TECHNOLOGY COMMERCIALIZATION AND INNOVATION STRATEGY

New Faculty Orientation August 21, 2014



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UCMERCED BUSINESS DEVELOPMENT Research and Economic Development



The Tech Transfer Business Model

Step	Action
1	Complete Invention Disclosure Forms
2	Submit Patent Application
3	Receive Notice of Allowance
4	Negotiate license agreement
5	Success

What I learned

- Like any other employer, university owns your inventions
- Obligation to disclose inventions
- Revenue sharing
- The idea that there are people who focus on getting inventions adopted: A+
- Implementation: C-

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UF hits top 10 ranking

UF officials aren't exactly trumpeting the results, though.

By TIM LOCKETTE Sun stigf writer

The University of Florida ranks among the top 10 public research universities in the nation in a new study of university rankings released this week

The source of the study? The University of Florida.



"We really tried to de-emphasize

 Four public universities made it into the first tier of olidue universities

FYI:

 Six schools scored in the second tier. Including UF status

UF's Center for Studies in the Humanities and Social Sciences epent more than a year collecting data

them to rank the nation's research universities. The effort was headed by former UF President John Lombardi, director of the center.

The system ranks the nation's research universities according to nine criteria:

- Total research funding.
- Federal research funding.
- Endowment assets.

Annual giving by private donors.

 Number of faculty members who are members of the National Academy of Sciences or the National **RANKINGS** continued on Page 4A

Wildfires wear down nation's firefighters

The fire season in the West has been so brutal this year that firefighters simply can't keep up. With

Patent masters

In 10 years, UF's Office of Technology Licensing has

grown into one of the five largest of its kind nationwide



Well-known inventions Products developed through Uni-

versity of Florida research



Gatorade: sports



Pictured among rows of hundreds of University of Florida invention disclosure files, new UF employees Kevin Boggs, front, Peter Schuerman, right, and Anthony Palmieri have the duty of determining whether each is worthy of patenting and licensing to outside industry.

Staff multiplies in number

put the office on the map. By CARRIE MILLER Sun stoff serior decade ago, two people staffed the office that patents and licenses the

inventions of University of Florida researchers. Today, UF's 15-person Office of Technology Licensing is one of the five largest in the country.

Six people were hired in the past year alone. The increase is part of a major restruc-

turing of the office aimed at sifting more quickly through the hundreds of new technologies discovered by UF faculty

Licensing activity at UF 30,000,000 \$25,013,349 25,000,000 \$11,045,299 20,000,000 15,000,000 10.000.000 5:000.000 Fiscal year/Exclusive 1995-19

& Nonexclusive 1997-8 2000-25 Licenses* 1998-17

Oces not include option agrophenits, internatibutions apresentation, amendments, tracketories or copyrights Fietal year ending June 30, 2000

Home Runs

- Gatorade
 - ~\$6M / year trademark license
- Trusopt
 - ~\$30M / year patent license
- Many patents
- Many licenses
- High risk
- The wins make up for the losses on the rest of the portfolio*

*Results not typical.



UF's Diane Craig, one of the principal authors of the study. "We just put the numbers down and released the

that would allow











Sentricon: termite protection system

UF's ranking," said results so people

could decide for themselves." Researchers at

Twenty-Year Overview of TTO Model

TTO Financial Success



Source: Valdivia, W. (2013) University Start-Ups: Critical for Improving Technology Transfer, Brookings Institute, Washington, D.C.

Bayh-Dole Act

Let universities manage the patents from federal funding instead of the government

Less government – I'm in

> Bipartisan response to the economic malaise of the 1970s

NIH Grant Application Success Rates FY 1978-2013



Source: NIH http://report.nih.gov/success_rates/

The Sponsored Projects Business Model

Step	Action
1	Complete Proposal Forms
2	Submit Proposal
3	Receive Notice of Award
4	Negotiate funding agreement
5	Success!

It's the same business model, but not the same business

Step	Sponsored Projects Business Model	Patent-Centric Technology Transfer Business Model
1	Complete Proposal Forms	Complete Invention Disclosure Forms
2	Submit Proposal	Submit Patent Application
3	Receive Notice of Award	Receive Notice of Allowance
4	Negotiate funding agreement	Negotiate license agreement
5	Success!	Success (?)



Why this is the wrong model

- Patents are expensive
- If you stock the shelves with IP you have to hit home runs to pay for all of your losses
- This alienates industry because they don't want to pay the price for exuberant university patent spending
- This alienates researchers because they don't want this either
- Industry does not have "pots of money" that they need to give to universities every year



Subsequently...

- Rice University: Start-up deals, licensing
- UC Berkeley: Founded the Industry Alliances Office
- Texas A&M: All of the above, plus re-engineering a technology transfer office

What I learned

- The successes were not due to the business model
- They were in spite of the business model
- Successes came whenever we saw the confluence of three things
- Vision
- Motivated inventor
- Partnering



Pressure on university researchers to do "economically relevant" research

Federal External R&D Funding



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Source: Valdivia, W. (2013) University Start-Ups: Critical for Improving Technology Transfer, Brookings Institute, Washington, D.C.





Source: Valdivia, W. (2013) University Start-Ups: Critical for Improving Technology Transfer, Brookings Institute, Washington, D.C.

Patents are Important

- As employees of UC Merced, you have signed or will sign the Patent Acknowledgement Form
- The taxpayers invest in the university, and we have a responsibility to identify inventions that could improve society and manage them
- Like any employer, UC Merced owns what you invent
- Inventors receive 35% of the net royalties and fees per invention received by the University.
- An additional 15% of net royalties and fees per invention shall be allocated for research-related purposes on the inventor's campus or Laboratory.

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What is a Patent?

- It's not an award, or a certificate of being inventive
- It's not something we pursue just for vanity expensive
- A patent is the deed to a piece of real-estate on the landscape of ideas
- Like a deed, it allows you to keep people from trespassing
- Trespassing on "patent real-estate" is called "infringement"
- The ability to own inventions creates the opportunity to invest

Patents are a tool to solving the "Just R" Problem

- Because we are research-focused,
 - Our credibility with the public suffers
 - Funding goes to those that can show impact
- Where do we get the "D" to go with the "R"?
 - We could do this ourselves, at the expense of the R-focus
 - We can partner with others who specialize in development
- The Result:
 - Greater credibility and greater impact
 - Improved competitiveness for federal funding

Business Development Model

- Business doesn't start with questions about patents
- The first questions should be:
 - What are you trying to do?
 - Do people need it?
 - How is this our opportunity?
- Depending on the answers, it may be possible to assemble an opportunity
- Patents are just one of the tools in the Business Development toolkit

Creative, Focused People Need Help

- University researchers are asked to
 - Be great at your discipline
 - Also be a great teacher
 - While you are at it, build the economy and create jobs
- We recognize that this is too much
- Actors, authors, artists, athletes they can all get agents
- We use a Business Development Model to help researchers use commercialization to achieve their goals

You are here to do great things

... and we get that

- We care about what you are trying to do
- Innovation doesn't happen unless your invention is adopted
- We can help you develop your innovation strategy
- It is never too soon to start thinking about how you will achieve your vision
- What can we do today to attract the right partner tomorrow?

Thank You

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Bayh-Dole Overview

- Grant licenses to the patents rather than assign their title to them;
- Disclose the government's interest in patent applications and notify the government before abandoning any patent application;
- Share the income they received with the inventors—how much to share was left up to individual institutions;
- Use any residual income retained by the institution for research and education;
- Grant a royalty-free non-exclusive license to U.S. Government for its own use;
- Require licensees to manufacture products in the U.S. that were to be sold in the U.S. and give preference to small businesses.

As a final safeguard, the government retained the right to grant a compulsory license in the public interest if the invention was not being practiced.