TECHNOLOGY COMMERCIALIZATION AND INNOVATION STRATEGY

New Faculty Orientation
August 21, 2014

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Associate Vice Chancellor,
Research and Economic Development
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# The Tech Transfer Business Model

<table>
<thead>
<tr>
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<tbody>
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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-
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.
Twenty-Year Overview of TTO Model

TTO Financial Success

- 87% Cost Center: Lost Money
- 13% Revenue Center: Made Money

The winners are the ones who had one or two blockbuster licensing deals

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

# The Sponsored Projects Business Model

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**Business Development**

Research and Economic Development
It’s the same business model, but not the same business

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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
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Low Cost

Reasonable Success Rate

Return is uncertain but you can sometimes “win the lottery”

High Cost

Low to Extremely Low Success Rate
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

“R&D” 56%

“Just R” or “R&d” 44%

More dependent = More vulnerable to pressure

Industry

- Federal Funding: 14%
- Other: 86%

Universities

- Federal Funding: 42%
- Other: 58%

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.
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.