Protecting Intellectual Property

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Outline

• Basics of intellectual property (IP)
• Balancing IP protection with the need to maintain public access
• Process of gaining IP protection
• Process of IP marketing and commercialization
Basics of Intellectual Property (IP)

**Intellectual property** - non-physical property that is the product of original thought

- Examples: inventions, literary and artistic works, designs, symbols, names and logos used in commerce
- Protecting IP provides owner a strategic advantage by excluding others from making, using, selling, or importing your invention
Basics of Intellectual Property (IP)

IP can be protected by:

- Trademarks - identify the source of goods/services to create consumer confidence
  - A mark or design (name, logo, slogan) used in trade
- Copyrights - protect original works of authorship fixed in a tangible medium
  - Literary, musical, dramatic, graphic, audiovisual, recordings, source code
- Know-how - non-traditional IP with commercial value, knowledge and/or skill, intangible
  - Secret recipe, must show affirmative steps to maintain confidentiality, no publication
- Patents - devices, compounds, methods, processes
Basics of Intellectual Property (IP)

Prior to enactment of Bayh-Dole Act (1980)

- Inventors obligated to assign ownership rights to US government for inventions they made using federal funding
- US government accumulated 28,000 patents
- Fewer than 5% were licensed to industry for developing commercial products
- American taxpayers were not getting the full benefit from the billions of dollars invested in research
Bayh-Dole Act (1980)

- Enabled universities, non-profits, and small businesses to retain an ownership position in inventions resulting from federally funded research
- Universities gained the ability to seek IP protection for early stage innovation
- IP protection provides entrepreneurs and businesses confidence to license, invest, and develop academic discoveries into marketable products
Basics of Intellectual Property (IP)

Bayh-Dole Act (1980)

- Universities are encouraged to collaborate with commercial concerns to promote the utilization of inventions arising from federal funding
- Universities are expected to file patents on inventions they elect to own
- Universities are expected to give licensing preference to small businesses

Since 1980, American universities have:

- Spun off more than 4,000 companies (the majority located in close proximity to the university)
- Produced 150+ FDA approved vaccines, drugs, and new indications for existing drugs
A patent gives the owner the right to prevent someone else from making, using, selling, or importing the invention.

**Patent eligible**
- Compositions of matter
- Articles of manufacture
- Machines
- Devices
- Methods of treatment
- Processes
- Designs

**Not patent eligible**
- Laws of nature
- Natural correlations
- Natural phenomena
- Abstract ideas
Requirements for patentability:

**Useful**
- Enabling description of how to make and use the invention

**Novel**
- No public disclosure of the invention by someone else
- No public disclosure by the inventor 12 months or more prior to filing date

**Non-obvious**
- Not already known separately in two or more public disclosures and would not be obvious to a person of “ordinary skill in the art” to combine them
Basics of Intellectual Property (IP)

Example: Develop new drug for treating cancer

Potential IP that could be protected:

• Chemical formula (composition of matter)
• Process to synthesize the drug
• Method of using the drug
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Balancing IP Protection & Public Access

University IP Policy *(Faculty Handbook, Appendix D)*:

“The people of the State of Oklahoma may reasonably expect that their investments in the University will create new industry and enhance existing industry within the State and Nation. Such new industry creates greater employment opportunities for citizens of the State and the Nation and an improvement in their standard of living.”
Balancing IP Protection & Public Access

University IP Policy (*Faculty Handbook, Appendix D)*:

**Objectives:**

- Encourage research, publication, and scholarship independent of potential financial gain
- Promote effective use and commercialization of patented materials
- Provide adequate incentive and recognition to inventors through proceeds derived from their creative works, trademarks, discoveries, and inventions
Balancing IP Protection & Public Access

University IP Policy (Faculty Handbook, Appendix D):

- **Ownership**: all discoveries and inventions made by OU faculty/staff/student either in the course and/or scope of employment for OU, or substantially through the use of facilities or funds provided by the University shall be owned by the Board of Regents of the University of Oklahoma

- **Inventorship**: can be faculty/staff/student
University IP Policy (Faculty Handbook, Appendix D):

• Distribution of revenues received by the University directly attributable to the licensing, sale, or commercialization of a discovery or invention:
  • 35% - inventors
  • 65% - recoup IP expenses, support originating college and department, encourage further innovation
Balancing IP Protection & Public Access

Office of Technology Development (OTD)

- Obtain and maintain IP protection
- Preserve inventor’s academic freedom in teaching, publishing, and researching

OTD can help you publish and patent - these are not exclusive processes!
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Process of Gaining IP Protection

When to contact OTD:

• Novel research that could lead to a commercial product
• New research related to prior IP
• Novel research related to Sponsored Funding and Collaborations
• Planned public disclosure (manuscript, conference, poster, etc.)
• If you are unsure, come talk to us!
Process of Gaining IP Protection

1 Month
- OTD processes disclosure internally

1-3 Months
- Technology, market, and IP assessment

12 Months
- Scholarly publications, industry feedback, data generation, marketing, and commercialization

Beyond
- Prosecution, issuance
Process of Gaining IP Protection

Common pitfall:

- Public disclosure less than 12 months prior to filing patent application
  - Limited patent protection outside of the US
  - Potential claims issued in the US due to unique one-year “grace period”

- Public disclosure more than 12 months prior to filing patent application
  - Unlikely to obtain patent protection
Process of Gaining IP Protection

Examples of public disclosures:

- Publications (hard copy or online)
- Grant proposals (if confidential matter is not explicitly marked)
- Preprints/draft manuscripts if distributed
- Abstracts (hard copy or online)
- Thesis/dissertation (if not embargoed & closed)
- Meeting abstracts or proceedings
- Posters (even if just in departmental hallways)
- Book chapters, websites, press releases
- Conference presentations
- Department seminars (if open and publicized)
- Non-confidential discussions/emails
- Sale, offer for sale or demonstration in public
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Collaborate with OTD to create “Marketing Abstract”

- Non-confidential material
- Problem/solution approach
- Commercially relevant data, differentiating factors

OTD advertises your technology

- Online platforms - Flintbox, IN-PART
- BIO International Convention
- Direct updates to pre-existing industry contacts
IN-PART Impact Report:

- 3,800 technologies on the IN-PART platform for industry subscribers to browse
- OU techs are viewed over double the platform average
- One of our Marketing Abstracts was in the **TOP TEN** most viewed technologies for Q3, 2018

so far, accompanied by a couple of pieces of feedback. The average number of views for technologies from The University of Oklahoma is over double the platform average, which is a positive sign for generating further engagement throughout the remaining six months of the subscription. Amongst the high volume of views, we note that the Lipid Nanoparticles for Epidermal Self-Repair technology (2018-009) was a feature in our **10 most viewed technologies for Q3, 2018**.
Process of IP Marketing & Commercialization

Benefits of marketing:

• Receive industry feedback regarding:
  • Strategic fit, level of risk, competitive edge, additional data requirements
  • Identification of industry partner for sponsored research
  • Identification of potential licensee

*Licensing is the primary vehicle for commercializing University-based technology*
Process of IP Marketing & Commercialization

Licensing of University IP:

- Grant rights to licensee to make, use, sell, or import the technology
- Compensation - Consideration for the grant of rights
- Diligence - Mechanisms for ensuring development of the technology
- University always retains right to publish and continue the research
Process of IP Marketing & Commercialization

OTD partners with ORA to ensure IP is adequately protected in:

- Confidentiality agreements
- Material Transfer Agreements
- Sponsored Research Agreements
- Inter-Institutional Agreements
Process of IP Marketing & Commercialization

OTD Impact:

Cumulative (prior 20 years)

- Evaluated 1,500+ pieces of innovation
- Filed 2,200+ patents
- Licensed 170 technologies
- Launched 35 companies

Fiscal year 2017:

- Evaluated 64 pieces of innovation
- Filed 56 patents (28 patents issued!)
- Licensed/optioned 14 technologies
Summary

• Submit invention disclosure to OTD: [http://www.ou.edu/otd/](http://www.ou.edu/otd/)

• Collaborative process between researchers and OTD to:
  • Protect IP (patents, copyrights, trademarks, know-how)
  • Fulfill the mission of the University
  • Benefit the Inventors, University, State, and Nation
# Office of Technology Development

http://www.ou.edu/otd/

<table>
<thead>
<tr>
<th>Main Office:</th>
<th>OUHSC Office:</th>
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<tbody>
<tr>
<td>301 David L. Boren Blvd.</td>
<td>865 Research Parkway, Suite</td>
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<td>Suite 3120</td>
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