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Thursday, June 23, 2016

Dreaming Big and Thinking Small: Applying Medicinal Chemistry Strategy to Antibody-Drug-Conjugates
Session 6 of the 2016 Drug Design and Delivery Symposium

L. Nathan Tumey, Associate Research Fellow, Pfizer, Inc.
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Rich Hartel, Professor of Food Engineering, University of Wisconsin-Madison Maya Warren, Food Scientist, Cold Stone Creamery

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Global Patents: An Introduction to International Intellectual Property



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Agenda

- Patent
- Filing Strategies
- Prosecution



it all starts somewhere



Patent

"Bargain" made between government (aka "society") and an individual with an invention

Tell us what you've got in exchange,

We'll give you a time-limited monopoly right



it all starts somewhere

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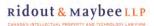


What is a patent?

- An exclusionary right
 - The ability to prevent others from making, using, or selling your invention as claimed
 - NOT a right to use the invention
- Time limited monopoly: 20 years from the filing date



it all starts somewhere



What is a patent?

- > Rights limited to claims in the patent
- > Right limited by country and/or jurisdiction
 - Separate patents are required in US, Japan and Canada for protecting an invention
 - No such thing as "World Wide Patent"
 - Patent in China doesn't protect invention in Australia



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Why patent?

- Deter infringing activities (actively or unknowingly)
- Generate revenue by licensing
- Generate revenue by selling the patent
- Increase the value and profile of the company
- Deter lawsuits



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What can be patented?

- Patents granted for an "invention"
- In simple terms, an invention is

a solution to a problem

Subject matter exemptions: scientific principle/abstract theorem, methods of medical treatment, life forms, games and methods of playing games



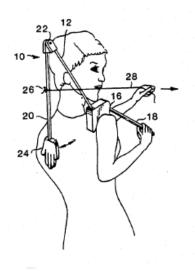
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US Patent 4608967

"Pat on the Back Apparatus"



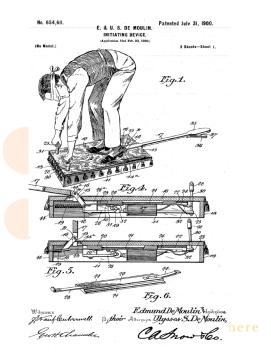


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US Patent 654,611

"Initiating Device"





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Requirements for obtaining a patent?

- New (Novelty)
- Not Obvious (Inventive)
- Useful (Utility)
- Full disclosure



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Which of the following can be patented?

(Select multiple correct answers, total percent will be greater than 100%)

- A) A new chemical entity (NCE)
- B) A device someone saw 2 years ago at a trade-show in Japan
- C) A new process for preparation of a known compound
- D) A new theory on cold fusion

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Filing Strategies

- **▶** Paris Convention 1, 2
- > Patent Cooperation Treaty (PCT) 3, 4

Note: Don't delay filing of a patent application

- ¹ http://www.wipo.int/treaties/en/ip/paris/
- ² http://www.wipo.int/treaties/en/text.jsp?file_id=288514
- ³ http://www.wipo.int/pct/en/
- 4 http://www.wipo.int/pct/en/texts/articles/atoc.htm



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Paris Convention

- ➤ Introduced international framework for industrial property rules for the first time
- ➤ Total contracting parties: 176
- ➤ Each contracting state must grant same protection to nationals of other contracting states as it grants to its own nationals



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Paris Convention

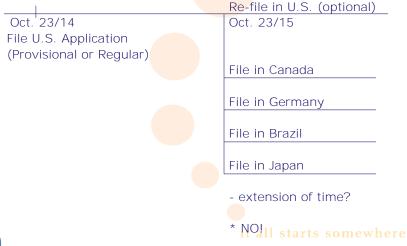
- On the basis of a first application (priority application) filed in one of the contracting states, the applicant may:
 - o within a certain time period (12 months for patents)
 - apply for protection in any of the other contracting states;
 - o these later applications will then be regarded as if they had been filed on the same day as the first application



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Paris Convention





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Patent Cooperation Treaty (PCT)

- ➤ Treaty allows filing of a single application in each contracting state
- ➤ Total contracting states: 149
- ➤ At 30 months (31 in some jurisdictions) from the first filed application, an application must enter the national phase in each country or region of interest
- ➤ Notable exceptions: Taiwan and Argentina (not part of PCT)

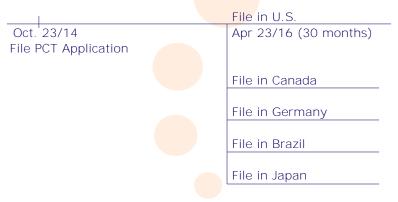


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Patent Cooperation Treaty (PCT)



Extension of time?

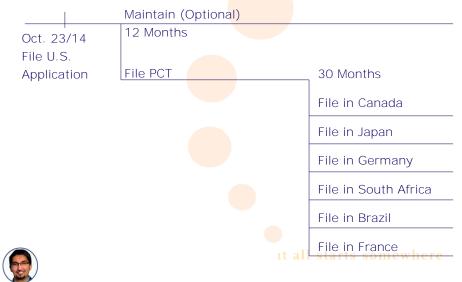
Available in some jurisdictions



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Paris Convention and PCT





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Advantages of PCT

> Cost deferral

> Decision deferral

- o is it valuable?
- o is there better technology available?
- o is it patentable?
- o which countries are of interest?



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Why would one wish to file a PCT application?

(Select multiple correct answers, total percent will be greater than 100%)

- A) Once published, it gives a worldwide patent
- B) A single application for obtaining a filing date in multiple jurisdictions
- C) Only way to file a patent application
- D) Defer translation costs

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Prosecution

- > Separate prosecution in each jurisdiction
- ▶ Patent Prosecution Highway (PPH)
 - o Initiative for accelerating prosecution
 - Bi-lateral and tri-lateral agreements between different patent offices
 - Participating patent offices can benefit from work previously done by another patent office



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"I'M SORRY, WE ALREADY HAVE A TIME MACHINE PENDING BUT, IF YOU'D LIKE TO COME BACK LAST YEAR, YOU'LL GET YOUR APPLICATION IN FIRST."

Thank you!

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