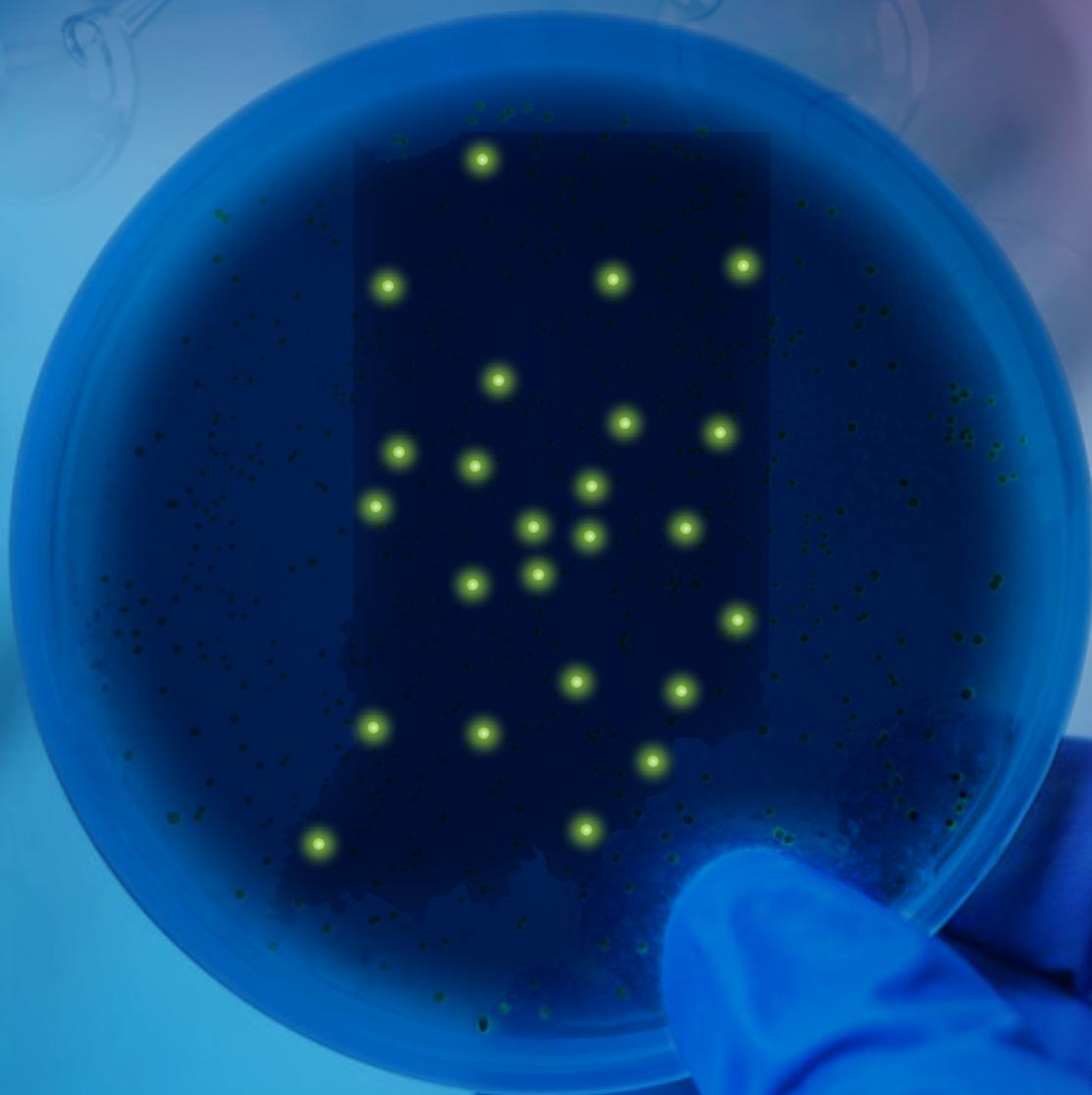




BioCrossroads[®]

ANNUAL REPORT

2020





A letter from the

A year ago, as we looked ahead to 2020, no one predicted the inconceivable and devastating events that transpired over the last year.

And while the pandemic took us by surprise, Indiana's response did not. Collectively and collaboratively, Indiana's life sciences community rose to the challenges of COVID-19 in numerous ways, and their commitment and dedication to working faster, harder and smarter – together – has helped people all over the globe.

Whether it was Roche Diagnostics getting a COVID-19 PCR diagnostic test approved under Emergency Use Authorization and on the market in a matter of weeks; Eli Lilly and Company's quick partnership to develop and secure Emergency Use Authorization for a monoclonal antibody treatment, in addition to their remarkable efforts to assist the state with testing; Catalent's scale-up to manufacture the COVID-19 vaccine for Moderna and Johnson & Johnson; or Covance's acceleration of COVID-19 test processing capacity, extraordinary efforts abounded throughout the state to combat both a local and global pandemic.

Indiana, the nation and the world will move past COVID-19. As we continue to navigate through its aftershocks, life sciences will continue to play an important role. Due in part to delivering healthcare, testing, and treatments, the life sciences community has not experienced the same level of economic disruption as other sectors. Its workforce and supply chains will likely be some of the first to recover, and, beyond COVID-19, this industry has shown the willingness and ability to impact issues relating to social justice and inclusion.

President & CEO

That said, the technology concerns that were present before the pandemic have become all the more insistent, and likely will only lead to further acceleration of the disruptive technology trends that will define the future of this sector, here in Indiana and beyond. BioCrossroads has been present in this moment, in the current uncertain environment, bringing our life sciences community closer together and gaining the momentum necessary to drive important priorities forward. We look forward to capitalizing on these uniquely valuable collaborations as new obstacles and opportunities arise.

None of us wants to relive the challenges of 2020, but through the tragedy and turmoil, there is reason for optimism. For 2021, I'm hopeful that COVID-19 ceases to be widespread; that lessons learned from the urgent development of COVID-19 tests and treatments can benefit future research and development; and that we continue to ignite Indiana's commitment to developing innovation that saves lives.



Peace,

A handwritten signature in black ink that reads "Patty Martin".

Patty Martin
President and CEO
BioCrossroads



\$80B
state economic
impact

>\$192K
exports per worker

\$11.4B
life sciences
exports

2ND
highest in
the U.S.

Indiana's life sciences landscape

While COVID-19 made and continues to make the headlines, Indiana's life sciences industry not only combatted the pandemic with testing, treatments, clinical trials, and vaccine manufacturing, but also remained committed to delivering medical breakthroughs in other areas. Indiana life sciences start-ups garnered a record high level of investment with more than \$262 million going to 44 companies. That's nearly \$100 million more than 2019's milestone of \$171 million.

Indiana companies committed to significant capital investments in both facilities and people. Global pharmaceutical company Novartis announced plans to build an \$80 million manufacturing facility in Indianapolis; start-up INCOG BioPharma Services committed to a \$60 million facility and 150 jobs

in Fishers; and Canada's POINT Biopharma, which announced Indianapolis as their U.S. headquarters, will build a new \$25 million manufacturing facility and bring 100 new jobs to the area.

In addition, several multi-million dollar expansions of life sciences facilities were announced across the state, including two notable investments in Bloomington. Baxter BioPharma Solutions is investing in a \$50 million expansion and Catalent committed to a \$50 million expansion and the addition of 300 new jobs.

And last but certainly not least, Elanco announced their decision to keep its headquarters in Indiana with plans to build a \$100 million facility in downtown Indianapolis and add 570 jobs to its current 1,600 positions.

2020 marked the biennial BIO/TEconomy report *The Bioscience Economy: Propelling Life-Saving Treatments, Supporting State & Local Communities* published in June, which highlighted the strength of Indiana's life sciences sector. Indiana was one of nine states that had sizeable employment and employment specialization

(job concentration greater than the national average) in three of the five life sciences industry sectors (pharmaceuticals, medical devices and equipment, and agbiosciences).

- ▶ Indianapolis and Bloomington were two of 30 MSAs that had a specialization in three of the five life sciences sub-sectors.
- ▶ In pharmaceuticals, Indianapolis ranked 2nd among large MSAs in job concentration and 6th in total pharmaceutical employment. Indianapolis also ranked 7th in agbiosciences employment.
- ▶ Indiana's NIH funding rose 44% from 2016 to 2019, which positioned the state in the Top 10 fastest growing states during this three-year period.
- ▶ And across the state, several areas were highlighted for outsized life sciences activity, including Evansville, Bloomington, Michigan City, Lafayette, South Bend, and Terre Haute.

Research, Report, Recommend, Repeat

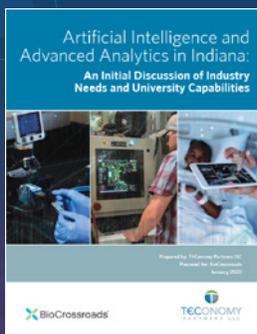


BioCrossroads advances the region's life sciences vitality by convening thought leaders, educating the community and igniting action. Those efforts have led to the development of more than 20 reports over the last decade with four being published in 2020. In fact, BioCrossroads' reports have been referenced on platforms such as Research Gate with downloads from countries all over the world.

January kicked off the release of a critically important piece of research, *Artificial Intelligence and Advanced Analytics in Indiana: An Initial Discussion of Industry Needs and University Capabilities*, compiled by TEconomy Partners. The report found that technological

change is affecting our economy at an unprecedented pace and is driving significant investments by Indiana's industry partners and research universities to ensure that they stay ahead of the curve. However, TEconomy determined that there is limited coordination between industry and academia leaving missed opportunities to leverage investment, recruit and retain talent, and drive economic growth for the state.

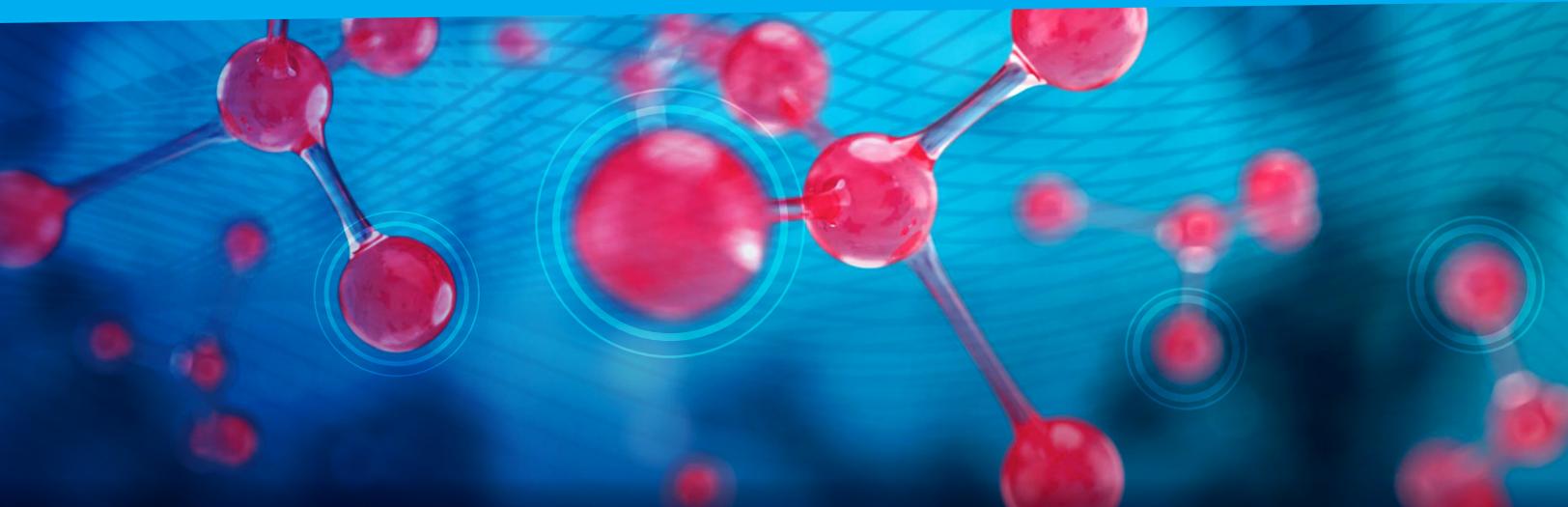
As a result, discussions among the research universities and industry partners are leading to a broader effort around Indiana's opportunities and challenges in advanced analytics which will be announced in 2021.



Artificial Intelligence and Advanced Analytics in Indiana



Tech Transfer in Indiana



Tech Transfer in Indiana: An Overview for the Life Sciences Industry is a comprehensive resource highlighting the technology transfer processes employed by Indiana University, Purdue University, and the University of Notre Dame to facilitate commercialization of research-driven discoveries and innovations. The report also discusses the role of incubators and graduation facilities at research universities, which are increasing in number and importance at universities across the country.

Two new reports that BioCrossroads developed in 2020 will be updated at least yearly – one focused on annual life

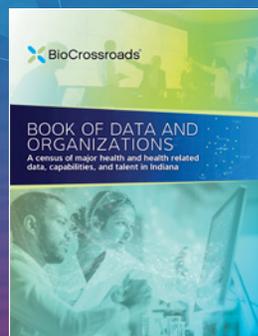
sciences capital investments in the state and a directory of Indiana health data assets and organizations.

Indiana Life Sciences Capital: A summary of 2019 investments, detailed the sources, types, and amounts of capital supporting Indiana's life sciences sector, including Small Business Innovation Research grants, venture capital, public market financing and mergers and acquisitions.

The Book of Data and Organizations, a directory of Indiana enterprises in the health-data intersection includes snapshots of organizations who control data assets – data sets, talent, and/or technology, was first published in July. It will be a constantly updated resource.



Indiana Life Sciences Capital



The Book of Data and Organizations

Before the pandemic was in full swing, BioCrossroads hosted one in-person FrameWorx event in February, pivoting to virtual events for the remaining sessions. Topics for the four sessions included:

- ▶ Artificial Intelligence and Advanced Analytics in Indiana: An initial discussion of industry needs and university capabilities, which complemented the release of the report in January.
- ▶ Disrupting Point of Care Diagnostics: How COVID-19 is impacting diagnostics
- ▶ Data Driving Digital Transformation in Healthcare: A look at the data ecosystem as it relates to healthcare assets in Indiana
- ▶ The Importance of Vaccines



The Indiana Life Sciences Summit was a virtual, streamed event which saw a dramatic increase in the reach from previous in-person events. More than 700 attendees from as far away as India and Singapore, joined the conference, and there were nearly 3,000 views of the event, which focused on Indiana life sciences, healthcare communities, and universities' COVID-19 response. In addition, a discussion with some of Indiana's newest life sciences companies – Abbott, Novartis, Brickell Biotechnologies and POINT Biopharma – revealed why they chose the Hoosier state for their operations.

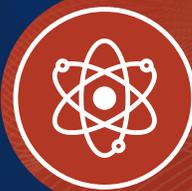


Esteemed “Father of Echocardiography” (Echo)
Dr. Harvey Feigenbaum was awarded the 2020 August M. Watanabe Life Sciences Champion of the Year. The prestigious honor was given to Dr. Feigenbaum for his unprecedented impact on cardiology resulting from his pioneering work with echocardiography, now the most widely used cardiac imaging technique in the world.

WORK IN

2,282 companies are working in the areas of drugs and pharmaceuticals, medical devices and equipment, agricultural chemicals and feedstock, medical, research and testing laboratories and biologistics. In 2020, Indiana companies committed to invest more than **\$700** million in new facilities and equipment.

Workforce & Wages



2,282 companies



>59K employed



\$6.1B total industry wages



>\$102K average wage per person

Average wage per person in life sciences is **>2x** the average wage per person in the private sector.

Collaborations

Three initiatives that started in 2019 with focus on industry and academic engagement continued in 2020: *So You Have a Molecule* program, DataX BioInnovation Challenge and AXIS mentoring program.



The **So You Have a Molecule** program is a collaborative session

where BioCrossroads convenes and connects talent in academia with corporate expertise while fostering a sense of community. Promising, molecule-centric start-ups from Indiana's academic institutions are brought together with industry partners to provide scientific and strategic feedback in a brainstorming format. Three companies participated in the program in 2020.



DataX BioInnovation Challenge, a competition launched at the 2019 Indiana Life Sciences Summit, culminated in 2020 with the announcement of two winners focused on finding solutions to two of Indiana's biggest health issues: diabetes and opioid addiction.

Indiana Poison Center at IU Health won the diabetes challenge for their experiment on the unintentional ingestion of Type II diabetes oral medications which can cause devastating hypoglycemia in children and adults. They determined exposure rates of unintentional Type II diabetes medications in both children and adults, as well as created outreach programs to educate the community on these risks.

INNOVATION IN

940
new patents
granted

92
new products
approved by the FDA

A team from the Parkview Health Mirro Center for Research and Innovation won for their opioid addiction submission. They analyzed publicly available data resources, as well as other opioid crisis variables, to determine where treatment facilities may be needed in the future throughout the state of Indiana.



The AXIS Mentoring program marked its first full year with a cohort of 18 mentees, entrepreneurs from Indiana and Purdue Universities, representing pharmaceuticals, medical device and health IT disciplines. Thirty-six expert mentors from across the life sciences – seasoned corporate executives, serial entrepreneurs and other experts – are part of the program.

\$262M
venture
capital funding

44
companies
funded

Investing In Indiana's Life Sciences Future

Indiana Seed Fund III invested in **Novosteo**, a West Lafayette based start-up developing a targeted drug combination for improved bone fracture healing. The Fund made secondary investments in Gate Neurosciences, Brickell Biotech, MBX Biosciences, and Sabanto. In addition, Indiana Seed Fund portfolio companies had a strong year for raising additional funds:

\$34.6M



\$35.0M



\$26.5M



The investment in

novosteo

marks the

31ST Indiana start-up
company

in the **Indiana Seed
Fund** portfolio **since** it was
established in **2005**.

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.

Daniel Peterson is the Chairman of the Board of BioCrossroads.

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Retired Dean
Indiana University School of Medicine

Dr. Richard DiMarchi

Chief Scientific Officer
MBX Biosciences

Dan Evans

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Indiana Biosciences Research Institute
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IU Health

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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.

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