



UNDER the MICROSCOPE

Discovering Ways to Grow Indiana's Life Sciences Advantage

By Symone Skrzycki

Indiana is a powerful contender in the life sciences ring.

It generates \$50 billion annually in economic impact and employs 55,000-plus people in sectors ranging from pharmaceuticals and medical devices to diagnostics, research and development, and agriculture sciences.

Indiana was ranked as one of the nation's top five states (based on the total number of life sciences companies and employees) by Ohio-based global scientific research institute Battelle in 2013. The other four: New Jersey, Massachusetts, California and North Carolina.

BizVoice[®] brought together a panel to share insights on how Indiana can grow its assets even more, and to reflect on what opportunities and challenges the future may hold.

Participants:

- Lori Ball, chief operating officer, BioStorage Technologies, at lori.ball@biostorage.com
- Curt Rossman, principal, AlpInvest Partners, at curt.rossman@alpinvest.com
- Brian Stemme, project director, BioCrossroads, at bstemme@biocrossroads.com
- Simon Tripp, senior director, Battelle Technology Partnership Practice, at stripps@battelle.org

Testing the possibilities

Ten years ago, Indiana was an up-and-coming player in the life sciences game. While dramatic growth has taken place since,

innovation will continue to open new doors.

"I think what you'll find is that Indiana will do a good job of holding its own," Tripp asserts. "In the face of tighter funding and increasing global competition, Indiana has been putting in place an environment where you can help your industry stay strong and survive. A lot of other states won't have put those things in place."

Stemme foresees agricultural sciences gaining increased attention.

"If you think about organic and local food – and other issues around a concern for animal health – how will the industry address those broader societal needs and continue to grow the amount of food that we produce?" he speculates.

The Indiana Biosciences Research Institute is the first industry-led entity of its type in the nation. Start-up funding reached \$50 million in 2013 through support from the



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*Lori Ball
BioStorage Technologies*

state and Lilly Endowment as well as industry partners Eli Lilly, Dow AgroSciences, Roche Diagnostics, Cook Medical and Biomet.

“We certainly want to acknowledge that this is a big financial commitment in a time of wanting to make sure we’re watching where our dollars are spent as a state government. It’s good to see that the state Legislature recognizes that we’ve got a strong industry and wants to continue to try to grow it.”

The intersection of life sciences and technology will provide additional opportunities for growth.

Headquartered in Indianapolis, BioStorage Technologies organizes and manages scientific assets for the research sector. It has additional locations in Germany, China and Singapore. Ball anticipates that the industry’s billion-dollar investments and blockbuster drugs will be replaced with a more targeted, personalized medicine approach.

“In our world, managing patient consent and being able to track that, being able to prove that and being able to understand and translate that is becoming a technology discussion now,” she relates. “Indiana is well positioned on the technology side to have a horse in that race.”

Tripp seconds that.

“There are few industries that generate bigger data than life sciences, whether it’s on a basic life sciences investigation front or on the health informatics (side). There are tremendous opportunities there, not just in the health care informatics space but across agricultural biosciences where traditional agricultural agronomy sciences are interfacing quite directly now with information sciences.”

Focus on funding

Challenges that began during the Great Recession remain in place.

Rossman says U.S. venture capital firms raised more than \$20 billion in life sciences funds in 2006. That total began dropping substantially by 2009 and plummeted to \$4.9 billion during 2012.

Stemme points out that while the number of investments made in Indiana in 2013 is encouraging, the dollar amounts were modest.

“We had roughly \$32 million invested in 20 companies, and that’s people who are looking in the investment range of \$250,000 to roughly \$2 million or \$3 million,” he says. “We need to continue working on that.”

Start-up companies, whether able to attract necessary funding or not, can receive guidance by consulting with experienced venture capital firms through the INext Fund. It is one of two life sciences funds managed in Indianapolis by AlInvest Partners, which is wholly owned by the Carlyle Group.

INext, backed by public and private institutions, is a successor to the Indiana Future Fund (IFF), which was launched in 2003. Both are “fund of funds,” a strategy of investing in other venture capital funds rather than directly in stocks and other securities.

“The IFF and INext have invested directly \$45 million into Indiana-based businesses,” Rossman explains. “If you take into account the other members of their investing syndicates, that number grows to around a quarter of a billion dollars. And you get a multiplier effect there.”

He’s optimistic about the future of funding.

“Because less firms are able to invest, less companies are able to be backed,” he shares. “I think we’ll see that pendulum swing back the other way and will see more institutional investors begin to put their capital back into life sciences investing.”

Zooming in on diversity

Diversity – both in the types of companies and their location – provides a competitive advantage.

“You have companies that are in diagnostics like Roche,” Tripp remarks. “You’ve got companies like Lilly that are in therapeutics. You have Dow AgroSciences, which is a world-class leader in agricultural biosciences. And (you have) Cook in medical devices. You’re not at risk of being in only one life sciences sector.”

Success stories aren’t limited to large cities. Smaller communities like Columbia City (home to orthopedic medical device producer Micropulse) and Seymour (where Kremers Urban Pharmaceuticals operates a 400,000-square-foot pharmaceutical

manufacturing plant) are holding their own.

Part of that success can be attributed to Indiana’s manufacturing roots.

“A lot of the activity in Indiana is manufacturing related,” Stemme observes. “I think that’s one element of why we’re able to be geographically dispersed. (Life sciences) really is kind of crosscutting with other things and other industries.

“Having that history of manufacturing – there’s a friendliness to it. There’s a familiarity with it.”

Ball notes that bringing company branches to Indiana is crucial in expanding the state’s life sciences base.

“Quintiles (a provider of biopharmaceutical development and commercial outsourcing services) is a good example of that,” she observes. “It decided to open an office right here (in Indianapolis) because there was a significant amount of business locally, and they felt like they needed to physically be here – not their headquarters but clearly a branch.”

Panelists acknowledge, however, that growth often comes from within.

“Part of that is because of the human capital needs of the industry,” Tripp stresses. “Once you’ve got a specialized base of workers in one location and the network of contacts in that industry, it’s very difficult to pick up and move.”

Under the radar

Like many technology sectors, Silicon Valley and the East Coast serve as hubs for life sciences activity. But Tripp identifies other states such as Iowa, Ohio, Minnesota and Arizona as also making strides.



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“I think the states that have been doing a particularly good job outside of the two coasts are those where the state itself has paid attention to the opportunities around life sciences company business development,” he contends. “They’ve made some pretty significant investments that help support venture capital activities.”

Ohio’s Third Frontier Initiative, a state funding program focusing on early-stage activity in life sciences between industry and universities, is credited with helping create 80,000 jobs.

And Arizona, once an underdog, is making its mark.

“It’s a state that started from an extremely low base in the life sciences industry,” Tripp explains. “But following a concerted strategy, and with support of the Fin Foundation helping to support strategy and implementation, they have really boosted their profile and ranking in life sciences.”

Targeting efforts based on a state’s strengths and opportunities is crucial.

“We base all of the work we do at Battelle on a core competency assessment,” Tripp stresses. “What do you have that’s a robust strength to build upon? Not just a pipe dream of recruiting something in and hoping that it sticks.”

Tapping into talent

No matter a company’s industry or size, workforce drives success.

Building relationships among the life sciences community through networking and mentoring is one way to enhance productivity.

“The cluster is very important,” Rossman affirms. “If somebody does choose to leave their current position, they can stay within the state ... and it makes it more attractive

for somebody that we’re trying to recruit.”

Ball emphasizes that developing a strategy to maintain skilled workers also is key.

“We’re 10 years old. And we were building the company when there was a lot of accessibility to highly trained and highly educated people,” she comments. “As the economy turns around, people are going to have choices. The question for us is: ‘How do we continue with our way-above-average retention rates of our employees?’”

The answer, she asserts, is collaborations with universities and government entities.

“So far we’ve seen a pretty heavy response from the academic institutions, as well as the hospital networks, on having a discussion about how we can better qualify future employees,” she reveals.

Along with large academic research institutions partnering with industry, private colleges are helping to move the state forward. For example, Grace College in Winona Lake (near Warsaw) offers a master’s degree in regulatory and clinical affairs to meet a critical need in the orthopedic industry.

“It’s a great example of breaking through the stereotypical model of what a liberal arts, private institution looks like,” Ball declares.

Focusing on workforce development has played a major role in attracting biosciences companies to states such as North Carolina.

“If you look at their strategy, it’s very much rooted in developing customized job-training programs for companies that are looking at coming,” Tripp explains. “Indiana has world-class universities and colleges that are positioned to provide that. And it also has companies of significant size that have been able to grow and show that it’s a state where you can get the workforce that you need.”

While partnerships help to strengthen the life sciences community, often there’s a fine line between collaboration and competition.

“Both are very healthy,” Ball reflects. “I think there’s a cluster of companies that work very well together when clients request it or require it, or we desire it as companies. And then there are practical times when we have to work separately.

“It’s exceptionally important for the professionals who are working in that environment because you want to try to figure out how to keep your brain trust, training longevity and institutional knowledge

kind of in your neighborhood.”

On the collaboration front, while there is uncertainty regarding the impact of federal health care reform, Stemme emphasizes that employment opportunities also will arise.

“Positives will be growth in informatics. There will be increasing cost pressures on our large companies, so they’ll continue to outsource and to share (due to) the growth of that supply chain.”

Looking through a different lens

BioCrossroads launched the Food and Agriculture Innovation Initiative, which builds on the state’s strengths in plant sciences, in late 2013. It will focus on companies that are “inventing new things and bringing new products to market.”

State government is again a partner with its strong support, with Stemme acknowledging Lt. Gov. Sue Ellspermann and leaders of the Indiana Economic Development Corporation and Indiana State Department of Agriculture (Victor Smith and Ted McKinney, respectively).

Embarking on this and other unique initiatives is key to moving Indiana forward.

“We’re really trying to think outside the box,” Stemme concludes. “And we don’t want to be resting on our laurels. There are too many challenges that are facing the industry.”



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