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FROM THE BENCH TO THE PATENT OFFICE

WHAT INVENTORS NEED TO KNOW



Article 1 §8 of the US Constitution

This Article grants Congress the power to create laws pertaining to patents. The Intellectual Property (IP) Clause, also known as the "Patent and Copyright Clause". Clause 8 of the United States Constitution grants Congress the enumerated power "To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries



Categories of IP Rights

Type of right	Scope of Coverage	Examples
Patent	Utility patent- composition of matter, process, method of use, Design patents, Plant patents	Small molecule, Method of treating Huntington's Disease, Medical device, Honeycrisp apple
Copyright	Expression of ideas	Books, journal articles, software code itself, movies, pictures
Trademark	Symbol or logo (identifies source and quality)	Nike Swoosh, "Just Do It"
Trade Secret	Confidential information	Recipe for Coca-Cola, strategies, lists



Elements of Invention

Conception



Diligence



Reduction to Practice



OR





Who Qualifies as an Inventor?

In the United States, invention is a two-step process:

- 1. Conception of the idea or subject matter of the patent claims, which may be comprised of several claims; and
- 2. Reduction of the idea to practice, or, making a working example of the claimed invention. Determination of proper inventorship focuses almost exclusively on the conception step, requiring the identification of each person who conceived the idea or ideas of the patent claims.



Invention disclosures are the first point of contact between the Technology Transder Office and researchers

- The office encourages disclosure occur before an inventor's own public disclosure (publication, conference abstract submission, conversation with those outside Albert Einstein, etc.)
 - If an invention is publicly disclosed before we can file a provisional patent application, worldwide rights to the invention are lost (because it will be considered prior art)
 - Typically, it will be after they have supporting data, proof-of-concept, a prototype, or other enabling information (required to draft a worthwhile patent application)



Information that should be divulged in The Invention Disclosure Form

- A)Title of Invention
- B)Brief Description of Invention and advance in the art provided
- C)Detailed Description and supporting materials describing how to make and use the invention
- D)Sponsorship (Financial Support by Company, Government etc.)
- E)Collaborators? Determination of Ownership/Assignment of Rights
- F) Date of Conception/Date of Reduction to Practice/Documentation?
- **G)Commercial Interest?**
- H)Inventor information Name, Address, Citizenship, email, phone number
- I) Inventor signatures averring to their inventive contribution to the invention



Elements of a Patent Specification

- 1)Title of the Invention
- 2) Field of the Invention
- 3)Background of the Invention
- 4)Summary of the Invention
- 5)Brief Description of the Drawings
- 6) Detailed Description of the Invention
- 7)Examples
- 8)Claims
- 9)Abstract



Legal Requirements to Obtain a Patent

1. UTILITY

It has to work for some purpose

2. NOVELTY

Must be different from what is already known – Can't remove things from the public domain (1 year grace period now; will be eliminated in March 2013 as per AIA)

3. NON-OBVIOUS

Must not be obvious to one skilled in the art. Others have tried and failed; Invention not taught or suggested by the prior art; unexpected or synergistic results

4. ENABLEMENT

Must provide instructions to make and use the invention; blueprint that puts the public in possession of the invention

5. WRITTEN DESCRIPTION

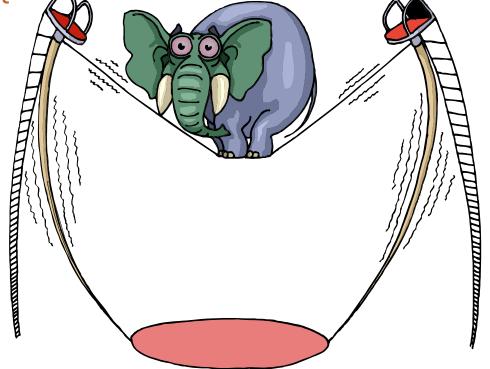
Must describe in explicit terms; gives claim language support



PATENT CLAIMS

• Objective is to draft claims of sufficient scope to broadly as possible cover the invention, but just narrow enough







CLAIMS: DEFINE THE INVENTION

Generally- the fewer the words, the broader the claim

Composition versus Method Claims

Independent claims:

- 1. An isolated nucleic acid encoding a cytokine of SEQ ID NO: 1.
- 2. A method of alleviating a disease in a mammal comprising administering to said mammal a vector comprising an isolated nucleic acid encoding a cytokine.

Dependent claims

- 3. The isolated nucleic acid of claim 1, wherein said cytokine is IL-6.
- 4. The method of claim 2, wherein said vector is a viral vector.

Markush Group Claims

5. The method as claimed in claim 2, wherein said vector is selected from the group of vectors consisting of retroviral vectors, baculovirus vectors, and yeast expression vectors.



Patent prosecution occurring before the USPTO typically takes approximately 3 years for any given patent application to be passed to issuance

- File Application
- File Declaration, Assignment (if any) and Power of Attorney
- Prepare and file IDS
- Receive Requirement for Restriction Respond by electing invention/species or traverse
- Receive an action on the merits providing 3 month period for fee free response (ext up to 6 months)
- Respond to non-final action refuting the Examiner's position
- Receive Notice of Allowance Pay issue fee and file a continuation application?
- or Receive Final Rejection same response period
- Respond to final rejection
- Notice of Allowance- Pay issue fee and filed a continuation application?



Duty of Disclosure, Candor, and Good Faith

- Failure to disclose relevant info to the USPTO can result in an unenforceable/invalid patent
- Who?
 - All parties involved in patent prosecution
 - Includes Inventors, Assignees, Applicants, Licensee, Attorneys, Licensing Managers, ect.
- Relevant information must be included in an IDS form during prosecution
- What information?
 - all information which is relevant in assessing the patentability of the invention
 - Any information that a US examiner is likely to need to take into account during prosecution
 - i.e. any reference that may arguably render any claim unpatentable
- When in doubt, disclose the information



Exemplary categories of information

Patents/patent applications/journal articles relating to the invention or technical field of invention

Websites/posters/presentations by inventor or competitors Statements made to regulatory agencies, documents from searches, press releases, counterpart foreign applications Related products, processes, methods (including competitors')

This duty is ongoing and continues from the filing of the application until the patent issues



Patent Searching

Why perform a patent search?

- a) Get an idea how applications are structured
- b) Learn about state of the art; technology tracking
- c) Market information
- d) Competitor tracking

Novelty search = determine if concept is novel and perhaps patentable

Infringement search = determine if other products will be infringed by a device or concept



Patented subject matter must be Novel and Non-obvious To Search or Not to Search?

- Google
- Google patent
- Google scholar
- Patent Center
- WIPO
- Espace.net
- Global Dossier
- Commercial Search Companies PatSnap



Searching Strategies

- 1. Understand invention
- 2. Identify key search terms: e.g., disease, gene target, therapies, competitors
- 3. Perform search



Searching Strategies (Cont.)

- 4. Start with Google Patent,
 PatentScope(WIPO databas) and/or
 Patent Public Search (USPTO database)
- 5. Identify patents, PCTs containing search terms
- 6. Assess novelty and non-obviousness



Searching formats

- Patent Public Search
 - Field specific searching (e.g., "term".clm., "term".spec., and "term".in.)
 - Boolean searches
 - AND, OR, NOT, XOR
 - Proximity Operators
 - E.g. ADJ, NEAR, or NEAR[n]
 - Use "HELP" tab next to search results to improve results



Thank You!

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Disclaimer

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