

## UC San Diego Entrepreneurship: "May Madness and the Final Five"

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**Daniel Kane** 

While fans of undergraduate basketball have "March madness" and the Final Four, UC San Diego's entrepreneurship fans have the "Final Five" to finish out May's madness.

On Saturday May 31, 2008, five UC San Diego teams - including two from the Jacobs School of Engineering - will compete for \$50,000 in cash prizes in a completely-student-run business plan competition called the UCSD \$50K Entrepreneurship Competition.

Bioengineers working on better multidrug combinations and electrical engineers working toward solar-powered personal electronics are the two Jacobs School finalists in the business plan competition being held at Calit2's Atkinson Hall on Saturday May 31 from 9:00 am to 2:00 pm. RSVP here.

The mission of the UCSD \$50k Entrepreneurship Competition is 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.

## Solar Power for your Cell Phone?

The electrical engineers who made it to the final round hope to change the way you charge your personal electronics.

"Our hope is to do away with adapters and the need to be tethered to electrical outlets for charging personal electronics," said team member Joshua Windmiller.

Windmiller and three other electrical engineering students founded Solase Corp. in 2006, when they were undergraduates at the Jacobs School. Since then, they graduated and Ashkan Arianpour, Sam Litvin and James McCanna took jobs within San Diego's tech sector, at Cymer, Luxtera and Powergenix respectively. The fourth, Joshua Windmiller, started the Ph.D. program in electrical engineering at UC San Diego.

Two of the co-founders now working in industry are coming back to the Jacobs School for their master's degrees in electrical engineering in the fall. In the meantime, the four will reunite on campus on Saturday May 31 to compete in the UCSD \$50K Entrepreneurship Competition.

The team hopes to grab the top spot and its \$30,000 prize. This would give them the third and final crown jewel of UCSD's student-run entrepreneurship competition. During the 2006-2007 competition cycle, Solase won both the business concept and executive summary competitions. But they did not take home the big prize: the business plan competition. That's why they are back this year.

Whether or not they win the \$30,000 or one of the \$10,000 runner-up awards, the four Californians who founded Solase - three of whom are from San Diego - are intent on continuing their entrepreneurial adventure.

Over the last 12 months, Solase has focused on protecting its intellectual property both in the United States and internationally. Their U.S. patent will be published in the near future, according to Windmiller.

Solase's founders envision electronic gadgets wrapped in approximately 5-micron-thick semiconductor sheaths. This sliver of semiconductor would capture either sunlight or ambient light and generate voltage for the electronic device it covers.

According to the electrical engineers' plans, their product's unique internal geometry will recycle and enhance light to allow for high efficiency absorption. The engineers believe their product can be fabricated alongside the same production lines that make lasers and LEDs and expect it to use 10 percent of the materials as the competition.

"When I was young, my dad said, if you come up with a new energy solution, you could potentially save the world," said Windmiller. "That's what we're trying to do."

## **Better Multidrug Combinations?**

While Jake Feala is wrapping up his bioengineering Ph.D. at the Jacobs School, he is also working to unwrap a multi-drug therapy mystery.

Multi-drug therapy is the use of multiple drugs in the treatment of disease. While it is the norm for many diseases, drugs are usually developed individually and only later combined in the clinic.

Starting from methods used in digital communications, Feala is part of a team developing search algorithms that have been shown to greatly increase their ability to find optimal drug combinations, which can be licensed to pharmaceutical companies or used for personalized multi-drug therapy.

In addition to Feala, the team - called Salgomed - is composed of Andrew McCulloch, Professor and Chair of the Department of Bioengineering at the Jacobs School; Giovanni Paternostro, faculty in Bioengineering at the Jacobs School and at the Burnham Institute; and George Blumberg, business and innovation expert.

"Andrew and Giovanni are my thesis co-advisers, and we have been discussing the science behind this for a long time. When we heard about the competition, we worked on the business plan and executive summary together," said Feala.

To see in person how Salgomed, Solase and the other three finalists fare, register to attend the UCSD \$50K Entrepreneurship Competition at Calit2's Atkinson Hall from 9:00 am to 2:00 pm.

## More UCSD \$50K Entrepreneurship Competition Finalists:

Lumigen Biosciences is a biotechnology company focused on developing molecular imaging agents that enhance the detection and treatment of cancer.

NeuroVigil, Inc is an early stage neuroscience company poised to revolutionize the analysis of brain signal or EEG data.

SciVee invites scientists to make their research known by combining their published scientific article with a corresponding video into an online presentation called a "SciVee pubcast."

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