Introduction to Intellectual Property

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The Ten Step Journey To A Patent

M.I.T. Technology Licensing Office
Step 1: Identify A Problem
Step 2:

Discover A Solution

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Step 3

Document Discovery In Lab Notebook

- Use a bound notebook not a spiral or loose leaf one
- Date, sign and have witnessed every entry
- Tape in photos etc. and initial tape

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Step 4

File Invention Disclosure Form
With The Technology Licensing Office

(http://web.mit.edu/tlo/www/)
Step 5

Weekly Case Review

- Summary presentation to entire TLO
- Assessment of commercial potential
- Publication timeline
- Search for prior art
- Proceed with patent application
Step 6

Preparation of Patent Application

- Meet with patent attorney
- Draft application
- Review and edit application

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Step 7

File Application With Patent Office

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Step 8
Review Of Application By Patent Examiner
Step 9

Rebut The Position Of The Examiner

This process goes back and forth several times
Step 10

Patent Is Granted
Intellectual Property

• **Blanket term** covering areas of the law dealing with protection of property which "springs from the mind".

• **Types of intellectual property**
  – Patents
  – Copyrights
  – Trademarks
  – Trade Secrets
Importance of Intellectual Property

• **Product development** makes it essential that the fruits of these efforts go as far and as long as possible.

• **Protection** for new products is essential
  – Without protection, new products may be reverse engineered or knocked off freely (=doing R&D for competition).

• **Patents are valuable.**
  – Licensing
  – Fundraising

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Patents

- **Patents** are a property right granted by the government which gives the patent holder the right to exclude others from making, selling or using the invention claimed in the patent.

- **Types of patents**
  - Utility patents
    - cover anything having an actual use, e.g., machines, processes, compositions of matter
  - Design patents
    - cover ornamental product designs
  - Plant patents
    - for distinct and new varieties of plants that have been invented or discovered and asexually reproduced.
Requirements For Patentability

• **Utility**
  – Invention must have some useful purpose

• **Novelty**
  – the invention cannot, before the date of invention, be patented or known or used by others in the US, or described in a publication anywhere

• **Non-obviousness/Inventive Step**
  – Invention must not have been obvious to one of ordinary skill in the art to which the invention pertains

• **Best mode/ Enablement/Written Description**
  – Must disclose best mode for carrying out the invention
Conception, Reduction to Practice and Invention

• **Conception** is complete only when
  – the idea is so clearly defined in the inventor's mind that only ordinary skill would be necessary to reduce the invention to practice, without extensive research or experimentation.

• **Reduction to Practice** occurs when
  – it has been built or practiced sufficiently to show that it would work as claimed.

• **Invention** exists when
  – conception is complete, and
  – the invention is reduced to practice.
  – both can happen at the same time and
  – an enabling patent application has been filed.
Inventorship

• **Legal Term**
  
  Persons contributing to the conception of the “claimed” invention may be named as inventors.

• **Conducting experimentation** dictated by another's specific idea, does not an inventor make, even if the tasks undertaken require skill and creative thought.

• **However**, if a collaborator aids in developing the specific idea itself or through his experimentation significantly refines the original idea as to make it different from the idea as originally conceived, she has added to the conception and should be named as an inventor.
Documenting the Invention

• **U.S. has now joined the rest of the world and now is “first to file”**
  - Can be interpreted to be “first to disclose”

• **The laboratory notebook**
  - Documents the inventive process
  - Serves as the source of experimental data for patent claims, patent examples, proof of concept, etc.
  - Can provide evidence of the date of disclosure.
Documenting the Invention
(cont.)

• **Standard** good laboratory notebook-keeping practices should always be followed.

• **Recording conception**
  – Clearly record the facts surrounding the invention

• **Witnessing**
  – Each page of the notebook should be signed and dated on the date the information was recorded
  – Each page should be signed and dated by a witness on the date the information was recorded
When to Patent

• **File a patent application** before an enabling, non-confidential disclosure is made or before a product is offered for sale.
  - printed publications, published patent applications
  - disclosures to other companies, abstracts
  - on-line releases of information

• **Disclosure to another party** without a confidentiality agreement may constitute an enabling disclosure and bar patent protection.
Documenting the Invention (cont.)

• **Recording disclosures to others.** Outside disclosures or collaborations (and details such as meeting locations, names, etc.) should be recorded in the notebook.

• **Speculation.** Speculation as to other embodiments of the invention, possible other uses, etc. should be recorded as this will assist in sizing up and fleshing out the invention. *(In fact, speculation may lead to other inventions!)*
Disclosure

• **Talks at conferences are problematic**
  – an oral presentation can be a bar in some countries
  – the dates of abstracts (which are often published or available on-line before the meeting) and poster session may be deemed a written disclosure

• **Grant proposals are problematic**
  – once funded, government organizations publish the abstracts.

• **U.S. rules are different**
  – there is a one year grace period.
MIT Policy

• **MIT owns the patent or copyright**
  - Federally funded research – Bayh-Dole Act
  - Significant use of M.I.T. facilities

• **Industrial sponsor license rights**
  - Non-exclusive, royalty-free, pays patent costs
  - Royalty-bearing, limited term exclusive, pays patent costs

• **Royalty Distribution** *(after expenses)*
  - 1/3 inventors
  - 2/3 inventor’s Department and MIT General Fund

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IT PAYS TO INVENT!!