

KTEC connection

Kansas initiative brings advice, money to start-ups

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Lawrence-based CritiTech is working with a Kansas City-area contract manufacturer to produce NanoTax for early clinical trials as a cancer drug. Among those involved in the company are (from left) Sam Campbell, CEO; Bala Subramaniam, a scientific founder of the company; and Jahna Howell, director of laboratory operations.

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Sam Campbell thinks he has a breakthrough in the fight against cancer.

The promising drug, however, almost withered away before it ever left the laboratory. **CritiTech**, the fledgling biotechnology business Campbell leads, had struggled to raise money and design a workable strategy.

CritiTech is much healthier these days, and early clinical tests of its drug, NanoTax, are expected to start later this year. Campbell credits much of his company's turnaround to assistance from the **Kansas Technology Enterprise Corp.**

The state-owned initiative has become a key force behind the drive for a high-tech boost to the region's economy.

"Every time we had a crisis, we would go to KTEC," Campbell said recently during an interview at his company's Lawrence headquarters.

Campbell is among a growing cadre of entrepreneurs in the region seeking expertise, financial backing and other help from the business development organization that was launched in 1986 as Kansas leaders worried about the state's sluggish economy. The organization also has been influential in the establishment of the multimillion-dollar **Kansas Economic Growth Act** and a tax-credit program intended to stimulate angel investing — the initial outside money vital to getting many start-up companies off the ground.

Kansas is far from alone among states seeking a high-tech economic boost, but the enterprise corporation does help the state stand out. It has a full-time staff of 12 and an annual budget of about \$12 million coming from state lottery proceeds.

"KTEC is one of those state technology-based economic-development programs that tends to move very quickly with the times," said Dan Berglund, president of the Ohio-

based **State Science & Technology Institute**. “It comes up with new approaches and makes sure the approaches make sense for the state economy.”

Regions such as the Research Triangle in North Carolina show the great potential that a concerted economic development effort eventually can produce. They also illustrate how it can require years to take hold, Berglund said.

“It is going to require a fair amount of patience to see the results when investing in technology and when investing in technology companies,” Berglund said.

KTEC from time to time faces questions about its economic effect. A 2003 legislative audit, for example, found that of 15 start-ups that KTEC helped in 1998, six had failed and at least four others were floundering after five years. One surviving company had 10 employees, but most had fewer than two nonfamily workers on the payroll.

Tracy Taylor, president and chief executive officer of the technology corporation, said working with early-stage technology companies did involve risk and volatility.

Looking exclusively at a handful of start-ups assisted in a single year fails to show the results of KTEC’s work over time, said Taylor, who joined the organization’s board in 1995 and became its chief executive in 2002.

Companies that misfire are likely to do so relatively quickly, while drug-development ventures and other high-tech companies can take many years to gain traction and demonstrate success.

“The lemons ripen before the grapes,” Taylor said.

Here’s a look at some of the companies KTEC has helped keep on the vine — with advice, money and endorsements that have led to other financing.

CritiTech

Support from KTEC for five research centers at universities in Kansas is intended to produce innovations that could lead to new products and possibly companies.

That is exactly how CritiTech was born.

The **Higuchi Biosciences Center** in Lawrence, which receives support from the enterprise corporation, launched a project to solve a puzzling problem for the pharmaceutical industry.

Drug makers struggled to produce their products in tiny particles that are uniform in size and free from contamination.

The goal from the start was to deliver more than intriguing articles for academic journals.

“There was an expectation when this project was germinated that if we did come out with a technology, we would need to focus on commercialization,” said Bala Subramaniam, a KU chemical engineering professor who worked with Higuchi scientists to develop CritiTech’s technology.

The team developed a way to use high-pressure carbon dioxide in a way that produced minute particles of a particular drug.

The technology made it possible to apply thin coatings of the drug to medical devices or metal stents used to prop open blood vessels. It also offered a method of producing drugs that would make them safer and easier to use for patients.

After receiving early interest from pharmaceutical companies, the researchers decided the best way to advance their work was to form a company, CritiTech.

The company now is using its technology to develop NanoTax, a cancer drug designed to improve on the **Bristol-Myers Squibb** drug Taxol.

Early tests in mice with ovarian cancer have shown success in using larger doses of NanoTax without the side effects often seen with other versions of Taxol, according to a research study.

CritiTech now is working with a Kansas City-area contract manufacturer to produce NanoTax for early clinical trials expected to start later this year.

The enterprise corporation’s help is a big reason why CritiTech has made it this far, said Sam Campbell, the company’s chief executive. KTEC paid for early research, its leaders helped reorganize CritiTech and bring in Campbell as the new CEO a few years ago, and it has helped conduct due diligence when CritiTech has considered various offers to be bought or partner with other companies.

“There is no way we could afford to buy those kinds of services,” Campbell said. “There is no way we have the people in house with the kind of experience necessary to address those kinds of issues.”

ImmunoGenetix

Venture capitalists are not known for accepting cold calls.

When Jim Laufenberg reached out to the founder of an influential group of biotechnology and health-care industry investors, he mentioned that his company, **ImmunoGenetix Therapeutics Inc.**, had financial backing from the Kansas Technology Enterprise Corporation.

Dan Broderick, a managing director of Milwaukee-based venture capital firm **Mason Wells** and the founder of the **Mid-America Healthcare Investors Network**, took Laufenberg's call.

"How you get in the door is to say we are a KTEC-funded company," Laufenberg said.

The enterprise corporation provided \$250,000 of the roughly \$1 million ImmunoGenetix had raised in outside funding.

"Not only do they bring the money to the table, they also validate what you are attempting to do," Laufenberg said. "They validate the science, the management and the structure. It has been incredibly helpful."

Venture capitalists facing a barrage of unsolicited pitches value potential deals that have been reviewed by an organization such as the Kansas corporation, Broderick said.

"Somebody you know and respect has scrubbed the deal," Broderick said. "It's more than a business plan that comes across the transom."

ImmunoGenetix is based on technology spun out of research at the KU Medical Center. Opendra Narayan, a microbiologist who is the scientific founder of the company, discovered a way to prevent the human immunodeficiency virus from progressing to acquired immunodeficiency syndrome, or AIDS.

The Kansas City region offers top scientific talent, skilled professionals such as lawyers specializing in biotechnology patents and well-regarded clinical research organizations, Laufenberg said.

Diarmuid Boran, a pharmaceutical industry veteran who has worked with KTEC over the past year as an entrepreneur in residence, often consulted with Laufenberg. He has provided particularly helpful advice about how the company might partner with larger pharmaceutical firms.

ImmunoGenetix now is seeking about \$4 million in venture capital, and Laufenberg expects to hear soon whether the **National Institutes of Health** will provide an \$18 million grant that the company applied for with the KU Medical Center Research Institute.

Although these larger investments and grants are critical if ImmunoGenetix is to develop its AIDS vaccine, the company never would have gotten this far without KTEC's early financial backing.

"They really got us rolling," Laufenberg said.

Medi-Flex

Joe Brandmeyer was running out of money and time.

Founder and chief executive officer of **Medi-Flex Inc.**, Brandmeyer was pursuing a technology in 1990 that would allow his company to command premium prices for an antiseptic it sold to hospitals and clinics.

Medi-Flex researchers found a potential product, but the Leawood company was struggling to gain federal regulatory approval needed to use the solution when preparing a patient's skin for certain medical procedures.

In a recent interview, Brandmeyer reflected how his now thriving business faced great uncertainty in its early days. Medi-Flex was straining under heavy debt stemming from Brandmeyer's purchase of a product line from **Marion Laboratories**, where he had been an associate.

But a \$100,000 KTEC grant provided a much-needed boost about 10 years ago. "It was really timely for us," Brandmeyer said.

Medi-Flex was able to hang on, and in 2000 the **Food and Drug Administration** approved the use of a solution, including a drug called chlorhexidine, to clear the skin of bacteria before a surgical procedure such as the insertion of a catheter.

The most widely used antiseptic at the time stopped killing bacteria on the skin after about six hours, Brandmeyer said. Chlorhexidine was seen as a great improvement because it would continue killing bacteria for at least 48 hours.

Though FDA approval was crucial, Medi-Flex still wasn't out of the woods. "As late as June 2001, my daughter and I both re-mortgaged our houses to put another \$250,000 into the business to keep the lenders off our back," Brandmeyer said.

Now the company, which started with 40 employees and \$4.5 million in annual sales, employs more than 500 people and is hoping for at least \$120 million in sales this year.

Medi-Flex also is expanding its research and development operation in the Kansas City area and pursuing new products such as those that could be used during surgery.

"That will be another growth area for us," Brandmeyer said. "We feel like we are having an impact on health care."

CD Tradepost

As Dennis Strobel tired of selling lawn tractors and chain saws to gardening retailers, he yearned to run his own business again. Before getting involved in the wholesale side of the industry, he had his own lawn and garden shop in Topeka for about seven years.

A music fan, Strobel opened a used CD store in Topeka in 1998. He eventually expanded the operation to 24 stores in five states.

About a year ago, Strobel started wondering about the next step.

The business was successful and sales were growing, but the industry was shifting fast with the arrival of new competitors and new technology that fundamentally changed the way consumers buy music, video and games.

“I didn’t know what to do with it,” Strobel said. “Do you leave it alone and enjoy the cash flow? Do you bring in outside capital and take the thing national? Do you take it online?”

When the business started, iPods did not exist. Now digital downloads are growing to dominate music sales. Other outlets such as **Second Spin** and the **CD Exchange** are competing with retail stores and aggressive online operations.

Strobel’s business also sells used movies and video games, which face growing competition. **Hollywood Video**, **Blockbuster Inc.** and **Netflix** all offer previously viewed DVDs for sale. **GameStop**, a former subsidiary of **Barnes & Noble**, carries used games and new releases.

“I am just a high school educated guy from Kansas, and I needed some help,” Strobel said.

Strobel began working with a trio of area business veterans, including Suresh Ramamurthi, a former entrepreneur and mobile technology specialist for **Google** who lived in Topeka. Ramamurthi eventually left his position with Google and began working with KTEC the Kansas Technology Enterprise Corp.

Ramamurthi persuaded professors at **Washburn University** and at KU to assemble teams of students for research projects that would help Strobel make important decisions about his future.

The research provided Strobel a new technique for analyzing why his current store locations are effective and where he should open additional outlets. They also are examining who is coming into the stores and why.

Ramamurthi also has talked with Strobel about using the Internet to find customers interested in his inventory of niche products. Global expansion is another possible opportunity.

Strobel is not sure what he will do, but he is confident that he will come up with an idea over the next couple of months.

“I think we will come out with a strategy to keep pushing the company forward,” Strobel said.

In a nutshell

In its roughly two decades, KTEC has:

- Provided \$14.2 million in grants and other backing to 257 companies.
 - Invested \$6.9 million in 41 companies. Around the turn of the century, KTEC made a strategic shift from grants, in return for royalty payments, to the investments, for which it receives an equity stake in companies.
 - Helped companies that created or retained a total of 14,900 jobs.
 - Helped companies that then drew substantial money from other sources. Last year, for example, 17 of the companies in the organization’s portfolio raised an additional \$31.6 million.
 - Supported research at facilities, including the Higuchi Biosciences Center at KU and the Kansas Polymer Research Center at Pittsburg State.
 - Supported eight business incubators, including the Enterprise Center of Johnson County, the University of Kansas Medical Center Research Institute and the Lawrence Regional Technology Center.
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