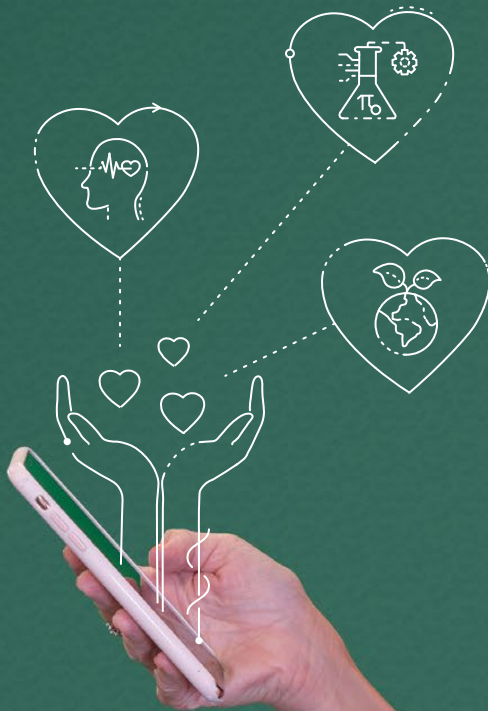




# RISING TIDE



## STARTUP

### VolunteerCrowd Helps Students Give Back & Stand Out

The startup provides students with a central hub to find, request and track community service opportunities for school, clubs and college applications.

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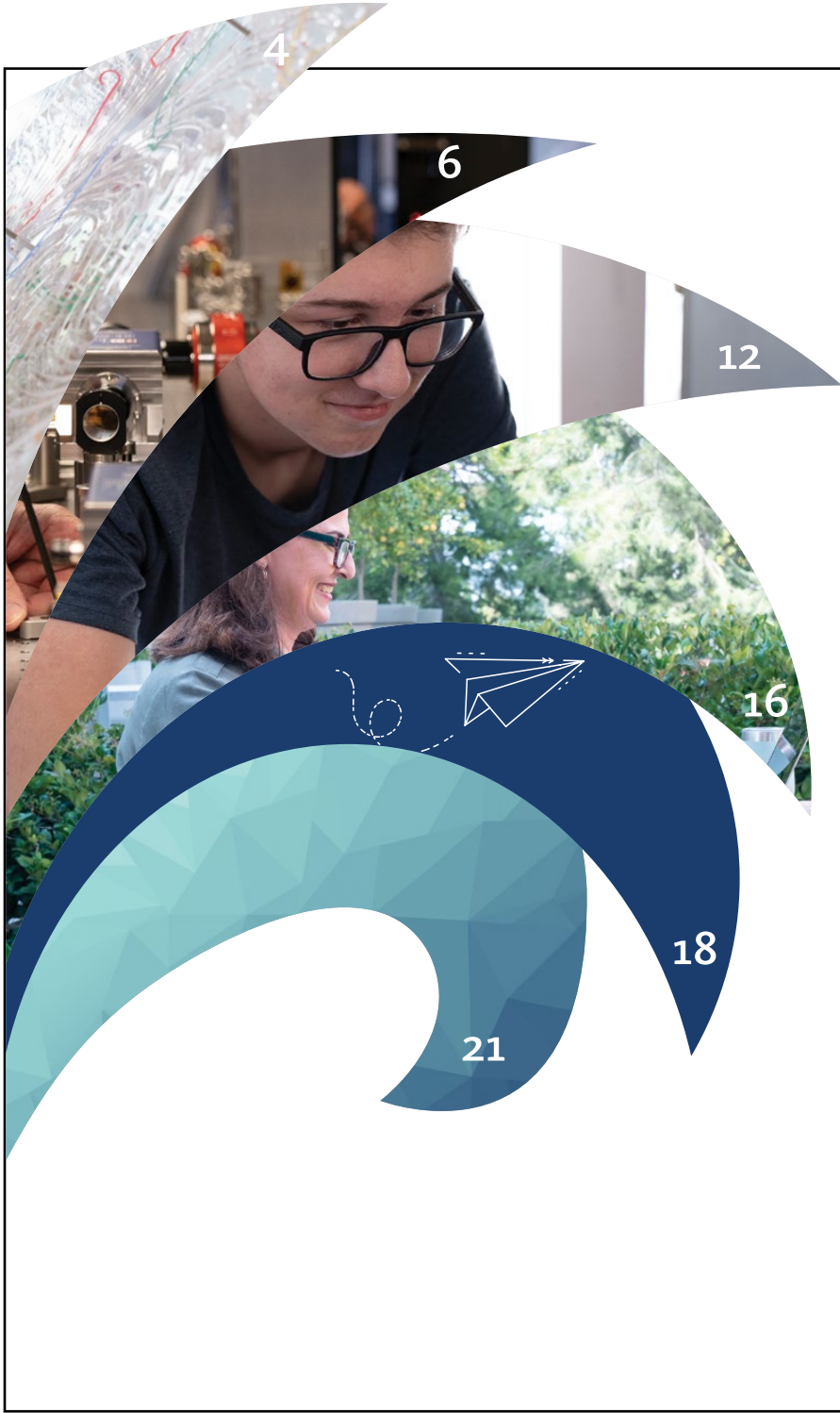
**5 TED Talks for  
Entrepreneurs,  
Innovators & Creatives**



“

I HAD TO MAKE MY OWN LIVING  
AND MY OWN OPPORTUNITY. BUT I  
MADE IT! DON'T SIT DOWN AND WAIT  
FOR THE OPPORTUNITIES TO COME.  
GET UP AND MAKE THEM.”

— Madam C.J. Walker, American Entrepreneur



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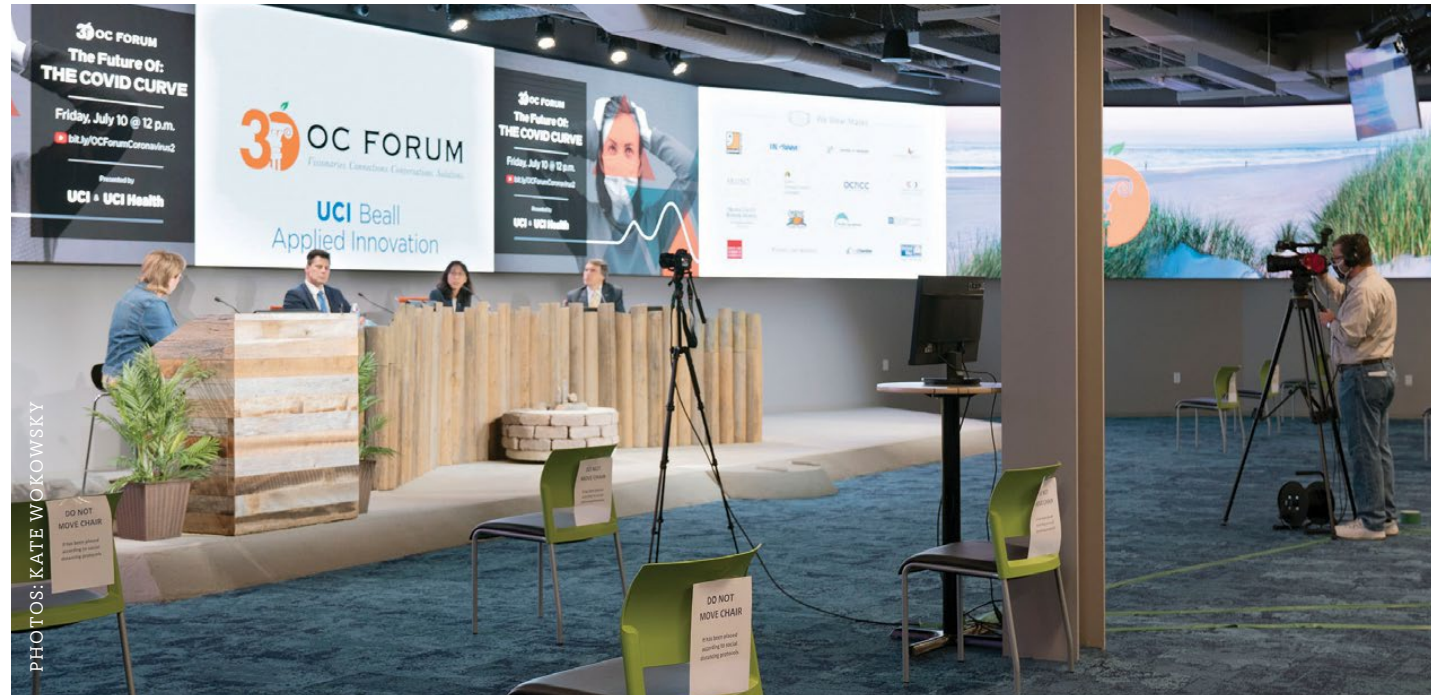
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If you have story ideas, contact the  
editor-in-chief: [connorj@uci.edu](mailto:connorj@uci.edu)





## Past Tides

EVENTS AT THE  
COVE @ UCI



### OC Forum The Future of: the COVID Curve / July 2020

Presented by UC Irvine and UCI Health, OC Forum's The Future of: the COVID Curve event features a panel of trusted leaders from across all spectrums of the Orange County community who discuss their combined efforts to fight COVID-19 and ways to keep the Orange County economy safe. The panelists observe safety protocols including remaining more than six feet apart while at the Cove @ UCI.\*



### VC Speaker Series with Morgan Mahlock from In-Q-Tel / August 2020

Luis Vasquez, associate director of Venture Capital Collaboration at UCI Beall Applied Innovation, and Morgan Mahlock, investor at In-Q-Tel, discuss how In-Q-Tel, a nonprofit venture capital firm based in Arlington, Virginia, identifies startups and works with the venture capital community to find cutting-edge technology.



### SBDC @ UCI Beall Applied Innovation: Reinventing Your Sales Mindset to Thrive Through Uncertainty / July 2020

Garrett Brown and Colin Coggins, sales leaders and instructors at USC, discuss how the best salespeople are still closing deals amid the pandemic during Small Business Development Center (SBDC) @UCI Beall Applied Innovation's "Reinventing Your Sales Mindset to Thrive Through Uncertainty" event. They also talk about what the best performing sales teams are doing to continue to grow and why this experience creates a rare opportunity for companies to connect with prospects.



### W.SparkSBIR Women-Focused Workshops: Budgets for SBIR Grants / July 2020

UCI Beall Applied Innovation's W.SparkSBIR program features a workshop instructed by Molly Schmid, Ph.D., senior consultant with the SBDC @ UCI Beall Applied Innovation, who discusses how different agencies set the expectations for direct and indirect costs associated with Small Business Innovation Research (SBIR) grant applications.



\*Most of these events were held over virtual platforms and did not take place at the Cove @ UCI. Only the OC Forum event was held at the Cove @ UCI where UCI Beall Applied Innovation staff followed safety measures in accordance with the UC system and the state of California regulations.

All photos on the right-hand side of the page are screenshots from virtual events.



The Cove @ UCI is host to more than 700 events per year in support of innovation, entrepreneurship, industry and the community. Take part! Check out and register for upcoming events: [innovation.uci.edu/events](https://innovation.uci.edu/events)



SPECIAL FEATURE

# From Waste to Wonder: Face Shields Transform Into Art

UCI ART PIECE COMMEMORATES THE EFFORTS OF UCI'S FACE SHIELD PROJECT AND GLOBAL PANDEMIC.

The face shield project at UC Irvine left behind piles of clear and colorful plastic scraps that were bound for the trash can, but Jesse Colin Jackson, associate dean of research and innovation at UCI's Claire Trevor School of the Arts (CTSA), came up with a creative plan to turn waste into a meaningful art piece.

In April, UCI Beall Applied Innovation along with partners from CTSA, UCI Medical Center, UCI School of Medicine, the Sue & Bill Gross School of Nursing, the Henry Samueli School of Engineering and the business community, came together to help construct over 20,000 face shields for UCI healthcare workers during the initial phases of the COVID-19 crisis.

With a highly collaborative team that included campus partners and facilities, Jackson helped design the face shields, was integral in production and led the daily assembly team at the Cove Prototyping Lab, generously supported by Base 11. Base 11 is a nonprofit organization that helps underrepresented groups, like women and minorities, become more involved in the science, technology, engineering and math fields. Through thoughtful construction using plastic material, the face shields utilized both the 3D printers and laser cutting machines within the lab.



Jesse Colin Jackson, associate dean of research and innovation at UCI's Claire Trevor School of the Arts, strategically overlaps hundreds of clear plastic square sheets recycled from the face shield project to create a wave-like pattern.

Even though the face shield design was efficient, there were still hundreds of clear plastic sheets and colored scraps from the face shield frame left over. Instead of simply trashing the materials, Jackson recycled them into a memorial.

"I had a pile of the 3D-printed colorful bits that I just started saving because they looked so cool," said Jackson. "I kept sweeping them into the corner of the room and made sure none were tossed away. I'm generally interested in large quantities of any repeated shape, and as the project went on, we had all this beautiful leftover material. As an artist, I'm often looking for opportunities to make use of waste."

Jackson intentionally overlapped one hundred clear plastic square sheets using only what was left over from the face shield, which created a translucent wave effect. He then scattered the piles of colorful scraps within the clear sheets, which provided energy to the transparent wave pieces.

From far away, it looks like an energetic sea of colors, but up close Jackson's clear meaning begins to take shape.

"It's very densely packed and repetitive, which is meant to evoke the existence of all the people behind all the efforts during the pandemic," said Jackson. "This artwork, the pattern and materials couldn't exist in the absence of the face shield project or COVID-19. That labor and energy will now be on display."

Twenty Thousand Faces will be on display at the Cove @ UCI. ///

\*Resources Mentioned in this Story

Cove Prototyping Lab  
innovation.uci.edu/the-cove/facilities-info

Twenty Thousand Faces art rendering courtesy of Jesse Colin Jackson.

AVAILABLE TECHNOLOGIES

## Coming Down the Pipeline

SOME OF UCI'S TOP AVAILABLE TECHNOLOGIES CURATED BY UCI BEALL APPLIED INNOVATION'S RESEARCH TRANSLATION GROUP

The Research Translation Group manages over 1,000 inventions from UC Irvine (UCI) researchers spanning the areas of engineering, medicine and life sciences, physical sciences, communications and computer sciences. These innovative technologies are available for licensing.

Tech ID #: 32054

### MULTI-EPITOPES CORONAVIRUS (SARS-COV-2) VACCINE

The extremely rapid spread of the novel coronavirus disease has now led to over 4 million infections worldwide, with limited resources and treatments for this disease. UCI scientists have developed 10 novel formulations for a safe and effective SARS-CoV-2 vaccine, aimed to prevent the development of new cases and the re-infection of those who have recovered.

Lbachir BenMohamed, Ph.D. / School of Medicine

Licensing Officer  
Maria Tkachuk, Ph.D.  
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Tech ID #: 32055

### REVERSING COVID-19 ASSOCIATED ACUTE RESPIRATORY DISTRESS SYNDROME AND CYTOKINE STORM WITH N-ACETYLGLUCOSAMINE

The rapid emergence and spread of a novel coronavirus disease (COVID-19) has caused a global pandemic. Excessive inflammation leading to acute respiratory distress syndrome is the primary driver of mortality in severe COVID-19 cases, and is yet to be addressed by current therapeutics. Researchers at UCI and Mt. Sinai Hospital have developed an anti-inflammatory treatment using N-acetylglucosamine to lower the mortality and need for ventilators in critically ill COVID-19 patients.

Michael Demetriou, M.D., Ph.D. / School of Medicine

Licensing Officer  
Maria Tkachuk, Ph.D.  
mtkachuk@uci.edu

Tech ID #: 31982

### UNOBTRUSIVE FETAL HEART RATE MONITORING IN THE DAILY LIFE

This technology features a novel, wearable, unobtrusive and flexible patch designed to facilitate continuous monitoring of fetal heart rate (fHR) and ECG by pregnant women in a home setting. The device can also be used as a diagnostic tool for detecting fetal heart abnormality in the gestation period.

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Find all UCI-available technologies at  
innovation.uci.edu/tech



FACULTY SPOTLIGHT

# CHRIS Barty

is Laser Focused  
on Laser World  
Domination



TEXT: JACKIE CONNOR / PHOTOS & ILLUSTRATION: JULIE KENNEDY / CHARTS & HEADLINE ART: ELISA LE & RACHEL NOBLE

UCI'S DISTINGUISHED PROFESSOR AIMS TO ADVANCE THE AGE-OLD X-RAY MACHINE AND HAS UNCOVERED A LASER TECHNOLOGY THAT COULD POTENTIALLY TAKE THE TEETH OUT OF COVID-19'S GRIP.

When Chris Barty focuses his mind on something, it is with laser precision. The UC Irvine Distinguished Professor of Physics and Astronomy learned from an early age he was drawn to lasers after watching the first episode of the animated sci-fi adventure series "Jonny Quest."

"Episode one of 'Jonny Quest' is the laser episode," said Barty. "In the episode, [the villains] are burning ships in the Sargasso Sea with a laser... and the episode starts explaining what a laser is."

Post-"Jonny Quest," Barty received his bachelor's degree in chemistry, physics and chemical engineering at North Carolina State University and later received his master's degree and a doctorate in applied physics at Stanford University.

Though Barty calls out "Jonny Quest" for his original and perhaps subconscious interest in lasers, Barty's adventures in the wide world of laser technology are anything but science fiction.

## LASERS, LASERS, NOTHING BUT LASERS

After teaching at Stanford for four years, Barty moved to San Diego to run a privately funded research

organization where he focused on intense lasers and X-rays created by intense lasers.

In 2000, Barty left San Diego to work as the chief scientific officer at Lawrence Livermore National Lab (LLNL)'s laser division.

"I was like a kid in a candy store," said Barty. "I was doing laser weapons work. I was doing lasers for fusion energy, for clean energy, lasers for medicine, and lasers for nuclear materials detection. The joke about Livermore is that Lawrence Livermore National Lab isn't what LLNL stands for ... it stands for 'lasers, lasers, nothing but lasers.'"

Barty's division primarily focused on national security, including the use of a laser-Compton system – a laser-based X-ray machine – to recognize Uranium 235 from Uranium 238, two very similar nuclear materials with a major difference.

"Uranium 238 is considered ballast but 235 is Hiroshima," said Barty. "The big worry is that somebody could ship 235 into a port and detonate it and every port in the world could shut down causing a trillion dollar impact on the world economy overnight."

“



I WAS LIKE A KID IN A CANDY STORE. I WAS DOING LASER WEAPONS WORK. I WAS DOING LASERS FOR FUSION ENERGY, FOR CLEAN ENERGY, LASERS FOR MEDICINE, AND LASERS FOR NUCLEAR MATERIALS DETECTION. THE JOKE ABOUT LIVERMORE IS THAT LAWRENCE LIVERMORE NATIONAL LAB ISN'T WHAT LLNL STANDS FOR ... IT STANDS FOR 'LASERS, LASERS, NOTHING BUT LASERS.'

– Chris Barty, Ph.D.

This mission provided his team at LLNL about \$70 million in funding to develop the detection technology in addition to another \$150 million at the Stanford Linear Accelerator Center (SLAC) to develop an accelerator technology.

Thirteen of the patents resulting from the LLNL activities were licensed by Lumitron Technologies and are the foundation of the company.





Chris Barty, Ph.D., UCI distinguished professor of Physics and Astronomy, and his team work with lasers in Lumitron's Laser Lab located at University Research Park.

**LUMITRON TECHNOLOGIES**

In 2016, Lumitron Technologies was formed as a company that develops and commercializes unique X-ray systems. The company is based on \$220 million worth of R&D from LLNL and SLAC.

With co-founder and Executive Chairman Maurie Stang, Barty, co-founder, executive director and chief technology officer, decided to set up shop in Irvine.

In January, Lumitron completed a \$34 million funding round, with the help of Roth Capital Partners in Newport Beach, in addition to \$11.6 million from Defense Advanced Research Projects Agency. With the funding, Lumitron aims to build its first commercial X-ray systems.

The company is developing a HyperVIEW platform that will provide high-resolution X-ray images, which improves image resolution up to 1,000 times compared to conventional X-rays while, at the same time, imparts a significantly less harmful dose of radiation to the patient – all from a device the size of a modern CT machine.

“The impact of Lumitron’s breakthrough will touch a wide array of human endeavors, both in imaging of unsurpassed resolution and new therapies, which will leverage our ability to image and treat simultaneously at a near-cellular level,” said Stang.

As Barty describes, since the platform’s technology can see down to a cellular level, the potential to detect and treat diseases like cancer can be done in ways that no one has been able to do before. The HyperVIEW platform can detect and treat cancer without introducing radioactive materials to the body.

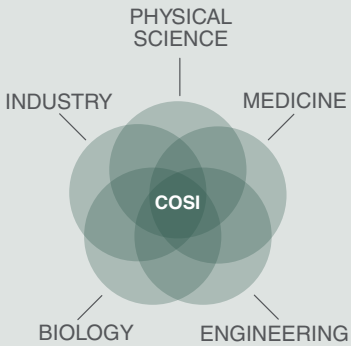
Although commonly used in the medical and research sectors, the technology is also applicable for 3D printing, mining, security, semiconductor manufacturing and nondestructive material evaluation.

**COSI LAB**

In the summer of 2017, Barty became the senior faculty member and first hire of UCI’s Convergence Optical Science Initiative (COSI).<sup>\*</sup> COSI

lab space is located at the Cove @ UCI<sup>\*</sup>, UCI Beall Applied Innovation’s headquarters, and is dedicated to studying laser activity – a space he describes as “the intersection of physical science, engineering, biology, medicine and industry all around something photonic.”

**COSI Intersection**

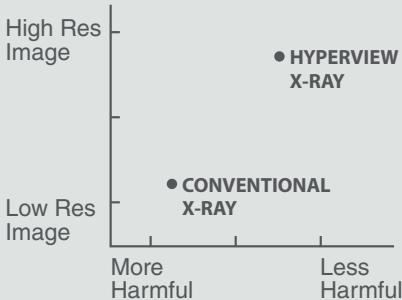


“I have a lot of crazy ideas, all the time. That’s what I do,” said Barty. “The academic side is about things that might be two or three or four generations down the road, for how you might either make the machine better or use the machine in a different way.”

With Barty’s appointments in the School of Physical Sciences, School of Medicine and the Beckman Laser Institute and Medical Clinic, he recruits doctorate students to the lab to study the applications of his technologies.

Most of what happens in the COSI Lab relates to laser activity, like investigating new applications of common laser technologies.

**HyperVIEW vs. Conventional X-rays**



**DE·NA·TURE / verb**

to modify the molecular structure of (something, such as a protein or DNA) especially by heat, acid, alkali, or ultraviolet radiation so as to destroy or diminish some of the original properties and especially the specific biological activity

(source: merriam-webster.com)



## LASERS AND COVID-19

Most recently, Barty and his research team at UCI are developing a new technique in the fight against COVID-19 using diode lasers found in a Blu-ray players. The technology can be used as a way to rapidly sterilize surfaces and/or clean the air.

It would be less expensive and safer than mercury discharge lamps used in hospitals, according to Barty, since the mercury lamps emit UVA and UVB light. The technology, which is created by using the laser in the Blu-ray player, produces a shorter wavelength – UVC radiation that can potentially denature COVID-19.

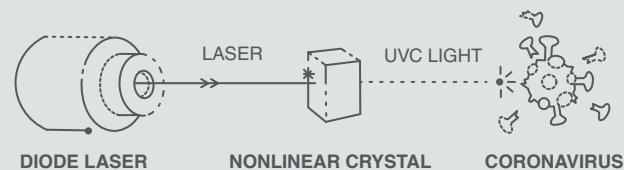
“There is medical literature that suggests that short-wavelength UVC is not that bad for you because the dead skin cells that are on your body are enough to absorb the UVC. The teardrop on your eye is enough to absorb very short wavelength UVC,” said Barty. “It doesn’t really damage your skin, your living skin or living tissue in the same way that UVA and UVB does. In practice, it’s not widely used, because it’s expensive.”

To create UVC light, it takes \$100,000 worth of equipment, according to Barty. However, once Barty and his team put a nonlinear crystal in front of the Blu-ray player’s diode laser, it can create UVC light. The team only needs to spend \$50 for the Blu-ray laser diode part.

“The semiconductor industry that made the Blu-ray diode lasers has perfected the art of doing that and it’s now become cheap,” said Barty.

## How a Diode Laser and a Nonlinear Crystal Can Potentially Denature COVID-19

The diode laser found in a Blu-ray player combined with a nonlinear crystal produces UVC radiation that can potentially denature COVID-19.



“They’ve built the fab lines and everything. You’re winning, because somebody else paid the money to do it.”

Barty and his team are currently setting up to investigate the modified laser’s effects on COVID-19. If effective against COVID-19, this technology could be utilized within a building’s air conditioning duct or utilized within light fixtures to constantly clean circulating air.

“You could imagine having something where a mask actually has one of these in it,” said Barty.



Pictured is a diode laser found in a Blu-ray player. These small but mighty pieces can be used to sterilize surfaces, clean the air and possibly denature COVID-19.

Photo: Steve Zylus

“Every time you take a breath, you’re getting air that has been cleaned, or every time you exhale, all that stuff that you exhale is being cleaned.”

## LASER-FOCUSED FUTURE

Between Lumitron and creating new technologies from the COSI Lab, Barty has one thing in mind for the future of his company: World domination ... with lasers, of course.

Barty is currently focused on bringing down the cost of the technology so hospitals can easily become equipped with Lumitron’s advanced machines.

“I want a Lumitron machine in every hospital,” said Barty. “I want 10 machines in every hospital. My mother died of breast cancer. I’ve got plenty of people in the company who’ve had people that have been impacted by cancer. If we can do anything to solve that, I’m all for it.”

Learn more about Lumitron: [lumitronxrays.com](http://lumitronxrays.com) ///

## \*Resources Mentioned in this Story

Convergence Optical Science Initiative  
[bli.uci.edu/convergence-optical-science-initiative](http://bli.uci.edu/convergence-optical-science-initiative)

Cove @ UCI  
[innovation.uci.edu/the-cove](http://innovation.uci.edu/the-cove)

## COVE PARTNERS

## In the Ecosystem

RESIDENTS OF THE  
COVE @ UCI AT A GLANCE.

## COVE PARTNERS

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Auctus Global Capital  
Audact Health Business, Inc.  
Base 11  
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Executive Next Practices  
Gate 5  
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Laser Associated Sciences  
Learning Ovations  
Mark IV Capital  
OC Talk Radio  
RebeccaTech  
RTConfidence  
Rally Cry  
SBDC @ UCI Beall Applied Innovation  
School of Medicine - Sanger Group  
Sustain SoCal  
Tech Coast Angels  
TrakPoint Solutions  
Vertical Venture Partners

For more information on community partners, visit:  
[innovation.uci.edu/the-cove/ecosystem](http://innovation.uci.edu/the-cove/ecosystem)



UCI BEALL APPLIED INNOVATION  
EMPLOYEE FEATURE

## with Carolyn Stephens

CAROLYN STEPHENS, PH.D., EXPLAINS HER FIRST JOB AND THE ADVICE SHE HAS FOR HER YOUNGER SELF, AMONG OTHER THINGS.

Carolyn Stephens, Ph.D., managing director of Enterprise Collaborations at UCI Beall Applied Innovation, bridges the gap between university and industry. Her team connects industry partners with appropriate UCI research and facilitates intricate work engagements to bolster those partnerships. Despite her role, Stephens did not start her career in business or universities, but had a good jumping off point in the world of business by dipping frozen bananas on Balboa Island. Learn more below.

## Q What was your first job?

Earliest was putting on backyard summer carnivals in the third grade, then the paper route in the sixth grade and one of my favorites was dipping frozen bananas on Balboa Island over a high school summer.

## Q What is your favorite restaurant?

The breakfast buffet at the Mauna Kea Beach hotel. I have been going there with my family since I was about six years old and just the thought of it brings phenomenal memories and pure joy.

## Q What is your favorite holiday?

Mother’s Day! I am able to celebrate both my past and my future in an extremely personal and meaningful way. There are few things more personal and impactful than the relationship with the one that brought you into the world and those you carried into the world.

## Q What advice would you give your college self?

Never look back on choices you make in wonder or regret, because life is a journey. All of your experiences will continue to mold you into the person you are meant to be. Don’t just be yourself ... be the best version of yourself. That means constantly growing, learning, evolving, and, yes, even changing.

## Q What’s your favorite kind of music and why?

Music has played an important role throughout my life. I listen to many different kinds of music from rock, to country, to classical depending on where I am, who I am with and how I feel at the time. ///

TEXT: GRACE WOOD / PHOTO: JULIE KENNEDY



“...WE BUILT VOLUNTEERCROWD  
BASED ON HOW STUDENTS LIVE  
THEIR LIVES: ON THEIR PHONE.”  
— Amy von Kaenel



STARTUP

# VolunteerCrowd

HELPS STUDENTS GIVE BACK & STAND OUT

THE STARTUP PROVIDES STUDENTS WITH A CENTRAL HUB TO FIND,  
REQUEST AND TRACK COMMUNITY SERVICE OPPORTUNITIES  
FOR SCHOOL, CLUBS AND COLLEGE APPLICATIONS.

TEXT: ETHAN PEREZ / PHOTOS: CELINA BHANDARI & JULIE KENNEDY / ILLUSTRATIONS: ELISA LE

**M**artin Luther King Jr. is often quoted, “Life’s most persistent and urgent question is: ‘What are you doing for others?’”

Perhaps someone’s answer to Dr. King’s question is serving their country, getting involved with their community or helping others overseas. Volunteer work is the answer for millions of Americans of all ages every year by not only providing altruistic extracurricular activities, but also personal growth opportunities as well as creating standout school admissions applications.

For more than 5,000 community members and students across the U.S., their answer to Dr. King’s question is VolunteerCrowd.

VolunteerCrowd is a Wayfinder startup whose online service and mobile app allows students to find, request and track academic-related volunteer projects to help build a service transcript to impress colleges and employers. It also fixes decades-old problems in the volunteer sector and brings new meaning to Software as a Service (SaaS).

## SOFTWARE AND SERVICE

UC Irvine (UCI) double alumna Amy von Kaenel earned her bachelor’s degree in economics and MBA and went on to spend over a decade as a technology research

analyst for many of the big players in enterprise software, including HP, Microsoft, SAP, Google, Yahoo and Pearson.

Those experiences, combined with her affinity for education and desire to work more closely with technology, led von Kaenel to the educational technology (edtech) space. She joined startup Thrively — a marketplace for extracurricular activities — and later served on the board at Lion’s Heart — a nonprofit, teen-based volunteer organization.

Von Kaenel became interested in volunteer organizations and found that despite being run like businesses, their lack of technology throttled priorities like growth and alignment with students’ academic interests.

“When you have an antiquated technology platform, it makes it difficult to do all the things you want to do with a club or any nonprofit, which is effectively a business,” said von Kaenel. “It was hard to reach students, understand their college and career goals, to get them signed up, to communicate with them and to engage them.”

With those pain points in mind and \$250,000 in grants and pro bono services, von Kaenel led an internal effort to expand Lion’s Heart, which resulted in an 80 percent increase in signups and a tripling of Lion’s Heart’s national footprint.

As time went on, students began making requests that club-based structures could not accommodate, including different ways to select volunteer opportunities, alignment of service opportunities with academics, and the ability to take their volunteer transcript with them through their college careers.

Faced with these questions, von Kaenel took it upon herself to commit to developing a SaaS-based student volunteer platform built from the student’s perspective.

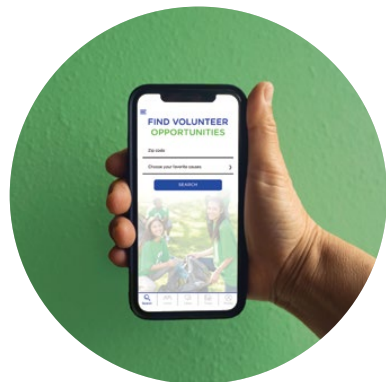
## SOFTWARE AS A SERVICE

To solve the problems facing students, clubs and educators looking for student volunteer opportunities, von Kaenel took six months off work to conduct research into how this endeavor would fit into the volunteer marketplace and sector.

In 2018, von Kaenel formed the LLC for VolunteerCrowd, which officially launched in 2019.

“One common complaint among guidance counsellors and teachers and club leaders is that students aren’t autonomous enough in volunteering,” said von Kaenel, CEO and founder of VolunteerCrowd. “They need the resources to be autonomous and self-directed. So, we built VolunteerCrowd based on how students live their lives: on their phone.”





With the VolunteerCrowd app, students can find and request projects, track and verify service hours and build a volunteer transcript.

Through the VolunteerCrowd app, middle school, high school and college students can find and request opportunities, as well as track their recorded hours for free in under a minute. With the paid service – an annual fee of \$99 – students receive additional functionality, including a verified transcript and portfolio that is automatically updated and added to any award qualification such as the President's Volunteer Service Award, skill and strength endorsements by organizations, notifications and more. The service replaces physical paper logs, and the living transcript and portfolio can be easily downloaded and attached to college applications.

Subsequent customer interviews conducted through the I-Corps\* program – a market discovery program funded by the National Science Foundation that leads campus innovators through an immersive learning process – revealed that younger students are focused on finding specialized projects like those in the science, technology, engineering and math (STEM) fields, medical-related projects or, in response to the pandemic, online volunteering. To help students build their college resumes with relevant opportunities, VolunteerCrowd launched the Impact Member plan for an annual fee of \$39.

VolunteerCrowd founder and CEO Amy von Kaenel presents her startup at a pitch event at the Cove @ UCI, UCI Beall Applied Innovation's headquarters.  
Photo: Rthura Cevallos



Since its formation, VolunteerCrowd won the Social Enterprise track of UCI's Paul Merage School of Business' New Venture Competition\*, joined the Wayfinder incubator at UCI Beall Applied Innovation and was selected as a finalist for The EdTech Awards 2020.

In addition to the Wayfinder and I-Corps programs, von Kaenel and her team remain well connected to UCI, from taking advantage of grant writing support workshops and mentorship from the many Innovation Advisors\* at Applied Innovation, to receiving pro bono legal consulting through the UCI School of Law's second-year students and financial modeling from finance students at the School of Business.



Students are able to quickly and easily find volunteer opportunities, like online tutoring, which can be automatically added to their VolunteerCrowd transcript and portfolio.



"One of the great things about the Wayfinder program is the potential to stay in it for an extended period of time if you have exhibited growth," said von Kaenel. "The steady exposure has allowed us to build a relationship with the investment community as they've watched us grow. No one is going to meet an investor and form a relationship in one pitch session or one meeting; these are relationships that are supposed to be nurtured."

VolunteerCrowd's service could not come at a better time. Recent events, including the college admissions scandal, where 50 people were charged with bribing college coaches and other insiders an estimated \$25 million to get their children into elite schools, have shown how important it is to have verifiable extracurriculars on college applications.



NO ONE IS GOING TO MEET AN INVESTOR AND FORM A RELATIONSHIP IN ONE PITCH SESSION OR ONE MEETING; THESE ARE RELATIONSHIPS THAT ARE SUPPOSED TO BE NURTURED."

– Amy von Kaenel

Additionally, as many universities – including the University of California System – will be phasing out the SAT and ACT requirements, students can rely on VolunteerCrowd's service to stand out to admissions offices.

VolunteerCrowd, which has seen a spike in users amid stay-at-home orders, launched new features to support meaningful service during the pandemic. These new updates will make it even easier for students to find more educationally aligned internships, virtual volunteer programs and STEM-focused opportunities.

Learn more about VolunteerCrowd: [volunteercrowd.com](https://volunteercrowd.com) ///

#### \*Resources Mentioned in this Story

**Innovation Advisors**  
[innovation.uci.edu/programs/innovation-advisors](https://innovation.uci.edu/programs/innovation-advisors)

**I-Corps**  
[innovation.uci.edu/programs/i-corps](https://innovation.uci.edu/programs/i-corps)

**Wayfinder Incubator**  
[innovation.uci.edu/programs/wayfinder-incubator](https://innovation.uci.edu/programs/wayfinder-incubator)



Parisa Khosropour, innovation advisor at UCI Beall Applied Innovation and Martin Banda, CEO of Wayfinder startup Biomentum meet virtually to discuss expanding Biomentum's network.



TEXT: JACKIE CONNOR / PHOTOS: JULIE KENNEDY

## DEEP DIVE

# Science & Creativity Draws Parisa Khosropour to Help Startups

THE INNOVATION ADVISOR HAS EXPERIENCED A CALIFORNIA STARTUP SUCCESS AND WISHES TO SUPPORT THE STARTUP COMMUNITY WHILE DRAWING ON THEIR INSPIRATIONAL CREATIVITY.

Though very different sides of the brain, science and art are often connected in forms of creativity and innovation. Parisa Khosropour, innovation advisor at UCI Beall Applied Innovation, is fascinated by this connection and has volunteered her time to help share her journey and advice with the startups at Applied Innovation.

In 1992, Khosropour began her career in academia and as she was preparing to apply for graduate school, was hired onto a startup known as Diagnostic Reagents Inc., (DRI) located in the Bay Area with focus on small molecule and protein monitoring. She joined DRI's R&D team and, with her background in organic chemistry, taught herself cellular immunology and assay development where she developed and successfully launched multiple assays for therapeutics and drug screening.

"I enjoy science and learning new things, I always have and hopefully always will," said Khosropour. "You see the application of innovation – how it can actually impact someone's life in a very positive way. It's extremely motivating."

Despite her career based in science, Khosropour enjoys theater, attending plays, traveling, architecture and history.

"I like to exercise the other side of my brain," said Khosropour. "You get to learn about yourself and your fellow man and your capabilities. What people are able to accomplish is truly amazing."

Khosropour's role expanded with increasing responsibility as DRI grew, became part of a public company and was eventually acquired by Thermo Fisher Scientific, a world leader that provides the scientific community with instrumentation, consumables, software and services.

In 2012, Khosropour's role transformed into president of Transplant Diagnostics, a division of Thermo Fisher Scientific with a mission to improve the quality of life for transplant patients.

"I think, as human beings, we are most vulnerable when our health is in question ... science can enable you to have a better quality of life, take care of you, improve your disease, improve your health condition," said Khosropour.

She then moved to Southern California to manage the division and retired in 2019. Wanting to still move the entrepreneurial needle and help others, she is now an innovation advisor where she helps guide startups by providing advice on business and regulatory strategy as well as guidance on manufacturing.

“

I THINK, AS HUMAN BEINGS, WE ARE MOST VULNERABLE WHEN OUR HEALTH IS IN QUESTION ... SCIENCE CAN ENABLE YOU TO HAVE A BETTER QUALITY OF LIFE, TAKE CARE OF YOU, IMPROVE YOUR DISEASE, IMPROVE YOUR HEALTH CONDITION."

– Parisa Khosropour

"It's about application of the device, the device should truly add value, focus on that, especially in the life science industry," said Khosropour. "There's a lot of distractions, however you should focus on how you are bringing your first product to market."

Khosropour has worked with several startups in Applied Innovation's Wayfinder\* incubator program, including Biopico, Biomentum, SyringePro and Teen MindGames.

"She helped us get into the mindset of 'starting with the end in mind,' which means setting our long-term goal first and working ourselves backward from there," said Martin Banda, CEO of startup Biomentum and recent UCI Biotechnology Management graduate. "She's also suggested people from her network to whom we should talk to help aid us in the regulatory strategy, as well as sent us attractive strategic partners to potentially engage with."

Biomentum is a Wayfinder biotech company that develops

medical devices with biotechnology-based ingredients. The team has recently developed their first product, a medical device that heals wounds two times faster than regular treatments. Khosropour is helping them with their go-to-market strategy from both a commercial and regulatory standpoint.

"I honestly think the startups today have much tougher regulatory hurdles to go through," said Khosropour. "The regulations and compliances are becoming more and more complex, especially around the world."

Khosropour plans to continue mentoring and helping startups navigate regulatory and commercialization processes while at Applied Innovation.

"I hope I can add some value and help some of these startups successfully progress from one milestone to the next," said Khosropour.

Reach Khosropour at [khosropour61@gmail.com](mailto:khosropour61@gmail.com)

### AS-SAY / verb

analysis (as of an ore or drug) to determine the presence, absence, or quantity of one or more components  
also: a test used in this analysis  
(source: merriam-webster.com)

### \*Resource Mentioned in this Story

Wayfinder Incubator  
[innovation.uci.edu/programs/wayfinder-incubator](https://innovation.uci.edu/programs/wayfinder-incubator)



# 5 TED Talks for Entrepreneurs, Innovators & Creatives

EXPERT SPEAKERS FROM DIVERSE BACKGROUNDS OFFER INSIGHTS INTO SUBJECTS BENEFICIAL TO THOSE WHO PAVE THEIR OWN PATHS.

Entrepreneurs, innovators and creatives are thought-provokers and change-makers who draw outside the lines. However, one constant about such endeavors is there is no one-size-fits-all approach.

Read on for five TED Talks with valuable information that can inspire anyone's journey.

## ACHIEVE AMBITIOUS GOALS

Everyone has goals. Some so ambitious that they never come to fruition because the odds seem insurmountable and the idea feels too big. Stephen Duneier, investment manager, strategy consultant and author, shares how marginal adjustments to his daily life allowed him to achieve goal after goal, no matter how large.

## INSPIRE THROUGH SHARING YOUR PURPOSE

In his presentation, author and motivational speaker Simon Sinek explains how successful companies and leaders begin by stating why they do something – their purpose. Sinek encourages leaders and companies to put the emphasis on their purpose first – rather than their product or service – to connect to people on an emotional level to inspire allegiance and inspire new customers to buy their products.

## INNOVATE TODAY, NOT TOMORROW

A futurist is someone who makes predictions about the future based on current trends. While it is appealing to imagine a world of new possibilities, Joi Ito, Japanese entrepreneur and venture capitalist, promotes the idea of becoming a “now-ist,” a person who innovates today rather than imagining tomorrow. For individuals who want to change the world through a company or an idea, do not wait for everything to align perfectly before you begin; start now.

## EXPAND YOUR SOCIAL CIRCLE

Having a small social circle is comforting, but it may not be beneficial if you are interested in new ideas, opportunities or ventures. In her talk, Tanya Menon, professor at Ohio State University's Fisher College of Business, shares research-based evidence that shows how individuals are more likely to achieve their next level of success through someone outside of their close social circle and shares how to develop new and more diverse networks.

## HIRE THE RIGHT TALENT FOR YOUR ORGANIZATION

Regina Hartley, speaker and vice president of Global Talent Management at UPS, says the best hire might not have a perfect resume. When examining equally qualified candidates, those with less prestigious alma maters and a series of odd jobs show a committed struggle against obstacles compared to those whose lives seem engineered for success. These individuals might therefore be a better match for a startup, as they have the grit to succeed through adversity in life and the workplace.

Learn more about UCI Beall Applied Innovation's entrepreneur-focused services and resources: [innovation.uci.edu/resources](https://innovation.uci.edu/resources) ///

Source: All TED Talk videos can be found on [youtube.com](https://www.youtube.com)



# Across Campus

SOME OF THE LATEST STORIES  
FROM THE UCI CAMPUS



## HENRY SAMUELI SCHOOL OF ENGINEERING

The National Science Foundation awarded \$3 million to an epigenetics research team led by UCI biomedical engineering professor Tim Downing. The project aims to generate breakthroughs in cellular engineering.

[engineering.uci.edu](https://engineering.uci.edu)



## DONALD BREN SCHOOL OF INFORMATION & COMPUTER SCIENCES

Informatics Professor Rebecca Black collaborated with Gloria Washington, assistant professor of computer science at Howard University, to develop AI-supported online communities that will provide students with mental health services.

[ics.uci.edu](https://ics.uci.edu)



## PAUL MERAGE SCHOOL OF BUSINESS

UCI alumnus Eitan Ron co-founded Kahun, a COVID-19 diagnosis tool for physicians. Kahun visualizes recent medical research to help diagnose patients and determines the likelihood of patients needing intensive care.

[merage.uci.edu](https://merage.uci.edu)



## UCI CAMPUS

UCI received a record \$529 million in research funding for the 2019-20 fiscal year. Awarded funds will contribute to research in materials science, data privacy, criminology and other research-based fields.

[news.uci.edu](https://news.uci.edu)



## SCHOOL OF MEDICINE

A new study reveals what causes spatial memory impairment in Alzheimer's disease. The findings attribute decreased memory to the impairment of the entorhinal cortex, which supplies information to the hippocampus.

[som.uci.edu](https://som.uci.edu)

## SUPPORTING INNOVATION

# How Supporting Innovation Creates Real-World Impact

ENTREPRENEURS AT UCI BEALL APPLIED INNOVATION RECEIVE  
MEANINGFUL SUPPORT FROM PATRONS OF INNOVATION.

Developing a product or service is already a feat in itself. Commercializing it is an entirely different undertaking many innovators may not be fully equipped to tackle without assistance. At UCI Beall Applied Innovation, original ideas, cutting-edge research and new technologies have real-world impacts with the help of business experts, funding opportunities and entrepreneurial programs.

Applied Innovation serves Southern California's economy by creating jobs and stimulating economic growth through assisting startups and providing valuable resources for the local community. But to provide these resources at little to no cost and continue growing Orange County's entrepreneurial ecosystem, Applied Innovation relies on the support of individuals kind enough to not only donate money, but also their time.

## VOLUNTEER

At Applied Innovation, business leaders at large share their knowledge and expertise with UC-affiliated entrepreneurs to positively impact the entrepreneurial ecosystem. As part of the Innovation Advisors network, subject matter experts in marketing, business law, manufacturing, fundraising and other fields volunteer to mentor up-and-coming entrepreneurs faced with specific challenges of the startup experience.

Innovation Advisor Sima Ghafari finds fulfillment in mentoring startups when she reviews pitches from young innovators.

"Listening to young entrepreneurs pitching their ideas with an unbelievable energy and passion, seeing them thirsty for advice, data and guidance, watching them develop their business strategy ... and raise funds to become a real business is a wonderful experience," said Ghafari. "[It is] the perfect opportunity for industry veterans to give back to the community by means of helping young entrepreneurs."

Aside from being a mentor, other ways to get involved include guest speaking, serving as a judge for entrepreneurial competitions, and becoming a technology, grant proposal or Wayfinder incubator application reviewer.

Through impassioned involvement and philanthropic support, Applied Innovation can continue its mission of providing meaningful assistance and opportunity to individuals from all backgrounds so that they can create positive, real-world impacts.

"It is such an incredible experience when you see a simple idea has morphed into a real-life impactful product," said Ghafari. "This is transformation at all levels."

Learn more about how to make a positive impact on Southern California's economy and support innovation: [innovation.uci.edu/get-involved](https://innovation.uci.edu/get-involved) ///

## PHILANTHROPY

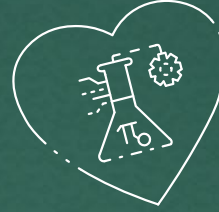
Applied Innovation also offers funding opportunities and programs for early-stage startups to take their next steps. Benefactors can sponsor an event at the Cove @ UCI, Applied Innovation's headquarters, or fund a specific program dedicated to supporting startups with potential and promise.

Additionally, through UC Irvine's (UCI) Opportunity, Wayfinding and Networking (OWN) Initiative, donors can support the development and growth of resources aimed at serving UCI's low-income, first-generation and underrepresented students. These philanthropic gifts make a direct impact in closing the socioeconomic, gender and underrepresented minority gaps in entrepreneurship and the fields of science, technology, engineering and math, and in doing so maximizes students' chances of success as well as the success of an "innovation district" in Orange County.

Contributors can donate to the Student Startup Fund, which provides micro-grants to students engaged in UCI's entrepreneurial programs, competitions and centers. They can also fund a Proof of Product Grant, which helps faculty innovators with meaningful technology and research overcome commercialization barriers.

TEXT: KAITLIN AQUINO / ILLUSTRATION: RACHEL NOBLE





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## SUPPORT INNOVATION AT UCI

[innovation.uci.edu/support-innovation](http://innovation.uci.edu/support-innovation)

UCI Beall Applied Innovation is a dynamic, innovative central platform for the UCI campus, entrepreneurs, inventors, the business community and investors to collaborate and move UCI research from lab to market.

## WAYS TO GET INVOLVED

[innovation.uci.edu/get-involved](http://innovation.uci.edu/get-involved)

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