students who pursue graduate research in an
19 industry setting.”.

20 **SEC. 202. INDUSTRY-RELATED REQUIREMENTS FOR CER-**
21 **TAIN GRADUATE RESEARCH FELLOWSHIPS.**

22 (a) TRAINING REQUIREMENT.—An institution of
23 higher education that enrolls students who receive funding
24 under a National Science Foundation graduate research
25 fellowship, a National Institutes of Health national re-

1 search service award, or any Federal program that pro-
2 vides funding to train students at the graduate level for
3 careers in scientific research and development in either an
4 academic, nonprofit, or industry setting, shall provide stu-
5 dents who are receiving such funding with training related
6 to—

- 7 (1) intellectual property protection;
- 8 (2) commercialization; and
- 9 (3) the development of science discoveries.

10 (b) TRAINING PROGRAM COMPONENTS.—The train-
11 ing described in subsection (a) shall include the provision
12 of information about:

- 13 (1) The importance of disclosing discoveries and
14 filing for patents.
- 15 (2) Obtaining proof of concept or development
16 funding.
- 17 (3) The characteristics that make a scientific
18 discovery attractive to private investment.
- 19 (4) Resources that may assist researchers in
20 creating a new start-up company.

21 (c) EXCEPTION.—An institution of higher education
22 that enrolls fewer than 6 students who receive funding
23 under a National Science Foundation graduate research
24 fellowship, a National Institutes of Health national re-
25 search service award, or any Federal program that pro-

1 vides funding to train students at the graduate level for
2 careers in scientific research and development in either an
3 academic, nonprofit, or industry setting shall be exempted
4 from the requirements described in subsection (a).

5 (d) GRANTS AUTHORIZED.—The Director of the Na-
6 tional Science Foundation shall award grants to institu-
7 tions of higher education, as defined in section 101(a) of
8 the Higher Education Act of 1965 (20 U.S.C. 1001(a)),
9 that are subject to the requirements described in sub-
10 section (a) to enable such institutions to develop the cur-
11 ricula necessary to fulfill such requirements.

12 **TITLE III—GRANTS FOR** 13 **CURRICULUM DEVELOPMENT**

14 **SEC. 301. GRANTS FOR CURRICULUM DEVELOPMENT OF** 15 **PROFESSIONAL SCIENCE MASTERS PRO-** 16 **GRAMS AT THE NATIONAL SCIENCE FOUNDA-** 17 **TION.**

18 The National Science Foundation Authorization Act
19 of 2010 (42 U.S.C. 1861 note et seq.) is amended by add-
20 ing at the end the following:

1 **“SEC. 528. GRANTS FOR CURRICULUM DEVELOPMENT OF**
2 **PROFESSIONAL SCIENCE MASTERS PRO-**
3 **GRAMS AT THE NATIONAL SCIENCE FOUNDA-**
4 **TION.**

5 “(a) GRANTS AUTHORIZED.—The Director of the
6 National Science Foundation shall award grants to insti-
7 tutions of higher education to enable such institutions to
8 develop professional science masters programs.

9 “(b) PROFESSIONAL SCIENCE MASTERS PROGRAM.—
10 Each professional science masters program developed with
11 funds awarded under subsection (a) shall—

12 “(1) be a masters degree program;

13 “(2) prepare students for a career in business,
14 industry, or at a nonprofit organization;

15 “(3) provide students with research experiences,
16 internship experiences, and the skills needed to suc-
17 ceed in business, industry, and nonprofit organiza-
18 tions;

19 “(4) prepare students to be part of a workforce
20 in the United States that—

21 “(A) is well-trained in science, technology,
22 engineering, and mathematics; and

23 “(B) responds to the changing needs of so-
24 ciety and employers;

25 “(5) prepare students in the areas of science,
26 technology, engineering, and mathematics where

1 there is a high or emerging need for knowledgeable
2 and skilled employees;

3 “(6) involve a diverse group of faculty members
4 that—

5 “(A) have appropriate research and teach-
6 ing expertise in the fields of science, technology,
7 engineering, and mathematics; and

8 “(B) includes instructors who have exper-
9 tise specifically relevant to preparing students
10 for careers in business, industry, and nonprofit
11 organizations;

12 “(7) provide students with practical skills train-
13 ing that meets the needs of employers; and

14 “(8) create partnerships between academic in-
15 stitutions and potential employers to determine
16 jointly high-need areas of science, technology, engi-
17 neering, and mathematics, as well as the kinds of
18 training needed for careers in such areas.

19 “(c) PRIORITY.—In awarding grants under this sec-
20 tion, the Director of the National Science Foundation
21 shall award grants through a competitive, peer-reviewed
22 process and give priority to institutions of higher edu-
23 cation that demonstrate a commitment to implementing

- 1 and sustaining the teaching of the curriculum developed
- 2 through the grant program.”.

○