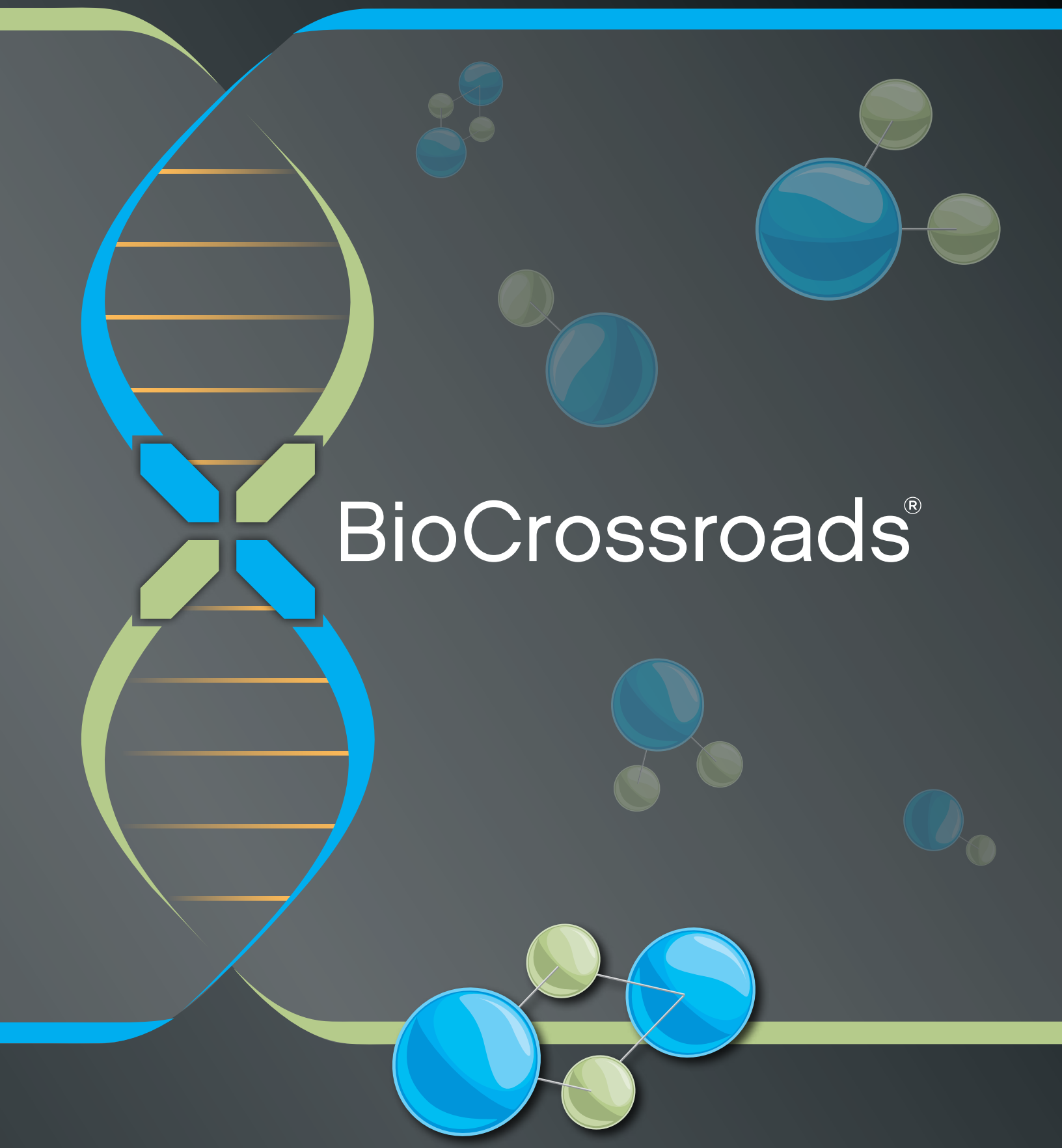
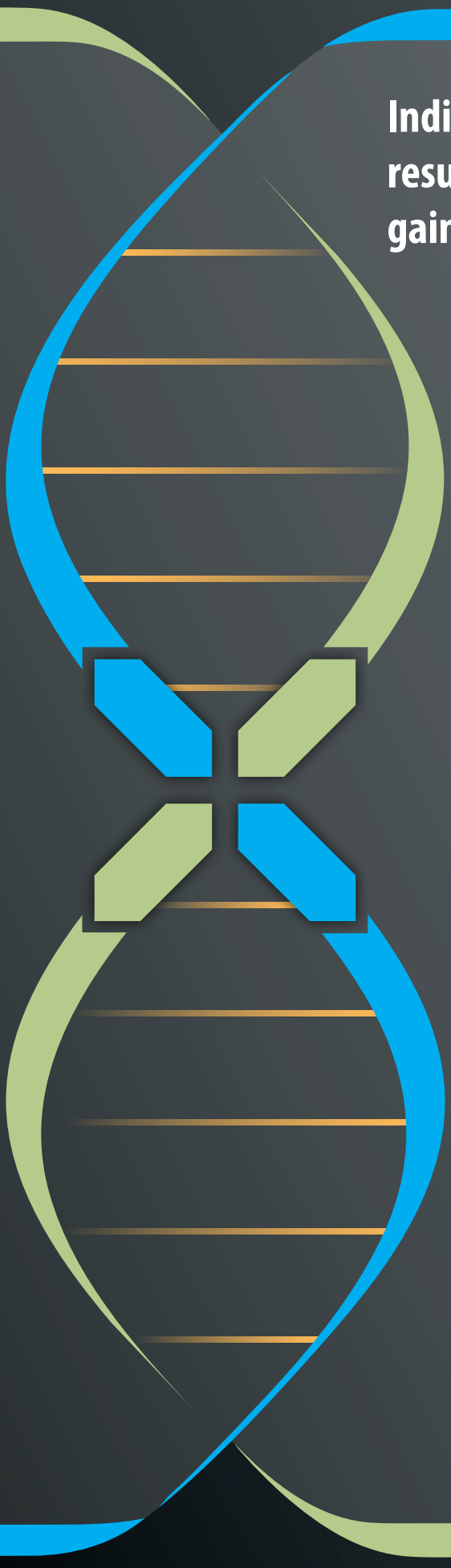
2015 annual report



BioCrossroads®



Indiana's vibrant life sciences industry boasts results that rival coastal hubs of activity and has gained national recognition for leadership.

Innovation and talent are intertwined and embedded in the DNA of Indiana's life sciences industry. Breakthrough research, exceptional scientists and leaders, visionary entrepreneurs, world-class organizations and life-saving products all contributed to a **$62 billion** economic impact for the state. Indiana maintained its status as the second largest exporter of life sciences products in the U.S. with **$9.9 billion** worth of products, nearly one-third of Indiana's total exports.

Our life sciences sector is a national leader with **56,582 people working** in the industry at nearly **1,700 companies** throughout the state in the areas of drugs and pharmaceuticals, medical devices and equipment, agricultural chemicals and feedstock, medical, research and testing laboratories and biologistics. New discoveries and products are being developed at those companies and our research universities. Indiana companies and universities were granted **1,211 patents** for life sciences-related innovations, and **83 new products were approved** by the U.S. Food and Drug Administration in 2015.

The numbers are strong across the board, but driving additional innovation and talent and finding a collection point to harness and drive that activity is critical, particularly in Indianapolis' urban core, according to a landmark report from the Battelle Technology Partnership Practice, commissioned by BioCrossroads. *Indy's Talent Dynamics Driving Innovation and Implications for Regional Competitiveness* examined the essential role of talent in building a thriving ecosystem and the importance of innovation for regional competitiveness, concluding that an intentional and well-resourced public-private place-making strategy is critical for the Indianapolis region's future growth.

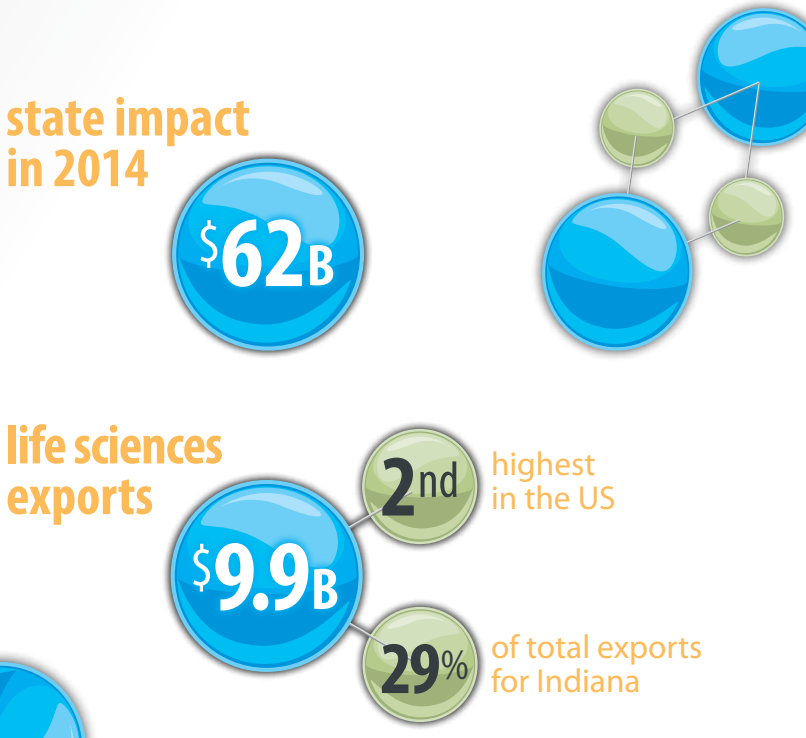
The report, which was released in August, underscored that Indianapolis needs to take more strategic advantage of the strong concentration of talent in its urban core, leading to a nationally competitive range of opportunities for regional growth and innovation in life sciences, information technology, agricultural innovation, advanced manufacturing, and other "advanced industries."* In particular, a central innovation district is necessary to bolster collaboration and creativity within and across those advanced industries, in close proximity to the substantial research assets of the IU School of Medicine and the science and engineering strengths of Indiana University-Purdue University at Indianapolis (IUPUI).

And in November, Battelle's recommendation and the promise for additional advancements were realized when the Indianapolis City-County Council approved $75 million in Economic Development Tax Increment Revenue Bonds to enable the development of an innovation community at 16 Tech.

The rise of 16 Tech is one of the most significant milestones in Indianapolis' ongoing efforts to develop, attract and retain top talent for continued regional growth. It will also have a ripple effect of positive impact across the state through collaborations with Indiana's research universities and advanced industry corporations. And while it will be an innovation hub for an impressive cross-section of technology-oriented companies, the impetus to drive it forward comes from Indiana's robust life sciences community.

The catalyst for the development of 16 Tech was the Indiana Biosciences Research Institute (IBRI), the anchor tenant. The industry-led, first-of-its-kind Institute identified 16 Tech as an ideal location for its permanent home with plans for 100,000 square feet of research and office space, where its world-class collection of talent will join in collaborative pursuit of innovative approaches to challenges in metabolic diseases, such as diabetes and obesity, and nutrition.

16 Tech encompasses several acres of prime real estate in downtown Indianapolis — along Indiana Avenue between 10th Street and 16th Street. Adjacent to the IUPUI campus, 16 Tech is surrounded on three sides by water and trails along the White River and Fall Creek. It is ideally located next to one of the largest concentrations of research clusters in Indianapolis' urban core, surrounded by 67 percent of the city's growth industries and flanked by residential neighborhoods steeped in a rich history and community pride.



* Brookings Institution's definition of Advanced Industries: Industries that invest heavily in technology innovation (more than $450 per worker) and employ a workforce highly skilled in science, technology, engineering and mathematics.

We Connect

Beyond our investments, BioCrossroads has now supported more than 350 start-up companies and collaborations by connecting them with industry partners, providing basic business planning guidance, opening connections to sources for further commercial development, and linking with additional funding sources.

BioCrossroads' biggest and most important collaboration to date is the establishment of the IBRI. Several milestones were achieved in 2015, including the appointment of President and CEO David Broecker, a prominent life sciences industry executive and serial entrepreneur, and the selection of Wexford Science and Technology as the real estate development firm to lead site selection and development activities. In September, the Indiana Biosciences Research Institute moved into 25,000 square feet of lab, office and collaboration space in the 16 Tech Biotechnology Research & Training Center (BRTC) as its interim location, pending the development of the permanent facilities of the IBRI at 16 Tech.

The interim space accommodates the IBRI's growing executive staff and research teams. It includes ample office and open collaboration space, 22 research labs, space for IBRI-affiliated commercial entities and start-ups, and a pre-clinical facility. The IBRI will grow its research teams and capabilities in the BRTC interim facility while plans for the IBRI's future home in the 16 Tech innovation community continue to move forward.

In addition, the Indiana Biosciences Research Institute Scientific Advisory Board (SAB) identified data science as a key area for early stakeholder focus. The data science project will concentrate on generating actionable insights and knowledge from big, diverse, streaming or complex data by embracing the digitization revolution and working at the interfaces of health care, personal digital information and technology.

We Invest

The BioCrossroads New Venture Competition has highlighted several promising life sciences companies over the last four years. The competition has awarded more than $240,000 to sixteen start-up companies, which have gone on to secure approximately $11.75 million in follow-on funding.

The life sciences entrepreneurial environment continues to birth novel ideas and innovative talent as is evidenced by this year's winners-across various sectors: agricultural innovation, medical device and health information technology, and all coming from our research institutions.

- **1st place: Phytoption** transforms high value, insoluble ingredients into soluble solutions for food, supplement, cosmetic, and pharmaceutical uses (Purdue University).
- **2nd place: Arrhythmotech** enables skin-based detection and analysis of sympathetic nerve activity using the neuECG device (Indiana University School of Medicine).
- **3rd place: Animated Dynamics** measures the efficacy of cancer drugs inside living tissue using biodynamic imaging technology (Purdue University).
- **Pre-Venture winner: Auricyte** is developing a novel, regenerative technology that guides human stem cells into functional hearing cells, structurally and functionally indistinguishable from human hearing cells (Indiana University School of Medicine).

1,695 companies
working in the areas of drugs and pharmaceuticals, medical devices and equipment, agricultural chemicals and feedstock, medical, research and testing laboratories and biologistics

$5.5B
total wages

56,582 people
employed

$96,803 wages
per person in life sciences; **$43,275** per person in private sector

We Educate

BioCrossroads' market development and intelligence expertise produced two reports and inspired seven events in 2015 which spurred in-depth conversations across Indiana's life sciences community.

In addition to the BioCrossroads talent and innovation report, which generated substantial buzz and activity, and culminated in the announcement of the 16 Tech development in Indianapolis, BioCrossroads released a report that spotlights the Indiana Clinical and Translational Sciences Institute (CTSI) as a leading participant and preeminent site in the National Institutes of Health's (NIH) Clinical and Translational Science Award program (CTSA). The BioCrossroads study, *The Clinical and Translational Science Award Program – A Report on Indiana's Position*, conducted by Faegre BD Consulting, details the CTSA program's history and broad expectations for success moving forward and also compares the Indiana CTSI with five other award sites in the U.S. that are regarded as offering cutting-edge programs.

Our Frameworx series continued its mission of providing timely and relevant speakers and content delivered in six events:

- **February:** The Future of Physician Innovator
- **March:** Our STEM Skills Crisis
- **June:** Optimizing Patient Care
- **August:** Talent Dynamics Driving Innovation (launch of *Indy's Talent Dynamics Driving Innovation and Implications for Regional Competitiveness* report)
- **September:** Bridging Life Sciences and Food and Ag Innovation
- **November:** The Role of the Clinical and Translational Science Award (launch of *The Clinical and Translational Science Award Program – A Report on Indiana's Position*)

1,077 patents
were granted to Indiana companies

83 new products
were approved by the FDA

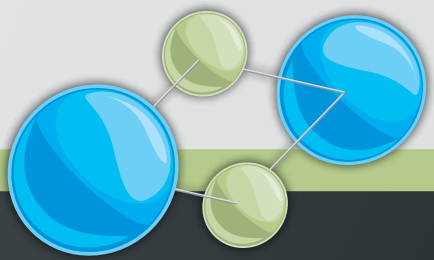
134 patents
were granted to Indiana universities

2015 marked the twelfth annual Indiana Life Sciences Summit. The event, hosted in October, continues to be the largest life sciences conference in the state. Topics focused on "innovation in the lab and in the community," with discussions on developing an innovation district, attracting and retaining talent, and raising capital. Speakers from Brookings Institution, Cambridge Innovation Center, Wexford Science and Technology and Torreya Partners provided thought-leading and thought-provoking perspectives.

BioCrossroads also honored the late Willard "Bill" Eason, the founder of Roche Diagnostics predecessor company Bio-Dynamics, as the August M. Watanabe Life Sciences Champion of the Year Award for his innovative spirit and dedication to Indianapolis at the Summit.

Bio-Dynamics flourished on Hague Road in Indianapolis in the 1960s following Eason's invention in his garage of a point-of-care blood glucose monitor. The company was purchased by Boehringer Mannheim, and later acquired to become Roche Diagnostics' North American headquarters.

Eason was a chemical engineer for Ford Motor Company when he left to start creating diagnostic equipment in his Indianapolis garage. His tinkering led him to found Bio-Dynamics and create the Unimeter, the first diagnostics equipment of its kind. The first Unimeter tested blood glucose levels at the point of care instead of having blood sent to a laboratory, improving patient health and saving time and money for the more effective delivery of patient care.



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Board of Directors

BioCrossroads Board of Directors members represent the state's industry, academic and government sectors. The senior leaders on the Board are essential to BioCrossroads' success, and they are united in their common commitment to find even more ways to collaborate, sustain investments and build upon the energy and assets Indiana already has.

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Data used in graphics are the most recent available, and were compiled by the Indiana Business Research Center at the Indiana University Kelley School of Business and BioCrossroads.