

Scripps Florida

A new division of The Scripps Research Institute that is dedicated to biomedical research and drug discovery is taking shape on the shores of southern Florida.

The Scripps Research Institute (TSRI), based in La Jolla, California, is familiar as a center for research at the interface of chemistry and biology. Building upon the institute's success, TSRI President Richard A. Lerner and then-Florida Governor Jeb Bush announced in 2003 the creation of a new branch of TSRI, Scripps Florida (<http://www.scripps.edu/florida>). The new Florida-based institute was initiated by a \$310 million economic development grant from the state of Florida and additional support from Palm Beach County and local governments. As stated by John J. Moore, Chairman of the Board of TSRI, the mission of Scripps Florida is "increasing human knowledge, advancing biomedical science, educating the researchers of the future, and improving the health of humanity." A visit to Scripps Florida reveals that these efforts are well underway.

At present, the more than 200 faculty and staff members of Scripps Florida are housed in two temporary buildings on the Florida Atlantic University campus in Jupiter, Florida. By early 2009, Scripps Florida researchers expect to occupy 350,000 square feet of research space in three nearby buildings that are currently under construction.

Like its La Jolla counterpart, Scripps Florida seeks to establish itself as a pioneering institution in basic biomedical research. However, Scripps Florida was designed with the aim of creating an environment that links basic research with a focused drug development platform. As stated by Patrick Griffin, chair of Scripps Florida's Molecular Therapeutics Department, "Scripps Florida brings together academic biomedical research with a practical commitment to new technologies and translational research through drug discovery and development." To achieve this hybridization, Scripps Florida is organized around a small set of interdisciplinary academic departments and a Translational Research Institute (TRI) that supports drug development efforts.

Scripps Florida currently has three academic departments (Cancer Biology, Infectology and Molecular Therapeutics), but at least two future departments are planned—one in neuroscience and a second in metabolism and aging—according to Gerald Joyce, Dean of the Faculty for TSRI. Says Joyce, "The academic departments that are based at Scripps Florida will contain about a dozen faculty members at full strength, but we also are building cross-campus relationships with 'sister departments' in La Jolla." For example, the Scripps Florida Molecular Therapeutics department will engage in scientific cross-talk with the newly announced Chemical Physiology department in La Jolla. "The latter department, chaired by Benjamin Cravatt, will bring a chemistry-based but interdisciplinary approach to the study of human physiology and pathophysiology," Joyce explained. Many Scripps Florida faculty members also have joint appointments that cement the link between basic and translational research. For example, William Roush, who moved from the University of Michigan to Scripps Florida in 2005, has a faculty appointment in the Chemistry Department of TSRI and also serves as Executive Director of the Medicinal Chemistry division of the TRI.

The TRI is made up of Advanced Technologies and Drug Discovery components that support academic research and serve as the drug discovery and development arms of Scripps Florida. The Advanced Technologies component emphasizes core platforms that enable both basic and translational research, including proteomic and genomic technologies. The Drug Discovery component integrates resources typically found in pharmaceutical companies—discovery biology, drug metabolism and

pharmacokinetics; high-throughput screening and lead identification; and medicinal chemistry—to identify and develop promising small molecule compounds toward clinical applications. Much of the Drug Discovery component is led by scientists with experience in the pharmaceutical industry, including Patrick Griffin, Director of the TRI; Peter Hodder, Director of the High-throughput Screening Laboratory; and Philip Lo Grasso, Director of Drug Discovery Biology. Scripps Florida's mechanism for facilitating translational research is unique, says Griffin: "Because lead optimization and preclinical development require significant resources, academic scientists have traditionally had difficulty moving their chemical lead towards the clinic. The TRI removes these barriers for Scripps researchers, which should allow us to rapidly develop promising drug candidates for a variety of diseases."

High-throughput screening enables basic research and drug development efforts at Scripps Florida. In addition to housing facilities for

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genomic, RNA-interference and small-molecule screening, in July 2005, Scripps Florida was selected as one of ten sites for the Molecular Libraries Screening Center Network (MLSCN) of the US National Institutes of Health. The Scripps Florida screening center includes facilities for assay development and optimization, biochemical and cell-based screening in a miniaturized 1536-well format, compound selectivity profiling and compound validation. As stated by Hodder, the center's director, "The facility currently has the capacity to screen the MLSCN 100,000-compound library within twenty-four hours, which qualifies the site as an 'ultra-high-throughput screening facility.'" In addition to housing the MLSCN library, the facility routinely screens the separate TSRI library of more than 600,000 compounds to support the efforts of researchers at TSRI as well as external collaborators.

A visit to Scripps Florida reveals an entrepreneurial spirit frequently seen in new biotechnology startup companies. In Roush's view, "creating a collaborative institutional culture and attracting talented people are the keys" to ensuring the success of Scripps Florida. Most current Scripps Florida scientists state that they were drawn to the new venture by Scripps' reputation for high quality science, investigator independence and its investment in individuals and infrastructure. Paul Kenny, a junior faculty member with research interests in neuropharmacology and addiction, summarizes this perspective, stating that Scripps Florida "is a place where you can take your research in directions that would not be possible at other institutions."

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