

FROM RESEARCH TO MARKET 'GREEN' ENTREPRENEURS ACADEMY

by Tristan Volpe

The road from the lab to the marketplace can be long and treacherous, so much so that it is commonly referred to as the “valley of death.” But an innovative program at UC Davis offers assistance on this road to researchers and inventors working to conserve energy and other natural resources.

The Green Technology Entrepreneurship Academy, taking place July 7 to 11, 2008 at Lake Tahoe, California, and hosted by the UC Davis Center for Entrepreneurship, is at the forefront of an accelerating effort by universities to transform research into businesses that solve real-world problems.

“With the growing global environmental crisis, the need for practical solutions to energy and resource conservation has become a major issue,” said Andrew Hargadon, director of the entrepreneurship center and the UC Davis Energy Efficiency Center. “The challenge lies in translating environmentally sustainable technologies and research into viable business ventures.”

Professor Hargadon says the workshop - like all of the center’s programs - responds to his students’ desire to see their work have tangible impact. “Many scientists would like to see their research change the way we produce or consume energy; the way we treat our wastewater; or the way we monitor, diagnose, and treat toxins in our bodies and our environment. But broader impact depends on

both sound science and a viable business model. We provide the tools for putting those two together and, once that happens, real and sustainable change can follow.”

Last year, the academy brought together more than 40 participants - doctoral students, business students and professors from universities across the country - to work under the guidance of UC Davis faculty, technology transfer experts, entrepreneurs and investors from environmental science and technology-based ventures.

UC Davis MBA student Josaphine Tuchel teamed with campus colleague Yi

Zhu, a Ph.D. candidate in biological and agricultural engineering, on a business plan for an energy-efficient infrared dehydration system for fruits and vegetables. Tuchel said the Green Technology Entrepreneurship Academy took the project to a whole new level.

“There’s a great deal of value that’s added by bringing the two groups—researchers and business people—together,” Tuchel said. “When thinking about where to go next, the two types of people have different questions. You get a broader view of the situation. There are more angles.” Beyond fine-tuning her project,

Prof. Andrew Hargadon, UC Davis Graduate School of Management, welcomes participants to the inaugural Green Technology Entrepreneurship Academy in Incline Village, Nevada, 2007.





The Green Technology Entrepreneurship Academy participants 2007

Tuchel said she enjoyed the opportunity to listen and learn about others' business ideas. "It wasn't passive," she said. "I got to ask the questions that would help them develop their idea better and gained new insight for myself."

Chris Grandlic, a graduate student in the Department of Soil, Water and Environmental Science at the University of Arizona, said he'll look back at the academy as a revelation. "Before this experience, I had a hard time imagining how to begin transferring technology into the field or market," he said. "But now I have a list of 45 contacts that are like mentors and who I can contact for advice. Thanks to the entrepreneurship academy, I have a network and a place to start."

A handful of the teams piqued investors' interest in providing potential seed funding. Hargadon said the success of the 2007 academy sparked the sponsors to support two future five-day programs on green technology. "Entrepreneurial researchers want the experience and training—and there's a growing market demand for the technology."

As a consequence, the 2008 program aims to replicate a highly successful and pragmatic learning environment. Participants will bring a diverse range of projects to the academy, including those that could produce environmentally friendly packaging, improve inventory methods for forestlands, significantly reduce electricity usage for air conditioning and eliminate the use of drinking water for evaporative cooling.

The program will integrate lectures, exercises, team projects and informal fire-side chats. Tracks will focus on clean energy; clean air, water and soil; sustainable agriculture; remediation; and sustainable materials. Hargadon said students will learn to manage the dynamics of entrepreneurship, evaluate technology and market opportunities, pursue patent and licensing strategies, write business plans, manage interdisciplinary teams and find funding.

The five-day intensive academy is modeled after the UC Davis Graduate School of Management's yearlong and weeklong

programs in which doctoral science students develop skills to commercialize research.

Hargadon, an associate professor in the management school and its director of technology studies, oversees the academy. A former design engineer for IDEO Product Development and Apple, he studies innovation and new product development. He is author of *How Breakthroughs Happen: The Surprising Truth About How Companies Innovate* (Harvard Business School Press 2003). The academy will be held at the Tahoe Center for Environmental Sciences in Incline Village, Nevada. A \$24 million green building that houses research and teaching

programs, the facility is a collaboration of UC Davis and three other educational institutions.

The UC Davis Center for Entrepreneurship is a Center of Excellence at the Graduate School of Management and serves as a nexus for entrepreneurship education and research and as a springboard for entrepreneurial initiatives, private equity and venture capital activities on the UC Davis campus.

Academy sponsors for 2008 include the Ewing Marion Kauffman Foundation, the Nevada Institute for Renewable Energy Commercialization (NIREC), the National Institute of Environmental Health Services, PG&E, Sierra Angels and the UC Davis John Muir Institute of the Environment.

For additional information, visit the academy's Web site at: <http://www.gsm.ucdavis.edu> The UC Davis Center for Entrepreneurship and Graduate School of Management contributed to this article. ❁