INNOVATION WITHOUT BORDERS: A DECADE OF REGIONAL IMPACT TECHNOLOGY PARTNERSHIPS 10-YEAR REPORT











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A Catalyst for Regional Innovation

Andrea Cuellar pitches at the 2023 SoCal OASIS™ Challenge, UC Riverside's premier entrepreneurship competition designed to empower innovators tackling society's most pressing challenges of today. Since 2023, the program has awarded over \$250,000 in non-dilutive funding to high-impact startups, many of whom leveraged these funds for prototyping, IP, go-to-market strategies, and more.

A LETTER FROM THE VICE CHANCELLOR

Greetings Colleagues, Friends, and Partners,

As we look back on ten years of the Office of Technology Partnerships (OTP), I want to recognize Dr. Rosibel Ochoa and her team for building a strong bridge between UC Riverside's world-class research and the growing economy of Inland Southern California and beyond. The programs they have created have transformed how our campus interacts with and support entrepreneurs and innovators, creating an infrastructure on par with those at larger and longer established universities in the nation. But this 10-year milestone is not just about celebrating structures or programs—it reflects a shared commitment to turning discoveries into real solutions for people, communities, and industries. That is at the heart of what Research and Economic Development is all about.

Our focus now is on growing a vibrant, high-impact innovation ecosystem that positions UCR as both a regional leader and a globally competitive research university. One clear example of this vision is SoCal OASIS®, which we launched to directly address some of the biggest challenges facing our communities and the world. Through SoCal OASIS, we are investing in the future through seed funding and building capacity for grants and other awards that help launch the next generation of technologies and innovation. And this past June, we celebrated the groundbreaking of the SoCal OASIS Park, which will serve as a hub for testing, demonstrating, and scaling sustainable technologies for years to come.

We are also extending this innovation pipeline to reach well beyond Riverside. Our research does not just stay in the lab—it is making its way into the marketplace, across borders, and onto the global stage. Working closely with the City of Riverside, the County, and our regional partners, we have attracted international businesses such as Ohmio, Seedorina, and Voltu Motor, Inc. With support from programs like Build 2 Scale, these companies are not only creating jobs but also making a real impact on the Inland Southern California economy.

At a time when the value of higher education is being questioned and resources for research and education face an uncertain future, we must double down on demonstrating the transformative economic impact of our universities and looking ahead, the next decade will be about building on the momentum we have created. We will keep pushing the boundaries of research excellence, expanding programs that create opportunities for our students, faculty, and community partners, and strengthening UCR's role as a powerful engine for regional and global progress.

Cheers!

Rodolfo H. Torres

Vice Chancellor Research, Innovation and Economic Development



A LETTER FROM THE ASSOCIATE VICE CHANCELLOR

As we approach ten years of the Office of Technology Partnerships (OTP), I am struck by how far we have come from our early beginnings. When we launched in 2016, OTP was a small team of five focused primarily on technology transfer. In those days, our role was limited to protecting intellectual property through disclosures, patents, and licenses—a traditional model that left much of the innovation journey to chance.

Today, OTP is something entirely different. This transformation was intentional, built on an integrated, matrix-based model that combines the strengths of our three core pillars: Technology Commercialization, Corporate Research Partnerships, and Innovation & Entrepreneurship. By working as a unified team across these functional areas, we have built a full-spectrum engine for innovation—one that not only protects ideas but walks side by side with the innovators who create them. Our success is a direct result of this collaborative spirit, which allows us to provide seamless, "white-glove" support at every stage of the journey from lab to market.

The impact of this integrated approach is clear. Our Technology Commercialization team has evolved from a transactional service to a strategic partner, working with faculty like Drs. Huinan Liu and Will Grover to transform their groundbreaking research into ventures that reach patients and industries. This foundation is amplified by our Innovation & Entrepreneurship engine, which provides the critical "handholding" that turns ideas into sustainable businesses. Through mentorship, non-dilutive funding, and access to regional and global networks, we support entrepreneurs from every corner of campus and community, who prove that great ideas can emerge from anywhere. Completing this ecosystem, our Corporate & Strategic Partnerships group acts as a bridge to industry, forging strategic alliances that bring vital resources and opportunities to our region.

This spirit of internal collaboration is mirrored in our deep engagement with the community. We are proud to have shaped not just companies, but culture. A key part of this cultural shift has been our commitment to entrepreneurial education.

1st place winning company of the SoCal OASIS® Pitch Challenge competition, Super Foam, with Associate Vice Chancellor Dr. Ochoa, Vice Chancellor Dr. Rodolfo H. Torres, and various judges. Zef Neemuchwala, CEO of Super Foam, delivered an outstanding pitch that rewarded his team with \$75,000 in non-dilutive funding.



Through flagship programs like our Blackstone LaunchPad workshops and the NSF-funded INNOVAR I-Corps, we have exposed more than 5,000 students, faculty, and community members to entrepreneurship as an opportunity for professional growth. Even for those who don't start companies, the experience is transformative. Learning to work in teams, talk to customers, and present ideas to investors and mentors provides a powerful skillset they can take with them regardless of where they end up. This foundational work helped change the conversation in our region. Today, thanks to persistent partnership and creativity—from launching the Green Motion platform to accelerate plant innovation from science to market to the success of our SBIR/STTR Resource Center—innovation is recognized as a pillar of regional economic development. The State's designated Inland SoCal Accelerate Hub, now a coalition of over 30 organizations, is powerful proof that we can align diverse stakeholders around a single vision for inclusive prosperity.

Our impact is defined by our unique role within this community. As the major R1 research university in Inland Southern California—a region of over 5 million people with a nascent innovation ecosystem—we have a distinct responsibility to be a catalyst. In an area that has historically lacked a culture of venture investment, we recognized the need to build the infrastructure and excitement from the ground up. Through strategic partnerships with the City and County of Riverside, and powered by vital programs like the EDA's Build to Scale initiative, we have created undeniable momentum. This collaborative effort has been instrumental in attracting innovative international companies like Ohmio, Voltu, and Seedorina to Inland SoCal, proving that we can cultivate a thriving innovation hub right here.

This work powerfully reflects the spirit of UC Riverside itself. Ranked #1 in the nation for social mobility, UCR provides pathways for students and community members to transform their lives. At OTP, we extend that mission by creating new routes to success through entrepreneurship. Our journey is proof that strategic vision, persistence, and deep community collaboration are the true drivers of impact. The next decade will bring even greater challenges and opportunities, but our mission remains the same: to transform bold ideas into pathways of opportunity and to make Inland Southern California a model for inclusive innovation.

Dr. Rosibel Ochoa

Associate Vice Chancellor Technology Partnerships



Dr. Ochoa during her opening remarks speech during the SoCal OASIS® Park groundbreaking ceremony in spring 2025.

A Decade of Empowering Entrepreneurs and Driving Regional Growth

Over the past ten years, the UC Riverside Office of Technology Partnerships (OTP) has transformed from a technology transfer office into a full-spectrum engine for entrepreneurship, innovation, and regional economic development. Our mission has grown beyond commercializing campus research — today, OTP serves as a catalyst for building an inclusive, world-class innovation ecosystem that empowers entrepreneurs, attracts investment, and strengthens Inland Southern California's competitive position in the global economy.



At UC Riverside's Office of Technology Partnerships, our mission is to foster economic development in Inland Southern California by building a dynamic entrepreneurial ecosystem. We connect the university, industry, and community to provide fast, accessible, and tailored business support. Our efforts focus on facilitating the startup creation, funding, commercialization, validation, growth, and incubation of lifechanging innovations from local entrepreneurs, benefiting both society and the regional economy.

What We Provide

capital.

Innovation & Entrepreneurship Support for Entrepreneurs

EPIC (Entrepreneurial Proof of Concept & Innovation Center) provides faculty, staff, students, and local innovators valuable with the resources they need to start & build their companies. EPIC is a path-to-market platform that provides access to mentorship, training, incubator facilities, and access to

Technology Commercialization

The Technology Commercialization team protects and helps commercialize cutting edge research developed at UCR. From developing an IP strategy, and filing disclosures, to licensing technologies, the TC team provides faculty, students, and staff full service support in protecting and commercializing their UCR intellectual property.



Economic Development

The Office of Technology Partnerships drives regional economic growth by empowering startups, small businesses, and industry partners with the tools to innovate and scale. Through programs like Build to Scale and the Inland SoCal Accelerate Hub, we help bolster job creation, attract investment, and position Inland Southern California as a hub for cutting-edge innovation.

Corporate & Strategic Partnerships

The Corporate & Strategic Partnerships team facilitates collaborations between faculty and industry. The team provides specialized company access to the pioneering research, faculty, students, and infrastructure at UCR. Additionally, The Corporate Research Contracts office helps faculty members advance their research by negotiating industry agreements and providing grant proposal support.

MILESTONES THAT SHAPED A DECADE:

A chronological look at the programs, partnerships, and breakthroughs that shaped OTP's growth





<u> Apr 2017</u>



Aug 2016

official NSF I-Corps

funding to train UCR

teams for the next 5

UCR became an

site, securing

vears.

EPIC was launched, establishing UCR's first formal

innovation and

hub

entrepreneurship

Oct 2016

Center for Molecular and Translational Medicine (MolMed) launched to accelerate medical and hinscience innovation.

Mar 2017

Creat'R Lab launched as a new innovation makerspace supporting student entrepreneurship.

ExCITE Incubator relaunched with expanded capacity and programming.

Highlander Venture Fund established, providing seed and pre-seed capital for **UCR-affiliated** startups.

Jun 2017

<u>Jul 2017</u>

UCR was awarded a 5-year National Science Foundation (NSF) Innovation Corps Site grant, awarding \$500,000 for entrepreneurial training and funding to UCR faculty, staff, students and

alumni.

Mar 2019

UCR hosts first

annual SBIR/STTR

Conference.

Apr 2018

OTP received a grant

the EPIC Small

Center (SBDC).

from the SBA to launch

Business Development

Feb 2018

EPIC SBDC launched the SBIR/STTR Resource Center — a hub for building partnerships and sharpening proposals to boost funding success.

OTP formed a longterm collaboration with Know Hub Chile to fast-track technology commercialization and transfer.

Nov 2019

Dec 2017

UCR initiated the **Avocado Variety** Improvement Program to develop the next generation of avocado varieties.

Sep 2017

Apr 2019

UCR was awarded a \$2.5M grant from the Economic Development Agency to develop the Life Sciences Incubator.



Oct 2021

UCR supports seven

cleantech companies

providing testing,

through the

UCR signs a \$5M

Eurosemillas agreement supporting proof-of-concept funding and advancing citrus and avocado breeding programs.

May 2019

Blackstone LaunchPad launched at UCR, expanding entrepreneurial access for students.

Aug 2019

Know Hub Chile **Ignition Program** launched using UCR's **INNOVAR** Lean Launchpad methodology.

Nov 2019

Eurosemillas **Technology Acceleration Program** (ETAP) launched to focus on de-risking high potential technologies through proof of concept funding.

Life Sciences Incubator opens at the Multidisciplinary Research Building.

Oct 2019

May 2020

UCR licenses a promising HLBfighting technology to Invaio Sciences, advancing years of USDA-, CRB-, and Citrus Nursery Board-supported research toward protecting the global citrus industry.

lun 2021

OTP advances the SoCal

OASIS® Initiative, driving

regional economic growth

through clean tech

research, innovation,

entrepreneurship, and

workforce development.

Apr 2021

FPIC startups

raise a record

capital.

\$15.4 million in

Mar 2021

LaunchPad hosts the

Summit, advancing

entrepreneurship

through workshops,

Blackstone

women's

Entrepreneur

Discover UCR platform launched, connecting

<u>Jan 2021</u>

30 Inland Empire manufacturers with **UCR** innovation resources to support development and workforce needs.

into the MRB Incubator, including Murrieta Genomics, NevroblastGX, Karamedica, GattaCo. and Armida Labs.

First tenants move

Oct 2020

networking, & more. CalTestBed Initiative. Feb 2023 **Nov 2021** Apr 2022 Jun 2022 **Aug 2022 Nov 2022**

validation, and early commercialization UCR launches the support. TACIES Program, supported by \$900K in EDA funding to strengthen small-

UCR partners with securing a \$5M California Energy advance cleanenergy innovation for regional

Life Sciences **Incubator reaches 10** resident companies, marking a major milestone in UCR's wet-lab commercialization capacity.

UCR awards \$2.4M in Proof-of-Concept funding to faculty commercialization of climate, agriculture, technologies.

Launched the UCR **EPIC Eurosemillas** Incubation Challenge, a \$100,000 program supporting six Latin American deep-tech startups with softlanding and U.S. market readiness.

Established the **Inland Empire NAI** Chapter, recognizing three UCR faculty as **Fellows and Senior** Members.

business resiliency post-pandemic.

Cleantech San Diego, Commission grant to companies.

innovators. accelerating health, and sustainability





Mar 2023

May 2023

<u>Jun 2023</u>

Aug 2023

Sep 2023

Launched the OASIS Faculty Entrepreneurial Fellows Program, awarding \$600,000 to advance climateresilient commercialization.

Launched Zero-to-Entrepreneur certificates in agriculture and transportation, attracting 80+ participants.

Life Sciences Incubator reaches 10 resident companies, two new spinouts, and support for 18 faculty using its \$2M equipment suite.

Opportunity Exposure Workshops introduce 60+ high school students to careers in modern agriculture and clean transportation.

Hosted three Chilean startup teams for the Know **Hub soft-landing** immersion week.

Oct 2023

releases UCR's new

Inventions of 2023.

avocado cultivar

'BL516' (Luna

UCR™), later named one of TIME's Best

Eurosemillas

partnership

Dec 2023

Dec 2023

Dec 2023

Nov 2023

Oct 2023

<u>Jan 2024</u>

Hosted the 1st annual Inland SoCal **OASIS Climate** Action Conference. convening 150+ entrepreneurs, policymakers, and faculty.

Awarded \$1.3M in SoCal OASIS® internal funding for faculty-led sustainability and clean tech research.

Secured \$1M in federal funding (via Rep. Takano) to advance the Northside Agriculture Innovation Center.

Completed the Basis of Design for Phase 1 of the SoCal OASIS™ Innovation Park, advancing plans for UCR's sustainability and mobility innovation district.

Received a \$2M EDA Build-2-Scale grant to accelerate sustainabilityfocused startup growth in Inland Southern California.

OASIS Pitch bootcamps, mentorship, and regional startups.

Hosted the SoCal Challenge, providing \$110,000 in awards to

<u>Jun 2025</u>

Jul 2024

<u> Apr 2025</u>

UCR designated an Innovation & Economic **Prosperity University** by APLU, recognizing its regional economic and entrepreneurship impact.

Mar 2024

UCR breaks ground on the \$68M SoCal OASIS® Park, launching a new regional hub for labs, incubators, and startup space.

Kicked off the Inland SoCal Accelerate Hub, launching a coordinated regional effort to support innovation, entrepreneurship, and economic development across **Inland Southern** California.

OTP-backed companies excel at the Riverside County Fast Pitch Finale, with Glid and Super Foam winning first and second place after advancing through the regional startup pipeline.













COMPANIES SUPPORTED BY OTP

Over the past decade, OTP has helped hundreds of startups and small businesses advance their technologies, refine business models, and secure critical funding. Through mentorship, proof-ofconcept support, SBIR/STTR guidance, and incubation resources, these companies have grown across sectors such as ag-tech, clean mobility, biotech, and climate solutions. The companies highlighted here reflect the breadth and impact of OTP's support ecosystem.























4th State Energies





























CAREVIRTUE

























edge sound research.





















CORE



































































































Tinker the Robot











Entrepreneur Rito Sur of Indrio Technologies accepting an award of \$20,000 at the 2023 SoCal OASIS® Pitch Challenge Competition. Non-dilutive cash awards are given each year to winning companies during the annual pitch competition.



White-Glove Support Throughout the Pipeline

Every client benefits from personalized mentorship, typically led by a dedicated Entrepreneur-in-Residence (EIR), and has access to OTP's full network of capital providers, technical experts, corporate partners, and regional stakeholders. Through structured onboarding, intake assessments, and milestone-driven Scopes of Work, OTP ensures that each venture receives customized, measurable support aligned with its stage of growth.

Over the last decade, OTP has delivered measurable change:

- Helped clients and startups secure more than \$72 million in federal SBIR/STTR funding, often doubling the national average success rate.
- Supported companies in raising over \$160 million in private and venture investment, fueling local job creation and business growth.
- Supported over 620 ventures with launch and growth
- Coordinated more than 30 regional organizations through the Inland SoCal Accelerate Hub to provide unified, "white-glove" support for companies relocating or expanding to the region.

Our impact over the past decade is measured not only in patents, licenses, and research funding, but in the tangible economic and societal benefits we have delivered:

- Hundreds of high-quality jobs created in sectors such as clean transportation, ag-tech, life sciences, and advanced manufacturing.
- Entrepreneurship programs reaching over 70% participation from historically underserved communities in our region.
- Expansion of innovation resources into rural and economically disadvantaged areas, ensuring that opportunity reaches every corner of Inland Southern California.

This report captures the milestones, stories, and measurable outcomes that define OTP's first decade. It highlights the innovators we've supported, the partnerships we've built, and the regional transformation we've helped drive.



Served Over

2,000

entrepreneurs and innovators through direct training, mentorship, and consulting

TECHNOLOGY COMMERCIALIZATION:

Protecting & Advancing Innovation

Before the Office of Technology Partnerships (OTP) was established, UC Riverside's efforts in innovation were led by the Office of Technology Commercialization (OTC). Its primary mission was to protect intellectual property generated by UCR faculty researchers, manage invention disclosures, and translate those ideas into patents, licenses, and ultimately, commercial ventures. Over the past decade, these efforts have grown into the broader mandate of OTP, expanding beyond IP management to include entrepreneurship, incubation, and regional economic development.



Invention Disclosures

Over the past decade, UC Riverside researchers submitted 640 invention disclosures, representing a steady pipeline of ideas emerging from the university's labs and research centers. These disclosures reflect the creativity and technical expertise of UCR faculty and the breadth of research that has the potential to generate real-world impact.

Licenses & Startups

During this period, UCR executed 71 new licenses across agriculture, life sciences, clean energy, and advanced materials. These agreements demonstrate the value of UCR's discoveries and help bring innovation to market. Licensing fueled startup creation, with 20 new companies launched - 18 from UCR-owned IP and 2 from jointly owned IP by partner universities. Many of these ventures entered OTP's broader pipeline for incubation, mentorship, and access to capital to scale their businesses.

Patents Filed & Issued

Between 2016 - 2025, UCR filed more than 350 U.S. patent applications and secured more than 210 issued U.S. patents, creating the protections needed to bring faculty innovations to market. This growing portfolio of intellectual property demonstrates the university's ability to translate research into tangible technologies while building the foundation for industry partnerships and commercialization.

Royalties & Commercial Returns

Royalties generated from licensed technologies have provided steady reinvestment into UCR research and innovation capacity. A significant share of these returns comes from UCR's leadership in agriculture, with plant varieties and ag-related technologies gaining adoption across the globe in crops such as citrus and avocado. This global reach underscores the role of UCR discoveries in addressing food security and sustainability challenges while contributing to the university's financial resilience.

COMPANIES FORMED FROM UCR IP













edge sound research.









Sponge











Match Sample Corporation



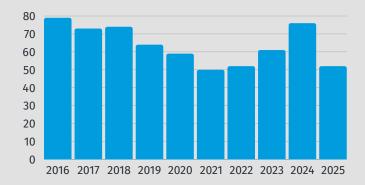




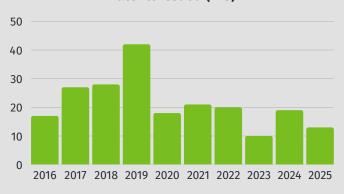


10 Years of IP & Commercialization at a Glance (2016 - 2025)

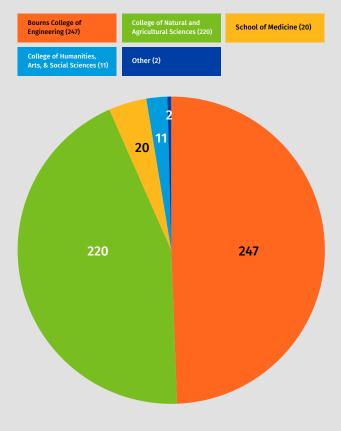
Invention Disclosures (640)



Patents Issued (215)



Active IP Portfolio by College (500)



From Patents to Global Impact: UCR Inventions That Changed Industries

Over the last decade, UC Riverside has built a robust commercialization pipeline, moving discoveries from invention disclosure to patents, licenses, and startups that deliver real-world value. This foundation has not only protected faculty innovations but also created pathways for industry partnerships, startup creation, and international reach. Among the many successes are standout inventions that exemplify the breadth of UCR's impact — from agricultural breakthroughs like the 'Tango' mandarin and Luna UCR™ avocado, to life sciences ventures like Basilard Biotech. These stories highlight how faculty ingenuity at UCR has grown into innovations that shape markets, support growers, and advance human health.



'TANGO' MANDARIN

UC Riverside Citrus Variety Collection

The 'Tango' mandarin, developed by UCR scientists, is a seedless citrus variety that revolutionized the mandarin market by offering growers a fruit resistant to cross-pollination and highly desirable to consumers. Now licensed worldwide, Tango has become a staple in citrus groves across multiple continents, generating substantial royalty revenue for UCR. Its rise from experimental grove to global orchards captures the essence of how one variety can change what shoppers expect to find on store shelves.

LUNA UCR™ AVOCADO

One of TIME Magazine's Best Inventions of 2023

In 2023, UCR released the Luna UCR™ avocado ('BL516'), a variety praised for its compact growth, exceptional taste, and high postharvest quality. Licensed exclusively to Eurosemillas, S.A., Luna UCR is expanding globally, celebrated at the Green Motion Avocado Summit with 35 international partners from 12 countries. Named one of TIME Magazine's Best Inventions of 2023, Luna UCR shows how international partnerships bring UCR innovations to the world. For growers and consumers, Luna UCR represents the next chapter of the avocado story where sustainability and flavor travel hand in hand.

EXCALIBUR™ ASPARAGUS

A New Standard for Global Production

Excalibur™ (cultivar '77-80') is a high-yield, rust-tolerant asparagus hybrid that maintains vigorous plants for many years, licensed exclusively to Eurosemillas, S.A. for commercialization in Peru, China, Mexico, and the EU — the world's top asparagus markets.

PROOF-OF-CONCEPT (POC) GRANTS:

A Critical Resource to Validate UCR's Most Promising Discoveries

According to documents spanning 2016–2024, the UCR Proof of Concept (POC) / Eurosemillas Technology Acceleration Program (ETAP) was created to help faculty bridge the gap between laboratory research and commercial readiness. Early rounds (2016–2018) awarded up to \$50,000 per project to validate feasibility, reduce technical risk, and prepare innovations for licensing or startup formation. By 2019–2020 the program had scaled significantly, awarding \$250,000 across seven projects and introducing structured mentorship, customer discovery, and a competitive pitch review process supported by Entrepreneurs-in-Residence.

In later years, the POC program became a core component of OTP's commercialization engine, awarding between \$230,000 and \$343,400 annually beginning 2023 and consistently producing technologies that advanced to licensing agreements, startup formation, and follow-up funding.

POC Spotlight: 10 Innovations That Defined UCR's Commercialization Pipeline





BIOTECH SOLUTIONS FOR WHITEFLY CROP DAMAGE (2017)

Linda Walling, Professor of Genetics Peter Atkinson, Dean of CNAS

(\$35,000) – Developed a synthetic biology approach to control whitefly pests, creating a foundation for a more sustainable alternative to chemical pesticides.



CHRONOPRINTING - FRAUD DETECTION FOR PHARMA & FOOD (2019)

Will Grover, Associate Professor of Bioengineering

(\$35,000) – Created a benchtop device that detects fraudulent or altered chemical formulations to protect pharmaceutical and food supply chains.



CARBON FIXATION ENHANCEMENT FOR AGRICULTURE (2019)

Paul Larsen, Professor of Biochemistry

(\$35,000) – Engineered amino-acid-based approaches to improve carbon fixation, plant growth in marginal soils, and agricultural yield.

Proof-of-Concept Projects Funded Since Launch \$2.6M+
in POC Grants Awarded
Since Launch

12.1x

Return on Investment Generated Through Follow-On Funding 22

Technologies Advanced to Licensing, SBIR/STTR Awards, or Startup Formation



4TH STATE ENERGIES BATTERY ADDITIVES (2019)

Lorenzo Mangolini, Professor of Mechanical Engineering

(\$35,000) – Created battery additives that significantly enhance lithium-ion capacity without requiring changes to existing manufacturing processes.



ADVANCING CAR T INNOVATION THROUGH BASILARD BIOTECH (2019)

Masaru Rao, Associate Professor of Mechanical Engineering

(\$35,000) – A POC award supported validation of Masaru Rao's microfluidic platform for CAR T-cell manufacturing, enabling its successful licensing to Basilard BioTech.



RAPID LUNG DIAGNOSTICS FOR EARLY INTERVENTION (2021)

Mona Eskandari, Assistant Professor of Mechanical Engineering

(\$50,000) – Developed a fast, non-invasive device for routine lung monitoring to enable earlier detection of respiratory issues.



TARGETED DELIVERY OF PESTICIDES VIA NANOTECHNOLOGY (2021)

Juan Pablo Giraldo, Assistant Professor of Botany & Plant Sciences

(\$46,000) – Invented a nanoparticle-based pesticide delivery system reducing chemical use by 10x while improving agricultural sustainability.





TARGETED DRUG DELIVERY FOR TREATING BRAIN SWELLING (2024)

Huinan Liu, Professor of Bioengineering

Eddie Zagha, Associate Professor of Molecular Cell & Systems

(\$90,000) – Developed a sustained intra-arterial drug delivery approach for localized treatment of brain swelling, advancing a more precise and less invasive alternative to conventional systemic therapies.



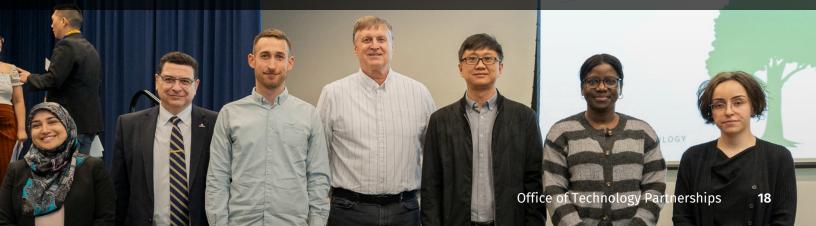


BLOCKING INFLAMMATORY RESPONSES TO AIRBORNE TOXINS (2024)

Caroline McGowan, Assistant Clinical Professor of Health Sciences

David Lo, Distinguished Professor of Biomedical Sciences; Sr. Assoc. Dean, Research
(\$77,400) – Investigated TLR4 inhibition to reduce inflammatory responses to
environmental aerosol toxins, advancing potential new respiratory protection strategies.

Faculty fellows with Vice Chancellor Rodolfo H. Torres after sharing their research in a panel at the 2024 Inland SoCal OASIS® Climate Action Conference. From left to right: Mona Eskandari, Rodolfo H. Torres, Jeoffrey George, Ken Gruys, Xi Chen, Dawn H. Nagel, and Basak Guler.





CORPORATE & STRATEGIC PARTNERSHIPS

The Corporate & Strategic Partnerships (CSP) group serves as a bridge between academia and industry, connecting UCR faculty expertise, intellectual assets, including IP and research centers and facilities, and student talent with companies seeking innovation. Through the team's hands-on and innovative approach, CSP has helped bring in \$9.5M through 28

sponsored research agreements (a subset of the agreements facilitated by the Corporate Research Contracts team) over the past ten years, partnering with leading organizations such as BASF, Bayer, Eurosemillas, and Givaudan. Together with OTP's broader network of industry, economic development, and community stakeholders, these collaborations strengthen UCR's role as a trusted partner across diverse sectors.

CSP's work spans key verticals such as agriculture, energy, mobility, biotechnology, and advanced computing, ensuring that industry collaborations align with the university's research strengths and strategic priorities. Beyond contracts, CSP has elevated UCR's visibility and engagement by hosting conferences, workshops, and speaker series with companies including Microsoft, Boehringer Ingelheim, Chevron-Phillips Chemical, and Sun World International. These platforms showcase UCR's expertise, foster dialogue among faculty, industry, and regional partners, and create pathways for future collaboration.

By working in concert with Corporate Research Contracts, economic development partners, and the wider OTP ecosystem, CSP helps transform industry engagement into a dynamic network that fuels discovery, attracts investment, and positions UCR as a sought-after partner for cutting-edge solutions.



Visit to CalPortland Cement Plant on January 19, 2024.



Corporate Engagements & Campus Visits















THE GREEN MOTION AVOCADO SUMMIT

UCR's avocado scion and rootstock breeding programs entered a new phase in 2020 through a sponsored research partnership with Eurosemillas, S.A. This collaboration accelerates the commercialization of UCR's most advanced avocado selections through Green Motion, an international platform led by Eurosemillas to advance UCR-bred cultivars worldwide.

The Green Motion Avocado Summit marked the culmination of this multi-year collaboration. The three-day forum brought together more than 35 growers, breeders, and industry leaders from 12 countries to engage with UCR's breeding program and align partners across the global commercialization pipeline. Through technical sessions, field tours, & planning workshops, participants established commercialization priorities, coordinated international trial sites, and strengthened the shared strategy for advancing UCR's next-generation scions and rootstocks.

By aligning global partners and creating structured pathways for evaluation and adoption, the Summit reinforced the foundation for future releases and strengthened UCR and Eurosemillas' joint commercialization strategy, positioning UCR as a global leader in avocado breeding.

ADVANCING CLIMATE SOLUTIONS THROUGH PLANT-BASED CARBON CAPTURE

UC Riverside received a \$1.5 million grant from the Grantham Foundation to support pioneering research by Professor Paul Larsen aimed at enhancing plants' ability to capture and sequester carbon in soil. The funding supports a collaboration with a climate-focused startup to translate Larsen's lab-based discoveries into scalable agricultural applications.

Since 2017, OTP has supported Larsen by providing proof-of-concept funding, entrepreneurial training via UCR's INNOVAR program, and tailored mentorship through its EPIC SBDC Entrepreneur-in-Residence program. OTP also facilitated key industry connections, including introductions to CEOs, ultimately leading to both funding and an exclusive option agreement for this technology.

NASA DEEP SPACE FOOD CHALLENGE

Seedorina, a robotics ag-tech startup founded by Uruguayborn entrepreneurs, partnered with UCR faculty Robert Jinkerson and Martha Orozco to develop the "NOLUX" system, an electricity-driven growth chamber for deep-space food production and extreme-environment agriculture on Earth.

With support from OTP, the team secured a \$250,000 award as runner-up in the NASA Deep Space Food Challenge. OTP fostered the faculty-startup collaboration, guided commercialization strategy, and positioned the innovation for global impact in sustainability and space agriculture.

CORPORATE RESEARCH CONTRACTS

Streamlining Contracts, Strengthening Collaboration

The Corporate Research Contracts (CRC) team at UC Riverside plays a critical role in advancing faculty research and strengthening the university's innovation ecosystem. By streamlining contract

negotiations and reducing administrative barriers, CRC enables faculty to focus on high-impact applied research while ensuring agreements meet compliance and industry standards. The team works closely with the Office of Technology Partnerships to connect companies with UCR expertise, facilitate sponsored research agreements, and accelerate the transition of university-developed innovations into real-world applications. In the past ten years, CRC team has supported more than 1,000 proposals valued at \$166 million and executed over 3,000 agreements, providing more than \$63 million in corporate research funding to UCR.

Peak proposal years surpassed \$27M annually

Material Transfer Agreements (MTAs)

MTAs govern the transfer of tangible research materials between UCR and industry or academic partners. Whether sharing plant varieties, biological samples, engineered materials, or prototypes, MTAs ensure that materials are used appropriately, protected under defined terms, and aligned with UCR's intellectual property policies.

2025 Impact: 181 MTAs **10-Year Total:** 1826 MTAs

Non-Disclosure Agreements (NDAs)

NDAs protect confidential information exchanged during preliminary discussions with companies, startups, and research collaborators. These agreements allow faculty and industry partners to openly evaluate potential projects, assess technology readiness, and scope sponsored research opportunities while safeguarding proprietary data.

2025 Impact: 46 NDAs 10-Year Total: 384 NDAs

\$166.3M

in Industry Proposal Value Submitted \$63M

in Corporate-Sponsored Research Funding 1,001

Industry-Sponsored Research Proposals Submitted 688

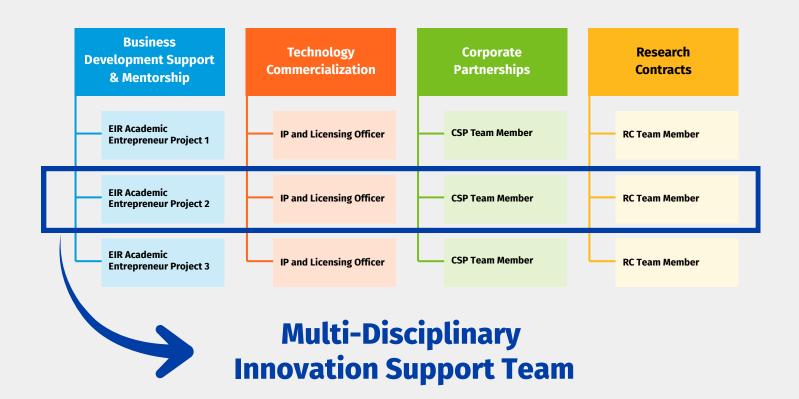
Executed Corporate Sponsored Research Agreements

Our Approach to Engagement

OTP's engagement model begins with building trust-based, individualized relationships with faculty innovators. Each collaboration starts by aligning expectations, communicating clearly, and understanding the researcher's goals and timelines. By intentionally investing in rapport—and recognizing the cultural differences between academic and industry environments—OTP creates an environment where faculty feel supported, heard, and empowered to advance their research toward real-world impact.

To deliver the right expertise at the right moment, OTP operates as a matrix organization, drawing on staff across technology transfer, licensing, IP strategy, industry engagement, regulatory guidance, proof-of-concept funding, and entrepreneurial support. Rather than a single point of contact, faculty receive coordinated support from a cross-functional commercialization support team that adapts to the needs of each project.

By integrating diverse expertise, aligning stakeholders, and providing hands-on guidance throughout the commercialization journey, OTP ensures that innovations across disciplines—from agricultural pest management to plant disease solutions—advance efficiently and strategically toward real-world deployment.





Research Spotlight:

Advancing Sustainable Agriculture on Earth and Beyond With Space Tomatoes

UC Riverside's partnership with industry has powered a bold research effort known as the "Space Tomato" project, led by Professors Martha Orozco-Cardenas and Robert Jinkerson. Their work explores plant varieties engineered for controlled-environment agriculture, including vertical farms and off-planet growing systems that can support long-duration space missions.

CRC's contracting support enabled UCR to establish key industry collaborations, including a \$400,000 Sponsored Research Agreement with Unfold, a company later acquired by Bayer. The project went on to secure a



\$450,000 grant from the Foundation for Food & Agriculture Research (FFAR) and a \$2.4 million grant from the Bill & Melinda Gates Foundation, advancing the development of climate-resilient crops with global relevance.

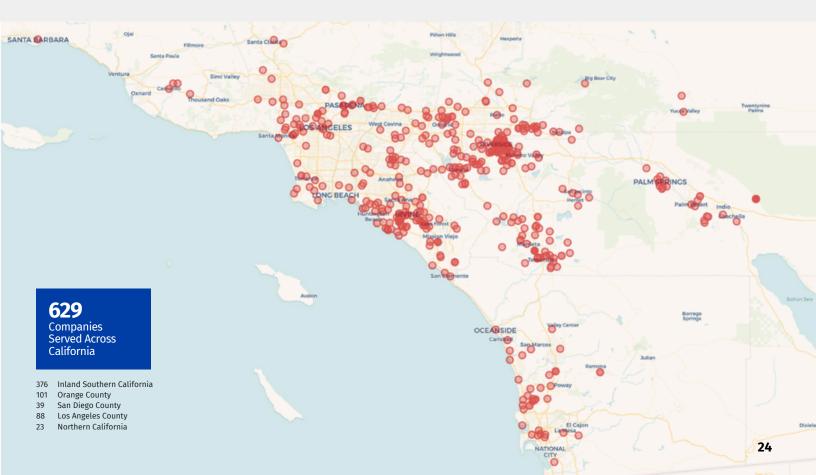
OTP expanded the project's trajectory by providing EPIC mentor support, NSF I-CORPS commercialization training, and strategic introductions to industry partners, helping connect UCR's plant-science innovations to real-world applications and commercialization pathways.



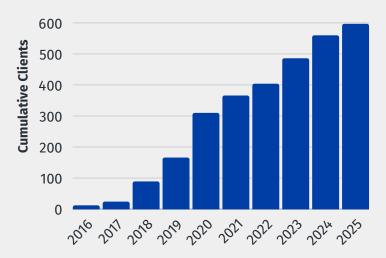
Entrepreneur and former UC Riverside professor David Kisailus, left, former chancellor Kim A. Wilcox, and former graduate student Jesus Rivera attend the launch of UC Riverside's EPIC SBDC.

ENTREPRENEURIAL PROOF-OF-CONCEPT AND INNOVATION CENTER

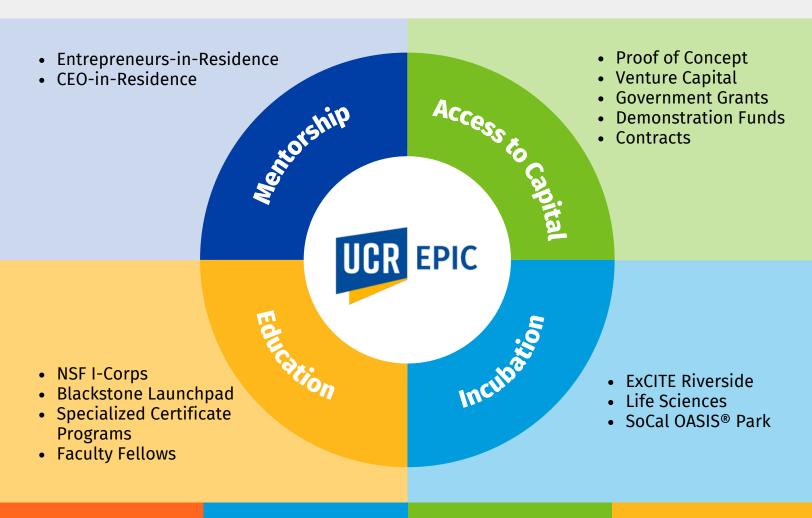
Since its launch in 2016, the Entrepreneurial Proof of Concept and Innovation Center (EPIC SBDC) has supported more than 600 ventures across Inland Southern California, averaging more than 60 new companies per year. Through direct advising, technical validation, and proposal support, EPIC clients have secured over \$66.5 million in SBIR/STTR and other non-dilutive funding, \$43.6 million in equity, and \$6.7 million in debt — totaling more than \$117 million in capital directly supported through the program. When considering the broader ecosystem, EPIC-affiliated companies have raised over \$160 million in combined capital, including funds raised independently by EPIC-supported ventures. Companies engaged through EPIC have also relocated or expanded operations into the region and created thousands of local jobs in clean technology, agriculture, life sciences, and advanced manufacturing.



The results speak for themselves:



Our impact over the past decade is measured not only in funding secured, but also in the tangible economic and societal benefits EPIC has delivered. The program has helped create hundreds of high-quality jobs across Inland Southern California and expanded entrepreneurial opportunities into historically underserved communities, including rural and economically disadvantaged areas. By broadening access to innovation resources, EPIC ensures that entrepreneurship is not limited to a few, but strengthens the entire regional ecosystem.



Total Clients Served Since Creation 385
New Jobs Created

\$160M
Capital Secured by Clients

Jobs Supported Across
Inland Southern California

FROM CONCEPT TO SCALE:

How EPIC Supports Regional Startups

The Entrepreneurial Proof of Concept and Innovation Center (EPIC) provides a comprehensive pipeline of support for innovators and entrepreneurs, guiding them from the earliest idea stage through to commercialization and scale-up. Our process ensures that founders — whether they are faculty, students, staff, community members, or international entrepreneurs — have access to the right programs, mentorship, and resources at each stage of their journey.

Concept Stage

At the earliest stage, entrepreneurs receive foundational training and exposure to entrepreneurship through:

- Entrepreneurial training (I-Corps, Blackstone Launchpad, INNOVAR)
- · Zero-to-Entrepreneur certificates
- BizTech Connect

Validation Stage

EPIC provides resources to validate market fit and technical feasibility of their technology:

- · Proof of concept studies & IP strategy
- Company incorporation & team formation
- · Entrepreneur-in-Residence mentorship
- Funding support



Year 1

Year 2

Incubation Stage

EPIC supports companies in turning validated technology into viable enterprises:

- · Prototype testing & validation
- Pitch deck & fundraising strategy
- · Talent recruitment & incubation space
- Ongoing mentorship & progress tracking

Graduation & Scale-Up Stage

The final stage prepares companies to thrive in the marketplace and scale their operations:

- Testbeds & customer pilots
- Soft landing services
- Regulatory & workforce support
- · Access to growth capital & corporate partners
- State & local incentives

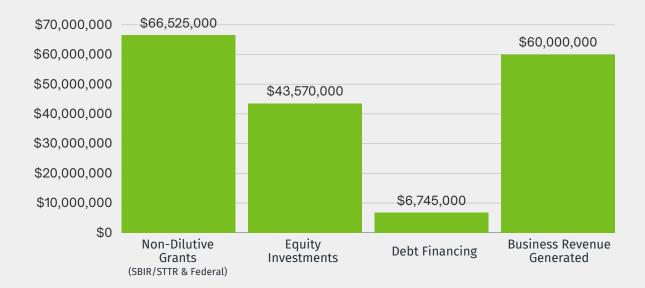


Year 2-4

Year 4+

Capital Raised & Economic Impact

Over the past decade, EPIC SBDC clients have secured more than \$160 million in combined funding to fuel their growth. This includes nearly \$66.5 million in non-dilutive SBIR/STTR and federal grants, \$43.6 million in equity investments, and \$6.7 million in loans. With these resources, startups have not only validated their technologies but also attracted follow-on capital, built strong corporate partnerships, and scaled operations in Inland Southern California.



The economic ripple effect has been substantial: EPIC-supported ventures have generated over \$60 million in business revenue, created 385 new jobs, and supported a total of 1,720 jobs across the region. These outcomes demonstrate that EPIC is not just fostering startups, but building sustainable businesses that strengthen the regional economy for the long term.

Grant & Investment Success

EPIC SBDC clients consistently outperform national averages in securing federal funding, with a 35% SBIR/STTR award rate — double the national average. Advisors provide hands-on guidance through proposal development, commercialization planning, and corporate partnerships, enabling startups to move from concept validation to long-term sustainability. This combination of non-dilutive capital and follow-on investment has allowed EPIC companies to advance critical technologies in clean energy, life sciences, advanced manufacturing, and beyond.

EPIC ventures
have a 35%
SBIR/STTR win
rate—

2X the national
average



INNOVAR: Building the Entrepreneurial Pipeline

Modeled after the National Science Foundation's I-Corps™ program, INNOVAR equips researchers, students, and community innovators with the tools to validate ideas and test markets through structured customer discovery. Since 2016, more than 250 teams have been trained, leading to the creation of 70 ventures and millions in follow-on funding through SBIR/STTR, Catalyst Fund, and private investment. The program serves as the gateway into OTP's broader entrepreneurial pipeline, with many participants continuing into incubation, mentorship, and scale-up support.

252 Teams Trained, Countless Ideas Unlocked:

Since 2016, INNOVAR has equipped over two hundred teams from across disciplines with the tools to test, validate, and pursue their entrepreneurial visions.

From Campus to Companies:

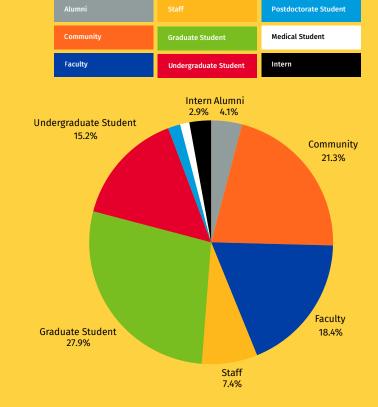
INNOVAR has served as the launchpad for faculty-led enterprises, graduate research spinouts, and student-founded startups, seamlessly bridging university innovation with community entrepreneurship.

A Proven Pathway to National Stages:

Using the fundamentals of evidence-based entrepreneurship, INNOVAR has prepared founders from diverse backgrounds to compete — and succeed — in national programs such as NSF I-Corps National, VentureWell, and Techstars.

INNOVAR PARTICIPANTS ACROSS THE YEARS

2016-2024





252

Teams have gained hands-on experience in customer discovery and market validation since 2016, establishing INNOVAR as the first step in the region's entrepreneurial pipeline.

3-5

Ventures are formed per year as a result of formed teams, becoming actualized businesses that move from ideation to prototyping, proof of concept, and industry engagement.

70

Ventures have gone on to secure funding, build teams, and scale into incubators and accelerators, representing industries from med-tech and ag-tech to fintech and advanced materials.

\$420K

In total funding has been provided to participant support, enabling innovators to cover costs for prototyping, customer interviews, and market research, giving them the tools to validate and advance their ideas.









HexHomes

Sustainable & Customizable Prefabricated Modular Homes

HexHomes is a California-based startup pioneering customizable modular housing solutions designed to be fast, affordable, and sustainable. Using an innovative hexagonal pod system, HexHomes creates prefabricated homes that can be configured to meet diverse needs—from accessory dwelling units (ADUs) to full residences—while streamlining the entire process from design and permitting to delivery and installation. With a promise of move-in ready housing in under 30 days, the company aims to tackle pressing challenges around housing affordability and availability in Southern California and beyond.

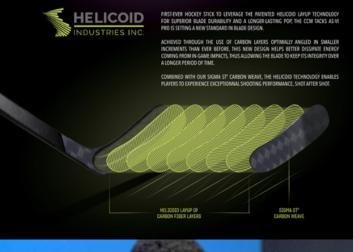
As a participant in INNOVAR, UC Riverside's entrepreneurial training program, HexHomes refined its business concept, validated its market opportunities, and built the foundation to grow within the modular housing industry. After developing their business idea, they went on to win 1st place at the 2024 Fast Pitch Finale during Riverside County's Innovation Month.

By combining visionary design with practical business development support, the company is positioning itself to meet rising demand for innovative housing solutions that are sustainable, flexible, and accessible.

From Ideation to Real-World Execution

For many participants, INNOVAR represents their first step toward entrepreneurship — a safe and structured environment where ideas are tested and refined before scaling. Its emphasis on customer discovery and mentorship not only strengthens startups but also creates a lasting entrepreneurial culture across the university and the Inland Southern California community.

Over the past decade, INNOVAR has proven to be more than a training program: it is a pipeline of innovation, empowering the next generation of entrepreneurs to transform research into solutions and solutions into thriving ventures.



HELICOID INDUSTRIES

REDEFINING PERFORMANCE MATERIALS

Faculty, 2019

Inspired by the structure of mantis shrimp shells, serial entrepreneur Chad Wasilenkoff developed a novel fiber-reinforced composite with applications in aerospace, defense, and sporting goods. His development under INNOVAR led to partnerships with manufacturers like CCM Hockey, which integrated the patented material into high-performance hockey sticks.



EDGE SOUND RESEARCH

REDEFINING THE WAY WE EXPERIENCE SOUND

MBA & PhD Students, 2020

Founded by UCR graduate students Ethan Castro and Valtteri Salomäki, Edge Sound Research developed the ResonX system, turning surfaces into speakers for a full-body audio experience. Through INNOVAR, they tested their concept and refined their value proposition, laying the groundwork to join Techstars Music and scale nationally. Today, their technology is used in NBA arenas and entertainment venues.



DASHBILL

SIMPLIFYING STUDENT FINANCES

Undergraduate Student, 2020

Business student Will Wang founded DashBill, a financial app to streamline dues collection for student organizations. Validated through customer discovery in INNOVAR, the venture has scaled into a live platform, processing more than \$2 million in payments to date.

BLACKSTONE LAUNCHPAD:

Igniting Student Entrepreneurship at UCR

Since its establishment in 2019, Blackstone LaunchPad at UCR empowers an average of 3,596 students annually to turn bold ideas into thriving ventures by providing mentorship, funding opportunities, and access to a global entrepreneurial network. The program has become a launchpad for undergraduates and graduate students alike, offering them hands-on experience in entrepreneurship while connecting them to national fellowships, pitch competitions, and accelerator programs.



SARU RECYCLING

Reinventing Waste Management

Founded by UCR engineering students Mahmood Shaheen, Toluwani (Semi)

Cole, Sebastian Mukuria, Nathaniel Ortiz, and Jakeb Tivey, Saru Recycling is developing solar-powered recycling containers with autonomous sorting technology and a companion mobile app. With initial funding secured through a UCR pitch session and continued mentorship from the LaunchPad network, Saru has advanced to pilot testing in Riverside and gained recognition at international programs like Oxford and the London School of Economics.



children with neurological disorders.

EZBEDPAN

Simplifying Patient Care

UCR School of Medicine graduate Dr. Sawyer Schuljak founded EZBedpan, a redesigned medical device that improves ease of use for patients and caregivers. Supported by Blackstone LaunchPad and INNOVAR, Sawyer secured patents, launched retail sales across the Inland Empire, and expanded his ventures to include Boards Buddy, an app that helps medical students prepare for board exams. His journey highlights how LaunchPad mentorship and national fellowships equip UCR alumni to build med-tech solutions with real-world impact.



733

Mentoring Sessions per Year

Events hosted

Event participants

Average annual number of students reached



Blackstone Launchpad Across the Years

	Total	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Number of Events	188	47	43	25	28	33	12
Total Event Participants	4,419	662	1,605	450	463	771	468
Undergraduate Students	2,966	449	1,375	280	192	481	190
Graduate Students	1,225	202	205	150	25	233	183
Others (Faculty, Staff, Post Docs)	140	12	26	20	18	57	7
Mentoring Sessions	733	260	300	35	77	30	31
Prospective Student-Led Startups	100	15	25	21	13	19	7
Companies Formed	29	11	4	7	4	1	2
Numbers of Jobs Created	41	8	12	0	21	0	0
EPIC SBDC Clients	19	11	1	2	2	2	1
Total Students Reached		3,930	4,403	3,600	3,175	3,200	3,267

OUR ENTREPRENEURS-IN-RESIDENCE:

Expert Mentorship Driving Founder Success

For the past decade, our Entrepreneurs-in-Residence have served as a core pillar of support for the founders and companies in our ecosystem. These seasoned operators, investors, and industry leaders provide hands-on mentorship that bridges the gap between early-stage ambition and real-world execution. Through one-on-one coaching, pitch refinement, business model evaluation, and strategic guidance, our EIRs help founders navigate the complexities of launching and scaling technology and sustainability ventures.

TAILORED GUIDANCE THAT ACCELERATES STARTUP GROWTH

Our EIR expertise spans product development, customer discovery, market validation, fundraising strategies, and goto-market execution. EIRs meet companies where they are, offering tailored insight that accelerates decision making and strengthens each company's path toward growth. Over the last ten years, they have supported hundreds of startups through EPIC SBDC, EXCITE Incubator, INNOVAR, Zero-to-Entrepreneur, and the SoCal OASIS® Initiative, helping founders avoid common pitfalls and position their companies for long-term success.



ENTREPRENEURS-IN-RESIDENCE PROGRAM: A 10-YEAR EVOLUTION

Phase 1: Foundations Built (2016–2018)

Mentorship begins informally with the launch of EPIC and the re-establishment of the ExCITE Incubator, introducing early advisory support for founders developing their first products and pitches.

Phase 2: Formalization and Structure (2018-2020)

EIR roles become formally integrated into EPIC SBDC consulting and incubator programming, providing structured, one-on-one guidance in market validation, business modeling, and funding readiness.

Phase 3: Expansion Across Programs (2020–2022)

As OTP programs scale during and after the pandemic, EIR support expands into INNOVAR and Zero-to-Entrepreneur, increasing access to specialized expertise across multiple founder pathways.

Phase 4: Strategic Integration with SoCal OASIS (2022-2024)

The launch and growth of the SoCal OASIS Initiative brings EIRs deeper into sustainability-focused bootcamps, pitch evaluations, and commercialization planning, strengthening regional impact.

Phase 5: Full Ecosystem Alignment (2024–2025)

EIRs now serve as core mentors across all OTP programs, supporting founders navigating commercialization, investment strategy, and growth. Their guidance contributes to higher startup survivability and stronger economic outcomes for Inland Southern California.

ENTREPRENEURS-IN-RESIDENCE

Over the years, OTP has partnered with a wide range of EIRs and subject-matter experts. The individuals highlighted below represent the EIRs who are currently supporting our founders and faculty innovators.



Martin Kleckner

Martin Kleckner brings nearly three decades of experience in operations, business development, and commercialization across life sciences, healthcare, and technology. He has advised more than 115 emerging and Fortune 100 companies throughout Europe, Asia, and the Americas, and has served as a founder or early team member in five venture startups, including two successful exits. His career includes senior roles at RefluxMD.com, Respiratory Technology Corporation, and multiple medical device and diagnostics ventures, where he led business development, R&D oversight, and commercialization strategy. Dr. Kleckner has also supported federal and foundation grantmaking through advisory and proposal review for organizations such as the National Institutes of Health. He holds a PhD and MA in Public Policy from the University of California and an MBA from the UCLA Anderson School.



Art Salyer

Art Salyer is an experienced business leader with extensive C-level operations management across North America, Latin America, Asia, and Europe. He previously served as COO of SDI Media, overseeing 38 global locations and completing the company's successful sale to a consortium of Japanese entertainment partners. Before that, he was CEO of Palladium Energy, one of the largest independent producers of lithium batteries and power systems, guiding its growth and merger with a major competitor. Art has held leadership roles across technology, consumer electronics, batteries and power supplies, entertainment, and manufacturing, with a strong focus on operations and global execution. He is currently a senior partner at Global Interim Executives LLC, supporting private equity, venture-backed companies, turnaround initiatives, and executive coaching. He holds an engineering degree from California State University and an MBA from Pepperdine University.



Galen Williams

Galen Williams is an accomplished entrepreneur and business leader with over 15 years of experience in start-up ventures and investment advisory. With a background in new product and business development, Galen has excelled in various roles, including co-founder, CEO, and partner. He played a pivotal role in establishing one of the first formal angel investment networks and served as a former CEO of Israeli-backed start-up operations in the USA. Galen's expertise extends to mergers and acquisitions, due diligence, fundraising, and strategic strategies, Galen is recognized for his leadership skills and entrepreneurial mindset. He holds an MBA from The University of Chicago Booth School of Business and a Bachelor of Science in Commerce from DePaul University.



Isabelle Bart

Isabelle Bart is passionate about empowering individuals of all backgrounds to create innovative and impactful enterprises. Isabelle was previously the Director of the Small Business Development Center at University of California Irvine Beall Applied Innovation and the Executive Director of RevHub OC, where she managed partnerships and led operations of their social impact incubator/accelerator. She is currently a lead instructor for the National Science Foundation's I-Corps program at UC Irvine. Isabelle also held various leadership roles in business planning, marketing strategy and digital transformation for several organizations in the healthcare and nonprofit sectors. Isabelle holds a Masters in Business Administration from ESSEC Business School in Paris, France.





Philip Topham

Philip Topham is a growth and innovation expert with over 25 years of experience helping companies navigate rapid expansion, overcome obstacles, and build sustainable value. He has worked one-on-one with more than 250 founders, offering practical guidance rooted in real-world experience, including raising venture capital, scaling a profitable startup, and leading through industry disruption. Philip provides executive coaching and advisory support focused on driving innovation and enabling the next phase of growth for emerging companies. He holds a BS in Biological Sciences from UC Irvine and an MBA from Pepperdine University, and serves on the board of Tech Coast Venture Network and as MEERS Co-Chair of the Southern California Chapter of the Private Directors Association.



Scott Brovsky

Scott is an angel investor, startup mentor, and the Associate Director of Regional Engagement and EPIC SBDC at UC Riverside. He has been a founder or founding executive of multiple startups, including the VC-funded mobile game studio Muti Labs and the sports tech company NZN Labs/LIT Pro, and previously sold his first company, Industrial Strength Network, to frog design. Scott also served on Disney's global leadership team, where he helped build The Avengers franchise in the interactive games space, leading the launches of Avengers Alliance and Avengers Initiative, which reached more than 40 million players. He introduced several industry firsts, including premiering a film TV spot inside a game and developing the connected-storytelling platform Marvel XP. He holds a Humanities Honors degree from The University of Texas at Austin, graduating Magna Cum Laude and Phi Beta Kappa.



Shomit Ghose

Shomit Ghose is a longtime Silicon Valley venture capitalist and former startup executive with experience spanning software engineering to CEO roles, contributing to multiple successful IPOs and acquisitions. As a general partner at ONSET Ventures, he led early-stage investments in data-centric technology companies. He serves on corporate and academic advisory boards in the US and Europe, including the BioInnovation Institute, UC Berkeley's Sutardja Center, the Lundbeck Foundation's Danish-American Research Exchange, and UC Riverside. Shomit has taught at UC Berkeley, the Technical University of Denmark, and is currently an adjunct professor of entrepreneurship at the University of San Francisco. He holds a bachelor's degree in computer science from UC Berkeley.



Stephen Sharp

Steve Sharp has 40+ years' experience as a business executive, board member and business consultant, spanning startups to Fortune 500 companies. Deep category experience in all types of manufacturing businesses, both B2B and B2C. Steve's functional background is particularly steeped in Marketing, Product Development and Operations, with extensive depth in strategy, execution and organizational excellence. Served on three nonprofit boards, currently board president for Three Angels Haiti. He earned a BA from Occidental College in psychology and economics and MBA from Anderson Graduate School of Management (UCLA), finance/marketing.



Jay Gilberg

Jay Gilberg is an EPIC instructor and entrepreneur who founded and scaled an INC 500 company before transitioning into advisory and educator roles. He previously served as lead instructor for the von Liebig Center's NSF I-Corps Program, teaching Lean Launchpad, Business Model Canvas, and commercialization strategies to engineering and research teams. Jay specializes in the human side of entrepreneurship, including goal setting, pitching, professional communication, team building, and personal brand development. Since joining EPIC in 2016, he has continued mentoring emerging companies and strengthening UC Riverside's entrepreneurial ecosystem.



John Shearer

John is an experienced C-level executive, board member, and entrepreneur with four decades of leadership across communications, enterprise software, AI, wireless power, and network security. He has founded and commercialized multiple technology ventures, including EarlyX Systems, DarkLight, Powercast Corporation, and Information & Graphics Systems. He currently serves as CEO of EarlyX Systems, supporting dual-use technology integration for the Department of Defense and other federal agencies, and sits on the board of The Early X Foundation while advising startups such as Level 42 AI and MemryX. Previously, he was a Professor and Entrepreneur-in-Residence at Pepperdine University, where he helped expand the MBA Entrepreneurship Program. John holds degrees in physics and business from the University of Colorado Boulder and has been granted 11 U.S. patents, with additional international patents granted and pending.



Ken Gruys

Ken Gruys holds a BS in Chemistry from Gustavus Adolphus College and a PhD in Chemistry from the University of Nebraska–Lincoln, followed by an NIH Postdoctoral Fellowship at the University of Wisconsin–Madison. He later completed the Stanford Executive Program. Ken brings 25 years of private-sector R&D experience in agricultural biotechnology, where he led the discovery and development of key biotech crop traits and built high-performing scientific teams. He is also an experienced instructor in project planning, leadership, and team development. He currently serves as a Senior Advisor in Technology Partnerships at UC Riverside and as a Professor and Director of the Team Master's Project at Keck Graduate Institute.



Doug Kollmyer

Doug has 35+ years' experience in sales management, business development, marketing, strategic planning, distribution and channel strategy, manufacturing and service operations, team building, and P&L responsibility. Doug has experience in large, medium and small companies, in several industries, including automotive, HD trucking and transportation, RV's, real estate and construction. Doug is creative and analytical in approach, and has developed skills in virtually every aspect of business, excelling in sales management, marketing, team building and organizational change.



Francisca Reyes

Francisca Reyes is an expert in entrepreneurship-led economic development, specializing in entrepreneurship and technology transfer. She has provided technical assistance to entrepreneurs for more than 15 years. Most recently, she has worked on developing strategies for investment attraction and small business incorporation into global value chains with the United Nations Development Program Mexico. She holds a Doctorate in Economic Development from New Mexico State University, an MBA and MPA from the University of Texas at El Paso, and a BS in Industrial Engineering.



Gioia Messinger

Gioia Messinger is a seasoned executive with over 30 years of experience in the technology, consumer, and healthcare industries. She is the founder and Principal of LinkedObjects, Inc., a strategic advisory firm specializing in digital transformation through AI and IoT. Previously, she founded and led Avaak, Inc., now Arlo Technologies (NYSE), pioneering the home video security market.



Mario Diez

Mario has over 11 years of R&D experience working for Ericsson in the areas of TDMA and CDMA digital communications technologies, where he was involved in the design of private radio systems (former General Electric Mobile Communications), cable modem broadband telecommunications, and wireless infrastructure systems (former Qualcomm CDMA Infrastructure). He also worked for the Banzai Research Institute in the design and implementation of fully autonomous unmanned ground vehicles for the Defense Advanced Research Projects Agency (DARPA).



Jay Kadowaki

Jay has over 35 years of service in the Department of Defense both in uniform as a career Naval Officer and a defense contractor. His experience includes Commanding Officer tours as the CEO equivalent of a 700 personnel Operational command, a 2000 personnel Engineering organization managing a \$250M budget, and a Major Program Management tour managing a \$1B budget. Jay's experience in industry includes Business Development roles for companies ranging in size from \$5M to \$1B. Jay's leadership and management skills were honed during seven ship tours homeported in the United States, Europe, and Asia. His understanding of organizational excellence in industry was demonstrated as California's Baldridge Examiner of the year. Jay holds degrees from the United States Naval Academy, Naval Postgraduate School, and the Naval War College.



Tim Richardson

Tim is a seasoned technology executive, founder, and board member with a strong record of leading high-growth companies through innovation and acquisition. He was a founder and senior executive of Liquid Robotics, acquired by Boeing in 2016, and previously served as President and CEO of Micro Linear Corporation (Nasdaq: MLIN) and Co-Founder/President of VeriFiber Technologies, both later acquired. He has served on the board of IXYS Corporation (Nasdaq: IXYS) and continues to contribute as a strategic advisor and guest lecturer for the Georgia Tech Research Institute, a founding member of the Jupiter Research Foundation, and a council member of Stanford's Hoover Institution.



Lada Rasochova

Lada Rasochova is an experienced life sciences, biotech, pharma, and consumer health executive with a strong track record of commercializing scientific innovations and building successful businesses. She is the Founder and CEO of DERMALA, a microbiome-based dermatology company developing patented, clinically-validated treatments and diagnostics. Lada spent more than 15 years in the ag-tech, biotech, and pharma industries, beginning at Mycogen and later holding senior leadership roles in the Dowpharma division of Dow Chemical, including R&D Leader for Vaccines & Immunotherapies and Director of New Business Development. She subsequently spent a decade at UC San Diego, Rady School of Management, where she built a world-class entrepreneurship center and multiple startup accelerators, founded and managed the Rady Venture Fund, and supported more than 200 technology-driven startups.



Citrus Seed Investors presenting a check to Riverside Angel Summit winner, FarmSense. Left to right: Brian Hawley, President of Luminex Software, Eamonn Keogh, Co-Founder of FarmSense, Jaime Robinson, Senior EVP of Pacific Premier Bank

UNLOCKING ACCESS TO CAPITAL

Access to early-stage capital is one of the greatest challenges for emerging innovation ecosystems. While regions like Silicon Valley and Los Angeles have deep pools of venture and angel funding, Inland Southern California has historically lagged behind, limiting the ability of promising startups to grow locally. Recognizing this gap, UC Riverside has made it a strategic priority to cultivate a culture of investment and entrepreneurship — one where innovators don't need to leave the region to find the capital, mentorship, and connections they need to scale.

Since the launch of the UCR EPIC Small Business Development Center (SBDC) in 2018, the university and its partners have helped startups raise \$40.3 million in capital, the majority of which came from investors outside the region. Building on that success, UCR is now focused on unlocking capital from within — activating local investors and connecting them to the entrepreneurs shaping the region's future.

Highlander Venture Fund

Established in 2017, the Highlander Venture Fund (HVF) was created to close the early-stage funding gap for startups emerging from UC Riverside's research ecosystem. Operated in partnership with Vertical Venture Partners, the fund provides seed and pre-seed capital to accelerate the commercialization of UCR-developed technologies and support founders connected to the university, including faculty, alumni, and regional entrepreneurs.

HVF advances UCR's mission to move discoveries from the lab to the marketplace, a systemwide effort strengthened by Assembly Bill 2664 (2016), which allocated \$2.2 million per UC campus to expand entrepreneurship infrastructure. Beyond funding, HVF offers mentorship, investor-readiness support, and serves as a bridge between UCR's Office of Technology Commercialization and the business community. This alignment ensures that innovations in life sciences, agriculture, sustainability, and technology have a clear path to market, fueling regional growth and competitiveness.

Riverside Angel Summit

The Riverside Angel Summit (RAS) was launched in 2021 to strengthen the angel investment culture in Inland Southern California by connecting new investors with high-quality, vetted local entrepreneurs. Through the Summit, UCR has helped recruit 15 new local angel investors and engaged with 25 venture capital groups from across the country.

The inaugural Summit concluded in January 2022 with Citrus Seeds LLC Angel Investors investing \$80,000 in two local startups (FarmSense, Inc. and SiLi-ion, Inc.) selected from 54 Inland Empire applicants. Each company received \$40,000 in seed capital to help move their innovations closer to commercialization. Following its success, the second Summit launched in 2023, continuing the momentum to make Inland SoCal a hub for angel and early-stage investment.

Funding the Future of Discovery

Since its inception, the Highlander Venture Fund has empowered UCR innovators to transform groundbreaking research into market-ready ventures. By providing critical early-stage capital, mentorship, and access to investor networks, the Fund helps founders bridge the gap between scientific discovery and commercial success. Each company supported by Highlander represents a story of innovation born at UC Riverside - where bold ideas move beyond the lab to create real-world solutions, attract investment, and strengthen Inland Southern California's growing innovation economy.



BASILARD BIOTECH

Revolutionizing Gene Therapy with Safer Delivery

Basilard Biotech, a spinout from UCR research, exemplifies how faculty innovation can grow into venture-backed companies. Supported by the Highlander Venture Fund with a \$500,000 investment, Basilard advanced novel biomedical technologies that attracted additional capital and federal support. Its trajectory shows how discoveries rooted in university labs can move toward lifesaving therapies, carrying the promise of new treatments to the broader healthcare landscape.



SENSORYGEN

Nature + AI: Creating Safer Everyday Products

Founded by UCR Professor Anandasankar Ray, Sensorygen uses AI and computational biology to create natural alternatives to harsh chemicals in consumer products. Backed by the Highlander Venture Fund, the company developed a breakthrough mosquito repellent and signed a licensing agreement with Urban Tribe to bring it to retail markets. Sensorygen has since raised over \$1.3M in angel and venture funding to scale its pipeline of safe, effective consumer products.



NANOCELLECT BIOMEDICAL

Democratizing Cell Analysis for Global Research

Founded by UCR alum José Morachis, NanoCellect Biomedical is transforming single-cell analysis with its proprietary microfluidics platform, WOLF Cell Sorter. The technology provides a gentler, safer, and more affordable alternative to traditional cell-sorting systems, unlocking new opportunities for research in genomics, immunology, and precision medicine. With early support from UCR's Highlander Venture Fund and regional entrepreneurial networks, NanoCellect attracted over \$35 million in venture funding, scaling into a leading force in the biomedical instrumentation. The company'sproducts are now used worldwide in laboratories advancing cancer research, stem cell therapies, and drug discovery.



Misty Madero introduces faculty to the importance of working with industry partners at OTP's faculty luncheons, which gives researchers the opportunity to have 1-on-1 time with OTP staff to ask questions about intellectual property, industry sponsored research, and opportunities to fund their research.

THE SBIR/STTR RESOURCE CENTER

Over the past ten years, the UCR SBIR/STTR Resource Center has become a cornerstone of federal funding success for innovators across Inland Southern California. Established to help small businesses and researchers navigate the complex SBIR/STTR landscape, the Center has consistently delivered high-touch mentorship, hands-on proposal development support, and strategic guidance in research design, team formation, commercialization planning, and federal submission processes. Since its launch, the Center has supported more than 300 competitive proposals, achieving a 35 percent success rate that is more than double the national average. Over the decade, companies in our ecosystem have secured more than \$72 million in SBIR/STTR and federal awards, fueling groundbreaking technology development and accelerating commercialization across the region.

As a pillar of the Inland SoCal Accelerate Hub, the Resource Center has strengthened the regional innovation pipeline by making federal non-dilutive funding more accessible to under-resourced founders, university researchers, and early-stage technology companies. The Center has delivered more than 75 workshops, hosted the region's largest annual SBIR/STTR conference, and engaged over 1,300 participants from across California and the United States. Through deep collaboration with the ExCITE Incubator, EPIC SBDC, CalTestBed, the I-Corps program, and campus research units, the Center has expanded the federal-funding readiness of the region's startups while building a culture of competitiveness around technology transfer and commercialization.

\$72M

in SBIR/STTR and Federal Funding Secured 100+

Competitive Awards Supported Through the Center 35%

Proposal Success Rate, Over 2x the National Average 1,300+

Participants Engaged
Through 75+ Regional
Training and Conferences



SBIR/STTR CONFERENCE: BUILDING A STRONGER FEDERAL FUNDING PIPELINE

The SBIR/STTR Conference began as a focused effort to help Inland Southern California founders understand federal funding pathways and engage directly with agencies awarding SBIR/STTR grants. What started as a small workshop has grown into the region's largest convening of its kind, attracting entrepreneurs, researchers, and federal representatives from across California and the United States. Organized by the SBIR/STTR Resource Center, the conference was designed to demystify the funding process and equip early founders with practical tools for competitive proposal development.

Today, the conference serves as a high-impact platform for connecting startups with federal program officers, experienced awardees, and commercialization experts. Attendees gain direct insight into agency priorities, proposal expectations, and strategies for strengthening technical aims and commercialization plans. Through hands-on sessions, pitch reviews, and one-on-one consultations, companies learn how to craft award-ready proposals while building essential networks. This annual event has contributed significantly to the region's success in securing more than \$72 million in federal SBIR/STTR funding, helping establish Inland Southern California as a rising hub for technology commercialization.







FUNDING SUCCESS IN ACTION:

How the Resource Center Helps Companies Win & Grow

The impact of the SBIR/STTR Resource Center is best reflected in the companies that have advanced from early concept to funded innovation with its guidance. Beyond proposal preparation, the Center works closely with founders to clarify their technical value, strengthen commercialization pathways, and position their research for strong agency alignment. This targeted, high-impact support has helped numerous startups secure the resources needed to validate technology, enter new markets, and build sustainable momentum. Two companies that exemplify this trajectory are StarNav and ReJoule, whose technologies and funding success illustrate the transformative outcomes made possible through the Center's long-term commitment to founder readiness.



STARNAV

Reliable navigation when GPS fails, powered by ambient radio signals

StarNav LLC was awarded \$4.0 million in grants in 2024, including \$2.0 million from the NSF Phase II SBIR and \$2.0 million from the DoD (Air Force Research Labs). The company, already a recipient of multiple SBIR and contract awards, has developed technology that converts ambient radio signals (e.g., cellular signals) into positioning data as a GPS backup. StarNav also provides consulting in sensor fusion, navigation systems, and signal processing. An EPIC SBDC client since November 2020, StarNav has secured \$7.2 million in grants with EPIC's support, along with assistance in business and market development.



REJOULE

Next-generation EV battery diagnostics that unlock safety, efficiency, and second-life performance

ReJoule Inc. secured \$6.3 million from the U.S.
Department of Energy (DOE) to scale its EV battery
diagnostics technology, designed to detect system-level
hazards and defects at collection points. In total,
ReJoule has received \$16.9 million from the DOE. The
company develops advanced diagnostics tools and a
battery management system (BMS) to optimize lithiumion battery performance, supporting second-life
applications for EV batteries.

Featured Companies in the OTP Portfolio

CADENZA BIO

Harnessing the Microbiome for Health and Resilience

Cadenza Bio is developing novel microbiome-based therapies and diagnostics that address both human health and agricultural resilience. With guidance from EPIC SBDC, the company secured \$275,000 in early-stage grants and raised over \$1 million in venture capital to expand its research pipeline. Pilot collaborations with UC Riverside and regional healthcare partners have validated its technology with data from more than 200 clinical and agricultural samples, paving the way for larger trials.



AQUATRINO

Smart Water Solutions for a Drier World

Founded in Riverside, Aquatrino is tackling one of California's most urgent challenges: water scarcity and quality. The company has developed sensor-based monitoring and advanced filtration systems that improve water efficiency for both municipal and agricultural users. With advising and proposal support from EPIC SBDC, Aquatrino secured \$250,000 in Catalyst funding and leveraged this to attract pilot projects with regional water districts. Its systems have demonstrated the ability to cut monitoring costs by 40% and reduce waste by improving detection of contaminants at early stages. Aquatrino's growth reflects how Inland Empire startups are not just innovating locally, but addressing global sustainability challenges in water management.





Richard Hutchison of From the Land in one of their micro-farms, which grow high-value crops using just a fraction of the space, water, and energy.

BIZTECH CONNECT



From Pandemic Response to Lasting Small Business Resilience

BizTech Connect was originally developed during the COVID-19 pandemic as TACIES, a program created to help small businesses strengthen operations, adopt digital tools, and prepare for growth. It has since evolved into a targeted accelerator for operational businesses ready to scale, offering one-on-one mentorship, tailored training, and post-program follow-up to ensure companies not only survive but thrive in an increasingly digital economy. By focusing on resilience, adaptability, and accessible mentorship, BizTech has become a bridge between traditional small business support and OTP's advanced entrepreneurship pipeline, helping Inland Empire businesses build confidence, adopt new tools, and compete in a global marketplace.

KEY LESSONS LEARNED FROM TACIES

- Small businesses often need foundational support before they are ready to adopt advanced technology.
- Smaller cohorts and focused mentorship create stronger outcomes than large-scale outreach.
- Programs must clearly communicate value

 "what's in it for the business."
- Follow-up support after workshops ensures lasting impact and adoption.

FOCUSED CURRICULUM FOR GROWTH

BizTech Connect centers around four key pillars:

- Pitch Development: Crafting and delivering investor-ready presentations that clearly communicate business value.
- SWOT Analysis: Identifying internal strengths and weaknesses to drive strategy and sustainable growth.
- Vision & Mission Alignment: Defining a company's purpose to support branding, leadership, and long-term planning.
- Financial Literacy & Capital Access: Building confidence in financial management and helping businesses secure funding and investment.

Adapting the Model

OTP used TACIES as a learning opportunity to create a stronger, more effective model. BizTech Connect was developed as the next generation of the program — a four-part bootcamp that emphasizes business foundations first, technology second. Delivered in smaller cohorts of 10–15 companies, the program pairs entrepreneurs with mentorship of serial entrepreneur Gioia Messinger, who bring real-world experience in scaling companies, including taking startups public.



Big-league mentorship for small business growth

BizTech Connect gives small business owners direct, one-on-one mentorship with Gioia Messinger, a serial entrepreneur who founded Avaak, Inc., the pioneer of home video security that grew into Arlo Technologies (NYSE: ARLO). With 30+ years of experience across technology, consumer, and healthcare industries, Gioia brings the rare expertise of someone who has scaled a startup into a publicly traded company. For Inland Empire businesses, access to her guidance in AI, IoT, and digital transformation offers big-league insight at the local level, giving entrepreneurs the tools and confidence to modernize and grow.

4 Cohorts Conducted

377 Companies Supported







President of Cali Auto Glass Ambar Martinez Palacios

Cali Auto Glass

From Repair Shop to Regional Powerhouse

CALI Auto Glass, a Riverside-based provider of automotive glass repair and replacement, joined the BizTech Connect Bootcamp in 2025 with the goal of doubling revenue within three years. Through targeted mentorship, the company expanded its services to include wiper blade sales, installation, and window tinting, while also implementing email marketing and Net Promoter Score (NPS) tracking. These strategic moves have already generated 20% year-over-year revenue growth in 2025, setting the company on track to achieve its ambitious growth targets.



EXCITE: Building a Thriving Innovation Ecosystem in Riverside

Launched in 2015 as a unique public-private partnership between UC Riverside, the City of Riverside, and Riverside County, the ExCITE Incubator has become a cornerstone of Inland Southern California's innovation ecosystem. Designed as a nonprofit 501(c)(3), ExCITE provides startups with far more than office space — it offers mentorship, entrepreneurial education, and a collaborative community that helps founders scale their ventures from early concept to market-ready solutions.

10 Years of Growth and Impact

Since its inception, ExCITE has incubated 36 companies, fueling a new generation of high-tech, high-growth startups in the region. These ventures have collectively raised more than \$17.3 million in grants, \$10 million in investments and loans, contributed \$13.6 million in local revenue, and supported 191 high-technology jobs in the Inland Empire. Even after graduation, ExCITE companies continue to strengthen the local economy, with seven maintaining offices in Riverside and Riverside County.

Community & Collaboration

ExCITE has established itself as a convening space for the region's entrepreneurial ecosystem. Through quarterly StartUp Socials, international collaborations such as hosting Chile's Know Hub Ignition program, and Riverside County's Innovation Month Pitch Competitions, ExCITE fosters a culture of innovation that connects startups, investors, and community leaders. National organizations like CAMEO and local partners regularly use ExCITE as a hub for training and networking, broadening its reach and impact.

36

Companies Incubated

\$27M+

In Grants, Investments, and Loans Raised

\$13.6M

In Local Revenue Generated 191

High-Tech Jobs Supported

LOWERING BARRIERS, RAISING POSSIBILITIES:

Early Support That Fuels Lasting Success

Providing affordable, accessible incubation space in the earliest stages of development can make the difference between a startup that thrives and one that never makes it out of the lab. Early-stage ventures often face high overhead costs and lack the networks needed to scale, making supportive environments essential. ExCITE fills this critical gap by offering startups not just space, but a community of mentors, investors, and peers who understand the challenges of entrepreneurship. This combination of facilities and ecosystem support has enabled numerous companies to grow, graduate, and establish themselves in the broader industry — proving that with the right foundation, startups in Inland Southern California can achieve national and global success.



STARNAV

Navigating Where GPS Cannot

StarNav LLC is pioneering navigation systems designed for GPS-denied environments, where traditional signals are blocked, jammed, or unreliable. Its innovations are critical for defense, aerospace, and commercial applications, where accuracy and resilience are mission-essential. With support from the Build to Scale program, StarNav secured over \$2 million in Department of Defense funding, validating its technology at the Edwards Air Force Test Pilot School. Founded by Dr. Joshua Morales, the company has since launched the first product capable of using Xona Space Systems signals, a private satellite navigation service, and is already fulfilling orders with large commercial and university partners.

FARMSENSE

Smart Insect Monitoring for Smarter Farming

FarmSense has transformed pest management through its FlightSensor, an automated system that uses optical sensors and AI to identify insects in real time. Developed by UCR researchers Eamonn Keogh and Shailendra Singh, FarmSense's technology saves growers time, money, and resources while reducing the need for pesticides. With ExCITE's support, the company has won multiple national awards and recognition from the USDA and is scaling its solution to farms across California and beyond. With its mix of innovation and environmental sustainability, FarmSense is a standout example of how university-backed startups can solve global agricultural challenges.

TINKER THE ROBOT

Building STEM Skills for the Next Generation

Founded by entrepreneur Kay Yang, Tinker the Robot began as a hands-on robotics kit for students and has grown into a nationally recognized edtech company. Through ExCITE, Tinker expanded its reach by developing new STEM curriculum, collaborating with schools, and even partnering with PBS to produce educational content. Today, Tinker inspires thousands of students across the U.S., sparking curiosity in science and technology at an early age.



THE LIFE SCIENCES INCUBATOR AT UC RIVERSIDE

In 2019, UC Riverside launched the Inland Empire's first wet-lab Life Sciences Incubator, made possible through a \$2.5 million U.S. Economic Development Administration grant and supported by California Assembly Bill 2664, a UC systemwide initiative that provided \$2.2 million to each campus to expand entrepreneurship infrastructure and move groundbreaking discoveries from the lab to the marketplace. Located within the Multidisciplinary Research Building, this state-of-the-art facility was designed to support startups in biotechnology, medical technology, and agricultural sciences — offering resources that early-stage ventures previously had to seek in Los Angeles or San Diego.



Measuring Impact: 2019–2025

In just five years, the incubator has supported 15 startups, attracted over \$8.1 million in grants and investments, and created 48 high-tech jobs in the region. Tenants benefit from shared wet-lab space, core campus facilities, grant support, and connections to UCR faculty, making it the only facility of its kind in the Inland Empire. Even during the pandemic, the incubator demonstrated resilience by repurposing space for COVID-19 testing, underscoring its role as both a research hub and community asset.

State-of-the-Art Wet Lab Facilities & Equipment

The Life Sciences Incubator at UC Riverside provides state-of-the-art wet lab facilities supporting startups in biotechnology, medtech, and agricultural sciences. Located in the Multidisciplinary Research Building, it offers access to advanced equipment such as incubators, spectrometers, microscopes, centrifuges, and PCR systems, along with furnished offices, shared workspaces, and meeting rooms. Tenants also benefit from access to UCR's core research facilities and services, creating a collaborative environment where life science ventures can efficiently move from concept to commercialization.

WHERE BREAKTHROUGHS BECOME BUSINESSES:

Uniting faculty innovation and entrepreneurial drive

At UC Riverside, the Life Sciences Incubator stands at the intersection of world-class faculty talent and entrepreneurial ambition. As one of only two wet-lab incubators in Southern California, it provides startups with access to state-of-the-art facilities, equipment, and mentorship that are typically out of reach in the earliest stages of company formation. This unique combination empowers innovators to move beyond the limits of makeshift labs or borrowed space and instead focus on true breakthroughs in biotech, medtech, and agricultural sciences. By pairing faculty-driven discoveries with entrepreneurial drive, the incubator has become a launchpad where bold ideas can take root, scale, and transform into thriving companies.



Office of Technology Partnerships

ARMIDA LABS

Targeting Hard-to-Treat Cancers

Founded in 2021 by UCR Professor Maurizio Pellecchia and former senior scientist Carlo Baggio, Armida Labs is developing Targefrin™, a patented therapy for pancreatic and other solid tumors. The startup secured a \$400,000 SBIR Phase I grant from the National Cancer Institute, funding production scale-up and preclinical validation. With plans to file an Investigational New Drug (IND) application and pursue \$2 million in Phase II SBIR funding, Armida Labs represents the cutting edge of faculty-led innovation. Their work pushes cancer therapeutics forward and shows how the Life Sciences Incubator helps ventures advance from discovery to clinic.

REMOTE EPIGENETICS, INC.

Breakthroughs at the Molecular Level

Remote Epigenetics is commercializing volatile histone deacetylase inhibitors (HDAC inhibitors) discovered by UCR Professor Anandasankar Ray. These compounds show promise across multiple sectors — from enhancing crop growth to treating cancer and neurodegenerative diseases. With incubation support, the company advanced its pipeline, laying the foundation for agricultural and biomedical applications. Remote Epigenetics shows how university discoveries can spin out into companies that push the frontiers of human health and sustainable agriculture.

WATER ILLUMINATION

Tackling PFAS Contamination at the Source

Water Illumination, founded by UCR Professor Haizhou Liu, is pioneering a breakthrough method for eliminating PFAS "forever chemicals" from water. Using UV-generated reactive molecules, the company's technology neutralizes contaminants that traditional treatment methods cannot remove, offering a scalable solution to a global crisis in drinking water. Supported by \$950,000 in SBIR funding, Water Illumination developed and validated its system during its time at the incubator and successfully graduated in 2025, moving into its own facility in Orange County.

SOCAL OASIS® INITIATIVE

Opportunities to Advance Sustainability, Innovation, and Social Inclusion

Launched in 2019, the SoCal OASIS® Initiative is UC Riverside's flagship effort to position Inland Southern California as a hub for sustainable innovation and inclusive economic growth. Supported by The James Irvine Foundation and US Bank, the initiative integrates research, entrepreneurship, and workforce development and is now expanding into a dedicated innovation park currently under construction.

SoCal OASIS delivers a full entrepreneurial pipeline that supports individuals at every stage — from early exposure workshops for high school and college students, to ideation training through Zero-to-Entrepreneur, and finally to investor readiness through the SoCal OASIS Pitch Challenge. This continuum has strengthened the region's capacity to develop homegrown innovators and advance sustainability-focused ventures.

The initiative also convenes regional partners through major events such as the 2024 Inland SoCal OASIS™ Climate Action Conference, which gathered more than 150 experts, entrepreneurs, policymakers, and community members. The conference highlighted practical climate solutions in sustainable freight, renewable energy, water management, and local policy, alongside research presentations and startup-led demonstrations that reinforced OASIS as a catalyst for regional collaboration.

FOCUS AREAS

SoCal OASIS is structured around 4 core verticals that align with the region's economic & environmental priorities:

- Energy & Transportation Advancing zero-emission mobility, grid modernization, & clean technology manufacturing
- Agriculture & Food Systems Building resilience in sustainable farming, food security, & ag-tech innovation
- Health & Human Development Supporting innovations that improve public health, biotech, & equitable access to care
- Climate & Environment Driving research and entrepreneurship in water sustainability, air quality, & climate adaptation



Panelists at the 2023 SoCal OASIS Inland SoCal Climate Action Conference discussing climate change in the Inland Southern California Region.

Students working on a team exercise at the 2023 summer agriculture workshops, designed to expose high schoolers to the agtech innovation space.

155

Individuals trained in the 2023 Zero-to-Entrepreneur Program \$260K

Awarded to innovators in the SoCal OASIS® Pitch Challenge \$1.3M

Internal faculty awards for clean tech & sustainability projects

700+

Projected jobs from international companies recruited



Participants of the 2023 Zero-to-Entrepreneur Program cohort with instructors Francisca Reyes, Jay Gilberg and Dr. Rosibel Ochoa

Zero-to-Entrepreneur:





Training Inland Southern California Residents to Build Sustainable Ventures

Zero-to-Entrepreneur is a six-month hybrid entrepreneurial training program under the SoCal OASIS® umbrella that was launched in 2023 to equip Inland Empire residents with the skills, tools, and confidence to build sustainable businesses rooted in regional needs. Offered in targeted tracks—including agriculture and transportation—the program blends workshops, coaching, and hands-on business development to help new founders move from idea to launch.



In its first year, Zero-to-Entrepreneur trained 155 participants, many of whom entered the program with no prior business experience. Early successes demonstrate the program's impact: participants such as From the Land went on to secure \$250,000 from the Catalyst Fund to scale their urban micro-farming technology, while others advanced into additional OTP programs, pitch competitions, or EPIC SBDC consulting.

By lowering barriers to entry, centering sustainability, and serving historically underrepresented communities, Zero-to-Entrepreneur strengthens the region's capacity to generate new small businesses and cultivate a more inclusive innovation ecosystem across Inland Southern California.



SoCal OASIS® Pitch Challenge

Advancing Sustainability Startups Across Inland Southern California

The SoCal OASIS Pitch Challenge is a cornerstone program for accelerating sustainability-focused startups in the Inland Southern California region. Each year, the competition attracts founders from both the community and UC Riverside, offering selected teams intensive bootcamps and personalized mentorship from EPIC SBDC Entrepreneurs-in-Residence to refine their business models and develop investor-ready pitches.

In 2023, the Challenge awarded \$110,000 in non-dilutive funding—supported by The James Irvine Foundation and US Bank—and drew over 180 attendees, including policymakers, investors, and regional industry leaders.



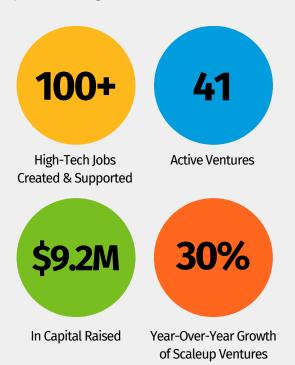
Awardees such as Indrio Technologies and From the Land leveraged this support to advance product development, with one finalist securing a new connection to Tech Coast Angels. Audience numbers continued to grow in 2024, surpassing 180+ participants, with attendance expected to increase each year.

Beyond funding, the SoCal OASIS Pitch Challenge strengthens the region's entrepreneurial pipeline by equipping founders with critical pitch training, investor exposure, and access to key networks. This platform plays a vital role in expanding the region's capacity to launch scalable, sustainability-driven ventures aligned with the broader mission of the SoCal OASIS Initiative.

SOCAL OASIS® BUILD TO SCALE:

Connecting Global Companies to Inland Southern California's Innovation Ecosystem

The Build to Scale program (B2S) focuses on the next phase of growth, helping companies that have validated their technology transition into scaling operations, manufacturing, and market expansion. Funded in part by the U.S. Economic Development Administration, B2S serves as a soft-landing platform for both international and domestic companies, embedding them in Inland Southern California's innovation ecosystem. Through partnerships with CARB, CE-CERT, CalTestBed, and more, companies gain access to world-class testbeds, technical expertise, pilot demonstration sites, and skilled workforce pipelines. This late-stage support ensures that ventures don't just launch — they scale sustainably and anchor jobs in the region.



Since its inception, Build to Scale has:

- Accelerated clean-tech commercialization by linking startups with real-world testbeds such as CARB, CE-CERT, CalTestbed, and agricultural operations.
- Mobilized funding and investment, securing over \$2 million in public-private support for zero-emission transportation and advanced manufacturing.
- Created 28 new tech jobs, converting lowincome and fading employment sectors into sustainable wage jobs.
- Diversified the regional economy by anchoring companies in sectors such as zeroemission vehicles, precision agriculture, clean energy, and housing innovation.
- Attracted international companies to establish manufacturing bases in Riverside, creating local supply chains and jobs.

\$7M In direct funding acquired by ventures

TURNING INNOVATION INTO JOBS & INVESTMENT

The Build to Scale program has become a powerful engine for attracting, anchoring, and accelerating companies in Inland Southern California. By providing global innovators with a soft landing, technical expertise, and real-world testbeds, the program helps transform groundbreaking ideas into sustainable ventures that create jobs, investment, and long-term impact.





VOLTU MOTOR INC.

Driving Zero-Emission Futures

Voltu Motor Inc., an Argentina-based manufacturer of zero-emission electric powertrains for heavy-duty vehicles, selected Riverside as its U.S. base after connecting with the Build to Scale program. Its modular drivetrain systems enable rapid electrification of trucks and buses, helping fleets transition to clean energy without full vehicle replacement. Since relocating, Voltu has partnered with the City of Riverside and regional stakeholders to launch 14 vehicle demonstrations, backed by over \$2 million in public-private funding. The company is now expanding production capacity to meet demand across the U.S. and Latin America, creating skilled jobs and advancing Inland Southern California's leadership in sustainable transportation.

4TH STATE ENERGIES

Harnessing Plasma to Harness a Cleaner Future

4th State Energies has developed the world's best silicon-anode material (a combination of the lowest-cost and highest-energy density) that fully replaces the critical mineral graphite in lithium-ion batteries using a unique plasma process. Validated by independent labs and the DOE's \$37.5M Silicon Consortium, the material is a groundbreaking technology for drone, robots, and defense market needs. Through the Build to Scale program, 4th State Energies has received tailored mentorship, market positioning support, and access to regional partners. These resources have enabled them to receive \$2.5 million in non-dilutive funding, including a recent DOE SBIR II grant.

INDRIO TECHNOLOGIES

Laser Precision for Cleaner Air

Relocating from Northern California to Riverside, Indrio Technologies has developed advanced laser-based sensors that provide real-time detection of air pollutants with far greater precision and speed than conventional chemical sensor systems. The company's technology has wide applications in regulation of transportation emissions, industrial emissions tracking, and climate research, making it a vital tool for regions tackling air quality challenges. With support from the Build to Scale program, Indrio has won regional pitch competitions, secured early customer pilots, and laid the groundwork for a local manufacturing base in Riverside. These milestones have positioned the company to scale production and deliver cutting-edge emissions enforcement and emissions measurement solutions to a growing list of customers, while anchoring clean-tech jobs in Inland Southern California.



Building a Clean Technology Hub

With support from the State of California, UCR secured more than \$68M in state funding for planning and development of the SoCal OASIS® Clean Tech Park. This first-of-its-kind innovation park will provide dedicated space for applied research, incubation, and industry partnerships in clean energy, sustainable transportation, and climate resilience. The park broke ground in 2025 and is projected for completion in 2027, serving as a catalyst for green jobs and global investment in the Inland Empire.









The Green Motion Avocado Summit brought 35 stakeholders from 12 countries and Eurosemillas together to celebrate UCR's global leadership in avocado research and commercialization.

INTERNATIONAL PARTNERSHIPS:

A Decade of Global Impact

Over the last 10 years, UC Riverside's Office of Technology Partnerships (OTP) has transformed the university's innovations into a global force. By building strategic international alliances, nurturing entrepreneurs from around the world, and attracting foreign companies to Inland Southern California, OTP has created a powerful bridge between local ingenuity and the global market. This has not only amplified the reach of UCR's research but also cemented the Inland Empire's reputation as a vibrant hub for international business and technology.

Global Reach, Regional Growth

- \$12.5 Million+ in licensing revenue from our primary international commercialization partner, Eurosemillas, for UCR's citrus and avocado varieties.
- Over 50 international startups provided with "soft landing" support to establish a U.S. presence right here in Riverside.
- 55 technology teams from Chile were trained in the UCR's INNOVAR I-Corps methodology in partnership with Know Hub Chile.
- Over 35 global stakeholders from 12 countries convened at UCR for the Green Motion Avocado Summit to accelerate innovation.



Ohmio's grand opening of their new headquarters in Riverside, CA. Left to Right: Mohammed Hikmet, Executive Chairman of Ohmio; Dr. Rosibel Ochoa, Associate Vice Chancellor of Technology Partnerships; Brian Suh, Senior Executive Director of Technology Partnerships; and Dean Zabrieszach, CEO of Ohmio



Fostering International Dialogue

In a landmark event held in July 2025, UCR hosted members of the LA Consular Corps uniting international diplomats from around the world. In attendance were Riverside Mayor Patricia Lock Dawson, City Councilmember Steven Robillard (Ward 3), leadership from the County of Riverside's Office of Economic Development, representatives from the consulates of 21 countries, and the CEOs of Ohmio and Voltu—two international companies that have recently established their U.S. operations in Riverside. This summit showcased the university's research and innovation prowess, fostering dialogue on leveraging global partnerships to solve pressing local and global challenges. By bringing the world's leaders to Riverside, UCR and OTP have solidified the university's role as a key convener and a critical player on the international innovation stage.

Empowering Global Innovators

OTP's impact extends to nurturing entrepreneurship worldwide. A prime example is our collaboration with Collaborated with Organization of American States.

- Launched COMUNITT, a platform to provide access to best practices in technology transfer.
- Provided monthly communications showcasing initiatives from other countries.
- Reaching out to 82 Innovation and Technology Transfer professionals from 11 countries.

This program has not only helped fostering research and innovation, but also promoting the exchange of new ideas, global perspectives, and best practices.

Strategic Alliances: From Lab to Global Market

A cornerstone of our international strategy is the long-term, fruitful partnership with the Spanish company Eurosemillas. This collaboration has been pivotal in commercializing UCR's world-renowned agricultural research, most notably its avocado and citrus varieties. The partnership has generated more than \$12.5 million in licensing revenue, directly funding further research and innovation at UCR.

In 2023, this partnership reached a major milestone with the Green Motion Avocado Summit, a three-day international gathering across Irvine, Riverside, and Ventura County that brought together more than 35 avocado stakeholders from 12 countries. The event marked the global release of the Luna UCR™ avocado ('BL516')—developed through a multi-year sponsored research agreement between UCR and Eurosemillas and showcased UCR's leadership in marker-assisted breeding, agriculture technology, and precision agriculture through presentations and field tours led by UCR scientists and campus leadership.





CONNECTING CHILEAN INNOVATORS TO GLOBAL MARKETS: KNOW HUB CHILE

Since 2019, UCR and Know Hub have partnered to advance innovation, technology transfer, and economic development. Across five cohorts, 55 researcher-led teams from universities in the Know Hub Consortium completed a customer discovery program based on UCR's INNOVAR I-Corps methodology, receiving weekly guidance from an OTP Entrepreneur-in-Residence and a Chilean mentor.

Selected teams were then invited to participate in immersions in California, including a visit to Riverside where they met potential partners, engaged with local experts, and pitched to prospective investors as part of their soft-landing pathway into the United States.

Teams that visited Riverside as part of the immersion:

- Photio: Paint additive technology that removes environmental pollutants
- Prime Technologies: Buccal film for insulin drug delivery
- Innovai: Technology to extend the shelf-life of premium seafood
- **Bioproc:** Gas purification Hardware-as-a-Service platform reducing emissions and odors from pork processing
- **Dropit:** Ultra-concentrated cleaning products in tablet format for B2B customers seeking space, cost, and transport savings
- **Beloop:** Software platform for managing and reporting product packaging to increase circularity and reduce waste

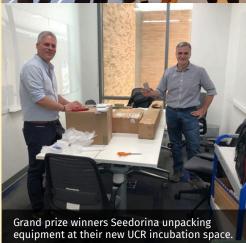
Chilean immersion participants from the 2023 cohort during their visit to UC Riverside.

EXPANDING GLOBAL INNOVATION THROUGH THE EUROSEMILLAS INCUBATION CHALLENGE

In 2022, OTP launched the Eurosemillas International Incubation Challenge to support Latin American deep-tech startups seeking access to the U.S. market—a need identified through a UCR-led survey of regional incubators and accelerators. Sponsored by Eurosemillas, UC Riverside's Office of Research and Economic Development, and the University of California Alianza Mexico initiative, this \$130,000 competition drew 63 applications from 13 countries, ultimately identifying a select group of high-potential teams developing solutions across health, renewable energy, food systems, sustainable transportation, agriculture, and natural resource management.

Winners Included:

- **Grand Prize: Seedorina (Uruguay)** Developer of a seed-planting robot; awarded \$40,000, UCR incubation, and a trip to Riverside. Seedorina has since established U.S. operations, secured customers, and joined the ExCITE incubator.
- Tycho Solutions (Mexico) Clean-energy project planning software; awarded UCR incubation, a trip to Riverside, and funding for a research collaboration.
- Five Award Winners (mentorship for U.S. market preparation) -
 - BATx (Colombia): Second-life battery system
 - Pascal Tech (Ecuador): Electric bicycle conversion device
 - DProtein (Mexico): Optimized food protein
 - Ubique Biotech (Argentina): Synthetic peptide diagnostics platform
 - ACOT Systems (Chile): Al-based wildfire detection



equipment at their new ock incubation space.

A SOFT LANDING FOR INTERNATIONAL STARTUPS

We have successfully positioned Riverside as a prime destination for international companies looking to enter the U.S. market. Our "soft landing" program has supported startups from countries like Argentina, New Zealand, and Uruguay, providing them with mentorship & resources needed to thrive. By attracting these innovative companies, OTP is directly contributing to a growing cluster of "green" and "clean" technology firms in the Inland Empire, creating high-tech jobs and diversifying our regional economy.



OHMIO

Driving Riverside Into the Future of Mobility

In March 2025, Ohmio, a global leader in autonomous electric vehicles originally from New Zealand, celebrated the grand opening of its new U.S. headquarters and manufacturing facility in Riverside, California. The event marked a major milestone in both the company's growth and the city's commitment to sustainable transportation. By selecting Riverside, Ohmio is anchoring advanced manufacturing jobs in the Inland Empire while positioning the region as a hub for clean mobility innovation. The company's facility will produce autonomous shuttles and buses, helping cities transition toward zero-emission, connected transportation systems.

VOLTU MOTOR INC.

Driving Zero-Emission Futures

Voltu Motor Inc., an Argentina-based manufacturer of zero-emission powertrains for heavy-duty trucks, chose Riverside as its U.S. manufacturing base after connecting with OTP through international partnerships. Since its relocation, Voltu has worked with the City of Riverside, launching 14 vehicle demonstrations that showcase its ability to retrofit existing fleets with electric drivetrains. Voltu has secured over \$2 million in public-private funding and is partnering with regional stakeholders to establish a production facility. With demand for clean transportation growing, the company is scaling production to serve public and private fleets, highlighting how international ventures can use Riverside's ecosystem to establish a strong U.S. footprint.



SEEDORINA

Planting Seeds of Sustainable Agriculture

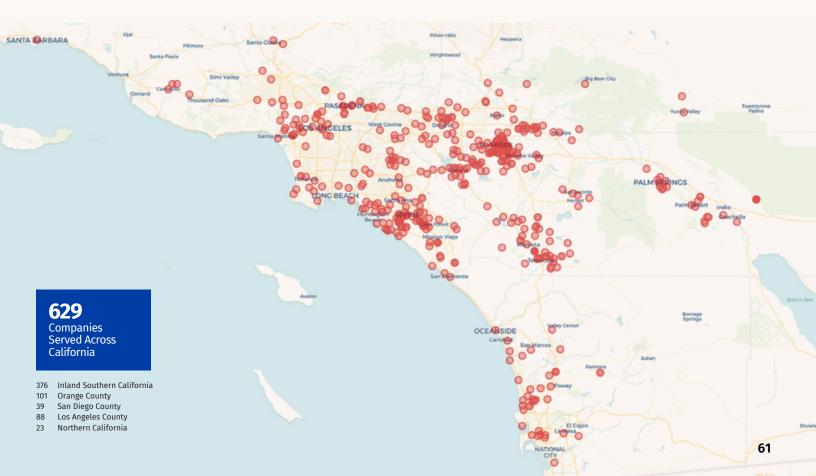
Expanding from South America to Riverside, Seedorina brings advanced agtech to one of the world's top farming regions. Its digital precision seeders improve planting accuracy and efficiency through robotics-powered systems. With OTP's support, Seedorina set up a local supply chain and manufacturing facility, delivering its first Seedbot 3 units in 2025 and now fulfilling Southern California orders. By reducing labor costs and boosting yields, Seedorina strengthens sustainable farming and highlights Riverside as a U.S. gateway for ag-tech firms.



Glid Founder and CEO Kevin Damoa pictured with the Glidrail prototype. Originally from Auberry, CA, Glid moved their operations to Riverside, California in spring 2025 to work with organizations such as UCR OTP and the City of Riverside.

A Decade of Expansion: Southern California to Global Markets

Over the past decade, the Office of Technology Partnerships (OTP) has evolved from a regional hub serving innovators across Inland Southern California into a nationally and globally connected ecosystem. What began with support for a few dozen startups in Riverside and San Bernardino Counties has expanded to 629 companies across California, 655 across the United States, and 659 worldwide, spanning regions such as Mexico, Canada, Italy, and India. This trajectory reflects UCR's transformation into a catalyst for innovation that not only drives local economic development but also attracts international collaborations and investment—positioning the university as a global leader in inclusive, sustainability-focused entrepreneurship.





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