Presentation Summary

1. **Intellectual Property**: Can we protect it?
2. **Market Analysis**: Should we protect it?
3. Agreements
4. **Evaluation of the Technology**: Will it work?
5. **What investors look for**: 12 Show Me points
6. **Resources Available**
7. **Examples**: What to do. What NOT to do.
Intellectual Property
# When should I Protect?

<table>
<thead>
<tr>
<th>BEST</th>
<th>Before Public Disclosure of Invention</th>
<th>U.S. and foreign patent rights intact, Time for evaluation</th>
</tr>
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<tbody>
<tr>
<td>POOR</td>
<td>Presentation or Publication</td>
<td>Foreign rights lost, one year grace period for U.S. filing</td>
</tr>
<tr>
<td>WORST</td>
<td>&gt; One year post disclosure</td>
<td>No options for filing patents</td>
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*Pepper... and Salt* by Schindler, reprinted with permission.
What is “Public Disclosure”?

• Publication in a journal, meeting proceedings, thesis, etc.
• Online publication of an article or abstract.
• Presentations, seminars, and poster presentations open to those outside of the University community.

Please tell us about your invention and allow time to evaluate before disclosing publicly!
Requirements for Patentability

• **Novelty**
  – Not previously disclosed in view of earlier publically available material; “prior art”.
  – Includes all public information prior to the patent filing date, including your own publications and presentations.

• **Utility**
  – Must have a practical application and be reduced to practice (not just a concept), and fully described and enabled by data in application.

• **Non-obviousness**
  – Invention is not “suggested” by the prior art.
The Patent Timeline

- Provisional patent filed.
- 1 year later – file a “full” patent application (US or International/PCT).
- ~2 years later – national stage filings (US, EU, JP, AU)
- Examination begins (2-3 yrs)
- Patent Issues
- Maintenance

- Timeline is set by Patent Office, can take 5+ years
- Costs accumulate throughout prosecution.
- Continued investment is continually re-evaluated (go/no-go) based on commercial and IP landscape, technology development stage, etc.
Intellectual Property (IP) is the ownership of an idea or improvement.

IP is like other physical property in that it can be protected from unauthorized use:

1. Trade Secrets
2. Trademarks
3. Copyrights
4. Patents
Market Analysis
Marketing

• The TCO makes industry contacts to market the invention and/or secure funding for further development.

• Marketing Tools: postings on TCO website, direct contacts with companies, participation in partnering events, cooperation with technology marketing groups.

• Inventors are often the best source of industry contacts.
Marketing Best Practices

1. Confirmation of inventor’s availability and commitment is critical
2. Maintain a return on investment (ROI) focus on your resource investment
3. Choose the right promotional tools for the technology and target audience.
4. Exploit your Website and relevant Web and Social Media resources
Initiating a Marketing Plan

Before you develop your action plan, begin with the following set of questions:

1. Who are your most promising markets and target licensees?
2. Why would a prospective licensee be interested in licensing your technology?
3. What is the optimal message that will trigger interest from prospective licensees?
4. How will you efficiently connect with your target licensees?
5. Where should you invest your promotional resources to obtain the greatest ROI?
6. When is the optimal time to promote the target technology?
7. How much should you invest and how frequently should you initiate your marketing campaigns?
Key Variables - that influence and impact the development of an effective marketing plan include:

- Inventor availability
- Technology readiness
- IP protection status
- Targeted industry areas
- Market size
- Number of potential target licensees
- Market dynamics (timing, interest level, events)
Guidelines

- Do your homework (evaluation) before you initiate a marketing activity
- Utilize an iterative process and update the market strategy regularly based on feedback throughout the process
- Maintain effective communications with stakeholders (management, researchers, etc.)
- Focus on identifying high quality vs. a high quantity of prospects
- Leverage checkpoints for decision making
Technology Evaluation
Invention Disclosure

- The invention disclosure is the first step in partnering with TVC for vetting, derisking, and development of the invention through the TVC “Engine”.
- Disclosure forms are available on the TVC website (www.tvc.utah.edu).
- In beta testing: Online submission of invention disclosures through the Inventor Portal.
Invention Disclosure Form

- List inventors.
- Describe novel features and advantages of the invention.
- Explain the commercial relevance of the invention.
- Summarize closest related earlier work (“prior art”).
- Identify prior or expected publications and public disclosures by inventors.
- Provide information on funding sources.
What happens next?

• Invention disclosure assigned to appropriate BTD team and manager.
• Manager will contact inventor within 2 weeks for an initial review of the disclosure.
• Within 2 months, manager will provide inventor with an update on the invention status, and outline next steps to be taken by TVC and inventor.
• Success requires ongoing dialog and partnership of inventors and TVC.
“The Machine”

Technology Life Cycle

Go/No Go/Iterate

2-Stroke

Go/No Go/Iterate

4 cylinder

Go/No Go/Iterate

V8
“2-Stroke”- Define Technology and Product

- What is the technology and its development stage (concept, proof of concept/prototype)?
- Is there a potential product/commercial application?
- Is the invention a meaningful advance over current approaches or products (Features and Benefits)?
- Does available data support commercial utility?
- Does the researcher/inventor intend to continue technology development, and have resources to do so?
“4-cylinder”- Implementing Commercial Strategy

• Seek market/customer input to guide development.
• Identify resources for technology development
  – Sponsored research
  – Funding opportunities
  – Corporate partnerships
• Marketing and Outreach
• License negotiations
• Startup Company Formation
  – Management team
  – SBIR/STTR grants
  – Financing
“V8” – Commercial Partnership

• Licensing
  – Negotiation of suitable license agreement
  – Establishing commercial milestones
  – Partnering for IP management
  – Monitoring compliance

• Formation of a startup company
  – Vetting management team
  – Partnering for fundraising/grant writing
Agreements
Types of License Agreements

• **Option Agreements**: to allow a company to evaluate a new technology.

• **Non-Exclusive Licenses**: the same technology can be used or sold by multiple licensees.

• **Exclusive Licenses**: only one company is permitted to develop a technology within a given “Field of Use”.

• **Tangible Property Licenses**: allow a company use of proprietary materials (i.e., cell lines, biological samples).

• Inventors receive a share of licensing revenues
Confidential Disclosure Agreements

• CDAs (or Non-Disclosure Agreements) bind an outside party to keep information confidential for a specific period of time.
• CDAs prohibit using the information for anything but determining an interest in future collaboration or licensing.
• Public disclosure does not occur under a CDA, and therefore patent rights are not compromised.
Material Transfer Agreements

- Material Transfer Agreements (MTAs) cover the transfer of University materials to another institution/party for research purposes.
- MTAs govern issues such as ownership of the transferred materials, ownership of modifications and derivatives, limits on use, confidentiality of information, and rights to inventions and research results.
- In order to protect University and PI interests, every MTA needs to be properly executed and negotiated through TCO.
Investor’s are looking for...
Show me...

1. somebody who can sell – preferably the CEO
2. a bottoms up sales projection
3. an “unfair” advantage
4. some team skin in the game

Adapted from an online article
Show me…

5. …some **economic sacrifice** – and low overhead
6. …some **passion** – fire in the belly
7. …some **team depth**
8. …some **reality** in the financial projections

Adapted from an online article
Show me…

9….some valuation **reasonableness**
10….some **respect** for the competition
11….a **segmented market target**
12….**EVIDENCE OF CUSTOMER INTEREST**

Adapted from an online article
Resources at University of Utah
Business and Technology Development (BTD) Teams

- Health Sciences
- Engineering
- Science, Business, and Humanities
- Team structure designed to provide maximum service (transparency, responsiveness, and results) to U of U faculty and staff.
- Managers are experienced in science, engineering, law, and business.
BTD Team Functions

• We partner with University inventors to:
  – **Implement** University IP policy
  – **Evaluate** inventions for commercial potential
  – **Secure** appropriate IP protection
  – Develop and implement **commercial strategies** for University inventions.
  – Negotiate, execute and manage **licenses**.
  – Assist in securing support for **technology development**.
  – **Support** University-based start-ups.
Lassonde Entrepreneur Institute

www.lassonde.utah.edu
Service at the Marriott Library:

- **Patent search assistance** by appointment at YOUR convenience.
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- **Annual indexes** and other historical U.S. patent information back to 1790.
- Access to PubWEST, *Cassis*, *Esp@cenet* and other U.S. and international patent search tools.
- Weblinks to Intellectual Property (IP) resources from our Government Documents homepage.
Patrons can reach us:

• Marriott Library, Knowledge Commons (2nd Floor) and 1st Floor Reference Desk
  – (801) 585-6802

• USPTO Help Desk: 1-800-786-9199
  – Recorded info available 24/7.
  – Live assistance available East Coast business hours – 8:30 a.m. to 5:30 p.m.

• Dave Morrison Marriott Library
  – dave.morrison@utah.edu
  – (801)585-6802
‘Patent Searching Resources’

• U.S. Patent & Trademark Office (USPTO)
  – www.uspto.gov
• Important USPTO web pages
  – Portal.uspto.gov/pair/publicpair
• Google Patent
• Google Scholar, PubMed & general internet searching
Examples
Echelon Biosciences

- University of Utah spin-off
- Early – sell reagents made at UU
- Late – Sell in house assays and reagents
- Early funding: Grants (SBIR)
- Later funding: Product Sales
Frontier Scientific

- University of Utah spin-off
- Early – sell reagents made at USU
- Late – Sell in house assays and reagents
- Early funding: Product Sales
- Later funding: Product Sales
Quansys Biosciences

- Early & Late – Sell in house assays and reagents
- Early funding: Research Foundation
- Later funding: Product Sales