Intellectual Property Policy

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research.uiowa.edu
U.S. intellectual property (IP) policy history

Prior to 1980, title (ownership) to any invention created using federal funding
• Was owned by the U.S. government

By 1978, the U.S. government owned over 28,000 patents
• However, it had licensed less than 4 percent of those patents
• And there was little incentive to develop any of the ideas

Bayh-Dole Act 1980
• Created a uniform federal intellectual property policy
• Allowed non-profits and small business to elect title to inventions
• It particular, those created in whole or in part with federal funding

Bayh-Dole stimulated creation of university technology transfer offices
• University of Iowa Research Foundation (UIRF)
• After disclosure to UIRF, UI is required to report inventions to the U.S. government
Iowa’s intellectual property (IP) policy (2005)

Patent policy’s primary objective
• “...to enable the public to use and benefit from inventions originating at the University”

Earning’s objective is to support
• “research broadly across campus”, “research related to the patent”
• “administrative efforts to secure and manage additional patents”

Policy applies to inventions
• “made by University employees or postdoctoral appointees in the course of their employment or appointment or in a field or discipline reasonably related to the inventor(s)’ field(s) of employment or appointment”
• “enabled by significant use of University resources when made by University employees, postdoctoral appointees, students whose inventive contribution did not arise from employment by the University, or institutional visitors not employed by the University”

Disclosures to the UIRF are required as a condition of employment
• “Any individual who believes that he or she has made, or contributed to the making of, a qualifying invention must disclose the invention in writing to the UIRF”
Iowa’s Intellectual property (IP) policy

IP policy covers both patents and copyrights and was last revised in 2005

Like all UI policies, it is time to review and revise it where appropriate

Court rulings (e.g., Stanford v. Roche) necessitate some IP policy changes
  • “Agree to assign” versus “agree and hereby assign”

Other issues would allow UI to have more IP available
  • Visiting scientist/scholar definition and clarification
  • Background IP as significant use of university resources
  • Software and non-patentable inventions

Finally, our financial and social contexts have also shifted
Stanford v. Roche history

Stanford research fellow signs the university’s Copyright and Patent Agreement
• He “agree[d] to assign” to Stanford his “right, title and interest in” inventions from his employment

He also conducts research at Cetus, signing a Visitor’s Confidentiality Agreement (VCA)
• He “will assign and do[es] hereby assign” to Cetus his “right, title and interest”

Stanford files patents based on the fellow’s work, as regularly assigned to Stanford
Roche buys Cetus, conducts clinical trials, and patents PCR-based HIV technology
Stanford sues Roche for patent infringement and Roche claims it is a co-inventor

After many court battles, the Federal Circuit and the Supreme Court rule in Roche’s favor
• Bayh-Dole Act did not automatically vest title to inventions in federal contractors
• Invention title is vested initially in the inventor

What are the practical implications for UI?
• Revise the policy to be in compliance with case law
• Address other issues as appropriate
Definitions

- **Invention/Technology**
  A new and useful process, material, or device developed by a UI researcher. **Distinct from scientific discovery.**

- **Intellectual Property (IP)**
  Issued patents, patent applications, registered copyright, and (rarely) trademarks filed by UIRF to protect an invention with the appropriate government agency

- **Disclosure**
  Notification to UIRF of a potential invention by a UI researcher

- **Option**
  A contract that grants a company or individual time to evaluate UIRF’s IP before deciding whether to negotiate for a license

- **License**
  A contract that grants a company or individual certain rights to practice UIRF’s IP rights or obtain and use proprietary materials, in exchange for royalties, fees, and/or equity
Disclosure, patent and license activity FY11-FY16

- Disclosures
- US Patent Applications
- Issued US Patents
- Options & Licenses
Licensing income and national statistics

Association of University Technology Managers (AUTM)
- 84% of university tech transfer offices are cost centers (2012)
  - Twenty year average is 87%

Income distribution is highly skewed
- Top 5% (8 universities) took 50% of the total licensing income
- Top 10% (16 universities) took nearly three-quarters of the income

_Iowa has historically made money but that changed a few years ago_
- End of the CMV Promoter licensing stream

_There are major future implications for both VP enrichment and UIRF support_
Patent income inequality and challenges

84% of all university IP offices lose money
15 schools produced 70% of all patent license royalties for U.S. universities in 2014

<table>
<thead>
<tr>
<th>University</th>
<th>Revenue</th>
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<tr>
<td>Northwestern</td>
<td>$381M</td>
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<tr>
<td>N.Y.U.</td>
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<tr>
<td>University California System (includes Berkeley)</td>
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<tr>
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<td>Florida</td>
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<tr>
<td>All other schools</td>
<td></td>
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</tbody>
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Seizures: Genetically engineered yeast proteins (Hepatitis B vaccine)
Axel patents (gene insertion)
Inflammation: Remicade
Glaucoma: Trusopt

Payout distribution
- >$1M (5)
- $100K-$1M (49)
- $10K-$100K (155)

Five inventions in excess of $1M (all four inventors have left UI)
- CMV Promoter (Mark Stinski, 1983), $135.5M – 11 years to first income
- Immunomodulatory Oligonucleotides (Arthur Krieg, 1995), $7.4M – 4 years to first income
- Prevention of Inflammatory Bowel Disease (Joel Weinstock, 1997), $3.3M – 7 years to first income
- CpG and Allergy (Arthur Krieg, 1997), $2.6M – 3 years to first income
- Gene Variations in Age-related Macular Degeneration (Gregory Hageman, 2005), $1.8M – 3 years
Discussion