

June 07, 2016 | By Briana Weisinger

It Takes a Community to Raise a Startup: Winners Stand Out at UC San Diego Entrepreneur Challenge

Students and researchers at all stages of their academic careers went head-to-head late last month, competing for \$100k in prizes at the 10th annual UC San Diego Entrepreneur Challenge. Six teams triumphed—three for technologies, three for life sciences.

Whittled from an outstanding pool of 41 promising startups, eight teams competed in the final round for the top three slots in each track

2016 Entrepreneur Challenge Winners

Technology

1st place: NanoVR — a virtual-reality platform allowing visualization of particles on the atomic and molecular scale to advance nanoscale research by allowing precision testing and peer-reviewable accuracy.

2nd place: Braykion — a SmartBand system for combatting the \$35B problem of hospital-acquired infections by ensuring healthcare workers comply with hand-washing regulations.

3rd place: Pain Measurement Technologies — an algorithm-based solution to objectively quantify and evaluate the intensity of pain in patients, and bring the understanding of pain into the 21st century.

Life Sciences

1st place: Clip Diagnostics — whole-blood coagulation testing providing additive information to existing diagnostic and research assays for thrombosis and hemostasis conditions while using just one drop of blood.

2nd place: Locana — a revolutionary use of CRISPR technology to edit RNA.



Winners of the Technologies Track portion of the Entrepreneur Challenge are first-place NanoVR (center), second-place Braykion (right), and third-place Pain Measurement Technologies (left), showing checks for their awards.

3rd place: Genrix — revolutionary tools to use patients' DNA to predict how they will respond to drug treatment; will reduce the cost of clinical trials and failure rate of pharmaceuticals.

To identify and engage the best competitors, Entrepreneur Challenge reached across the breadth of the University and deep within the pockets of entrepreneurship around campus to draw out entrepreneurs from a variety of academic backgrounds who are building companies that will change the world. As in past years, a common thread weaves through the company stories of the competitors that took home the bronze, silver and gold: it takes a community to raise a startup.

These successful teams didn't grow into champions of the Entrepreneur Challenge in a vacuum. Before throwing their proverbial ticket into the Entrepreneur Challenge hat, an overwhelming majority of these teams were nurtured and supported by entrepreneurial organizations across campus. They participated in one or more programs designed to help innovators define their business models, identify target markets, secure invaluable business advising and mentorship, and learn how to pitch their business to investors.

Looking at a cross-section of entrepreneurial competitions on campus shows a similar trend. Teams that are winning competitions at UC San Diego have – in nearly every case—participated in the network of programs that provide business training and leadership development to innovators launching startups, including mystartupXX, StartR, von Liebig Entrepreneurism Center Proof of Concept Grants, Rady Venture Fund, The Basement, von Liebig NSF ICorps program, UC BRAID NSF ICorps program, and the von Liebig Medical Device Commercialization Program, among others.

Follow-On Resources for Teams

In addition to the awards, including funding and services from partners and sponsors of the Entrepreneur Challenge, these budding startups are eligible for a wide variety of resources from across campus, depending on the field of the innovation and the academic status of the entrepreneurial team.

Some of these resources include the Triton Technology Fund, Alma Ventures, the National Science Foundation ITeams program, the Department of Defense @ NSF ICorps grant, StartR, Rady Venture Fund, mystartupXX, the Institute of the Global Entrepreneur, and a variety of programs offered by the von Liebig Entrepreneurism Center and The Basement.

More About the Winning Companies

Braykion

Hospital Acquired Infections (HAIs) are a \$35B problem for the U.S. healthcare system. Forty percent of HAIs are the result of poor hand hygiene. The Braykion SmartBand is a wearable device that uses an advanced sensor fusion algorithm to monitor, record, and remind healthcare workers when they need to wash their hands. The Braykion SmartBand prevents patients from contracting preventable infections. The system functions anywhere in the hospital without the need to install expensive sensors on soap and alcohol dispensers, in the rooms, on the beds or in the hallways. Braykion received 2nd place in the technology track of the UC San Diego Entrepreneur Challenge and also received the audience choice award. In addition to being accelerated through the Entrepreneur Challenge curriculum, Braykion is a part of StartR which is a non-profit accelerator program for students and alumni from UC San Diego Rady School of Management.

Clip Diagnostics

Clip Diagnostics offers whole-blood coagulation testing that provides additive information to existing diagnostic and research assays for thrombosis and hemostasis conditions. Our rapid, reliable whole blood thrombin activity assay is important because it gets closer to physiological conditions than is possible in present practice. Our methodology requires just a drop of blood and no sample processing steps, which saves time and enables the development of point-of-care tests. Detecting a key component of the coagulation cascade and being able to do so rapidly and simply provides necessary, additive information to existing coagulation tests. Clip Diagnostics was supported by programs across campus including mystartupXX - a collaboration between the Rady School of Management and Jacobs School of Engineering focused on female startups - and the von Liebig Entrepreneurism Center NSF ICorps program out of the Jacobs School of Engineering.

Genrix

Genrix has created tools to predict how patients will respond to drugs based on their DNA. Genrix plans to use this technology to first perform post-mortem analysis of failed clinical trials to identify the predictive characteristics of subgroups of patients that did respond favorably to the clinical trials. This can be used as a validation of our technology. The first of this type of analysis is already being performed by Genrix through a collaboration with Eli Lilly. Once this has been accomplished, Genrix plans to raise money to license a failed drug from a pharmaceutical company, all its clinical and genomic data, and, using our expertise in identifying responders, take this drug successfully through clinical trials and to market. Genrix is a graduate of the von Liebig NSF ICorps program.

Locana

CRISPR is revolutionizing biology and medicine by providing a molecular pencil and eraser to edit human DNA. The potential of CRISPR to edit DNA and cure diseases is reflected by rapid fundraising among tens of companies (Editas, Caribou, Intellia to name a few) but many diseases including cancer and autism are caused by another molecule: RNA. The founders of Locana, Inc. have developed the

only means to edit RNA with CRISPR. With this powerful platform, we are developing a set of reagents, diagnostics, and eventually therapeutics that target RNA to measure, diagnose, and cure diseases ranging from cancer to autism.

NanoVR

NanoVR enables natural and intuitive visualization, modeling and simulation in one application. It allows agile research workflows, precision testing and peer-reviewable accuracy. It runs on standard, off the shelf hardware and is easy (and fun) to learn. NanoVR was developed in La Jolla with UC San Diego and uses the image of libraries of the Scripps Research Institute Molecular Graphics Laboratory. NanoVR will help advance any research that depends on the visualization and comprehension of complex interactions at atomic and molecular scale. NanoVR graduated from the UC BRAID NSF ICorps program and is currently part of the The Basement accelerator program at UC San Diego.

Pain Measurement Technologies

Pain is universally experienced but, until now, has been difficult to accurately measure. This is because the current gold standard of pain assessment are the 1-10 rating scales, which rely on subjective reports of pain intensity provided by patients. Not only are these scales useless with nonverbal patients, but differences in biology, personality and personal experiences can lead individuals with seemingly similar conditions to perceive and report their pain differently. Pain Measurement Technologies has created an algorithm-based solution with 8 patents pending that incorporates both physiological data from biosensors and psychological data to create an objective and robust pain score for accurately quantifying an individual's pain. Pain Measurement Technologies is a graduate of the von Liebig NSF ICorps program from the Jacobs School of Engineering at UC San Diego.

The Entrepreneur Challenge aims to foster community involvement and technological innovation by bringing multi-disciplinary teams of engineers, scientists, and business-minded students together with local area entrepreneurs and professionals to shape the world of tomorrow by securing the health of San Diego's economy today. Entrepreneur Challenge focuses on startups from inception to seed-stage to provide confidence and resources to launch a successful company that otherwise might not exist.

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