

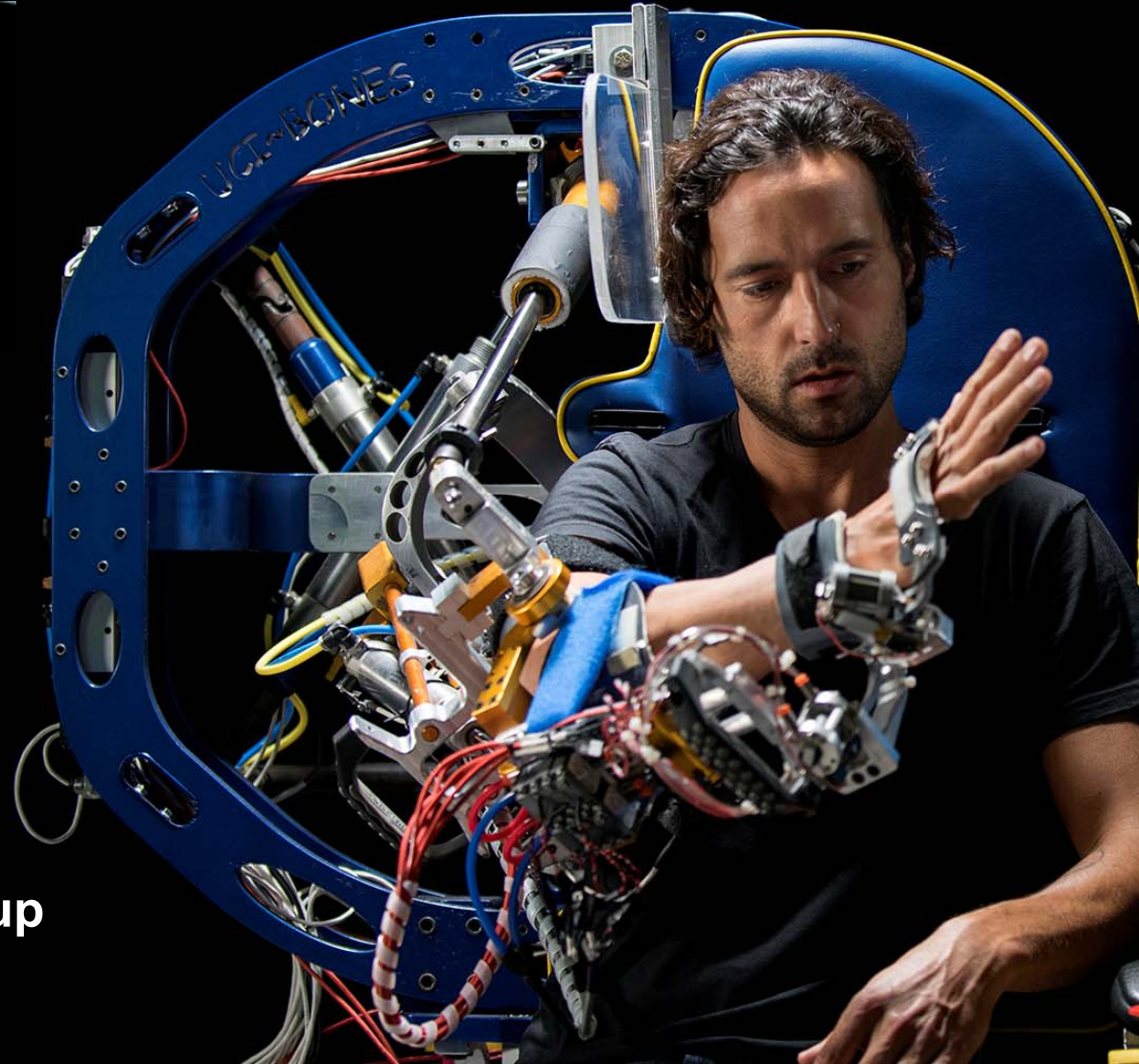
UCI Applied
Innovation

Alvin Viray, JD
Associate Director
Invention Transfer Group

Calit2

UNIVERSITY of
CALIFORNIA
IRVINE

**Commercializing Your Biomedical
Technology with UC Irvine's Startup
Ecosystem**



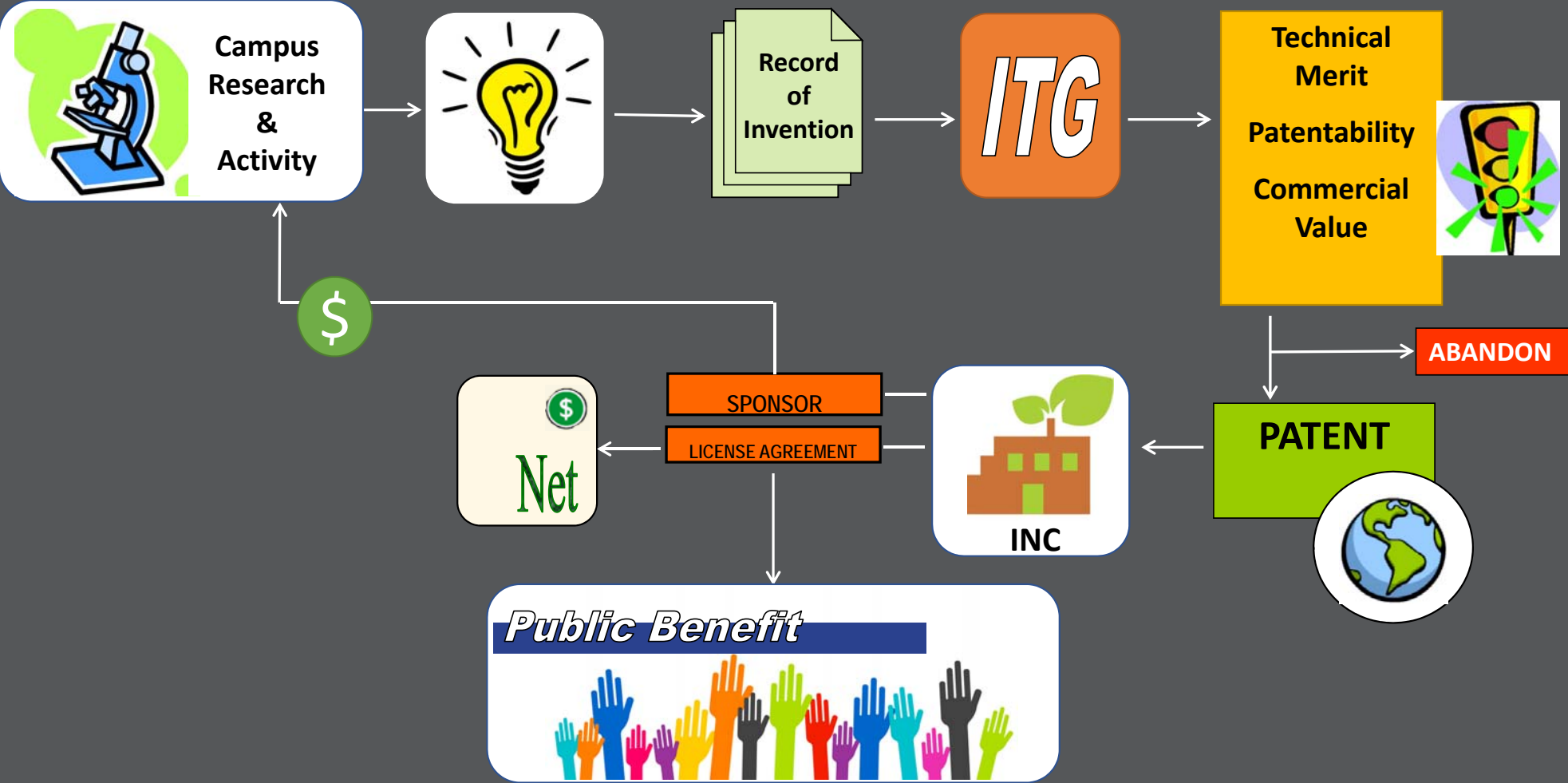
Focus

UCI
INTELLECTUAL
PROPERTY

INDUSTRY
ENGAGEMENT

UCI
ENTREPRENEURSHIP

OC STARTUP
ECOSYSTEM



Available Technologies

Find technologies available for licensing from UC Irvine.

Enter Search Keyword:

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Technology Subcategory Filters: 0

+ Search By an ID or Inventor

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228 Technologies found

Tech ID	Technology Title
27188	Enhanced Cell/Bead Encapsulation Via Acoustic Focusing
28677	Novel Anti-Bacterial, Anti-Fungal Nanopillared Surface
24055	Shrink-Induced, Self-Driven Microfluidic Devices
24043	Microfluidic Tumor Tissue Dissociation Device
25886	Continuous Analyte Sensor Device
28707	Handheld Blood-Flow Imaging Device
28951	Calcified Polymeric Valve and Vessels
22537	Fluid Management Device
27074	A Micro/Nanobubble Oxygenated Solutions for Wound Healing and Tissue Preservation



Plastic that mimics insect wings kills bacteria

The curved plastic may one day be used as an artificial cornea

BY KATHIANN KOWALSKI MAR 15, 2016 – 1:41 PM EST



Tiny pillars on insect wings inspired scientists and engineers to make polymer nanopillars that can kill bacteria on an artificial cornea.

JONATHAN PEGAN

Project Design

Fabrication and Validation

- Redesign fabrication apparatus
- Manufacture artificial cornea implants, then use specialized nano-imprint method to create patterns
- Characterization with SEM for verify nanopattern formation and FEA to test the durability.

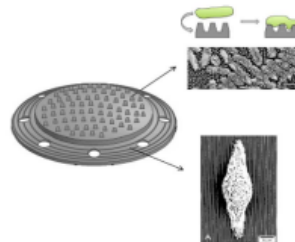


Figure 2. Implant design and nanopattern implementation [4].

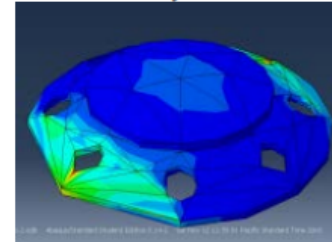


Figure 3. FEA to test stress similar to those experienced during implantation with tweezers [3].



Figure 5. Representation of an eye before and after transplantation [2].

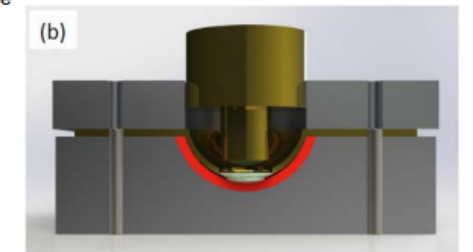
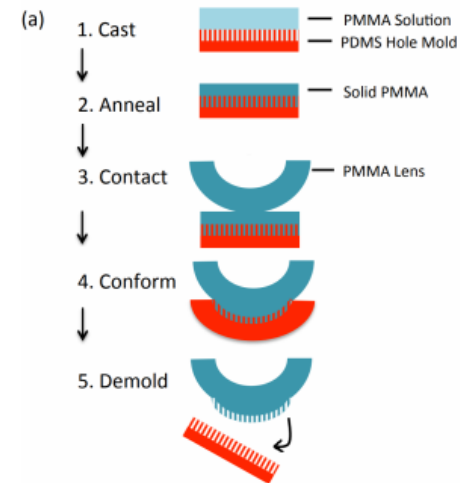


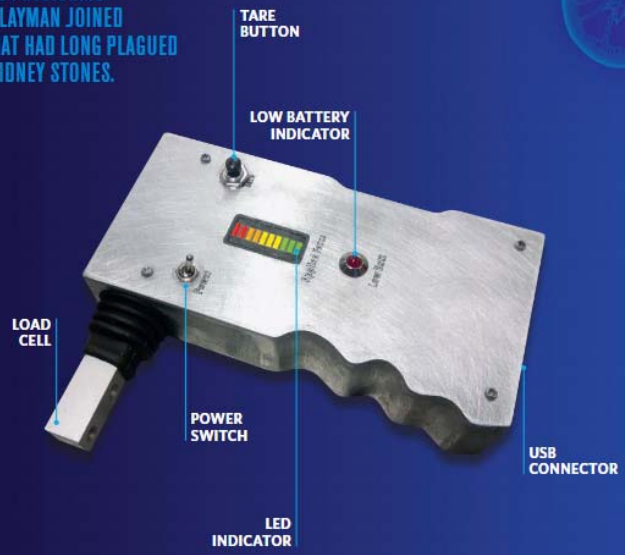
Figure 4. Reverse nanoimprint lithography (r-NIL) is used. (a) Imprinting process (b) and the holder device for alignment and pressing [3].



Denise Carson Michael Klopfer

➔ PROTOTYPE GIVES PHYSICIANS PRECISION-CONTROLLED ASSISTANCE FOR SURGICAL PROCEDURE

9 UROLOGICAL BIOMEDICAL ENGINEER AND PHYSICIANS DR. MICHAEL CLAYMAN JOINED WITH A STUDENT TEAM THAT HAD LONG PLAGUED WITH REMOVING LARGE KIDNEY STONES.

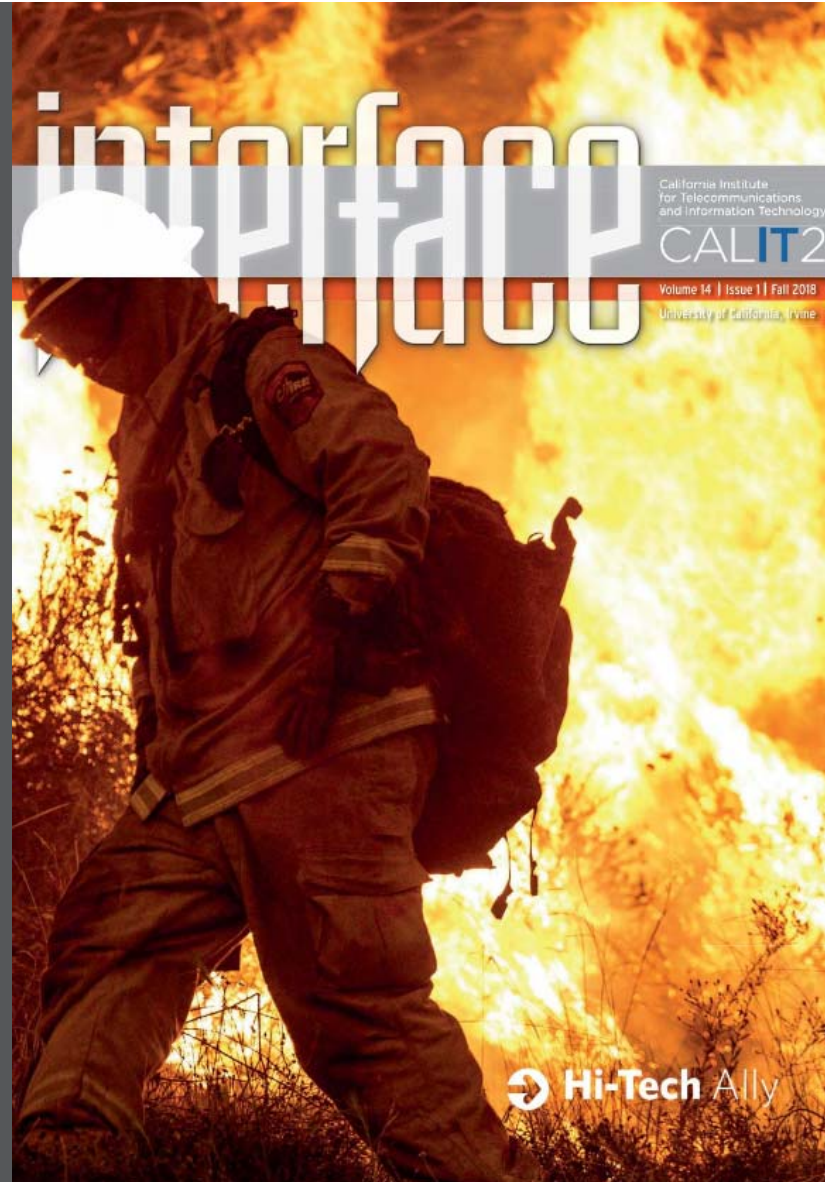


the modern-day UAS in the late 1990s, reducing operating time and enabling more urologists to utilize the minimally invasive procedure to remove the stones. Today, there are more than 10,000 ureteroscopies performed in the U.S. each year, and they are on the rise due to an aging, diet-challenged population.

"Once the sheath is in place, my mother-in-law could pass the ureteroscope into the kidney," Clayman jokes.

The Safe Passage prototype was developed at CALIT2, progressing from a CAD design to software programming and finally, circuit board integration. Klopfer and his engineering students milled the device case from a solid block of aluminum, then assembled the device, including the load cell, power supply and circuitry. The prototype passed preliminary testing with flying colors: in ureteroscopies on 24 patients, not a single ureteral tear or complication occurred. The team currently is at work on phase 2—a disposable device, about the size of a 35 mm film canister, which can disengage force when it exceeds a predetermined level.





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Proof of Product (POP) Grants

Provide funds to assist faculty in developing their technology into a commercially viable product.



UCI POP faculty in
a commercially viable
ed project POP.
the entrepreneurial spirit



As an inventor, multiple paths are possible when commercializing an invention. The process can be complex.

This guide was created to offer you guidance, suggestions, and to connect you with the various resources available on campus.

Ultimately, we encourage you to engage with UCI Applied Innovation as soon as possible.



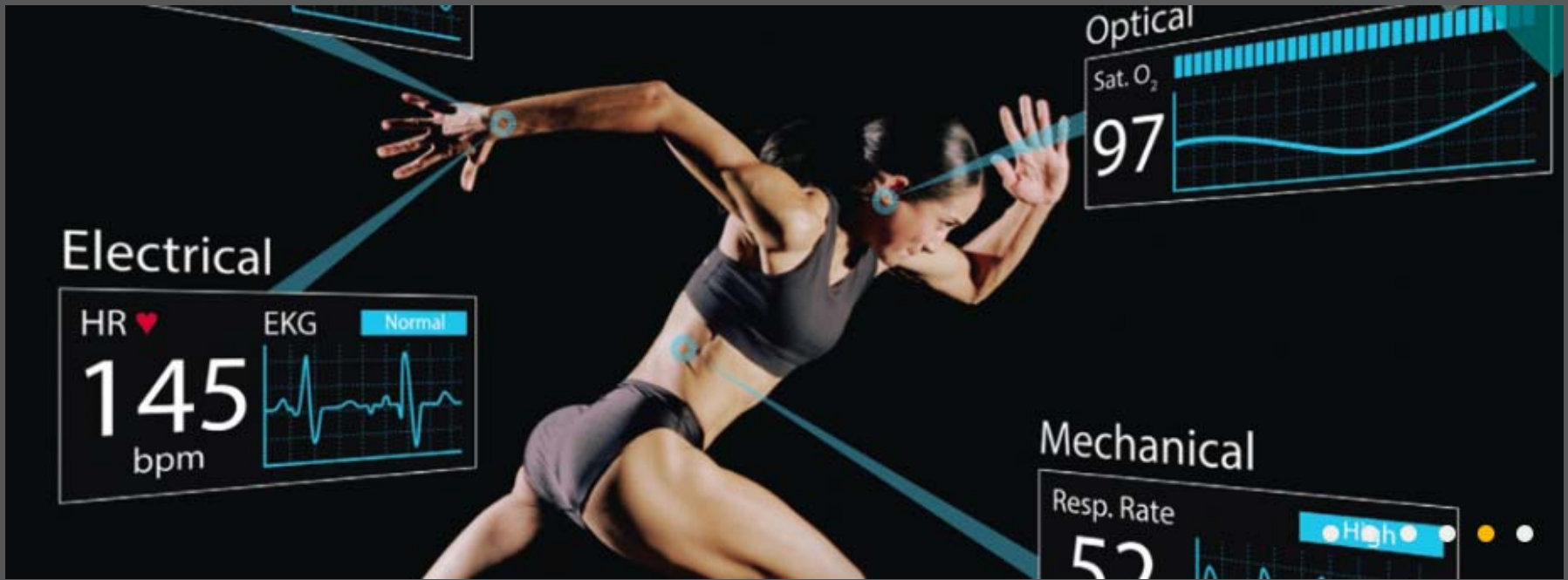
KEEP CALM AND CREATE A STARTUP



UCI Applied Innovation

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Startup Guide for Employee Inventors
www.startupguide.innovation.uci.edu



Beckman Laser Institute
& Medical Clinic

 COVE Applied
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(1) Photonic Incubator

(2) Wayfinder

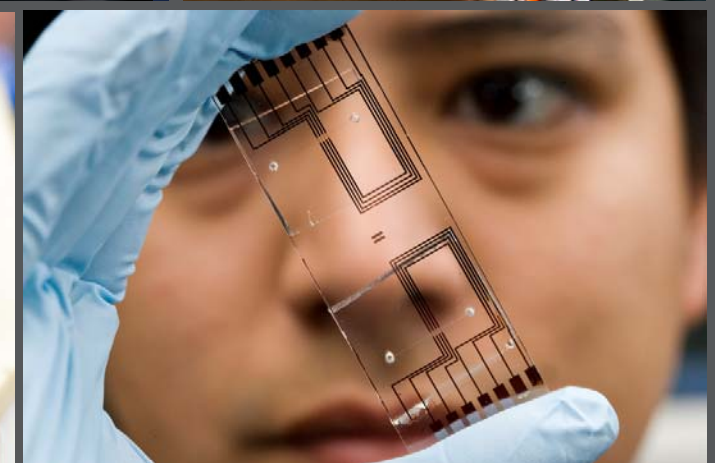
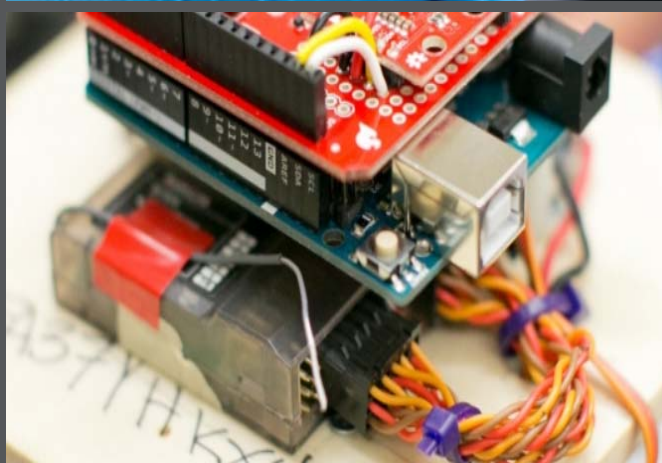
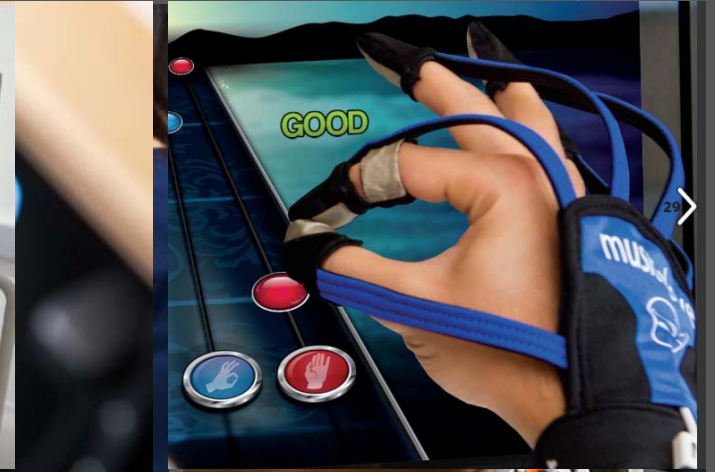
(3) Tech Portal

Calit2

Tech Portal

Equipment & facilities for your startup includes:

- CalPlug
- eHealth
- ETAD
- MicroSemi
- Innovation Lab
- FabWorks
- Creative Learning Lab
- IMRI



Funding

Funding is the fuel necessary to turn great ideas into profitable business. Applied Innovation builds relationships across the funding continuum, to ensure local entrepreneurs are able to connect with sources of capital appropriate to their stage of development:



SEED



ANGEL



VENTURE CAPITAL



Angels

The central logo for the Angel Syndication Network, featuring the text "Angel Syndication Network" in blue, flanked by two large, stylized white wings with blue outlines.

Angel Syndication Network

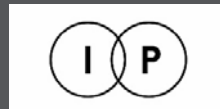
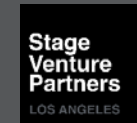
Member Logos:

- LUBBOCK ANGEL NETWORK
- Pasadena Angels (IT'S MORE THAN THE MONEY.)
- TECH COAST ANGELS
- hpa
- ROCKIES VENTURE CLUB
- ATI | ARIZONA TECH INVESTORS
- DesertAngels
- Boise Angel Alliance
- HealthTech CAPITAL
- FRONTIER ANGEL FUND II
- KEIRETSU FORUM
- LIFE SCIENCE ANGELS™ (Investing For Life)
- Wharton ALUMNI ANGEL NETWORK (University of Pennsylvania)
- BLUE JAY SYNDICATE
- BOSTON HARBOR ANGELS
- SIERRA ANGELS
- GAINGELS
- ASTIA ANGELS
- SEATTLE ANGEL
- Chemical Angel Network
- cowtown ANGELS
- HERA FUND
- KEIRETSU
- HBS Angels (HARVARD BUSINESS SCHOOL)
- ATA (ATLANTA TECHNOLOGY ANGELS)
- portland seedfund
- alliance of angels
- HUB ANGELS INVESTMENT GROUP LLC
- REBEL VENTURE FUND
- SAND HILL ANGELS
- band OF ANGELS
- Golden Seeds

Venture Capital



sequence | venture | group





Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs

- Supports R&D of technologies/inventions
- ~\$2.5 billion annual set aside
- ~160,000 awards granted
- www.sbir.gov

Experts-in-Residence

A community of local business experts who volunteer their time to help novice entrepreneurs. The goal is to maximize the chance of successful launches, accelerate business growth, and foster funding opportunities.



I-Corps

I-Corps™ is a National Science Foundation initiative to increase the economic impact of research it has funded.



Grow your venture with one-on-one consulting for relationship-focused solutions.



About

The SBDC @ UCI Applied Innovation is a resource for any high-technology, high-growth, scalable venture from the community or the UCI ecosystem that needs help with business planning, business development and funding-readiness. The SBDC @ UCI Applied Innovation specializes in the technology, life science, med-tech and med-device business sectors.

SBDC @ UCI Applied Innovation offers access to a team of experienced consultants who take a hands-on approach in providing highly-tailored, relationship-focused solutions to the business growth challenges and opportunities of their clients. They are especially focused on







VISION:
Orange County is a national and
global leader in scalable innovation.

THANK YOU!

Alvin Viray, JD
aviray@uci.edu

Technology Innovation Forum

COVE

Patent Myths or Misconceptions

- Myth #3 - A company will automatically own all IP developed by a consultant.
- Myth #4 - I can patent an invention as long as I can prove that I was the first to invent it.

UCI Applied Innovation

KEL GATES

TECHSPACE

RSM

Commercialization/Funding

