Commercializing Your Biomedical Technology with UC Irvine’s Startup Ecosystem

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Focus

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OC STARTUP ECOSYSTEM
Available Technologies

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Search By an ID or Inventor

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Plastic that mimics insect wings kills bacteria

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

BY KATHLIAN 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 in an artificial cornea.

JONATHAN PEGAN

Fabrication and Validation

- Redesign fabrication apparatus
- Manufacture artificial cornea implants, then use specialized nano-imprint method to create patterns
- Characterization with SEM to 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].
SAFE PASSAGE

Prototype gives physicians precision-controlled assistance for surgical procedure.

The modern day VAM in the late 1990s, reducing operating time and reviving moribund kidneys to allow the normally invasive procedure to remove the stones. Today, there are more than 60,000 urologists performing in the US each year, and they see the need to manage the challenging population.

"Once the stones are in place, my mother-in-law could pass the kidney to me," Clayman jokes. 

VIVE BIOMEDICAL R & PHYSICIANS
PH CLAYMAN JOINED 3M THAT HAD LONG PLAGUED FIVE KIDNEY STONES.
Proof of Product (POP) Grants

Provide funds to assist faculty in developing their technology into a commercially viable product.
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.
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.
Angels
Venture Capital
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™ 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 specialize 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!

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