



UC San Diego

INSTITUTE FOR THE GLOBAL ENTREPRENEUR



2024 IGE SHOWCASE

Digital Brochure

November 6, 2024

UC San Diego

Atkinson Hall

UC San Diego

JACOBS SCHOOL OF ENGINEERING

UC San Diego

RADY SCHOOL OF MANAGEMENT





Directors' Welcome



Sujit Dey,
IGE Director



Dennis Abremski,
IGE Exec. Director



Amy Nguyen-Chyung
IGE Director

Welcome to the Fall 2024 IGE Showcase!

Our theme for 2024 is “Game Changing Impact”. Every year, there are more teams, more students, and more faculty that we have the honor of working with, as they begin their journeys to advance great ideas from concept to fruition.

This is truly a unique time in our history, where AI is transforming industries and creating new opportunities. That said, it is still the human element, the inventiveness and tenacity of entrepreneurs, that drives innovation and excites us.

Join us, as we celebrate not only the innovative technologies that our researchers are creating, but the successful startups they are launching to deliver such significant impact to society.

Dennis Abremski
Executive Director
Institute for the Global Entrepreneur



4:00 PM- Doors open for Registration and Networking

**5:00 PM - 5:30 IGE Program
Dennis Abremski, IGE Exec. Director - Opens Program**

Dean Al Pisano - Dean, Jacobs School of Engineering-Welcome

Amy Nguyen-Chyung- IGE Co-Director- Penner-Boni Award

Sujit Dey- Co-Director- IGE Faculty Entrepreneurial Innovators of the Year Award

Becky Deller, IGE MedTech Program Manager- IGE Startup of the Year Award

5:30-7:30 - Showcase Opens

Penner-Boni Innovation Award

Penner Boni Award-Penner-Boni Innovation Award is supported by Art Boni, Jacobs School of Engineering Alumni, in honor of his mentor, Stanford "Sol" Penner, the first dean of engineering at UC San Diego, who instilled in him the innovation spirit

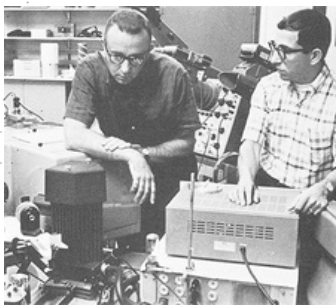
2024 Awardee



[Sai Zhou LinkedIn](#)

Sai obtained his PhD in Mechanical and Aerospace Engineering in 20245. Thanks to his dedication to the IGE Technology Management Program, he also earned a \$5,000 Shah Fellow scholarship. Through his research and entrepreneurial initiatives, he established [CircuCare](#), a MedTech startup dedicated to creating innovative wearable ultrasound devices that meet essential healthcare needs. We are proud to name him the 2024 Penner-Boni Awardee.

About the Penner-Boni Innovation Award



Art Boni with his mentor, Stanford "Sol" Penner, undated photo

Each year, top students will be selected as Boni Fellows to participate in an intensive one-year program at the university's Institute for the Global Entrepreneur Technology Management Program. This program matches Rady MBA candidates with Jacobs School graduate students for practical innovation training in a team environment. The Penner-Boni Innovation Award recognizes an exceptional IGE Fellow who exemplifies Stanford "Sol" Penner's innovative spirit.

IGE Faculty Entrepreneurial Faculty Innovators Award

The IGE Entrepreneurial Faculty Innovator is awarded to faculty who exemplify the following:

- Conducting research leading to Game-Changing Technologies
- Encourages entrepreneurship among their students
- Fosters interdisciplinary collaboration across campus

2024 Awardees



Michael Yip, Assoc. Prof. (ECE) and Director, Medical Robotics lab at the Contextual Robotics Institute at UC San Diego.



Dr. Weissbrod is a board-certified otolaryngologist and professor at the UCSD School of Medicine

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IGE Startup of the Year

Awarded to an IGE MedTech Accelerator startup who has potential for Game-Changing Impact and significant milestones.

2024 Awardee

melio



Mridu Sinha
Co-Founder and CEO



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Featured Startups

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MedTech Accelerator



Agave Biosensors

Founder:

Ethan Devine

ethan@agavesensors.com



www.agavesensors.com

What We Do:

Agave is a health tech startup developing a microbial-based sensing platform for remote health monitoring. Agave's technology enables medical devices, wearables, and other remote monitoring devices to be smaller, safer, and smarter, improving health outcomes for people and planet.

Programs:

NSF I-Corps

IGE MedTech Accelerator Bootcamp

IGE MedTech Accelerator Stage 2

HomeLab UC Foundry

***We are seeking Investment, Funding for Prototype
MedTech/Diagnostic/Digital Health, Sustainable, Technology***

IGE Alumni Startup

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MedTech Accelerator



AirSurgical

Founder:

Alan Moazzam

armoazzam@ucsd.edu



<https://air-surgical.com>

What We Do:

Air Surgical's accurate and easy-to-use CT-guided robot enables doctors to place needles with sub-millimeter accuracy for treating cancer. Today, physicians struggle to achieve the required accuracy. Our technology, a small robotic arm, enables every physicians to safely and effectively treat cancer. We aim to revolutionize minimally invasive cancer care, providing a curative treatment for more patients and increasing economic efficiency for hospitals and insurance providers, making advanced cancer care more accessible.

We are seeking Investment, Funding for Protoype

MedTech/Diagnostic/Life Science/Digital Health, Technology

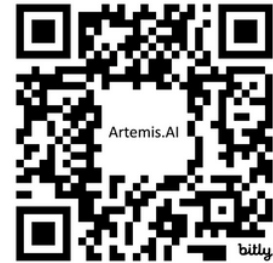
UC San Diego Faculty



Artemis.AI

Artemis.AI

Florian Richter
florian@flodri.io



<https://flodri.io>

What We Do

Artemis.AI utilizes computer vision technology to track the movements of infants, linking these motions to clinical conditions such as sedation, seizures, and the early detection of cerebral palsy. To advance this technology, Artemis.AI has collaborated with prestigious hospitals, including Mount Sinai and Cincinnati Children's hospitals.

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MedTech Accelerator



Billion Labs Inc.

Founder:

Edward Wang

edward@billionlabs.co



<https://www.billionlabsinc.com/>

What We Do:

Billion Labs Inc. is revolutionizing health monitoring by developing a breakthrough, software-based solution for smartphone-based blood pressure monitoring. Our technology transforms any personal smartphone into an advanced health tool, allowing users to measure their blood pressure conveniently and accurately without the need for additional hardware or wearables. This unique approach makes health monitoring more accessible, affordable, and user-friendly, addressing the growing demand for seamless, on-the-go healthcare solutions.

We are seeking Investment, Funding for Protoype

MedTech/Diagnostic/Life Science/Digital Health, Technology

UC San Diego Faculty

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MedTech Accelerator



ChakraTech

Ravi Chawla

ravichawla101@gmail.com



<https://www.chakratechworks.com>

What We Do

ChakraTech is creating a microbial platform technology aimed at producing medical-grade biopolymers. In particular, we foresee these biopolymers being utilized as bioresorbable polymers and implants.

Fall 24 MedTech Accelerator Team

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MedTech Accelerator



Channel
ROBOTICS

Channel Robotics

Founder:

Michael Yip

mike@channelrobotics.com



channelrobotics.com

What We Do:

Channel Robotics is a PhD and physician-scientist founded surgical robotics company, providing a platform technology in endoscopic robots. Channel's patented and patent-pending robotic technologies allow surgeons to reach further with robotic surgery with articulated instruments that have more dexterity than they have ever had before, allowing them to complete some of the most complex and difficult procedures in a much easier, more intuitive, and faster manner. Channel Robotics aims to disrupt the \$2.1B colonoscopy market with its first product, introducing robotics into the space of colon cancer screening and reducing misdiagnoses and high complication rates for hundreds of thousands of individuals every year in the US.

Programs:

IGE MedTech Accelerator Phase 2

GEM (Galvanizing Engineering in Medicine) Program

We are seeking Investment, Funding for Prototype

MedTech/Diagnostic/Life Science/Digital Health

UC San Diego Faculty

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MedTech Accelerator



CircuCare

Founder:

Sai Zhou

saizhou.626@gmail.com



www.circucare.com

What We Do:

CircuCare is a medical technology startup focused on developing a wearable ultrasound device specifically designed for continuous cardiovascular monitoring. The device offers a breakthrough solution for real-time intraoperative and post-operative monitoring, addressing critical unmet needs in surgical and ICU environments.

Programs:

Lab to Market

NSF I Corps

Medtech Accelerator

MVP, Concept to working prototype

MedTech/Diagnostic/Life Science/Digital Health

MedTech Stage 2 Team

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Delilate

Brian Li

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<https://www.linkedin.com/company/delilate/>

What We Do

Vaginal dilators are critical to gynecological treatments. But current dilators are primitive and ineffective as many patients stop their treatment prematurely. Delilate has created a state of the art solution in a soft dilator that prioritizes patient comfort and patient experience without compromising on treatment effectiveness.

Programs:

NSF I Corps

Medtech Accelerator

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MedTech Accelerator



dermose

Derमose Inc.

Founder:

Arshan Ommid

Aommid@dermose.com

What We Do:

Derमose has reduced the price of hair loss diagnostic and prognostication med-devices by 2 orders of magnitude, now accessible, for the first time, at-home. Derमose pairs these innovations, with a comprehensive, end-to-end platform: Tele-Health + Compounded Pharmaceuticals + Comprehensive Hormone/Blood work. Altogether, Derमose targets undiagnosed root causes of hair loss, which can manifest from commonly undiagnosed infections/diseases/hormonal dis-regulations, such as: gut dysbiosis, malnutrition/malabsorption, Hyper/Hypothyroidism, PCOS, Insulin Resistance, and many more. The diagnostic and treatment effectiveness of this novel process results in over a 97% Response rate and backed with a free-hair transplant guarantee if our patients don't grow hair within 12 months.

Programs:

Pad-13, Skydeck Accelerator, UC Berkeley

UC Launch Accelerator, Hass Business School, UC Berkeley

Stage 2, IGE Med-Tech Accelerator, Jacobs School of Engineering

We are seeking Investment.

MedTech/Diagnostic/Life Science/Digital Health

MedTech Stage 2 Team

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MedTech Accelerator



DxAi

Rakhi Garg

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Aarushi Garg

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What We Do

DxAi is a digital health company focused on developing accessible and cost-effective solutions. Their patent-pending technology enables fully autonomous, AI-driven eye screenings at the point of care with high accuracy. This innovation aims to assist billions, particularly in underserved communities, by offering crucial vision-saving screenings, improving patient outcomes, and reducing healthcare costs.

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MedTech Accelerator



GolTech

Founder:

Sinan Golhan

sinan@goltech.co



<https://www.goltech.co/>

What We Do:

GolTech is helping scientists develop better hydrogel treatments, faster through our first-of-its-kind lab automation instrument. Our technology was developed and patented by Nanoengineers from UCSD and Harvard Medical School who recognized the demand for automated testing in the labor intensive hydrogel industry. Leveraging 2 patents, a validated prototype and awards from UCSD and the NSF, GolTech is currently raising it's seed round, exploring manufacturer/distributor partnerships and preparing for pilot testing. By 2031, we are planning to exit at a \$200M valuation by selling to 500 out of the 20000 hydrogel laboratories in the world.

Programs:

NSF I-Corps

IGE MedTech Accelerator Bootcamp

IGE MedTech Accelerator Stage 2

HomeLab UC Foundry

We are seeking Investment, Funding for Prototype

MedTech/Diagnostic/Life Science/Digital Health

MedTech Stage 2 Team

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MedTech Accelerator

Featured Startups

Sustainability



HYPERINTELLIGENT
RESEARCH COMMUNITIES

Hyper Intelligence

Walter Swinson

wswinson8121@sdsu.edu

What We Do

Hyper Intelligence focuses on innovative health solutions, including wearable detox technologies and mobile health services to improve patient recovery. They collaborate with Expy Health to enhance healthcare systems for patients and providers, and partner with Atlas Labs to explore molecular simulations in medical technology.

Fall 24 MedTech Accelerator Team

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Kato Medical Inc.

Albert Hill

ahill@katomed.ai



<https://katomed.ai>

What We Do

Katomed is creating an automation platform specifically designed for precision-sensitive procedures in spine surgery.

IGE Partner Startup



Limber Prosthetics & Orthotics, Inc.

Founder:

Joshua Pelz

josh@limberprosthetics.com



<https://www.limberprosthetics.com/>

What We Do:

Limber has developed the world's first fully 3D-printed transtibial prosthesis, offering dynamic energy return, durability, and a weight reduction of up to 40% compared to traditional solutions. Limber addresses a major gap in the market by offering amputees an affordable, durable, and functional additional prosthesis for activities where they don't want to risk their expensive primary device. Clinics benefit from a high-margin, cash-based revenue stream with no additional work, while patients enjoy lightweight, personalized, and adventure-proof prosthetics. Already, 75 patients are using Limber's device, and since commercially launching in the US this year the company is seeing strong early traction.

Programs:

IGE Med Tech Phase I & II

OIC Basement

Go-to-Market

MedTech/Diagnostic/Life Science/Digital Health

MedTech Stage 3 Team

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MedTech Accelerator



LiquiDyne

Ultra-sensitive cancer diagnostics/
ExoDiscovery

Founder:

Kyusang Lee

kyu@labspinner.co.kr



www.exodiscovery.com

What We Do:

ExoDiscovery develops / services blood-plasma based ultra-sensitive cancer diagnostics for screening and MRD/monitoring of pancreatic and lung cancers.

Programs:

Global Entrepreneur Accelerator (GEA)

We are seeking Investment, Funding for Prototype

MedTech/Diagnostic/Life Science/Digital Health

Global Innovation Company

UC San Diego

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MedTech Accelerator



Looq AI

Founder:

Dominique Meyer

thylton@looq.ai



<https://www.looq.ai>

What We Do:

Looq AI offers a fundamental new camera technology that makes survey-grade 3D capture cost-effective at scale with AI-enabled workflows to simplify the process of generating geometrically precise, geo-referenced and intelligent digital twins. With a camera-based data capture technology, supported by sophisticated AI algorithms, providing superior spatial resolution and rapid data processing, this platform provides one of the most capable 3D computer vision algorithms available to date.

We are seeking Investment.

Technology

IGE Partner Startup

UC San Diego

INSTITUTE FOR THE GLOBAL ENTREPRENEUR

MedTech Accelerator



melio

Melio

Mridu Sinh

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<https://melio.tech>

What We Do

A patented diagnostic system identifies significant pathogens within three hours using whole blood samples. Developed from research at UC San Diego, Melio's expert team, with over 100 patents, utilizes AI-driven Single-cell DNA Melt Curve Analysis to create a point-of-care, culture-free microbial testing platform.

MedTech Stage 3 Team

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MedTech Accelerator



Mercury Alert AI

Founder:

Ji Lee

ji@mercuryalert.ai



<https://www.mercuryalert.ai>

What We Do:

Mercury Alert AI provides automated detection capabilities to the #1 most popular tool for caregivers: Smart Cameras. Using our proprietary Human Action Recognition models, we automatically detect and alert caregivers to all relevant actions, such as falls, sleep duration, sitting/standing, and even wandering. Mercury Alert also provides care teams with analytics on various digital biomarkers, including activities of daily living, sleep quality tracking, and a live safety score, to evaluate and adjust care plans proactively.

Programs:

UCSD Basement

IGE Medtech Stage 2

Rady Venture Fellows

We are seeking Investment, Funding for Prototype

MedTech/Diagnostic/Life Science/Digital Health, Technology

MedTech Stage 2 Team

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MedTech Accelerator



My Village Innovations

Kate Hillman

Kate.hillman@mvimedical.com

What We Do

MVI is advancing women's healthcare through innovative devices, ideas, and education. We are committed to offering patients and providers safe, comfortable pelvic exams with the patent-pending design of Rosa Spec™, a re-envisioned vaginal speculum.

IGE Partner Startup

UC San Diego

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MedTech Accelerator



OxyLo

Founder:

Tom Molley

tmolley@ucsd.edu



<https://www.oxylobio.com>

What We Do:

Hepatocellular carcinoma (HCC), a liver cancer, is a leading cause of cancer death in the United States with a dismal 5-year survival rate of less than 20%. Our company, OxyLo, is developing a novel therapeutic for intermediate stage liver cancer patients by starving their tumors from the inside out. Our solution is our patent-pending HypoxyCaps, a novel type of embolization bead and class III medical device.

Programs:

IGE Medtech Stage 1

MVP, Concept to working prototype

MedTech/Diagnostic/Life Science/Digital Health

IGE Alumni Startup

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Persperion Diagnostics

Founder:

Alan Liu

alan.liu@persperiontech.com



<https://persperiontech.com/home>

What We Do:

Founded in 2022, Persperion has developed a touch-based enzymatic electrochemical test strip to directly sense different biomarkers within the natural fingertip perspiration. As the first step, we developed a first-of-its-kind touch-based noninvasive glucose monitoring technology that allows people with diabetes to check their glucose levels accurately, easily, and affordably. The preliminary data of our glucose test strip shows accuracy comparable to BGM and CGM on the market.

Programs:

NSF I-Corps

MedTech Accelerator

We are seeking Investment, Funding for Prototype

MedTech/Diagnostic/Life Science/Digital Health

IGE Alumni Startup

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MedTech Accelerator



ReBlood R_x

ReBlood Rx

Founder:

Carlos Munoz

carlos.munoz@rebloodrx.com



<https://rebloodrx.com>

What We Do:

ReBlood Rx provides a hemoglobin based oxygen carrier (HBOC) that provides a safe, efficient, and universally compatible solution to oxygen delivery in diverse medical scenarios. HBOCs fill critical gaps in emergency care, surgical procedures, and remote healthcare, making them an essential innovation in modern medicine.

Programs:

NSF I-Corps

MedTech Accelerator

We are seeking Investment, Funding for Prototype

MedTech/Diagnostic/Life Science/Digital Health

MedTech Stage 2 Team

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MedTech Accelerator



SHIHUAHUA

Shihuahua XR

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Bo Miao
b2miao@ucsd.edu



<https://www.linkedin.com/company/shihuahua/>

What We Do

Shihuahua XR is a virtual nature immersion experience inspired by the shihuahuaco tree, designed to enhance well-being in hospitality and healthcare. Using AI and VR technology, it aims to reduce stress and anxiety in just 10 minutes.

Fall 24 MedTech Accelerator Team

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VEERA

Veera

Founder:

Kristen Ybarra

kristen@avira.health



<https://www.meetveera.com>

What We Do:

There is a need for a simpler and more time efficient way for mothers to surmount issues in latch, supply and pain while breastfeeding their infants, that would in turn increase sustained rates of breastfeeding during infancy. Our solution to this need is an FDA Class II electric, wireless, hands-free breast pump, that allows the mother to both express and store breastmilk and feed the infant from the same device; the device also transmits the amount consumed by the infant in real time to the mother's mobile device. The wearable breast pump market is a recent and growing sector of women's health products, however, there are no wearable devices to date which feed the infant or provide live data and metrics on how much the infant is drinking.

Programs:

IGE MedTech Stage 1

We are seeking Investment.

MedTech/Diagnostic/Life Science/Digital Health

IGE Partner Startup

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MedTech Accelerator



Vesica AI

Founder:

Albert Liu

aliu@vesica-ai.com



www.vesica-ai.com

What We Do:

Vesica is dedicated to revolutionizing urology through an AI-driven lesion detection system aimed at bladder cancer. Our goal is to decrease recurrence rates, enhance patient outcomes, and ultimately save lives. Our published data showcases the highest sensitivity (95%) and specificity (98%) rates achieved so far, which are crucial benchmarks for any medical imaging AI.

Programs:

IGE MedTech Stage 1

We are seeking Investment.

MedTech/Diagnostic/Life Science/Digital Health

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Wild Genomics

Bilgenur Baloglu

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Eirik Torheim

eirik@wildgenomics.co



<https://wildgenomics.co/>

What We Do

Wild Genomics provides farmers with pest intelligence to address infestations early and lower costs by reducing pesticide use. We offer practical advice on timing and methods for managing pests, helping farmers protect food security and enhance field health and biodiversity.

IGE Alumni Startup

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