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Editor's Column

CU breeds incredible technologies, tech transfer leads them to real world

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Imagine the University of Colorado as one huge laboratory - innovating and brewing up a constant cauldron of new technologies. In many ways, it's the ideal research environment for many sciences - biotech, medical products, software to name just a few.

Ideal because this research is unencumbered, for the most part, by any requirement to show revenue or profit. Federal grants - CU has ranked sixth for federal research expenditures - and university funding maintain facilities, students, Ph.D. researchers, professors, even equipment and administration.

This works perfectly well while new discoveries remain sealed in the university, providing students - from undergrads to postdocs - the intellectual property necessary for them to learn.

But what about the rest of the world? I'm being simplistic here - but what happens when a university discovery can save lives, clean up the environment or advance manufacturing?

That's where something called technology transfer comes in, and it's something CU in recent years is getting much better at.

As part of Esprit Entrepreneur this past week, business leaders were treated to an inside peak at eight new companies being formed from CU technologies.

Some 50 different companies have spun out from university discoveries, with 46 of them still in business, said David Allen, who came to CU in 2001 to help run the Technology Transfer Office. The number of companies on CU's launchpad is escalating, with about nine each for the past two years, and CU licensing agreements along with patent applications showing dramatic increases. What's becoming a well-oiled machine also means royalty revenue back to a university system seeing state funding shrinking.

The eight companies at an Esprit technology forum, sponsored by Holme Roberts & Owen, offered up a brief but fascinating glimpse into not only the variety of new technologies but also how these startups benefit from the "free labor" of law, business and engineering students - who get their noses out of textbooks into much more stimulating business startups.

As Allen explained, it's all about taking "bench-grade, raw technology" and somehow getting it into the marketplace. Students from CU's Deming Center for Entrepreneurship, as part of their classes, help research and then write actual business plans. Then business advisers, some associated with the new Boulder Innovation Center, led by Executive Director Doug Collier, investigate the plan, searching for weaknesses and ways to make it more realistic.

One of the first things Collier lined up through the Innovation Center was a close relationship with CU's Tech Transfer Office. Created to help grow new companies, why shouldn't the Boulder center look no farther than its own backyard - tantalizing university technologies in dire need of real management direction.

As we watch CU's tech transfer programs mature while the Boulder Valley's own home-grown business ventures flourish - attracting the most venture capital of any place in Colorado - we need to realize how unusual, even lucky, we are to be in such an entrepreneurial-rich area.

Throw in the efforts and sweat equity of organizations like the Boulder Technology Incubator, which grew to become CTEK Venture Centers, and now the new Boulder Innovation Center, and your head spins with the possibilities.

How many of these new CU spinoffs will one day join the list of successful entrepreneurs honored by Esprit Entrepreneur, now in its 21st year? I have to think their chances are better than ever.

Very quickly, here's just a glance at these new CU entrepreneurs, all of which, by the way, will need help - both financial and seasoned business management.

CLP MicroTechnologies: Creating a diagnostic device to detect mad cow disease. Estimated market: $1 billion to $4 billion.

Locomotion: Building a new physical therapy device to assist walking therapy on treadmills. A $200 million niche with double-digit growth.

Mentor Machines: Technology already well-tested called Foundations to Literacy uses a "virtual" computer tutor to teach children to read. Addresses what the company calls a "reading crisis" in the U.S.

Object Recognition: Software that teaches machines to recognize and identify objects. Markets in security, manufacturing, robotics and online sectors.

OncoLight: Developing an optical device to detect cancer. The initial market is oral cancer but other possible markets include detecting cervical and skin cancers.

MedShape Solutions: A new, expanding polymer device that replaces screws and improves ACL injury repairs.

Windom Peak Pharmaceutical: Technologies to make new antibiotics, a $30 billion market facing growing worries of resistant bacteria and bioterrorism.

XenoPur Systems: Removal of heavy metals from industrial wastewater. Nuclear waste cleanup also possible.

Each company was able meet other businesses and answer questions at the technology forum. But if you missed the forum and might be able to help any of these companies, contact the Tech Transfer Office www.cu.edu/techtransfer.