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Cultivating Companies

CAREFUL PROPAGATION
OF UNIVERSITY OF FLORIDA
START-UP COMPANIES IS YIELDING
A BOUNTIFUL HARVEST

BY JOSEPH KAYS



Ray Carron

David Day

PEPSICO. MERCK. DOW CHEMICAL.
 CONVENTIONAL WISDOM IN THE UNIVERSITY TECHNOLOGY TRANSFER BUSINESS HAS LONG BEEN THAT STEADY ROYALTIES ARE MORE LIKELY TO COME FROM WELL-ESTABLISHED COMPANIES.

And for much of its history, the University of Florida has followed that path. Gatorade, for example, is owned by PepsiCo. The university licensed its successful glaucoma drug, Trusopt, to pharmaceutical giant Merck. And the Sentricon termite control system went to DowElanco, a division of Dow Chemical.

But as the university has expanded efforts to commercialize its technologies, it also needed a strategy for inventions that are not quite ready for prime time.

“Many major corporations have chosen to let smaller start-ups lay the groundwork for new technologies, with an eye toward acquiring the most successful of those companies,” says David Day, director of UF’s Office of Technology Licensing, or OTL. “Our job is to ensure that those start-ups get the expertise and financial capital they need to succeed.”

UF Vice President for Research Win Phillips says he quickly realized after taking office in 2000 that OTL needed to be beefed up to adequately serve the university’s research community.

“The university’s research enterprise has grown dramatically over the past decade, and our efforts to move research from the laboratory to the market have to keep pace,” says Phillips, who has overseen a tripling of the OTL staff. “Now

we have more people out there in the colleges identifying promising technologies and making them successful.”

With a larger staff and a more business-oriented approach, the university has completed more than 150 license agreements in the last three years, compared to only 25 in 2000 and just eight in 1999. In addition, invention disclosures are up 38 percent since 2001 and licenses generating income are up 41 percent.

“The university has become extremely involved in helping young companies like mine find management and money,” says Ron Marks, a UF professor of biostatistics and founder of a company called Clinipace that has developed an electronic clinical trials management system. “In our case, they have helped us find a management team and they have put us in front of a lot of potential investors.”

Day says OTL has grown beyond its traditional role of protecting the university’s intellectual property through patents to become more of a full-service operation, serving as a matchmaker to help recruit seasoned entrepreneurs to partner with UF inventors on the launching of a company.

“It is unfair to ask our scientists to both run their laboratories and lead the time-consuming effort of starting a business,” Day says. “Most have limited knowledge of how to run a company, so we work hard to partner them with people who really understand the business end and can ensure that the company survives long enough to be successful.”

A valuable tool for making that connection has been the EDA University Center, jointly funded by the UF Office of Research and Graduate Programs and the U.S. Economic Development Administration.

The center, based within OTL, does much of the “heavy



lifting” of identifying appropriate technologies and bringing them to the attention of entrepreneurs and potential investors, Day says.

“It is our business to understand what the investors are looking for and do our best to deliver it,” he adds. “We are knowledgeable in how to structure a deal to out-compete the other 99 out of 100 deals that will not be funded by the venture capitalists.”

And the results are impressive. In the last 12 months companies associated with UF technologies and the EDA program have raised more than \$23 million.

The region’s biggest success to date came in November when Applied Genetic Technologies Corporation, or AGTC, completed one of the largest venture capital deals in Florida’s young biotechnology history. A group led by InterWest Partners of Menlo Park, California, invested \$15.25 million in the company, which is exploring the use of adeno-associated virus, or AAV, in human therapeutics. The company’s core technology, developed at UF, allows the use of AAV as a vehicle to deliver beneficial genes to correct genetic defects in critically ill patients.

“OTL introduced us to UF alumni and business partners who were well networked into the investment world,” says AGTC Chief Executive Officer Sue Washer. “This was essential in helping AGTC develop the critical contacts in the venture capital arena that eventually led to our success in

landing a nationally recognized group of investors.”

Day says that although the university has a lot of technologies in the pipeline, “we haven’t been on the radar of the big-money venture capitalists, partly because of our location and partly because we have not structured attractive deals. Now we’re working harder and smarter, and we’re succeeding.”

One vehicle for getting UF technologies recognized by venture capitalists is the Southeast BioInvestors Forum, or SEBIO, whose sixth annual meeting will be held in Miami in November. More than 400 participants, including 150 of the most notable East Coast venture capitalists, will view the regions’ 20 best young biotech investing deals.

“This conference will put bioscience investing opportunity in Florida on the map,” says forum co-chair David Gury, former chairman of Boca Raton-based NABI Biopharmaceuticals and chair of the Florida Research Consortium. “Since it was founded in 1999, the forum has grown into perhaps the most significant annual regional bio-investing event in the country.”

Another sign that Gainesville is “on the radar” of the venture capital community is that two investment groups have opened offices in Gainesville — Inflexion Partners and the Emergent Growth Fund, the area’s first “angel investor” group. The fund was founded by a group of successful businesspersons from the Gainesville-Ocala area and

IXION BIOTECHNOLOGY
www.ixion-biotech.com

Ixion Biotechnology is developing cell-based therapies focused on treatment of metabolic disorders, particularly kidney stones and diabetes.

Ixion began operations in 1995. Currently the company’s 20 employees occupy more than 12,100 square feet of lab and office space near the University of Florida.

Since 1999, the company has received more than \$2 million in NIH research funds, and in 2000 it received a national Tibbetts Award from the Small Business Administration in recognition of its research activities.



Neill BioMedical Art

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INTEGRATED PLANT GENETICS, INC.
www.ipgenetics.com

Integrated Plant Genetics, Inc., or IPG, is developing genetic technologies to make plants resistant to such devastating diseases as citrus canker and geranium wilt.

IPG’s Disease Block technology, which was first demonstrated in model systems at the University of Florida and now in grapefruit by IPG, aims to

reduce the severity of a host of diseases caused by bacteria and fungi.

The initial demonstration projects are the creation of transgenic citrus, geranium and tomato plants with immunity to several severe bacterial diseases, including citrus canker disease, geranium wilt, geranium blight and tomato leaf spot disease.



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is expected to focus its considerable resources on technology companies developed locally.

Inflexion Partners is an early-stage venture capital fund with an emphasis on company building.

“Florida is a national venture treasure in that ideas, technology and entrepreneurs are plentiful but sophisticated venture capital is in short supply,” says Dan Rua, a managing partner in Inflexion’s Gainesville office.

The university’s expanded efforts in licensing, especially of biotechnology, dovetail nicely with Gov. Jeb Bush’s commitment to give state backing to the most promising technologies from all of Florida’s state universities.

When Bush persuaded the Florida Legislature to appropriate \$30 million to create university Centers of Excellence in emerging technologies in 2002, UF was ready with a proposal to create the Center of Excellence for Regenerative Health Biotechnology, which was one of the first three funded, for \$10 million. The center’s mission is “to stimulate promising research and facilitate commercialization of technologies that will provide treatments and cures for human diseases, as well as create new companies and high-wage jobs for Florida.”

Florida’s university technology transfer offices are also working together more to bundle technologies into stronger, more fundable deals, Day says.

One recent example was the First Annual Florida Tech

Transfer Conference, held in St. Petersburg on May 17 and 18. The conference was organized jointly by the 10 Florida State University System institutions, plus the H. Lee Moffitt Cancer Center, Nova Southeastern University and the University of Miami.

“This was the first statewide event to showcase breakthrough technologies from universities,” says Jack Sullivan Jr., president of the Florida Research Consortium. “We wanted to demonstrate the groundbreaking research Florida’s universities have to offer.”

“Our goal was to put everyone under one roof and showcase the hottest new stuff in the universities,” says Tampa Bay Tech Forum executive director Michelle Bauer. “Everybody wants the next biggest thing, and this meeting was essentially one-stop shopping.”

While the University of Florida has been a national leader in royalty revenues for decades, “We can’t just sit around waiting for the next Gatorade to happen,” Day says.

“Our scientists are constantly generating new ideas that have the potential to benefit society,” he adds. “We’re committed to making sure they get that chance.” ❌

David Day

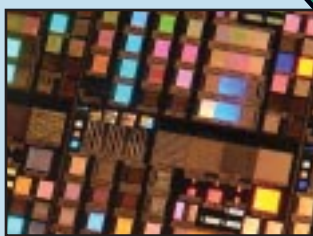
Director, Office of Technology Licensing
(352) 392-8929
dday@ufl.edu

SINMAT, INC.
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Semiconductor manufacturers use chemical slurries to smooth out large silicon wafers embedded with millions of transistors in a complex process known as chemical-mechanical planarization, or CMP.

SinMat has demonstrated tremendous technical successes developing abrasive chemical slurries for use in CMP. Using proprietary chemistries and nanoparticles, SinMat offers slurries that polish copper and other materials in a uniquely soft and gentle manner. The firm’s distinctive chemistries result in a gentler, single-step process to fabricate next-generation semiconductors, a vast improvement over the three-step process currently in use by the industry.

Leveraging the talents of its staff, who are recognized worldwide as authorities in the field, SinMat is poised to become a leader in advanced slurry development for the semiconductor industry.



David Blankenship

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ECOARRAY
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In 1996, Congress mandated that the EPA develop testing for endocrine disrupting compounds, or EDCs, in water. One result of this mandate was formation of a large-scale screening program to develop and standardize tests for monitoring all pesticide chemicals and other substances that may be found in drinking water.

EcoArray has developed a methodology to measure the impact of EDCs at the genetic level in several fish species using microarray gene chip technology, a procedure that is faster and more precise than traditional testing methods. Microarrays, which have been used in human disease testing for about 10 years, deliver huge quantities of data at very low cost.



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