Basis for Protection of Patents and Copyrights in the U.S. Constitution

US Constitution, Article 1, Section 8, Clause 8

- "Congress shall have the 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."
What is Intellectual Property

4 types of intellectual property:

(1) Copyright

(2) Trademark

(3) Trade Secrets

(4) Patent
Copyright

**Definition:** A form of protection provided to the authors of “original works of authorship”

**Protects:** Literary, dramatic, musical, artistic, and certain other intellectual works

**Duration:** In general, author’s life + 70 years

For more information on copyright, visit the U.S. Copyright Office website at [http://www.copyright.gov](http://www.copyright.gov)
Trademark

Definition: Any word, name, symbol, or device, or any combination, used, or intended to be used, in commerce to identify and distinguish the goods or services.

Protects: All of the above & logo, banner, sound, smell, etc.

Duration: 10-year terms with 10-year renewal terms

Trade Secrets

**Definition:** Any information that provides economic value that is not in the public domain and that has been reasonably kept secret.

**Protects:** Formulas, patterns, compilations, programs, devices, methods, techniques or processes.

**Duration:** As long as they remain secret.

Trademark Registration #: Coca Cola: 3252896, KFC: 2800403.
What is a patent?

A patent is a property right granted by the Government of the United States of America to an inventor “to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States” for a limited time in exchange for public disclosure of the invention when the patent is granted.
What can be patented?

- Utility patents are provided for a new, nonobvious and useful:
  - Process
  - Machine
  - Article of manufacture
  - Composition of matter
  - Improvement of any of the above
Invention must also be:

- Novel
- Nonobvious
- Adequately described or enabled (for one of ordinary skill in the art to make and use the invention)
- Claimed by the inventor in clear and definite terms
(12) United States Patent

Gegen et al.

(45) Patent No.: US 8,067,430 B1

(49) Date of Patent: Nov. 29, 2011

(54) ANTI-HIV ACTIVITY OF THE OPIOID ANTAGONIST TALCONE

(75) Inventor: Kenneth B. Gegen, Tampa, FL (US); Steven Spence, Tampa, FL (US); Steven B. Nyarga, Tampa, FL (US); Ranchard Cao, Tampa, FL (US)

(72) Assignee: University of South Florida, Tampa, FL (US)

(10) Notice: Subject to any disclaimer, the term of this patent is extended by adjustment under 35 U.S.C. 154(b) by 1235 days.

(21) Appl. No.: 10/992,471

(22) Filed: Jul. 29, 2004

Rotated U.S. Application Data

(60) Provisional application No. 60/481,156, filed on Jul. 29, 2003.

(51) Int. Cl.

ATC H 10B (2006.01)

(52) U.S. Cl.

516.282

(56) Field of Classification Search

See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

5,956,310 A* 10/1999 Hechter 141/402
6,095,689 B1 A* 1/2001 Hechter et al. 141/402
6,105,051 A* 11/2000 Hechter 141/402

OTHER PUBLICATIONS


56 References Cited

(57) Primary Examiner — Jeffrey S. Landgren

Assistant Examiner — Seiulli Tao


(21) A method of treating HIV infection by using the novel anti-HIV activity of the opioid antagonist talcone.

2 Claims, 4 Drawing Sheets
What is claimed is:

1. A method of inhibiting reverse transcriptase activity in a cell infected with the human immunodeficiency virus (HIV) comprising the step of contacting the infected cell with a solution consisting of naloxone hydrochloride having a molar concentration between $10^{-6}$ M and $10^{-12}$ M.

2. A method of modulating the expression of a coat protein of a human immunodeficiency virus comprising the step of contacting the virus with naloxone hydrochloride wherein the coat protein of the virus is chosen from the group consisting of gp41 and gp120.

* * * * *
Patent Applications Filed at the USPTO

- Over 457,000 Utility patent applications filed in FY 2010.
- Over 13 million Utility patent applications filed to date.
- Eight million patents issued.
- Over Six thousand eight hundred Patent Examiners
Office of the Commissioner for Patents

- Office of the Deputy Commissioner
- Office of Patent Examination Policy
- Office of Patent Resources and Planning
- Office of Patent Information Management
- Office of Innovation Development
The Deputy Commissioner for Patents oversees all patent examining functions in the nine Patent Technology Centers. Patent Operations provides administrative oversight to and coordinates the activities of Technology Centers 1600, 1700, 2100, 2400, 2600, 2800, 2900, 3600, and 3700.
United States Patent and Trademark Office Technology Centers

- Technology Center 1600: Biotechnology and Organic Chemistry.
- Technology Center 1700: Chemical and Materials Engineering.
- Technology Center 2400: Computer Networks, Multiplex, Cable and Cryptography/Safety.
- Technology Center 2600: Communications.
- Technology Center 2800: Semiconductors, Electrical and Optical Systems and Components.
- Technology Center 2900: Designs.
- Technology Center 3600: Transportation, Electronic Commerce, Construction, Agriculture, Licensing and Review.
- Technology Center 3700: Mechanical Engineering, Manufacturing and Products.
TC 1600

Three Group DIRECTORS

TQAS

Work Groups

RQAS

1610

1620

1630

1640

1650

1660

EIGHT Art Units

NINE Art Units

EIGHT Art Units

NINE Art Units

SEVEN Art Units

ONE Art Unit

EACH ART UNIT HAS AN AVERAGE OF 12 TO 18 EXAMINERS AND IS HEADED BY A SUPERVISORY PATENT EXAMINER
# Technology Examined by TC 1600

<table>
<thead>
<tr>
<th>Work Group 1610</th>
<th>Vitamin D, Herbicides, Pesticides, Cosmetics, Steroids, Drugs and Bio-affecting and Body Treating Compositions</th>
</tr>
</thead>
</table>
| Work Group 1620 | **Organic Chemistry, Heterocyclic Compounds and Uses**  
Animals, Animal Cloning, Gene Therapy, Adult and Embryonic Stem Cells, Bioinformatics, Nano-particles for delivery of bioactive agents including nucleic acids DNA Vaccine, Nucleic Acid Hybridization, Probes, SNPs, Genotyping, Antisense-related Nucleic Acid Compositions and Methods Gene Expression, Nucleic Acid Amplification, Primers, Genotyping, Haplo typing, Combinatorial/ Computational Chemistry, Transgenic Plants |
| Work Group 1630 | Specific Binding Assays and Apparatus, Antibody Engineering and Cancer, Immunology *Bacterial & Parasitic Immunology and Specific Binding Assays Cellular Immunology Receptors, Cytokines & Recombinant Hormones, Viral Immunology, Neurobiology and Neuroimmunology |
| Work Group 1640 | Fermentation and Microbiology Recombinant Enzymes Recombinant Proteins Peptides, proteins, methods of treatment, enzymes, enzyme assays, Protein crystallography cases related to any protein Bio-acting plant extracts, and cell assays |
| Work Group 1650 | Plants |
| Work Group 1660 | Plants |
The Patent Application Process
**Patent Application Process**

**Office of Initial Patent Examination (OIPE)**
1. Collect Fees
2. Scanning-Convert All Paper to Image
3. Initialization-Assign Serial Numbers
5. Assign Filing Date
6. Assign Class, Art Unit

**Examination**
1. 2nd Formalities Review
2. Patentability?
   - Patentable Subject Matter?
   - Utility?
   - Clearly Described?
   - Enabled?
   - Claims Definite?
   - Novel?
   - Non-obvious?

**Post Examination (Publications)**
1. 3rd Formalities Check
2. Collect Issue Fee
3. Convert Image to Text
4. Assign Patent Number

**PG Pubs**

**Patent Application**
400,000+/yr

**Abandonment**
Patent Examination

- PATENT EXAMINATION
- READ AND UNDERSTAND SPECIFICATION
- DETERMINE WHETHER SPEC IS ADEQUATE
- DETERMINE SCOPE OF THE CLAIM
- SEARCH EXISTING TECHNOLOGY FOR CLAIMED INVENTION
- DETERMINE PATENTABILITY
- WRITE/MAIL A LEGAL OFFICE ACTION ON THE PATENTABILITY
- RESPOND TO APPLICANTS RESPONSE
- ISSUE PATENT OR ABANDONMENT
An Examiner’s Tools of the Trade
Examiners’ Electronic World

- PALM – Patent Application Locating and Monitoring
- EAST – Examiner Automated Search Tool
- WEST – Web-based Examiner Search Tool
- OACS – Office Action Correspondence Subsystem (eRed folder)
- IFW – Image File Wrapper
- eDAN – electronic Desktop Application Navigator
- MADRAS
USPTO Training Academy

New Examiner 4-Month Training Program

Course Curriculum Overview
Training Academy Overview

New training program established January 23, 2006:

- Integrate more new examiners into the examining corp than ever before
- Improve the quality of our products and services
- Reduce the training burden faced by the management staff in the Technology Centers
- Graduate new hire examiners with the ability to work with reduced oversight

Program Structure:

- Comprehensive 4-month training program
- 128 new examiners assigned to each Class
- Each Class consists of 8 labs with up to 16 students in each
- Labs are lead by a Supervisory Patent Examiner (SPE)/Trainer
- Examiner Training Assistants are integrated into the labs as new examiners begin working on “live” cases between the 8th and 10th weeks
Course Curriculum Overview

- Four Track Program
  - Patent Examination Practice and Procedure
  - Automation Skills
  - Technical Skills Development
  - Professional and Soft Skills Development
Overview of Website - Inventors

Helpful links for inventors
- General Information
- Introductory Guides
- FAQs
- Upcoming Events
- Registered Attorneys & Complaints Against
- Inventors Assistance Center
- and much more…

Click on "Inventors"
Overview of Website - Patents

- Patent Process
- Patent Classification
- Patent Forms
- Statistics
- Electronic Business Center
- Patent Laws, Regulations, Policies & Procedures
- Resources and Guidance
- Office of Data Management
- Announcements
- Initiatives & Events
- International Protection
- Employee Locator
- Contact Patents

What is a patent?
A patent is an intellectual property right granted by the Government of the United States of America to an inventor "to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States for a limited time in exchange for full public disclosure of the invention when the patent is granted.

There are three types of patents: utility patents, design patents, and plant patents. Utility patents may be granted to anyone who invents or discovers any new and useful process, machine, article of manufacture, or composition of matter, or any new and useful improvement thereof. Design patents may be obtained for any new and unique design for an article of manufacture. Plant patents may be granted to anyone who invents or discovers and asexually reproduces any distinct and new variety of plant.

Resources
- Search Patents
- Resources
- Tools
- Popular Links
- Contact Us
Overview of Website - Careers
Inventor Community

- Individual inventor
- University
- Small Business/Small Medium Enterprise (SME)
- Corporation
- Non-profit
University Outreach

- Campus visits
  - IP presentations
  - Individual Q&A
  - Technology Transfer discussions

- Electronic Media

- Virtual visits
  Video teleconference format
Purpose is to inform and guide business owners

- The Assessment of intellectual property asset awareness tool provides:
  - A customized determination of what specific IP areas would be of value to the business owner to know more about
  - Handy information on Patents, Trademark, Copyright, Trade Secrets and IP management best practices

- Designed specifically for small and medium sized enterprises
  - Sensitive to their time constraints and needs
  - Helpful to new entrepreneurs as well as established firms
Pre-Assessment to determine potential IP assets of a business/inventor and take a customized assessment; or

Alternatively, take full assessment.

First question in a category determines relevancy of the category.

User skips to next category if response indicates awareness of the information.
IP Awareness Assessment

- Assessment of intellectual property asset awareness
  - Ten Categories and sixty one questions to cover various aspects of IP

- Based on user input provides:
  - Basic information in Patents, Trademark, Copyright, Trade Secrets and IP management best practices
Assessing IP Awareness in 10 Categories:

- IP Strategies
- Trademarks
- Copyrights
- Design Patents
- Trade Secrets
- Utility Patents
- Using Technology of Others
- Licensing Technology of Others
- International IP Rights
- IP Asset Tracking
IP Awareness Assessment

- Each category designed to discover overall IP awareness
- First question in category determines relevancy and if additional info needed
- User skips to next category if response indicates awareness of the information
- Categories need to be completed in the order listed
- Option to go back to the previous category
- Customized training based on user input
Welcome to the Intellectual Property (IP) Awareness Assessment Tool, an IP assessment and personalized training resource for small and medium sized enterprises (SMEs) and inventors. The assessment is designed to help evaluate a user’s IP asset awareness. It provides a targeted training based on the assessment results. The full assessment comprises questions on five IP protection categories (Utility Patents, Trademarks, Copyrights, Trade Secrets, and Design Patents) plus five general IP categories - IP strategies & best practices, Using Technology of Others, Licensing Technology to Others, International IP Rights and IP asset tracking. The questions presented in each category have been designed to discover the participant’s overall IP awareness.

For users who are not interested in taking the full assessment, a pre-assessment can help in identifying their potential IP assets. Based on the pre-assessment results, users can take a customized assessment specific to their potential IP protection needs.

All users (taking customized or full assessment) will take the assessment of the general IP categories.

After you complete the assessment, your results along with links for suggested training materials will be displayed. The assessment results can be printed or converted to a PDF format for future use and training.

Click here to enter the IP Awareness Assessment.

IMPORTANT:

Before starting the assessment, please read the following:

1. While taking the assessment, please choose the answer that best describes your business or applies to your business or you as an independent inventor or individual. Where applicable, choose all the responses that apply to your business or you.

2. Please save the link for this page as a favorite/bookmark in your browser. In the “Internet Options” of your browser, delete/undelete “Delete browser history on exit.” This will allow you to return and resume your assessment session in case you cannot finish it in one sitting. This will also allow you to access your training materials and assessment results. If you do not save the link as a favorite, you will not be able to resume your prior session and you have to start from the beginning.
IP Awareness Assessment

About the IP Awareness Assessment:
The IP Awareness Assessment, developed under the joint efforts of the National Institute of Standards and Technology/Manufacturing Extension Partnership (NIST/MEP), allows a user to assess their IP awareness. Following the completion of the assessment, the user is provided with a customized training plan. To learn more about the IP Awareness Assessment, click here.

Feedback:
Your feedback is crucial for improving the IP Awareness Assessment.

To access the USPTO Inventor Assistance Program, click here.

Disclaimer:
Please note that any information provided here does not constitute legal advice, but is intended to increase your IP awareness. When filing an application for obtaining specific IP rights, it is recommended that you obtain professional legal assistance.

IP Awareness Assessment

The Pre-assessment, containing five questions covering various types of Intellectual Property (IP), allows a quick determination of potential IP’s of the user and provides an option for a customized IP assessment. Click at the following button to take the Pre-assessment.

Pre-Assessment

The full assessment, containing ten categories and over sixty questions, is available for assessing awareness about all the aspects of IP. Click at the following button to take the Full assessment.

Full IP Assessment

IMPORTANT:

Before starting the assessment, please read the following:
(1) While taking the assessment, please choose the answer that best describes your business or applies to your business or you as an independent inventor or individual. Where applicable, choose all the responses that apply to your business or you.
(2) Please save the link for this page as a favorite/bookmark on your browser. In the "Internet Options" of your browser, deselect/restore "Delete browser history on exit." This will allow you to return and resume your assessment session in case you cannot finish it in one sitting. This will also allow you to access your training materials and assessment results. If you do not save the link as a favorite, you will not be able to resume your prior session and you have to start from the beginning.
IP Awareness Assessment

Congratulations! You have completed the IP Awareness Pre-assessment. Based on your response to the pre-assessment questions, you or your business might have or might be using the following types of IP:

- Trademarks
- Design Patents
- Trade Secrets
- Utility Patents

Click at the following button to start your customized IP assessment.

If you will like to complete the full assessment, click at the following button to start the full IP assessment.

Before starting the assessment, please read the following:

1. While taking the assessment, please choose the answer that best describes your business or applies to your business or you as an independent inventor or individual. Where applicable, choose all the responses that apply to your business or you.
2. Please save the link for this page as a favorite/bookmark on your browser. In the "Internet Options" of your browser, deselect/unslick "Delete browser history on exit." This will allow you to return and resume your assessment session. In case you cannot finish it in one sitting. This will also allow you to access your training materials and assessment results. If you do not save the link as a favorite, you will not be able to resume your prior session and have to start from the beginning.

Disclaimer:
Please note that any information provided here is not deemed as legal advice. It is intended to increase your IP awareness. When filling an application for obtaining specific IP rights, please seek professional legal help.
IP Awareness Assessment

Assessment Results

Congratulations! You have completed a customized Intellectual Property (IP) Awareness Assessment. The IP categories included in your assessment were selected based on your response to a pre-assessment.

Disclaimer:
Please note that any information provided here is not deemed as legal advice, it is intended to increase your IP awareness. When filing an application for obtaining specific IP rights, please seek professional legal help.

IP Strategies & Best Practices

The following paragraphs address your responses in this category:

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You answered that the products or services of your business are not unique and that your competitors also supply similar products or services. However, you may still have IP that might need to be protected. For example, your business name, slogans that associate your business with the services or the products you provide, brochures, videos, advertisements, or catalogues you created to promote your business, could be protected by trademarks and/or copyright. Additionally, you may have business plans, strategies or client lists that could potentially be your trade secrets. Licensing your IP may also be important to your business.

The following is a list of training resources that you can use to learn more about trademarks, copyright and IP licensing:
http://www.uspto.gov/mb/smallbusiness/trademarks/
http://www.uspto.gov/mb/smallbusiness/copyright/
http://www.innuscanada.org/Handlers/Pages/licensingbasics.aspx

Trade Secrets

The following paragraphs address your responses in this category:

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You indicated that you do not have significant non-public information that would be valuable to your competitors. Trade secrets are any closely held information that you may have that give your business a competitive advantage. You may want to investigate if you may have any such information that is crucial to the success of your business.

To learn more about trade secrets, visit the following training materials:
http://www.nccs.state.nv.us/ReformedLegislation/statutes/html/article/chapter_60/article_24.html
http://www.uspto.int/office/pat_business/trade_secrets/trade_secrets.html
IP Awareness Assessment-future updates

- Incorporate user input from beta test
- Additional Questions?
- Option to take assessment in multiple sessions
- Training modules to target specific IP topics
- Based on user input customized determination of which specific IP areas require support
- Provide customized training in these areas
Thank you!