

103D CONGRESS
1ST SESSION

S. 1517

To establish a marine biotechnology program within the National Sea Grant College Program, and for other purposes.

IN THE SENATE OF THE UNITED STATES

OCTOBER 5 (legislative day, SEPTEMBER 27), 1993

Mr. HOLLINGS (for himself, Mr. PELL, Mr. KERRY, and Mr. STEVENS) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

A BILL

To establish a marine biotechnology program within the National Sea Grant College Program, 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 “Marine Biotechnology
5 Investment Act of 1993”.

6 **SEC. 2. FINDINGS.**

7 The Congress finds and declares the following:

8 (1) Throughout human history, the oceans and
9 Great Lakes have been an important source of food
10 and a wealth of other natural products.

1 (2) Marine biotechnology holds tremendous
2 promise for expanding the range and increasing the
3 utility of products from the oceans, understanding
4 and treating human illness, and enhancing the qual-
5 ity and quantity of seafood.

6 (3) Marine biotechnology offers opportunities to
7 improve the stewardship of marine resources
8 through the development and application of effective
9 methods to restore and protect marine ecosystems,
10 to manage fisheries, and to monitor marine biologi-
11 cal and geochemical processes.

12 (4) The United States currently is a world lead-
13 er in marine biotechnology, a position with the po-
14 tential for contributing to business and manufactur-
15 ing innovations, creation of new jobs, and stimula-
16 tion of private sector investment.

17 (5) Maintaining national leadership in the face
18 of growing foreign competition will require Federal
19 investment in a well-defined and coordinated na-
20 tional program of research, development, and private
21 sector partnership, based on the existing responsibil-
22 ities and expertise of the National Oceanic and At-
23 mospheric Administration and other Federal agen-
24 cies.

1 (6) In particular, the National Sea Grant Col-
2 lege Program should play a leading role in the devel-
3 opment of marine biotechnology in the United
4 States, building on proven capabilities in research,
5 technology transfer, and education.

6 **SEC. 3. DEFINITIONS.**

7 As used in this Act—

8 (1) The term “Council” means the Federal Co-
9 ordinating Council on Science, Engineering, and
10 Technology or any successor organization respon-
11 sible for the coordination of scientific research
12 among Federal agencies and departments.

13 (2) The term “Director” means the Director of
14 the Office of Science and Technology Policy.

15 (3) The term “marine biotechnology” means
16 the application of molecular and cellular techniques
17 to marine or other aquatic organisms for the pur-
18 poses of—

19 (A) identifying, isolating, developing, and
20 enhancing products that are derived from the
21 marine environment;

22 (B) developing and applying techniques to
23 conserve, manage, and protect marine and
24 coastal resources; and

1 (C) monitoring human health and treating
2 disease.

3 (4) The term “release of organisms” means the
4 intentional or accidental release, from a contained
5 research facility into the surrounding environment,
6 of a living marine or other aquatic organism in
7 which the genetic material has been purposely al-
8 tered at the molecular or cellular level in a way that
9 could not result from the natural reproductive pro-
10 cess of that organism.

11 (5) The term “Sea Grant director” means the
12 director of a college, program, or regional consor-
13 tium designated under the National Sea Grant Col-
14 lege Program Act (33 U.S.C. 1121 et seq.).

15 (6) The term “Strategy” means the National
16 Marine Biotechnology Strategy developed under sec-
17 tion 4, or any revision thereof.

18 **SEC. 4. NATIONAL MARINE BIOTECHNOLOGY STRATEGY.**

19 (a) IN GENERAL.—The Director, through the Council
20 and its Committee on Life Sciences and Health, shall de-
21 velop a National Marine Biotechnology Strategy for the
22 establishment and implementation of a comprehensive re-
23 search and development effort to assist the Nation in un-
24 derstanding and using marine biotechnology. The Director
25 shall submit the Strategy to the President and Congress

1 within one year after the date of enactment of this Act
2 and shall submit a revised Strategy at least once every
3 three years thereafter.

4 (b) ELEMENTS OF THE STRATEGY.—The Strategy
5 shall—

6 (1) establish, for the ten-year period beginning
7 in the year the Strategy is submitted, goals and pri-
8 orities for a coordinated Federal effort in marine
9 biotechnology;

10 (2) describe specific activities to achieve such
11 goals and priorities, including—

12 (A) basic and applied research initiatives;

13 (B) essential infrastructure development;

14 (C) education and training programs; and

15 (D) development of partnerships among
16 government agencies, industry, and academia to
17 translate research findings into practical use;

18 (3) set forth the role of each participating Fed-
19 eral agency and department, identifying and ad-
20 dressing (consistent with the responsibilities estab-
21 lished in this Act) relevant programs and activities
22 of such agencies and departments that would con-
23 tribute to the effort;

1 (4) estimate, to the extent practicable, funding
2 requirements for the Federal marine biotechnology
3 effort described in the Strategy; and

4 (5) provide for, with respect to federally-funded
5 activities that may involve release of organisms, co-
6 ordinated oversight by Federal departments and
7 agencies, including establishment of—

8 (A) guidelines and performance standards
9 that are necessary for the safe conduct of such
10 activities and for preventing significant environ-
11 mental risk; and

12 (B) procedures to ensure compliance with
13 such guidelines and performance standards.

14 (c) CONSULTATION.—In developing and revising the
15 Strategy, the Director—

16 (1) shall consult with Federal, State, academic,
17 commercial, and environmental entities involved in
18 marine biotechnology;

19 (2) may convene meetings and workshops, in
20 consultation with the National Academy of Sciences
21 and the Sea Grant directors; and

22 (3) shall, within ninety days of the date of en-
23 actment of this Act, contract with the National
24 Academy of Sciences for a report on activities that
25 may involve release of organisms, which shall—

1 (A) assess the nature, likelihood, and ex-
2 tent of any potentially deleterious effects on the
3 marine environment associated with release of
4 organisms;

5 (B) identify existing laws, regulations,
6 guidelines, and protocols that apply to release
7 of organisms;

8 (C) examine and evaluate the adequacy of
9 oversight by each Federal agency or department
10 supporting activities that may involve release of
11 organisms; and

12 (D) recommend (for the conduct and over-
13 sight of activities that may involve release of or-
14 ganisms) regulations, guidelines, performance
15 standards, and procedures to assess and mini-
16 mize the environmental risk associated with
17 such release.

18 **SEC. 5. NATIONAL OCEANIC AND ATMOSPHERIC ADMINIS-**
19 **TRATION.**

20 (a) IN GENERAL.—The Secretary of Commerce, in
21 consultation with the Council, shall, within the National
22 Oceanic and Atmospheric Administration, maintain a bal-
23 anced program of marine biotechnology activities, com-
24 prised of—

1 (1) the program established by section 206 of
2 the National Sea Grant College Program Act (33
3 U.S.C. 1121 et seq.), as added by section 6 of this
4 Act;

5 (2) research conducted under agreements with
6 academic institutions for the purposes of developing
7 and applying marine biotechnology to the manage-
8 ment, conservation, and use of living marine re-
9 sources; and

10 (3) marine forensics, biotoxins, and
11 microbiological research on new methods for ensur-
12 ing the safety of seafood, implementing and enforc-
13 ing marine environmental statutes, and addressing
14 coastal pollution.

15 (b) RESTRICTION RELATING TO RELEASE OF ORGA-
16 NISMS.—The Secretary of Commerce shall not conduct ac-
17 tivities (including the award of a grant or contract) that
18 may involve release of organisms, unless such activities—

19 (1) have been reviewed and approved under
20 other applicable Federal law; or

21 (2) are found by the Secretary of Commerce,
22 based on a written assessment, to pose no significant
23 environmental risk.

24 (c) AUTHORIZATION OF APPROPRIATIONS.—In addi-
25 tion to the sums authorized to be appropriated under sec-

1 tion 212 of the National Sea Grant College Program Act
2 (33 U.S.C. 1131), there are authorized to be appropriated
3 to the Secretary of Commerce, to enable the National Oce-
4 anic and Atmospheric Administration to carry out this
5 Act, not to exceed \$12,000,000 for each of the fiscal years
6 1994, 1995, 1996, and 1997.

7 **SEC. 6. SEA GRANT MARINE BIOTECHNOLOGY PROGRAM.**

8 (a) ESTABLISHMENT.—The National Sea Grant Col-
9 lege Program Act (33 U.S.C. 1121 et seq.) is amended
10 by inserting immediately after section 205 the following
11 new section:

12 **“SEC. 206. MARINE BIOTECHNOLOGY PROGRAM.**

13 “(a) MARINE BIOTECHNOLOGY PROGRAM.—Subject
14 to the availability of appropriations under section 212(d),
15 the national sea grant college program provided for under
16 section 204 shall include a marine biotechnology program
17 under which the Secretary, acting through the Director,
18 shall—

19 “(1) make grants and enter into contracts in
20 accordance with this section; and

21 “(2) engage in other activities authorized under
22 this Act;

23 to further research, development, education, technology
24 transfer, and risk assessment in marine biotechnology.

1 “(b) ADMINISTRATION.—In carrying out the marine
2 biotechnology program, the Secretary shall—

3 “(1) coordinate the relevant activities of the di-
4 rectors of the sea grant colleges and the Marine Bio-
5 technology Review Panel established under sub-
6 section (d); and

7 “(2) provide general oversight of the review
8 process under subsection (d)(1) to ensure that the
9 marine biotechnology program produces the highest
10 quality research, development, education, and tech-
11 nology transfer.

12 “(c) GRANTS AND CONTRACTS.—

13 “(1) APPLICATIONS.—Applications for grants
14 and contracts under this section shall be—

15 “(A) made in such form and manner, and
16 include such content and submissions, as the
17 Secretary shall by regulation prescribe;

18 “(B) forwarded through the appropriate
19 directors of sea grant colleges to the National
20 Sea Grant Office; and

21 “(C) reviewed by the Marine Biotechnology
22 Review Panel in accordance with subsection (d).

23 “(2) TERMS AND CONDITIONS.—Any reference
24 in subsection (d) of section 205 or in the last sen-
25 tence of subsection (a) of section 205 to grants and

1 contracts provided for under that section shall be
2 treated, as the context requires, as including any
3 grant applied for or made, or contract applied for or
4 entered into, under this section.

5 “(3) AWARDING OF GRANTS AND CON-
6 TRACTS.—The Secretary shall award grants and
7 contracts under this section on the basis of the rec-
8 ommendations for award made by the Marine Bio-
9 technology Review Panel under subsection (d).

10 “(d) MARINE BIOTECHNOLOGY REVIEW PANEL.—

11 “(1) ESTABLISHMENT AND DUTIES.—Subject
12 to the availability of appropriations under section
13 212(c), the Director, in consultation with the direc-
14 tors of the sea grant colleges, shall convene a panel,
15 to be known as the Marine Biotechnology Review
16 Panel, that shall—

17 “(A) review, on a competitive basis, the ap-
18 plications made under this section for grants
19 and contracts to determine their respective sci-
20 entific, technical, educational, and commercial
21 merits and likely contributions toward achieving
22 the purposes of this section; and

23 “(B) on the basis of the review under sub-
24 paragraph (A), and with due regard for the
25 overall balance and coordination of the marine

1 biotechnology program, make recommendations
2 to the Secretary regarding the awarding of
3 grants and contracts under this section.

4 “(2) MEMBERSHIP.—The Marine Biotechnology
5 Review Panel shall—

6 “(A) consist of not more than fifteen indi-
7 viduals with scientific or technical expertise in
8 marine biotechnology or relevant related fields,
9 including at least one qualified individual with
10 expertise in marine or freshwater ecological risk
11 assessment;

12 “(B) reflect a balance among areas of ex-
13 pertise consistent with the purposes of this sec-
14 tion;

15 “(C) not include Federal employees or di-
16 rectors of sea grant colleges; and

17 “(D) reflect geographic balance, consistent
18 with the primary objectives of a high level of ex-
19 pertise and balance among areas of expertise.

20 “(3) ALLOWANCES.—Each member of the Ma-
21 rine Biotechnology Review Panel shall receive travel
22 expenses, including per diem in lieu of subsistence,
23 in accordance with sections 5702 and 5703 of title
24 5, United States Code.”.

1 (b) DEFINITIONS.—(1) Section 203 of the National
2 Sea Grant College Program Act (33 U.S.C. 1122) is
3 amended by redesignating paragraphs (6) through (15) as
4 paragraphs (7) through (16), respectively, and by insert-
5 ing after paragraph (5) the following new paragraph:

6 “(6) The term ‘marine biotechnology’ means
7 the application of molecular and cellular techniques
8 to marine and other aquatic organisms for the pur-
9 poses of—

10 “(A) identifying, isolating, developing, and
11 enhancing products that are derived from the
12 marine environment;

13 “(B) developing and applying techniques to
14 conserve, manage, and protect marine and
15 coastal resources; and

16 “(C) monitoring human health and treat-
17 ing disease.”.

18 (2) Section 203(4) of the National Sea Grant College
19 Program Act (33 U.S.C. 1122(4)) is amended by inserting
20 “marine biotechnology,” immediately after “marine tech-
21 nology,”.

22 (c) AUTHORIZATION OF APPROPRIATIONS.—Section
23 212 of the National Sea Grant College Program Act (33
24 U.S.C. 1131) is amended—

1 (1) in subsection (b), by inserting “but not in-
2 cluding section 206” immediately after “section
3 209”;

4 (2) by redesignating subsections (c), (d), and
5 (e) as subsection (d), (e), and (f), respectively; and

6 (3) by inserting immediately after subsection
7 (b) the following new subsection:

8 “(c) MARINE BIOTECHNOLOGY PROGRAM.—

9 “(1) GRANTS AND CONTRACTS.—There is au-
10 thorized to be appropriated to carry out the provi-
11 sions of section 206 (other than for administration)
12 an amount—

13 “(A) for each of the fiscal years 1994 and
14 1995, not to exceed \$20,000,000; and

15 “(B) for each of the fiscal years 1996 and
16 1997, not to exceed \$25,000,000.

17 “(2) ADMINISTRATION.—There is authorized to
18 be appropriated for the administration of section
19 206, an amount—

20 “(A) for each of the fiscal years 1994 and
21 1995, not to exceed \$200,000; and

22 “(B) for each of the fiscal years 1996 and
23 1997, not to exceed \$250,000.”.

○