Essentials of Research Administration

Intellectual Property

Tom Herlache
Assistant Director and Technology Manager
MSU Technologies
MSU Technologies
Who we are

- Michigan State University’s technology transfer and commercialization office.
- Manages MSU’s extensive intellectual property portfolio, and identifies, evaluates, and protects innovations created by researchers.
- Transfers innovation beyond MSU to benefit the public and drive economic growth regionally, nationally, and internationally.
- In FY 2014, MSU researchers disclosed 132 technologies.
- In 2014, MSUT filed 124 patent applications, received 65 patents.
MSUT Goals

1. Moves MSU innovations into broad use for the public good;
2. Supports existing research activities and helps to attract new research funding;
3. Helps recruit and retain best and brightest faculty and students;
4. Adheres to federal Bayh-Dole Act requirements;
5. Generates new revenue streams;
6. Creates new companies and jobs;
7. Builds on MSU’s image as a world innovator; and
8. Assists MSU’s economic development efforts in the community and throughout Michigan.
Bayh-Dole Act

What Bayh-Dole Says:

• U.S. legislation enacted by Congress (Dec. 12, 1980) dealing with IP from federal government funded research
• Transfers title to inventions made using U.S. government grants from government to academic institution
• Reporting requirements to disclose invention to the funding agency
• Grant federal government a non-exclusive, non-transferable, paid-up license to practice worldwide
• Actively promotes commercialization
• Share royalties with inventor
• Preference to U.S. industry and small business
**Goals**

Efficient and effective process
Data / information driven decision making
Maximum technology potential = best business environment

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**Technology Commercialization Process**

**MSUT Technology Evaluation Process**

- Disclosures
- Screening Evaluation
- In-Depth Commercial Assessment
- Marketing
- Licensing
- License Compliance

**Close case**

**US Patenting**

**US, Foreign Patenting**
When to Engage MSUT

1. The day after the Eureka Moment (or flash of genius) up to the first respectable written draft of exciting research results with potential commercial interest.
2. Within one year of publication of exciting research results
3. When strong industry interest emerges.
4. Prior to launching partnerships with the private sector when IP rights are an issue.
5. When asked to sign contracts or agreements with IP provisions (Faculty and students cannot sign for MSU).
6. Whenever inventor disputes happen (including students).
7. When you have any questions regarding intellectual property ownership or procedures.
Types of Intellectual Property (IP)

- Patents
- Copyrights
- Trademarks
- Trade Secrets
- Know how

What types of IP does MSU use? All of them!
What is a Patent?

A patent provides a negative right to exclude others from making, using, selling / offering for sale, and importing

- 20 years from the filing date
- Claims of the patent define the scope of rights

Why Patent?
- License agreements generate income for inventors
- Get credit for inventing
- Patent holders can exclude other from using their inventions
- Benefit to society
- MSU covers all patent costs and legal fees of an invention, unless there are contractual obligations, which require that another party pays
What is Patentable?

For a utility patent, a patentable invention must meet four criteria:

(1) Patentable subject matter: 35 U.S.C. 101
- Anything made by hand of (a hu)man
- Any “new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement
- Abstract ideas, mathematical formulas, laws of nature, natural phenomenon are not patentable

(2) Useful (industrially applicable): 35 U.S.C. 101
- Specific and substantial utility - credible to someone in that field
- Inventor must be able to specifically describe the invention’s usefulness
What is Patentable?

(3) Novel: 35 U.S.C. 102
- Invention must be new from what has been discovered, invented, published or previously known or used
- Invention must be different from what pre-exists in any source of “prior art”
- Only novel if a patent application is filed no later than 1 year from inventor’s first disclosure to the public or other public use
- If in the public domain, the public has a right to use

(4) Non-obviousness: 35 U.S.C. 103
- Invention must not be obvious to anyone ordinarily skilled in the art at time of invention
- Very subjective standard and difficult to pass this threshold
- Invention must be more than a combination of elements derived from multiple prior art sources Or… combination of elements from prior art must produce unexpected results
Can I publish?
Yes, but be careful!

Under 35 USC § 102, a patent, use or *printed publication* from anywhere in the world disclosing the invention prior to one year before the earliest filing date of the application bars patenting (a “patent bar”).

A *printed publication* can be nearly any dissemination to the public disclosing the invention to the extent necessary to enable a person of ordinary skill in the art to make or use the invention (enabling disclosure).

There is a one-year grace period only for the inventor’s publications. There is no grace period **at all** in most foreign countries.
Types of “Printed Publications”

Journal articles (excluding peer review of manuscripts)
Theses
Dissertations
On-line Journals
On-line Abstracts
Posters
Awarded Grant Proposals (subject to the Freedom of Information Act (FOIA))

PowerPoint presentations used during an oral presentation (if copies are handed out or put on-line, or if the oral presentation is video or audio recorded and disseminated with or without permission).

Public use or sale.
Copyright

- Form of protection for authors of original works of authorship which are fixed in a tangible medium
- Works of authorship include literary, dramatic, musical, photographic, software, artistic, and certain other intellectual works
- Civil and criminal remedies may be imposed for violation of a copyright holder’s interests
- U.S. Copyright Act generally gives the copyright owner exclusive right to do, and authorize other to do, the following:
  - Reproduce the work
  - Prepare derivative works
  - Perform the work publicly
  - Display the work publicly
  - Distribute copies of the work
- Visit the U.S. Copyright Office for more information
  http://www.copyright.gov/
Trademarks

- Protects the name or logo under which a good or service is marketed
- Does not give exclusive right to field of business
  - Only patent gives exclusive right
- Distinguishes goods and services from those manufactured or sold by others and indicates the source of goods

Requirements to Register a TM:
- Distinctiveness
  1) generic, 2) descriptive, 3) suggestive, to 4) arbitrary or fanciful
    - Generic—can’t TM
    - Descriptive—can TM if has acquired secondary meaning
- Can be a word, picture, combination of word/picture, sound, distinctive shape of good
- Use in commerce
  - Becomes “incontestable” after registration + 3 years continuous use
The Freedom of Information Act ("FOIA"), M.C.L. 15.231 et seq., regulates and sets requirements for the disclosure of public records by all public bodies in the state. FOIA provides that all communications of a public body are subject to disclosure unless specifically exempted by the Act. A public body may, but is not required to, withhold from public disclosure those categories of public records exempt from disclosure under the Act.

**Selected FOIA Exemptions**

A trade secret or privileged or confidential commercial or financial information obtained from a person:

- Original works of authorship created by a person employed by or under contract to the University until a reasonable opportunity is provided for the author to secure copyright registration.

- Records regarding a patentable invention until a reasonable opportunity is provided for the inventor to secure patent protection.

- Trade secrets or other proprietary information that is determined to have potential commercial value, if a general description of the nature of the information and the University’s interest is made available upon request.
VI. RESEARCH AND CREATIVE ENDEAVOR (Cont.)

Online at:
http://www.technologies.msu.edu/univ-policies.html, then click “Patents” or

http://www.hr.msu.edu/documents/facacadhandbooks/facultyhandbook/patents.htm

Some high points:
Patent Policy

The Process

• Who: University [inventors]
• What they do: [they] shall disclose any University Inventions...
• University faculty shall not disclose University Inventions in the course of performing Outside Work for Pay
• To whom: to the University (MSUT)
• When: prior to disclosing such discoveries or inventions through publications, presentations, or communications with third parties (including research)
• Why: Such disclosure may ... be required to comply with legal and/or contractual obligations owed to governmental or non-governmental research sponsors.
Patent Policy

• **How**: Consistent with [MSU’s] public service mission and with regulations governing federally-funded research
• **What**: ... foster the development of [MSU] inventions and discoveries through patenting and licensing to industry. ... 
• **Why**: Licensing proceeds provide[s]
  • Recognition and reward[s] [to] inventors and
  • Support[s] additional University research.
Patent Policy

[The University owns] any discovery or invention which

a) results from research ... by... any employee of the University ... supported by University funds or by funds controlled or administered by the University, or

b) results from an employee's duties with the University, or

c) has been developed in whole or in part through the utilization of University resources or facilities not available to the general public ...
# Patent Policy

<table>
<thead>
<tr>
<th>Net Licensing Proceeds on a Particular University Invention</th>
<th>Inventor(s)</th>
<th>Major Administrative Unit</th>
<th>University</th>
</tr>
</thead>
<tbody>
<tr>
<td>First $5,000</td>
<td>100%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Next $100,000</td>
<td>33 1/3%</td>
<td>33 1/3%</td>
<td>33 1/3%</td>
</tr>
<tr>
<td>Next $400,000</td>
<td>30%</td>
<td>30%</td>
<td>40%</td>
</tr>
<tr>
<td>Next $500,000</td>
<td>20%</td>
<td>20%</td>
<td>60%</td>
</tr>
<tr>
<td>All Additional Net Licensing Proceeds over $1,005,000</td>
<td>15%</td>
<td>15%</td>
<td>70%</td>
</tr>
</tbody>
</table>
Copyright Policy at MSU

MSU retains ownership of copyrighted works created by 1 or more employees whenever 1 or more of the “Special Circumstances” applies:

1. Substantial use, without charge, of equipment, materials, or staff services of any of the various units of MSU; or
2. Support with money or other substantial resources from MSU or unit; or
3. Directly commissioned by MSU or one of its units; or
4. Occurs in MSU approved, outside work conducted by faculty for pay, if, deemed by MSU, to compete with MSU functions or products.

Licensing of University-owned copyright works:

• University author of University-owned work receives the first $5K of net income received by MSU from the commercialization of the work, 50% of the next $20,000, 30% of the next $50,000, and 25% of all additional net income.
Typical IP Documents

- Invention Disclosures (ID): MSUT
- Sponsored Research Agreements (SRA): OSP (SBIR, STTR) or Business CONNECT
- Confidential Disclosure Agreements (CDA or NDA): MSUT
- Material Transfer Agreements (MTA): MSUT
- Option Agreements: MSUT
- License Agreements: MSUT
- Inter-institutional Agreements (IIA): MSUT
- Small Business Innovative Research Program (SBIR) & Small Business Technology Transfer (STTR) Program – Allocation of Rights in Intellectual Property and Rights to Carry Out Follow-On Research, Development, or Commercialization: OSP or Business CONNECT.

Consult MSUT as needed.
THANK YOU for attending!

CONTACT MSUT

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We are located above the former Barnes and Noble location in the East Lansing Technology Innovation Center.