Cooperative Research, Intellectual Property & Technology Transfer

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Cooperative Research

• “Cooperative research” is a term used to describe a research project carried out between two or more entities.

• “Cooperative research” can take place within a single campus and even in a single laboratory.
Cooperative Research

• Ideally, research relationships should be documented, especially when a relationship exists with a research group outside the University.

• Absent a written agreement signed by all parties, there are no rules and no diligence will be performed in advance.

• There are different types of agreements for different types of relationships.
Information Exchange

• A “Confidential Disclosure and Limited Use Agreement”, “Non-disclosure Agreement” or similar agreement is used to describe a relationship where only information is disclosed.
Material Sharing

• A “Material Transfer Agreement” is used to describe a relationship where one party wishes to share research materials with another entity.

• We promote the use of a standard agreement accepted by many non-profit entities called a UBMTA whenever possible to govern such transfers.
Research Collaboration

• A “Collaborative Research Agreement” is typically used to describe a research collaboration involving two entities with no exchange of money.

• A “Consortium Agreement” is typically used to describe a research collaboration involving many entities with no exchange of money.
Sponsored Research

• A “Sponsored Research Agreement is typically used to describe a research relationship where the university laboratory receives monetary support for a research project.

• University charges an overhead rate of 30% on all such contracts.
What is intellectual property?

• Intellectual property is the general term for intangible property rights which are a result of intellectual effort. Patents, copyrights, trademarks and trade secrets are the main categories of intellectual property rights.

• At UT Southwestern, intellectual property most frequently refers to patentable inventions and copyrightable works created by faculty and staff in the course of their research or scholarly activities.
IP Agreements

• Confidential Disclosure & Limited Use Agreements
• Material Transfer Agreements
• Consortium Agreements
• Collaborative Research Agreements
• Sponsored Research Agreements
• Option Agreements
• License Agreements
What is technology transfer?

• Technology transfer is the process enabling the transfer of a technology from one party to another.

• For universities, it is primarily regarded as the process of transferring technologies developed as a result of our academic research to companies for commercial development.
University Technology Transfer

• The modern era of university technology transfer was initiated by the Bayh-Dole Act (1980) enabling universities to exercise title to inventions developed under U.S. Government funding.

• This enabled universities to safely make investments in technologies to capture the value of innovations developed on campus.
Who owns IP developed on campus?

• In virtually all cases, a university will own all IP rights developed by their faculty, staff and students as described in their policies.

• At all UT institutions, IP is owned by the Board of Regents of the University of Texas System.
How is the process initiated?

• A researcher recognizes that a unique observation or development has taken place that may have potential value in the marketplace.

• The researcher discloses the invention to the Office for Technology Development and Cooperative Research as required by the Board’s Rules & Regulations.
Disclosure

• Disclosure is achieved through the filing of an Intellectual Property Questionnaire (IPQ) or a Software Intellectual Property Questionnaire.
• Our IPQ is designed to collect the basic information required to initiate our evaluation of the invention.
• It is very important to fill out an IPQ as completely and accurately as possible.
• Information in the IPQ will be used to fulfill our disclosure obligations to third parties (i.e. government sponsor, research collaborator, etc.)
IPQ Basics

- Title
- Contributors
- Invention summary
- Unusual features?
- Differences from existing technologies?
- Advantages?
- What needs are met?
- Third party materials used?

- Existing agreements?
- Uses and indications?
- Interested companies?
- Contributor information
- Publications & disclosures
- Financial resources used
- Append all additional information that might be helpful
What is the invention?
Initial Review

- What sources of funding were used and how will they affect our ability to patent and license the invention?
- What third party materials were used or incorporated in the invention? Is documentation available? How will it likely affect our ability to patent and license the invention?
- Are all the contributors employed by UT Southwestern? If not, what obligations do the contributors have? Is there a written agreement?
- Is there an approaching one year time bar to file in the US or an upcoming publication date? How fast do we have to move?
What is a good invention?

It’s a CAN’T MISS technology - -

C = Commercial potential
A = Advancement over the current art
N = Novel
T = Transferable
M = Meets needs
I = Income generation potential
S = Sole source
S = “Sexy”
The Invention in the Marketplace

- What enabling technologies are required to practice the invention? Are they available?
- What further developments might be necessary to translate the technology into a product?
- What other third party rights might need to be acquired in order to commercialize a product?
- Will a protection strategy (i.e. patent) add value?
- What is the market? US? Foreign?
- Are competitive products available or in the pipeline?
- What is the likelihood that improvements to the technology will be developed here?
Why do we protect technologies?

• Each protection strategy provides the owner with the ability to exclude others from accessing the technology for a specified time period.

• The ability to minimize competition protects a patent owner’s (or licensee’s) investment in the technology.
Protection

- The institution may elect to protect an invention in order to preserve value and can choose between a number of different protection strategies:
  - Patent (20 years from the application filing date)
  - Copyright (life of the creator + 50 years)
  - Trademark (20 years, but extendable)
  - Trade Secret (forever?)
Requirements of a Patent

- The invention must be useful, novel and non-obvious.
- In the US, the initial patent application must be filed within 1 year of an enabling public disclosure.
- Overseas, the patent application must be filed prior to ANY enabling public disclosure.
Patent Rights

• The “typical” form of formal protection pursued by UT Southwestern for its inventions.
• Patentability assessments conducted by internal staff as well as outside counsel.
• Assessments are shared with inventors and are sometimes “fine tuned” after initial discussions.
• “Obviousness” rejections are typically the largest impediment in prosecution, so the results of a patentability search must be interpreted in light of what is achievable during patent prosecution.
• “Availability” of patent protection alone is never enough justification to pursue a patent.
Scope of Coverage

- The scope (or coverage) of claims in an issued patent must provide adequate protection to the patent owner and potential licensees.
- Commercial entities will invariably seek the path of least resistance to the marketplace (in both time and money) and will only seek a license to a patent when it is in their best interest to do so as determined by a cost/benefit assessment.
- An invention that describes the “best” way of achieving a commercial goal doesn’t mean it will always be preferred.
Typical Patent Timeline

- Inventive act
- Disclosure
- US patent application filed
- Foreign filing decision
- Foreign national/regional stage

1 year

30 months

US patent issues?

Foreign patents issue?
What are the costs?

- The filing and prosecution of a “typical” US biotech patent application may cost as much as $30,000, but there is a wide variation in costs.
- Foreign prosecution and maintenance costs can be extremely high.
- The university pays all expenses.
Enforcement

• A patent is only as good as your ability to monitor its use and your willingness to enforce it.

• Companies will infringe issued patents - - it’s just another factor in the cost/benefit equation for them.

• Costs can be enormous (>\$1 million) and are borne by UT Southwestern or our licensee.

• Overseas, monitoring use is more difficult and enforcement is much more risky and expensive.
Copyright

• The exclusive right, granted by law, of the creator of a work (or his/her assignees or employers) to make or dispose of copies and otherwise to control the use of a literary, dramatic, musical, artistic, or other work.

• UT does not own all categories of copyrightable works created on campus.

• Cost is minimal.
Trademark

• Any word, name, symbol, device, slogan, package design or combination of these that serves to identify and distinguishes a specific product from others in the market place or in trade. Even a sound, color combination, smell or hologram can be a trademark under some circumstances.

• Cost can vary.
License Strategy

- Possible strategies are discussed in our group immediately upon receipt and review of the IPQ.
- Is the invention already obligated to a company?
- Traditional license or start-up?
- What fields of use are available?
- Exclusive or non-exclusive?
- How are similar technologies licensed and how have they performed?
- What strategies do potential industry partners use to access such technologies?
License Strategy

• What are the costs associated with advancing the technology into the marketplace?
• Which potential partners have sufficient financial, technical and intellectual property resources to commercialize the invention?
• Which potential partners might be amenable to expanding the relationship beyond a license?
• Which potential partners have licensed technologies from universities previously?
Who negotiates the deal?

• The Office for Technology Development negotiates license agreements, not inventors.

• Inventors are kept informed of progress in negotiations to the extent they wish to be informed.
When can licensing take place?

Inventive act
Disclosure
US patent application filed
Foreign filing decision
Foreign national/regional stage

1 year
31 months

US patent issues?
Foreign patents issue?

LICENSING?
How are license revenues distributed?

- All license revenues are distributed in accordance with the Board’s *Rules & Regulations*.
- After reimbursement of all patent and licensing expenses, 50% is distributed to the inventor(s) and 50% is retained by the institution.
- UT Southwestern policy distributes ½ of its institutional share to unrestricted laboratory accounts for use by the inventor(s).
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