# **Championing Your Ideas with Coordinated IP Strategies**

A GC3 Startup Network Webinar

February 19, 2019



# What is the GC3?

The Green Chemistry & Commerce Council (GC3) is a multi-stakeholder collaborative that drives the commercial adoption of green chemistry by catalyzing and guiding action across all industries, sectors and supply chains.



# **Our Vision and Mission**

**Vision:** A world where green chemistry is standard practice throughout the value chain.

**Mission:** To drive the commercial adoption of green chemistry by catalyzing and guiding action across all industries, sectors and supply chains.



### More than 120 Members Across Sectors and the Value Chain









































































# Creating an innovation ecosystem for green and bio-based chemistry technologies

#### Goals:

- Support green and bio-based chemistry start-ups
- Introduce large strategics to new chemical technologies, partnership and investment opportunities



# **Members of the GC3 Startup Network Include:**

















































# **GC3 Startup Network Technology Showcases**

Workshop on Leveraging
Partnerships to Accelerate Green
& Bio-Based Chemistry Innovation



February 1, 2017
Hosted by
LEVI STRAUSS & CO.



www.greenchemistryandcommerce.org/startup-network





4<sup>th</sup> Annual GC3 Technology Showcase May 7, 2019 14<sup>th</sup> Annual GC3 Innovators Roundtable May 7-9, 2019

Registration is now open, please visit www.greenchemistryandcommerce.org.



# **Ground Rules**

- Due to the number of participants in the webinar, all lines will be muted
- If you have a question or comment, please type it in the "Questions" box located in the control panel
- Questions will be answered at the end of the presentation



# **Today's Lineup**



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Finnegan, Henderson, Farabow, Garrett & Dunner, LLP

# Championing Your Ideas with Coordinated IP Strategies

Shana K. Cyr, Ph.D., J.D., and M. David Weingarten, Ph.D., J.D.

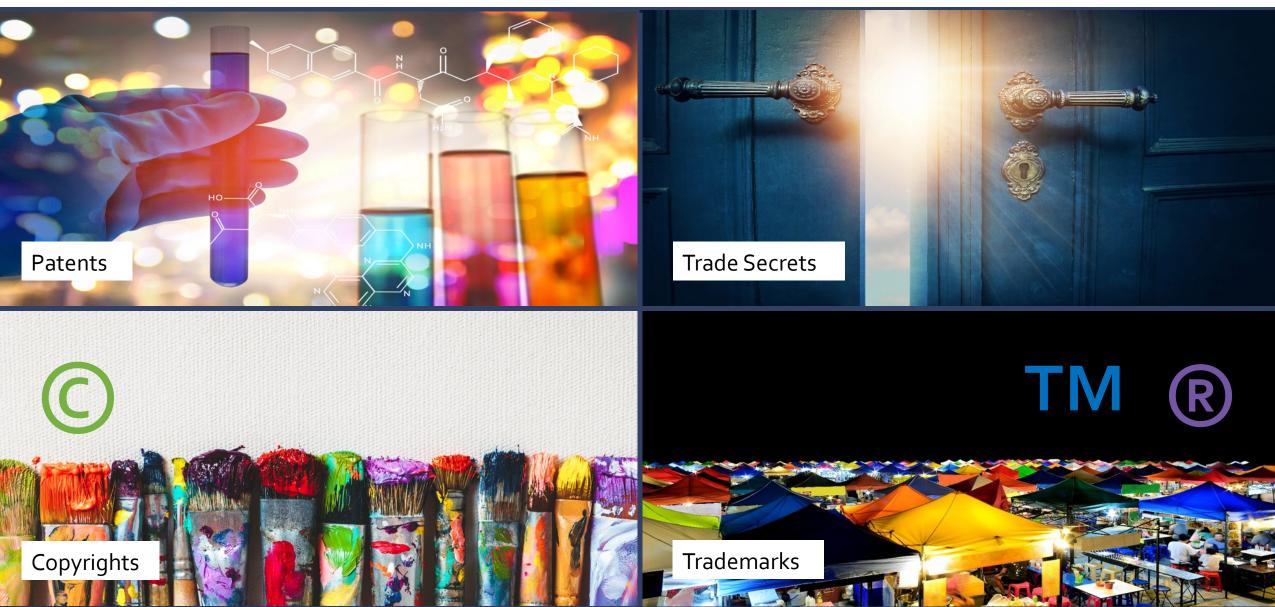
# Property Rights



# Ideas



# Intellectual Property

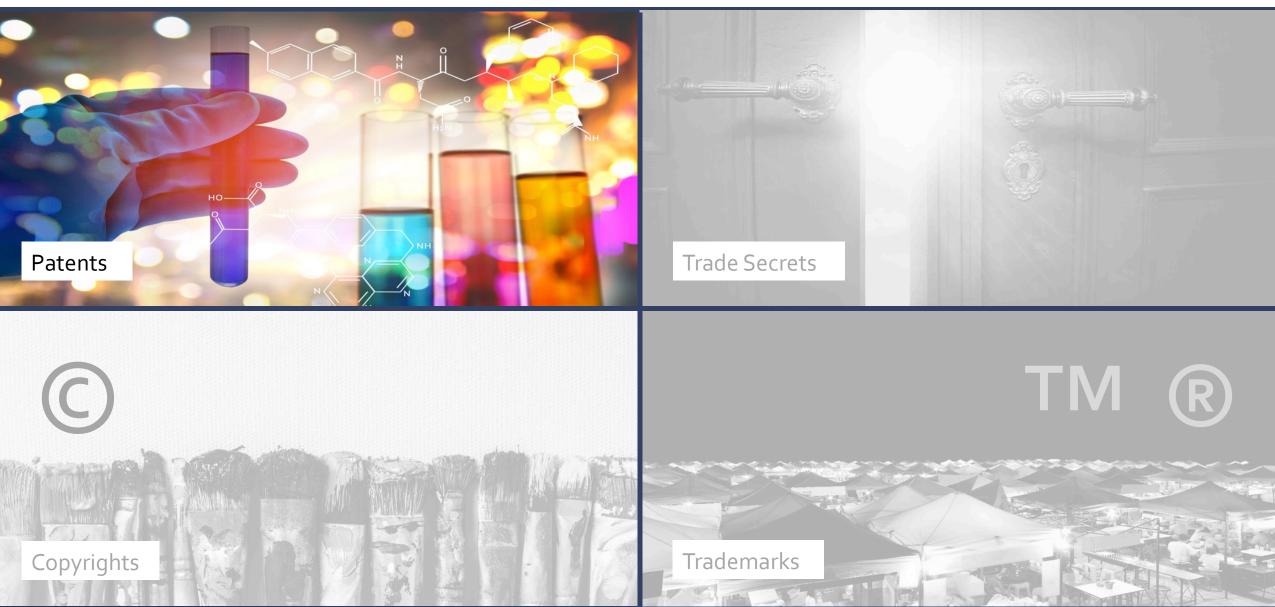


# IP Portfolio



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# Intellectual Property



# Patent Types

Plant

#### 

(12) United States Plant Patent (10) Patent No.: (45) Date of Patent: US PP27,640 P3 Feb. 7, 2017 (54) ROSA PLANT NAMED \*SFROSA128\* Related U.S. Application Data (60) Provisional application No. 62/178,086, filed on Mar. 31, 2015. (50) Latin Name: Rosa hybrida Varietal Denomination: SFROSA128 (51) Int. Cl. A01H 5/02 (52) U.S. Cl. (71) Applicant: Scott Trees. Arroyo Grande, CA (US) (72) Inventor: Scott Trees, Arroyo Grande, CA (US) (73) Assignce: Sunrise Farm Flowers, LLC, Arroyo (\*) Notice: Subject to any disclaimer, the term of this Primary Examiner - Kent I. Bell patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days. (74) Attorney, Agent, or Firm - Audrey Charles ABSTRACT (37) Answard of shrub rose plant named "SFROSA128", characterized by its semi-double type, bright yellow-colored flowers, medium to light green-colored foli-age, and moderately vigorous, compact, upright-mounded growth habit, is disclosed. (21) Appl. No.: 14/756,578 (22) Filed: Sep. 18, 2015 Prior Publication Data

Latin name of genus and species of plant claimed: Rosa hybrida. Variety denomination: 'SFROSA128'.

BACKGROUND OF THE INVENTION

US 2016/0295758 P1 Oct. 6, 2016

of Rosa hybrida. The new cultivar wi hereafter by its cultivar name, "SFROSA128' is a new cultivar of shrub n

as a landscape shrub.

The new cultivar originated in a corprogram in Arroyo Grande, Calif. during objective of the breeding program was to rose cultivars with disease resistance, ever unique brightly colored flowers that can gated on their own roots.

The new shrub rose cultivar is the res nation. The female (seed) parent of the ne Flare', not patented, characterized by its : medium yellow-colored flowers, dark gree low growth vigor and compact-mounded | male (pollen) parent of the new cultivar-new cultivar was discovered and selected new cunivar was anscovered and selected ering plant within the progeny of the ab pollination during October 2010 in a contri in Arroyo Grande, Calif. Asexual reproduction of the new cultiva

since October 2010 in Arroyo Grande, C strated that the new cultivar reproduces in of the characteristics, as herein described retained through successive generations



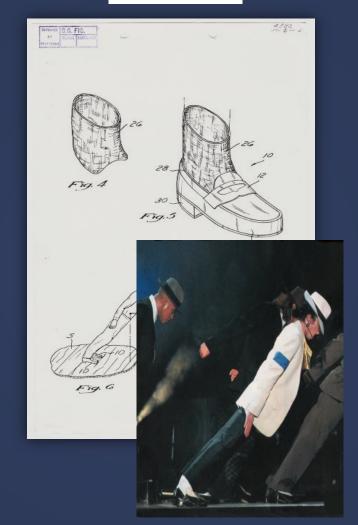
SUMMARY OF THE INVENTION

been repeatedly observed and can be used to distinguish 'SFROSA128' as a new and distinct cultivar of shrub rose

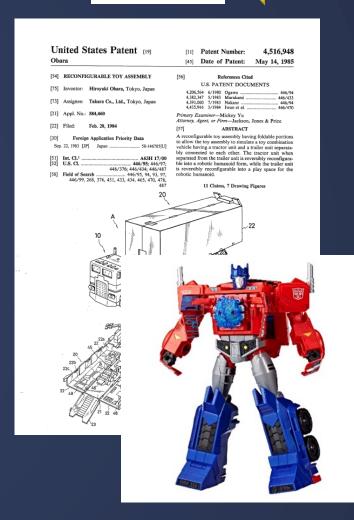


FIG. 2

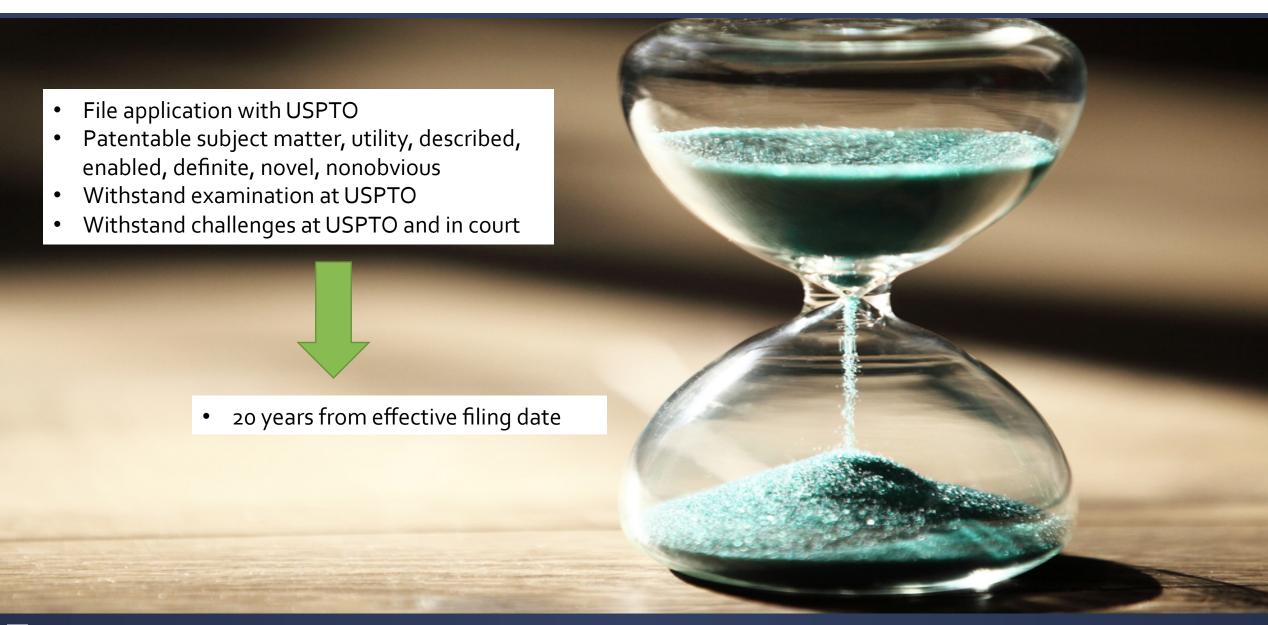
### Design



#### Utility



## **Promote Innovation**



## Parts of a Patent

United States America

To Promote the Progress of

Acience and the Useful Arts

## The Director

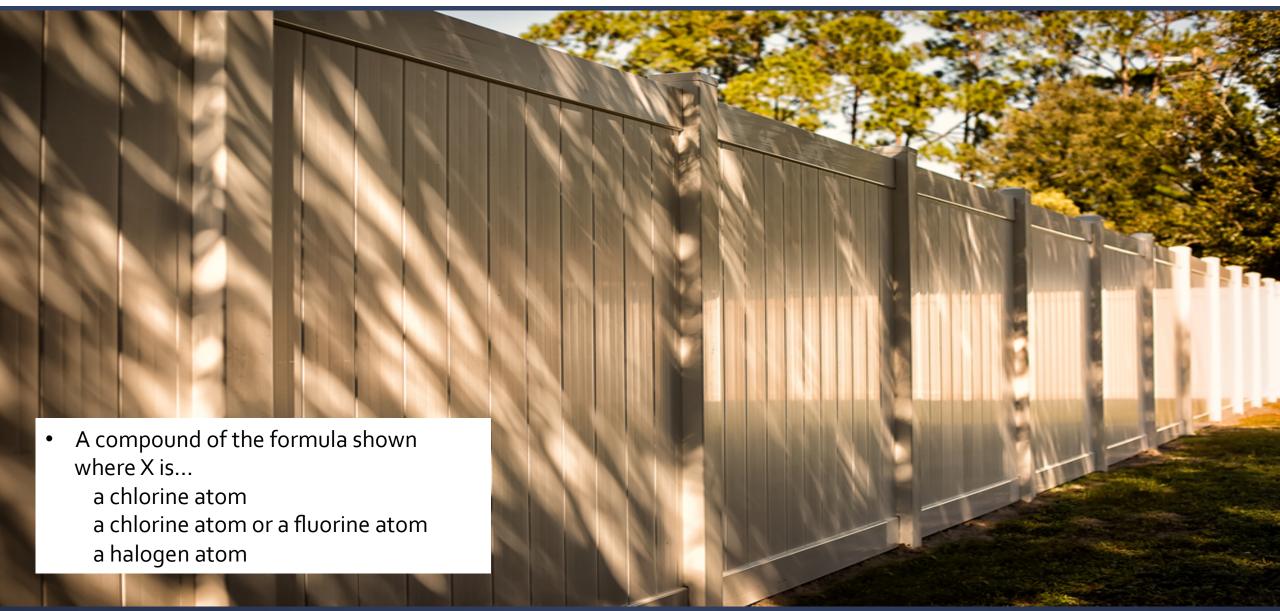
of the United States Patent and Trademark Office has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined shat a patent on the invention shall be granted under the law.

Therefore, this United States

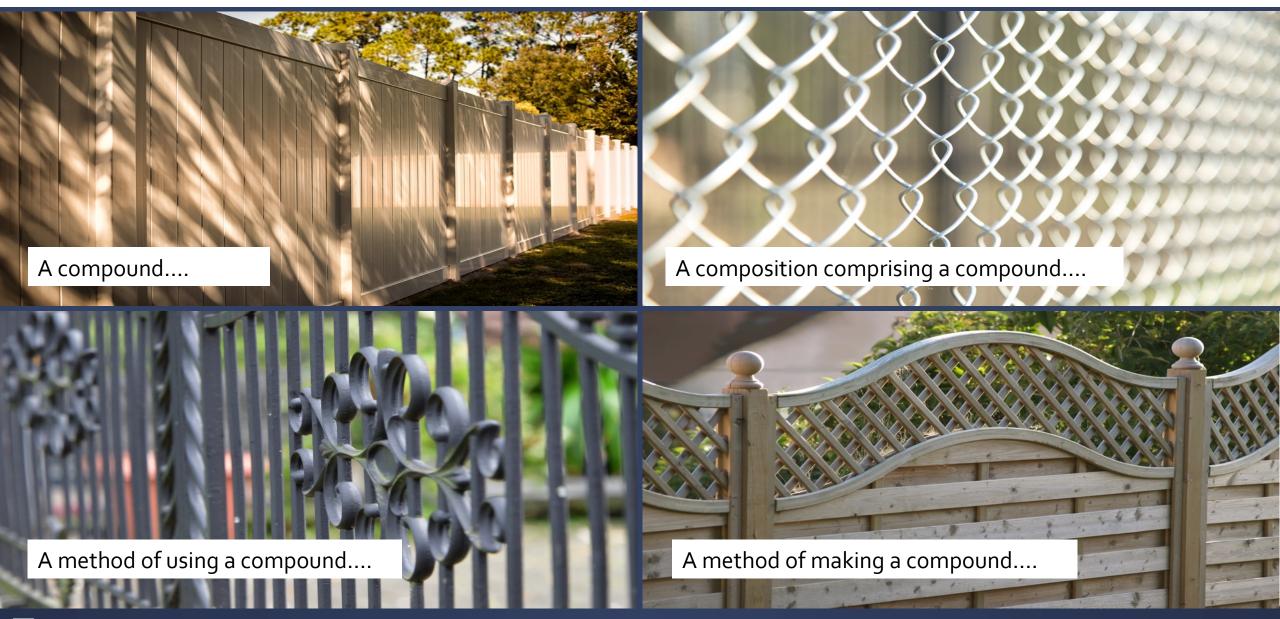
- Summary Page: Title, inventor(s), assignee(s)
- Specification: Describe invention and object of invention
- Claims: Particularly point out invention

using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America, and if the invention is a process,

# Scope of Protection



## Varied Protection



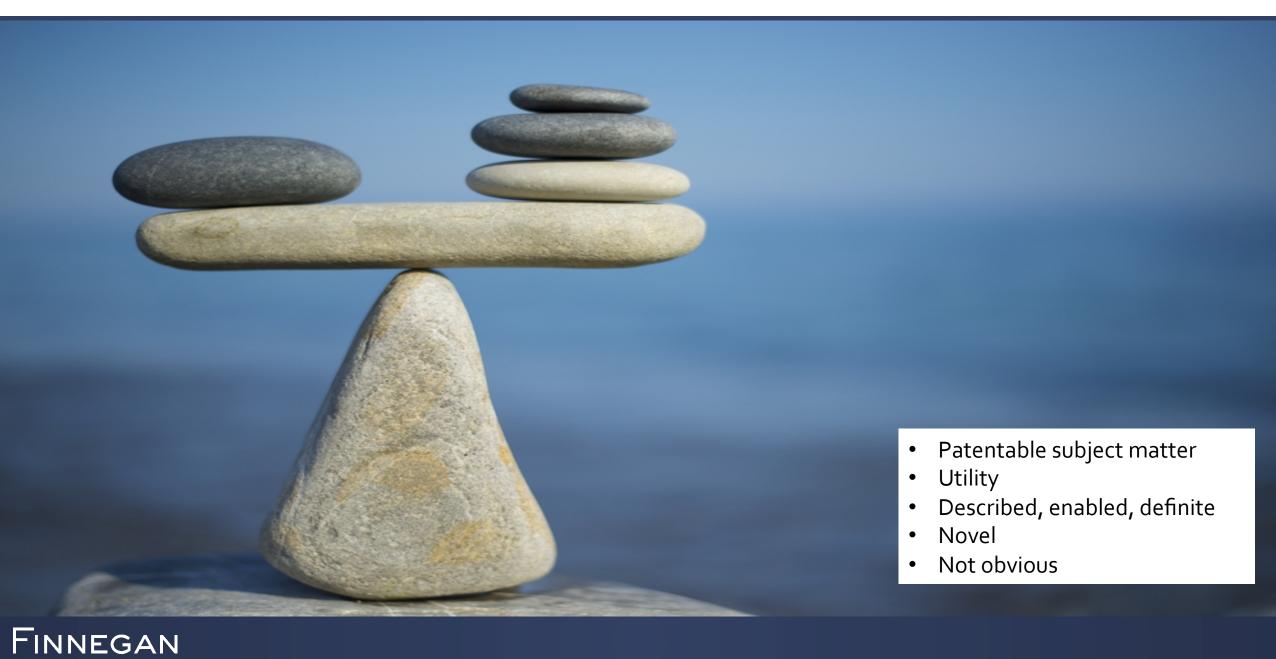
# Claim Meaning

1. A pharmaceutical formulation for oral administration comprising a pure solid state alkaline salt of the (-)-enantiomer of 5-methoxy-2[[(4-methoxy-3.5-dimethyl-2-pyridinyl)methyl]sulfinyl]-1H-benzimidazole and a pharmaceutically acceptable carrier.

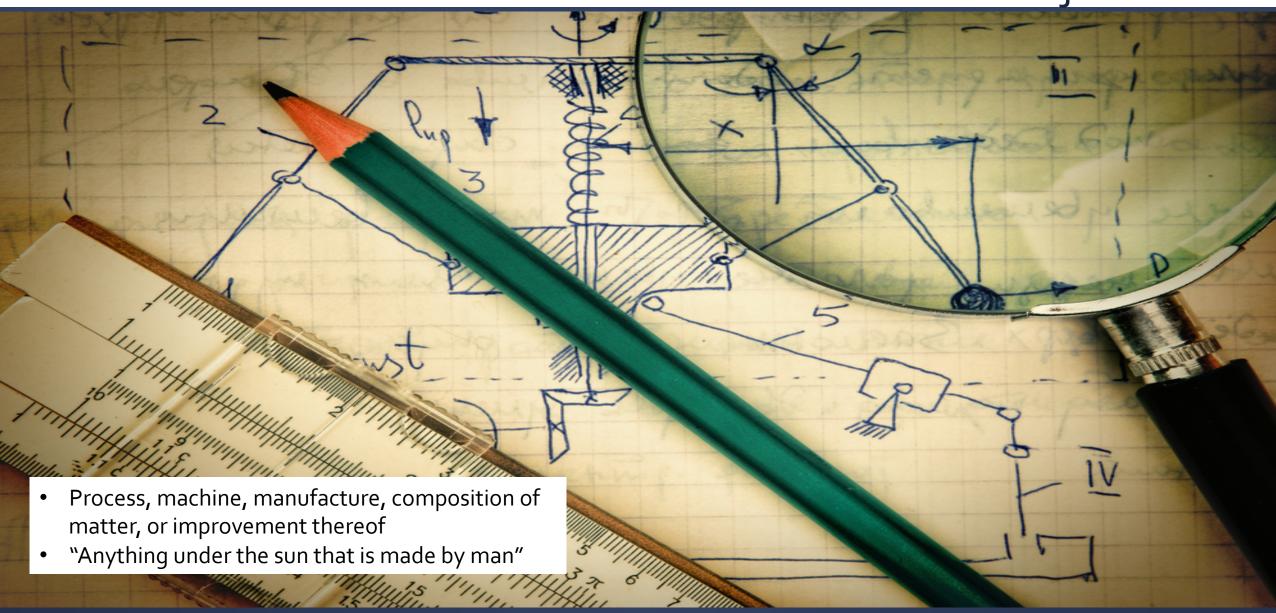


AstraZeneca AB v. Hanmi USA, Inc., 554 Fed. App'x 912 (Fed. Cir. 2013)

# A Careful Balance



# Patentable Subject Matter



## Not an Abstract Idea or Product of Nature

- 1. An isolated DNA coding for a BRCA1 polypeptide, said polypeptide having the amino acid sequence set forth in SEQ ID NO:2.
- 2. The isolated DNA of claim 1, wherein said DNA has the nucleotide sequence set forth in SEQ ID NO:1.



```
INFORMATION FOR SEQ ID NO:1:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 5914 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

INFORMATION FOR SEQ ID NO:2:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 1863 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein
```

# **USPTO Examples**

# Vaccines (Example 28) 3. A vaccine comprising: Peptide F; and a pharmaceutically acceptable carrier.

Ineligible

4. A vaccine comprising: Peptide F; and a pharmaceutically acceptable carrier selected from the group consisting of a cream, emulsion, gel, liposome, nanoparticle, or ointment.

Eligible

#### Dietary Sweeteners (Example 30)

2. A dietary sweetener comprising: 1-5 percent texiol; and at least 90 percent water.

Ineligible

3. A dietary sweetener comprising: 1-5 percent texiol; at least 90 percent water; and 1-2 percent Compound N.

Eligible

#### Diagnosing and Treating Julitis (Example 29)

2. A method of diagnosing julitis in a patient, said method comprising: a) obtaining a plasma sample from a human patient; b) detecting whether JUL-1 is present in the plasma sample by contacting the plasma sample with an anti-JUL-1 antibody and detecting binding between JUL-1 and the antibody; and c) diagnosing the patient with julitis when the presence of JUL-1 in the plasma sample is detected.

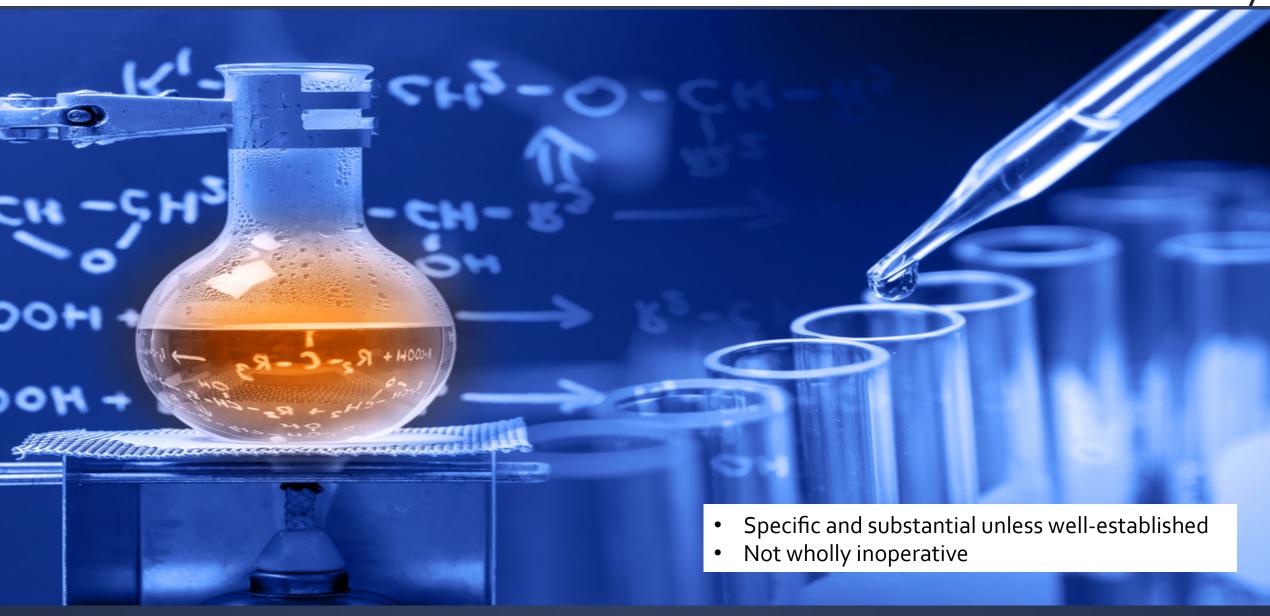
Ineligible

3. A method of diagnosing julitis in a patient, said method comprising: a) obtaining a plasma sample from a human patient; b) detecting whether JUL-1 is present in the plasma sample by contacting the plasma sample with **a porcine** anti-JUL-1 antibody and detecting binding between JUL-1 and the **porcine** antibody; and c) diagnosing the patient with julitis when the presence of JUL-1 in the plasma sample is detected.

Eligible

USPTO Subject Matter Eligibility Examples: Life Science (May 2016)

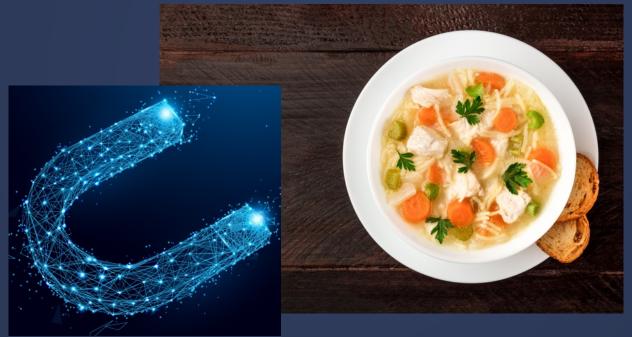
# Utility



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# Inoperative

27. A beverage selected from the group consisting essentially of ethyl alcohol containing liquids, fruit juices, coffee, tea, extruded soy protein, and chicken soup, the beverage having enhanced flavor, obtained by practicing the method steps consisting essentially of establishing a substantially constant magnetic field with a minimum strength of about 3,000 Gauss, and passing the beverage through the field so that the flavor thereof is enhanced.



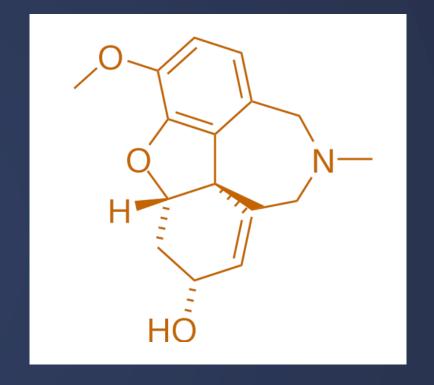
Fregeau v. Mossinghoff, 776 F.2d 1034 (Fed. Cir. 1985)

# Described, Enabled, Definite



# Hypothetical Possibility

1. A method of treating Alzheimer's disease and related dementias which comprises administering to a patient suffering from such a disease a therapeutically effective amount of galanthamine or a pharmaceutically-acceptable acid addition salt thereof.



# Terms with Multiple Meanings

1. A method for administering pemetrexed disodium to a patient in need thereof comprising administering an effective amount of folic acid and an effective amount of a methylmalonic acid lowering agent followed by administering an effective amount of pemetrexed disodium, wherein

the methylmalonic acid lowering agent is selected from the group consisting of vitamin B12, nydroxycobalamin, cyano-10-chlorocobalamin, aquocobalamin perchlorate, aquo-10-cobalamin perchlorate, azidocobalamin, cobalamin, cyanocobalamin, or chlorocobalamin.

Cyanocobalamin specifically?

More broadly, a class of compounds including pharmaceutical derivatives of cyanocobalamin?

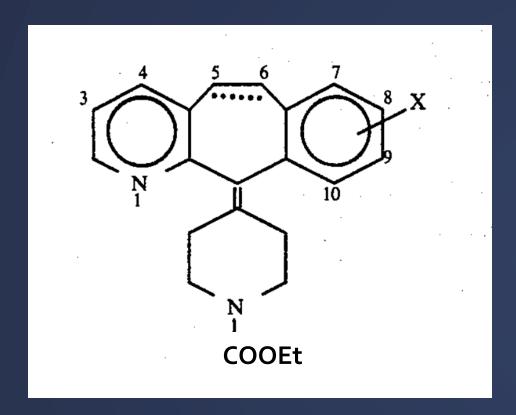


# Novel

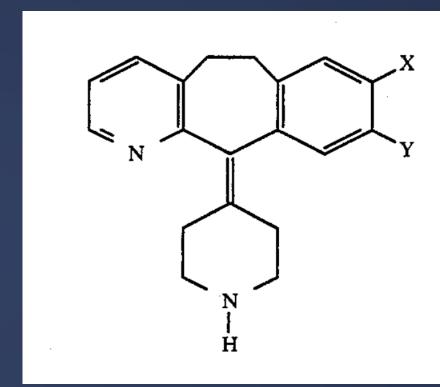
Not anticipated expressly or inherently Not barred by statute

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# Inherent Anticipation









Schering Corp. v. Geneva Pharmaceuticals, 339 F.3d 1373 (Fed. Cir. 2003)

## On-Sale Bar

4. A crystalline calcium salt of 5-methyl-(6S)-tetrahydrofolic acid with 2 theta values of 6.5, 13.3, 16.8 and 20.1 (Type I) said crystalline salt having a water of crystallization of at least one equivalent per equivalent of 5-methyltetrahydrofolic acid.



## Previous Disclosure

3. A method for use in the investigation of nuclear magnetic resonance in a specimen, the method comprising:

exciting transient radio-frequency resonance signals in the specimen by means of a train of radio-frequency pulses successive ones of which are in relative phase quadrature;

deriving from said resonance signals two substantially identical sinusoidal transient signals having the same transient form as said resonance signals;

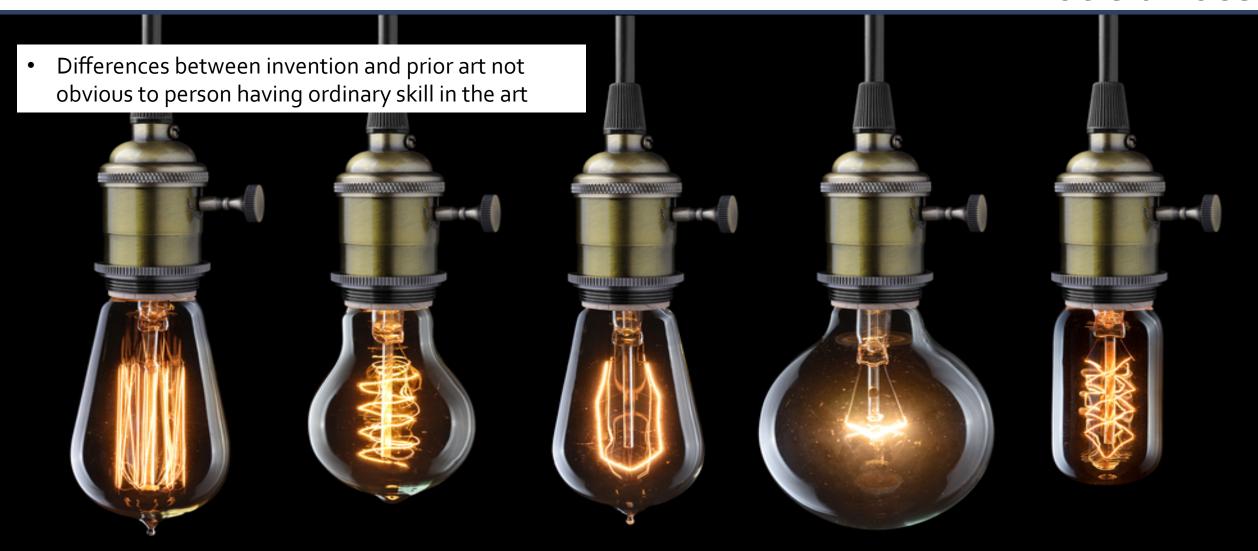
producing two sinusoidal reference signals which are substantially identical except for being in phase quadrature and which have a frequency close to that of said two sinusoidal transient signals;

multiplying each of said sinusoidal transient signals by a different one of said reference signals to produce two output signals each having sum and difference frequency components which correspond to the sum and difference respectively of the frequencies of said sinusoidal transient signals and said reference signals; and

selecting said difference frequency component from each of said two output signals.



# Not Obvious



## Lead Compound

#### 1. A compound of the formula:

$$C_2H_5$$
 $C_2H_5$ 
 $C_2H_2$ 
 $C_2CH_2$ 
 $C_2CH_2$ 

or a pharmacologically acceptable salt thereof.

2. A compound as claimed in claim 1, wherein the compound is 5-{4-[2-(5-ethyl-2-pyridyl)ethoxy]benzyl}-2,4-thiazolidinedione.

## Reason to Modify

1. A compound represented by the formula:

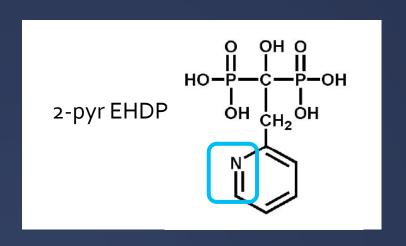
or a pharmaceutically acceptable salt thereof.

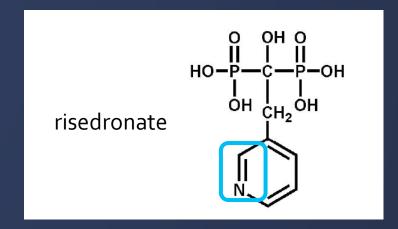
2. The compound of claim 1 as the sodium salt.

Eisai Co. v. Dr. Reddy's Laboratories, Ltd., 533 F.3d 1353 (Fed. Cir. 2008)

## Reasonable Expectation of Success

4. A diphosphonic and acid compound, or pharmaceutically-acceptable salt or ester thereof, which is 2-(3-pyridyl)-1-hydroxyethane diphosphonic acid.





Procter & Gamble Co. v. Teva Pharmaceuticals USA, Inc., 566 F.3d 989 (Fed. Cir. 2009)

## Objective Indicia

Long-Felt But Unmet Need

Failure of Others

Teaching Away by Others

Skepticism by Experts

Praise by Others

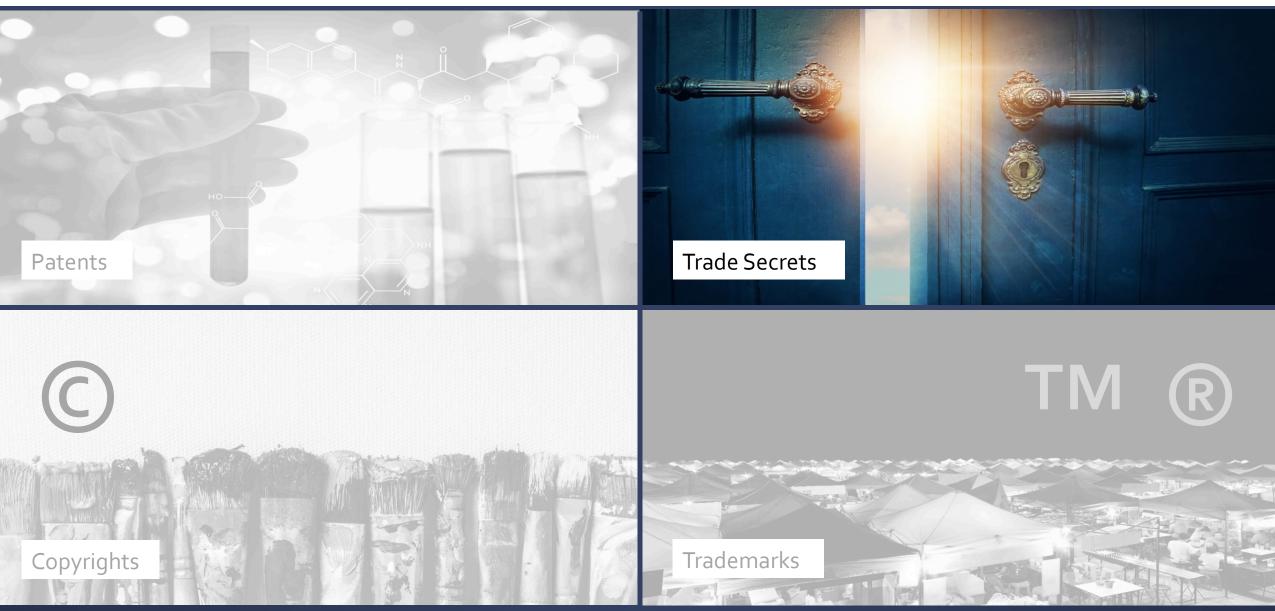
Copying by Competitors

Commercial Success

## Patent Strategies

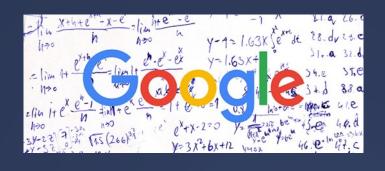


## Intellectual Property



### Secret and Valuable Information

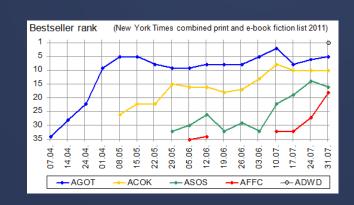
















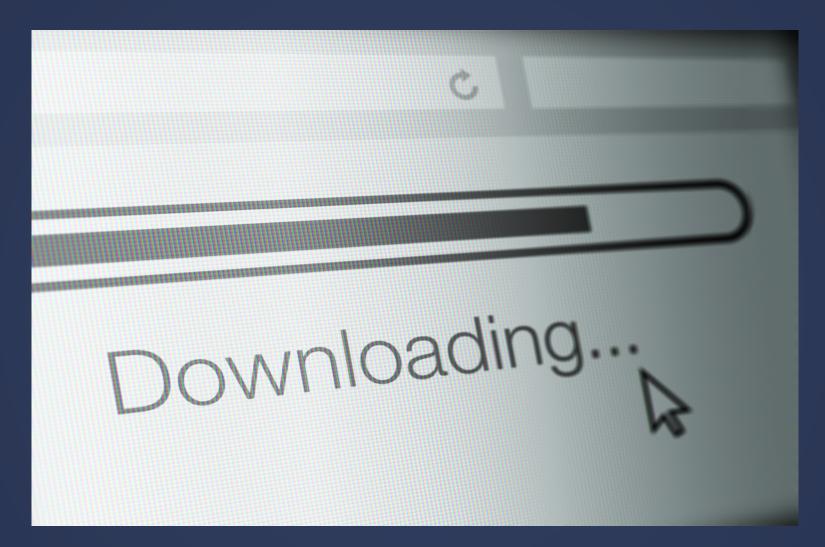
### **Protect Confidential Business Information**



## Reasonable Efforts to Maintain Secrecy



## Changing Jobs



United States v. Nosal, 844 F.3d 1024 (9th Cir. 2016)

## Reverse Engineering



 Readily ascertainable from publicly available information

> Chicago Lock Co. v. Fanberg, 676 F.2d 400 (9th Cir. 1982)

## Using Patents and Trade Secrets

## **Trade Secret**

- Not patent eligible
- Commercial value <2 or >20 years

### Patent

- Can be reverse engineered
- Difficult to keep secret

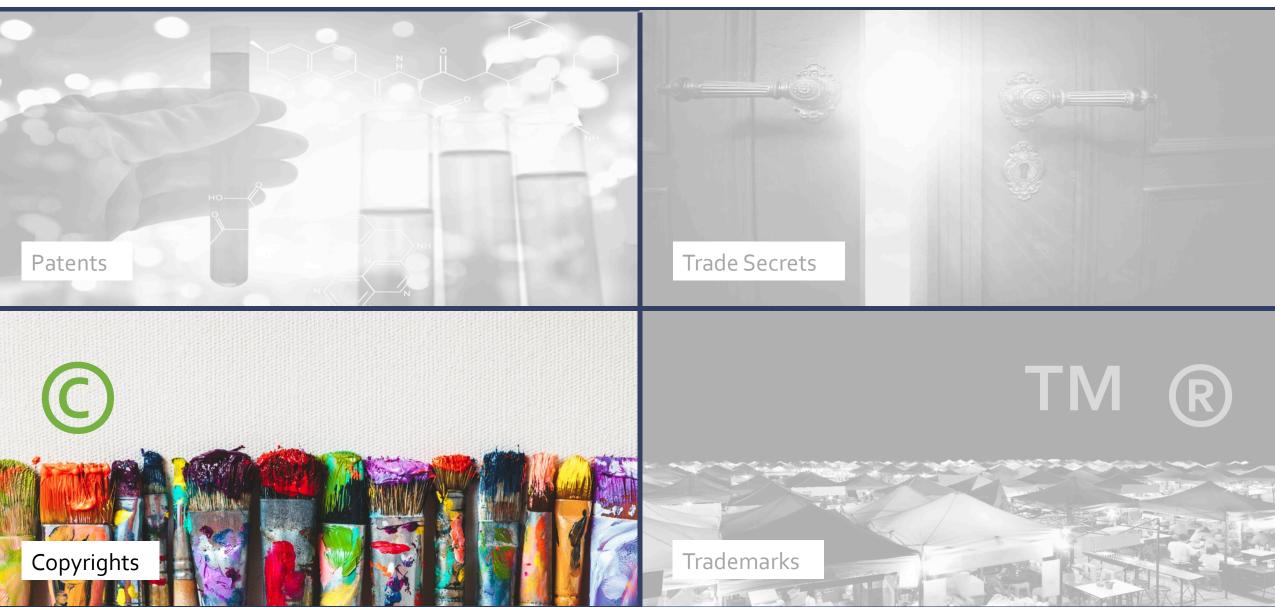
## Trade Secret Strategies



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Enforce

## Intellectual Property



### **Creative Works**









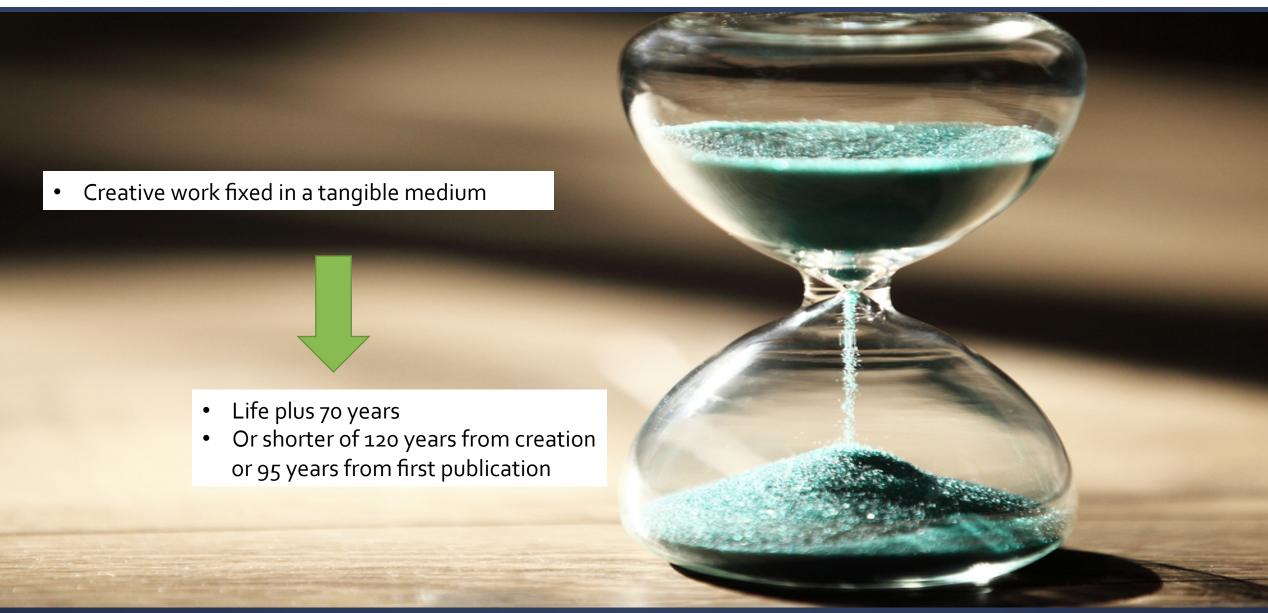








## **Promote Creativity**

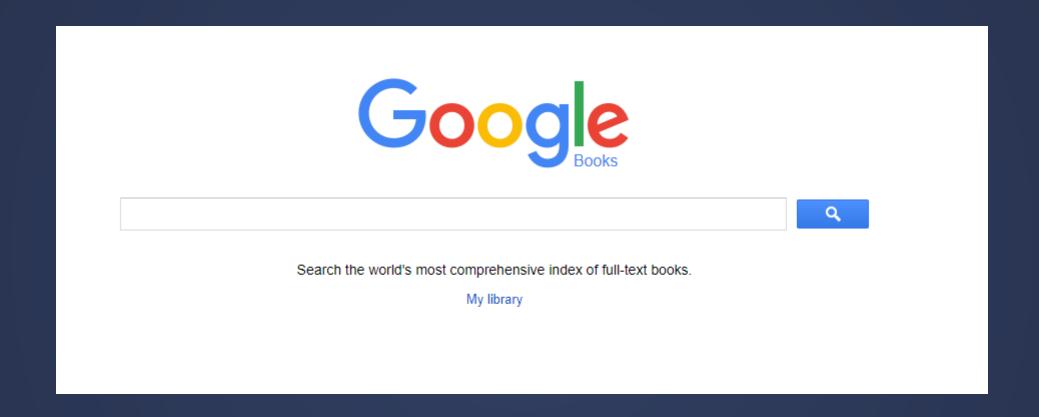


## Photocopying



American Geophysical Union v. Texaco Inc., 60 F.3d 913 (2d Cir. 1994)

#### Fair Use



Authors Guild v. Google, Inc., 804 F.3d 202 (2d Cir. 2015)

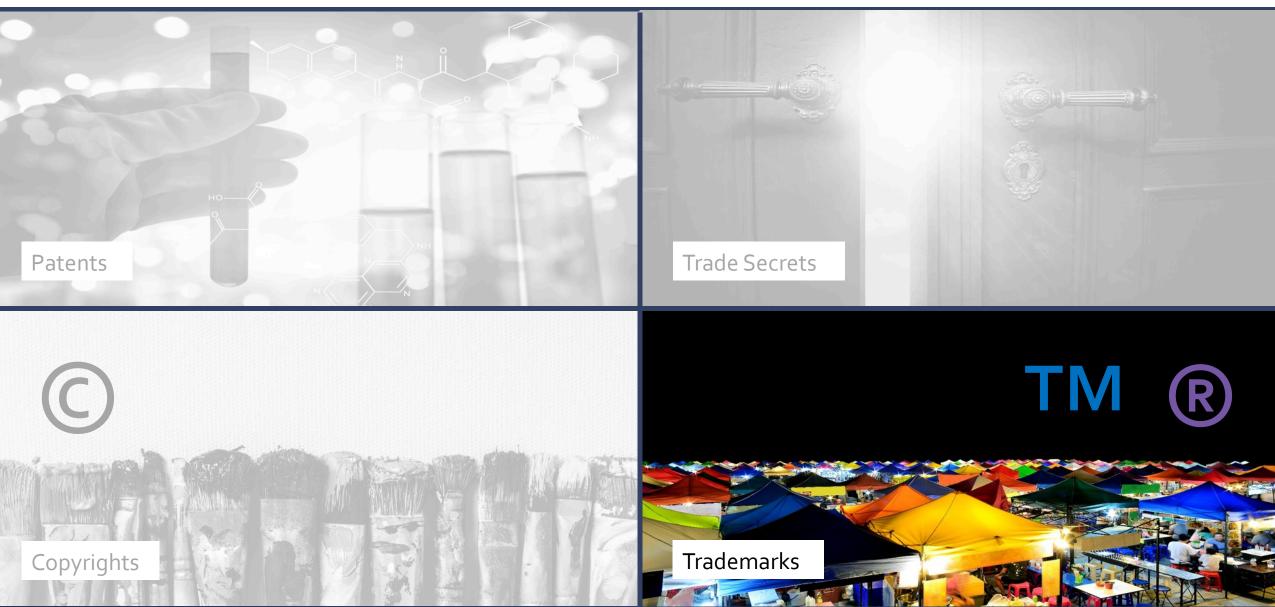
## Copyright Strategies



- Register copyright for benefits
- Use copyright notice
- Monitor use by others
- Enforce



## Intellectual Property



### Source Identifiers















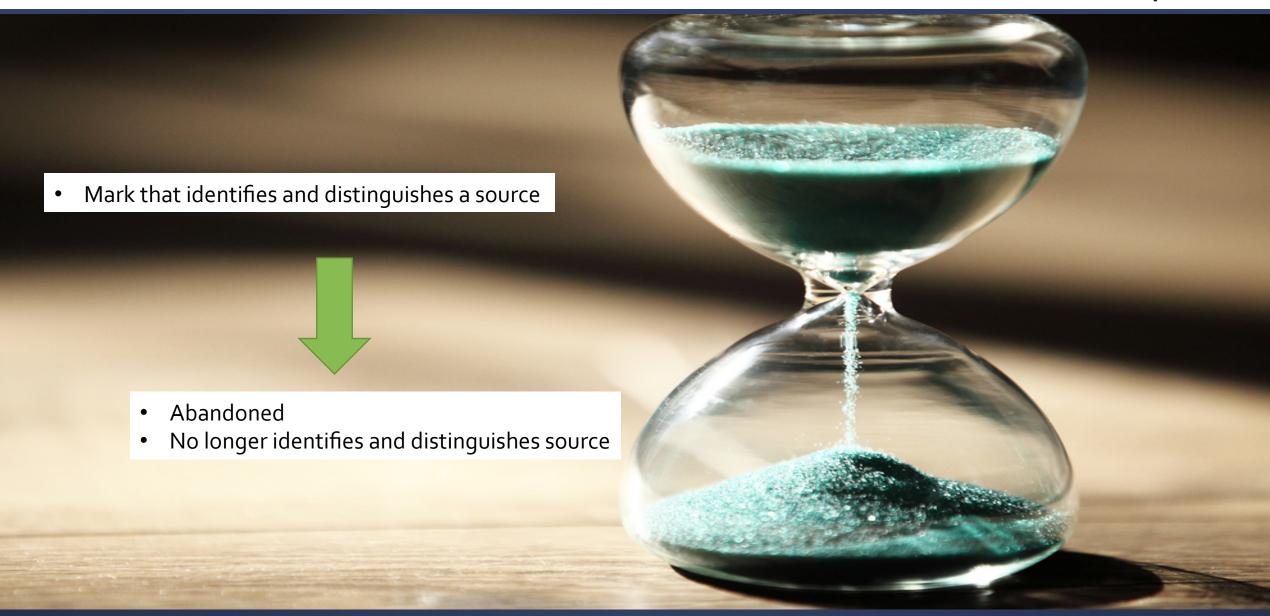








## Protect Marketplace



## Strength of Word Marks



#### Generic

- Common name
- "Apple," "Bicycle"
- Cannot be protected



#### Descriptive

- Immediately identifies good's nature
- "Home Depot,"

  "Sharp," "Windows"
- Requires secondary meaning



#### Suggestive

- Identifies good's nature with imagination
- "Coppertone,"
   "Chicken of the Sea," "PlayStation,"
   "Microsoft"
- Inherently distinctive



#### Arbitrary

- Common word used in unique way
- "Apple,""Starbucks,""Blackberry," "Gap"
- Inherently distinctive



#### Fanciful

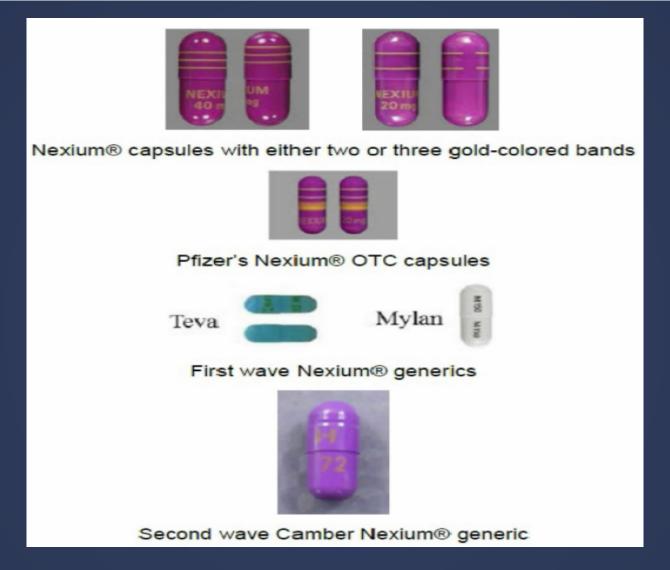
- Invented word
- "Kodak," "Xerox," "Exxon," "Buick"
- Inherently distinctive

## No Similar Name for Competing Product



Kos Pharmaceuticals, Inc. v. Andrx Corp., 369 F.3d 700 (2004)

## No Similar Appearance for Competing Product



## No Blurring or Tarnishing





"To associate such a noxious substance as cocaine with plaintiff's wholesome beverage... would clearly have a tendency to impugn that product and injure plaintiff's business reputation..."

## **Trademark Erosion**











### Trademark Erosion?



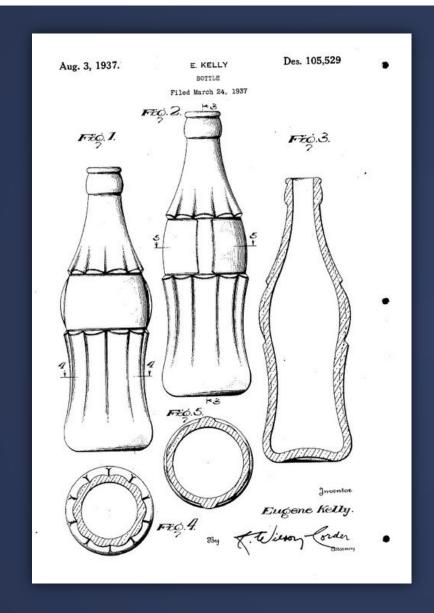








## Using Design Patents and Trademark





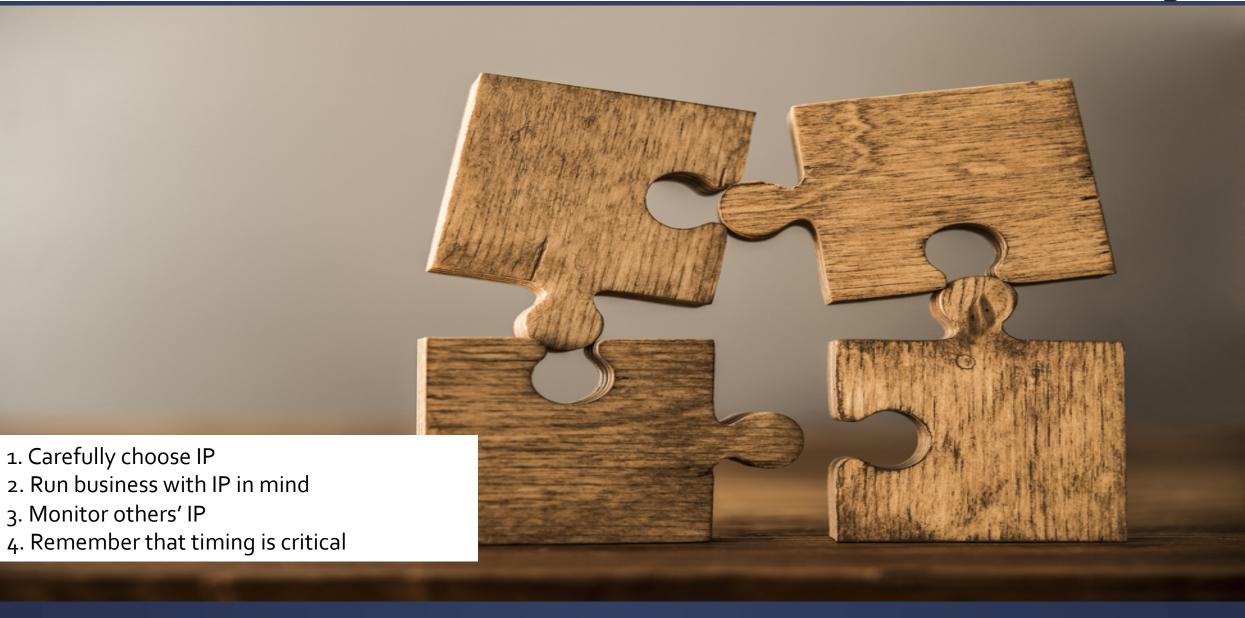
## Trademark Strategies

- Strategically develop marks
- Conduct clearance search
- Register with USPTO
- Protect against erosion
- Monitor use by others
- Enforce





## Coordinated Strategies



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#### Disclaimer

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#### Thank You



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## **Question & Answer**

Please enter questions or comments in the "Questions" box located in the control panel.





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# Thank you for joining us!

For more information about the GC3: www.greenchemistryandcommerce.org

