



Intellectual Property Overview

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Types of Intellectual Property



Patents: Protects inventions (and designs).

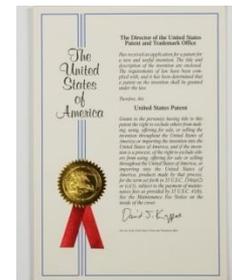
Trademarks: Protects association of products with owner/mfr.

Copyrights: Protects original works of authorship in literary and creative works. (*Government can not copyright its works but can purchase copyrights*)

Trade Secrets: Proprietary business information that gives competitive edge.



Technology Transfer Policy



Responsibility of ALL U.S. Government employees to protect IP

Technology transfer is U.S. Government/DoD/DoN policy and is mandated by Congress (codified under 15 USC 3710):

“It is the continuing responsibility of the Federal Government to ensure the full use of the results of the Nation’s Federal investment in research and development. To this end the Federal Government shall strive where appropriate to transfer federally owned or originated technology to State and local governments and the to private sector”

“Each laboratory director shall ensure that efforts to transfer technology are considered positively in laboratory job descriptions, employee promotion polices, and evaluations of the job performance of scientists and engineers in the laboratory”



Protection of Federally Owned Inventions



Protection of inventions is mostly by patenting

Congress has legislated (35 USC 207):

•Each Federal agency is authorized to:

- apply for and obtain patents in the U.S. and in foreign countries on inventions in which it has a right, title or Interest**
- grant nonexclusive, exclusive or partially exclusive licenses**



What are Patents



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. (Art I, Section 8, U.S. Const).

- ✓ **Primary method for protecting intellectual property of a “process, machine, manufacture or composition” (35 USC §101).**
- ✓ **Patent is a contract between inventor and federal government.**
- ✓ **Consideration: inventor discloses and U.S. government protect inventors right to exclude infringers.**



What does a patent do?



- **Unlike trademarks and copyrights, there is no protection of novelty of invention unless you file a patent.**
- **Only federal government can issue a patent**
- **A patent does NOT give right to practice invention**
 - **Patent gives right to EXCLUDE others from practicing your invention.**
 - **Just because you invented something doesn't mean you can practice it.**



Why does the government patent inventions



- ✓ **Protect Government rights to practice (or have practiced for government) the invention**
- ✓ **Accelerate getting product to warfighter**
- ✓ **Bring in additional R&D funds**
- ✓ **Incentive for innovation**



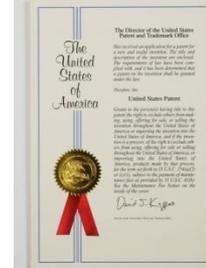
How do we get a patent



- Patent review occurs at the U.S. Patent and Trademark Office (USPTO)
- Process is lengthy (typically at least 3 years from filing to issue). Biotechnology can typically take longer.
- U.S. patent only protect in U.S. If need foreign protection needed, must file in individual countries.



What can be patented



For a patent, you need:

Statutory subject matter

Regardless of subject matter, invention must (minimally) be:

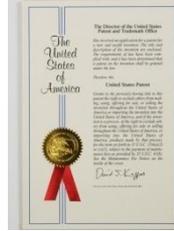
- ✓ Useful (Credible and Substantial utility)
- ✓ Novel
- ✓ Nonobviousness (*what is not obvious to you may be obvious (legally) for a patent*)

AND

- ❖ Disclosure must be enabling (i.e., permit one of ordinary skill to make and use the invention)



Steps in Obtaining a Patent



1. Inventor:

a. Submit Record of Disclosure of Invention

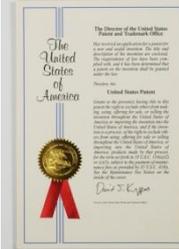
- what is invention (as much detail as possible)
- use of invention
- advantages over prior art
- alternative methods, materials that can be used
- who are the potential inventors
AND who did what (i.e., contributions of each listed inventor)
- where/when were any disclosures made

b. Submit Patent Rights Questionnaire

- helps in determining if government has rights to invention.



Steps in Obtaining a Patent (cont.)



2. Patent Attorney:

- ✓ **Determination of whether Government should pursue patent (IAW Executive order 100096, SECNAVINST 5870.3C, 37 CFR 501 and Bahy Dole Act)**
 - **patentability (often discuss prior to filing disclosure)**
 - **Value of R&D to Government/DoD/DoN in patent**
 - **Commercial potential of invention (i.e., marketability)**
 - **Government rights in invention**
- ✓ **Determine (will use disclosure and interviews):**
 - **inventorship**
 - **time of invention**
- ✓ **Ascertain patenting strategy (i.e., provisional, CIP, PCT, etc)**

3. Patent Attorney: File application



Steps in Obtaining a Patent (cont.)



4. **Patent Attorney: Prosecution (Inventor/Attorney collaboration is often important).**
 - ✓ Most applications are rejected at first.
5. **Notice of Allowance**
6. **Review any potential extensions of term (term is 20 years from filing plus any patent term extensions or adjustments).**
6. **Issue**
7. **Maintenance fees. After allowance, need regular “maintenance” fees to keep patent alive.**



Patent Time-line



Provisional Application filed
(fee \$200.00)

1 year

Non-provisional Application filed
(fee \$1000.00)

Application published
in 18 months from
priority date

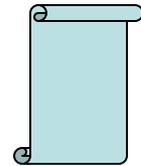
1st Office Action
(response due in 6 mos)

1 year

2nd Office Action
(response due in 6 mos)

1 year

Decision point: Advisory action
Rejecting response (2-3 mos)
a. Appeal
b. New appl
c. Interview Examiner



PATENT GRANTED

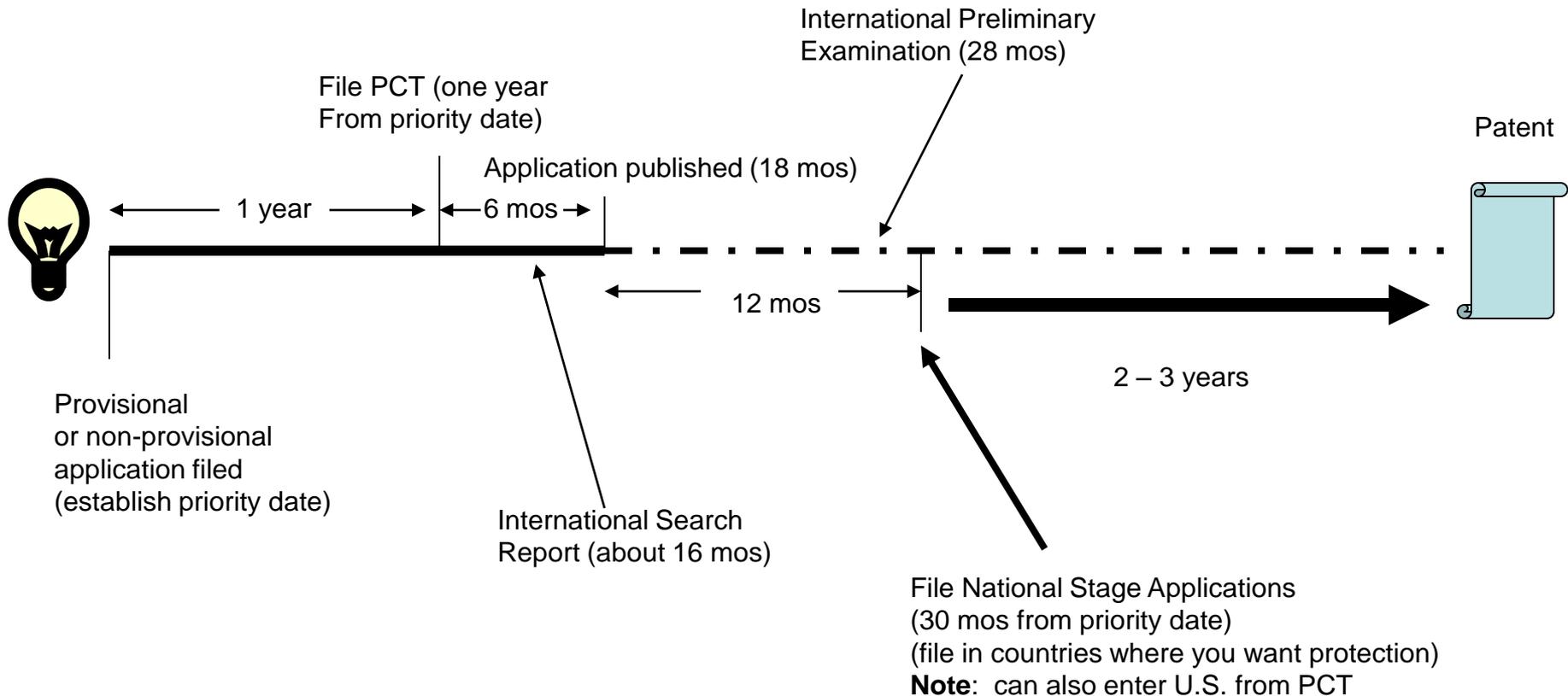
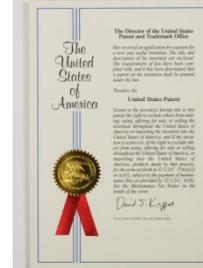
Maintenance Fees:
3, 7 and 11 years
from issue

File PCT and/or non-PCT
Within 12 months of provisional

**USTPO goal: application to patent
In 3 years. (Biotechnology tends to
Take 4 – 5 years)**



Time-Line (International Applications)





Where to Patent



❖ Can file in U.S. and/or overseas

- This is a programmatic and business decision

- ✓ Impairment of use by Government (programmatic):
 - will not filing overseas impair governments ability to make/use invention.
- ✓ Commercial value (business):
 - file where you intend to mfr/sell or use invention
 - file where commercial interest likely to exist
 - note: some countries offer little actual legal protection

NOTE: filing overseas is expensive



Conclusion:

Important issues to remember



- **Documentation of Invention:**
 - maintain good lab books (U.S. uses 1st to invent paradigm)
 - use permanent ink and date/witness entries at least weekly
 - books should have conclusions in order to document conception
 - number pages
- **Inventorship:** Inventors are those that “conceived” or “contributed toward conception”
- **Bars** to patentability (this can prevent a patent)
- Once filed, no **new matter** (gotta get it right the first time!)
- **Costs:** We pay for filing (US/PCT), issue fee and 1st maintenance fee.



Conclusion:

Important issues to remember



- **Disclosure: File detailed disclosure well before planned publication.**
 - ✓ **Much better to spend time writing solid application than rushing and hoping for the best.**
 - ✓ **REMEMBER, applications/patents MUST be enabling.**
 - ✓ **disclosures should have as much detail as possible.**
 - ✓ **tell attorney of any prior art you are aware.**
 - **required to disclose prior art you are aware**
 - **better to plan arguments and write around prior art during application development process**