

From Labor to Knowledge

How high-tech start-ups achieve success in the Bluegrass

By Jennifer Thornberry

The Bluegrass region is moving forward into the new knowledge-based economy, and people are taking notice.

In 2005, *Entrepreneur* magazine ranked Lexington as the eighth-best place in the nation for entrepreneurs. Expansion Magazine also selected Lexington as a five-star metropolitan area for knowledge worker quotient, which identifies metro areas that are well placed to attract and nurture high-tech companies and entrepreneurs because of their concentration of extremely well-educated workers.

Overall, “Kentucky is behind, but the Bluegrass region is doing better than the rest of the state,” said Dean Harvey, director of the Von Allmen Center for Entrepreneurship and the Lexington Innovation and Commercialization Center (ICC).

The term “new economy” came about in 2002, when former Kentucky Gov. Paul Patton unveiled a strategy to shift the economy from the labor-based industry of the past to the knowledge-based industry of the future.

“A knowledge-based economy is based on technology. The old economy was based on labor and big equipment,” said Gabriel Wilmoth, assistant director



of the Von Allmen Center for Entrepreneurship.

The idea is that high-technology jobs will help the state’s overall economy.

“One of the hopes of the new economy is that technology jobs will be higher paying,” Harvey said.

Data from 2005 show how well the Bluegrass region is doing.

Each year, the Lexington Venture Club, a partnership between the Von Allmen Center and Commerce Lexington, conducts a “Who Got Money” survey of early-stage companies in the region who

Several programs at UK are designed to help new local start-ups. One of these is an ongoing program through the College of Agriculture that pairs coaches with new entrepreneurs.

receive funding. The purpose of the survey is to celebrate regional companies that receive funding and to provide benchmark data for the region’s economic growth and workforce development.

According to the survey, 47 companies received more than \$23 million in funding in 2005, a 29 percent increase over 2004.

The majority of those companies are technology-based. They employ 285 people with an average salary of \$61,900 for full-time employees. The companies reported \$11.8 million in revenue in 2005.

Help for high-tech businesses

This increase in high-tech businesses is largely because of the help entrepreneurs receive from a special relationship between the Lexington Innovation and Commercialization Center and the Von Allmen Center for Entrepreneurship. Both operate from the same office, based on the University of Kentucky campus.

The Lexington ICC – one of seven across the state – is part of the state Department of Innovation and Commercialization, which is leading efforts to move Kentucky into the new economy.

Celebrating New Businesses

These 47 early-stage companies received more than \$23 million in funding in 2005, according to the Lexington Venture Club’s annual “Who Got Money” survey.

The Academic Edge	Kanga Course	Outrider Technologies
Agri-Grow Technologies	Kensoft	Paratechs
AllTranz	KyWiFi	People Strategy
Allylix	Kentucky Wool Society	Phoenix Global Designs
API	Laverne Douglas	Phyllotech
Artemetrx	Technologies	Prescient Medical
The Bungalow Gutter	LevTech	Quando Enterprises
Bracket	Lexington WiFi	Quanteon
customKYnetics	Lumenware	Source Imaging
ECM Biosciences	medmovie.com	SpeedBeam Wireless
The Elaine Group	Mersive Technologies	TriboFlow Separations
Four Tigers	Mobile Mom	VBS Software
Gatewood-Hamilton	Murty Pharmaceuticals	Vision-Resume
Grace Animation Studios	NanoMed Pharmaceuticals	Vorhees & Co.
ImmPheron	Naprogenix	Yaupon Therapeutics
Innovative Ideas	Oraceuticals	Yikes
Intranasal Therapeutics		



Robert Littrell, founder and CEO of Artemetrx

“We realize we have something of value to offer... We’ve got more opportunity than ever. We’re making smart decisions, and we’re now equipped to succeed.”

The Von Allmen Center for Entrepreneurship is funded by an endowment from Douglas J. Von Allmen, a 1965 graduate of UK’s College of Business and Economics. The ICC and the Von Allmen Center primarily focus on technology start-up companies because of their ties with DCI and UK.

“Most of these start-up companies need two things: money and management. We help them with both of those,” said Richard Furst, dean emeritus of UK’s Gatton College of Business and Economics.

The ICC gets involved with companies before they are even a company, Harvey said.

The center converts research into successful companies by teaching entrepreneurs how to write business plans, conduct strategic market research and pitch their idea to investors.

“We’re like facilitators. Just forming companies doesn’t do anything,” Furst said. “We try to link what researchers do to future businesses, to bridge from research at universities to economic development. That takes a lot of work.”

Success stories

There are four elements a business must have for success: marketable ideas, an experienced management team, adequate funding and a supportive community.

“If you have all four of these, you’re more likely to have success. If you are missing one, you are almost guaranteed failure,” Harvey said.

Two of the ICC’s success stories are Artemetrx, a health care cost containment company, and Allylix, a company that biosynthesizes natural chemicals.

Artemetrx, founded by former UK faculty member Robert Littrell in 2003, is a technology-oriented company that analyzes claims data for self-insured companies with more than 500 employees and helps them reduce health insurance costs.

Littrell started the company while still a faculty member in the UK College of Pharmacy. He had gained experience with health care data analysis in the early ‘90s, when he started a program for the state. When Lee Todd became UK’s president in 2001, he told Littrell the university needed to cut its costs. At about the same time, Bluegrass Family Health, a Lexington-based health insurance company, approached Littrell with the same problem.

Littrell was laying hardwood on his kitchen floor over Christmas break when he realized he had an opportunity in front of him, and his business idea came about.

It was then that the university referred him to the Von Allmen Center. The center helped him put together a business plan and financial model. They also referred him to an angel investor who helped get the company off the ground, “which was critical,” Littrell said.

In October 2004, he decided he needed to devote all of his attention to Artemetrx and he left UK. Since its founding, Artemetrx has grown to 12 employees and \$1.5 million in revenue. If Artemetrx had not worked with the ICC, it never would have gotten off the ground, Furst said.

Littrell agrees. “I don’t think I would have been able to do it without Dean Harvey and that group. They did a great job,” he said.

Littrell’s next goals are to hire a CEO, expand marketing efforts and try to get state Medicaid business. He also wants to expand the company’s commercial business.

“We realize we have something of value to offer,” Littrell said.

The company is in a good place now, and the difficult lessons they learned early on are paying off, Littrell said. Customers are giving the company great references, and he feels good about the potential of public sector work.

“We’ve got more opportunity than ever. We’re making smart decisions, and we’re now equipped to succeed,” he said.

Another company that has benefited from the Von Allmen Center is Allylix,

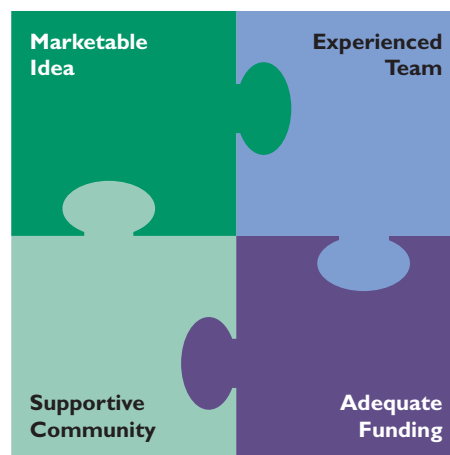
which engineers yeast to produce high-value, rare natural chemicals based on research at the UK College of Agriculture and the Salk Institute in California.

The company is perfecting a production system that will synthesize natural chemicals from plants into fragrances for

products such as shampoos and perfumes.

“There’s a whole new wave in the chemical synthesis industry to get more and more from biosynthesis platforms,” said Joe Chappell, co-founder and UK professor.

Four Success Elements of a New Business





"We have a sense of urgency to move things along and to make Allylix a commercial success story. We've got a long way to go to be successful."

Joe Chappell, co-founder of Allylix and UK professor

Chappell had the idea for Allylix for more than 12 years. Then in 2000, he and his co-founder were wondering how to get the company off the ground. It wasn't obvious to "a couple of test-tube clinkers" how to start a business, Chappell said.

At that time, the state was starting to support biotech industries. Chappell met with business experts and determined he needed a business plan and a perspective. In 2002, when Allylix was incorporated and Chappell decided to go forward, he sought support from the ICC.

The ICC gave him the information he needed to create a business plan and an investor pitch.

"It was a bunch of humble pie," Chappell said. Dean Harvey and the ICC team ripped his business plan to shreds

and told him to get his story straight. "That was the prelude to thinking about getting serious dollars to get started," Chappell said.

He got some state funds, and he credits Harvey with helping him identify angel investors. Chappell made his presentation in 2004 and got the money he needed. Allylix started production in February of 2004, and today, it has five employees.

"He [Harvey] did a heck of a job," Chappell said.

Allylix's goals are to enhance the production process, taking it to a bigger scale and ramping up to include several product lines. They are about to start a new round of funding.

At this point, Allylix is growing faster than Chappell had anticipated, but of course, "it's never fast enough for investors," he said.

"We have a sense of urgency to move things along and to make Allylix a commercial success story," Chappell said. "We've got a long way to go to be successful." ●

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