

The Scripps Research Institute

BUSINESS PLAN FOR SCRIPPS FLORIDA

**Revised June 7, 2006
Updated July 20, 2006**

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1.0 EXECUTIVE SUMMARY

1.1 VISION

An important component in Florida's continuing efforts to build a knowledge-based economy is the creation of a unique, internationally renowned biomedical research institute that will transcend traditional barriers in moving scientific discoveries into the clinic.

The Florida campus—**Scripps Florida**—of The Scripps Research Institute ("TSRI") will be created to interface cutting-edge high throughput technologies with pioneering research programs relevant to current medical needs in human diseases. Furthermore, this research engine will:

- integrate with a drug discovery effort aimed at developing novel therapeutics;
- differentiate itself through the unique juxtaposition of highly competitive academic research, advanced technologies and drug discovery, all under the auspices of a non-profit research organization;
- expect to be self-supporting within four years after occupying the permanent structure, and will generate non-state revenue from federal grant support, as well as licensing and sponsored research agreements;
- provide technology resources that will contribute to the emerging needs of biomedical research programs already existing across the state, through an open access collaboration program;
- implement community relations and outreach through the establishment of programs for high school science teachers and students; and
- organize a Ph.D. program based upon the highly successful graduate school already established at TSRI.

Recruitment of world-class faculty and the implementation of a wide range of cutting edge technologies that will drive both the basic biomedical research programs and drug discovery efforts will place Scripps Florida among the very best research centers across the globe. More information about Scripps Florida and its staff and scientific research is available on the institute's website, <http://www.scripps.edu/florida>.

1.2 IMPLEMENTATION SUMMARY

The following key steps will constitute a plan of action for the establishment of Scripps Florida:

- ***Finalize enabling agreements with Scripps Florida Funding Corporation and Palm Beach County.*** The agreement with Scripps Florida Funding Corporation ("Funding Corp") will provide seed funding for approximately four years after occupancy of the permanent site. The agreement with Palm Beach County will provide temporary operating facilities at FAU's Jupiter campus and a permanent campus comprising approximately 350,000 square feet.
- ***Develop key infrastructure for Scripps Florida.*** This will occur in three phases
 - Phase I. Phase I will be the acquisition of about 10,000 square feet of lab space in existing science buildings on Florida Atlantic University's ("FAU") Boca Raton campus.

Completed.
 - Phase IIa. Phase II will be a new 41,000 square foot lab building to be completed by about the end of 2004 on FAU's Jupiter campus.

Completed. In addition, five trailers have been provided to accommodate needs for more space.
 - Phase IIb. Phase II will be a second 33,000 square foot lab building to be ready for immediate occupancy by 4Q06 on FAU's Jupiter campus
 - Phase III. Phase III will be the new Scripps Florida permanent campus at FAU's Jupiter campus. It will comprise approximately 350,000 square feet of space. We anticipate occupancy in the first quarter of 2009.
- ***Identify key senior faculty appointments for the three major areas of activity:*** basic biomedical research, advanced technologies, and drug discovery. We will use integration with TSRI Faculty and scientific programs in La Jolla, along with the unique nature and capabilities of Scripps Florida, to recruit internationally renowned scientists to these positions.

- **Generate sufficient outside revenue to *establish financial self-sufficiency* four years post occupancy.** This will be achieved through several mechanisms:
 - *Federal grant support* for biological research programs. This will be largely comprised of support from the National Institutes of Health. It is anticipated that larger programmatic support will be generated through collaborations between researchers located on both TSRI campuses seeking advanced technology access both within Florida and throughout the United States.
 - *Technology support funding* through several programs including the National Science Foundation, U.S. Department of Energy, National Institutes of Standards and Technology, and U.S. Department of Defense
 - Establishment of an aggressive *technology transfer structure* that will enable licensing of institute discoveries. The tech transfer organization will generate revenues through licensing/sponsored research arrangements for drug candidates.
 - Development of a strategic *fundraising program* directed at private foundations and individual philanthropists in the community and nationwide.
- **Leverage research investment and talent** already existing within Florida. This is accomplished by providing access to a unique technology resource that will meet emerging needs of the biomedical research community throughout the state. Furthermore, this access can generate substantial grant income via qualified collaborative research programs.
- **Community relations and outreach programs** will be established that will focus on science education for high school teachers and students.
- **A Graduate Program** will be established.

2.0 MISSION OF SCRIPPS FLORIDA

Scripps Florida will be established to improve human health and well being through internationally recognized biomedical research enabled by

advanced technologies and translated to the clinic through innovative drug discovery.

Scripps Florida will contribute to science education for a diverse array of students from high school through graduate level by providing exposure to cutting edge science and creating an accredited postgraduate program.

Scripps Florida will enhance the discovery enterprise throughout the state by opening access to qualified collaborations, and by incubating an economic development cluster in biotechnology and pharmaceutical research and development.

2.1 BACKGROUND OF THE SCRIPPS RESEARCH INSTITUTE

The Scripps Research Institute is one of the world's largest private, non-profit biomedical research organizations. It is located in La Jolla, California, a community of San Diego.

Its existing facilities include 16 laboratory buildings with more than 1 million square feet of space.

Staff includes more than 280 professors, 750 postdoctoral fellows, 1,500 laboratory technicians, administrative and support personnel, and 230 Ph.D. students.

TSRI's facilities contain a variety of computers, including a supercomputer. Research is further supported by X-ray crystallography laboratories, high performance NMR spectrometry including a 900 MHz instrument, electron microscopy, optical spectroscopy, a centralized DNA sequencing laboratory, and a fluorescence activated cell sorting facility.

Researchers focus primarily on the following seven fields of study: cell biology, chemistry, immunology, molecular biology, molecular and experimental medicine, neurobiology, and neuropharmacology.

Its researchers are actively investigating biological and chemical aspects of more than 40 diseases, including AIDS, alcoholism, Alzheimer's disease, cancer, dementia, depression, diabetes, genetic diseases, sleep disorders, and diseases involving neural and muscular degeneration.

TSRI also operates several education outreach programs including the Summer Research Internship Program, Spring Enrichment Tutorials, Science Partnership Scholars Program, X-Sci, and Contemporary Issues in Bioscience.

The majority of TSRI's approximately \$280 million operating budget comes from grants from the National Institutes of Health and other federal agencies, through collaborative partnerships with pharmaceutical companies, and through philanthropic support from foundations, health-related associations, and individuals. In addition, funding is derived from licensing technology to private industry.

More information about TSRI and its staff and scientific research is available on the institute's website, <http://www.scripps.edu>.

2.2 THE STATE OF FLORIDA

In an effort to promote, stimulate, develop and advance business prosperity and economic welfare of Florida and its residents, the Florida Legislature appropriated \$310 million of economic stimulus funds (the "State Funding") to support the establishment by TSRI of a biomedical research campus in Florida ("Scripps Florida"). A non-profit corporation, Scripps Florida Funding Corporation, was established by the Legislature to administer and disburse the \$310 million to TSRI over seven years, approximately five of which were post occupancy of the permanent facility. Due to building delays, funding will be extended up to four years past the revised occupancy date of the first quarter of 2009. In order to receive the funding, TSRI was required to enter into a "Funding Agreement" with Funding Corp.

TSRI acknowledges that the "economic stimulus funds" (the "State Funding") envisions, in addition to the Scripps Florida campus of TSRI, that there be further established by third parties 8 million square feet of Research and Development space for the biotech cluster development to be reasonably accessible to the Scripps Florida campus.

TSRI is cognizant of the Governor's and Legislature's intent in terms of economic development and job creation. The Governor and Legislature have acknowledged that TSRI is not in the economic development business and cannot guarantee or insure the success of developing an 8 million square feet economic development cluster in biotechnology. TSRI and Scripps Florida will, however, comply with reasonable requests from OTTED for cooperation in economic development efforts furthering the development of such a cluster, within the limits of the Scripps Florida resources and in a manner reasonably consistent with its scientific mission.

2.3 THE COUNTY OF PALM BEACH

Palm Beach County has committed to provide land and improvements capable of capturing the economic development aspirations of the Governor

and Legislature. The initial Permanent Facilities for Scripps Florida (three buildings containing circa 350,000 sq. ft) will be located on a 30 acre parcel of land on the Jupiter Campus of Florida Atlantic University (FAU). Scripps will sublease the land from FAU for a term of 99 years. Palm Beach County will provide funding for construction of the initial Permanent Facilities. Occupancy of those initial facilities is anticipated to occur during the first quarter of 2009. Room for expansion of Scripps Florida is provided on a nearby 70 acre parcel of land (the “Briger Property”). The owners of that 70 acres have agreed to sell/donate that land to Palm Beach County. Once entitled for biotech development, Scripps will lease that land from the County for a term of 15 years. At the termination of that lease, title to the 70 acres in fee simple will be granted to Scripps. An additional 100 acres of land within the Briger Property will be deed restricted for biotech development.

The County of Palm Beach and five participating municipalities in northern Palm Beach County have entered into a master Interlocal Agreement that provides for a Bioscience Land Protection Advisory Board. The County of Palm Beach has represented that this Board will oversee, review and recommend the municipalities’ Comprehensive Plan Amendments, and internally, will review applications for rezoning within the bioscience research protection overlay, make recommendations for land development regulations, plan undeveloped land for bioscience use, encourage policy initiatives to encourage bioscience use and assist in streamlining regulatory procedures for bioscience use. The County of Palm Beach has represented that the Board has been appointed, and has commenced its activities to facilitate the development of the biotech cluster.

3.0 SCRIPPS FLORIDA STRATEGIC GOALS AND OBJECTIVES

3.1 RESEARCH ACTIVITIES

Scripps Florida has established several new ***academic departments and the translational research institute:***

3.1.1 Academic Departments

Scripps Florida's current academic departments are geared toward answering some of the most important questions in biology and medicine. As the institute grows, additional departments will be established that expand the areas of biomedical research. Much of the work at Scripps Florida will be dedicated to basic biomedical research, a vital segment of medical research that seeks to comprehend the most fundamental processes of life.

- *Biochemistry*

Interdisciplinary research ranging from neurobiology to metabolic disease research that uses integrative approaches to key biomedical research topics

- *Infectology*

The infectology department is comprised of faculty members who wish to understand the mechanisms underlying pathogenesis of several important infectious agents including prion diseases and Hepatitis C Virus

- *Cancer Biology*

Faculty members in the Cancer Biology program are taking cutting-edge approaches to understanding the molecular events that underlie the major cancers of childhood and our aging population. This includes research directed at initiating novel therapeutic programs.

3.1.2 The Translational Research Institute (TRI)

The TRI aims to identify new biochemical targets for drug development activities through high throughput screening, and to optimize and develop these leads through systematic efforts in medicinal chemistry, drug metabolism, pharmacokinetics, and pharmacology.

- *Advanced Technologies.*

The needs of successful life sciences research have changed dramatically with the mapping of the human genome. If research programs are to be pioneering, they will require access to technologies such as genomics, proteomics, and informatics.

- *Drug Discovery.*

The juxtaposition of leading biomedical researchers with advanced technologies will allow a drug discovery effort to be established. This will require a *biology component* (target validation and assay development/support), a *chemistry component* (medicinal chemistry and analytics) and a *pharmacology component* (pharmacokinetics and efficacy models).

The staff will be composed of highly productive faculty and research staff involved in developing and implementing cutting edge technologies,

Substantial large equipment infrastructure will be put in place to support these activities.

Grant funding will be obtained by comprehensive application of the technology to complex problems in life science research, by integrating funding proposals with the biomedical faculty, by technology development awards (e.g., National Science Foundation, National Institute of Standards and Technology) and by making these capabilities available for outside collaborations with external funding.

The performance expectations of these staff members will include the frequent publication of research in the top journals, obtaining external funding for operations support, establishing an access program for qualified collaborators, and interfacing with the biotechnology sector.

The overall objective of the advanced technologies group is to continue to develop and implement cutting-edge research tools to enable innovation in the biomedical research and drug discovery groups.

4.0 OUTREACH PROGRAMS

Scripps Florida has established outreach programs for education and community relations that leveraged the expertise in La Jolla while focusing on the specific needs of the Florida community.

4.1 Educational Outreach Programs

Scripps Florida will use its intellectual and material resources to promote bioscience education and awareness throughout the state of Florida by advocating career opportunities in the biosciences for middle and high school students and undergraduates, assisting middle and high school teachers with bioscience education initiatives and, for the public in general, fostering an understanding of the basic ties that exist between biomedical research and human health. Our program is supported by a generous gift from the William R. Kenan, Jr. Charitable Trust.

While students of all ethnic and cultural groups will be accepted into the program, a special emphasis is placed on identifying and recruiting students who are historically underrepresented in the sciences (i.e., women, African-American, Hispanic, Native Pacific Islander, or Native American students), and educators who teach in schools with a culturally diverse student population.

Scripps Florida works in partnership with local community-based organizations, school administrators, individual schools and science teachers, and educational associations in program planning, recruitment, and

administration. To date, we have made over 130 presentations throughout Florida and established several unique formats for educational purposes as described more fully below.

- **Scripps Florida Summer Research Internship Program for Teachers:** Teachers are exposed to current laboratory techniques and procedures, contemporary issues in basic biomedical research, and working scientists who can assist them in curriculum development. The program emphasizes the scientific process, research planning, bench experience, experimental design, data analysis and interaction with laboratory personnel and participants are required to attend specially-designed seminars throughout the course of the summer. In addition to the intensive, hands-on six-week summer program, teachers are expected to use the laboratory experience as a springboard to create opportunities in discovery-based learning for their students, effect change in their classrooms and serve as a resource for other educators.
- **Scripps Florida High School Student Summer Internship Program:** Students are exposed to a variety of contemporary issues in basic biomedical research, provide hands-on laboratory experience, and to motivate and prepare students for continuing education in the sciences.
- **Introduction to Science** lectures and hands-on exercises are chemistry-based lessons about our world, what it's made of and how it works and demonstrates the fundamental ties among the four basic sciences (math, chemistry, physics and biology) to middle school students
- **Science Saturday** shows Sophomore and Junior level high school students about the everyday tools of biotechnology scientists through a hands-on DNA forensics exercise.
- **Scripps Florida Biotechnology Tour** provides an up-close view of the biomedical technologies used in the battle against human diseases at Scripps Florida.
- **What is DNA?** lecture is designed to teach and show 5-7th grade students what DNA looks like and where it comes from.
- **Careers in Biotechnology** lecture helps high school and college students learn about careers in the biotechnology and pharmaceutical fields.

4.2 Community Outreach Programs

Scripps Florida is committed to participating as a proactive contributor working for the betterment of its local and regional communities. Our scientists speak frequently to community organizations about edge-cutting research and health-related topics in an effort to promote among the public a better understanding of the fundamental ties that exist between biomedical research and human health. These outreach efforts involve providing tours of our current research facility and giving presentations to local residential groups, cultural organizations and specialty groups. To date, we have concluded approximately 160 such interactions throughout Florida.

5.0 GRADUATE PROGRAM

The Scripps Florida Ph. D. program was launched in 2005 with the transfer of eight Chemistry students into the **Kellogg School of Science and Technology**. More recently, we recruited our first new graduate student who will enter the Florida program in August 2006. The numbers of students admitted into the Florida program will increase as additional faculty are recruited and research space becomes available.

To augment the two chemistry courses already developed at the Scripps Florida campus and build a sense of community between students and faculty on the two coasts, students will be able to access courses from the La Jolla campus using web-based interactive conferencing technology. Florida's program, in terms of student/faculty ratio as well as the distribution of Biology and Chemistry track students, will mirror the model developed and operated at TSRI's Kellogg School of Science and Technology as more fully described below.

In barely more than a decade, the **Kellogg School of Science and Technology** at TSRI has, with its two graduate programs, grown from a handful to over two hundred students and more than a hundred alumni. Indeed, the programs have become integrated into the fabric of the institute. At the same time, TSRI has grown into one of the nation's top centers for graduate education in biology and chemistry.

TSRI launched the Macromolecular and Cellular Structure and Chemistry (MCSC) Program in 1989, building on the institute's strengths in the integration of cell and molecular biology, structure, and chemistry. Three years later, TSRI founded the Chemistry Program, drawing on its newly assembled chemistry faculty with an outstanding record in chemical, biological, and structural research.

In 2003, a comprehensive review of the curriculum has resulted in the redefined "Doctoral Program in Chemical and Biological Sciences," emphasizing the interdisciplinary nature of the program, and reflecting the particular strengths of the Institute. This change allows students to select one of four curricular tracks -- chemistry, chemical biology, biophysics or biology -- and acknowledges the faculty's and students' strongly held views that future scientists be broadly trained in these areas of scientific concentration. Further, the extension of these curricular tracks increases course options and flexibility for the students.

With specialties in organic, bioorganic, and biophysical chemistry, students in the graduate program take classes from more than 100 faculty members representing every department at TSRI. Students follow a core curriculum in either macromolecular and cellular structure and chemistry or chemistry, and take elective courses.

Optional, independent courses provide special topics and methods training in such areas as x-ray diffraction, statistical mechanics, special nuclear magnetic resonance techniques, immunology, and virology. These courses provide for deeper forays into these topics for interested students and serve as supplemental studies to the core course work.

TSRI alumni have gone on to hold faculty positions at some of the most prestigious institutions in the country. Nearly 70 percent of MCSC alumni enter academia upon graduation, and 30 percent are recruited to work in industry. Chemistry Program alumni obtain positions in the pharmaceutical and biotechnology industries in a slightly higher percentage—approximately 40 percent. Irrespective of the environment they choose, TSRI graduates fill highly competitive positions and excel in them.

The emphasis on research in TSRI's programs is unusually strong, creating synergy between the missions of the institute and its graduate school. Once a year, TSRI holds an annual retreat that encourages scientific discussion among students and faculty, provides a forum for presentation of a broad range of research topics by students, and serves as a measure of the scientific excellence of students at TSRI. Over the years, the Graduate Studies Program has enhanced its competitive edge by recruiting highly qualified students from various disciplines and with diverse scientific interests.

This is reflected in TSRI's *U.S. News and World Report* rankings as among the most outstanding graduate schools in the United States. The result of surveys sent to department heads and directors of graduate studies at universities throughout the country, the rankings show TSRI among the top 10 places to study biological sciences and chemistry. And when the programs were further categorized by specialties within a scientific discipline, TSRI

ranked second in the discipline of organic chemistry.

The Western Association of Schools and Colleges (WASC) completed its re-accreditation process in 2002 and conferred a 10-year accreditation on the program. This is the maximum term granted to any institution and a significant acknowledgment of adherence to the highest standards.

5.1 Scripps Florida/Oxford Partnership

TSRI recently initiated the Skaggs Oxford Scholarships, a program that can be adapted to provide Ph.D. students at Scripps Florida the opportunity to study at Oxford University in the United Kingdom.

The Skaggs Oxford Scholarships are a joint five-year program of study in biology or chemistry at Scripps and biochemistry at the University of Oxford leading to the award of a Ph.D./D.Phil. degree. The program is made possible through the generosity of supermarket and drugstore magnate L.S. Skaggs and his wife, Aline.

The Skaggs Oxford Scholarships permit highly qualified students to gain a broader and deeper interdisciplinary research experience than is possible from a single institution's doctoral program. It provides diversity in curriculum, scientific approaches, and research training with access to facilities and expertise at both Oxford and TSRI.

It also offers students the experience of the distinct cultures of the United States and the UK.

6.0 COLLABORATION PROGRAM

Scripps Florida will present many valuable opportunities for collaborations with research efforts both within Florida and throughout the United States.

Our goal is to develop effective collaborations with Florida research groups wherever possible. This will initially require information dissemination including seminar programs that describe the growing capabilities of Scripps Florida to potential collaborators, as well as printed and web-based materials.

Several modes of collaboration have occurred:

- The first are peer-to-peer collaborations that are common throughout the academic research model. To facilitate such interactions, a **Joint Cooperation Agreement** has been established with a number of

Florida state and private institutions that allows rapid execution of specific collaborations among faculty.

- The second are ones where access core capabilities in Bioinformatics, Cell-Based Screening , Flow Cytometry, High Throughput Screening (HTS) , Protein Production and Crystallography, Proteomics, RNA Dynamics will enhance the outside institutions' chances of success and provide a competitive edge.
- The third are where investigators wish to perform a drug screen, or wish to collaborate on preclinical development of a compound identified at Scripps Florida.

The “**Access to Technologies Program**” was launched well ahead of schedule in January 2006 to enable researchers at Florida Institutions to benefit from technological capabilities at Scripps Florida. Several proposals to access our screening capabilities (HTS) have been accepted and efforts are underway to add additional technologies to the program in the coming year. The goal is to leverage the joint effort to generate external funding to support the collaborative activities at both participating institutions.

7.0 IMPLEMENTATION PLAN

7.1 ORGANIZATIONAL PLAN

Scripps Florida will be operated as an unincorporated division of TSRI. All employees will be subject to TSRI's Administrative Guidelines and all Faculty will also be subject to TSRI's Faculty Bylaws. The Administrative Guidelines and Faculty Bylaws have been modified and implemented in view of Florida state and local law and regulations. Policy, programmatic and recruitment decisions will be made by a Steering Committee, subject to the final approval by the President of TSRI. The Steering Committee is currently comprised of the following individuals:

Steering Committee

Dr. Richard A. Lerner	Committee Chair & President, TSRI
Dr. Steve A. Kay	Committee Vice-Chair & Chair, Biochemistry
Mr. Douglas A. Bingham	Executive V.P. & Chief Operating Officer
Dr. Charles Weissmann	Chair, Biomedical Research - Infectology
Dr. John Cleveland	Chair, Cancer Biology

Dr. Peter G. Schultz Professor, Chemistry

The Scripps Florida Staff (Faculty and Scientific members) are organized into two scientific areas comprised of academic departments (Biochemistry, Infectology and Cancer Biology) and the Translational Research Institute (Advanced Technologies and Drug Discovery), each with an administrative chair.

Department Chairs

Dr. Steve A. Kay	Biochemistry
Dr. Charles Weissmann	Biomedical Research - Infectology
Dr. John Cleveland	Cancer Biology
Dr. Pat Griffin	Translational Research Institute

Additional key administrative positions include the following:

Administrative Staff

Dr. Harry Orf	Vice President, Scientific Support Operations Vice President External Affairs
Dr. William Roush	Associate Dean, Graduate Program
Mr. Bruce Heider	Director, Human Resources

Currently we leverage the expertise in La Jolla to meet many administrative needs. As Scripps Florida grows we anticipate adding the following positions.

Director, Finance
Director, Office of Sponsored Programs
Director, Communications and Community Outreach

The reporting relationships of the key administrative positions for Scripps Florida are shown in Appendix A.

The **Vice President, Scientific Support Operations** will have administrative responsibility for certain facility and support operations and work with the Steering Committee and Scripps Florida Department Chairs in allocating resources to support scientific needs. The Vice President will assist business development personnel in establishing a technology out-licensing program and supporting philanthropic development in Florida.

The Vice President will also provide needed assistance in the following programs/activities within the time-frames set forth in the Funding Agreement: (i) a program for qualified graduate students from Florida universities permitting them access to the facility for doctoral, thesis-related research; (ii) a program for adjunct professors for qualified faculty from Florida academic institutions; (iii) a program to allow open access for qualified science projects; (iv) a program establishing collaborative efforts with Florida public and private colleges and universities; (v) an annual seminar series featuring a review of the science work done at the Scripps Florida facility; (vi) a program for collaborating with the Office of Tourism, Trade, and Economic Development by complying with reasonable requests for cooperation in economic development efforts in the biomed/biotech industry and designating a person who shall be charged with assisting in these collaborative efforts.

Until Scripps Florida has occupied its permanent facilities, many supervisory functions will be performed by senior management in La Jolla. Thus, Thomas Northrup (Chief Business Counsel), Donna Weston (CFO and Sr. V.P.) and Douglas Bingham (COO and /exec. V.P.) will have primary responsibility for (a) annually updating the Scripps Florida business plan, (b) submitting data to the Funding Corporation on the activities and performance during each fiscal year and to provide to the Funding Corporation an annual accounting of the expenditure State Funding, and (c) purchasing equipment for Scripps Florida as scheduled in the Funding Agreement.

In addition to the senior management mentioned above, Polly Murphy (Sr. V.P. and Director of Business Development) will be responsible for tracking and reporting on the following types of activities and information: (i) the number or value of patents obtained by TSRI for inventions conceived or reduced to practice using Scripps Florida facilities or employees, in whole or in part; (ii) the number or value of licensing agreements executed by TSRI involving technology developed, in whole or in part by Scripps Florida; (iii) the extent to which research conducted by Scripps Florida results in commercial applications; (iv) the number of collaborative agreements reached and maintained with colleges and universities in Florida and with research institutions in Florida, including agreements that foster participation in research opportunities by public and private colleges and universities and research institutions in Florida with significant minority populations, including historically black colleges and universities; (v) the number of collaborative partnerships established and maintained with businesses in Florida; (vi) the number or value of spin off businesses created in Florida as a result of commercialization of the research of TSRI; (vii) the number or value of businesses recruited to Florida by TSRI.

The **Director of Human Resources** will be responsible for (a) implementing TSRI employment policies, including TSRI's policies on equal

opportunity employment, (b) implementing a program to conduct workforce recruitment activities at public and private colleges and universities and community colleges in Florida which request the participation of Scripps Florida, (c) establishing a policy of awarding preference in employment to residents of Florida for administrative and scientific support positions, and (d) implementing a system for ensuring use of the internet-based job listing system of the Agency for Workforce Innovation in advertising employment opportunities.

The **Director of Finance** will have responsibility for the accounts receivable/payable and payroll functions, as well as procurement (purchasing). In addition, the Director will be responsible for (a) establishing and implementing a policy of making purchases from Florida vendors, to the extent it is cost-effective and scientifically sound, (b) ensuring that appropriate liability insurance covering Scripps Florida has been obtained, (c) establishing and implementing policies to promote supplier diversity using the guidelines developed by the Office of Supplier Diversity under s. 287.09451 and complying with the ordinances, including any small-business ordinances, enacted by the county and which are applicable to Scripps Florida, (d) designating a Scripps Florida representative to coordinate with the Florida Office of Supplier Diversity , and (f) designing and implementing a system ensuring that use of the State Funding is separately accounted for on an annual basis.

The **Director of the Office of Sponsored Programs** will have responsibility for the pre- and post-award financial administration of grants and contracts from government and industry. In addition, the Director will be responsible for establishing and implementing systems for tracking and reporting on (a) the number and dollar value of research grants to be performed by Scripps Florida that are obtained from the Federal Government or sources other than Florida, (b) the percentage of total research dollars received by TSRI from sources other than Florida which is used to conduct research activities by TSRI in Florida, (c) the total amount of funding received by TSRI from sources other than Florida, and (d) tracking and reporting annually the amount of non-Florida funding obtained by Scripps Florida for each full-time equivalent tenure-track faculty member employed at Scripps Florida.

The **Director of Communications and Community Outreach** will be responsible for establishing Scripps Florida's communications, government relations and community outreach programs, including (a) a program of internships to create learning opportunities for educators and secondary, post-secondary, graduate and doctoral students, and (b) a research program for middle and high school teachers.

7.2 INFRASTRUCTURE DEVELOPMENT

7.2.1 Facilities Development

Scripps Florida will be located in Palm Beach County. Facilities Development will occur in three phases.

- **Phase I.** About 10,000 square feet of existing laboratory space located on Florida Atlantic University's ("FAU") Boca Raton campus will be occupied beginning June 2004. This space was vacated in March of 2005.
- **Phase II.** Palm Beach County and FAU provided a new ~41,000 square foot laboratory building on FAU's Jupiter campus that Scripps Florida began occupying the first quarter of 2005. A second building of ~ 33,000 square foot is currently under construction with occupancy expected in the summer of 2006. Both buildings will be vacated when Phase III opens.
- **Phase III.** Palm Beach County will provide financing for Scripps Florida's initial Permanent Facilities to be located on 30 acres of the Jupiter Campus of FAU. Plans for the initial Permanent Facilities currently include 3 buildings totaling about 350,000 square feet of laboratory and administrative space. Scripps Florida expects to begin occupying the permanent facility beginning in the first quarter of 2009.

7.2.2 Capital Equipment

Highly specialized capital equipment will be necessary to enable the research programs. While much equipment has already been purchased, additional units will be added as the faculty and research space expands.

The **biomedical area** will require capital support for molecular and cell biology, including biochemistry and tissue culture, as well as structural biology. This will require centrifuges, CO2 incubators, tissue culture hoods, refrigeration and freezer units and an advanced microscopy core including confocal and digital deconvolution systems, an automated cell sorter, NMR and robotic protein crystallization systems.

The **technology area** has established large scale genomics capabilities using microarray systems from Affymetrix, polymorphism detection systems including SNP scanning, automated DNA sequencing, laboratory automation core for DNA preparation and large scale computation capability including unix

servers and linux clusters. A transgenic core will require a microinjection facility.

The **drug discovery area** has obtained required technology for automated compound management and screening plate preparation, with the informatics support to make this user friendly. A compound library of bar-coded single compounds in solution is stored within an automated depository that allows the automated preparation of replica plates for screening in both 384 well and 1536 well formats. Assay formats that can be accommodated include advanced fluorescence-based detection systems in 384 and 1536 wells, as well as radionuclide-detection in 384 well format.

A structurally and functionally diverse chemical library of ~600,000 single compounds has been acquired from commercial and proprietary sources to achieve a competitive starting point. Analytical chemistry facilities are essential both to confirming the chemical characterization of drug screen actives, as well as for the generation of pharmacokinetic data by the current state-of-the-art methodology, liquid chromatography mass-spectrometry (LC-MS).

Core systems pharmacology equipment include hematology and clinical chemistry auto-analyzers, microscopy, ECG and respiratory physiology equipment.

7.2.3 Construction of Permanent Campus

The Scripps Florida permanent building will be built on a 30-acre portion of the FAU campus with an additional 70 acres nearby. The facilities will comprise three buildings totaling 350,000 square feet.

The 100 acre campus will be master planned for the future growth of Scripps Florida and will include campus connections to the neighboring university campus and scientific communities. The site will be master planned in a manner to achieve a high level of social interaction among the scientific staff.

The laboratory buildings will be designed for a high degree of flexibility in both the structure and the laboratory support infrastructure. The large structural bays with heavy floor loading capabilities will allow for a great variety of laboratory space layouts as well as minimizing any vibration issues. The mechanical, plumbing, piping, and electrical systems will be designed for the initial designed space, but also for easy access for maintenance and future modifications.

Substantial design elements will be required to make the space suitable for molecular biology, chemistry hoods, cell culture, microscopy, imaging, robotics/high throughput screening, refrigeration farms, cold rooms, scientific staff offices, library, server and disk storage space, high speed and wireless telecommunications, meeting/seminar rooms, cafeteria, outreach activities and science support staff.

The master plan and design for the permanent facilities will take approximately one year and the construction will take approximately one and a half years to complete.

7.3 FINANCIAL PROJECTIONS

The financial projections and assumptions for Scripps Florida have been modified to reflect the impact of the building delays on our hiring schedule and are included as Appendix B.

7.4 SCIENTIFIC STAFF RECRUITMENT

Scripps is confident that the scientific staffing goals described below and in the appendices to this document will be met according to the revised schedule as long as we maintain flexibility in the execution.

Recruitment has been directed by the Scripps Florida steering committee at Scripps and follows Scripps guidelines for recruitment of faculty. This includes seminar presentations, visits with and assessment by Scripps faculty, letters of recommendation, and a written summary of their proposed research activities.

In addition to filling the head of the TRI, heads of three academic departments have also been filled. The four department heads will act as anchors for future hiring within each department

Start-up packages for faculty may include research support for three to five years. It will be expected that all faculty will develop sufficient support after three years to sustain their individual research programs, including salaries.

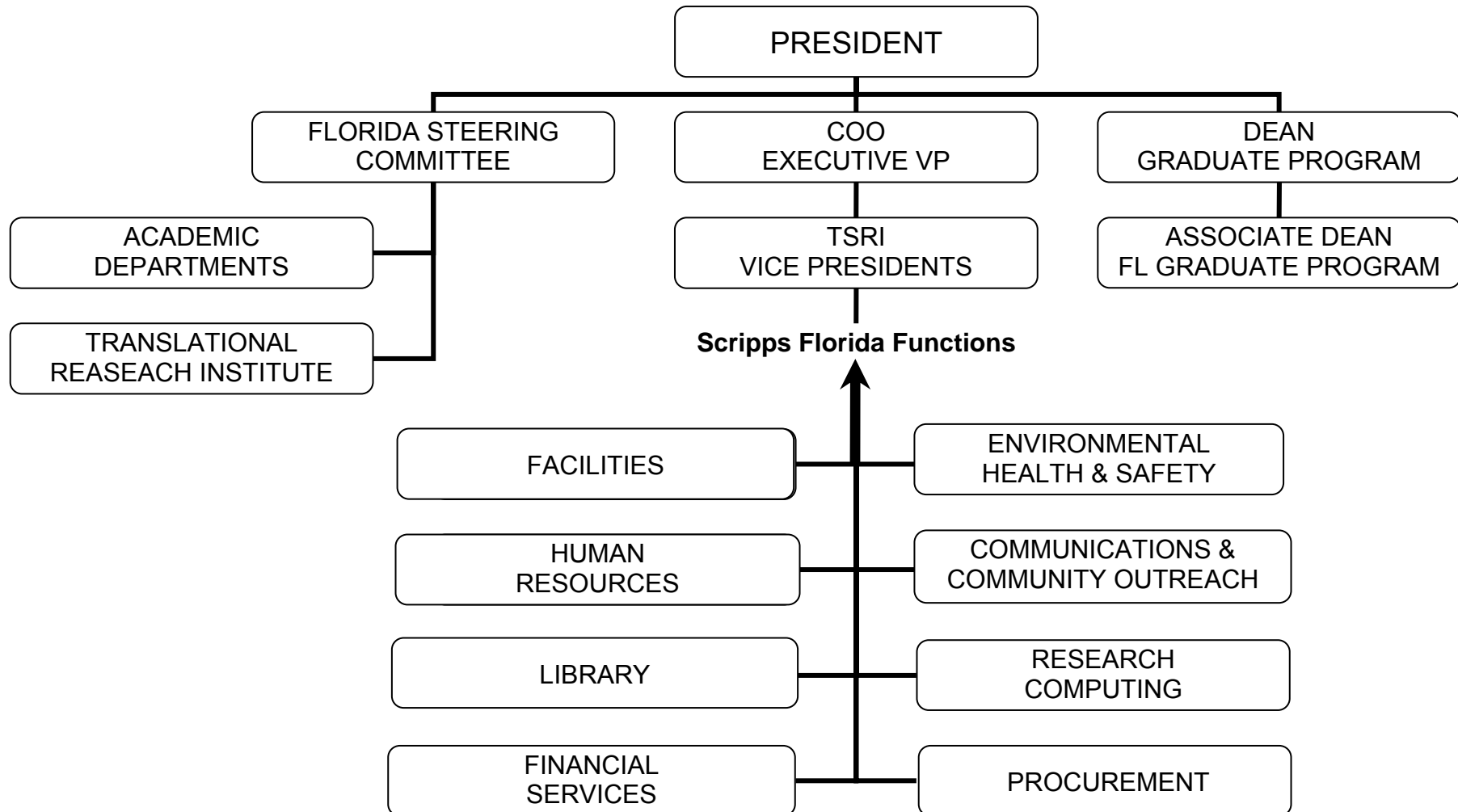
It is likely that the basic biomedical research faculty will be recruited primarily from academia, whereas the TRI faculty will be recruited from a mix of academic laboratories as well as biotechnology and pharmaceutical corporations.

Further research support staff will be recruited by senior faculty as well as by statewide and nationwide searches.

Hiring projections for scientific staff were revised to account for the delayed occupancy date of the permanent facilities and are presented in Appendix C. The new format provides for the necessary flexibility in hiring different categories of employees, while continuing to diligently satisfy the overall recruitment goals and average salary levels provided in the existing contract with the State of Florida. This flexibility allows us to respond to a wide variety of funding opportunities, be they federal or commercial, as well as enabling us to be opportunistic in recruiting exceptional faculty members ranging from assistant to full professors. The new format therefore better positions us to be successful regardless of changes in funding climate between different sources of outside income, while continuing to meet or exceed all key milestones of our business plan.

APPENDIX A

SCRIPPS FLORIDA FUNCTIONAL ORGANIZATION PLAN



APPENDIX B

THE SCRIPPS RESEARCH INSTITUTE

Scripps Florida - Statement of Cash Flows (In \$000's)

Cash Inflows

For the Grant Year Ended on March 14,

	<u>2007</u> <u>(Year 3)</u>	<u>2008</u> <u>(Year 4)</u>	<u>2009</u> <u>(Year 5)</u>	<u>Total</u>
State Funding	\$38,090	\$35,759	\$52,445	\$126,294
Sponsored Programs	3,704	5,343	8,717	17,764
Other Support	10,226	5,458	6,696	22,380
Cash Inflows	52,020	46,560	67,858	166,438

Cash Outflows

Science Operations	28,167	29,376	30,786	88,329
Administration & Science Support	11,063	12,227	18,545	41,835
Other Expenses	7,029	2,212	2,536	11,777
Equipment	5,761	2,745	15,991	24,497
Cash Outflows	52,020	46,560	67,858	166,438

Net Cash Flows	\$ 0	\$ 0	\$ 0	\$ 0
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The assumptions that follow are an integral part of this presentation.

APPENDIX B (Continued)

Scripps Florida Assumptions for the Cash Flow Plan

1 General Assumptions –

Grant Years 3 through 5 begin on March 15th of 2006 through 2008 and end on March 14th of 2007 through 2009, respectively. All years assume twelve months of operations. Occupancy of the permanent facility is anticipated at the beginning of Grant Year 6.

All amounts are in millions of dollars. An allowance for inflation, and investment income on funds awarded by Scripps Florida Funding Corporation have been included. Expenses associated with the management of Scripps Florida Funding Corporation have been deducted from investment income.

This is a cash flow plan. No allowance for depreciation above that expected to be reimbursed by third parties has been provided.

Adequate preparation for the arrival of new faculty and scientific staff is required for the initiation of research programs on an aggressive timescale. The plan anticipates available funding for this purpose.

2 Cash Inflows –

State Funding – Funding from Scripps Florida Funding Corporation is assumed to be received quarterly throughout each grant year – no provision for carrying costs has been provided.

Sponsored Programs – This caption includes external funding from the National Institutes of Health, sponsored research agreements and other third parties.

Professors and Associate Professors are assumed to have grant support from the National Institutes of Health or other grantors, on arrival. Assistant Professors are assumed to obtain grant support approximately three years after their arrival.

Other Support – This caption includes, primarily, investment income and contributions other than contributions restricted for the development of the permanent site, endowment contributions and other long-term support. Unspent cash at the end of Grant Year 2 is also reflected in this caption, in the amount of \$6,279,000 in Grant Year 3.

APPENDIX B (Continued)

3 Cash Outflows –

Science Operations – The expenses anticipated in this caption include the direct cost of the laboratory including salaries and most benefits, supplies, services and maintenance for laboratory-based instrumentation.

Administration and Science Support – This caption includes expenses associated with operating the enterprise and the facility. Such expenses include general administrative support, building systems maintenance, industrial gases, internal and external environmental services, utilities, insurance, and shared equipment such as telecommunications switches and network servers.

Equipment – This caption includes the anticipated cost of significant, technologically unique instrumentation such as spectrometers and high throughput screeners as well as significant equipment required to establish laboratory operations for individual scientists such as microscopy, imaging, robotics and computerized instrumentation. Such equipment is capitalized in accordance with TSRI's capitalization policy.

Other Expenses – This caption includes institutional initiatives such as post-graduate education, community outreach, communications and fund raising. It also includes a \$5 million escrow payment in Year 3 in accordance with the terms of the revised grant from the County of Palm Beach for the construction of the permanent facility.

APPENDIX B (Continued)

THE SCRIPPS RESEARCH INSTITUTE

Scripps Florida - Funding by Source (In \$000's)

Year *	State Funding (1)	Sponsored Programs (3)	Faculty Projections
1 (2)	\$ 20,801	\$ 0	11
2 (2)	55,309	2,459	18
3	38,090	3,704	19
4	35,759	5,343	20
5	52,445	8,717	22
6	32,679	19,431	27
7	22,365	31,073	34
8	32,786	39,626	41
9	14,766	47,473	45
10	5,000	58,694	48
Total	\$ 310,000	\$ 216,520	

*For the Grant Year Ended on March 14, 2005 (Year 1) – 2014 (Year 10)

Note:

- (1) The State Funding amounts shown above exclude interest income earned on funds distributed by Scripps Florida Funding Corporation. Interest income shall be distributed first for any annual administrative expenses associated with the management of Scripps Florida Funding Corporation, to the maximum permitted by Section 288.955, Fla. Stat., with the balance of all such interest income distributed to The Scripps Research Institute in each year as earned.
- (2) Reflects actual amounts for the first two grant years ending March 14, 2005 and March 14, 2006.
- (3) Includes project specific funding from all sources other than State Funding and assumes maximum faculty staffing as forth in Appendix C.

APPENDIX B (Continued)

THE SCRIPPS RESEARCH INSTITUTE

Scripps Florida - Statement of Functional Expenses

(In \$000's)

<u>Expenses</u>	For the Great Year Ended on March 14,			
	<u>2007</u> <u>(Year 3)</u>	<u>2008</u> <u>(Year 4)</u>	<u>2009</u> <u>(Year 5)</u>	<u>Total</u>
Science Operations - Direct Costs	\$ 28,167	\$ 29,376	\$ 30,786	\$ 88,329
Administration & Science Support	11,063	12,227	18,545	41,835
Equipment	5,761	2,745	15,991	24,497
Other Expenses (1)	7,029	2,212	2,536	11,777
Total	\$ 52,020	\$ 46,560	\$ 67,858	\$166,438

(1) Includes institutional initiatives such as post-graduate education, community outreach, communications, fund raising and the \$5 million escrow payment (in Year 3).

APPENDIX B (Continued)

THE SCRIPPS RESEARCH INSTITUTE

Scripps Florida - Capitalized Equipment (In \$000's)

Year	Equipment Funded By State Funds	Equipment Funded By Other Sources
1	\$ 11,156	\$ 0
2	13,686	0
3	3,000	2,761
4	1,000	1,745
5	10,000*	5,991
6	**	4,509
7	**	3,027
8	**	5,025
9	**	5,463
10	**	3,860
Total	\$45,000	\$32,381

* Scripps expects to purchase \$10 Million of equipment within 18 months of occupying its Permanent Facilities.

** Scripps shall purchase \$6.158 Million of equipment over the last five years of funding.

APPENDIX C

Table 1: Full Time Employee Projections

Grant Year	3	4	5	6	7	8	9	10
Calendar Year	2006	2007	2008	2009	2010	2011	2012	2013
Faculty ^a	≥14	≥15	≥16	≥20	≥25	≥31	≥33	≥38
Scientific Staff ^b	≥110	≥124	≥141	≥159	≥184	≥226	≥263	≥298
Administration ^c	≥25	≥29	≥51	≥63	≥65	≥70	≥79	≥89
Target Total ^d	150- 200	169- 225	210- 280	243- 324	275- 367	327- 436	375- 500	545

Note: The term “employee” as used herein includes any person working at the Scripps Florida FAU and Briger sites and/or under the direction and control of Scripps regardless of the source of funds providing a salary or other compensation to that person.

Postdoctoral fellows (“postdocs”) have a postgraduate degree and are continuing their research training by working directly under the supervision of a professor in their chosen field. Because postdocs are under the supervision and control of the Scripps Florida faculty, they are included as employees in the headcount in Table 1.

^a Faculty includes tenure track Professors, Associate Professors and Assistant Professors

^b Scientific Staff includes non-tenure track scientists (Research Faculty and Staff Scientists), research associates/post-docs, lab technicians, and grad students

^c Administration includes all other support personnel

^d The number of Scripps Florida jobs is measured at the end of each calendar year. A range for the Target Total is given because Scripps Florida Funding Corporation may allow Scripps Florida to deviate downward from the greater Target Total number by 25% in any year (reflected by the lower Target Total number) to allow Scripps Florida flexibility in achieving the objectives set forth in the Business Plan; provided, however, that Scripps Florida must have no fewer than 545 positions by December 31, 2013.

APPENDIX C (Continued)

Table 2: Salary Range by Employee Category

Category	Range*
Professors	\$138,000 to \$330,000+plus
Associate Professors	\$84,000 to \$177,000
Assistant Professors	\$72,000 to \$129,000
Research Faculty	\$72,000 to \$265,000
Staff Scientists	\$54,000 to \$113,000
Research Associates	\$34,000 to \$55,000
Administration **	\$48,600

Postdocs receive stipends rather than salaries. The stipends are generally paid by TSRI, either directly or as a pass-through from another sponsoring organization. In some instances, the stipends are paid directly to the postdoc by the sponsoring organization. In these instances, stipend support has not been included in the salary calculations for Table 2.

* The base salary of all persons employed in a particular category falls within the range for that category. These ranges are increased each year to reflect the change in the CPI for that annual period. Certain employees of Scripps Florida may receive additional compensation for assuming administrative responsibilities beyond their scientific duties. By way of example, a faculty member who also serves as an Associate Dean of the Graduate School, will receive additional compensation for that service. The ranges set forth above do not incorporate such additional compensation

** Represents the average expected salary for this Employee Category rather than the range that would result by combining all Administrative positions. The various job classifications and range of salaries for these classifications is great. In this instance, an expected average salary, rather than a range, is a better representation.