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Life-sciences industry's vital supporting cast

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In the life-sciences industry, the biggest headlines usually go to companies that are discovering drugs, patenting devices and harvesting genes.

Behind these attention-grabbing ventures, however, are many small suppliers that provide a critical support system for the sector.

Indianapolis is home to about a dozen engineering and automation companies and local offices of larger out-of-state entities that all specialize in the manufacturing of pharmaceuticals, medical devices and other biotech products. These companies work on projects lasting from three months to three years for heavyweights such as Eli Lilly and Co., Pfizer and Roche.

Economic development officials view these specialty shops as an asset as they try to encourage life-sciences companies to establish operations in Indiana.

"People traditionally think of our activities as being confined to the start up of new product-based companies," said David Johnson, president of BioCrossroads, the Indianapolis-based life-sciences initiative.

"It's equally important to have the companies here that serve the life-sciences industry, whether they are small startups offering clinical and technical services, or larger, more established suppliers."

Johnson said service companies tend to have larger work forces and investments in office and equipment and create revenues faster than startups focused on developing new drugs or devices.

These companies are a major employer of manufacturing, process and electrical engineers, as well as experts in specialized information technology used in manufacturing. They're also a key part of the life-sciences industry, which employs about 274,000 people in Indiana, or nearly 10 percent of all jobs in the state, according to a 2005 report by the Indiana Health Industry Forum.

One thriving company is Clarke Engineering Services, a Fishers-based provider of engineering and validation services to Lilly and other pharmaceutical companies.

Chris Clarke, CES' founder and chief executive, was a manufacturing engineer with Lilly until he formed his own company in 1999.

"We help our clients set up new manufacturing processes, or we go into an existing process and help them improve efficiency," Clarke said. "We also do a large amount of validation work, where we're documenting and proving that a process that we set up is doing what it is supposed to do."

CES has \$10 million in annual revenue and does about 60 percent of its work with life-sciences companies in Indiana.

In January, CES added an office in Kalamazoo, Mich., to support Pfizer. It also is expanding into automated inspection systems that check labels and bar codes.

Paciv is another engineering services firm started by a former Lilly executive. Although based in Puerto Rico, Paciv opened its U.S. operations in Indianapolis in 2003. Today, Paciv's local office earns \$5 million in annual revenues.

"Our specialty is automation and computer system validation," said Rick Straw, vice president of operations for Paciv's Indiana office.

That includes helping with documentation the Food and Drug Administration requires of life-sciences companies to prove their manufacturing lines work, he said.

Straw said one of Paciv's advantages is that its employees are Indiana residents who can provide continuing feedback to local pharmaceutical companies, as opposed to consultants from outside the region.

Flexware Innovation is a Fishers-based provider of manufacturing software and services that does at least 60 percent of its business in the life-sciences sector, said Chief Executive Scott Whitlock.

It integrates a client's shop floor with its other business systems to improve control of the entire manufacturing process, Whitlock said.

Flexware also helps companies keep accurate electronic records of every batch of drugs or every medical device as it is manufactured.

"If companies can do in-line quality control while they are manufacturing, then we've cut out a whole lot of manual processes," Whitlock said. "That means a faster manufacturing cycle as well as a better quality manufacturing cycle."

Whitlock said life sciences is the fastest-growing sector for his company, which earns \$4 million in annual revenues.

These companies are optimistic as local life-sciences startups migrate from research and development into manufacturing.

"It's one thing to make a compound in a test tube. It's another thing to make a half-million units," Clarke said. "We have the expertise to help startups scale up their manufacturing."