

# SENATE STAFF ANALYSIS AND ECONOMIC IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

BILL: CS/SB 296

SPONSOR: Governmental Oversight and Productivity Committee and Senator Carlton

SUBJECT: Marine Biotechnology Research

DATE: March 21, 2001      REVISED: \_\_\_\_\_

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	<u>Gee</u>	<u>Voigt</u>	<u>NR</u>	<u>Fav/2 amendments</u>
2.	<u>White</u>	<u>Wilson</u>	<u>GO</u>	<u>Favorable/CS</u>
3.	_____	_____	<u>AGG</u>	_____
4.	_____	_____	<u>AP</u>	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____

## I. Summary:

This Committee Substitute (CS) creates the Florida Marine Biotechnology Research, Training, and Development Program, to be administered by the Director of the Florida Marine Research Institute and the Director of the Florida Sea Grant College Program. It provides an appropriation to fund research projects on a competitive basis.

This CS creates as yet unnumbered sections of the Florida Statutes.

## II. Present Situation:

Marine biotechnology is the development of goods and services derived from marine organisms and processes. Examples include: (a) pharmaceuticals for the treatment of cancer, arthritis, and other medical conditions; (b) safe and effective chemicals for agricultural uses; (c) technologies for a marine veterinary industry for aquaculture and oceanaria; (d) technologies to ensure the safety of seafood; (e) technologies for the detection of toxins in the environment; and (f) new varieties of plants for coastal restoration.

It is expected that promotion of the biotechnological industry will create and attract new, clean, high technology industries to the state that should result in increased high paying jobs. Florida appears to be well suited for the industry due to its enormous coastline and variety of marine habitats.

The Florida Sea Grant College Program located at the University of Florida, is one of 29 state Sea Grant Programs under the National Sea Grant Program. The Sea Grant Program is a partnership between the nation's universities and the National Oceanic and Atmospheric Administration that began in 1966, when the U.S. Congress passed the National Sea Grant

College Program Act. Florida Sea Grant is a state university program that works with and funds projects for private and public Florida universities and research facilities throughout the state. The Florida Sea Grant Program funded 16 projects in 2000-2001, with marine biotechnology as its highest priority. The Florida Sea Grant Program is currently receiving approximately \$1,000,000 in federal funding. The Florida Sea Grant Program is responsible for matching one dollar for every two federal dollars funded.

Pursuant to s. 20.331, F.S., the Florida Marine Research Institute (FMRI), assigned to the Fish and Wildlife Conservation Commission (FWCC), shall:

- Serve as the primary source of research and technical information and expertise on the status of Florida's saltwater resources;
- Monitor the status and health of saltwater habitat, marine life, and wildlife;
- Develop and implement restoration techniques for marine habitat and enhancement of saltwater plant and animal populations;
- Respond and provide critical technical support for marine catastrophes including oil spills, ship groundings, major marine species die-offs, hazardous spills, and natural disaster;
- Identify and monitor marine toxic red tides and their impacts, and provide technical support for state and local public health concerns; and
- Provide state and local governments with estuarine, marine, coastal technical information and research results.

Section 287.057, F.S., requires that contracts for contracted services in excess of \$25,000 be awarded by competitive sealed bidding or through competitive sealed proposals. In certain documented circumstances, services available only from a single source may be excepted from the competitive bid or proposal requirements. When the FMRI contracts for scientific and research services, it has not always done so through the sealed bid or proposal process.

Pursuant to s. 120.52 (15), F.S., a "rule" means each agency statement of general applicability that implements, interprets, or prescribes law or policy or describes the procedure or practice requirements of an agency and includes any form that imposes any requirement or solicits any information not specifically required by statute or by an existing rule. Furthermore, s. 120.54 (1), F.S., provides that rulemaking is not a matter of agency discretion.

Pursuant to s. 216.346, F.S., in any contract between state agencies, including any contract involving the State University System or the Florida Community College System, the agency receiving the contract or grant moneys shall charge no more than 5 percent of the total cost of the contract or grant for overhead or indirect costs or any other costs not required for the payment of direct costs.

BIOFlorida is the Florida section of an industry association of biotechnology companies.

### III. Effect of Proposed Changes:

The Committee Substitute (CS) establishes the Florida Marine Biotechnology Research, Training, and Development Program (Program). The Program is to foster, establish, and enhance partnerships among research scientists in Florida universities and research laboratories, and the marine biotechnology industry for the purpose of promoting commerce, creating jobs, and benefiting from potential commercial opportunities in Florida.

The Program will support research using modern techniques of cell and molecular biology in the following areas:

- Aquaculture, focused on cellular and molecular techniques to improve size, growth rate, disease resistance, survivability, and reproductive yields of aquacultured organisms;
- Marine animal health, focused on marine pathogens, diagnostics, treatments, drug delivery systems, and immunology, physiology, and pharmacology of both wild and cultured marine animals;
- Marine bioproducts, focused on the discovery of drugs, bioadhesives, biominerals, and other economically important products, the development of new models and screens for product discovery, the identification of new drug targets and mechanisms-of-action of marine-derived drugs, the development of sustainable production methods for marine bioproducts and the development of novel methods for marine by-product utilization;
- Coastal human health risks, focused on the development of new diagnostic tools to assess seafood pathogens and water-borne pathogens and pollutants;
- Coastal habitat restoration, focused on remediation, and molecular and cellular approaches to strain improvement, hybrid development, and production technology for submerged and coastal aquatic vegetation; and
- Forensics and monitoring, focused on bioforensics for identification of threatened and endangered species, seafood identification, evaluation of health risks, regulatory issues as related to economic fraud, and the development of new biosensors.

The long-term goal of the Program is the creation of products and processes that will advance the marine biotechnology industry in the state. This industry will create new, clean, high-technology businesses, will provide high-paying jobs, and will create employment opportunities that will keep Florida-trained students in the state.

The Director of the FMRI and the Director of the Florida Sea Grant College Program will jointly administer the program with input from a steering committee appointed jointly by both directors. The Directors of the FMRI and the Florida Sea Grant College Program will jointly make final project funding decisions, and provide a joint report to the Legislature on program progress by July 1 of each year during which the program is being funded.

The steering committee will have a member from each of the following:

- University of Florida
- Florida Atlantic University
- Florida State University
- University of South Florida
- University of West Florida
- Florida A & M University
- University of Miami
- Nova Southeastern University
- Florida International University
- Harbor Branch Oceanographic Institution
- Mote Marine Laboratory
- BIOFlorida

The steering committee will: (a) determine the research priorities that will be used in requesting project proposals; (b) determine the criteria used to select and fund projects, which must include project rationale, scientific merit, potential applications, industrial sponsorship, investigator qualifications, potential for partnerships, and plans for technology transfer to industry or the public sector.; (c) identify a scientific review committee to evaluate and recommend projects for funding; and (d) make recommendations to the Directors of the Florida Sea Grant College Program and the FMRI for projects to be funded based upon the recommendations of the scientific review committee.

Funds appropriated for the Program must be awarded to projects based on competition as determined by a scientific peer review process, which may include the advice of a nationwide panel of experts. All universities, public research laboratories, and private nonprofit research laboratories in the state are eligible to compete for funding based on the submission of proposals and selection by the competitive process.

An appropriation of \$2 million from the General Revenue Fund is made to the FMRI for FY 2001-2002 to fund the first year of the Program. Annual appropriations used to fund projects must provide that the annual appropriations be spent over a period not to exceed 42 months for each project and activity of the program. The FMRI and the Florida Sea Grant College Program will disburse all funds based on the competitive process prescribed by this act and the steering committee.

Projects funded within the FMRI will receive funds directly from the institute. Funds awarded to universities and private nonprofit research laboratories will be transferred by the FMRI by contract through the Florida Sea Grant College Program. All projects should promote public and private partnerships when possible. No more than \$25,000 each may be used by the FMRI and the Florida Sea Grant College Program for technical administration of the Program. Up to \$16,000 may be used by the Florida Sea Grant College Program for the expenses of the peer review and technical panel.

The provisions ch. 287, F.S., relating to procurement of personal property and services apply to the act. Moreover, the FWCC is directed to adopt rules to implement the act. The rules, at a minimum, must address the solicitation of proposals, award of grants, monitoring of grants, and dispute resolution.

The act is repealed on July 1, 2006, unless it is otherwise reenacted by the Legislature.

The act takes effect July 1, 2001.

#### **IV. Constitutional Issues:**

##### **A. Municipality/County Mandates Restrictions:**

None.

##### **B. Public Records/Open Meetings Issues:**

As a public body, the Florida Marine Biotechnology Research, Training, and Development Program is subject to the open government requirements in Article I, s. 24 of the Florida Constitution.

##### **C. Trust Funds Restrictions:**

None.

#### **V. Economic Impact and Fiscal Note:**

##### **A. Tax/Fee Issues:**

None.

##### **B. Private Sector Impact:**

Private nonprofit research facilities in Florida could receive funds from the program if they successfully compete for grants.

##### **C. Government Sector Impact:**

From each annual \$2 million appropriation, the FMRI and the Florida Sea Grant College Program may receive no more than \$25,000 each for program administration, and the Florida Sea Grant College program may use up to \$16,000 for peer review and technical expenses.

#### **VI. Technical Deficiencies:**

None.

**VII. Related Issues:**

The CS does not indicate who or what entity will own the rights to any inventions, methodologies, techniques, or creations, which may be properly protected by a patent, copyright, or trademark (hereinafter referred to as “products”), that may result from a project funded pursuant to this act. This could be clarified to prevent future litigation over ownership.

Options to clarify the CS include providing that all products resulting from a project funded by the act are considered university work product subject to the provisions of s. 240.229, F.S., which is the section governing intellectual property developed in the universities. This section provides the universities with the authority to obtain patents, copyrights or trademarks for any work products, and to enforce its rights therein. The section also directs the universities to consider the contributions of university personnel in developing the product, and to enter into contracts establishing the interests of the university and personnel in the product. Alternatively, the CS could be clarified to provide that: (a) the provisions of s. 240.229, F.S., apply to the extent of university or state personnel participation in the development of the product; and (b) in the event there is no university or state personnel participation, a percentage of the profits received by the private developer be paid to the program. Then again, the CS could provide that a private developer retain all profits. In any case, it may be desirable to clarify what property rights accrue when products are developed in order to avoid future litigation.

**VIII. Amendments:**

None.