



# The Florida Senate

*Interim Project Report 2004-103*

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Committee on Appropriations

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## STATE FUNDED MEDICAL RESEARCH AND DOLLAR DISBURSEMENT

### SUMMARY

There is no central entity that coordinates medical research in Florida. As a result, opportunities to allow the sharing of current research are not maximized. There are numerous public and private organizations involved in medical research in Florida. This interim project primarily examined the medical research activities of state universities. Medical research in Florida's state university system is primarily controlled by three factors: the mission of the university, the expertise of the faculty, and the source of funding. Most medical research in the state university system is conducted through publicly funded grants or contracts with non-for-profit organizations and private corporations. Most of this funding is either awarded based on competitive processes or is based on the funding entity purchasing research expertise of a particular program or faculty member. As a result, medical research is generally aligned with the mission of each university. However, the external entities which provide funding for sponsored research largely control what research is ultimately conducted.

budget in excess of \$25,000. Universities were requested to identify the sources of funding for each project, a project description, and affiliated publications. Universities were also requested to describe how medical research projects are coordinated and how duplication is avoided. After the survey was mailed, a conference call was conducted with the universities to clarify questions. The survey instruments were completed and returned by mid-October. Pertinent elements of the survey responses were tabulated into a summary document by the staff of the Education Appropriations Committee.

### FINDINGS

**Research is an Integral Function of the State University System:** According to the Florida Department of Education, the state university system attracted more than \$1.1 billion in sponsored research funding in FY 2001-02. Faculty involved in graduate education mentor students involved in research projects. Some research which is intrinsically linked to specific areas of instruction is directed by academic departments within universities. In some instances, institutes and centers are formed to conduct focused research. Some institutes and centers are established in statute, some have been established as statewide entities involving the efforts of multiple universities, some are established at the university level and involve the efforts of more than one academic department, and some are established with a narrow focus tied to the activities of a particular academic program area, a directed funding source or a particular area of interest.

Research projects may be directed by academic departments, institutes and centers, and individual faculty. Some medical research is associated with or results from clinical practice programs affiliated with university health science centers. Because of specific expertise, universities often conduct outcomes research (such as clinical drug trials) funded by private corporations. Universities also contract to perform

### BACKGROUND

Significant funding is devoted to medical research in Florida. This project surveyed the eleven public universities within the state in an effort to determine the amount and source of funding devoted to medical research, the types of medical research projects being conducted, how medical research projects are coordinated, and how duplication of research efforts is avoided.

### METHODOLOGY

With the assistance of the Florida Department of Education's Division of Colleges and Universities, a questionnaire was prepared to survey Florida's public universities. The survey requested each university to identify all medical research projects with an annual

basic and applied medical research for not-for-profit organizations, such as the American Heart Association. A significant amount of medical research is conducted in our state universities with funding provided through competitive grant awards from federal and state sources.

**Coordination of Medical Research in the State University System:** A significant portion of the medical research conducted in the state university system is funded through competitive federal grants awarded by the National Institutes of Health, the Department of Defense, the U.S. Department of Agriculture and other federal agencies; various not-for-profit organizations; private corporations; and state agencies. Rather than being coordinated at the state level, this research is directed by the entity providing the funding.

In some instances, state funding is provided for specific research projects. This funding is usually the result of specific university budget requests, an issue identified by the Governor, or a legislative initiative. These initiatives are generally closely aligned with the mission of each university. Recent examples of state-directed medical research initiatives include the Alzheimer's Research Institute at the University of South Florida, University Centers of Excellence, and the Biomedical Research Trust Fund. (1)

At the university level, strategic planning efforts provide varying degrees of direction which attempt to focus research in particular areas and foster collaboration among academic departments. However many large and successful research programs exist that are not associated with areas identified in strategic plans. Some universities rely on a peer review process to focus research efforts, ensure collaboration, and avoid duplication. In some instances similar oversight is provided by the academic administration. While varying degrees of coordination of medical research projects occur at the institution level, there is no organized effort at the state level to coordinate medical research among institutions. Further, there is no process at the state level to maintain and disseminate information relating to completed and on-going medical research projects.

There is no statewide mechanism to determine that new research facilities and programs are actually needed when proposed. Currently, much of the research done in Florida is driven by the availability of federal and private funding. Funding sources almost always dictate the terms and conditions of the grants and the expected

outcomes. When funding comes from these outside sources the policy control from the state perspective is very limited or non-existent. Opportunities for the coordination of research work activities and research findings are significantly hampered in these instances. Likewise, when the state is considering sponsorship of research there are no easily obtainable records on what has already been attempted or what is on-going in the particular research area. This puts state leadership in the awkward position of making significant policy and financial decisions without all the relevant information.

**Summary of Survey Responses Regarding Funding for Medical Research:**

The quality of individual university responses to the survey was varied. Based on analysis of independent data, it is clear that not all federally funded research projects were reported. Some universities reported multi-year federal funding totals for specific research projects, and others reported the amount of federal grants that were applicable to one year's effort on a multi-year project. The fiscal year for which funding information was reported was not uniform. The varied nature of the responses may be attributable in part to the complexity of the question. In many instances, the distinction between research and the provision of patient services for specific projects is not clearly discernible. Research projects involving many of the hard sciences, such as cell biology, molecular physics, bioengineering, and chemistry, may have relevance to the medical profession but may not be specifically classified as medical research.

While this survey provides an incomplete and inconsistent snapshot of medical research in the state university system, it nevertheless provides some valuable insight. \$283.8 million in funding related to medical research was reported:

- \$189.6 million, or 66.8%, of the reported funding for medical research was from federal grants.
- \$22.5 million, or 7.9%, of the total reported was from state sources.
- \$22.3 million, or 7.9%, was funded through contracts with private industry.
- \$13.9 million, or 4.9%, was funded through foundations.
- \$4.7 million, or 1.6%, was from other sources.

**Funding for Medical Research through the National Institutes of Health (2):** A significant majority of the federal funding that was reported in the survey responses for medical research is provided

through the National Institutes of Health (NIH). The NIH is comprised of more than 20 different Institutes, including:

- the National Cancer Institute
- the National Heart, Lung, and Blood Institute
- the National Institute of Dental and Craniofacial Research
- the National Institute of Diabetes and Digestive and Kidney Disease
- the National Institute of Neurological Disorders and Stroke
- the National Institute of Allergy and Infectious Diseases
- the National Institute of General Medical Sciences
- the National Institute of Child Health and Infant Development
- the National Eye Institute
- the National Institute of Environmental Health Sciences
- the National Institute on Aging
- the National Institute of Arthritis and Musculoskeletal and Skin Disease
- the National Institute on Deafness and other Communication Disorder
- the National Institute of Mental Health
- the National Institute of Drug Abuse
- the National Institute on Alcohol Abuse and Alcoholism
- the National Institute of Nursing Research
- the National Human Genome Research Institute
- the National Institute of Biomedical Imaging and Bioengineering
- the National Institute for Research Resources
- the National Institute for Complementary and Alternative Medicine
- the National Institute on Minority Health and Health Disparities

Nationally, total NIH funding for 2001 was nearly \$22 billion, \$16.7 billion of which funded research grants. Approximately \$249.4 million, or about 1.5%, of this total funded research in the State of Florida. Approximately 55%, or \$139 million, of the NIH grants to Florida in 2001 went to state universities:

- University of Florida - \$85.6 million
- University of South Florida - \$28.2 million
- Florida State University - \$8.5 million
- Florida International University - \$6 million

- Florida A & M University - \$5.8 million
- University of Central Florida - \$1.4 million
- University of North Florida - \$0.7 million

The largest NIH grant recipient in Florida during 2001 was the University of Miami, which received \$88.2 million. (The University of Miami was not included in the survey that was conducted for this interim project since the survey was only sent to public universities.)

Notes:

(1) The information contained in this report was compiled prior to and without consideration of the passage of legislation during Special Session 2003E relating to the Scripps Research Institute. The \$310 million appropriated by the state for the Scripps Research Institute is not included in the numbers reflected in this report.

(2) The information reported in this section was obtained from a report that was prepared for the Legislative Committee on Intergovernmental Relations; *Florida's Role in Federally Funded Research through the National Institutes of Health*, Vic Miller, October, 2002.

## RECOMMENDATIONS

If the Legislature desires to have better information at the state level on what Florida is spending on medical research, a process should be established to centrally collect and report this information annually.

If the Legislature desires to coordinate research efforts, eliminate duplication, and share research results among interested parties, a process or entity should be established to do so. Such an undertaking should include the establishment and maintenance of a data base which provides an inventory of completed and on-going medical research projects within the state and comprehensive information regarding areas of specialization and expertise of entities within the state with significant medical research capabilities.