UCI Beall Applied Innovation THE CASE FOR SUPPORT





"I would not be this far along in my startup journey if it were not for the support, resources and programs offered to me at UCI Beall Applied Innovation. A donation to this worthwhile innovation platform can truly help expand these resources and provide more opportunities to entrepreneurs like me."

> - Leila Safavi, Ph.D., co-founder and chief executive officer, Purist



UCI Beall Applied Innovation

UC Irvine's cutting-edge research holds the potential to improve and save lives — but only if that research gets transferred from the lab to the marketplace. UCI Beall Applied Innovation ensures that the most impactful research discovered by UCI faculty gets into the hands of the people who need it most. As a vibrant gathering place for university innovations to develop, Applied Innovation, located at the Cove, connects entrepreneurs, innovators, investors, industry, UCI students and alumni as they venture into the Southern California startup ecosystem.

The Cove, headquarters of Applied Innovation, is 100,000 square feet of startup energy, designed to inspire the next great idea. With events ranging from pitch sessions to industry conferences, the Cove holds more than 600 events annually, drawing more than 50,000 attendees from the entrepreneurial and business communities. Applied Innovation provides the platform and resources to students, faculty — and the broader entrepreneurial community — to propel innovations from the university into the marketplace. At last count, UCI had supported the development of nearly 1,000 inventions and issued more than 800 U.S. patents. Since 1986, 129 startups have been founded based on UCI intellectual property. In addition to the \$5 billion UCI pumps into the region's economy each year, the university has tracked more than \$20 billion in investment funding for UCIaffiliated startups. Some of these represent intellectual property from both current faculty researchers and alumni. One of the best routes to a thriving economy and national competitiveness is to streamline the process for bringing discoveries made in the laboratory to life.

How do we do it?

UCI receives over \$400 million in federal research funding each year to promote basic research across the campus. However, this funding allows for little work related to the subsequent and necessary commercialization of this research. The gap between basic research grants and early investment funding is often called the "valley of death" because it's where potential products tend to languish. Applied Innovation addresses this gap by awarding Proof of Product (POP) Grants to UCI faculty innovators in amounts up to \$100,000 per project. These funds, initially supported by state funding but now wholly supported by private philanthropy, provide the crucial bridge to help bring innovative technologies from promise to product. POP Grants, combined with the collaboration between UCI innovators, evaluators with industry expertise and donors, accelerate the development of UCI's most commercially promising research and technologies.

POP Grants allowed biomedical engineering professor Michelle Khine to take her sensor research one step closer to becoming a marketable product. She founded several companies with her innovations including the ASPIRE asthma sensor, a wearable sensor that automatically detects and communicates the onset of an asthma attack, giving the patient a few extra and valuable seconds to reach for an inhaler.

But for every commercially viable technology such as Khine's, there are five others that go unfunded due to the lack of financial resources.

We are teaching an entrepreneurial way of thinking to UCI students

This program is the lifeblood of a research university's mission: to create new knowledge, seek new discoveries that enhance human life and positively impact economic development by creating sustainable companies.

And we're not just spinning out high-tech startups and medical technologies. We are teaching an entrepreneurial way of thinking to UCI students through the ANTrepreneur Center. The idea of being entrepreneurial — learning to take risks, creatively solve a problem and embracing failure in the path to success — are all valuable skills that employers seek. Some students visit the ANTrepreneur Center curious about entrepreneurship and others visit with a business idea they want to explore with seasoned entrepreneurs.

As ideas become more developed, technologies are proven in the marketplace and business plans take shape, students, faculty, alumni and those utilizing UCI intellectual property discover the Wayfinder program. Wayfinder is a highly structured startup incubator program that connects UCI- affiliated startups with the essential resources needed to launch, develop, be investor-ready and succeed. Since 2015, Wayfinder has helped launch over 130 startups ... but many more need our community, support and resources to get started. With your philanthropic support, Wayfinder can engage more startups, expand its services and begin to provide initial grant funding to cover basic expenses while founders work to get their startup launched.

"UCI has been a driving force uncovering breakthroughs that have real-world impact," said Donald Beall, retired chairman and CEO, Rockwell International, and one of the founding members of the board at Applied Innovation. "Together, we hope to bring these discoveries to life, benefiting students, faculty, the business community and society as a whole."

Our vision is to elevate Orange County as a national and global leader in scalable innovation. We believe entrepreneurship can be a path to the American Dream. We believe that entrepreneurship should be accessible and



Middle School Moguls

Sisters Gina and Jenae Heitkamp created Middle School Moguls to inspire girls ages 6 to 10 to become entrepreneurs and foster their interest in technology. The Moguls are girls with distinctive characters and an interest in technology and entrepreneurship, and doll versions were sold at Target and Walmart. Recently, Nickelodeon announced it would premiere an animated series featuring Middle School Moguls characters.

UCI Beall Applied Innovation helped Gina, an alumna of UCI's Paul Merage School of Business, and her sister realize their entrepreneurial dreams back when Middle School Moguls was just that, a dream. After the pair became the first all-female team to win the Business Plan Competition in 2014, they were invited to Cove Share, a pre-Wayfinder incubator program. They quickly took advantage of the ample opportunities available through Applied Innovation, including the Cove's Innovation Advisers and eventually support from the Cove Fund.

"UCI, and especially Applied Innovation, have been with us since the beginning of our journey," said Gina. "They have helped us with mentors, guidance, office space, and, basically, all the resources we could need to get our business off the ground." "The American dream is alive and thriving at UCI Beall Applied Innovation and you can become part of it. I challenge you to inspire, mentor or be the resource that propels a startup to the next level. Help us build the best damn entrepreneurial ecosystem in the world."

> - Richard Sudek, Ph.D., UCI chief innovation officer and executive director, UCI Beall Applied Innovation

we can be a part of the innovative landscape to build the Orange County of the future

inclusive to all. By connecting the community to resources, we believe we can be a part of the innovative landscape to build the Orange County of the future. If you also believe in the transformative power of entrepreneurship to create a brilliant future for the Southern California region, join us by supporting UCI Beall Applied Innovation.

Proof of Product Grants (\$15-million endowment)

 Support this critical resource for the community of UCI inventors who rely on these funds to commercialize their inventions for the public good. Funds will be primarily used to offer commercialization grants to UCI faculty whose research has the most promising market potential, thus ensuring revolutionary innovations are transferred from science labs into the marketplace. Grants of up to \$100,000 are used to help faculty innovators demonstrate commercial viability and improve their chances to obtain additional funding from angel investments, venture funding and/or government grants.

Research Translation Group (RTG) Fellowship Program (\$3-million endowment)

- RTG fellowships offer UCI science, medicine and engineering graduate student researchers a hands-on introduction to technology evaluation and intellectual property management. Fellows contribute to RTG technology assessments, prior art searches and market research for UCI inventions.
- Graduate fellowships are an important source of funding designed to help students offset their educational and

living expenses while earning their degree. Public and private universities heavily compete for the world's top graduate students, and the ability to offer more fellowships will empower UCI to attract the very best.

- The RTG fellows learn essential communication skills and expand their capacity to effectively present research and science in a business environment that highlights the importance and relevance of the research. Many alumni of the program have successfully leveraged the fellowship experience to gain employment in intellectual property law, university technology transfer offices and federal research facilities.
- Twenty-four fellows have experienced the program since its founding in 2016. Private philanthropy will not only allow us to expand the program to more fellows, but increased funds raised will provide additional graduate fellows' stipends, enhanced program workshops, educational events, travel to business conferences with Applied Innovation staff and program management costs.

Wayfinder (\$10-million endowment)

• While startups work towards becoming investor-ready, they have access to personalized strategic guidance, educational workshops, office space at the Cove, labs for early prototyping and social networking events, all at no





UCI Professor, Researcher Turned Entrepreneur Extraordinaire

Each day, biomedical engineering professor Elliot Botvinick and his team of researchers tinker away at innovations that could one day save millions of lives. Since 2001, Botvinick has accumulated more than 20 invention reports and four patents issued through UCI Beall Applied Innovation.

In 2016, Botvinick was one of the first UCI researchers to receive funding through Applied Innovation's POP Grants program. The funding supported his technology, which is licensed to Cactus Medical, a one-button tool to allow doctors to detect ear infections in children more effectively. Since then, the company secured funding from the National Science Foundation and the Consortium for Technology in Innovation in Pediatrics, an FDAsponsored pediatric device accelerator.

That's just one of several biomedical devices Botvinick is bringing to market with the help of various resources at Applied Innovation, including recent inventions to detect lactic acid in order to identify Type 1 diabetes and sepsis.

"When I speak to my colleagues at other universities, they simply don't have this experience. Richard [Sudek] has created something special and rare. In fact, what he built is one of the reasons I never left UCI," said Botvinick. cost. Once they are ready for investment, introductions are made to all stages of investors (seed, angels, VC).

- With private philanthropy, we envision
 creating a fund to award grants to
 Wayfinder startups. Grants can vary
 in amounts, as some teams will only
 need one round of funding while others
 will need several, depending on the
 complexity of the product and needs
 of the company. Providing these funds
 will dramatically increase the number of
 companies gaining traction and reduce
 the time to secure subsequent rounds of
 funding from angel and venture.
- Funds raised towards an endowment will cover program management costs including workshops and networking events as well as provide financial support to startups through Wayfinder grants.

Born in California™ (\$5 million endowment)

- To ultimately create increased economic impact across the region and the state of California, Applied Innovation will host a series of pitch competitions and events open to any startup from each of the University of California's ten campuses.
- Born in California[™] will include a series of competitions and educational opportunities for startups based in, or originally developed in, the University of California system. The series provides a forum for venture capitalists to connect with innovative projects as well as offer startups training on how to pitch and other learning resources.
- Born in California[™] supports one of the founding missions of the University of California — to take the billions of dollars of federal research funding at the UC system and translate it into a positive economic impact across the state.
- Funds raised towards this endowment will support the activities of Born in California[™] and will provide the funding to offer cash prizes in the pitch competitions to be used by the winning startups to fund their companies.

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Cove Fund

The Cove Fund is a family of seed-stage venture capital funds that provides startup funding for promising new Orange County and Southern California ventures. The Cove Fund is located at the Cove, headquarters for UCI Beall Applied Innovation, 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.

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The \$5.6-million Cove Fund I began investing in 2015 and currently has 16 companies in its portfolio. Cove Fund II launched in early 2018 with \$14.2 million in capital. The funds invest in early stage technology and life science companies that demonstrate the potential to address large markets with highly differentiated products and services, and that can achieve significant value-creating inflection points with their seed funding.



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