

Campus Research Patented, Benefits All

Oriel Therapeutics Inc. and other similar companies were formed from research conducted by UNC affiliates.

By ADDIE SLUDER
Staff Writer

Former doctoral student Timm Crowder and Professor Anthony Hickey have just settled into a new home in Research Triangle Park for Oriel Therapeutics Inc., the company they incorporated last March.

But Oriel isn't just any RTP corporation - it's one of 21 for-profit spinoff companies spawned from recent research conducted at UNC by faculty, staff or students.

Chancellor James Moeser said in his Sept. 5 State of the University address he is glad to see spinoff companies emerging and providing a direct impact on the state economy.

"If knowledge is the capital of our new economy, research universities are the source of that capital and will be at the center of thriving economies," Moeser said.

Crowder and Hickey exemplify the path Moeser described.

After they met at a speech by a Massachusetts Institute of Technology professor, the two decided to work together on research that formed the foundation for their company.

Oriel will develop and commercialize a "smart" powder inhaler that uses drug delivery technology to decrease variability of dosage.

"The one really exciting feature about the device is we look at how powder flows, and the inhaler actually incorporates powder-flow physics," Crowder said. "We're working hard to collect some data to essentially show that this is better than what's out there."

Crowder and Hickey worked with UNC's Office of Technology Development to file a patent for their technology.

"Ours was one of the technologies they decided to patent a couple of years ago," Crowder said.

UNC students, faculty or staff who make a discovery or develop an invention must report their invention to the office. If the idea is determined to be patentable and marketable, the office helps the inventors with appropriate proceedings.

"We work with UNC researchers who may have an invention from the very early stages," said Mark Crowell, associate vice chancellor for and director of the Office of Technology Development.

Last year the office received 115 invention reports and filed 98 patents, although multiple patents were filed for many of the inventions.

If a patent is obtained, the discovery will either be licensed to an established company or can be the basis for the formation of a new company. Patents normally take one to three years to obtain, and Crowell said they usually cost between \$12,000 and \$20,000 to file.

Crowell estimated that 90 percent of UNC inventions are licensed to existing companies and said starting a company is a much more involved process.

"These startup companies are created around an intellectual idea," said Tony Waldrop, vice chancellor for research and graduate studies. "The motivation for us is not the money but making sure we get these ideas out."

In the 2001 fiscal year, the University made \$1,214,980 from inventions.

Forty percent of income from inventions goes to the inventor, 40 percent goes to the department where the invention was developed and 20 percent goes to the Invention Management Fund, which pays for patents.

Chemistry Professor Holden Thorp's spinoff company, Xanthon Inc., has successfully built a company off the first patent he worked with the Office of

Technology Development to file.

Thorp discovered a way to electrically detect the presence of a gene. "This provides a tool for pharmaceutical research," he said.

Xanthon currently holds numerous patents and has about 40 employees.

Not only are these companies and the research that forms them profitable for the University, officials say they have a distinct economic impact in North Carolina.

"We certainly believe there are economic benefits for the community and state as a whole," Waldrop said.

Waldrop cited University research that resulted in the expansion of DuPont's Bladen County facility and the creation of 100 new jobs.

"Ultimately, we want to do even more to get Carolina-created technology into the hands of the public, and our goal is to create our own venture capital fund and incubator space to further stimulate this kind of activity," Moeser said in his speech.

Though officials admitted UNC is fairly new to spinoff companies, they said they are enthusiastic about future development and confident about the resources offered to inventors.

Crowder said support from the University was integral in the formation of Oriel.

"This obviously didn't happen in a vacuum."

The University Editor can be reached at udesk@unc.edu.

Developments in the War on Terrorism

16 Die in Suspected Al-Qaida Convoy

Moving against remnant al-Qaida and Taliban forces in Afghanistan, U.S. forces killed 16 fighters in a gun battle and captured 31 others at a military compound, U.S. officials said Monday. No American troops were wounded in either confrontation.



Pentagon Plans to Cut U.S. Sky Patrols

The Pentagon is proposing a reduction in the air patrols the military has been flying over major U.S. cities since the Sept. 11 attacks. New York's senators questioned one version of the plan, which had flights reduced over New York while patrols would continue over Washington, D.C.

Franks Calls Anaconda a 'Success'

The commander of U.S. forces in Afghanistan declared Monday that the operation to destroy Taliban and al-Qaida in the eastern mountains was "an unqualified and absolute success" despite claims by Afghan allies that most of the enemy fighters got away.

Research Universities See Increase in Patents

By DARA GOULD
Staff Writer

The amount of patent applications and small business startups at research universities around the nation has increased dramatically over the past few years, according to a recent study.

Research universities are being more assertive by filing for more technology patents and fostering more small-business relationships, according to a study released by the Association of University Technology Managers.

The AUTM is a nonprofit organiza-

tion that manages intellectual property by representing 142 universities around the nation.

In 2000, American colleges and universities filed for 8,534 patents and collected more than \$1 billion in generated royalties from previous patents, a 40 percent increase from the previous year.

Local universities also have experienced growth in their licensed patents and small business startups.

In 2001, UNC-Chapel Hill filed for 98 patents, and 32 were issued.

At N.C. State University, 100 patents were filed, and 45 were issued in 2000.

According to Mark Crowell, associate vice chancellor for and director of UNC-CH's Office of Technology Development, revenue from patents and licensed technology generated around \$1.2 million dollars for the University.

But Crowell said UNC-CH's revenue from patents is low in comparison to some other research universities.

"I think it would be fair to say that we are lagging," Crowell said.

Although the universities surveyed by the AUTM earned more than \$1 billion dollars, revenue from research patents is not a significant source of income for universities.

Tony Waldrop, UNC's vice chancellor for research and graduate studies, said patent royalties are not substantial and sometimes barely cover the costs associated with researching.

Waldrop said the University has interests in protecting its research and marketing useful products and technology for the benefit of society.

"We are pushing for the opportunity for faculty, not for an immediate revenue stream," Waldrop said.

University research also develops into the creation of small businesses. In 2000, 12 new companies started from research done at UNC-CH, most of which are biotechnology businesses, such as Micell Technologies, Oriel Therapeutics Inc. and DarPharma.

Tim Lucas, director of news services at N.C. State, said the university is ranked fourth nationally based on numbers of startup companies, most of which originate from the university's Centennial Campus.

Lucas stressed that while revenue from patents is appreciated by university administrations, university funds are not being diverted away from other research programs that might be less profitable economically.

He said the focus of academic research will continue to be improvement in the classroom, laboratory and consumer market. Lucas said, "Technology transfer is a huge part of what we do."

The State & National Editor can be reached at stntdesk@unc.edu.

Campus Calendar

Today

5 p.m. - Come to Masala's general meeting, co-sponsored by Sangam. The meeting will be held in the Frank Porter Graham Lounge in the Student Union.

6 p.m. - The Carolina Association of Black Journalists will be meeting in 11 Carroll Hall. The guest speaker will be Stick Williams, vice president of business and community relations for Duke Power Co. Come find out more about a career in public relations, including tips on how to break into the field.

7 p.m. - Choice USA and NARAL present "The ABC's of Choice: EC & RU-486." Come learn about the difference between Emergency Contraception and RU-486, where to get EC and how you can spread the word to your friends. The event will be in 431 Hamilton Hall.

Point of Interest

Pick up an application at the Union Desk or 116 Steele Hall to become a peer academic adviser. Applicants must have junior standing by fall 2002. Deadline is March 29.

The Daily Tar Heel

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TODAY @ Carolina
Baseball vs. Princeton

3pm at Boshamer Stadium



Hardee's SPORTS SHORTS
Students & Faculty Admitted FREE w/ID!

Request for Nominations

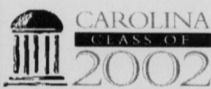
The Class of 2002, The General Alumni Association and The Division of Student Affairs present the

Edward Kidder Graham Awards

In 1917, Graham called for a structure to enhance student life on campus. Now, it's your turn to recognize the individuals who embody that spirit Graham envisioned.

Nominate an outstanding:

- Senior of an officially recognized student organization
- Professors, TA or instructor for work both inside and outside the classroom
- Advisor of an officially recognized student organization



Nominations are due by 5pm, March 29, Room 201, Carolina Union
Questions? Email seniorweek@unc.edu

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Contact the Tech Coach™ at 919.420.1777
or email sectec1@bellsouth.net.

Attention May Graduates



Commencement Information Day
Wednesday, March 20

Stop by between 10 a.m. and 2 p.m.
The Great Hall

Representatives on hand from many University departments to assist with your graduation plans.
www.unc.edu/commencement



UNC-Chapel Hill Morgan Writer-in-Residence Program

Tobias Wolff

Acclaimed author of *This Boy's Life* (subject of the 1993 film starring Robert DeNiro, Ellen Barkin and Leonardo DiCaprio), and winner of the PEN/Faulkner Award, O. Henry Award, and Los Angeles Times Book Award

His works include:

Memoirs -

This Boy's Life and
In Pharaoh's Army

Short story collections -

In the Garden of the North American Martyrs, *Back in the World*, and
The Night in Question



Free Public Reading

Tuesday • March 19 • 7:30 pm • Hill Hall Auditorium
UNC-Chapel Hill campus • Cameron Avenue
Tel 962-4283 • college.unc.edu

COLLEGE of ARTS & SCIENCES

The UNIVERSITY of NORTH CAROLINA at CHAPEL HILL

Tobias Wolff has achieved "the ancient art of a master storyteller." - Tim O'Brien