Technology Transfer Lunch & Learn: Patent Strategy

Research Business Development
Office of General Counsel
Presentation Outline

• An overview of the technology transfer process
• Inventions and invention disclosures
• The evaluation of invention disclosures
• The legal protection of inventions
• The inventor’s role in the evaluation process, and who to contact with questions
• A Case Study
Learning Objectives

• Identify the steps and criteria for determining whether an invention can/should be patented (or otherwise legally protected) at Scott & White

• Recognize the business perspectives for determining which inventions to pursue

• Understand who to contact with questions or ideas
The movement of an invention from the inventor to a secondary party for the purpose of further research, development, or commercialization

With each invention, the technology transfer process will vary in time, order, and certain steps may occur concurrently

Technology transfer may involve medical devices, therapeutics, software applications, diagnostics, or other technology
Invention Disclosure

- Manage the Deal
- Evaluation
- Structure a Deal
- IP Protection
- Product Development
- Marketing
What is “Intellectual Property?”

- Intellectual Property ("IP") - all creations of the mind that can be protected by legal process, statute or common law (e.g., patentable and unpatentable inventions, trademarks, trade secrets, copyrights, tangible research property, prototypes, products, and know-how).
What is an Invention Disclosure?

• A disclosure of new Intellectual Property (“IP”) in accordance with the S&W IP Policy

• Examples:
  – Patentable inventions
  – Copyrightable works
  – Trademarks
  – Trade secrets
Am I required to complete an Invention Disclosure?

• Requirement as to disclosure of ideas that fall within the scope of “S&W-Associated IP”
• Not all inventions are “S&W-Associated IP”
What is “S&W-Associated IP?”

Any invention made anytime (i.e., 24/7) by any S&W personnel is the property of S&W if it relates to such individual’s responsibility to S&W, S&W’s businesses, and/or S&W’s anticipated research or development, regardless of whether S&W resources are used.
What is the SWIPC?

• Scott & White Healthcare Intellectual Property Committee (“SWIPC”). Charged with evaluating, protecting, managing, and transferring for commercialization S&W’s IP, and is authorized on behalf of S&W to implement and enforce the Policy.
The IP Committee meets every other month

Committee Roster:

- Chairman of the Board of Directors: Andre Avots-Avotins, MD, PhD (Robert Probe, MD)
- Academic Operations Representative: Donald Wesson, MD
- Division of Research Representative: Richard Beswick, PhD, MBA
- Office of General Counsel Representative: Monica De La Paz, MD, JD
- Business Development Office Representative: Charlette Stallworth, MBA
- Board of Directors Representative: Alex Arroliga, MD

Responsible for reviewing evaluation findings and recommending whether to pursue legal protection
Obligations of Inventors under the S&W IP Policy

• Disclose inventions
• Cooperate with S&W in its pursuit of legal protection and commercialization of S&W-Associated IP
• Assign rights to S&W-Associated IP to Scott & White Healthcare
Benefits of Completing an Invention Disclosure

• You can make money (over and above your salary)
• Helps protect your invention
• For researchers, helps advance your research initiatives
• Your institution invests in the technology to help bring your invention from the lab to the public
• Possible return of royalties to inventor’s department/division
• Academic credit
• Publicity
Parts of an Invention Disclosure Form

• Title of invention
• Contributor(s) and their employers/affiliations
• Description of invention/abstract
• Purpose/advantages of invention
• Stage of development
• Funding/materials/information used
Parts of an Invention Disclosure Form (Cont’d.)

• Outside relationships or agreements
• Prior public release of information
• Commercial interest
• Date of conception
• Percent contribution - For inventions with more than one contributor
Where to Find an Invention Disclosure Form

• Request an Invention Disclosure Form by contacting any of the speakers here; emailing inventions@sw.org, calling 24-5493, or visiting the SW IP Committee Intranet Site at http://swinventions.sw.org or by visiting the Ventures website at http://researchers.sw.org/business-development/research-ventures

• Remember to avoid public disclosure of your invention until after an evaluation of your invention is performed.
Common Problems and Remedies

- **Barred by prior publication** – Due to a prior public disclosure of the invention (remedy – avoid public disclosure until after evaluation)
- **Not enough detail** - Failure to adequately describe an invention (remedy – provide detail or await further developments)
- **Too late** - Failure to timely provide invention details (remedy – disclose earlier rather than later; ask if you are unclear)
Evaluation

- Invention Disclosure
- Manage the Deal
- Structure a Deal
- IP Protection
- Product Development
- Marketing
What Happens After Receipt of an Invention Disclosure Form

- Review and assessment of Form
- Meet with contributor(s) – Ventures/OGC
- Decision by SWIPC
- Patent application preparation and filing – participation of contributor(s)
- Marketing assessment
The Inventor’s Role
In The Evaluation Process Following Submission of an Invention Disclosure Form

• **Meet** with Research Ventures and the Office of General Counsel to discuss the invention

• **Provide** input on prior art search results, clinical application, competitive products, and potential licensees

• **Maintain** timely and regular communication with Research Ventures and the Office of General Counsel

• **Refrain** from publicly disclosing invention information until Research Ventures and the Office of General Counsel have had an opportunity to evaluate, and when appropriate, legally protect the invention
Evaluation for Legal Protection

• Is the invention patentable?
What is a Patent?

A patent is a bundle of rights granted by the Government of the United States of America to an inventor “to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States” for a limited term in exchange for public disclosure of the invention when the patent is granted (35 US Code 154(a)(1)).
• The key words are “right to exclude.” The patent does not grant the right to make, use, offer for sale or sell the invention but only grants the right to exclude others from making, using, offering for sale or selling or importing the invention.

• Term - 20 years from the date on which the application for the patent was filed in the U.S. or (if the patent application references one or more earlier filed patent application) from the filing date of the earliest referenced patent application.
What kind of things can be patented?

- composition of matter
- process or method
- machine or device
- article of manufacture
- improvement of any of the above
What kind of things CANNOT be patented?

- laws of nature
- physical phenomena
- abstract ideas
Types of Patents

- **Utility patents** – directed to a new and useful process, machine, article of manufacture, or composition of matter, or any new and useful improvement thereof.

- **Design patents** – directed to a new, original, and ornamental design for an article of manufacture.

- **Plant patents** – directed to distinct and new varieties of plants.
Types of Patent Applications

• Provisional application for patent
• Nonprovisional (utility) patent application
• Patent Cooperation Treaty (PCT) application
• Foreign patent application
Some Examples of Unusual Patents and Applications

- Animal Ear Protectors (U.S. 4,233,942)
- Fireplace Waterfall (U.S. 6,901,925)
- Hiccup Treatment (U.S. 7,062,320)
- Kissing Shield (U.S. 5,727,565)
- Burial Structure for Human Remains and Significant Memorabilia (U.S. 6,799,399)
- Interactive Life-Sized Bowl of Soup (U.S. 6,168,531)

- Citizenship fraud targeting system (20090234827)
- Patterned tampon (20120184936)
- Cushioned bed pan (20110191952)
- Collapsible floral plaque for casket and/or headstone (20130305502)
- Night light and speaking obituary (20100008076)
What are some of the basic requirements for obtaining a utility patent in the U.S.?

• **novel** - the idea must be new

• **nonobvious** - the idea must not be obvious to a person of ordinary skill in the field based on the available literature/prior art

• **adequate description and enablement** – the idea must be sufficiently described in the text of the patent application to permit one of ordinary skill in the field of the invention to make and/or use the invention

• **definite** – the terms used in the patent application to describe the invention must not be vague or indefinite
Not all good ideas are patentable
Evaluation Process Summary

• Is legal protection possible?

• What is the likelihood of obtaining legal protection?

• What is the commercialization potential and should commercialization be pursued?
IP Protection

Invention Disclosure

Manage the Deal

Evaluation

Structure a Deal

Product Development

Marketing

IP Protection
Patent Strategy

• Criteria considered during the patentability assessment:
  – Whether the invention meets the basic patent requirements
  – Filing timeline
  – Type of application to file (Provisional vs. Non-provisional)
  – Location for filing (U.S. vs. International)
  – Risk vs. Reward
  – Marketability & Commercial Feasibility (to be discussed at future event)
Utility Patents/Applications

• **Utility patents** – directed to a new and useful process, machine, article of manufacture, or composition of matter, or any new and useful improvement thereof.

• **Main type of patent filed at S&W**
• adequate description and enablement – the idea must be sufficiently described in the text of the patent application to permit one of ordinary skill in the field of the invention to make and/or use the invention

• definite – the terms used in the patent application to describe the invention must not be vague or indefinite

• claims – numbered at end of application; the actual invention described in sentences.
Examples of Claims

1. A method of treating cancer comprising administering to a subject with cancer a pharmaceutically effective amount of drug X.

2. The method of claim 1, wherein the drug is administered orally.

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1. A prosthetic knee comprising the following features:
   (i) feature A
   (ii) feature B, and
   (iii) feature C.

2. The prosthetic knee of claim 1, further including feature D.
What is an inventor?

• Not all “contributors” may be inventors.
• Inventorship is a Legal Question
• Who participated in conceiving the idea behind the invention is the lynch pin.
• Depends on what is being claimed.
Why does inventorship matter?

- Under the law, if you did not invent, you cannot get a patent
- Issued patent can be held invalid
- Important to get it right
- Inventorship can change during patent prosecution (such as if some claims are canceled from a case)
Duties of Inventors

• Duty of Candor and Good Faith in all dealings with the Patent Office (consequence for breach of this duty – unenforceability of ALL claims of a patent)

• Duty to disclose material information

• Update OGC and Ventures about new improvements and developments

• Participation in preparation of PCT or U.S. nonprovisional patent application
Resources

• **www.uspto.gov** – website of the U.S. Patent and Trademark Office. A good source of general information on patents and the patent process

• **http://swinventions.sw.org** – general information regarding SWIPC and information for employees regarding IP and the IP Policy
Thanks for being innovative!
A Case Study

• Minimally Invasive Percutaneous Urethral Suspension Device
  – Invention Disclosed: 12/21/2011
    • Disclosure referenced planned discussions for 2/29/2012
  – Disclosure Receipt Generated: 1/10/2012
  – SWIPC Presentation: 1/25/2012
  – Outside Counsel Prior Art Search Completed: 2/13/2012
  – Provisional Patent Application Filed: 2/28/2012
  – Prototype Completed: 2/15/13
  – PCT and Australia Patent Applications Filed: 2/25/2013
  – PCT Patent Application Published: 9/6/2013
  – Seeking Potential Licensee: In progress
    • NDAs Executed: 4/4/13, 7/9/13
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