
university of california, berkeley
bpep
BERKELEY
POSTDOCTORAL
ENTREPRENEUR
PROGRAM

BPEP Mission: To foster entrepreneurship in the UC Berkeley postdoctoral and scientific community in order to move innovations from the laboratory to the marketplace.

Goals

- Provide an entrepreneurship toolkit for postdocs (and others) through on-campus workshops
- Collaborate with business leaders for mentoring
- Assist building (bio-)technology start-up companies
- Connect technology know-how with business skills

BPEP Team

Naresh Sunkara
School of Public Health

Justin Elstrott
Molecular and Cellular Biology

Niranjana Nagarajan
Molecular and Cellular Biology

Fenna Sillé
School of Public Health

Bahram Bahrami
Life Sciences Division - LBNL

Special thanks to…

- Vice Chancellor for Research, **Graham Fleming**
- Director of VSPA, **Sam Castañeda** (food!)
- **Douglas Crawford** of QB3 (drinks!)
- **QB3**, **LBNL** and **Lester Center for Entrepreneurship** for collaborations.

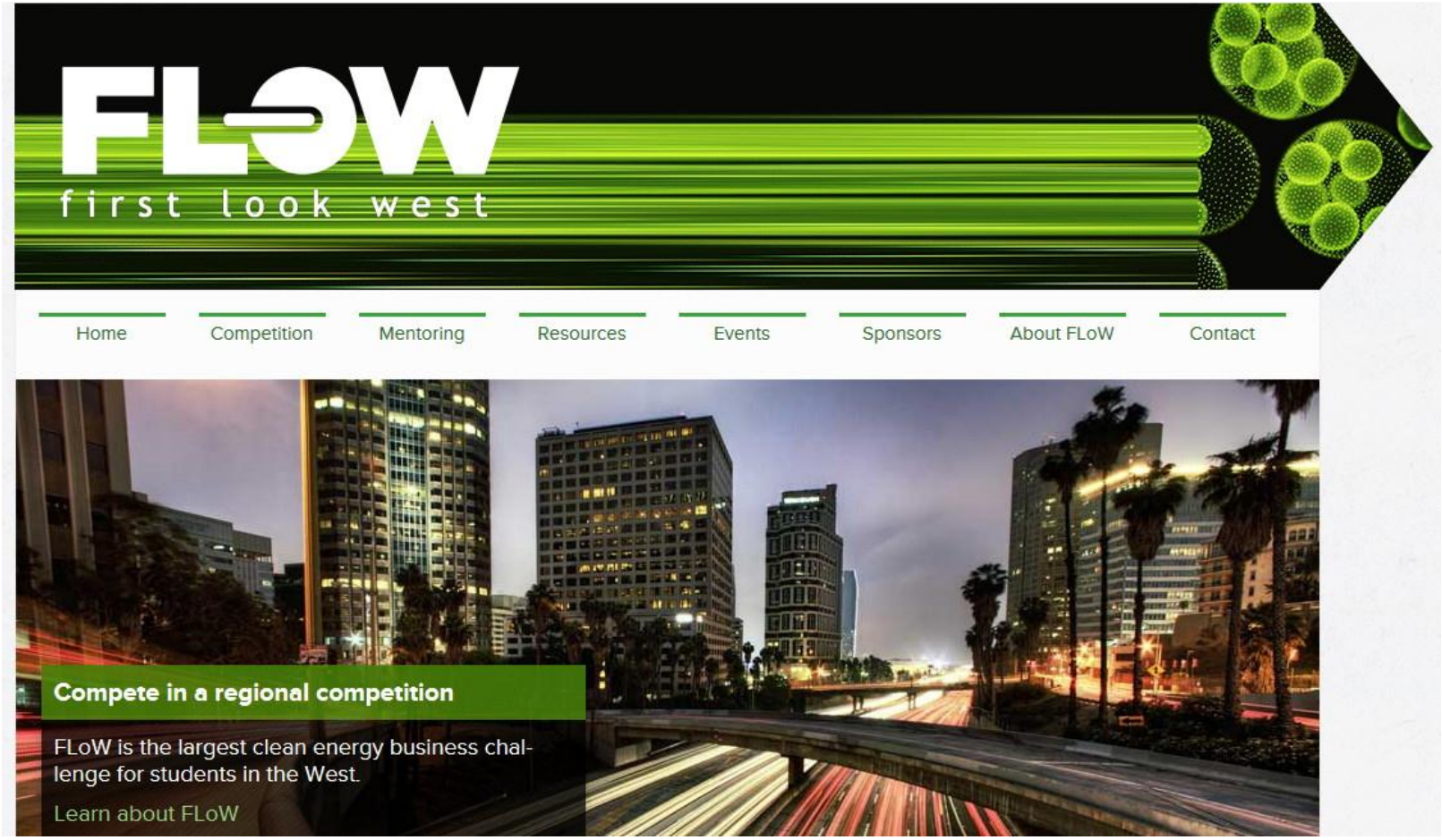
Skydeck: 1st Class Workspace

- Great meeting and event space
- Hot desks for flexible arrangements
- Startup community

Mentoring + Process Is The Key

- Office hours on funding, legal, marketing, operations, …
- Top entrepreneurs, executives, and VCs from the UC Berkeley Community
- Richard Chen, Justin Yoshimura, Jed Katz, Noah Doyle, ….

Flow.caltech.edu



First prize: $100,000

Statement of intent due: November 16, 2012

For more info: www.flow.caltech.edu tom_spooner@mba.berkeley.edu

Cal Venture Fund

- UC Berkeley's first student-run venture fund
  - Help us build our pipeline!
  - Join our teams to compete in VCIC

- Contact Mediha Abdulhay
  - mediha_abdulhay@mba.berkeley.edu

Claremont Creek Ventures

- Welcome Ted Driscoll
- Early-stage venture group
- Don’t come to Ted unless you’ve got some protection

BPEP #1: An Introduction to Entrepreneurship

David Hanzel

X/Seed Capital Management

“Strategic Decisions that Will Increase Your Likelihood of Getting Funded”

3 lessons from David Hanzel

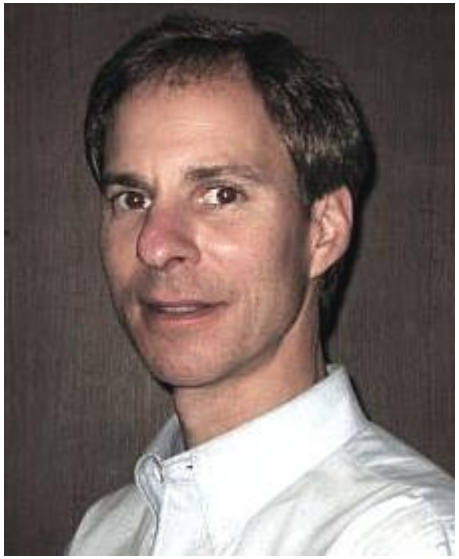
- Work on stuff that's valuable to someone
- A PhD is a get-out-of-jail card
- Talk to everyone

Intellectual Property

October 23, 2012

BPEP #2

Michael Cohen



Commercializing UC Berkeley Technology via the University's Innovation Ecosystem

Mike Cohen
Director, Innovation Ecosystem Development
UC Berkeley Office of Technology Licensing
mike.c@berkeley.edu
510-643-7201

Wednesday October 24th at 5pm in 375 LeConte

Goals: *Big Picture Perspective (not factoids)*

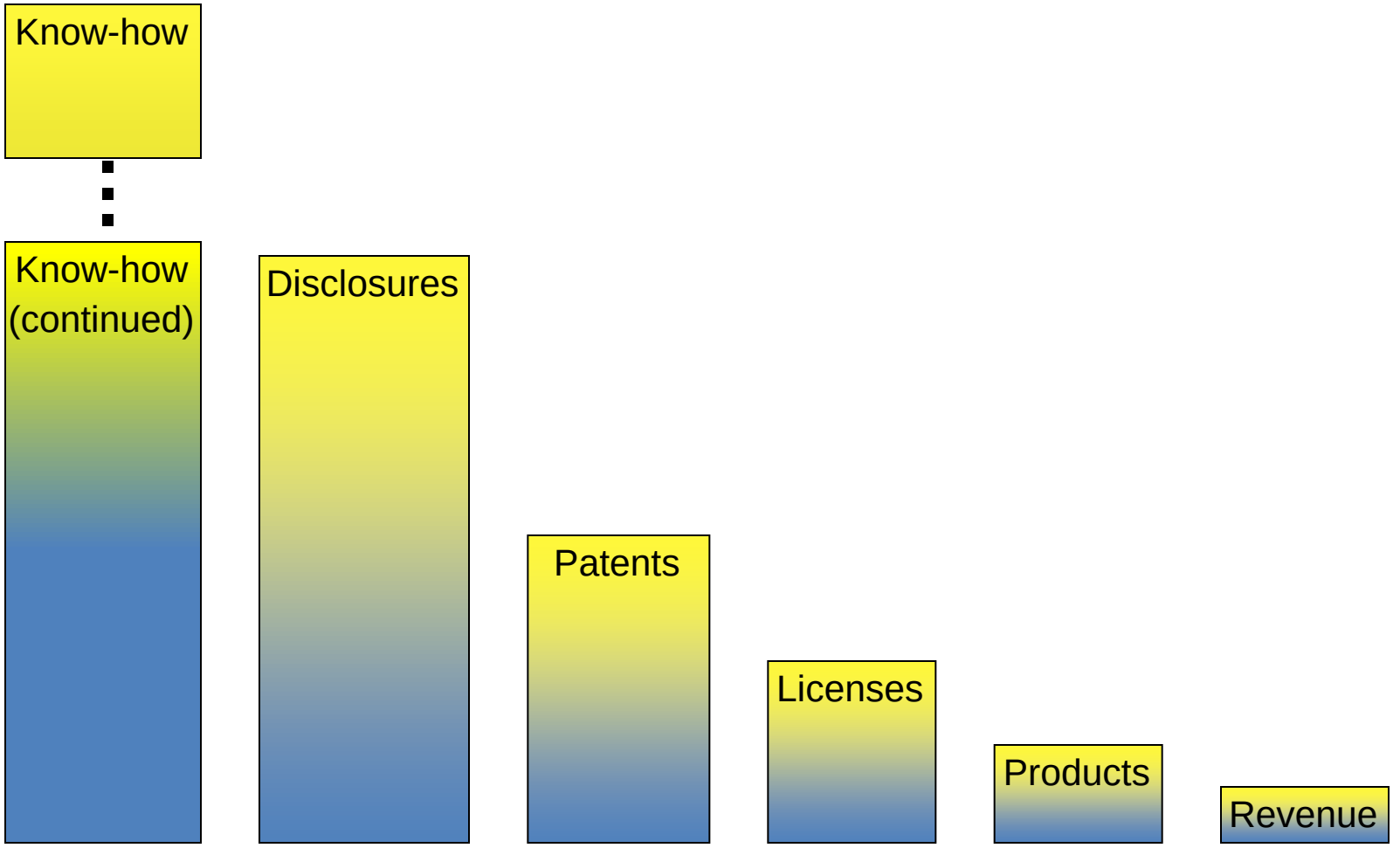
1. Guide your transition from grad student to entrepreneur
2. Help you leverage Berkeley's innovation ecosystem
3. Familiarize you with licensing, patenting & disclosing IP

Agenda: *Big Picture Perspective (not factoids)*

1. Brief Background: *HP, HBS, Sun, Mips, Silicon Graphics, Netpulse, PD, Cal*
2. How University People Start Companies
   - Commercialization pathways: *the 4Ms, spin-outs vs blast-outs*
   - Leveraging the ecosystem: *uber-founders, co-founders, early employees*
3. IP Licensing
   - Catalyzing the commercialization of innovations
   - Managing the risks associated with commercialization
4. Patentable Inventions & Copyrightable Software
   - Disclosing to UC Berkeley
   - Patenting
5. Q & A (but ask questions during the presentation!)

Invention Disclosures: *Statistics*

(not to scale)



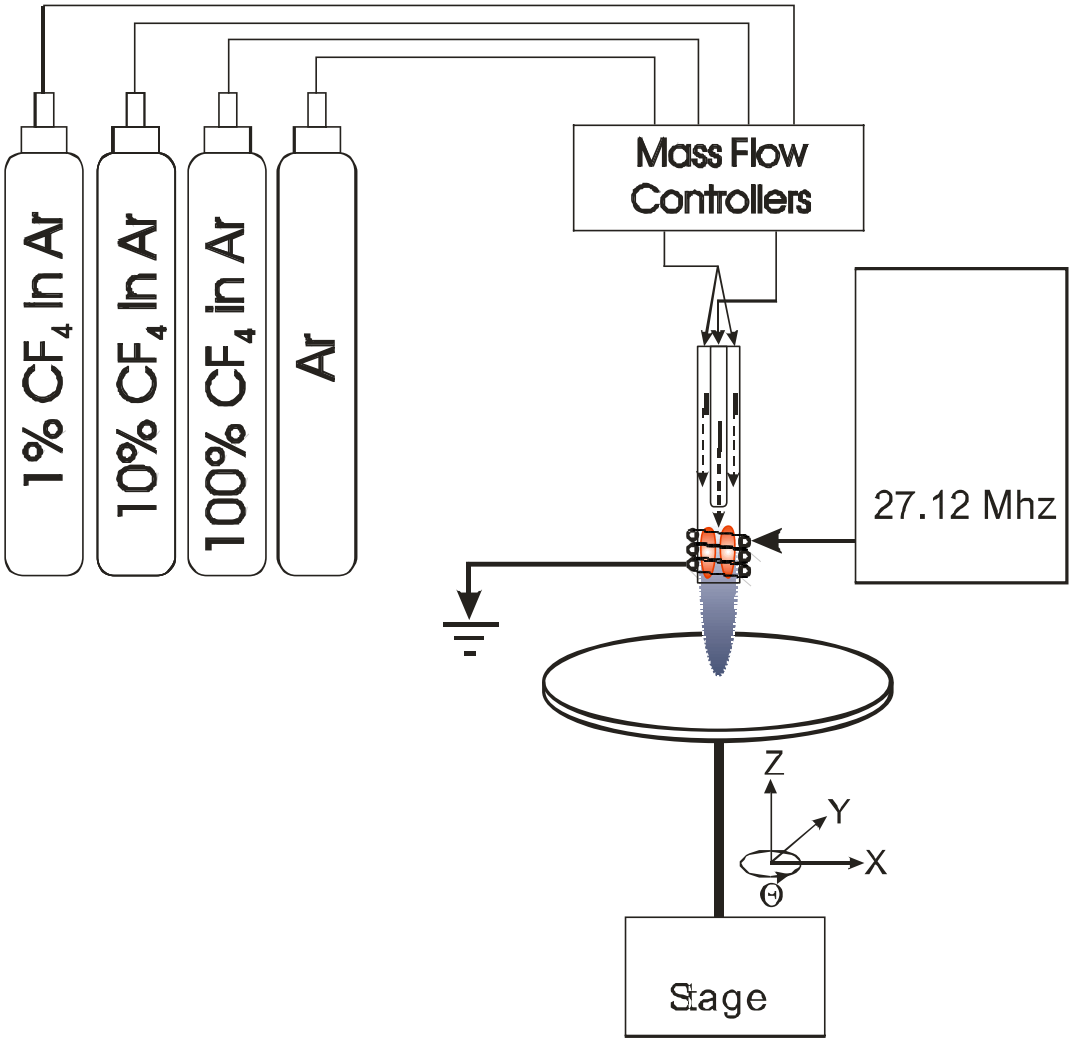
First: a disclaimer

The opinions expressed in this lecture are solely those of Dr. Fiske and not his employer, the University of California, the State of California, the government of the United States, or other sentient creatures in our solar system. Dr. Fiske is not a lawyer, nor does he claim to be a lawyer, nor is he representing himself as an authority in legal matters in any capacity. Some of the statements contained in this presentation may not be suitable for children, people with compromised immune systems, people with opposable thumbs, pandas and those who work with pandas.

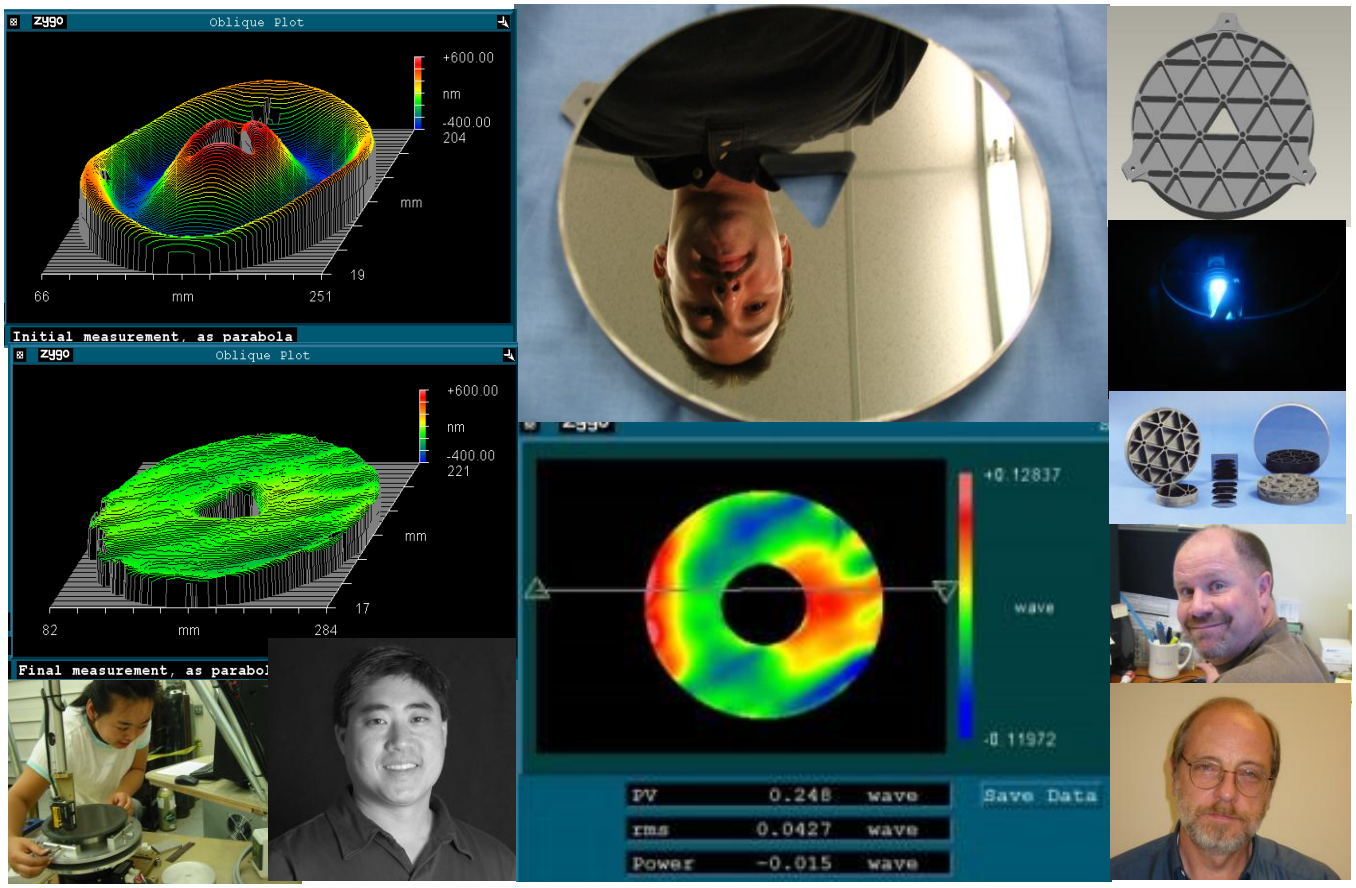
When I first encountered IP issues, here's what I thought:

- You cannot commercialize any technology without a patent
- Any patent that is close to your invention invalidates your IP claims
- Obtaining a patent will completely protect my IP
- We need to patent as soon as possible to prevent being scooped

Some history from my first year..



RAPT INDUSTRIES



www.raptindustries.com

Some of my experience

- Dealt with all aspects of IP while running RAPT Industries
  - Filed 13 US and many more international patents
  - Critically evaluated competitive IP
  - Took 2 WONDERFUL classes at Haas
    - Intellectual Asset Management
    - Law and the Business Environment
  - Successfully negotiated a license for RAPT IP
  - Hundreds of hours spent with legal counsel
  - Managed NDAs, employment agreements

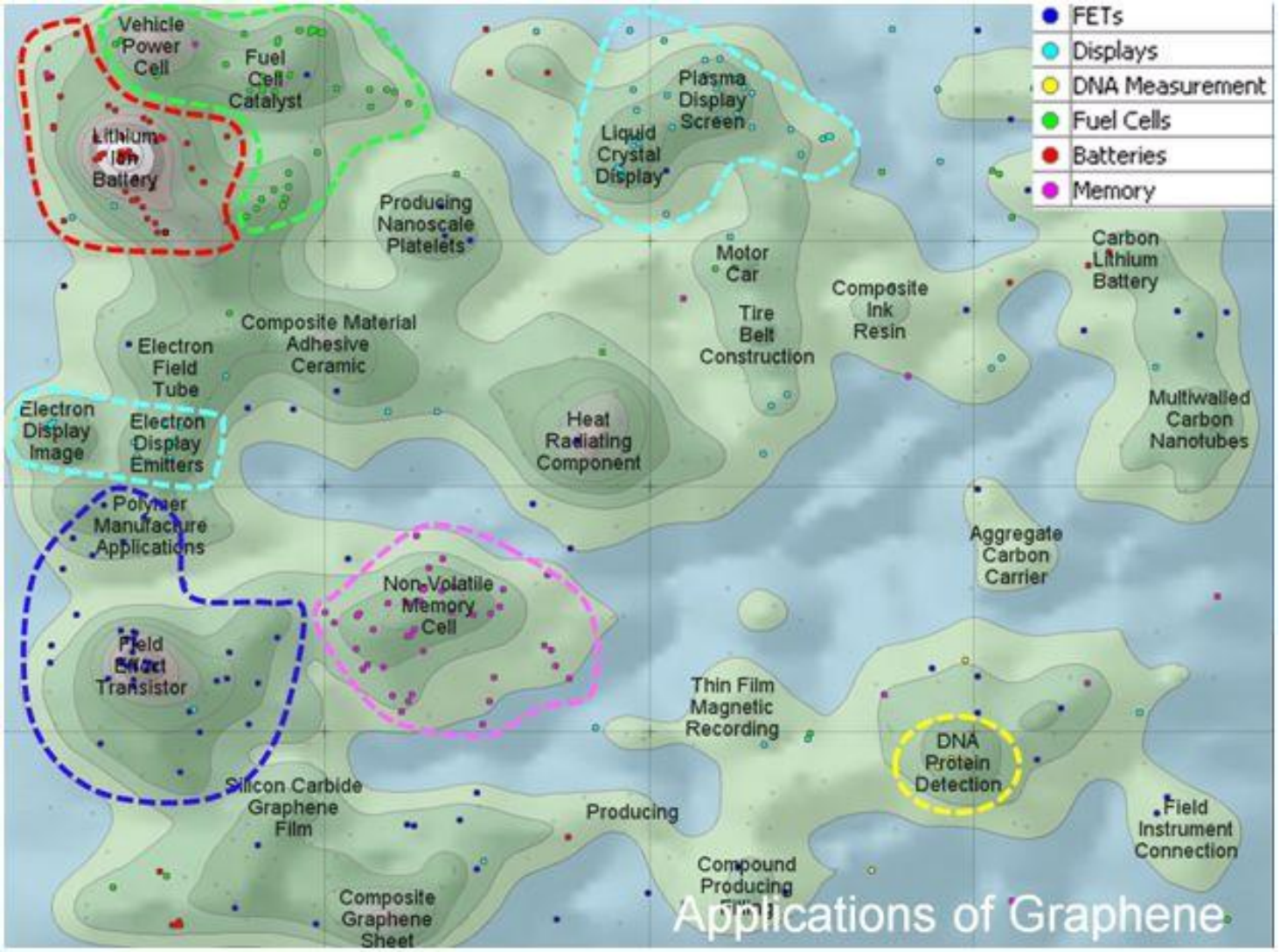
Highly likely you will do this too…

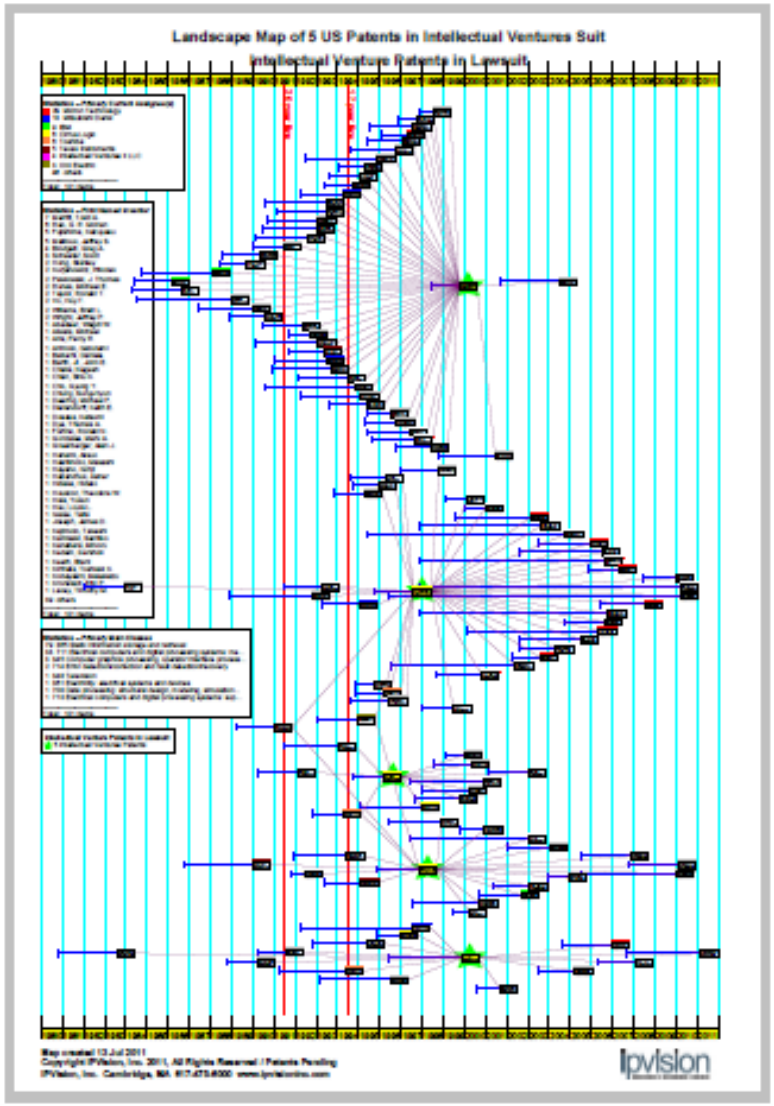
Patents are a valuable research tool…

RAPT Industries, Patent Search related to Flame Plasma Cleaning – Updated 4/10/2002

Search Criteria	Pat No.	Date Filed	Inventors	Assignee	Title	Abstract	Application	Notes
Abstract: atmospheric plasma								
	6,342,275	######	Higakawa; Takuya [Suwa, JP]; Akiyama; Hiroaki [Suwa, JP]; Ando; Shintaro [Suwa, JP]	Seiko Epson Corporation [Nagano-ken, JP]	Method and apparatus for atmospheric pressure plasma surface treatment, method of manufacturing semiconductor device, and method of manufacturing ink jet printing head	Gas discharge is caused in a predetermined discharging gas at atmospheric pressure or a pressure close to atmospheric pressure, and an organic material which is liquid at room temperature and which is previously contained in the discharging gas or applied to a surface of a treated member is dissociated or excited by a plasma caused by the gas discharge to generate activated species. By using these excited activated species, a polymerized film of organic material is formed on the surface of the treated member. By previously activating the organic material or the kind of the discharging material and previously combining them, a water repellent film, a hydrophilic film or a film having a high hardness can easily be formed on the surface of the treated member according to use, so the polymerization speed of the organic material can be increased, or the polymerization can be limited. Further, the adhesion of an organic polymerized film can easily be improved with respect to a treated member formed of an inorganic material such as glass or some insulator organic material if the organic material or the kind of gas is used while being changed.	general plasma surface treatment	Higakawa's work is interesting in that it alters the ability to aspirate liquids into the plasma stream. The liquid aspiration nothing new – that's how most analytical samples are introduced. But he does offer some good stuff regarding deposition.
	6,262,523	######	Selwyn; Gary S. [Los Alamos, NM]; Herrmann; Jason [Los Alamos, NM]; Babayan; Steve E. [Huntington Beach, CA]; Hicks; Robert F. [Los Angeles, CA]	The Regents of the University of California [Los Alamos, NM]	Large area atmospheric-pressure plasma jet	Large area atmospheric-pressure plasma jet. A plasma discharge that can be operated at atmospheric pressure and near room temperature using 13.56 MHz rf power is described. Unlike plasma torches, the discharge produces a quasi-planar effluent as bulky as 250 sq.cm. C. et al. an applied power of about 300 W, and shows distinct non-thermal characteristics. In the simplest design, two planar, parallel electrodes are employed to generate a plasma in the volume therebetween. A "jet" of long-lived metastable and reactive species that are capable of rapidly cleaning or etching metals and other materials is generated which extends up to 8 in. beyond the upstream edge of the electrodes. Films and coatings may also be removed by these species. Cleaning is accomplished in the apparatus by using gas mixtures containing H_2, which limits ionization, by using high flow velocities, and by properly spacing the rf-powered electrodes. Because of the atmospheric pressure operation, there is a negligible density of ions remaining for a sufficiently long distance beyond the active plasma discharge to bombard a workpiece, unlike the situation for low-pressure plasma sources and nonequilibrium plasma processing methods.	…ion plasma cleaning	We saw about Gary Selwyn's work. We distinguish ours by t that his is a dc plasma jet where ours is an ICP. Gary's technology is also suitable because it is mild – which has so for cleaning flammable things…Gary has about 7 patents w presence and various embodiments of this point…I hear impl
	######	8-Jun-99	Herrmann; Hans W. [Los Alamos, NM]; Selwyn; Gary S. [Los Alamos, NM]	The Regents of the University of California [Los Alamos, NM]	Atmospheric-pressure plasma decontamination/sterilization chamber	An atmospheric-pressure plasma decontamination/sterilization chamber is described. The apparatus is useful for decontaminating sensitive equipment and materials, such as electronics, optics and national treasures, which have been contaminated with chemical and/or biological warfare agents, such as anthrax, mustard blistering agent, VX nerve gas, and the like. There is currently no acceptable procedure for decontaminating such equipment. The apparatus may also be used for sterilization in the medical and food industries. Items to be decontaminated or sterilized are supported inside the chamber. Reactive gases containing atomic and metastable oxygen species are generated by an atmospheric-pressure plasma discharge in a He/O_2 mixture and directed inside the region of three items resulting in chemical reactions between the reactive species and organic substances. This reaction typically kills and/or neutralizes the contamination without damaging most equipment and materials. The plasma gases are recirculated through a closed-loop system to minimize the loss of helium and the possibility of escape of unreacted harmful substances.	…ion plasma cleaning [modification to 5,361,772]	I don't have to look at this one to know it's Selwyn again…
	6,221,268	######	Li; Xie [Bellevue, WA]; Tanielian; Minas [Bellevue, WA]	The Boeing Company [Seattle, WA]	Surface modification using an atmospheric pressure glow discharge plasma source	A method for producing stable atmospheric pressure glow discharge plasmas using RF excitation and the use of said plasmas for modifying the surface layer of materials. The plasma generated by this process and its surface modification capability depend on the type of gases used and their chemical reactivity. These plasmas can be used for a variety of applications, including etching of organic material from the surface layer of inorganic substrates, as an environmentally benign alternative to industrial cleaning operations which currently employ solvents and degreasers, as a method of stripping paint from surfaces, for the surface modification of composites prior to adhesive bonding operations, for use as a localized etcher of electronic boards and assemblies and in microelectronics fabrication, and for the sterilization of tools used in medical applications.	…ion plasma cleaning third modification [5,328,527, 5,244,243]	only a single claim – for stripping fibre optics…
	6,218,640	######	Sellers; Simon I. [Fremont, CA]	TimeDomain CVD, Inc. [Campbell, CA]	Atmospheric pressure inductive plasma apparatus	An inductive plasma torch operating at atmospheric pressure is used for wafer or glass substrate processing. Said torch employs a linear type of plasma confinement. This linear torch is particularly suitable for photoresist etching and processes in which it has the advantages of high chemical isotropic etch rate and low plasma damage.	…ion plasma cleaning	
	6,214,243	######	Li; Xie [Bellevue, WA]; Tanielian; Minas [Bellevue, WA]	The Boeing Company [Seattle, WA]	Surface modification using an atmospheric pressure glow discharge plasma source	A method for producing stable atmospheric pressure glow discharge plasmas using RF excitation and the use of said plasmas for modifying the surface layer of materials. The plasma generated by this process and its surface modification capability depend on the type of gases used and their chemical reactivity. These plasmas can be used for a variety of applications, including etching of organic material from the surface layer of inorganic substrates, as an environmentally benign alternative to industrial cleaning operations which currently employ solvents and degreasers, as a method of stripping paint from surfaces, for the surface modification of composites prior to adhesive bonding operations, for use as a localized etcher of electronic boards and assemblies and in microelectronics fabrication, and for the sterilization of tools used in medical applications.	modification to 5,328,527	…ish as RF electrodes– this is a DC plasma as well… and distinguishable from ours…
	6,118,218	1-Feb-99	Yializis; Angelo [Tucson, AZ]; Pirwada; Shahid S. [Tucson, AZ]; Decker; Wolfgang [Tucson, AZ]	Sigma Technologies International, Inc. [Tucson, AZ]	Steady-state glow-discharge plasma at atmospheric pressure	A plasma treater incorporates a porous metallic layer in one of the electrodes. The porous layer is selected with pores of average size within an order of magnitude of the mean free path of the plasma gas at atmospheric pressure. The plasma gas is injected into the electrode at substantially atmospheric pressure and allowed to diffuse through the porous layer, thereby forming a uniform glow-discharge plasma. The film material to be treated is exposed to the plasma created between this electrode and a second electrode separated by a dielectric layer. Because of the micron size of the pores of the porous metal,	film treatment	Glow discharges are distinguishable from ours…

Patent analysis can provide great competitive insight




Landscape Map of 5 US Patents in Intellectual Ventures Suit
Intellectual Venture Patents in Lawsuit
Map created 13 Jul 2011
Copyright IPVision, Inc. 2011, All Rights Reserved // Patents Pending
IPVision, Inc. Cambridge, MA 617.475.8000 www.ipvisioninc.com
Ipvision

Levels of IP Strategy

- Defensive – “stake a claim”
- Cost Center – “reduce IP costs”
- Profit Center – “license what you can”
- Integrated – “company-wide focus”
- Visionary – “trans-company – future-oriented”

The basics

Intellectual Property (IP) is any product or result of a mental process that is given legal protection against unauthorized use. Different types of intellectual property are protected in different ways. Properly protected, intellectual property can give a firm a strategic competitive advantage.

Different forms of IP

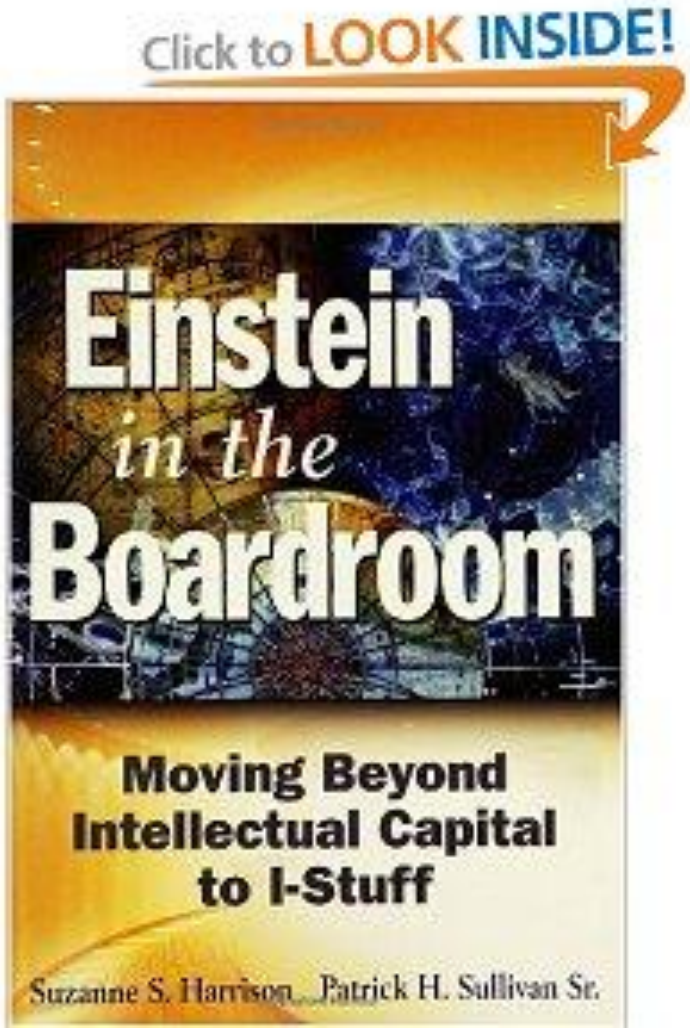
Patent – a government-granted right to exclude others from making, using, or selling an invention

Copyright – a legal right to prevent others from copying the original expression embodied in a creative work or any other work of authorship fixed in a tangible medium.

Trademark – a set of words and/or symbols that identify the source of goods and services and embody the "goodwill" of the business

Trade Secret – information that gives a business an advantage over others who do not have the information

Know-how – detailed information on how to make or do something (can be a trade secret)


Click to LOOK INSIDE!
Einstein
in the
Boardroom
Moving Beyond
Intellectual Capital
to I-Stuff
Suzanne S. Harrison
Patrick H. Sullivan Sr.