Technology transfer, sometimes referred to as tech transfer or knowledge transfer, is how research findings and inventions are commercialized. Typically, intellectual property (IP) is licensed to existing companies or startups that can develop the technology for specific applications. Careers in tech transfer can involve learning about new science and technologies, designing intellectual property strategies, drafting and assessing licensing agreements, negotiating licensing terms, managing the interface between industry and academia, and promoting new collaborations. See this animated video for a more detailed introduction to tech transfer, https://www.youtube.com/watch?v=ygX5zcU5vdg

One career path is to work for a law firm, either a large firm with an IP group or a boutique firm only focused on IP. Many graduate students on this path start in technical specialist roles and become patent agents after passing the patent bar exam. Some firms will also encourage patent agents to attend law school to become patent attorneys, even paying for part of the tuition.

Other paths in tech transfer exist at universities and companies with active research and development (R&D) programs. These institutions have technology transfer offices dedicated to protecting and commercializing research findings. Governments in the U.S. and other countries also hire patent examiners to assess patent applications.

Other routes that you can embark upon after spending a few years in a technology transfer office are management consulting, and business development or technology in-licensing (technology scout) roles in a range of industry settings, from a small startup to a large company.

Explore The Variety of Career Paths With These Example Fields & Roles

Look up these titles or fields on http://www.indeed.com/ or LinkedIn to learn more about what projects they work on and what skills are needed. This information is also useful when writing your application documents and preparing for interviews.

**Law Firms**
- Patent agent
- Technical specialist
- Technical advisor
- Patent lawyer
- Science advisor
- Tech advisor
- Legal intern

**Corporations**
- Technology scout
- Innovation scout
- Strategic alliance management
- Patent liaison
- Intellectual property manager
- Licensing associate
- Patent agent
- Manufacturing patent engineer

**Academia**
- Licensing associate
- Licensing support manager
- Technology transfer associate

**Government**
- Patent examiner
Compare Different Intellectual Property Organizations

* = in the Raleigh-Durham area; # = history of sponsoring visas from myvisajobs.com

Search LinkedIn or Google Finance for these employers, and look for the section on related companies to help you identify others.

<table>
<thead>
<tr>
<th>IP Law &amp; Consulting</th>
<th>Bioscience/Medical Devices</th>
<th>Engineering &amp; Technology</th>
</tr>
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<tbody>
<tr>
<td>• Private law firms (general or specialized focus)<em># &lt;br&gt;• Womble Carlyle Sandridge &amp; Rice LLP</em># &lt;br&gt;• Fuentek* &lt;br&gt;• Foresight Science &amp; Technology &lt;br&gt;• TreMonti Consulting</td>
<td>• Regeneron Pharmaceuticals# &lt;br&gt;• BASF# &lt;br&gt;• Clinical Research Management# &lt;br&gt;• Bayer*# &lt;br&gt;• ZOLL Medical Corp.# &lt;br&gt;• Stryker#</td>
<td>• IBM*# &lt;br&gt;• Faurecia# &lt;br&gt;• Magic Leap, Inc.#</td>
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Read Additional Intellectual Property and Career Resources

Read articles on careers in patent law from Science

Learn about patent law and practice for the patent bar exam, if you choose to take it
http://www.patentbarstudy.com/

Watch videos on PhDs experiences in careers in tech transfer and patent law
https://medschool.vanderbilt.edu/career-development/beyond-lab

Learn about the skills required and employment trends for these positions
http://www.onetonline.org/

Read about the experiences of students who have moved into intellectual property positions

Intellectual property panel discussion and professionals’ career stories on Versatile PhD
https://gradschool.duke.edu/professional-development/access-versatile-phd

Introduction to patent law careers and resources
http://www.phdcareerguide.com/law.html

Watch videos on how PhDs transitioned to patent law
• http://www.nyas.org/Publications/Media/VideoDetail.aspx?cid=d1137a22-6f8f-40df-8633-c442f78aaae7  
• https://www.youtube.com/watch?v=VAsr9fi51qU  
• https://www.youtube.com/watch?v=ZHmg9zo9_RU

Follow these Twitter accounts
@TechTransferTactics, @USTPO, @fuentek, @UCL Ainvents, @sciencemagazine, @Nature

Meet Intellectual Property Professionals to Talk About Opportunities and Their Careers

Association of University Technology Managers, which also has an open-access job board, http://www.autm.net/
Contact Duke alumni and other professionals in intellectual property roles for informational interviews
• Duke Alumni Association, https://alumni.duke.edu/
  • Alumni on LinkedIn (use the Find Alumni tool under My Network)
  • LinkedIn Groups: Patent and Intellectual Property Practitioners, Intellectual Property Networking
Build These Specific Skill Sets and Highlight Them When Applying

We summarized the skills professionals mentioned in LinkedIn profiles and job postings. Particular jobs may not require all of these skill sets, so find out from online resources and professionals you meet which of these skills sets are most relevant.

**Conduct research**
- Search for prior patents
- Assess patentability and commercial potential of an invention
- Generate ideas
- Develop technology marketing strategies
- Identify specific markets for the invention and the value proposition for those markets
- Assess the competitive landscape, regulatory steps and potential barriers to commercialization

**Communicate**
- Understand technical details of patent
- Transition between technical and legal jargon
- Liaise between government agencies, legal firms, and client
- Actively listen to client
- Write for technical and non-technical audiences
- Negotiate
- Present persuasively to business and lay audiences

**Collaborate with clients**
- Represent the interests of others
- Work with intellectual property owners
- Advocate
- Develop rapport with client
- Form new relationships with industry partners
- Work in a team environment

**Manage time and projects**
- Work on multiple projects simultaneously
- Meet deadlines
- Persevere through difficulties
- Work in a fast-paced, high-pressure environment
- Troubleshoot/problem-solve
- Start new projects and learn information quickly
- Flexibility and work well with ambiguity
- Comfort with uncertainty
- Work independently

**Stay current in your field of expertise**
- Learn about new research and technology
- Consider potential applications of particular technologies
- Broad and diverse interests in science or technology

**Attention to detail**
- Prepare documents

**Gain Experience**

You can gain experience in many ways that involve different amounts of time investment.

Contact the Duke Office of Licensing & Ventures to learn about careers and a possible internship; alternatively, you can ask to volunteer with the OLV at Duke or tech transfer offices at other institutions
https://olv.duke.edu/

Take classes on intellectual property and patents from the Duke Law School

Obtain business experience through consulting projects with the Duke Interdisciplinary Social Innovators or working with startups
http://www.disiduke.org/

Gain experience at a law firm through an internship, during or after graduate school

Stay up-to-date on the latest business, research and technology trends in your field by reading business journals, academic papers, and industry websites

Biotech and pharmaceutical industries
http://www.fiercebiotech.com/

Study for and pass the Patent Bar exam

Participate in Duke Science and Society events to connect science to policy and law
https://scienceandsociety.duke.edu/
Gain Experience (cont.)

Externship at the US Patent and Trademark Office
http://careers.uspto.gov/Pages/WhyWork/Students.aspx
Read the book How Economics Shapes Science by Paula Stephan
Read articles in the Journal of Law and the Biosciences
http://jlb.oxfordjournals.org/content/3/2?etoc
Critically read how patents are written by searching Google Patents
https://patents.google.com/
Take online courses through the World Intellectual Property Organization
Consider applying to a tech transfer postdoc position at the NIH
https://www.ott.nih.gov/intramural-research-training-award-irta-fellowships
Enroll in a Master of Science in Law program; for example, this program from Northwestern University
http://www.law.northwestern.edu/academics/degree-programs/msl/

Should You Pursue a Law Degree (JD)?

Your career goals will determine if a JD is a useful credential. A JD is not required for a career in intellectual property. For many professionals, passing the Patent Bar to become a patent agent is sufficient for their career objectives. In a law firm, a JD is required to progress in your career to become a patent attorney. In becoming a patent attorney, you can work directly with clients and you manage the work of patent agents. In corporations, IP professionals can be either patent agents or patent attorneys.

Intellectual Property Job Search Tools

Consider the common skills required by jobs and internships.
Jobs.Law 360, job postings for law positions with filters for IP, Life Sciences, and Technology
http://jobs.law360.com/
Patently Jobs, job postings for patent-related jobs of all levels and fields of expertise
http://patentlyo.com/jobs
USAJobs, search for jobs in the U.S. government
https://www.usajobs.gov/
For application tips, http://gogovernment.org/
CareerConnections, jobs and events hosted by the Duke Career Center
https://studentaffairs.duke.edu/career/online-tools-resources