

8th ANNUAL

BIG

BANG!

UC DAVIS™ BUSINESS PLAN COMPETITION

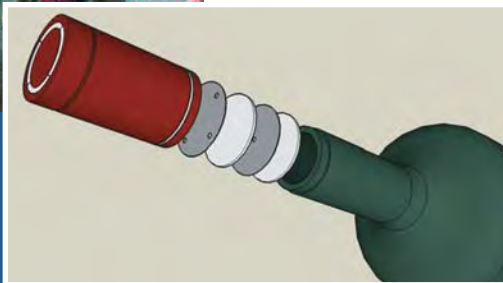
High-Tech Wine Cap Design Wins

Four of Five Finalists Pushing UC Davis Research to Market



A design for a high-tech screw cap for wine bottles that would allow the wine to “breathe” much like traditional bark corks won the \$15,000 first prize in the annual Big Bang! Business Plan Competition managed by UC Davis MBA students.

A \$5,000 second prize and \$3,000 “People’s Choice” award—selected by audience vote—went to Arcus. Led by second-year MBA student Matt Vogel, who has had diabetes since adolescence, Arcus is developing a wireless handheld device that diabetics would blow into to test their blood sugar levels.



The awards were announced to a standing-room-only crowd of more than 275 people at a campus event on May 21. The Big Bang!, founded by MBA students in 2000, is designed to

reward innovation at UC Davis and encourage entrepreneurship in the region.

“That’s why these business plan competitions are so important—these are the people who will create the next Microsoft, the next Amgen,” said Scott Lenet, managing director of DFJ Frontier and a judge for this year’s competition.

“Something special happens when you mix a great technology, a good business plan and prize money,” said Dean Nicole Woolsey Biggart. “Big Bang! is a showcase of what is happening at UC Davis—big ideas, and a growing entrepreneurial spirit. The final competition, with hundreds of spectators, is as much fun as a championship sporting event.”

Avoiding \$10 Billion of Ruined Wine

The high-tech wine cap was developed by MBA student Tim Keller, a UC Davis viticulture and enology alumnus who worked for 10 years as a winemaker in Sonoma and Napa counties before

enrolling in the Graduate School of Management, and his teammates, Kevin Chartrand and Diana Mejia. Chartrand, a fellow MBA student with an undergraduate degree in materials science, worked as a thin-film expert at IBM. Diana Mejia, a former engineer for Anheuser-Busch, is earning a master’s degree in food engineering at UC Davis.

Their team, Advanced Enological Closures, has designed a screw cap that eliminates the risk of contamination with a musty-smelling compound known as TCA that can occur naturally in cork and affects an estimated one in 20 wine bottles, ruining \$10 billion in wine worldwide each year.

Other solutions like synthetic corks allow too much oxygen into the bottle. Screw caps now being used—another alternative to bark corks—are an option for white wine, but do not allow enough oxygen in for fine red wines, Keller said. Without enough oxygen to draw on, red wines start to smell like burned rubber or matchsticks as they age.

The team’s patent-pending cap has vent holes and is fitted with a liner made of alternating layers of thin metal and a porous polymer. The liner can be customized to allow optimal oxidation for specific varietals, something that is impossible with bark corks.

“We will end the screw-cap debate,” Keller said. “Our product will give a level of control that the wine industry has never had.”

Media coverage of the Big Bang! win attracted quick interest from the wine industry. GSM alumnus Chris Sipola ’04, vice president of Cork Supply USA, the nation’s largest distributor of wine closures, contacted Keller after learning about the competition’s results. “People are always trying to differentiate their wine. Sometimes something as simple as packaging can make a difference,” Sipola told the *Sacramento Bee* in a story about Keller’s win.

MBA student and wine-maker Tim Keller describes his team’s patent pending wine bottle cap design (pictured) that won the \$15,000 first prize in this year’s Big Bang! Business Plan Competition. “We will end the screw-cap debate,” Keller said. “Our product will give a level of control that the wine industry has never had.”

MBA student Matt Vogel, who has had diabetes since adolescence, pitches the plan for Arcus, which is developing a portable handheld device that diabetics would blow into to test their blood sugar levels. The technology, developed for the military, relies on sensors that bend when specific chemicals are detected. The team took home the \$5,000 second prize and \$3,000 "People's Choice" award at the May 21 Big Bang! Finals.



Keller's team also advanced to the finals of the Draper Fisher Jurvetson Venture Challenge in Menlo Park on May 28, where their cap design competed for \$250,000 in seed funding with contest winners from other West Coast business schools. Arcus, and another Big Bang! finalist, CEDR Systems, competed as wild cards.

More than \$140,000 in Seed Funding

With this year's prizes, UC Davis Big Bang! has awarded more than \$140,000 to 24 promising student-initiated projects. From November through May each year, students, researchers and entrepreneurs from UC Davis hone their business ideas.

More than 80 representatives from Northern California's largest employers, venture capital firms and law practices led workshops, mentored teams or judged the competition, which opened with 28 entries that were whittled down to the five finalists.

Four of the five finalists were also winners in Little Bang contests in February sponsored by UC Davis InnovationAccess, which encourages more campus scientists to explore the market potential for their research.

Energy Efficiency and Clean Water

The three other Big Bang! finalists were:

CEDR Systems has an energy saving retrofit switch that allows utilities to remotely turn off half the

lights at commercial buildings during power demand peaks. Developed by electronics engineer Joel Snook, a graduate of the UC Davis School of Engineering, CEDR has a demonstration system installed at UC Davis' California Lighting Technology Center. Team members include Emine Gunhan, a Business Development Fellow at the UC Davis Center for Entrepreneurship.

WicKool has a patent-pending, energy saving retrofit for roof top air conditioning units that pre-cools the incoming air by evaporating water (that is traditionally drained out) through a wicking material, according to Siva Gunda, a Business Development Fellow and a doctoral student in mechanical engineering. The technology was developed by Dick Bourne, associate director of the UC Davis Western Cooling Efficiency Center. WicKool has signed agreements and funding from Wal-Mart and Target to test the technology at the retailers' Sacramento area stores.

PuriTea has a nanobead concept for a portable personal water filter in the shape of a tea bag. David Wong, a program manager at Cisco Systems and a Bay Area Working Professional MBA student, teamed up with his brother, Michael Wong, a chemical engineering professor and head nanomaterials researcher at Rice University.

First-year MBA student Elizabeth Collett, co-chair of Big Bang!, said it's exciting to see the competition generating tremendous interest in entrepreneurship on campus and in the Sacramento region. "This year's slate of finalist teams shows that we've successfully accomplished one of our main goals—bringing innovative UC Davis researchers and their technology together with MBA students to create viable new business opportunities." ■

View the BigBang! Finals video @



www.gsm.ucdavis.edu/bigbang

Thank You!

2008 Big Bang! Business Plan Competition Sponsors

PLATINUM

DLA Piper

GOLD

DFJ Frontier

UC Davis Health System

SILVER

American River Ventures

CleanStart

SARTA

Velocity Venture Capital

BRONZE

Akers Capital LLC

Boutin Gibson Di Giusto
Hodell Inc.

Central Valley Fund/
Gael Partners LLC

Javed Iqbal

LPL Financial Services

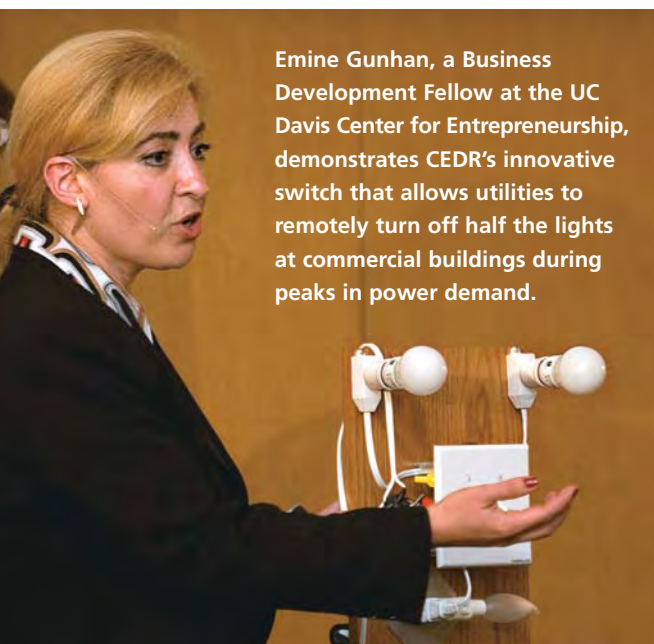
Silvers HR Management

Wavepoint Ventures

PARTNERS

UC Davis Center for
Entrepreneurship

UC Davis InnovationAccess



Emine Gunhan, a Business Development Fellow at the UC Davis Center for Entrepreneurship, demonstrates CEDR's innovative switch that allows utilities to remotely turn off half the lights at commercial buildings during peaks in power demand.