



Partnership benefits students, biotech initiative

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A machinist by trade, Dave Busby puzzled over the biotechnology positions that popped up after he listed "technician" as the key word in the Internet job search he launched during the summer of 2008.

"I wasn't sure what that meant. So I Googled it," Busby said.

Three years later, the former autoworker not only understands what biotech entails but, at 54, he is poised to begin a second career in the field.

The credit goes to Busby's willingness to move in a new direction along with the program that made it possible — a breakthrough St. Louis Community College initiative that prepares students for jobs in an industry many believe is key to the region reclaiming its economic relevance.

Partnerships between research scientists and higher education are not unusual.

But the one forged between St. Louis Community College and the BioResearch and Development Growth Park is unique. It allows undergraduate students to work closely with top-drawer scientists at the research facility, adjacent to the Danforth Plant Science Center in Creve Coeur.

"We wanted to create a national model," said Richard Norris, the college's director of the Center for Plant and Life Sciences at BRDG Park.

In common scenarios, scientists work with graduate students or post-doctoral research candidates.

At BRDG Park, researchers are assisted by students enrolled in a two-year applied science associate degree curriculum or a one-year certificate program in the same field of study.

"It's something I never thought I'd be doing," said second-year student Ian Rappold, 27. "You go into (the lab) and there's a half a million dollars' worth of equipment. Not only do I get to use it. But, even as an undergrad, I get to teach (research) companies how to use it."

Like Busby and Rappold, most of the students studying applied science at BRDG Park are older (average age: 28).

They gravitated to the program — taught in a much smaller and less sophisticated lab on the community college's Florissant Valley campus until the 2010 move to Creve Coeur — from other careers and academic pursuits.

Busby lost his job in 2008 when the Chrysler supplier that employed him for 12 years closed shop after the automaker halted minivan production in Fenton.

Technically, Busby continues to play a role in the transportation sector since much of the BRDG Park research is dedicated to the development of biofuels.

"Running equipment is still my trade," Busby said. "It's just now it starts with a (request from) a Ph.D that filters down (to the lab) asking me to 'run this.'"

Sam Fiorello calls the student presence integral to the effort to position St. Louis as an international hub for biotech research, development and, ultimately, production.

The president of BRDG Park and the COO of the Danforth Plant Science Center, Fiorello points to the fierce competition St. Louis faces from other regions that have made biotech an economic priority.

Those regions, too, are courting capital investors with the wherewithal to build research complexes that meet the requirements of cutting-edge corporations large and small.

The building where St. Louis Community College set up shop, for example, is but the first of three research facilities slated for construction on the BRDG Park campus.

"As a research director (the college presence) helps me attract (investors and research and development firms)," Fiorello said. "We need a group of skilled hands at the bench. And rolling up the sleeves is an important part of this business."

The partnership equally benefits the students.

Kimball Lamb, 27, landed at St. Louis Community College/BRDG Park upon returning to his hometown, St. Louis, from Los Angeles, where he

worked as a special education aide.

With the completion of his degree requirements drawing near, Lamb interviewed for an internship with Phycal Inc., an Ohio-based enterprise researching the means to convert algae into biofuel.

His meeting with Phycal officials didn't take him far — the company operates a laboratory in BRDG Park, one floor below the college.

A week later, Lamb was awarded the internship.

Phycal scientist Mark Abad, Lamb's supervisor, says the connection between the college and the companies conducting research at BRDG Park is invaluable.

"The fact (the students) are coming off fresh training with molecular models and biotechnology tools helps them to fit in immediately," said Abad, a former Monsanto scientist.

From an economic standpoint, the students themselves are well-situated to move into the workplace as the job market shifts away from large employers on the scale of Chrysler to startups and small businesses.

The employment outlook is further enhanced by the shared equipment in the community college lab, such as a gene sequencer, that draws under-capitalized research firms to BRDG Park.

"We tell the students to look to the small companies that come to BRDG Park," said the community college's Norris. "Because as they grow, you'll grow, and maybe one day you'll be a vice president of the company."

Bearing out the wisdom of that advice, the placement rate among those completing the degree and certificate programs is 90 percent.

Fiorello says breaking down the walls typically found in academia is another huge upside the partnership brings to the local research community.

"Research has an image of being elite, ivory tower, the Stanford Ph.D.," said Fiorello. "It's important that as we grow this industry that we grow it across demographic lines. And this is the entry point."

Rappold, a second-year student, wasn't certain if he is working with scientists who have earned doctorates from some of the country's more elite universities.

"I may have," he said. "But I don't know for sure because nobody here has that kind of attitude."

On track to graduate this summer, Busby also pays no mind to academic credentials.

He is eager to continue his trajectory through a field he first learned of three years ago.

"It's a brand new start for me in a way that's different than anything I've ever done," he said.