Intellectual Property for Principal Investigators

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Innovation & Technology Commercialization

UC DAvis
OFFICE of RESEARCH
**ITC: Linking Research to Public Benefit**

**FY 2018-2019**
- $846 million in research funding
- 14 startups enabled
- 154 records of invention
- 98 patents issued

**InnovationAccess:**
Protecting and commercializing IP
Connects research to the marketplace

**Venture Catalyst**
Supporting the development of new ventures from university research

**IP Strategy**
**IP Protection**
**Patents**
**Marketing**
**Licensing**
**MTAs**
**CDAs**
**Data Use**
New Venture Formation

Integrated suite of tools and resources through Venture Catalyst

**New Venture Toolkit**
Equips early entrepreneurs with tools, resources and services they need to form and grow prosperous companies. E.g., START Program

**Proof of Concept Funding**
Supports translational science and innovative research with targeted funding to help move technology towards commercialization. E.g., STAIR, DIAL Grants

**Distributed Incubator Network**
Offers early-stage startups access to shared office and technical research and development space – Incubators in Davis/Sac area

**Economic Engagement**
Facilitate connections between startups and the regional innovation and economic development ecosystem

https://research.ucdavis.edu/offices/vc/
Intellectual Property (IP)

Intangible personal property

- Product of the intellect
  - Inventions
  - New methods
  - Designs
  - Writings
  - Artistic creations
  - Trademarks
  - Trade secrets

Different protections for different types of IP…
Types of IP protection

**Patent:** new & useful ideas/inventions...(things)

**Copyright:** Protects original expression in a “fixed in a tangible medium”

**Trademark:** A Protects or company name/logo/sound, etc. used to identify a company or a product

**Trade Secret:** Keep it a Secret!

*E.g., Recipes for KFC & Coca cola*
Why are **Patents** Important?

Discover treatment for **COVID19**
- Publish paper!
- Give presentations!

Hey look – someone published on a treatment for COVID19

So….can I get it?

Patent is a Time limited right to *Exclude others* from making, using, selling your invention

Without this protection, companies won’t put $$$ into bringing these technologies to market
Types of Patents

- Utility patents
- Plant patents
- Design patents:
  - Ornamental only

Also:
Plant Variety Protection!
Patent Law: Utility Patents

Under United States law, a **patent can be granted to an inventor for a new process, machine, article of manufacture, or composition of matter**, IF:

**It is Patentable subject matter:**
- New widget, New method to make widget, New use of a widget, New composition of Matter

**Non Patentable Subject matter: Abstract ideas, naturally occurring stuff, Wild animals, software, torture devices...**

**AND it needs to be:**
- New (Novel)
- Useful, and
- Non-Obvious
Device and Method of use to keep dogs ears clean while they eat

U.S. Patent No. 4,233,942

United States Patent [19]

Williams

[54] ANIMAL EAR PROTECTORS
[76] Inventor: James D. Williams, 3700 Westfall Dr., Encino, Calif. 91436

[21] Appl. No.: 9,776
[22] Filed: Feb. 6, 1979

[51] Int. Cl. ........................ A01K 29/00
[52] U.S. Cl. .................................. 119/96

[58] Field of Search .................. 119/96, 104; 54/71, 54/79, 80

[56] References Cited
U.S. PATENT DOCUMENTS

3,924,388 12/1975 Morrison .................................. 54/80

1 Claim, 4 Drawing Figures
Patents: Usefulness

Patent for Stick to play with dogs

U.S. Patent No. 6,360,693

(12) United States Patent
Long, III

(10) Patent No.: US 6,360,693 B1
(45) Date of Patent: Mar. 26, 2002

(54) ANIMAL TOY

Inventor: Ross Eugene Long, III, 4732 Reinhardt Dr., Oakland, CA (US) 94619

Abstract
An apparatus for use as a toy by an animal, for example a dog, to either fetch carry or chew includes a main section with at least one protrusion extending therefrom that resembles a branch in appearance. The toy is formed of any of a number of materials including rubber, plastic, or wood, including wood composites and is solid. It is either rigid or flexible. A flavoring (scent) is added, if desired. The toy is adapted to float by including a material therein that is lighter than water or it is adapted to glow in the dark, as desired, by the addition of a fluorescent material that is either included in the material from which the toy is made or the fluorescent material is applied thereto as a coating. The toy may be segmented (e.g., notched) so as to break off into smaller parts useful for smaller animals or, alternatively, the parts may remain integral parts of the toy. Various textured surfaces and colors are anticipated as are main sections. The toy may be formed of material, described, as so as to be edible by the

References Cited

Claims, 3 Drawing Sheets

* cited by examiner

Primary Examiner—Thomas Price

A01K 29/00

119/707

119/702, 707, 710, 711, 467, 468, 256, 268
Patents: Obviousness

Can’t be **Obvious** to someone else in that same field of work

Get patent on chair

- **Chair**
- **cushioned seat**
- **Arms**
- **Other materials**

**Obvious**

**Not-Obvious**
Patent 5,443,036- Method of exercising a cat:

A method for inducing cats to exercise consists of directing a beam of invisible light produced by a hand-held laser apparatus onto the floor or wall ...in the vicinity of the cat, then moving the laser so as to cause the bright pattern of light to move in an irregular way fascinating to cats...
Other Patent Barriers

• ‘Prior Art’ (from others):
  o Already Issued patents
  o Filed Patent applications
  o Published papers, abstracts, posters
  o Thesis publications, etc.
  o Sale of the product

• **Public Disclosures** (yours) *before patent is filed, e.g.:
  o Talk at conference, posters
  o Published papers  Discussion with colleagues, emails
  o Information on website, etc. (from you)

• Loss of all foreign Rights
• 1 year grace period in U.S
Licensability

Invention is patentable, but will anyone license it?

**new packing crates & method to pack apples**

Packers loose up to 15% of fruit from bruising
Decreases bruising by 15%
Patentable invention... **but**

**New containers didn’t work with the current packing machines**

- Packers would need to re-tool machines
- Cost over $500M
- Savings of $50M per year
- Would take 10 years just to break even...
  - Poor **Return on Investment**...
INNOVATIONACCESS PROCESS
UC Davis InnovationAccess: Process

• **IP strategy meeting**
  • Invention disclosure
    • evaluation
    • Patent Assessment
    • Market evaluation
  • Patent filing
  • Marketing
    • Licensee negotiation
    • License!
  • Manage licensee compliance
    • Diligence
    • Payments
Invention Disclosure:

**Record of Invention:** [https://research.ucdavis.edu/wp-content/uploads/ROI-Form.docx](https://research.ucdavis.edu/wp-content/uploads/ROI-Form.docx)

- IP Officer will meet with you to discuss and review disclosure
  - Are there any additional inventors?
  - Funding used
  - Use of third party materials
    - Restricted uses
    - Vectors, cell lines, materials under MTA
  - IP obligations
    - First right to negotiate exclusive license
    - Sponsor may have ‘Non-Exclusive, Royalty Free’ (NERF) License
    - Non-profit sponsors may have revenue sharing obligations
Invention Evaluation: Commercial Potential

- **Market**
  - Size, growth
  - Competition

- **Technical**
  - Developmental stage (early? Ready to go?)
  - Prototype, scale up

- **Development**
  - Time, cost

- **Regulatory requirements** – USDA, FDA, etc...
Invention Evaluation

• What is the ‘Problem’ being solved?
  • How is problem currently being solved?
  • What are the drivers for adoption of new technology
  • What are the advantages of new invention?
    Better, Cheaper, Faster, Easier?
    Would people want to buy it?

Rocket Sneakers for dogs?
  Faster! But....

If all looks good....File Patent Application....
Market the Invention

- Create a **Non Confidential Disclosure**
- **Post on** technology sites (UCD, UC, AUTM, others)
- Reach out to **Industry Contacts, Tech Scouts**
- **Develop Marketing Campaign** – specific Inventions/IP portfolios
  - Marketing Materials
  - Identify companies in that space
  - Integrated **Social Media posts**
- **Attend conferences/trade events** in that field
Licensing

Select best licensee to bring the invention to market

Includes payment structure (royalties, etc.)

Diligence milestones
  - to make sure they are making progress

Reimbursement of patent costs to UC
After reimbursement of legal expenses

- 50% to Chancellor’s General Fund
- 15% to Department/College
- 35% to Inventor(s)
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Suite 100
Davis, CA 95618-6153

Phone: (530) 754-8649
E-mail: innovationAccess@ucdavis.edu

https://research.ucdavis.edu/industry/ia/

Questions?