Science and the Law:
Medical/Life Science Professionals in Legal Settings

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Presentation Overview

- Technical/Legal Interface
- Overview of Intellectual Property Law
- Overview of Medical/Life Science Industries
- Overview of Foley & Lardner LLP
- Scientist in the Law
- Success Factors
- Practical Step
Technical/Legal Interface

- Corporate transactions of technology/life science companies
  - Mergers/Acquisitions
  - Licensing and Technology Transfer
- Intellectual Property
  - Procurement
  - Enforcement
- FDA/Regulatory
  - Brand Companies
  - Generics
What is Intellectual Property?

- IP can be generally broken down into 4 legal specialties:
  - Patent
  - Trademark
  - Copyright
  - Trade secret
Patents

- Patents
  - Give you the right to stop others from making or using your invention for a limited time
  - Patents do not necessarily give you the right to do make or use yourself

- Types
  - Design
  - Plant
  - Utility
    - U.S. Provisional - create a “priority” for 1 year, not enforceable against third parties
    - Regular, examined utility - published, examined, and enforceable
    - International – published, examined and enforceable
Trademarks

- Trademarks identify the source of goods and services
- Important tool to combat counterfeited products, including bio/pharma products
  - Federal Registration
  - Common Law
- Procurement
- Enforcement
Copyrights

- Protect authorship of original works
- Traditionally used in publishing and recording industries
- More recently been applied to protect software
- Registration only required to enforce against third party
Trade Secrets

- Protects information that the owner has no intention of ever publishing
- Famous example – Coca-Cola formulation
- Valuable only as long as confidentiality is maintained
IP Comparison

Table 1. A comparison of the four types of intellectual property protection

<table>
<thead>
<tr>
<th></th>
<th>Patent</th>
<th>Trademark</th>
<th>Trade Secret</th>
<th>Copyright</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information public</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Sometimes</td>
</tr>
<tr>
<td>Duration</td>
<td>Up to 20 years from the filing date</td>
<td>Indefinite as long as the requirements for protection remain</td>
<td>Indefinite, for so long as kept secret and has independent value</td>
<td>For works created after Jan. 1, 1978: life of author plus 70 years; for corporate works, term is 95 years from publication or 120 years from creation, whichever is shorter</td>
</tr>
<tr>
<td>Subject matter eligible</td>
<td>Composition of matter, method of use, and process of production that is new, useful, and non-obvious</td>
<td>Words, names, numbers, symbols, devices, designs, sounds, and colors</td>
<td>Business and technical material, including ideas</td>
<td>Tangible expression of an idea, not the underlying idea itself; limits on non-artistic aspects</td>
</tr>
<tr>
<td>Owner's rights</td>
<td>Right to exclude others from making, using, selling, or offering for sale the invention</td>
<td>Right to exclude others from selling similar goods or services thereby trading off on the brand of the trademark holder</td>
<td>Right to exclude others from using or disclosing the trade secret</td>
<td>Exclusive rights to reproduce, prepare derivative works, distribute, public performance of, and display the work</td>
</tr>
<tr>
<td>Cost</td>
<td>Relatively expensive to obtain, police, and enforce</td>
<td>Inexpensive to obtain but can be expensive to police and enforce</td>
<td>Relatively inexpensive</td>
<td>Inexpensive to obtain but can be expensive to police and enforce</td>
</tr>
</tbody>
</table>

IP Litigation

- How IP Rights are enforced
  - Mostly in Federal, rather than State court
    - Exceptions—Trade Secret and Licensing Disputes
  - Jury trials
  - Heavy use of expert witnesses to explain technology
  - Special Appeals Court For Patent cases
  - Expensive
  - Time Consuming
- Full service law firm
  - Intellectual Property
  - Litigation
  - Business Law
  - Tax
  - Regulatory
  - Public Affairs

- Over 1,000 attorneys
  - Over 200 IP attorneys

- Offices in 16 US markets
- Offices in Brussels, Shanghai, and Tokyo
From IP management, counseling, patent/trademark prosecution, to enforcement and litigation, Foley is among the few full-service law firms who take a holistic approach in addressing client’s IP needs, and are capable of delivering the services.

- Biotechnology & Pharmaceutical
- Chemical & Pharmaceutical
- Electronics
- Information Technology & Outsourcing
- IP Litigation
- Mechanical & Electromechanical Technologies
- Trademark, Copyright & Advertising

- 90% of IP attorneys have technical degrees
- 40% of IP attorneys and legal personnel have Ph.D.s/M.S.’s
- Many are former PTO Examiners and/or Researchers
Foley’s Technical Breadth

Biotech/Bio-Pharmaceutical/ Regenerative Medicine

Chemical/ Pharmaceutical / Nanotechnology

- Protein chemistry
- Chemical engineering
- Specialty chemicals
- Pharmaceutical chemistry & delivery systems
- Physical & natural products chemistry
- Organic/inorganic chemistry
- Agricultural chemistry & engineering process
- Industrial chemicals
- Photographic material & processing

Electronics/ Mechanical

- Semiconductor tooling
- Semiconductor fabrication
- Semiconductor circuit design
- Computer hardware and software
- Optics
- Memory & logic system analysis
- Microprocessor system evaluation
- Electrolytic apparatus & processes
- Medical Device
- Material sciences

Entertainment/New Media/ Internet/ software/ other content technologies

- Computer programming, including business software
- Financial services applications
- Communications systems design
e-commerce
- Online privacy & security
- Business Methods
- Entertainment & Media

40+ PhD’s
30+ Masters

Stem cell
Molecular biology
Cell biology
Endocrinology
Entomology
Genetic engineering
Agricultural biotechnology
Immunology
Biochemistry
Vaccines

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Foley’s Recognized as an IP Leader

- Top 10 go-to firm for IP counsel for *Fortune* 250 global corporations ([IP Law & Business 2003 - 2007](#))
- Top go-to-firm for IP services by the world’s 100 largest companies ([2003, 2004, 2006, 2007](#))
- Top 5 IP litigation firm ([IP Law & Business 2005 - 2007](#))
- Top 10 patent litigation defense firm ([IP Law & Business 2002 - 2007](#))
- Top 10 firm for the number of patents issued ([Intellectual Property Today 2002 - 2007](#))
- Among Top Trademark Firms ([Intellectual Property Today 2003 - 2007](#))
- Among top firms for # of patents issued ([IP Law360 2005 - 2007](#))
What kind of career opportunities are there for a scientist in the law?

- Technical Specialist
- Patent Agent
- U.S. Patent and Trademark Office Examiner
- Attorney
Is this Career Right for You?

- **Key Personal Traits**
  - See the Big Picture
    - But with an attention to detail
    - Project Management Skills
  - Excellent Writing Skills
  - Working in a Team Setting
  - Social Networking Skills
    - Client Relationships
  - Multitasking
How to Make the Transition

- How can a technically trained person transition to the legal profession?
  - Attend Law School
  - Become a Patent Agent: take the Patent Bar Examination
  - Become a USPTO Examiner
  - Technical Specialist: hands on training
Practical Tips

- Networking
- Firm specific job postings
- Contacting individuals
- Law school selection