

Intellectual Property for Principal Investigators

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Innovation & Technology Commercialization



Innovation & Technology Commercialization

ITC: Linking Research to Public Benefit



InnovationAccess

Connecting research and innovation to the marketplace



Venture Catalyst

Supporting the development of new ventures from university research

InnovationAccess:

Protecting and commercializing IP
Connects research to the marketplace

IP Strategy
IP Protection
Patents
Marketing
Licensing
MTAs
CDAs
Data Use

FY 2018-2019

\$846 million in research funding

14 startups enabled

154 records of invention

98 patents issued

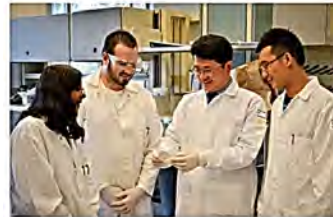
New Venture Formation

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

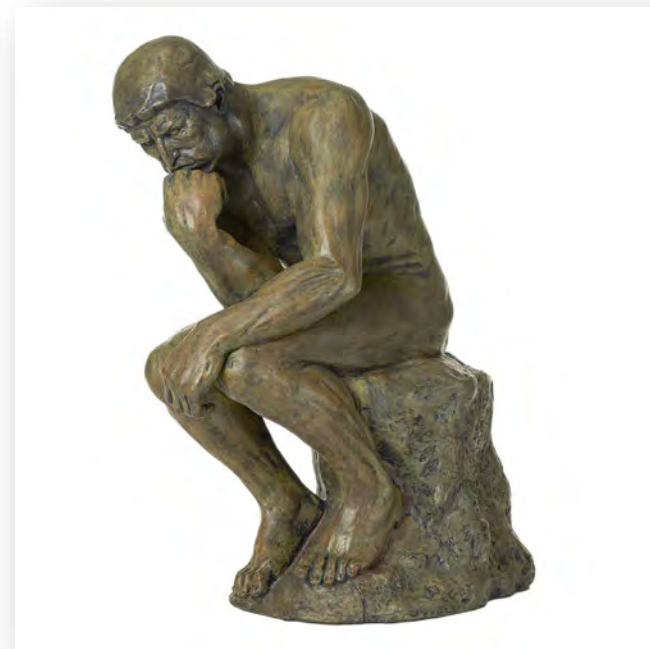
Facilitate connections between startups and the regional innovation and economic development ecosystem

<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

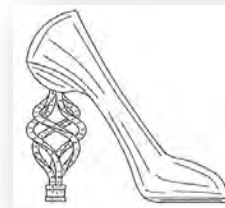
- Utility patents



- Plant patents



- Design patents:
 - *Ornamental only*



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**



Patents: Novelty

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.³ A01K 29/00

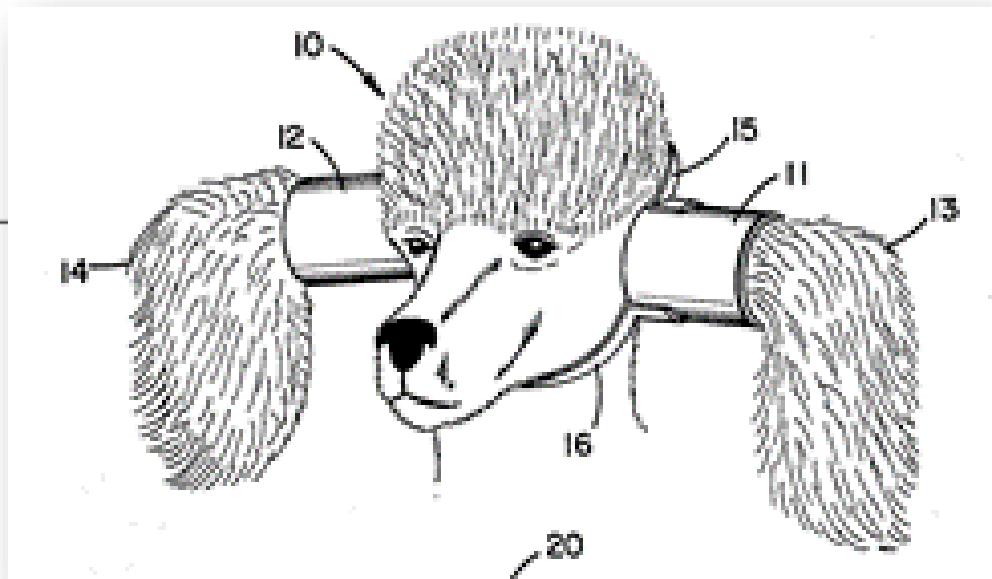
[52] U.S. Cl. 119/96

[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
3,942,306	3/1976	Kulka	54/80



and a member to position the tubular member and animal ears away from the mouth and food of the animal while it is eating.

1 Claim, 4 Drawing Figures



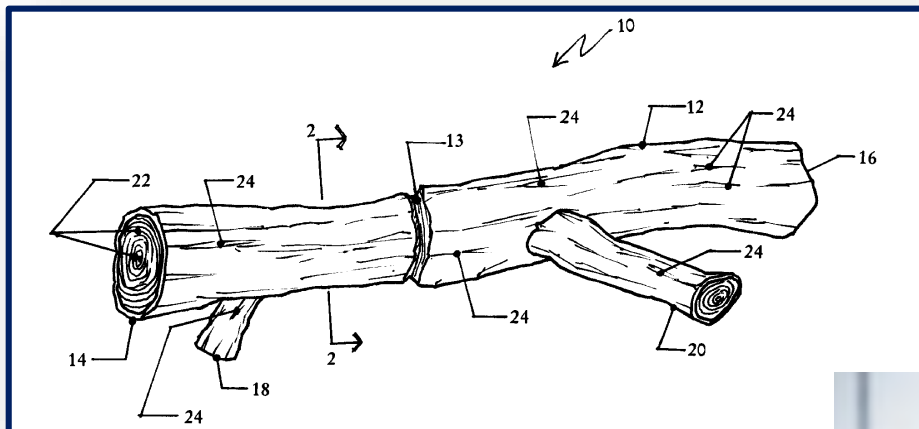
Patents: Usefulness

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**

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

Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

No.: 09/454,229

Dec. 2, 1999

7 A01K 29/00
..... 119/707
f Search 119/702, 707,
119/709, 710, 711, 467, 468, 256, 268

References Cited

5,819,687 A * 10/1998 Lister 119/52.1

* cited by examiner

Primary Examiner—Thomas Price

(57) **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 (i.e., notched) so as to break off into smaller pieces for smaller animals or, alternatively, various textured surfaces and colorings are anticipated as are main sections. The toy may be formed of any material, as described, so as to be edible by the animal.

Claims, 3 Drawing Sheets



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



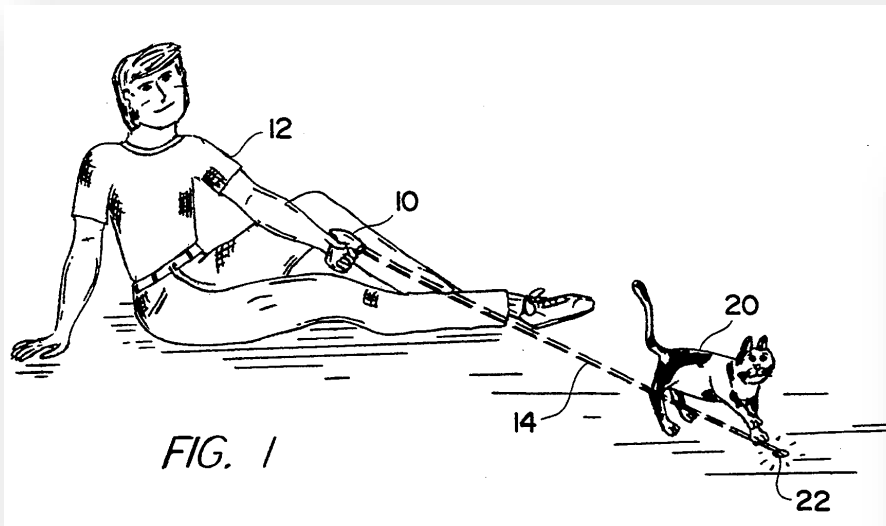
Obvious

Not-Obvious

Patents: Enforcement

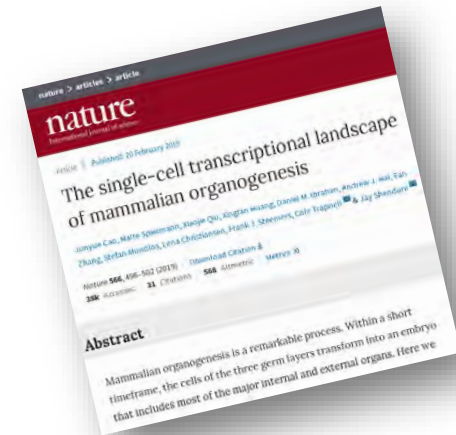
Patent 5,443,036- Method of exercising a cat:

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):
 - Already Issued patents
 - Filed Patent applications
 - Published papers, abstracts, posters
 - Thesis publications, etc.
 - Sale of the product
- **Public Disclosures** (yours) *before patent is filed, e.g.:*
 - Talk at conference, posters
 - Published papers Discussion with colleagues, emails
 - 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...**



No patent filing

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>

- 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

UC Davis InnovationAccess
Innovation & Technology Commercialization
A unit of the Office of Research - University of California, Davis

Deliver/mail this form to: UC Davis InnovationAccess,
1850 Research Park Drive, Suite 100, Davis, CA 95618; or
Email completed Word or PDF form to: innovationaccess@ucdavis.edu
Contact us at 530 754-8649

RECORD OF INVENTION (ROI) FORM

PLEASE NOTE: COMPLETION OF THIS FORM CREATES AN IMPORTANT INVENTION RECORD FOR UC DAVIS BUT, ABSENT THE FILING OF A PATENT APPLICATION, THIS INVENTION RECORD DOES NOT IN ITSELF CREATE OR PROTECT PATENT RIGHTS

Section 1: Inventors
List all inventors and their employment status. (Actual inventorship will be determined by a patent attorney.)

1A. UC Davis inventors

First and last name. List contact inventor first.	Department or Organized Research Unit.	For inventors with joint appointments, list non-UC Davis employer or institution. (e.g. VA/HHMI/LLNI/Shriners, etc.)

1B. Non-UC Davis inventors (if applicable)

First and last name.	Employer or institution.

Section 2: Invention

2A. Short descriptive title of the invention.

2B. Briefly summarize the invention here. Include the novel features.



Invention Evaluation: Commercial Potential

- **Market**

- *Size, growth*
- *Competition*

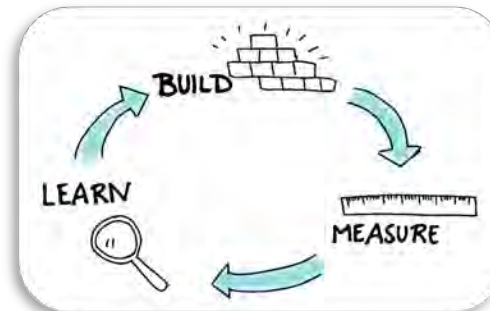


- **Technical**

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

- **Development**

- *Time, cost*



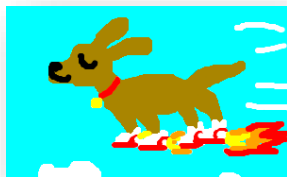
- **Regulatory requirements – USDA, FDA, etc...**

Invention Evaluation

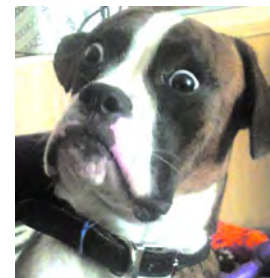
- What is the '**Problem**' being solved?
 - How is problem **currently being solved**?
 - What are the **drivers for adoption** of new technology
 - What are the **advantages** of new invention?

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

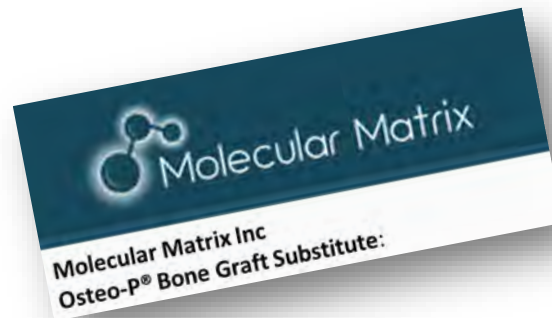
Select best licensee to **bring the invention to market**

Includes **payment structure** (royalties, etc.)

Diligence milestones

- to make sure they are making progress

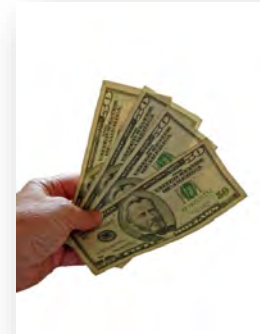
Reimbursement of **patent costs** to UC



UC Davis Royalty Policy

After reimbursement of legal expenses

- **50% to Chancellor's General Fund**
- **15% to Department/College**
- **35% to Inventor(s)**



InnovationAccess

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Questions?

