Patenting Novel Technologies

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Agenda

- What is Patentable? (35 USC 101)
- Claim Interpretation
- Written Description (35 USC 112)
- America Invents Act

What is patentable??

35 USC § 101 - Inventions Patentable:

Whoever invents or discovers any **new** and **useful** ***process***, ***machine***, ***manufacture***, or ***composition of matter***, or any new and useful improvement thereof, may obtain **a** patent therefor, subject to the conditions and requirements of this title.

Subject Matter Eligibility

Four Statutory Categories of Invention:

- Process: a series of steps
- Machine: a concrete thing consisting of parts or devices
- Manufacture: an article produced from raw or prepared materials
- Composition of Matter: a composition of substances or composite article

- Courts have interpreted the categories to *exclude*:
  - "Laws of nature, natural phenomena, and abstract ideas"

Judicial Exceptions

- The basic tools of scientific and technological work are not patentable, even when claimed as a process, machine, manufacture or composition of matter.
- The "judicial exceptions" to eligibility are typically identified as:
  - abstract ideas (e.g., mental processes)
  - laws of nature (e.g., naturally occurring correlations)
  - natural phenomena (e.g., wind)

Living Subject Matter and Human Organisms

- Nonnaturally occurring non-human multicellular living organisms, including animals, are eligible.
  - MPEP 2105
- Claims directed to or encompassing a human organism are ineligible (and always have been).
  - Section 33(a) of the America Invents Act 2011
  - 35 U.S.C. 101
  - See also Animals – Patentability, 1077 Off. Gaz. Pat. Office 24 (April 21, 1987)

Laws of Nature: Three Essential Inquiries

1. Is the claim directed to a process, defined as an act, or a series of acts or steps?
2. Does the claim focus on use of a law of nature, a natural phenomenon, or naturally occurring relation or correlation (collectively referred to as a natural principle)?
   - Is the natural principle a limiting feature of the claim?
3. Does the claim include additional elements/steps, or a combination of elements/steps, that integrate the natural principle into the clamed invention such that the natural principle is practically applied, and are sufficient to ensure that the claim amounts to significantly more than the natural principle itself?
   - Is the claim more than a law of nature + the general instruction to simply "apply it"?

Natural Principle

- A natural principle is the handiwork of nature and occurs without the hand of man.
  - Includes a correlation that occurs naturally when a man-made product, such as a drug, interacts with a naturally occurring substance, such as blood, because the correlation exists in principle apart from any human action.
- Examples:
  - the relationship between blood glucose levels and diabetes is a natural principle.
  - Diagnosing a condition based on a naturally occurring correlation of levels of a substance produced in the body when a condition is present.
  - Identifying a disease using a naturally occurring relationship between the presence of a substance in the body and incidence of disease.

Example, Claim 1:

1. A method for treating a psychiatric behavioral disorder of a patient, the disorder associated with a level of neuronal activity in a neural circuit within a brain of the patient, the method comprising:

   exposing the patient to *sunlight* to alter the level of neuronal activity in the neural circuit to mitigate the behavioral disorder.

Example, Claim 1: Analysis

Inquiry 1: The claim is a process claim.

Inquiry 2: The claim focuses on the use of a law of nature that is a limitation of the claim (the effect of white light on a person's neuronal activity related to mood).

Inquiry 3: The additional step of exposing a patient to sunlight integrates the law of nature into the claimed process.

- This is no more than the law of nature + telling people to "apply it."
- The claim recites no significant limitations on the specific manner by which the law of nature is to be applied.

Example, Claim 2:

2. A method for treating a psychiatric behavioral disorder of a patient, the disorder associated with a level of neuronal activity in a neural circuit within a brain of the patient, the method comprising:

providing a *light source that emits white light;*

filtering the ultra-violet (UV) rays from the white light;

positioning the patient adjacent to the light source at a distance between 30-60 cm for a predetermined period ranging from 30-60 minutes to expose photosensitive regions of the brain of the patient to the filtered white light to mitigate the behavioral disorder.

Example, Claim 2: Analysis

Inquiry 1: The claim is a process claim.

Inquiry 2: The claim focuses on the use of a law of nature that is a limitation of the claim (the effect of white light on a person's neuronal activity related to mood).

Inquiry 3: The additional step of exposing a patient to white light integrates the law of nature into the claimed process.

- Additional step of filtering the UV rays from the white light manipulates the white light.
- Additional step of positioning the patient relates to conditions of patient exposure.
- These steps are sufficient to narrow the claim to an eligible application, as together they amount to substantially more than the law of nature.

Claim Interpretation

Is the careful consideration of

each and every word

in a claim to determine what the claim covers.

Each application is considered on its own.

Claim Interpretation: MPEP § 2111

During patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." Phillips v. AWH Corp., 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. en banc: 2005) (the “BRI” test);

Words of a claim must be given their “Plain Meaning” unless such meaning is inconsistent with the specification.

- "Plain Meaning” refers to ordinary and customary meaning given to the term by those of ordinary skill in the art.
- Applicant may be own lexicographer.

Guidance for Claim Interpretation

Consideration of the Specification:

- background description
- explicit definitions
- general description
- preferred embodiments
- working examples
- prophetic examples

Things to consider outside of the specification:

- prior art and technical disclosures
- declarations and experimental evidence
- technical and English language dictionaries

35 U.S.C. § 112: Supplementary Examination Guidelines

- Purpose: Assist the Examining Corps in evaluating claims for compliance with §112, ¶2, and other patentability requirements related to enhancing the quality of patents.
- Goal: Ensure that the scope of any patent rights granted is clear and supported by the invention disclosed to the public.
  - Section 112 is a valuable tool for examiners to accomplish this goal.

Supplementary §112 Examination Guidelines

Broadest Reasonable Interpretation

Give the claim the **broadest reasonable interpretation** (BRI) consistent with the specification as it would be interpreted by one of ordinary skill in the art.

- Why do we apply BRI?
  - An application claim can be amended and interpreted during prosecution to make the meaning clear, but a patent claim is fixed and, when possible, will be interpreted in favor of validity.
  - As a result, the USPTO uses a lower threshold of ambiguity for definiteness.

Definiteness Test

- "The test for definiteness under 35 U.S.C. § 112, second paragraph, is whether "those skilled in the art would understand what is claimed when the claim is read in light of the specification." *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.,* 806 F.2d 1565, 1576 (Fed. Cir. 1986) (citations omitted)." MPEP § 2173.02.

- "The primary purpose of the definiteness requirement for claim language is to ensure that the scope of the claims is clear so that the public is informed of the boundaries of what constitutes infringement of the patent." (the metes and bounds of the claim).

Analyzing Claims for Indefiniteness

"Definiteness of claim language must be analyzed, not in a vacuum, but in light of:

(A) the content of the particular application disclosure;

(B) the teachings of the prior art; and

(C) the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made."

MPEP 2173.02

America Invents Act Implementation

Group 2 Rulemaking (Effective September 16, 2012)

Patent Related

- Inventor's oath / declaration
- Preissuance submission
- Supplemental examination
- Citation of patent owner claim scope statements

Administrative Trials

- Inter partes review
- Post grant review
- Covered business method review

America Invents Act

First Inventor to File

Final Rules and Guidelines

Effective March 16, 2013

Critical Date for Claimed Invention

- Pre-AIA: date of invention
- AIA: effective filing date

35 U.S.C. 100(i)(1): New Definition for Effective Filing Date

Effective filing date of a claimed invention under examination is the earlier of:

- the actual filing date of the patent or application containing a claim to the invention;

or

- the filing date of the earliest application for which the patent or application is entitled to a right of **foreign priority or domestic benefit** as to such claimed invention

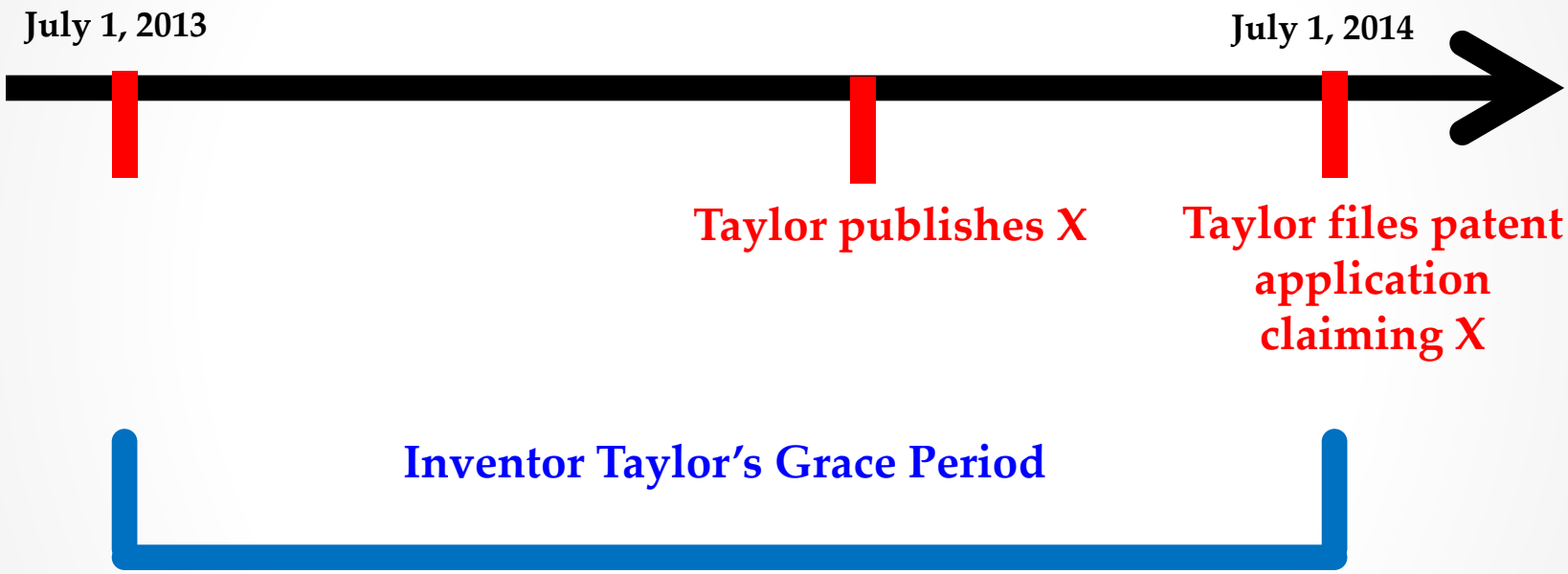
AIA Statutory Framework

Prior Art 35 U.S.C. 102(a) (Basis for Rejection)	Exceptions 35 U.S.C. 102(b) (Not Basis for Rejection)	
102(a)(1) Disclosure with Prior Public Availability Date	**102(b)(1)**	**(A)** Grace Period Disclosure by Inventor or Obtained from Inventor
		(B) Grace Period Intervening Disclosure by Third Party
102(a)(2) U.S. Patent, U.S. Patent Application, and PCT Application with Prior Filing Date	**102(b)(2)**	**(A)** Disclosure Obtained from Inventor
		(B) Intervening Disclosure by Third Party
		(C) Commonly Owned Disclosure

35 U.S.C. 102(a)(1): Prior Public Disclosures as Prior Art

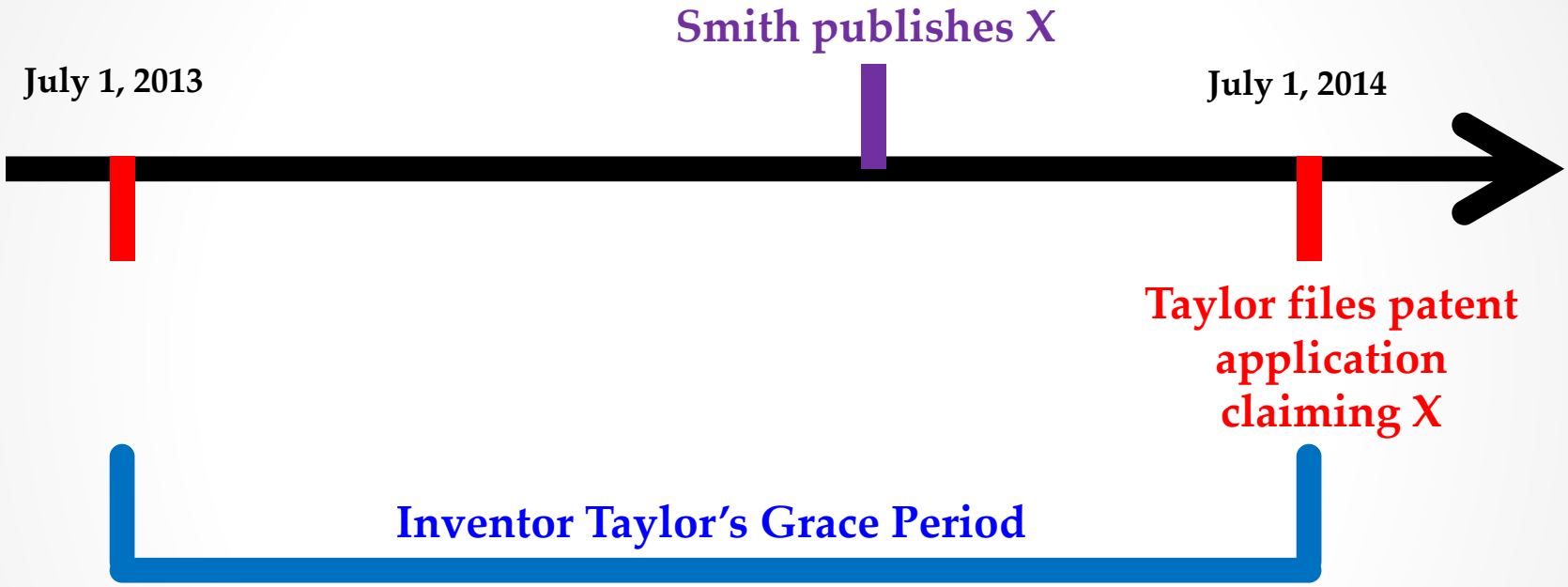
- 35 U.S.C. 102(a)(1) precludes a patent if a claimed invention was, before the effective filing date of the claimed invention:
  - patented;
  - described in a printed publication;
  - **in public use**;
  - **on sale**; or
  - **otherwise available to the public**

Example 1: Exception in 102(b)(1)(A)



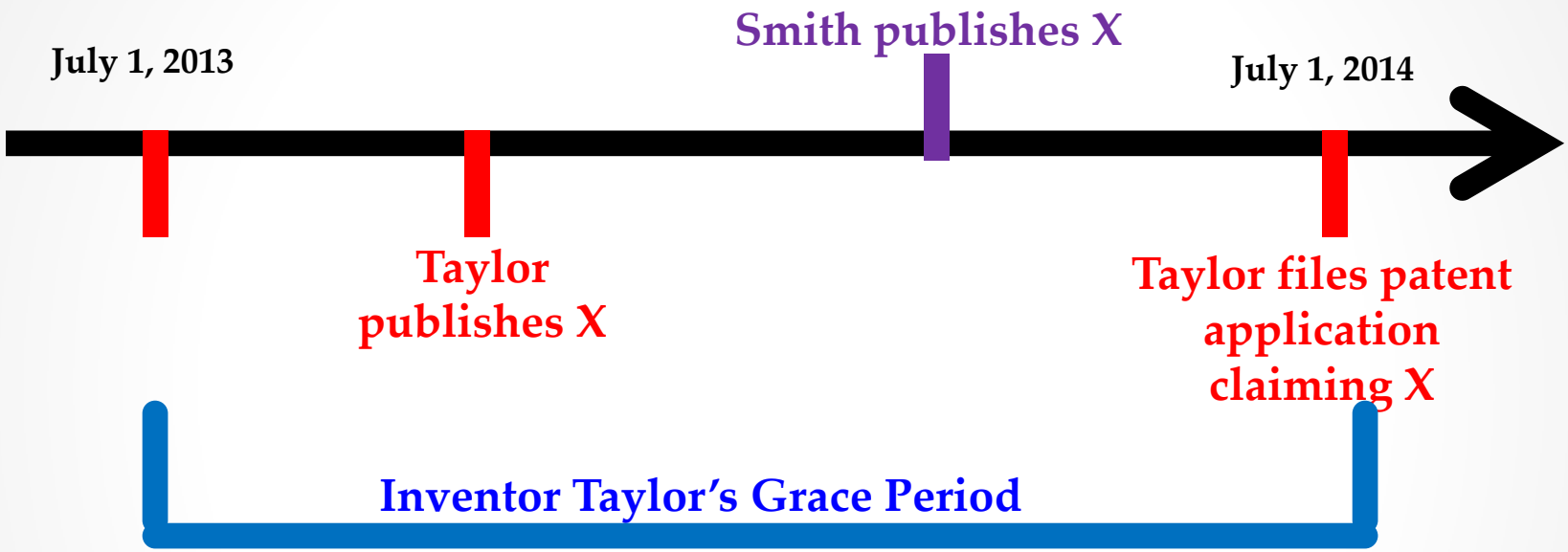
- Taylor's publication is not available as prior art against Taylor's application because of the exception under 102(b)(1)(A) for a grace period disclosure by an inventor.

Example 2: Exception in 102(b)(1)(A)



- Smith's publication would be prior art to Taylor under 102(a)(1) if it does not fall within any exception in 102(b)(1).
- However, if Smith obtained subject matter X from Taylor, then it falls into the 102(b)(1)(A) exception as a grace period disclosure obtained from the inventor, and is not prior art to Taylor.

Example 3: Exception in 102(b)(1)(B)

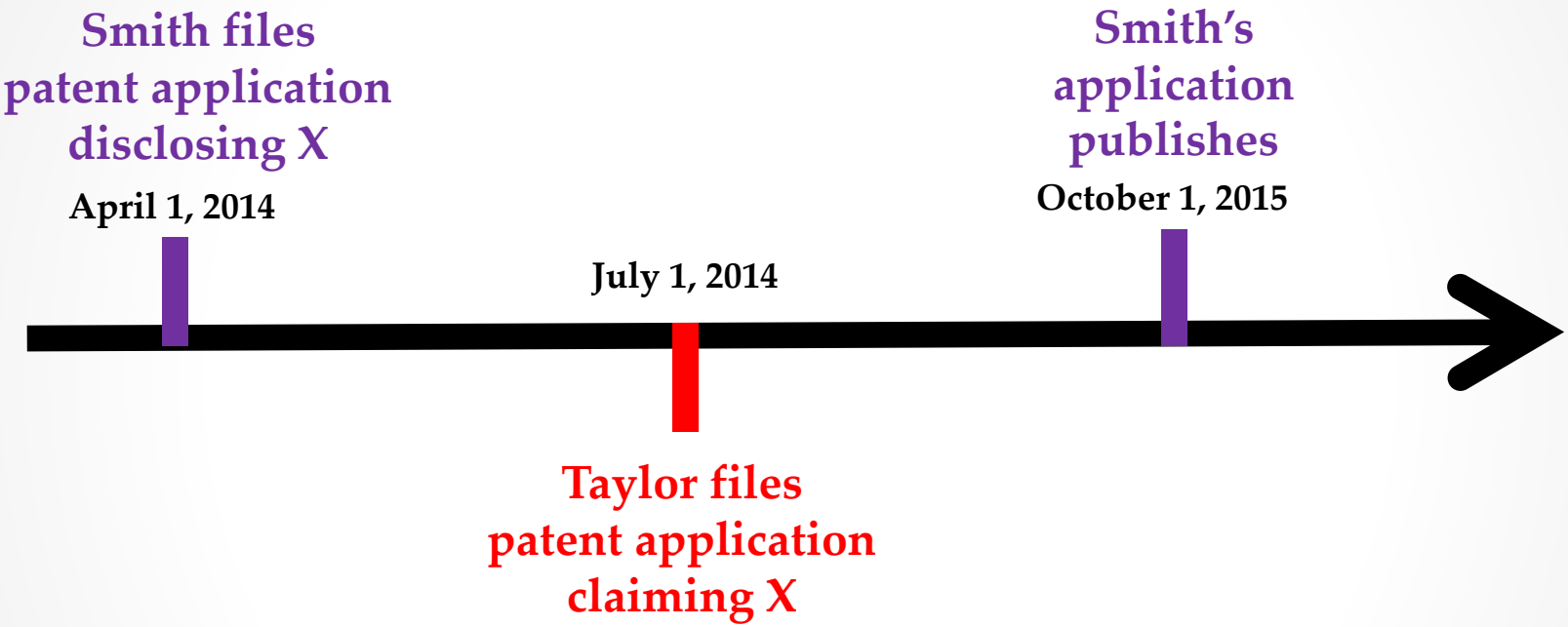


- Smith's publication is not prior art because of the exception under 102(b)(1)(B) for a grace period intervening disclosure by a third party.
- Taylor's publication is not prior art because of the exception under 102(b)(1)(A) for a grace period disclosure by the inventor.
- If Taylor's disclosure had been before the grace period, it would be prior art against his own application. However, it would still render Smith inapplicable as prior art.

AIA Statutory Framework

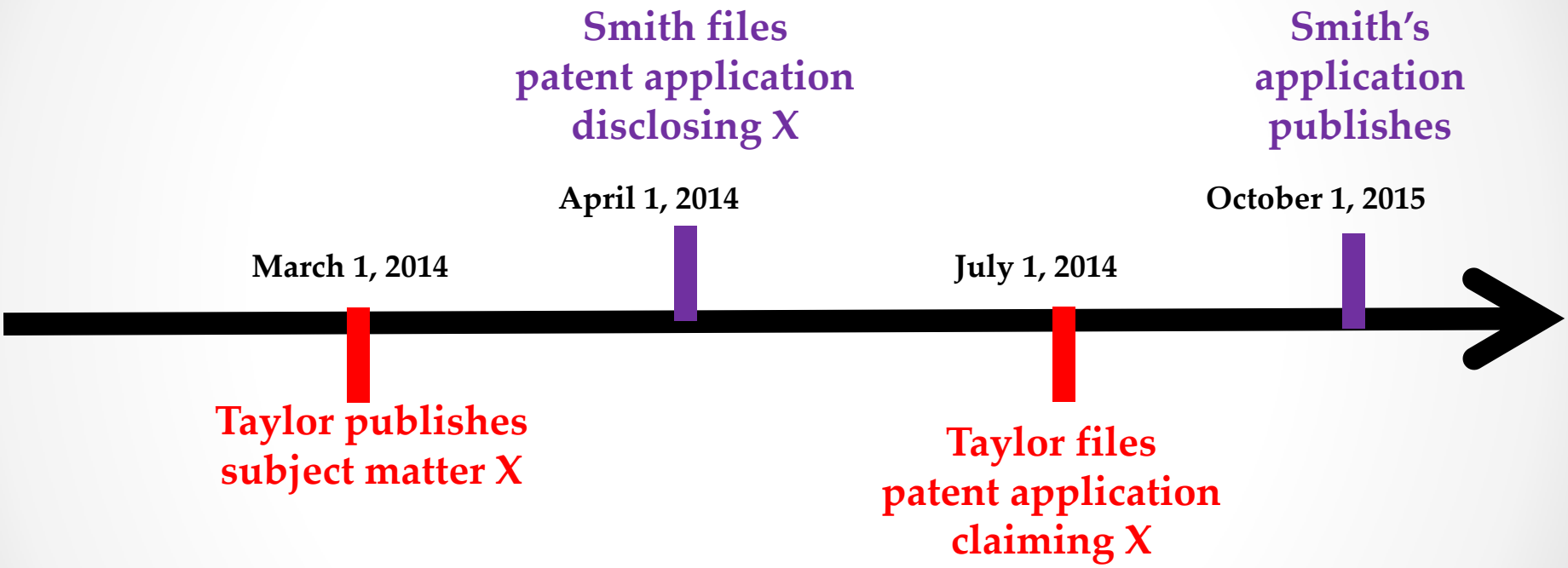
<table>
<tr><th>Prior Art
35 U.S.C. 102(a)
(Basis for Rejection)</th><th colspan="2">Exceptions
35 U.S.C. 102(b)
(Not Basis for Rejection)</th></tr>
<tr><td rowspan="2">102(a)(1)
Disclosure with Prior Public Availability Date</td><td rowspan="2">102(b)(1)</td><td>(A)
Grace Period Disclosure by Inventor or Obtained from Inventor</td></tr>
<tr><td>(B)
Grace Period Intervening Disclosure by Third Party</td></tr>
<tr><td rowspan="3">102(a)(2)
U.S. Patent, U.S. Patent Application, and PCT Application with Prior Filing Date</td><td rowspan="3">102(b)(2)</td><td>(A)
Disclosure Obtained from Inventor</td></tr>
<tr><td>(B)
Intervening Disclosure by Third Party</td></tr>
<tr><td>(C)
Commonly Owned Disclosure</td></tr>
</table>

Example 4: Exception in 102(b)(2)(A)



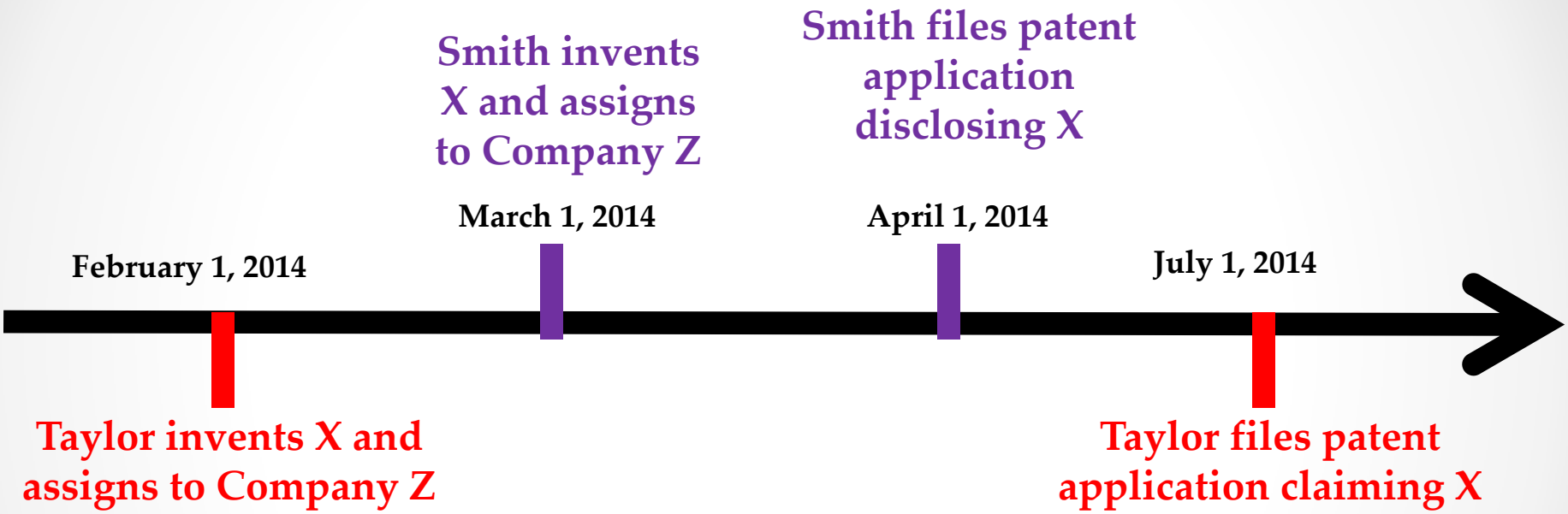
- Smith's patent application publication is not prior art if Smith obtained X from Inventor Taylor because of the exception under 102(b)(2)(A) for a disclosure obtained from the inventor

Example 5: Exception in 102(b)(2)(B)



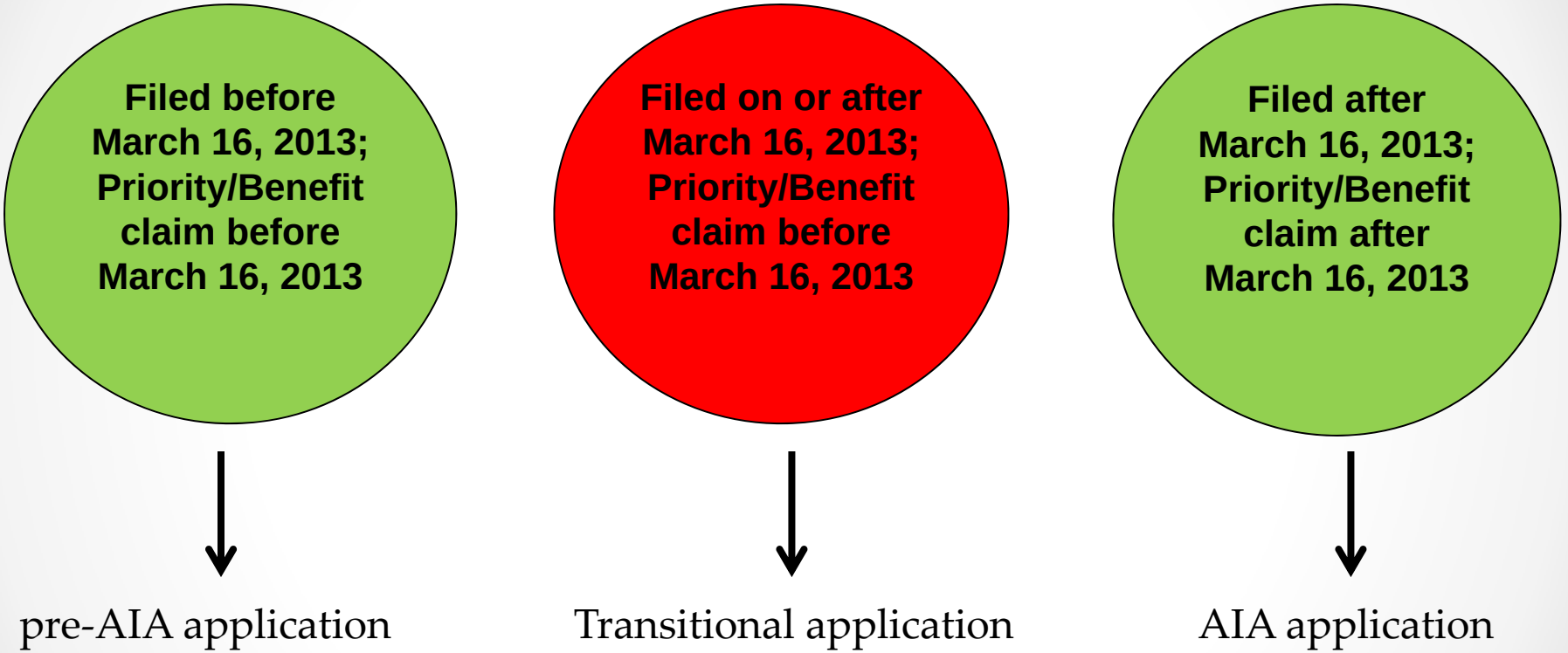
- Smith's patent application publication is not prior art against Taylor's application because of the exception under 102(b)(2)(B) for an intervening disclosure by a third party.

Example 6: Exception in 102(b)(2)(C)



- Smith's patent application publication is not prior art because of the exception under 102(b)(2)(C) for a commonly owned disclosure.
- There is no requirement that Smith's and Taylor's subject matter be the same in order for the common ownership exception to apply.

Applicability of AIA



Rule 1.55(j), 1.78(a)(6), or 1.78(c)(6): Statements in Transitional Applications

- Nonprovisional applications that are:
  - filed on or after March 16, 2013;

  and
  - claim foreign priority or domestic benefit of an application filed before March 16, 2013,

  are called **transitional applications**

- If a transitional application has ever included a claim to an invention having an effective filing date on or after March 16, 2013, applicant must provide a statement to that effect

FITF Examiner Training

- Three-part overview training (March-April 2013)
  - Introductory Video: background for overview training
  - Live Training: >20 training sessions
  - Follow-up Video: statutory review and illustrations
- Comprehensive training (June-July 2013)
- Just-in-time training as needed (March-July 2013)

Resources

- Statutory Framework Chart: http://www.uspto.gov/aia_implementation/FITF_card.pdf
- FAQs: http://www.uspto.gov/aia_implementation/faqs_first_inventor.jsp
- Examiner Introductory Video: http://helix-1.uspto.gov/asxgen/AIA Close Cpt.wmv
- Examiner Overview Training Slides: (available on AIA micro-site soon)
- Examiner Follow-up Video: (available on AIA micro-site soon)

Thank You

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