

COLORADO'S INFRASTRUCTURE A BROAD WELCOME MAT FOR BIOSCIENCE STARTUPS

BY DOUG MCPHERSON

Bioscientist Torsten Eckstein is glad he lives in Colorado.

He's just started his own biotech company, Eckstein Diagnostics, which specializes in diagnostics for infectious diseases. But what really has him—and many other biotech entrepreneurs—excited is the infrastructure Colorado is adding to grow bioscience technology and commercialization.

Eckstein is particularly bullish on the new Research Innovation Center (RIC), a 72,000-square-foot, \$53 million facility at Colorado State University in Fort Collins.

When it opens in April 2010, RIC will include an incubator to help startup companies get their technologies to market.

"This kind of infrastructure is important, especially to startup companies like mine that need incubator space to finalize product development and conduct additional research," Eckstein says. "RIC's lab and office space will let us operate the business effectively at an early stage."

CSU officials say the center, which will include 10 labs, is all about bridging the gap between research and businesses.

"RIC will offer a remarkable opportunity to establish public-private collaborations with CSU's world-class infectious disease research community, and provide a framework for outside enterprises to access CSU's extensive infectious disease infrastructure," says Terry Opgenorth, chief operating officer of CSU's research foundation.

Eckstein says with RIC he'll have access to CSU's resources related to infectious diseases, which is difficult to find in other incubator settings and traditional biotech parks. "Being close to CSU will make it much easier to operate the business. And RIC will have fully equipped lab space at affordable prices, which will be lower than for well-established companies."

Another organization that's good news for startups is the Rocky Mountain Innovation Ini-

tiative (RMI2), a nonprofit that offers business incubation, capital formation, advisors, forums, industry cluster initiatives, entrepreneurial resources and marketing.

"As northern Colorado becomes better known for innovation—its high patent counts, high startup counts, CSU research and industry cluster strength—more and more emphasis is going into supporting local companies," says Kelly Peters, RMI2's chief operating officer. "We want to keep companies growing and rooted in the region's back yard."

In 2008, RMI2 companies brought in 58 full-time jobs at an average wage of \$79,000, and raised more than \$14 million in equity and grants, Peters says.

Officials add that RMI2 plans to open a new building to house all current incubator clients in North Fort Collins by mid-2010.

CIMB ON BOARD

At the University of Colorado at Boulder, the Colorado Institute for Molecular Biology (CIMB) is a new project where Nobel laureate and former head of the Howard Hughes Medical Institute Dr. Tom Cech will be paving new trails in bioscience.

The school has launched a \$350 million campaign to continue growing CIMB into a world-class organization that will pursue breakthroughs in genomics, proteomics, molecular and cellular imaging, biophysics, mathematical analysis, materials engineering and chemical synthesis—areas leading the way for fundamental changes in experimental sciences.

CIMB Director Leslie Leinwand says the future of biotechnology will depend on interdisciplinary approaches to complex medical problems. "CIMB will be integral to the state of Colorado in making discoveries that will lead to therapeutics, diagnostics and devices as well as educating the workforce for biotechnology."

Cech adds, "Because of its interdisciplinary research emphasis, CIMB will generate

discoveries and inventions at the interface of engineering, chemistry, computer science and medicine that will then be developed in Colorado companies."

CIMB also seeks to improve core research in molecular technologies applied to biosciences; bridge disciplines by combining research and teaching and promoting interdisciplinary collaborations; and support biotechnology development along Colorado's Front Range.

Officials say CU recruited Cech back to Colorado because of the school's desire to build a new model for discovery and to develop and commercialize therapies to address global health problems.

Cech has three areas where he'd like to see progress:

- ◆ More emphasis on bioscience commercialization and entrepreneurial education at CU
- ◆ More outreach to the community and K-12 schools for new approaches to teaching science and promoting career exploration
- ◆ More collaboration with the world's brightest minds by hosting visiting scholars from around the globe

Denise Brown, a Colorado-based biosciences consultant and former executive director of the Colorado BioScience Association, notes that CU's faculty ranks among the top in the country and receives more than \$250 million annually in grants and contracts.

"In the last five years, CU faculty have founded 15 bioscience companies, and that clearly demonstrates the commitment to move science beyond discovery to services and products that improve life and cure disease," Brown says.

The world-renowned faculty includes four Nobel laureates, 21 members of the National Academy of Sciences, four Howard Hughes Medical Institute investigators and seven MacArthur fellows.

According to Brown, the current and 20 new faculty to be hired specifically for CIMB will be housed in a new \$170 million facility to will foster partnerships with bioscience companies and support academics.

Students, both science and business majors, will be a key part of CIMB, Brown adds. "We want to help business students learn more about how to transfer technologies into the marketplace. That will be an essential part of CIMB."

Cech agrees. "CIMB will ramp-up the training of students in biotechnology and entrepreneurship, enriching a talent pool that will make Colorado an even more competitive location for startup companies."

ONE DREAM, 18 MILLION SQUARE FEET

One of the largest medical development projects in the country is right in our own back yard: the 570-acre public-private partnership converting the former Fitzsimons Army Medical Center in Aurora into the Fitzsimons Life Science District. The park includes:

- ◆ The Colorado Science + Technology Park at Fitzsimons
- ◆ The Anschutz Medical Campus, which includes the University of Colorado Denver's Health Sciences schools and the University of Colorado Hospital
- ◆ The Children's Hospital
- ◆ The proposed Veterans Affairs Hospital

It adds up to more than \$5 billion in redevelopment of a square mile dedicated to patient care, medical education, life-science research, and the development and commercialization of academic and industry efforts.

The developer, Forest City Enterprises, a national real estate company known for its medical-related developments, finished more than 6 million square feet in 2008. Another 3.3 million square feet are slated to be completed by 2013, with another 8.8 million square feet following that for a total of 18 million square feet.

Jill Farnham, executive director for the Fitzsimons Redevelopment Authority, says despite a tepid economy, she expects four projects will go up in 2009: a hotel and conference center, retail banking office, large office facility and another biosciences building.

The Colorado Science + Technology Park is a 184-acre business park with 6 million square feet of planned development dedicated to life-science companies. So far the park has two bioscience incubator buildings totaling 80,000 square feet, with 30 bioscience startups as tenants.

Among the advantages for bioscience companies to locate in the park are:

- ◆ State-of-the-art buildings, laboratory facilities and infrastructure
- ◆ Immediate proximity to Anschutz Medical Campus, The Children's Hospital, future Veterans Affairs Hospital and University of Colorado lab facilities
- ◆ A collaborative biotechnology cluster
- ◆ A high concentration of top-tier life-science talent that's highly educated, culturally diverse and a well-trained workforce
- ◆ A business development program designed specifically to help bioscience companies succeed

The park is now developing a business plan for the Colorado Drug, Diagnostic and Device Development Institute, a new program to help

ventures in the preclinical phase grow into an actual bioscience companies, Farnham says.

Next door to the park is Anschutz Medical Campus, the first comprehensive academic health center located next to a bioscience research park west of the Mississippi. The

campus features the University of Colorado at Denver's health sciences programs, bioscience research and the University of Colorado Hospital.

"It's an exciting time for bioscience in Colorado," Farnham says.



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