

## Intel+UC Berkeley Technology Entrepreneurship Challenge (IBTEC)

### Profiles of Winning Business Plans

The Intel+UC Berkeley Technology Entrepreneurship Challenge is designed to showcase global business opportunities that have the greatest potential for a positive impact on society through the deployment of new and truly innovative technologies.

See how winning IBTEC has helped three of the teams from the 2006 competition.

<a href="#">Aurora Biofuels</a> 2006 First Prize Winner	An innovative alternative energy company with a revolutionary method of creating biodiesel
<a href="#">Richcore Lifesciences Private Limited</a> 2006 Second Prize Winner	A biotech application research company from India that developed hygroscopic paper
<a href="#">Gravitonus, Inc.</a> 2006 Humanitarian Award	A team of experienced Russian medical doctors that developed a technology that helps paralyzed individuals resume active lives.



### Aurora Biofuels [www.aurorabiofuels.com](http://www.aurorabiofuels.com)\*

With the soaring cost of fossil fuels and the looming threat of global warming, the need for alternative, environmentally-friendly fuel sources is imminent.

"There are problems with existing biodiesels," explains Matt Caspari, CEO of Aurora BioFuels. "Creating biodiesel from agricultural crops is expensive, and there's simply not enough feedstock. Even if you took all the soy oil in the U.S. and converted it into biodiesel, you'd only displace about five percent of the usage need."

There's also the ethical issue of diverting a food crop for fuel, driving up food prices in the process."

Caspari and fellow Aurora co-founders Guido Radaelli and Bert Vick believe the solution lies in using algae as a biofuel feedstock.

Naturally oily, algae grows quickly on marginal land and in brackish water. It can produce more bio-oil per acre than existing biodiesel crops, and can be harvested daily. What's more, it removes carbon dioxide from the air as it grows.

Add to that the fact that Aurora has developed and patented technology that boosts algae's bio-oil production capabilities and you can see why Aurora took first place honors and the \$25,000 prize at the 2006 Intel+UC Berkeley Entrepreneurship Challenge (IBTEC).

"The experience of participating in IBTEC was definitely worthwhile," says Caspari. "You get a chance to practice your presentation in front of a panel of judges who are experienced investors, go through a Q&A session, and get candid feedback. It really helps prepare you to go out and do the real fundraising after."

Since participation in IBTEC, Aurora has raised \$5 million from three venture capital firms, opened an office and laboratory in the San Francisco Bay area, and started up a test facility in Florida. "We found investors, we put together a team, and we're doing the work," says Caspari. "We're off and running."



**Richcore**  
[www.richcoreindia.com](http://www.richcoreindia.com)\*

At the 2006 Intel+UC Berkeley Technology Entrepreneurship Challenge (IBTEC), Richcore, an Indian biotech application research company, garnered second prize for its development of and plan to market hygroscopic paper. The technology behind the project allows ordinary paper to absorb moisture from the atmosphere and remain perpetually moist. It has applications in a wide spectrum of industries, including floriculture, horticulture, healthcare, tissue culture, packaging, food processing, and solid-state fermentation.

Since the competition, the Richcore team - Subramani Ramachandrappa, K. Ramachandran, R.N. Sharma, and Sanjay Jha - has secured funding from venture capitalists with the aid of Aventus, an India-based financial advisory firm, and launched its hygroscopic paper venture. The initial marketing focus has been on the floriculture industry because the

hygroscopic paper is an ideal material for creating artificial flowers that look and feel like the real thing

"We have launched the flower business, and are currently licensing the technology for use in health and tissue culture," reports Ramachandrappa, Chairman and Managing Director of Richcore. Further, he says, "we have been profitably operating the business."

Ramachandrappa says IBTEC was a catalyst in moving the marketing process forward. "Feedback from the IBTEC judges helped us evaluate our plan from many perspectives, and our plan got polished. Exposure to the judges helped us in our funding process and our interactions with venture capitalists." In short, he says, "IBTEC gave us a head-start when we approached venture capitalists as it was like a prelude which qualifies for the first round of talks. We would not have been able to attract a financial advisor like Aventus if we were not well-groomed by our experience at Berkeley."



**Gravitonus, Inc.**  
[www.gravitonus.com](http://www.gravitonus.com)\*

As an orthopedist at a Russian medical facility specializing in spinal cord injuries, Dr. Alex Kosik routinely worked with severely disabled patients. To help them and other quadriplegics around the world regain some independence and quality of life, Dr. Kosik assembled a team - including Taras Kosik, his brother and a rehabilitation specialist for the handicapped - and went to work on an Alternative Computer Control System (ACCS). Their company, Gravitonus, developed a device that, when placed in the mouth cavity and

manipulated with the tongue, allows the user to operate a computer. The result is that individuals gain not only autonomy from being able to operate wheelchairs and household appliances, but are also able to take advantage of education and employment opportunities.

For their plan to bring the ACCS to market, the Gravitonus team - including the Kosik brothers, Krystyna Kosik, Dmitry Devyaterikov, and Vitaly Kuzmin - won the Humanitarian Award at 2006 Intel+UC Berkeley Technology Entrepreneurship Challenge.

"The IBTEC award was a major breakthrough," says Dr. Kosik. "We got visibility, support, and worldwide recognition for the Gravitonus name."

Since IBTEC, Gravitonus has set up U.S. operations with an executive team headed by CEO Marshall Ferrin, and begun to develop distribution channels for the accessibility and gaming markets. Financial support has come from enthusiastic investors, including Microsoft's Bill Gates. Though the meeting with Gates was set up prior to IBTEC, Dr. Kosik says, "the award certainly improved our chances for funding."

Additionally, Dr. Kosik notes that the business venture has benefited greatly from association with Intel, including "business consulting support from the Russian Intel Digital Health Department."

Though emphasis is currently on the U.S. market, the product has generated interest in Europe and South America, and the company eventually hopes to bring the ACCS to handicapped people around the globe.