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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