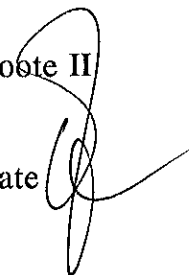
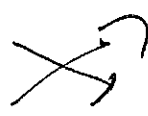




MEMORANDUM

TO:  President Edward T. Foote II

FROM:  William J. Whelan
Chairman, Faculty Senate

DATE: May 28, 1992

SUBJECT: Faculty Senate Legislation #91018(B) -
Title Approval of the NIEHS Marine and Freshwater
Biomedical Science Center

The Faculty Senate, at its meeting of April 6, 1992, voted to approve Faculty Senate Legislation #91018(B) - Title Approval of the NIEHS Marine and Freshwater Biomedical Science Center, in accordance with requirements of Bylaw 6.6 of the *Faculty Manual*.

This legislation is now forwarded to you for your action.

WJW/b

cc: Provost Glaser
Dean Rosendahl, RSMAS
Dr. Baden, Director

6/4/92
Bill,
✓ approve.
Thanks.
377

CAPSULE: Faculty Senate Legislation #91018(B) -
Title Approval of the NIEHS Marine and Freshwater Biomedical
Science Center

RESPONSE BY THE PRESIDENT:

DATE: 6/8/92

APPROVED: Yes 377

OFFICE OR INDIVIDUAL TO IMPLEMENT OR PUBLISH: Podvornik

EFFECTIVE DATE OF LEGISLATION: _____

NOT APPROVED AND REFERRED TO: _____

REMARKS (IF NOT APPROVED): _____



July 14 1992

Professor Daniel Baden
Marine Biology and Fisheries
S/A 280, RSMAS

Dear Dan:

This is to inform you that the Faculty Senate approved the name of the NIEHS Marine and Freshwater Biomedical Science Center, and that the Legislation [91018 B] has been approved by President Foote.

All good wishes for the success of the Center.

Yours sincerely,

William J. Whelan

William J. Whelan
Chair, Faculty Senate

WJW/ca

cc: Dean B. Rosendahl
Prof. G. Brass

Attachment (*Legislation*)

Approval of Center Name (Institute or Sponsored Center, Bylaw 6.6)

Professor Baden presented the request for the approval of the name of the NIEHS Marine and Freshwater Biomedical Sciences Center. He stated that the Center will cease to exist when extramural funding ceases. The *motion* to approve the name of the Center *carried*. Professor Baden was congratulated on the success of his proposal for funding by the National Institute of Health.

Voting Rights for Research and Educator Faculty (second reading)

Professor Whelan summarized the first reading of the Voting Rights for Research and Educator Faculty. It was *moved* and seconded to *reinstate* Item 1 and to *amend* it by substituting "Research" for "General" and "Educator" for "General" in the text of the proposed legislation #91003(A) and #91004(A) respectively. The *motion to reinstate and to amend failed* by a vote of 9 in favor, 16 opposed with no abstentions. It was *moved* and seconded to *amend* paragraph 2 by striking "and may at any time vote to terminate any such extension of voting rights". The *motion to amend carried* by a vote of 12 in favor, 11 opposed with no abstentions. It was *moved* and seconded to *amend* the second sentence of paragraph 2 to read: "The Tenured Faculty must vote annually to renew any extension." The *motion to amend carried* by a vote of 13 in favor, 10 opposed with no abstentions. The *main motion, as amended, carried*. It was *moved* and seconded to *amend* the last paragraph by striking "tenured". The *motion failed* by a vote of 8 in favor, 11 opposed with one abstention. It was agreed to editorially insert "of research faculty" following "voting rights" and "Tenured Regular Faculty" for "Tenured Faculty" each time they occur in each legislative proposal. It was *moved* and seconded to adopt the entire legislation, as amended. The *motion carried* by a vote of 15 in favor, 6 opposed with no abstentions.

Guidelines for Submitting Proposals for New Degree Programs

Professor Whelan reviewed the procedures for the second reading of new program proposals. It was *moved* and seconded that the Senate urges the Senate Council not to waive the guidelines for submitting proposals in the future. It was *moved* and seconded to *amend* the motion by stating that the Senate adopts current Senate Council guidelines, including the date of March 1 as the deadline for submission of proposals for new programs, as its own guidelines. The *motion carried*. It was *moved* and seconded that the guidelines be amended to include the following checklist: 1) that every program be required to submit a vote of approval by every named department and school mentioned in the proposal; 2) the date of the vote; and 3) the exact numerical vote. The guidelines would apply to any and all proposals coming forth not just proposals for new programs. The *motion carried*. Copies

ending, C, WW



March 9, 1992

Dr. Daniel G. Baden
University of Miami
RSMAS, Slab 284

Dear Dan:

Barbara Hoadley has drawn my attention to page 46 of the Faculty Manual regarding the institution of an Independent Center. This seems to be the category to which your own Center belongs because it was established "to coordinate and promote multi-disciplinary research".

Therefore, it is not only the case that you need the agreement of "the faculties of the cooperating departments or undepartmentalized schools", meaning the School of Medicine, which we had asked be done. You also need the approval of the Academic Deans Policy Council, the Research Council, the Graduate Council and the Academic Planning Committee (School Council).

Sorry about this, but there it is. I think that you will have to go to all these bodies before you come to the Senate with your proposal.

The only way to simplify your problem would be to have it become a 6.6. Institute or Sponsored Center where you will see that you only need the approval of the faculty of RSMAS, and that, I presume, you already have.

I leave it to you to decide how to proceed.

Your sincerely,

A handwritten signature in dark ink, appearing to be "W. J. Wheahan".

W. J. Wheahan
Chair, Faculty Senate

WJW/ca
Attachment P. 46 F. Manual

Future of the Graduate School

The Chairman of the ad hoc committee of the Faculty Senate to consider the Future of the Graduate School, Prof. Daniel Baden, summarized the discussions on this topic. An ad hoc committee of the Graduate Council and Prof. Baden's committee will meet to study the question and consider recommendations attempting to iron out differences, and come to a consensus on what the future of the Graduate School should be. The RSMAS School Council, the Department of Geography and the Graduate School Council had recommended the retention of the Graduate School. The Council of the School of Medicine agreed with the recommendation of the Faculty Senate ad hoc Committee to abolish the School. After discussion it was agreed that the Faculty Senate ad hoc committee should meet with the ad hoc committee of the Graduate Council and report to the Senate on March 30.

Report of the Board of Trustees Meetings

Several Committees of the Board of Trustees have met. The Chair, Prof. Whelan, the Vice Chair, Prof. Brass, and other Senators had attended the meetings. The financial situation of the University was discussed during the meeting of the Finance and Audit Committee. Outside the Medical School, the financial situation appeared satisfactory. Indeed, the School of Law had generated a significant surplus. By contrast, the Medical School had severe financial problems. The Dean's budget of \$62 million had an overrun of \$13 million. Department budgets are being cut by 12%, and the cuts will continue in FY 93. The Fringe Benefits Committee was informed about the significant movement of employees out of the UMSM plan into AVMED. There will be an attempt to attract employees back to UMSM.

Approval for Marine and Freshwater Biomedical Sciences Center

It was *moved* and seconded to approve the Marine and Freshwater Biomedical Sciences Center subject to approval of the School Council of Medical School. The *motion carried*.

Matters from the Floor

It was *moved* and seconded to approve the Ocean Pollution Research Center subject to approval by the School Council of the School of Engineering. The *motion carried*.

The meeting adjourned at 5:40 p.m. following a brief Executive Session.

91018CB)


642:077:DGB:mfbs



19 March 1992

FAX MEMORANDUM

TO: William J. Whelan
Faculty Senate Chair

FROM: Daniel G. Baden 
Professor and Director

SUBJECT: NIEHS Marine and Freshwater Biomedical Sciences Center

RE: 9 March 1992 letter WJW-->DGB, Independent Center

The subject of the above-referenced letter is to query the levels of approval necessary for establishment of an "Independent Center" at the University of Miami. Our Center has successfully gone through the appropriate levels of approval for a "Sponsored Center", the original concept for which it was submitted. Approval by both the RSMAS School Council and the Medical School Council has been obtained because faculty from both campuses are involved and because both "Marine" and "Biomedical" are in the name. The Center name, by Faculty Charter provisions, will remain a Center only as long as it is extramurally funded.

The fact that our Center is interdisciplinary and multi-campus is not applicable to the approval of the name in this instance. Any further approval layers are superfluous in my reading.

Therefore, I wish to have the item on the agenda for the next full Faculty Senate meeting, for approval of the "name as a Sponsored Center" at the University of Miami.

NIEHS MARINE AND FRESHWATER BIOMEDICAL SCIENCES CENTER

**UNIVERSITY OF MIAMI
ROSENSTIEL SCHOOL OF MARINE AND ATMOSPHERIC SCIENCE
AND SCHOOL OF MEDICINE**

REQUEST FOR APPROVAL OF CENTER NAME

DURATION OF INITIAL PROGRAM FUNDING: 1 August 1991- 31 July 1996

ACCOMPANYING DOCUMENTS

- A. SPECIFIC AIMS AND OBJECTIVES OF CENTER**
- B. ADMINISTRATIVE STRUCTURE**
- C. ADVISORY COMMITTEES**
- D. APPLICATION COVER PAGE, ABSTRACT, AND AWARD NOTICE**

A. Specific Aims and Objectives of the Center

1. Theme

The overall theme of this Marine and Freshwater Biomedical Science Center application is multi-focal, yet integrated. A principal focus of the Center is the interdisciplinary study of marine toxins of human food-borne significance. This will be accomplished by examining the effects of these toxins on selected marine model systems of potential biomedical importance. Utilization of the models in the description of toxin action, metabolism, synergism, and localization in affected tissues capitalizes on particular idiosyncrasies of the models employed. In undertaking the principal focus, an ancillary theme of the Center is realized. The selected marine model systems shall be characterized, in part by employing the toxins as specific ligand tools in dissecting the systems at the functional and molecular levels. Epidemiological pilot studies will be aimed at assaying for biological markers as indicators of intoxication to develop a "macro" approach to risk assessment. These studies, when taken together, provide a frame-work by which marine model systems and marine environmental contaminants can be mutually characterized in a most efficient manner.

2. Practical Synopsis

The first year of the University of Miami Marine/Freshwater Biomedical Sciences Center will be an active one. We shall enhance 3 Cores, establish 3 additional Core facilities, provide partial technical and supplies support for a seventh Core facility, and provide laboratories with shared equipment necessary to accomodate 5 projects and 1 pilot project. Each component shall improve collaboration between the eight Center Principal Investigators. Years 2-5 will build on the established Center to fulfill our objectives.

The University of Miami has provided a strong cost-sharing component sufficient to achieve our goals from a \$200,000 NIH contribution. We shall propose to utilize NIEHS extramural funds to provide for Center faculty, technical support, core equipment and supplies, and travel for seminar speakers, while UM funds will provide for cost share equipment and supplies, and External Advisor travel support. Four postdoctoral associates, also funded by UM as a cost-share, will provide an additional intellectual and practical link between collaborating Principal Investigators in research programs, and will aid in the advanced training of future environmental scientists. The degree of cost-sharing illustrates the commitment of the University of Miami to MFBS Center concept.

We anticipate working with 8 Postdoctoral Associates (2-2.5 years each) within the 5 years of Initial Center funding. An Associate Director has been appointed to oversee Post-doc selection, assignments, and progress.

A substantial seminar program is proposed based on our philosophy of the advantages of multi-disciplinary exchange of research results. The invited scientist seminar component is large---about 1 per month---to help accomodate visits by prominent scientists to the Miami metropolitan area. Geographically, Miami is not an intra-U.S. hub for major air carriers and thus "drop-in" seminar speakers are scarce. A healthy mix of graduate students, post-docs, center investigators, and invited UM Faculty will round-out the remainder of the schedule each year. Development of a visiting scientist program is envisioned to foster collaboration of UM scientists with colleagues from other Universities. We anticipate that several of our Core facilities will be of use to others, and we plan to pursue mechanisms by which scientists may visit for a period of weeks to months, and interact in a collaborative manner. To accomplish all of these goals, an Associate Director has been appointed to direct and manage the seminar programs, and to initiate the visiting scientist program.

CORE DESCRIPTIONS

1. Administrative

This core will serve as the Administrative Unit of the Center, with the Director as Core leader. The Administrative Core has a Business Manager, and an Administrative Assistant. All Center documents will emanate from this office including: draft and final Center reports, minutes from Executive, Internal, and External Advisory Committee meetings, informational brochures and newsletters, all written communication with NIEHS and External Advisors, purchase orders for equipment and supplies, and all salary papers relating to the proportion of faculty salaries allocated to Center activities.

2. Toxin Supply

This facility will serve as a vital resource for all bioactive materials to be used in the proposed studies. The toxins to be investigated with respect to their specific mechanisms of action, their metabolism, as tools for identification and purification of specific receptor binding sites in diverse cell types, and as membrane-perturbing agents of known activity. All of the subject toxins are potential human threats as xenobiotic components of seafood, and include saxitoxin, brevetoxin, ciguatoxin, and okadaic acid. The facility has a current operational facilities safety plan approved by the Federal government. A half-time technician, a Core Leader, and supplies are budgeted.

3. Fish Tissue Culture

Facilities are provided for the isolation, culture, examination, and manipulation of cells from marine animals as alternatives to mammalian bioassay and research. By serving as a shared resource, the tissue culture Core will permit a more efficient use of funds for ongoing and planned research programs. Studies using cultured cells will include morphology, physiology, electrophysiology, and biochemistry. A Core Leader, one post-doctoral fellow, one half-time technician, and supplies are budgeted.

4. Fish Cancer and Immunology

A unique model of human neurofibromatosis is a neurological carcinoma found in the bicolor damselfish (*Pomacentrus partitus*). This system consists of naturally occurring peripheral nerve sheath and pigment cell tumors found in natural populations of fish on Florida reefs. The tumors are transmissible in the lab and are easily maintained in tissue culture. This Core will be devoted to producing and maintaining this and other tumor models as they become available. The Core will make available normal and tumor bearing fish for biochemical, histological, physiological, and electrophysiological studies. A Core leader, technical staff shared with Core 3, and supplies are budgeted.

5. Electrophysiology

Equipment is available to provide the opportunity to study the membrane electrical properties of a variety of cell types using current-, voltage-, and patch-clamp techniques. All equipment was purchased by the extramural funded program and the University as cost share. The study of the mechanism of action of the marine toxins described in Core 2 above, the electrical properties of the tumor-modified cells described in Cores 3,4 above, and the functional properties of *Aplysia* neurons exposed to toxins will serve as base investigative studies. A full-time postdoctoral fellow is assigned to the Core, a Core Leader is budgeted, and equipment and supplies are provided.

6. Metabolic Neurophysiology

The metabolic neurophysiology Core serves two vital functions in the Center. The first function is to provide expertise and facilities for evaluating the mechanisms of action of marine toxins in brain. The facility will share equipment in Core 5 and will complement studies of the actions of marine toxins on ion channel conductivity. Monitoring changes in brain electrical activity in intact neural systems and the ability to evaluate metabolic processes *in vivo* differentiate this Core from Core 5. The second use of the facility will be to use marine toxins as tools to examine ion channel modulation in brain during environmental stress such as hypoxia. It is anticipated that this Core will provide much of the experimental evidence to fully develop marine toxins into useful biochemical tools for future research programs. A Core Leader, one post-doctoral fellow, equipment, and supplies are budgeted.

7. Metabolism and Analytical Biochemistry

This facility provides support for several collaborative research projects under the Center umbrella. The facility is outfitted to perform *in vitro* enzymatic assays of xenobiotic metabolism, *in vitro* assays of whole cell types of a variety of origins, *in vitro* assays and quantitation of DNA and adduct formation. Isotopic areas are available for radioactive work, and wet lab (running seawater) for controlled environmental studies. A Core Leader, one post-doctoral associate, equipment, and supplies are provided.

8. Electron Microscopy

This facility already exists at the Marine Campus, but is enhanced by Center affiliation. Studies using this facility include ultrastructure studies following tumor transformation, immuno-dense imaging of tissues exposed to marine toxins, antigenic expression and receptor localization using immunological techniques, and immunocytology using both transmission and scanning electron microscopy. A half-time technician, a Core Leader, and supplies are provided.

9. Biostatistics

The Biostatistics Core provides centralized statistical services and consulting to the Center, and is responsible for monitoring the quality of experimental design and statistical analyses. The three principal functions of the Core are to provide sophisticated biostatistical planning methods for the development of sound and fully supported research projects, to provide consultation on data management issues, and to collaborate with investigators in the conduct of studies, particularly in the statistical analyses and interpretation of results.

10. Experimental Fish and Shellfish Hatchery

This facility is divided into two primary components, an *Aplysia* culture facility and a fish hatchery. Both are existing facilities, enhanced by Center affiliation. Both are supply facilities under the Core and provide *Aplysia* for neuron work, and experimental fish species of known age for tissue culture, metabolism, and prepared cell type studies. Supplies and per item costs for animals are budgeted.

11. Pilot Projects

Limited funds are available on an annual basis for short-term exploratory work on research aspects which are consistent with Center themes and goals. The Center Director ultimately has responsibility for commitment of Pilot funds, and for ensuring the quality of the pilot projects. Studies may be supported for no more than two years, after which time they must have collected sufficient preliminary results for grant application submission. Pilot studies are one mechanism by which new UM investigators may be added to the Center. One clinical pilot project is funded currently.

Specific solicitation and selection processes follow: The IAC will act as the screening body for new pilot projects. Any member of the IAC may approach the Committee with a short 2-page preproposal

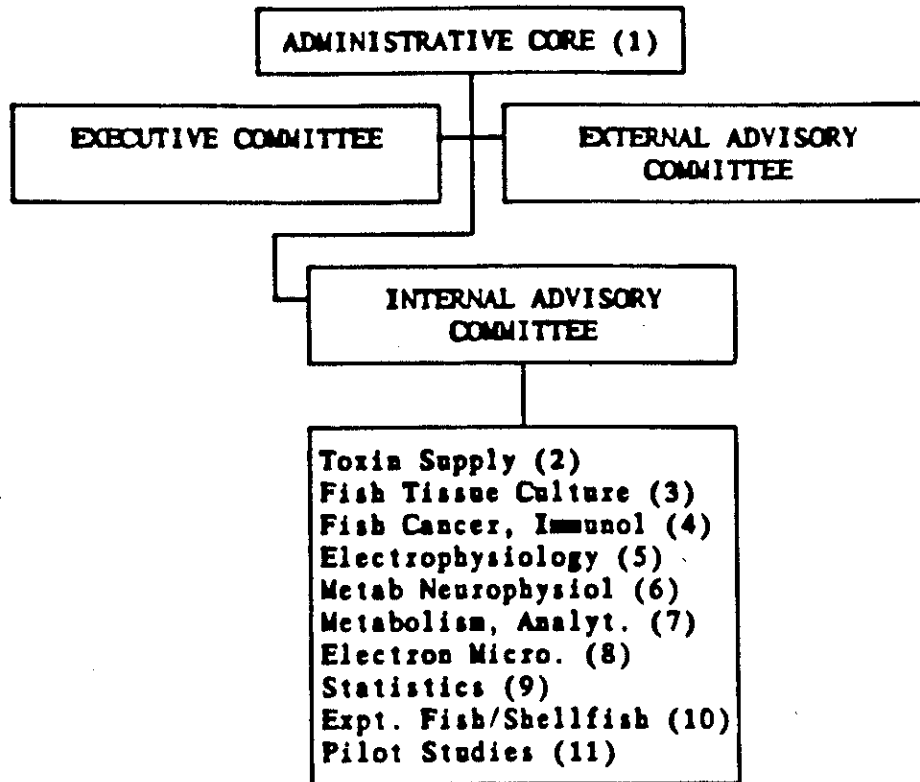
describing (a) aims and scope of the proposed project, (b) rationale for inclusion in the Center, (c) identified collaborators (must be a current Center investigator), (d) proposed utilization of Center facilities. From the short preproposal, which may be submitted for consideration at any IAC meeting, the IAC will make a determination as to further action.

On an annual basis, the Center will request from the University at-large any similar preproposals. These preproposals shall be held in the office of the Director, for formal review by the IAC. One IAC member will review the file in detail and shall present the preproposal to the IAC group.

Successful review under either of the described processes will be subject to final approval by the Director in consultation with the Associate Directors. Pending approval for inclusion in the Center, the Director will consult with the NIEHS Extramural Program Manager and the External Advisory Committee. Proposals deemed appropriate will be added upon completion of review if urgency warrants it, or deferred until beginning of a new fiscal year. No pilot projects will be accepted in the final 18 months prior to renewal (1996).

B. Administrative Arrangement

1. Organizational Chart



2. Administrative Structure

The University of Miami Marine/Freshwater Biomedical Center is administered by an Administrative Core (I) composed of a Center Director, a Business Manager, and Administrative Assistant, and a Senior Secretary. The Administrative Core in general, and the Center Director in specific, coordinate all Center activities in a manner that will benefit the overall program. The Administrative Core will provide the umbrella under which all non-research related tasks will be undertaken. These activities include secretarial support for manuscript preparation, report compiling, seminar notice publication, Center correspondence, and purchase requisitions. Budgetary matters of equipment and supplies purchases and University fiscal data-basing will be handled centrally through the Center Administrative Core, as shall salary papers for the each of the Principal Investigators. Technical and post-doctoral salary papers will emanate from the Center Administrative Core as well. The overall purpose of the Administrative Core is to release the individual Principal Investigators from as much paperwork as possible to permit full effort to the collaborative programs.

The MFBS Director is directly responsible for the organization and operation of the Center and for communication with NIEHS on all matters, scientific or otherwise. Based on the complex nature of the Center, the direct participation 1 day/week of an experienced Business Manager has been budgeted. In consultation with the Center Director, the overall budgetary scope of the Center will be managed, future budgets developed, and cost-accounting within Federal guidelines will be maintained. An especially important component of the tasks performed by the Center Director and the Business Manager is allocation, control, and appropriate expenditure of the University of Miami funds provided as cost-share to the Center. It is anticipated that the Business Manager and the Center Director will consult on a weekly basis concerning Center activities, that the Administrative Assistant will have a day-to-day handle on the fiscal matters through book-keeping activities and University Computer data basing, and that the Senior Secretary will devote 50% effort, or about one-half daily activities related to the Center.

Executive Committee: For purposes of Scientific and Fiscal Planning and Center Operation, three Advisory Committees have been compiled. For purposes of rapid communication and to provide for a closer alliance between the Marine and Medical campuses of the University of Miami, two Associate Directors have been appointed. Together with the Director, they form the Executive Committee. Based on the size of the proposed Center, the geographic distance separating the two campuses, and the complexity of the Core Units, the Executive Committee will provide an important additional strength by incorporating individual intellectual and academic expertise on a daily basis. We expect this committee to provide a unique direction to the University of Miami Center by combining the experience of a Medical School faculty member as one Associate Director, a Marine School faculty member as a second Associate Director, and a dual appointment Marine School and Medical School faculty member as Director. It is expected that the Director, through consultation with his Executive Committee, shall maintain the highest quality in individual collaborative Center research programs and other Center activities. Each Associate Director is assigned specific program Core Units corresponding to scientific seminar series, invited speakers, and development of a visiting scientist program (Core II), and academic outreach and presentations consisting of scientific travel budgets, postdoctoral associate review and coordination, and scientific slide and presentations budgets (Core III). These associated activities are anticipated to require about 10% composite time commitment, equally divided between the Associate Directors. The Executive Committee shall consult with the Internal Advisory Committee in all matters related to Center Activities. The Executive Committee is scheduled to meet every other week, but shall convene more often if necessary.

Internal Advisory Committee: For purposes of Core facilities and collaborative research programs management and scientific input for further program development, an Internal Advisory Committee is formulated to include each of the Center Principal Investigators, the Executive Committee, the Business Manager for fiscal matters, and the Associate Dean for Research at RSMAS as an *ex officio* member. It is this committee which recommends new or alternative mechanisms for carrying out Center programs. Members of this committee also report on the efficiency of function of core or research units for which they are responsible. Suggestions for improvement are compiled and a consensus of opinion drawn. Promising new research leads may be brought before the IAC, for potential inclusion as future feasibility studies within Center guidelines, or for more immediate response based on urgency and program relevance. Likewise, to discontinue a project, the IAC is the first appropriate committee for discussion of program relevance, necessity for Center support, and collaboration. The IAC is consulted on potential seminar speaker, solicitation and selection of post-doctoral and technical associates, and may forward items for further discussion to the Executive Committee.

The IAC is most important for promoting and carrying out the daily activities of the individual Cores of the Center, and for maintaining the extensive collaborative ventures of the Center. It is expected that the IAC meeting, carried out on a monthly to quarterly basis, will be the venue for detailed discussion of new proposed collaborative ventures and anticipated cost elements, and preliminary recommendations for extra-Center research programs which might fit the Center concept. Systems operation, facilities space and physical plant requirements, and general working conditions are considered a practical aspect to the IAC's duties and responsibilities.

Where applicable, a comprehensive Facilities Safety Plan will be developed in consultation with Dr. Charles Gottlieb of the Office of Environmental Health and Safety, and will be implemented by this committee. Certain of the formal committee requirement included under such a plan are overseen by standing University of Miami committees and central offices, and include Radiation Safety, Animal Care and Welfare, Space committees, and Environmental Health and Safety.

External Advisory Committee: The External Advisory committee consists of the Internal Advisory Committee, and three experts selected from the U.S. scientific community at large. Selection of the experts is based on high scientific integrity, prominence in environmentally-related research fields relevant to the Center concept, knowledge and experience with NIEHS Centers, and willingness to participate in an advisory capacity with the UM Center proposal. UM has selected three External Advisors: Professor Bruce Hammock, University of California Davis; Professor Stephen Safe, Texas A & M; and Professor Toshio Narahashi, Northwestern University. The NIEHS Program Administrator is invited to attend all External Advisory committee meetings as an observer. The function of the EAC is to assist in maintenance of Center Scope, to redirect or redefine focus as necessary, to periodically evaluate Center and Core Unit effectiveness, and to

reviews of the Center programs and operation. External Advisory Committee meeting will be held on an annual basis, preferably on month before NIEHS Center Directors are to convene. The written basis of the External Advisory Committee meeting will be the Annual Center Report, distributed to Center participants and experts three weeks prior to the meeting. Written transcripts of the annual External Advisory committee meetings will be distributed one month post-meeting and will be maintained in Center files for reference as needed.

Relationship with University of Miami: The University of Miami has made a substantial commitment to the overall funding of this NIEHS Center. Coordination of Center activities within UM cost-accounting will be undertaken directly by the Center Director with the Dean of RSMAS and with the Deputy Dean for Research of the University of Miami. For purposes of fostering Center development, the University has committed funds sufficient to cost-share equipment purchases in Year 1, after which time we expect all aspects of Core Units to be fully operational. In years 1-5, the University has also committed funds necessary to award 4 Post-doctoral research fellowships, and to pay for Center shared supplies and long-distance telephone costs, and for External Advisory Committee annual travel to Miami for External Committee meetings. The estimated total University cost commitment in Years 1 and 2 is approximately equivalent to the NIEHS extramural Direct component, and in years 3-5 will approximate 75% of the NIEHS component (due to drop-out of equipment purchases in years 3-5). The Director of the Center will employ the talents of the Business Manager of the Center in all fiscal negotiations, and programmatic considerations will be included as appropriate.

ADMINISTRATIVE STRUCTURE

Director

Daniel G. Baden, Ph.D.
Professor of Marine Biology and Fisheries, and
Professor of Biochemistry and Molecular Biology
[Marine Campus]

Associate Directors

David Adams, Ph.D.
Associate Professor of Pharmacology
[Medical Campus]

Patrick Walsh, Ph.D.
Professor of Marine Biology and Fisheries
[Marine Campus]

Additional Investigators

Lora Fleming, M.P.H., M.D.
Assistant Professor of Epidemiology and Public Health
[Medical Campus]

Churchill McKinney, Ph.D.
Research Associate Professor of Microbiology and Immunology
[Medical Campus]

Michael Schmale, Ph.D.
Assistant Professor of Marine Biology and Fisheries
[Marine Campus]

Thomas Sick, Ph.D.
Associate Professor of Neurology
[Medical Campus]

Judy Bean, Ph.D.
Professor of Epidemiology and Public Health
[Medical Campus]

Peter Lutz, Ph.D.
Adjunct Professor of Marine Biology and Fisheries
[Marine Campus] [Primary Appointment at Florida Atlantic University]

Administration

Mrs. Mary J. (Mudge) Ferguson
Assistant Manager, Database and Financial Affairs
[Marine Campus]

TBA
Administrative Assistant
[Marine Campus]

ADVISORY COMMITTEES

Executive Committee

Daniel G. Baden, Ph.D. [Director] [CHAIR]
David Adams, Ph.D. [Associate Director]
Patrick Walsh, Ph.D. [Associate Director]

Internal Advisory Committee

Daniel G. Baden, Ph.D. [Director] [CHAIR]
David Adams, Ph.D. [Associate Director]
Patrick Walsh, Ph.D. [Associate Director]
Michael Schmale, Ph.D.
Mary J. Ferguson, Database and Fiscal Management
Otis Brown, Ph.D. Associate Dean for Research RSMAS, *ex officio*

External Advisory Committee

Daniel G. Baden, Ph.D. [Director]
David Adams, Ph.D. [Associate Director]
Patrick Walsh, Ph.D. [Associate Director]
Michael Schmale, Ph.D.
Mary J. Ferguson, Database and Fiscal Management
Otis Brown, Ph.D. Associate Dean for Research RSMAS, *ex officio*
Lora Fleming, M.P.H., M.D.
Churchill McKinney, Ph.D.
Thomas Sick, Ph.D.
Judy Bean, Ph.D.
Peter Lutz, Ph.D. Florida Atlantic University [Adjunct Professor]
Bruce Hammock, Ph.D. University of California [External Expert] [CHAIR]
Toshio Narahashi, Ph.D. Northwestern University [External Expert]
Stephen Safe, Ph.D. Texas A & M [External Expert]

DEPARTMENT OF HEALTH AND HUMAN SERVICES PUBLIC HEALTH SERVICE GRANT APPLICATION Follow instructions carefully. Type in the unshaded areas only.	LEAVE BLANK FOR PHS USE ONLY.		
	Type	Activity	Number
	Review Group	Formerly	
	Council/Board (Month, Year)	Date Received	

1. TITLE OF PROJECT (Do not exceed 56 typewriter spaces.)
NIH Marine/Freshwater Biomedical Sciences Center Grant

2. RESPONSE TO SPECIFIC PROGRAM ANNOUNCEMENT NO YES (If "YES," state RFA number and/or announcement title)
 Number: _____ Title: _____

3. PRINCIPAL INVESTIGATOR/PROGRAM DIRECTOR NEW INVESTIGATOR

3a. NAME (Last, first, middle) BADEN, Daniel Gerald 3d. POSITION TITLE Associate Professor 3f. DEPARTMENT, SERVICE, LABORATORY, OR EQUIVALENT Marine Biology and Fisheries 3g. MAJOR SUBDIVISION 3h. TELEPHONE (Area code, number, and extension) (305) 361-4738	3b. DEGREE(S) B.A., Ph.D. 3c. SOCIAL SECURITY NO. 474-60-7543 3e. MAILING ADDRESS (Street, city, state, zip code) University of Miami Rosenstiel School of Marine and Atmospheric Science 4600 Rickenbacker Causeway Miami, Florida 33149
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4. HUMAN SUBJECTS <input checked="" type="checkbox"/> 4a. NO <input type="checkbox"/> YES If "YES," exemption no. or IRB approval date _____ 4b. Assurance of compliance no. _____	5. VERTEBRATE ANIMALS If "YES," IACUC approval date _____ <input checked="" type="checkbox"/> 5a. NO <input type="checkbox"/> YES 5b. Animal welfare assurance no. _____
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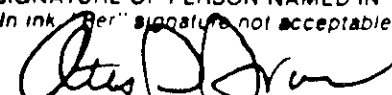
6. DATES OF ENTIRE PROPOSED PROJECT PERIOD From (YYMMDD) 910601 Through (YYMMDD) 960531	7. COSTS REQUESTED FOR FIRST 12-MONTH BUDGET PERIOD 7a. Direct Costs \$ 200,000 7b. Total Costs \$ 312,258	8. COSTS REQUESTED FOR ENTIRE PROPOSED PROJECT PERIOD 8a. Direct Costs \$1,000,000 8b. Total Costs \$ 1,561,290
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9. PERFORMANCE SITES (Organizations and addresses) University of Miami Rosenstiel School of Marine and Atmospheric Science 4600 Rickenbacker Causeway Miami, Florida 33149	10. INVENTIONS (Competing continuation application only) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES If "YES," Previously reported <input type="checkbox"/> Not previously reported <input type="checkbox"/>
11. NAME OF APPLICANT ORGANIZATION University of Miami ADDRESS (Street, city, state, and zip code) P. O. Box 248106 Coral Gables, FL 33124	

12. TYPE OF ORGANIZATION <input type="checkbox"/> Public: Specify <input type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Local <input checked="" type="checkbox"/> Private Nonprofit <input type="checkbox"/> For Profit (General) <input type="checkbox"/> For Profit (Small Business)	13. ENTITY IDENTIFICATION NUMBER 1590624458A1 Congressional District 18 14. ORGANIZATIONAL COMPONENT TO RECEIVE CREDIT TOWARDS A BIOMEDICAL RESEARCH SUPPORT GRANT Code: 20 Identification: Other Academic
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15. NAME OF OFFICIAL IN BUSINESS OFFICE David Herman TELEPHONE (Area code, number, and extension) (305) 284-2665 TITLE Assistant Controller ADDRESS P. O. Box 248106 Coral Gables, FL 33124	16. NAME OF OFFICIAL SIGNING FOR APPLICANT ORGANIZATION Otis B. Brown TELEPHONE (Area code, number, and extension) (305) 361-4000 TITLE Associate Dean ADDRESS 4600 Rickenbacker Causeway Miami, Florida 33149
---	--

17. PRINCIPAL INVESTIGATOR/PROGRAM DIRECTOR ASSURANCE I agree to accept responsibility for the scientific conduct of the project and to provide the required progress reports if a grant is awarded as a result of this application. Willful provision of false information is a criminal offense (U.S. Code, Title 18, Section 1001).	SIGNATURE OF PERSON NAMED IN 3a (In ink "Per" signature not acceptable.) 	DATE 9/26/90
--	--	------------------------

18. CERTIFICATION AND ACCEPTANCE: I certify that the statements herein are true and complete to the best of my knowledge, and accept the obligation to comply with Public Health Service terms and conditions if a grant is awarded as the result of this application. A willfully false certification is a criminal offense (U.S. Code, Title 18, Section 1001).	SIGNATURE OF PERSON NAMED IN 16 (In ink "Per" signature not acceptable.) 	DATE 9/28/90
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DESCRIPTION: State the application's broad, long-term objectives and specific aims, making reference to the health relatedness of the project. Describe concisely the experimental design and methods for achieving these goals. Avoid summaries of past accomplishments and the use of the first person. This abstract is meant to serve as a succinct and accurate description of the proposed work when separated from the application. DO NOT EXCEED THE SPACE PROVIDED.

This proposal is to establish a National Institute of Environmental Health Sciences Marine and Freshwater Biomedical Science Center at the Rosenstiel School of Marine and Atmospheric Science campus of the University of Miami. The Center application is the collaborative effort of 4 faculty from the marine campus, and 5 faculty from the medical campus of the University.

The primary theme of the proposed Marine and Freshwater Biomedical Sciences Center will be development and use of several marine organisms as model systems for the investigations of how selected bioactive compounds in the marine environment might affect the health of humans. This theme will have several principal components: mechanisms of action of marine toxins of significance as human disease agents, mechanisms of chemical and biological carcinogenesis, neurophysiological responses to ischemia and marine toxins, and alterations in immune system function produced by agents in the marine environment. Marine animal model systems have already been identified and characterized in the laboratories for use in each of these components. There is extensive overlap in the research objectives involved in the programs already underway and those planned to be integral parts of the Center. The links between these components originate from the use of common tools, such as marine toxins, to dissect these systems at the functional and molecular levels.

As Core support, the following are proposed as Center Units: (1) Administration, (2) Toxin Supply, (3) Fish Tissue Culture, (4) Fish Cancer and Immunology, (5) Electrophysiology, (6) Metabolic Neurophysiology, (7) Metabolism and Analytical Biochemistry, (8) Electron Microscopy, (9) Biostatistics, (10) Fish and Shellfish Hatchery, and (11) Pilot Studies. Each component will improve collaboration between the nine Center Principal Investigators.

The University of Miami has provided a strong cost-share component essential to achieving Center goals, and includes post-doctoral support, cost-sharing in equipment and supplies, and travel funds for External Advisory Committee members.

DUPLICATE COPY - USE IF NEEDED

KEY PERSONNEL ENGAGED ON PROJECT

NAME, DEGREE(S), SSN	POSITION TITLE AND ROLE IN PROJECT	DEPARTMENT AND ORGANIZATION
Daniel G. Baden, Ph.D. 474-60-7543	Associate Professor, Director	Marine Biology and Fisheries RSMAS, University of Miami
David J. Adams, Ph.D. 539-80-0277	Associate Professor, Assoc. Dir. Core 5 Leader	Pharmacology, UMED, University of Miami
Patrick J. Walsh, Ph.D. 155-44-0652	Associate Professor, Assoc. Dir. Core 7 Leader	Marine Biology and Fisheries RSMAS, University of Miami
Peter L. Lutz, Ph.D. 246-96-6425	Professor, Core 6 Leader	Marine Biology and Fisheries RSMAS, University of Miami
Michael C. Schmale, Ph.D. 074-44-4239	Assistant Professor, Core 3 Leader	Marine Biology and Fisheries RSMAS, University of Miami
Churchill McKinney, Ph.D. 302-44-4207	Research Associate Professor, Core 4 Leader	Microbiology and Immunology UMED, University of Miami
Thomas J. Sick, Ph.D. 220-54-4928	Associate Professor, Investigator	Neurology UMED, University of Miami
Lora Fleming, M.P.H., M.D. 030-40-7767	Research Assistant Professor, Pilot Study Investigator	Epidemiology and Public Health UMED, University of Miami
Judy A. Bean, Ph.D. 401-56-7708	Professor, Core 9 Leader	Epidemiology and Public Health

NOTICE OF GRANT AWARD

DATE ISSUED:

08/02/91

GRANT NUMBER SRC (B)

1 P30 ES05705-01

TYPE OF AWARD: CENTER GRANT
AUTHORIZED BY: 42 USC 241 42 CFR 52
APPROVED BY:

TOTAL PROJECT PERIOD:
From 08/01/91 Through 07/31/92

NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES

Title of Project or Area of Training:

NIHES MARINE/FRESHWATER BIOMEDICAL SCIENCES CENTER GRANT

Grantee Organization:
UNIVERSITY OF MIAMI
PO BOX 248106
CORAL GABLES, FL 33124
ATTN: BRUCE R ROSENDAHL

Principal Investigator/Program Director/Awardee:
BADEN, DANIEL G PHD
UNIVERSITY OF MIAMI
ROSENSTIEL SCH OF MARINE SCI
4600 RICKENBACKER CAUSEWAY
MIAMI, FL 33149 19

APPROVED BUDGET

FOR BUDGET PERIOD	08/01/91	Through	07/31/92
Salaries and Wages	\$	112,482	
Fringe Benefits		29,846	
Total Personnel Costs	\$	142,328	
Consultant Costs			
Equipment		12,503	
Supplies		21,162	
Travel - Domestic		9,000	
- Foreign			
Patient Care - Inpatient			
- Outpatient			
Alterations and Renovations			
Consortium/Contractual Costs			
Other			
Trainee Stipends			
Trainee Tuition and Fees			
Trainee Travel			

AWARD COMPUTATION

DIRECT COSTS	\$	184,993
INDIRECT COSTS	\$	103,494
TOTAL	\$	288,487
Less Unobligated Balance (Prior Periods)	\$	0
AMOUNT OF THIS AWARD	\$	288,487
Base Dollars	Rate Percentage	Indirect Costs \$
172,490	60.00	103,494

TOTAL DIRECT COSTS → \$ 184,993

SUPPORT RECOMMENDED FOR REMAINDER OF PROJECT PERIOD**

Budget Period	Total Direct Costs (Includes Stipends)	Stipends
02	181,860	
03	181,860	
04	181,860	
05	181,860	
06	NONE	

When PHS Prior Approval is required for rebudgeting, submit requests to Grants Management Official below

**Subject to availability of funds and satisfactory progress

REMARKS

GRANTS MANAGEMENT: NEAL E. WINGFIELD 919 541-7628

SEE ATTACHED FOR TERMS OF ACCEPTANCE AND ANY ADDITIONAL TERMS AND CONDITIONS.

Common Accounting Number: 1-8423862
CRS Entity Identification No: 1590624458A1
PHS List No./Object Class Code: /41.4A
Document Number: (08)POES05705A

PROGRAM OFFICIAL
Christopher O. Schowalder
CHRISTOPHER O SCHOWALDER, PH.D.
CHIEF, SCIENTIFIC PROGRAMS BR.
NIHES
(919) 541-7634

PHS Grants Management Official
David L. Mineo
DAVID L. MINEO
GRANTS MANAGEMENT OFFICER
NIHES
TEL: (919) 541-7628



National Institutes of Health
National Institute of
Environmental Health Sciences
P.O. Box 12230
Research Triangle Park, N.C. 27709

July 31, 1991

Daniel G. Baden, Ph.D.
Rosenstiel School of Marine
Sciences
University of Miami
4600 Rickenbacker Causeway
Miami, Florida 33149

Re: 1 P30 ES05705-01

Dear Dr. Baden:

Attached is the Notice of Grant Award (NGA) from the National Institute of Environmental Health Sciences (NIEHS) in response to your application. This is the official notification of support.

The NIH recognizes the importance of the partnership roles between the Principal Investigator and Business Official at the grantee organization, and the Program Administrator and Grants Management Specialist at the NIH Institute.

The Program Administrator is the primary contact for the technical, programmatic or scientific aspects of your award. The Grants Management Specialist is the primary contact for all business management, administrative or financial aspects of your award. Since we work closely together, you may feel free to contact either one of us as necessary.

We at the NIEHS congratulate you on receiving this support and look forward to working with you on any programmatic and/or administrative issues which may arise. If you encounter any issues or problems which require our assistance, please feel free to contact us.

Christopher O. Schonwalder, Ph.D.
Program Administrator
Chief, Scientific Programs Branch
Division of Extramural Research
and Training
(919) 541-7634

Sincerely yours,

Neal E. Wingfield
Deputy Grants Management Officer
Grants Management Branch
Division of Extramural Research
and Training
(919) 541-7628

Attachment
cc:
Wayne Roberts

1 P30 ES05705-01
Baden, Daniel G.
Page 2

TERMS AND CONDITIONS

Terms of acceptance: This grant is subject to the terms and conditions incorporated either directly or by reference in the following: (1) The grant program legislation cited on the first page; (2) The grant program regulations cited on the first page; (3) This award notice including terms and conditions, if any, noted below or attached to this notice; (4) PHS Grants Policy Statement including addenda in effect as of the beginning date of the budget period; (5) 45 CFR Part 74 or 92 as applicable. In the event there are conflicting or otherwise inconsistent policies applicable to the grant, the above order of precedence shall prevail. Acceptance of the grant terms and conditions is acknowledged by the grantee when funds are drawn or otherwise obtained from the grant payment system.

A significant change in status or proposed replacement of any of the following key project staff requires written prior approval from the NIEHS: D. Baden, D. Adams, and P. Walsh.

General Program Income is to be treated as follows: the first \$25,000 under the Additional Costs Alternative; the remainder under the Deduction Alternative (per CFR Part 74, Subpart F.)