Intellectual Property & Protection

by
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Invention Transfer Group
UC Irvine

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“IP”: Asset developed by your intellect which enjoys specific legal protection:
1. Trade Secret
2. Trademark
3. Copyright
4. Patents
Trade Secret
Trade Secret

Protects what?
Trade Secret

[Intel Inside Logo]
Trade Secret
Trade Secret
Trade Secret

How Long?
Trademark

- Identifies source of goods/services
- Protects what? “Marks”, ie name, logo, slogan, jingle, etc
- Prevents others from using the mark
- Protects: TM holder & Consumers
- Register at USPTO
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Genericide: Aspirin, Escalator, Laundromat, Thermos, Trampoline

How Long?
Copyright

Protects what? Literature, Music, Video, Software, Photos, Paintings, etc. from copying.

Prevent others from:

• reproducing the work;
• make derivative works;
• distribute copies (by sale, rental, etc);
• performing the work publicly; and
• displaying the work publicly;
Copyright

How long?

- Lifetime of the author + 70 years
- For “works made for hire” 95 years from publication or 120 years from creation, whichever is shorter.
- Sonny Bono Copyright Extension Act (aka “Mickey Mouse Act”)

Register at US Copyright Office
What is a Patent?

- The right to prevent others from making, using, selling, offering for sale
- Gov’t backed monopoly
  - USPTO
- How long?
  - 20 years from filing
  - Typically 3 years for issuance/approval
  - 17 year monopoly
Allowance Rate

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
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<tbody>
<tr>
<td>Patents filed</td>
<td>481,100</td>
<td>507,300</td>
<td>533,400</td>
<td>566,400</td>
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<tr>
<td>Patents issued</td>
<td>240,000</td>
<td>244,000</td>
<td>282,000</td>
<td>310,000</td>
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<tr>
<td>PERCENT issued</td>
<td>50%</td>
<td>48%</td>
<td>53%</td>
<td>55%</td>
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</table>
What can be Patented?

“Anything made by man”:
1. **Composition of Matter**
   - Chemical composition of a drug
2. **Method**
   - Process of making drug
3. **Product/Use**
   - Treatment of hypertension
   - Treatment of sexual dysfunction
   - Software
4. **Machine**
5. **Improvements Thereof**

*NOT anything made by Nature*
*NOT anything made by Nature??*

- Myriad Genetics discovers BRCA1 and BRCA2 genes in mid 1990s
- Breast cancer:
  - Most frequently diagnosed cancer worldwide
  - Second leading cause of cancer for women in US
- Myriad patented the genes. Can prevent others from using said genes.
- ACLU vs Myriad Genetics/USPTO (7/2013): US Supreme Court decided naturally occurring genes no longer patentable
Ceramic Dental Implants

Patent No. 4,189,325

“Claims section”

What is claimed is:

1. A glass ceramic
2. The glass ceramic as a dental implant
3. Process for preparing the glass-ceramic
UCI Top $$$
UCI Top $$$
Dynamic Cooling Device

Beckman Laser Institute
Abbott Molecular

Detection of Mycoplasma

School of Medicine
USPTO Requirements

A valid, issued patent must be:

1. "Enabled"
   - Make and use

2. "Reduced to Practice"
   - Works for its intended purpose

3. "Novel"
   - New
   - Based on “prior art”

4. "Non-obvious"
   - Q: would a person of ordinary skill in the art say that your invention is obvious in light of the “prior art”
     - Rationale
     - Degree
Prior Art Analysis

  - Issued patents
  - Published applications

- Anything can be prior art:
  - Google search
  - Journals
  - Thesis
  - Product catalog
Freedom to Operate Analysis
Patent Bars

• Rationale: What is in the public domain stays there.
• Bars:
  ➢ Public Use
  ➢ On Sale
  ➢ Printed Publication
• 1 year grace period (U.S.)
America Invents Act

- Signed into law by President Obama
- Effective March 16, 2013
- Who is entitled to patent?
  - Conception by You: January
  - Conception by Competitor: March
  - Competitor files: April
  - You file: December
- Old rule: First to Invent
- Now: First to File
What’s your IP?
IP Commercial Value
Patent No. 1,993,102
How does IP generate $$$

1. Make and sell the IP yourself;
2. License your IP to someone else to make and sell
3. Sue infringers
   a. Yourself
   b. Via “Patent Troll”
Thank You!

by
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Boeing

New Venture Competition
2017
Presented by the Beall Center for Innovation and Entrepreneurship and UCI Applied Innovation
What is a License?

• A written agreement which grants permission to make, use and sell intellectual property
  • Trademark
  • Copyright
  • Patent

• Rights are granted by the owner of the IP to a non-owner
  • Owner = “Licensor”
  • Non-owner = “Licensee”
Top UC IP $$$

- Prostate Cancer – UCLA
- Treatment of Intracranial Aneurysms – UCLA
- Bovine Growth Hormone – UCSD
- Strawberry (Camarossa, Albion) – UCDavis
- Hepatitis-B Vaccine - UCSF

### Recommended Immunization Schedule for Persons Aged 0 Through 6 Years:

**For those who fall behind or start late, see the catch-up schedule**

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Age</th>
<th>Birth</th>
<th>1 month</th>
<th>2 months</th>
<th>4 months (see footnote 1)</th>
<th>6 months</th>
<th>12 months</th>
<th>15 months</th>
<th>18 months</th>
<th>19–23 years</th>
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<tr>
<td>Hepatitis B¹</td>
<td></td>
<td>HepB</td>
<td>HepB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Rotavirus²</td>
<td></td>
<td>RV</td>
<td>RV</td>
<td></td>
<td>RV²</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Diphtheria, Tetanus, Pertussis³</td>
<td></td>
<td>DTaP</td>
<td>DTaP</td>
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<td>DTaP (see footnote 3)</td>
<td>DTaP</td>
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<tr>
<td>Haemophilus influenzae type b⁴</td>
<td></td>
<td>Hib</td>
<td>Hib</td>
<td></td>
<td>Hick₁</td>
<td>Hib</td>
<td></td>
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<tr>
<td>Pneumococcal⁵</td>
<td></td>
<td>PCV</td>
<td>PCV</td>
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<td></td>
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<tr>
<td>Inactivated Poliovirus</td>
<td></td>
<td>IPV</td>
<td>IPV</td>
<td></td>
<td>IPV</td>
<td>IPV</td>
<td></td>
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<tr>
<td>Influenza⁶</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>Influenza (Yearly)</td>
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<tr>
<td>Measles, Mumps, Rubella⁷</td>
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<td></td>
<td>MMR</td>
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<tr>
<td>Varicella⁸</td>
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<td>Varicella</td>
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<tr>
<td>Hepatitis A⁹</td>
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<td></td>
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<td>HepA (2 doses)</td>
</tr>
<tr>
<td>Meningococcal¹⁰</td>
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</tbody>
</table>

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1. Hepatitis B
2. Rotavirus
3. Diphtheria, Tetanus, Pertussis
4. Haemophilus influenzae type b
5. Pneumococcal
6. Inactivated Poliovirus
7. Influenza
8. Measles, Mumps, Rubella
9. Varicella
10. Hepatitis A
11. Meningococcal
Invention Transfer

Campus RESEARCH or ACTIVITY ➔ INVENTION ➔ RECORD OF INVENTION (ROI) ➔ ITG

Assessed for:
- Technical Merit
- Patentability
- Commercial Value

Startup or Existing Company

PATENT FILING ➔ ABANDON

Net

SPONSORSHIP
PATENT COSTS
DILLIGENCE

Public Benefit

UCI Applied Innovation
Invention Transfer Group
2017 New Venture Competition

• Register at http://merage.uci.edu/researchandcenters/beall/BPC.aspx
• Concept papers due January 25
• Finals and Award Ceremony on May 12
• Team of 3 (2 UCI students)
Shark Tank Anyone?

- **Formal Business Plan:**
  - Problem
  - Solution (ie your technology)
  - Status of technology
  - Market size
  - Competitors
  - Executive team
  - Exit strategy IPO, acquisition/merger
  - Amount of funding
  - IP status
  - Milestones/Regulatory hurdles
Medical Devices

Milestones/Regulatory hurdles:
1. Receive funding
2. Create Prototype
3. Test in Animals
4. Apply for FDA IDE Exemption
5. Test in Humans
6. Apply for FDA marketing approval
7. Receive FDA marketing approval
8. Sell in US
9. Sell Internationally
Tech Surge

- Business plan based on UCI IP
- Available UCI IP:
  - 30 pre-selected
  - [http://ota.uci.edu/industry-resources/available-technologies.html](http://ota.uci.edu/industry-resources/available-technologies.html)
- Tech Surge is judged separately from BPC
- $3,500 x 4 awards
- More info: doug.crawford@uci.edu
UCI Antrepreneur Center

TRAINING THE NEXT GENERATION OF ENTREPRENEURS

http://antrepreneur.uci.edu/