

LIFE SCIENCES

Businesses Flourish in Indiana

Indiana is a national leader in the rapidly growing life sciences industry. The state's formidable scientific and education prowess, combined with its pro-business policies have made it an ideal place to start and grow new life sciences businesses.


A new report notes that by 2009, Indiana's life sciences exports totaled \$7.4 billion, ranking third-highest in the United States, behind California and Texas. The state has the third-highest life sciences employment concentration nationally, and has seen a 21 percent increase in life sciences employment, adding more than 8,800 new jobs to the industry since 2002. More than 50,000 workers at 825 companies comprise four life sciences sub-sectors: medical devices

and equipment; drugs and pharmaceuticals; research, testing and medical laboratories, and agricultural feedstock and chemicals. Indiana's health information technology sector contributes an additional 2,500 workers and 72 companies.

There were 2,226 U.S. Food and Drug Administration filings between 2005 and 2010—the Hoosier state had the ninth highest number of 510(k) applications with 1,821 and the 11th

highest number of Premarket Approval applications with 405.

“There are three key components to having a thriving innovation cluster: the sector must be based on real assets, must draw substantial corporate and philanthropic investment, and must be sustained by the investments of others who care about it,” said David Johnson, president and CEO of BioCrossroads, the state's initiative to promote the life sciences. “This new report demonstrates that Indiana has all of those elements working together. Compared to other states and regions, we have a significant competitive advantage because of our focus on cultivating a skilled workforce, engaged university and academic institutions, strong philanthropic sup-



Lilly & Co. Headquarters,
Indianapolis, Indiana, celebrates
135th-year anniversary



Roche Diagnostics Corp.
U.S. Headquarters

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port, novel public-private partnerships, access to capital and a positive business climate.”

Indiana is home to the global headquarters for Biomet, Cook Medical, DePuy Orthopaedics, Dow AgroSciences, Eli Lilly and Co., WellPoint and Zimmer, and the North American headquarters of Roche Diagnostics. Beckman Coulter, Boston Scientific, Covance, Mead Johnson and Medco have major operations in the state.

The presence of these major players has attracted world-class talent and created a culture of innovation that has led to numerous spinoffs and startups, some of which are major successes in their own right; others are still gaining traction in the marketplace.

A good example is ContainMed. Based in Brownsburg in Hendricks County, the company designs and builds trays for surgical instruments. When Cary and Todd Bettenhausen, accomplished product designers with more than 20 years' experience in surgical instrument and implant storage and delivery systems, decided to strike out on their own, they partnered with Thomas Deal, a distinguished attorney and entrepreneur with more than 35 years advising and championing small and medium-sized businesses. Today, they are selling product to the likes of Zimmer, Biomet and DePuy Orthopaedics.

Another startup in Brownsburg is Biologics Modular. The company

designs, builds and validates modular clean rooms for biotechnology firms and university research labs to lease while they transition from product feasibility to full-scale manufacturing. The modules, built and tested to meet applicable FDA requirements, can be shipped anywhere in the world.

In addition to significant cost savings over constructing a clean room on site, Biologics' modules can increase speed to market for startup companies because they can be delivered in 20 to 22 weeks versus the 20 to 24 months it takes to build one from scratch, according to President and CEO Clark Byrum Jr.

Therametric Technologies Inc., a developer of dental health and cavity detection technology, moved into its new 26,000-square-foot facility near Noblesville in Hamilton County in April 2010. The new facility includes dental research laboratories; a dental clinic; product manufacturing, testing, packaging and shipping areas; offices, and support facilities.

Led by former Indiana University researcher Dr. George Stookey, Therametric Technologies developed the FluoreCam which uses light fluorescence from a handheld instrument to detect dental caries by analyzing changes in the mineral content of tooth enamel.

“We are excited about our new facility since our pet food products, testing services and instrument development programs continue to grow and require space for further expansion,” said

Stookey, president and chief executive officer of Therametric Technologies.

In addition to the caries detection technology, Therametric also markets chewable dental health treats for pets to veterinary clinics under the Tartar Shield brand and provides a laboratory and clinical testing service for dental product manufacturers. Stookey, a member of the Indiana University faculty from 1964 to 2001, holds more than 40 U.S. and foreign patents.

Elona Biotechnologies Inc. has formed two new operating subsidiaries, had the IND (investigational new drug) application for its first product accepted and broke ground on an ultra-modern production facility in Greenwood in Johnson County.

Elona is a technology leader in proteomics, process development, characterization and production of therapeutic

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proteins. The company is involved in the development and production of human insulin, insulin analogs, human growth hormone and other “follow-on” proteins that treat chronic diseases. Elona has a unique portfolio of intellectual property and the capability to produce Active Pharmaceutical Ingredients and protein drug products under cGMP conditions. Through collaborative ventures with industry partners and leading academic institutions Elona’s team of scientists develops, operates and licenses innovative production processes for both novel and bioequivalent protein products.


The scientists at Elona Biotechnologies have discovered a way to stream-

line the production process of making generic forms of insulin and other bio-engineered drugs. The original processes have been streamlined to make them faster and more cost-effective. Elona’s first product is a biogeneric form of insulin which, if approved, is expected to significantly reduce the cost of insulin for diabetic patients in the U.S. and eventually around the world. The IND has been accepted by the FDA and clinical trials are imminent.

One of the most significant additions to the life sciences industry in central Indiana occurred in August 2008 when Covance, one of the world’s largest and most comprehensive drug development services companies, acquired Eli Lilly and Co.’s preclinical research facility in Greenfield, Ind. for \$50 million. As part of the agreement, Covance hired 264 former Lilly employees, and Lilly committed to providing \$1.6 billion in work to Covance over 10 years

for a broad range of drug development services. Covance also assumed responsibility for all of Lilly’s toxicology testing and discovery support activities at Greenfield.

In early 2010, the two companies expanded their partnership to include a three-year biotechnology services agreement, which includes Covance building a \$15-million biotech facility on its Greenfield campus to take over Lilly’s bioproduct analytical testing.

Since the initial agreement, Covance has also added three new service lines to Greenfield in the form of its Biomarker Center of Excellence, nutritional chemistry, and biotechnology services to support Lilly and over 20 new clients ranging in size from very small startups to top-10 pharmaceutical companies. Covance’s 450-acre research and development campus in Hancock County employs approximately 450 scientists, researchers and support personnel. 

State of Indiana’s Largest Life Sciences Companies

Company	State Employees	Industry Description	County
Eli Lilly and Co.	12,068	Pharmaceutical Manufacturing	Marion
CVS/Caremark	6,054	Pharmacy	Marion
WellPoint Inc.	4,600	Insurance Carriers	Marion
Roche Diagnostics	4,300	Surgical and Medical Instrument Mfg	Marion
Zimmer Inc.	2,500	Electromedical Apparatus Manufacturing	Kosciusko
Cook Group	2,200	Surgical and Medical Instrument Mfg	Monroe
Biomet Inc.	1,400	Surgical Appliance and Supplies Mfg	Kosciusko
Depuy Orthopaedics Inc	1,200	Surgical Appliance and Supplies Mfg	Kosciusko
Covance	1,500	Biotechnology Research & Development	Hancock, Marion
Symmetry	1,000	Surgical and Medical Instrument Mfg	Kosciusko
Medtronic Spine	1,000	Surgical and Medical Instrument Mfg	Kosciusko
Baxter Biopharma	870	Pharmaceutical Preparation Manufacturing	Monroe
Apria Healthcare	500	Surgical and Medical Instrument Mfg	Marion
King Systems Corp.	475	Surgical and Medical Instrument Mfg	Hamilton
Beckman Coulter	450	Analytical Laboratory Instrument Mfg	Marion
Diversified Systems	450	Surgical and Medical Instrument Mfg	Marion
Alverno Clinical Laboratories	400	Medical Laboratories	LaPorte
Bioanalytical Systems	370	Research and Development in Biotechnology	Tippecanoe
Schwarz Pharma Mfg Inc.	350	Pharmaceutical Preparation Manufacturing	Jackson
American Inst Toxicology Inc.	350	Medical Laboratories	Marion
Vance Products Inc.	330	Surgical and Medical Instrument Mfg	Owen
Elanco Animal Health	325	Laboratories & clinical research	Hancock
Aircorn Mfg.	300	All Other Plastics Products Manufacturing	Marion
TriMedx	300	Pharmacies and Drugstores	Marion
Endress & Hauser Inc.	250	Analytical Laboratory Instrument Mfg	Johnson
Deflecto Corp.	250	Surgical and Medical Instrument Mfg	Marion
Medventure Technology Corp.	250	Surgical and Medical Instrument Mfg	Clark
Quest Diagnostics Inc.	250	Medical Laboratories	Hamilton

Sources: Reference USA, Dun and Bradstreet, BioCrossroads, Indy Partnership, 2011.