

LIFE SCIENCES INDUSTRY

## THE TRAILBLAZERS OF THE LIFE SCIENCES INDUSTRY

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# AUGUST M. WATANABE LIFE SCIENCES CHAMPION OF THE YEAR

Indiana has worked tirelessly over many decades to develop one of the largest and most vibrant life sciences sectors in the country. It is comprised of thousands of organizations and Hoosier workers along with many thousands more contributing to the industry through academia, philanthropy and other supporting roles. In an effort to recognize and honor some of the people leading the way and making significant contributions to the sector, BioCrossroads created the August M. Watanabe Life Sciences Champion of the Year Award to shine a light on innovation and growth in the state and recognize those whose impactful contributions have helped lead the sector to national prominence.

Each year since 2008, BioCrossroads has recognized influential leaders in the Indiana life sciences sector with this award, named in honor of its late chairman, Dr. August "Gus" M. Watanabe, a man who personified what this award is all about.

Watanabe graduated from the Indiana University School of Medicine (IUSM) with an M.D. in 1963. He was board certified in Cardiology in 1973. By the age of 37, he would become the youngest professor of internal medicine in the history of IUSM. In 1983, he was named chairman of the department.

In 1990, he left academia to work in the private sector for Eli Lilly and Company. There, he held a number of executive positions and became president of Lilly Research Laboratories. Under Watanabe's leadership, Lilly launched 11 important new drugs, research and development staff more than doubled worldwide and annual investment in R&D tripled, to \$2 billion. Upon retiring from Eli Lilly and Company, he would become the founding chairman of the Indiana life sciences initiative, BioCrossroads, where he began creating the framework for what the state's life sciences sector has become today.

He then had a very successful career as an entrepreneur and venture capital adviser, so Gus was involved in all aspects of the life sciences from research to commercialization to funding.

Actually, the idea of awarding an individual who:

- makes significant achievements in the development and promotion of Indiana's life sciences sector;
- personifies the emerging face of the Indiana life sciences industry;
   and
- promotes innovative development of the life sciences in Indiana. was Gus' idea.

His passion and involvement in Indiana's life sciences community was monumentally important and transformative. And even more than his work, his caring and nurturing spirit is something that will inspire the many, many people that he touched for years to come.

Without Gus Watanabe, the Indiana life sciences sector would not look the same.

That can also be said for each of the recipients of the award. The honor goes to a resident of Indiana supporting the state's life sciences growth via entrepreneurial, research, corporate, medical, academic, or philanthropic work. Recognition is based on an assessment of cumulative contributions, not on a specific achievement over the course of a year.

As you read through the achievements of those celebrated in the following pages it will be difficult not to be struck by the certainty that these individuals have made meaningful differences in the lives of so many people. They have changed the world for the better through discovery, invention, therapies, cures, new companies, jobs and more. Their work and achievements have had a signature impact on the shape and influence of the sector. Their efforts promote and personify innovation as a shared opportunity for future growth and success. Based on the growth and health of the Indiana life sciences sector, their energy has been well spent and benefits not just Hoosiers, but patients around the world.

## Leonard J. Betley

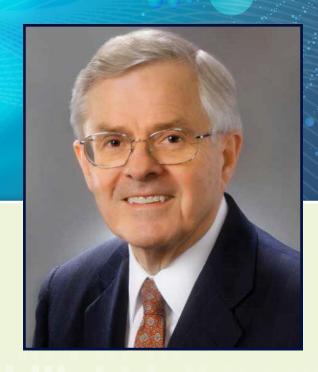
AUGUST M. WATANABE LIFE SCIENCES CHAMPION OF THE YEAR

As a humble yet influential leader of several landmark Indiana institutions focused on life sciences and improving education, the inaugural BioCrossroads Life Sciences Champion of the Year Award, which was later renamed for Dr. August Watanabe, was presented to Leonard J. Betley in 2008.

As Chairman and President of the Richard M. Fairbanks Foundation and the Regenstrief Foundation, and Chairman of the Walther Cancer Foundation, Betley was instrumental in providing vision and funding to stimulate the creation and growth of health-related organizations and groups that have made an unprecedented impact on the life sciences sector. His work helped to lay the groundwork for these institutions, which continue to positively impact the state to this day.

Betley was instrumental in starting the Richard M. Fairbanks Foundation in 1986 and by 2008 the organization had awarded grants totaling more than \$115 million dollars primarily to local non-profit organizations. Nearly half of the grants have been related to health. This included creation of the Fairbanks Institute for Healthy Communities – an innovative organization designed to have a positive impact on the health of Central Indiana as well as the rest of the world. Now known as the Indiana BioBank, this part of the Indiana Clinical and Translational Sciences Institute works to aid discovery research by providing researchers with the tools and resources they need to pursue better ways to treat and prevent diseases. The Foundation also funded Fairbanks Hall – a joint project between the IU School of Medicine and Nursing and Clarian Health that was to become one of the largest simulation centers for medical and nursing school students in the country.

As the Chairman of the Regenstrief Foundation, Betley provided critical support to the Regenstrief Institute, an internationally recognized informatics and healthcare research organization. The Foundation also funded the creation of the Regenstrief Center for Healthcare Engineering at Purdue University, which at the time, was the only integrated university-wide effort in healthcare engineering in the nation.



Betley also facilitated the establishment of the Walther Cancer Institute (later to become the Walther Cancer Foundation) as a medical research organization. Through his leadership, the Foundation has given ecumenically and consistently to advance cancer research at Notre Dame University, Purdue University and Indiana University.

Not only has he been influential in the development of Indiana's life sciences, Betley has also given his time to serve on the boards of numerous community organizations including The Nature Conservancy, Park Tudor School, the Indianapolis Museum of Art, the Indy Chamber, the United Way of Greater Indianapolis, and the Indianapolis Arts council.

He served as Managing Partner of Ice Miller law firm until 1996, practicing law for 36 years.

"As evidence that our life sciences community is full of outstanding entrepreneurs, community and corporate leaders, researchers and academics, several highly qualified candidates were nominated for our inaugural award," said David L. Johnson, (then President and CEO of BioCrossroads). "Len is the perfect honoree because of his influence on countless opportunities within healthcare and well-being organizations, raising their visibility and the awareness of Indiana's life sciences as a sector, while he stays behind the scenes. His footprint on the life sciences community is immeasurable and has touched the lives of thousands of Hoosiers."

## Dr. Richard DiMarchi

AUGUST M. WATANABE LIFE SCIENCES
CHAMPION OF THE YEAR

In 2009, BioCrossroads recognized Richard DiMarchi, Ph.D, one of the world's leading peptide scientists and biotechnology entrepreneurs, for his significant impact on Indiana's life sciences greatness and growth. DiMarchi is the Linda & Jack Gill Chair in Biomolecular Sciences and Professor of Chemistry at Indiana University and the second recipient of the August M. Watanabe Life Sciences Champion of the Year award.

Dr. DiMarchi is a steward of Indiana's life sciences growth, and he encompasses the award's mission to "honor an individual who has made significant achievements in the development and promotion of Indiana's life sciences sector and promotes innovative development of the life sciences in Indiana."

DiMarchi is a former Group Vice President at Eli Lilly and Company and later at Novo Nordisk. He is recognized for his contributions to the discovery and development of rDNA-derived Humalog®, rGlucagon® and Forteo®. These drugs have become important choices in the treatment of diabetes and osteoporosis. His academic research has broadened the understanding and treatment of diabetes and obesity. He is a former chairman of the Peptide Therapeutics Foundation and widely recognized as an international spokesperson for macromolecular medicines.

Professor DiMarchi is a brilliant scientist, entrepreneur and business person experienced in working with venture capital firms. This unique skillset has served him and the Indiana life sciences sector well. He is co-inventor on more than 100 U.S. patents and co-author to more than 250 peer-reviewed scientific publications. He has been identified as a top-five researcher by *Nature Biotechnology*. His role in startup companies is renowned. Since 2003, he has co-founded six successful biotech companies including Ambrx, Marcadia (acquired by Roche in 2010), Calibrium, MB2 (acquired by Novo Nordisk in 2015), Assembly, and MBX.



"Richard has been an incredible catalyst for bridging industry with academia, and has brought national attention to the life sciences efforts in Indiana," said D. Craig Brater, MD, chairman of Regenstrief Institute and former dean of the Indiana University School of Medicine. "He has earned a prominent role as one of the leading peptide scientists in the world and is also building one of the most promising biotech companies in the U.S. He personifies the emerging face of Indiana's life sciences sector, and utilizes that role to support and mentor the next generation of entrepreneurs and scientists. And, his research and entrepreneurial endeavors are focused on two of the most critical health needs in the U.S. — diabetes and obesity."

The August M. Watanabe Life Sciences Champion of the Year award sits proudly among the numerous other awards DiMarchi has received including the 2005 career Research Achievement Award in Biotechnology from the American Association of Pharmaceutical Scientists; the 2006 American Chemical Society's Earle B. Barnes Award for Leadership in Chemical Research Management along with its 2006 Gustavus Esselen Award for Chemistry in the Service of Public Interest; the 2007 Wallace Carothers Award for Excellence in Polymer Sciences; the 2011 Merrifield Award for Career Contributions in Peptide Sciences; the 2014 German National Erwin Schrödinger-Preis, the 2015 Meienhofer Prize; the 2015 Max Bergmann Medal and the 2016 American Chemical Society's Alfred Burger Career Award in Medicinal Chemistry. He was inducted into the National Inventors Hall of Fame in 2014 and the National Academy of Medicine in 2015.

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# Dane Miller

AUGUST M. WATANABE LIFE SCIENCES CHAMPION OF THE YEAR

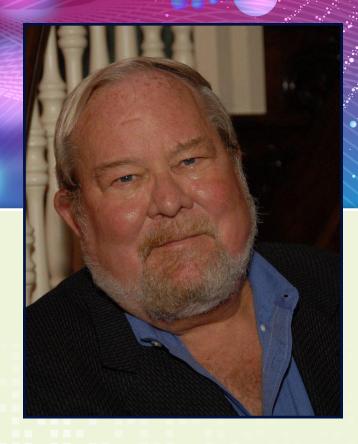
One of Indiana's most successful entrepreneurs, the late Dane A. Miller, Ph.D., founder and former chief executive officer of Biomet received the August M. Watanabe Life Sciences Champion of the Year award for 2010.

Dr. Miller founded the global orthopedic giant, Biomet (now Zimmer Biomet) in the orthopedics capital of the world, Warsaw, Indiana in 1977. He and his co-founders set up the company in a converted barn and success followed. He was named Indiana Small Business Person of the Year in 1984. In 1991, President George H.W. Bush awarded him with the Small Business Association National Entrepreneurial Success Award. In 2005, Governor Mitch Daniels named Miller to the inaugural board of directors of the Indiana Economic Development Corporation. By the time Miller retired, the term "small business" no longer applied. Biomet had turned into a \$2 billion global enterprise with sales in 100 countries and more than 6,300 "team members."

"Dane Miller was one of the greatest engineers and job-creators our nation has known. And one of the great human beings – unpretentious, unaffected, kind to all around him," said Daniels.

Retirement didn't sit well with Miller, so he set out to assemble a consortium of private equity firms that would allow him to purchase Biomet, taking it private, for \$11.4 billion. In 2014, Zimmer offered to acquire Biomet from Miller and the consortium for \$13 billion. Dr. Miller passed away in early 2015.

During his career, Miller was considered by many to be a "maverick." He was tenacious in his beliefs. From the time he first dreamed of starting the company to his adoption of unconventional materials for construction of medical implants – he would not take "no" for an answer. When others refused to accept his views on what was the most biocompatible metal for devices, Miller had a small titanium rod implanted in his arm to prove his body would not reject the material. He was right.



His nonconformist ways would prove a benefit to shareholders. Bucking the trend of high CEO compensation for large companies, Miller kept a relatively low salary even when Biomet was a billion-dollar corporation. As a result, Forbes magazine recognized him for being one of the best "values" for shareholders among CEOs in the country.

Without a doubt, Miller's engineering ability, his vision and entrepreneurial spirit have made a remarkable difference in the Indiana life sciences sector and in the lives of countless patients around the world.

"The success of Biomet through Dane's early vision and leadership has raised Indiana's national visibility as a center for the life sciences, and Warsaw as the world capital of the orthopedic industry, said D. Craig Brater, M.D., then dean of the Indiana University School of Medicine and chairman of the Board of BioCrossroads. "In addition, because Warsaw is the hotbed of the orthopedics world, many supportive companies have been built around the area, employing thousands of people. Dane is one of the primary catalysts for the surge in Kosciusko and surrounding counties' businesses and growth, and to keeping Indiana's economy strong because of his influence in the medical device industry."

## William A. Cook

#### AUGUST M. WATANABE LIFE SCIENCES CHAMPION OF THE YEAR

In 2011, the late William A. Cook, founder of Bloomington-based Cook Group and one of the world's great entrepreneurial success stories, was named the Watanabe Life Sciences Champion of the Year for his countless contributions to Indiana's communities and to worldwide health.

Starting in a spare bedroom of their apartment in 1963, and as the only employees, Cook and his wife Gayle began crafting catheters, needles and wire guides by hand and connecting directly with physicians for sales. From their humble beginnings, Cook Group went on to become the largest privately held medical device company in the world.

Cook's innovation included firsts in coronary and peripheral stenting, endovascular treatment of aortic aneurysms, difficult airway management and other medical disciplines that helped shape modern medicine worldwide.

He was a constant innovator and medical pioneer in the field of minimally invasive medicine. The company grew rapidly and went on to have more than 15,000 products on the market in the areas of interventional radiology and peripheral intervention, urology, critical care medicine including antimicrobial-impregnated catheters, gastroenterology, general surgery and many others. At the time of the award presentation, Cook Group had annual sales of approximately \$2 billion, employed 6,500 Hoosiers and a total global employment exceeding 10,000. Today global employment exceeds 12,000.

Medical product manufacturing companies founded by Cook include:

#### **UNITED STATES**

- · Cook Inc., Bloomington, Ind.
- · Cook Canton, Canton, Ill.
- Cook Myosite Inc., Pittsburgh, Penn.
- 0 10 1 100
- Cook Pharmica LLC, Bloomington, Ind.
- Cook Vascular Inc., Vandergrift, Penn.
- MED Institute, Inc., West Lafayette, Ind.

#### INTERNATIONAL

- · Cook Ireland, Limerick, Ireland
- William A. Cook Australia Pty. Ltd., Brisbane, Australia

- Cook Biotech Inc., West Lafayette, Ind.
- Cook Endoscopy, Winston-Salem, N.C.
- · Cook Polymer Technology, Bloomington, Ind.
- Cook Urological Inc., Spencer, Ind.
- K-Tube Corp., Poway, Calif.

William Cook Europe ApS, Bjaeverskov, Denmark



"Bill Cook left a lifetime legacy of giving that will last forever," said Kem Hawkins, then president of Cook Group. "His philosophy of putting people and patients first is responsible for our company's 48 years of unprecedented growth and success. His primary wish would be that we carry on that tradition, and ensure the stability and security of Cook here in Bloomington and around the world for our employees, our customers and the millions of patients who have been helped with the medical technologies Cook has pioneered."

"Bill's many contributions to the medical industry are unprecedented, and his many contributions to the community and to charitable organizations are extraordinary," said Steve Ferguson, chairman of Cook Group. "It was through his unique vision, persistence and dedication that Cook grew into a compassionate and caring global company for patients, customers and employees. He truly epitomized the meaning of success."

During his lifetime, Cook received many recognitions for his good works. In May 1992, he received an Honorary Doctor of Engineering degree from Rose-Hulman Institute of Technology in Terre Haute, Ind. In 1993, he received an Honorary Doctor of Laws degree from Indiana University. In 1995, he received the Northwestern University Alumni Merit Award and in 1999, the Oregon Health Science University Distinguished Achievement Award. Vincennes University awarded him with an Honorary Doctor of Commerce degree in 2002 and Northwestern University again awarded him with an Honorary Doctor of Science degree in 2003. In 2008, Marian College awarded him an Honorary Doctor of Business degree and in 2009 Spoon River College awarded him a Doctorate of Philanthropy.

To aid the advancement of education and medical research, Cook companies have provided significant financial support to universities, hospitals and physicians throughout the country, including his alma mater Northwestern University, Rose–Hulman Institute of Technology, Indiana University and more.

Always believing he had a responsibility to use his wealth for good causes, Cook was instrumental in the restoration and reuse of many historic buildings in southern Indiana, including over 40 properties on the National Register of Historic Places. Most significantly, was his contribution to the restoration of the West Baden Springs Hotel and the French Lick Springs Hotel in French Lick, Ind.

# Lilly Endowment Inc.

### AUGUST M. WATANABE LIFE SCIENCES CHAMPION OF THE YEAR

In 2012, BioCrossroads recognized Lilly Endowment Inc., then under the leadership of Thomas M. Lofton (chairman, 1993 to 2015) with the August M. Watanabe Life Sciences Champion of the Year Award.

Lilly Endowment's contributions to these efforts are unmatched, beginning with \$155 million in total grant funding, in 2000 and 2002, to the Indiana University School of Medicine for programs to enhance education, medical informatics and training for scientists and students in the emerging field of human genomics and proteomics. These "INGEN" grants were designed to put the IU School of Medicine in the vanguard of institutions exploring the research and development potential unleashed by the successful mapping of the human genome in 2000.

The level and intensity of Lilly Endowment's commitment to life sciences in this state has almost certainly spurred even greater investment and growth in the sector.

"Through the vision of Tom Lofton and his colleagues, Lilly Endowment has been prescient and strategic in its support of the life sciences. They have provided multiple awards to different institutions that are more than a collection of individual pieces of cloth; rather they are a tapestry where the whole is truly greater than the sum of the parts," said Craig Brater M.D., then dean of the Indiana University School of Medicine and former Chairman of the Board of BioCrossroads. "The result of their grants throughout Indiana's life sciences community will be more and more discoveries and better educated scientists and professionals, all leading to well–paying jobs, new companies and an overall better quality of life for Hoosiers."

At the time of the 2012 award, Lilly Endowment had contributed nearly a half-billion dollars in grant funding for programs to advance critically important research and development of intellectual capital in the life sciences. These programs, in turn, have contributed in a variety of ways to the vitality of Indiana's strong life sciences sector. Since 2012, Lilly Endowment's contributions to Indiana's life sciences sector have continued and include, among others, major grants to support a variety of programs and initiatives, such as:

- Purdue University's Discovery Park: a complex for advanced interdisciplinary research and education, focused on research in nanotechnology, bioscience/engineering and e-enterprises and entrepreneurship.
- Indiana University METACyt: a research core focused on analytical technology development and molecular biology.
- Schools of Pharmacy at Purdue University, Butler University and Manchester College: higher
  education institutions training pharmacists for Indiana's life sciences and healthcare sector.
- Indiana University School of Medicine Indiana Physician Scientist Initiative: a program identifying, recruiting and training the best and the brightest of the next generation of talent in translational, patient-directed research;



- OrthoWorx: a unique industry, community and education initiative launched by a community foundation grant from Lilly Endowment, designed to highlight and address the strengths, challenges and opportunities of Warsaw, Ind., as the "orthopedics capital of the world"
- The I-STEM Resource Network: a statewide consortium of 18 Indiana higher education institutions dedicated to measurably improving kindergarten through high school student achievement in the science, technology, engineering and mathematics disciplines through professional development for teachers.
- Indiana Biosciences Research Institute: an independent research institute established
  to help facilitate more strategic collaboration among Indiana's leading life sciences
  companies and research universities as well as philanthropic funders.
- 16 Tech: a 50-acre site located in Indianapolis' urban core, committed to attracting talent, sparking innovation and entrepreneurship in Indiana's advanced industries including life sciences, and driving economic growth while revitalizing and improving the job prospects for residents living in the near northwest side of downtown Indianapolis.

**Analytix Indiana**: an initiative established to develop a digital technology ecosystem anchored at 16 Tech that supports innovation structured around academic researchers working in data science, artificial intelligence and complementary disciplines, such as mathematics and engineering, in collaboration with Indiana's life sciences and advanced manufacturing companies.

<u>Lilly Endowment Inc.</u> is an Indianapolis-based, private philanthropic foundation created in 1937 by J. K. Lilly Sr. and his sons, Eli and J.K. Jr., through gifts of stock in their pharmaceutical business, Eli Lilly and Company. While those gifts remain the financial bedrock of the Endowment, the Endowment is a separate entity from the company, with a distinct governing board, staff and location. In keeping with its founders' wishes, the Endowment supports the causes of community development, education and religion. Although the Endowment funds programs throughout the United States, especially in the field of religion, it maintains a special commitment to its hometown, Indianapolis, and home state, Indiana.

Since it was founded, Lilly Endowment has made grants totaling nearly \$12.4 billion to more than 10,574 charitable organizations.

# Philip S. Low AUGUST M. WATANABE LIFE SCIENCES

CHAMPION OF THE YEAR

The 2013 August M. Watanabe Life Sciences Champion of the Year Award went to Philip S. Low, Ph.D., Ralph C. Corley Distinguished Professor of Chemistry and Director of the Center for Drug Discovery at Purdue University.

"Phil Low has the remarkable combination of being a success in the academic halls, the research lab and the entrepreneur's office. His passion for bringing scientific discoveries to the market to improve health and well-being has enabled him to start six companies here in Indiana and to develop breakthroughs in the treatment of cancer," said David L. Johnson, president and CEO of the Central Indiana Corporate Partnership (BioCrossroads' parent organization). "His contributions to our state's life sciences community will live on for generations to come by not only educating the future researchers, but also by making a significant impact on human health. We look forward to seeing more incredible discoveries from this prolific scientist."

One of his avenues of cancer treatment involves developing methods to target drugs specifically to cancer cells and thereby avoiding the collateral toxicity that normally occurs to healthy cells. In his most recent achievement in treating forms of cancer, Low's research is credited with leading to a new treatment offering hope for patients with advanced prostate cancer.

In addition to his work with cancer therapeutics, he and his companies are also involved in tissue regeneration, treatment of infectious diseases, reprogramming of the immune system and treatment of erythrocyte diseases. This last field of research has led to collaboration on a new



therapy for malaria that is in phase 2B human clinical trials in Southeast Asia and a new therapy for sickle cell disease undergoing clinical trials in the US.

Dr. Low is a Presidential Scholar for Drug Discovery, a member of the National Academy of Inventors and has published more than 500 articles. His recognitions are numerous and include;

- 2018: The Peter Speiser Award
- 2015:
  - Achievement in Chemistry in Cancer Research
  - American Association for Cancer Research (AACR) Award for Outstanding
  - Achievement in Chemistry in Cancer Research
  - American Chemical Society's George & Christine Sosnovsky
    Award for Cancer Research
  - Mathias P. Mertes Award
  - Roland T. Lakey Award
- 2014: Morrill Award
- 2006: Outstanding Commercialization Award for Faculty
- 1999: National Institutes of Health MERIT Award
- Along with many others

Dr. Low has made an indelible mark in the Indiana life sciences sector. His work has made significant impact on the growth and health of the sector and to the health and well being of countless patients around the world.

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## John C. Lechleiter

AUGUST M. WATANABE LIFE SCIENCES CHAMPION OF THE YEAR

In 2014, the August M. Watanabe Life Sciences Champion of the Year award was presented to John C. Lechleiter, Ph.D., then chairman, president and CEO of Eli Lilly and Company.

"John Lechleiter has been the principal visionary and moving force behind our efforts to advance Indiana's life sciences sector from the very first days of people even beginning to talk about this region's need for something like BioCrossroads," said David L. Johnson, then president and CEO, BioCrossroads. "He was one of our original organizers and supporters in 2002, and ever since, he has worked strategically and ceaselessly to engage both his colleagues at Lilly and leaders across the broader community to push ourselves forward to become the best we can possibly be when it comes to developing truly world-class life sciences assets, investments and talent here, culminating in his championship of our efforts to drive the creation of the new Indiana Biosciences Research Institute."

In the two years after Dr. Lechleiter made the call to action to form the Indiana Biosciences Research Institute (IBRI), he made a compelling case for bringing together industry with research universities in a new, industry-led research institute that could engage in more entrepreneurial and commercial success and recruit world-class talent to Indiana. During that time, the Institute raised \$50 million, including significant support from Eli Lilly and Company, as well as from other corporate and philanthropic leaders and the State of Indiana.

Today, as a testament to the efforts of Lechleiter and all involved, IBRI fills a major research gap by connecting academic discovery and industry development, and public and private enterprise to improve human health. It is an independent, non-profit discovery science and applied research institute targeting diabetes, cardiometabolic disease and poor nutrition. Inspired by Indiana's life sciences companies, research universities, government and community organizations, the IBRI's vision is to build a world-class organization of researchers, innovators and business leaders to catalyze activities across Indiana's



life sciences community, resulting in improved health for Indiana residents and beyond.

Dr. Lechleiter joined Lilly in 1979 as a senior organic chemist and has served in a variety of key management roles over the years in product development, regulatory affairs, project management, and operations. He retired as Eli Lilly's President and Chief Executive officer on December 31, 2016 after more than 37 years of service. He served as Chairman of Lilly's Board of Directors from January 2009 through May 2017. Lechleiter is credited with successfully guiding Lilly through one of the toughest times in its history. From 2010 through 2014 four of their blockbuster drugs (representing nearly half their annual sales in 2009) were set to lose patent protection. This would expose the company to a tsunami of generic competition. He was able to calm investors and in the end maintained Lilly's independence and avoided what some thought inevitable – a merger. By the time of his retirement Lilly was back in a growth position and developing a pipeline of promising new drugs.

At the time of his award, Lechleiter held membership in the American Chemical Society and Business Roundtable. He served as president of the board of the International Federation of Pharmaceutical Manufacturers & Associations (IFPMA), and as chairman of the board of the U.S. – Japan Business Council. In addition, Lechleiter served as a board member for Nike, Inc., Ford Motor Company, the Pharmaceutical Research and Manufacturers of America (PhRMA), United Way Worldwide, and the Life Sciences Foundation. He is an emeritus board member for the Central Indiana Corporate Partnership.

## Willard "Bill" Eason

#### AUGUST M. WATANABE LIFE SCIENCES CHAMPION OF THE YEAR

The founder of Indiana's diagnostic industry, the late Willard "Bill" Eason was named the August M. Watanabe Life Sciences Champion of the Year in 2015. Eason started Bio-Dynamics, the predecessor company to Roche Diagnostics, in his Indianapolis garage in 1964. The company flourished in the 1960s following Eason's invention of a point of care blood glucose monitor. The company was purchased by Boehringer Mannheim, and later acquired by Roche Diagnostics, who eventually made Indianapolis their North American headquarters.

A graduate of Butler University, 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 product 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.

"As a chemical engineer, he would get frustrated when it would take a week, ten days or a month to get blood work back," Donna Dowd, Bill Eason's daughter recalled, "I think that's where the idea all started. He wanted to develop a test that would make getting this information more efficient. From this idea, came the Unimeter, which could run a blood test in three minutes in a doctor's office. He loved science, and he always knew there was something new to be discovered."

The Unimeter grew into what is now known worldwide as the Accu-Chek brand and shaped diabetes care as it is practiced today. In addition, the Unimeter played a role in the development of many other diagnostic tests now performed in doctors' offices. Eason's innovative spirit and passion for improving patient care has improved the lives of millions of people.

"Bill's impact is immeasurable – from the growth going on at Roche Diagnostics to Indianapolis' vibrant sports community to his diagnostic innovations," said Jack Phillips, then president and CEO, Roche Diagnostics. "His contributions have influenced our employees, Central



Indiana and patients all over the world, and I'm thrilled that BioCrossroads and the life sciences community are recognizing such an incredible person."

Phillips credits Eason as the reason Roche Diagnostics roots are so deep in Indiana.

Eason was an entrepreneurial leader and grew Bio–Dynamics faster than any other company of its time over the course of ten years. He also made a lasting impact on his employees – known as a fair yet demanding leader. He was a risk-taker and thought "outside the box" – a signature component of Roche's culture even today.

Eason also worked to support the growth of Indianapolis in many other ways. He owned the Indiana Pacers when the team was a part of the American Basketball Association and tirelessly worked with a group of stakeholders to keep the Pacers in Indiana, when it appeared that the Pacers might be lured to California in the late 1970s and early 1980s. Eason invested a lot into the Pacers in part because of his belief that talent would not be drawn to the state without major league entertainment. In addition, the restlessly entrepreneurial Eason owned a farm in Brown County where he experimented with innovative agricultural strategies, and even explored for oil throughout the state.

"Bill is another example of larger-than-life Hoosier entrepreneurs like Bill Cook and Dane Miller who have made a lasting impact on the life sciences industry, as well as our state, through the sheer force of their talent, personality and persistence," said David L. Johnson, then president and CEO of BioCrossroads.

## John B. Swisher

AUGUST M. WATANABE LIFE SCIENCES CHAMPION OF THE YEAR

The 2016 August M. Watanabe Life Sciences Champion of the Year recipient, John B. Swisher, started JBS United (now United Animal Health) in 1956 at Sheridan, Indiana. With two employees and startup money borrowed from family. His David vs. Goliath animal nutrition business would rise to a position of leadership in an industry that had been dominated by titans such as Cargill, Allied Mills, Pillsbury, Swift, Purina and Indiana Farm Bureau.

Swisher believed that animal nutrition companies of the future would focus on a single species and would market directly to the farm, rather than through dealers. It was a unique concept at the time.

His philosophy to attract customers and help them to grow and prosper would, in turn, make his company do the same. The concept worked beyond his dreams. Swisher grew the company to 325 employees manning eight grain facilities, totaling over 20 million bushels of storage, and nine feed mills. United Animal Health supplies customers throughout the United States and Asia, operates the largest swine nutrition research farm system in the country and serves the top hog producers in the industry.

Few people have had a more significant impact on Indiana agriculture than Swisher. With over 50 years of industry leadership, he has become an icon for what it means to be reputable and effective in agribusiness. He has served on the Boards of Directors of the Indiana Pork Producers Association and the 4H Foundation. He is one of only four recipients of the Ernst & Young National Entrepreneur of the Year Award and a member of the Indiana Business Hall of Fame.

"Ag-focused technologies form a leading component of Indiana's diverse life sciences industry, and over the past 60 years, John Swisher has become an international icon for what it means to be a reputable, effective and visionary agbiosciences entrepreneur," said David L. Johnson, president and CEO of the Central Indiana Corporate Partnership and, then, president and CEO of BioCrossroads. "He truly



understands the importance of investing in the best people, research, and technology to spur innovation."

Under Swisher's guidance, United Animal Health's areas of expertise lie in research-based animal nutrition products, biotechnology applications in feed enzymes and microbials, livestock production, grain merchandising and environmental consulting services. The company embraces the philosophy of "Safe Food Safe Family" to develop some of the most extensive swine research facilities and capabilities in the world. Today, United Animal Health, Inc. is a prosperous international company with employees, feed mills, and research farms across the country. As the company continues to grow, its areas of expertise lie in research-based animal nutrition products, livestock production, grain merchandising and environmental consulting services.

"John Swisher is undeniably a life sciences champion," said Beth Bechdol, deputy director general of the United Nations' Food and Agriculture Organization and former president and CEO of AgriNovus Indiana, a CICP initiative focused on the agbiosciences sector. "His innovative approach to research and business has not only revolutionized agricultural production practices, but has more importantly led to technologies and solutions that help address our collective challenge of producing more food with fewer resources."

## Dr. Virginia Caine

AUGUST M. WATANABE LIFE SCIENCES CHAMPION OF THE YEAR

Public health advocate Dr. Virginia Caine was honored as the August M. Watanabe Life Sciences Champion of the Year for 2017. She is the Marion County Public Health Department director and chief medical officer.

"A challenge of any community is to understand how population health is tied very closely to its current and future success," said Dr. Caine. "By researching the issues and offering programs that meet public health needs, we strive to have a positive impact and help our residents achieve a better quality of life. I am humbled by this honor and appreciate the tremendous community support of our public health efforts in Marion County."

Dr. Caine's vision and energy is focused on making Marion County one of the healthiest communities in the country. She is an ardent voice for public health and access to medical care for the disadvantaged. She works tirelessly to promote and advance the cause through innovative programs and unprecedented collaborations. Indianapolis once had the distinction of having the highest Black infant mortality rate in the country. As codirector of the Indianapolis Healthy Babies Initiative, she was instrumental, along with community leaders, in an effort that reduced the Black infant mortality rate to its lowest level in the history of Indianapolis.

A nationally renowned health expert, she sits at local, state and national level tables to advocate and encourage policy that will improve healthcare. She is chairman of the Board of Trustees for the National Medical Association and current chair of the Infectious Diseases Section. She is a board member for the CDC Morbidity and Mortality Weekly Report (MMWR) Editorial Board. She is also chair of the Managed Emergency Surge for Healthcare (MESH) Coalition, a nonprofit public-private partnership addressing emergency preparedness in Marion County, Indiana, as well as the IU Simon Cancer Center Community Advisory Committee. She is a member of the National Biodefense Science Board, which provides expert advice and guidance to the Secretary of the U.S. Department of Health and Human Services and the



assistant secretary of preparedness. She is also co-chair for the Jump In for Healthy Kids Advisory Committee, founding member of the Indiana Health Information Exchange, and board member of the Indiana Latino Institute. In 2004, she served as president of the American Public Health Association, the nation's oldest and largest public health organization.

In addition to her role as director of the Marion County Public Health Department, Dr. Caine is an associate professor of Medicine for the Infectious Disease division of the Indiana University School of Medicine. She was instrumental in setting up the first nationwide physician educational program regarding AIDS for the National Medical Association, which was later duplicated by the American Medical Association. She led a countywide process with local primary care agencies dealing with HIV/AIDS, to create the city's first integrated HIV healthcare delivery system.

"Dr. Caine is a convener and a catalyst and a center of constructive activity," said David L. Johnson, president and CEO of the Central Indiana Corporate Partnership and then president and CEO of BioCrossroads. "Leading by example and advocacy, she has been driving to build a better, fairer and more inclusive healthcare sector and policies for our region over the entire time that BioCrossroads has been seeking to do the same -- pushing our state, our industry and our providers to do more to improve healthcare for our citizens. Her outreach and influence have ripple effects and are felt not only in Indiana, but in her work at the national level."

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## Dr. Anantha Shekhar

AUGUST M. WATANABE LIFE SCIENCES CHAMPION OF THE YEAR

BioCrossroads Board of Directors named esteemed researcher, educator and entrepreneur Anantha Shekhar, M.D., Ph.D., then executive associate dean for research affairs at the Indiana University School of Medicine, as the 2018 August M. Watanabe Life Sciences Champion of the Year.

At Indiana University (IU) and IU Health, Dr. Shekhar served in several leadership roles. As Distinguished Professor and Associate Vice President of Research and Clinical Affairs for IU, leader of the high-profile IU Precision Health Grand Challenge, and Executive Vice President of Academic Affairs for Clinical Research at IU Health, Dr. Shekhar elevated and integrated research across the state's largest university and its partner healthcare system.

Under Dr. Shekhar's leadership, IU School of Medicine's total research funding surged to \$339 million, which included a 33% increase in highly competitive National Institutes of Health (NIH) funding. He is the founding director of the nationally recognized Indiana Clinical and Translational Sciences Institute, a results-driven partnership among IU, Purdue University and the University of Notre Dame, created to improve health in Indiana through research. He also served on the NIH's National Center for Advancing Translational Sciences Advisory Council and the Cures Acceleration Network Review Board.

Under his tenure, the IU School of Medicine's research funding from the NIH grew 73%. He also led the Precision Health Initiative—a more than \$140 million strategic investment at IU in subjects including genomic medicine and big data sciences.

"Dr. Shekhar is unique in the scope and scale of his impact on Indiana's healthcare, life sciences, and academic community as a catalyst, collaborator and contributor," said David L. Johnson, president and CEO of the Central Indiana Corporate Partnership and then president and CEO of BioCrossroads. "There is no one, anywhere, who is better at understanding the rigors of academic research, the requirements for success in university-industry partnerships, and the imperatives of



better care for patients than Anantha Shekhar—he has and does it all. As a result, Anantha has put IU School of Medicine—and the entire State of Indiana—in an enviable position of collaborative leadership on the national research map through his tremendous efforts. Along the way, he's also found the opportunity to be the scientific founder or sponsor of some of our most promising next-generation life sciences companies."

Dr. Shekhar's career has been defined by innovation, transformation and sweeping and successful collaborations across the private, public and philanthropic sectors. In addition, he has received continuous funding from the NIH for basic, clinical and translational research since 1989, and has authored hundreds of articles in peer-reviewed publications.

His professional and research accomplishments include:

- Co-founding or leading five biotech companies, including Anagin, a startup company that is developing treatments for post-traumatic stress disorder, traumatic brain injury, neuropathic pain, depression, Parkinson's disease and Alzheimer's disease;
- Demonstrating a novel mechanism of action—the first in more than 70 years—that is being developed as a new approach to treating schizophrenia;
- Directing a laboratory that has developed highly regarded translational models for panic and related anxiety disorders that resulted in patents for novel therapies and the discovery of new treatments.

In 2020, Dr. Shekhar was chosen to become senior vice chancellor for the health sciences and dean of the School of Medicine at the University of Pittsburgh.

## Dr. Clem J. McDonald

#### AUGUST M. WATANABE LIFE SCIENCES CHAMPION OF THE YEAR

Dr. Clem J. McDonald received the 2019 August M. Watanabe Life Sciences Champion of the Year Award for his unprecedented impact on health IT and digital health in Indiana and abroad.

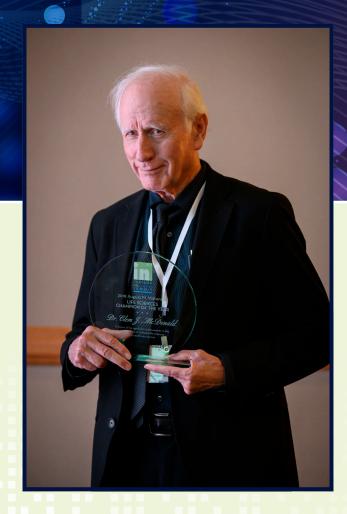
Previously, a distinguished professor of medicine at the IU School of Medicine and director of the Regenstrief Institute, Dr. McDonald is known as the "grandfather of EMR" after developing one of the nation's first electronic medical record systems. He then directed the use of the Regenstrief Medical Record System (RMRS) in clinical trials and illuminated the ways in which electronic medical records can improve patient care.

Dr. McDonald also developed the first community-wide clinical data repository, the Indiana Network for Patient Care (INPC), which enables the Indiana Health Information Exchange (IHIE). The INPC, considered a national model for regional health information exchange, has widely contributed to clinical trials research and patient health as well as epidemiologic studies, including the discovery of the association between an antibiotic given to newborns and the development of a digestive issue and the severity and mapping of flu outbreaks.

He was one of the founders of the Health Level 7 (HL7) message standards, used in all hospitals today, and also developed the Logical Observation Identifier Names and Codes (LOINC) database of more than 80,000 universal codes for clinical observations, including laboratory tests, clinical measurements and physician reports. It is used in 172 countries and is available in English, Chinese, Dutch, Estonian, French, German, Greek, Italian, Korean, Portuguese, Russian, Spanish and Turkish.

In addition, he published the first randomized trials showing the benefits of computer reminder systems and of physician order entry systems. He has written more than 275 peer-reviewed articles.

Dr. McDonald served as the Scientific Director of the Lister Hill National Center for Biomedical Communications (LHNCBC) at the National Library of Medicine (NLM) from 2006–2018, overseeing all LHNCBC



research and development in biomedical informatics related to consumer health, clinical data, image processing and visualization and natural language processing.

He currently serves as senior investigator, Office of the Director at NLM, National Institutes of Health, and holds the honor of being named the NLM's first Chief Health Data Standards Officer. He continues to collaborate in numerous efforts to facilitate industry adoption of standard vocabularies in EMR and public health reporting, as required by meaningful use regulations. He also works with numerous NIH Institutes to align research terminology with federally mandated clinical terminologies.

"Dr. McDonald's impact on health IT and digital health has not only greatly impacted the healthcare delivery system for Hoosiers, but has improved the way we deliver healthcare to patients in every hospital in the country today," said Patty Martin, president and CEO, BioCrossroads.

## Dr. Harvey Feigenbaum

## AUGUST M. WATANABE LIFE SCIENCES CHAMPION OF THE YEAR

BioCrossroads' Board of Directors selected esteemed "Father of Echocardiography" (Echo) Dr. Harvey Feigenbaum, as the recipient of the 2020 August M. Watanabe Life Sciences Champion of the Year for his unprecedented impact on cardiac health in Indiana and around the world.

Dr. Feigenbaum is recognized for pioneering the Echo, the most widely used cardiac imaging technique in the world. He has made numerous contributions to the medical profession that include developing the world's first practical, long-lasting use of echocardiography, the use of ultrasound to examine the heart, in 1965.

Feigenbaum fought and overcame years of skepticism by training many early world-wide pioneers in echocardiography and the first cardiac sonographer. He organized the first of numerous courses, lectures and workshops in Echo and wrote the first textbook on the subject in 1972, followed by multiple editions and translations.

He worked with many ultrasound instrument manufacturers and more recently served as a consultant for life sciences start-up KeLabs, which provides modeling software for quality control and web-based training of echocardiographers, sonographers and medical trainees.

Dr. Feigenbaum is a Distinguished Professor at the IU School of Medicine and a cardiologist at IU Health. His contributions to and influence on Indiana's life sciences are numerous and include his research, medical practice and teaching at the IU School of Medicine and contribution to the start-up community.

A leading scientist in the cardiac field for decades, Dr. Feigenbaum is the founder and past president of the American Society of Echocardiography, and served as the founding editor of the *Journal of the American Society of Echocardiography*.

During his career, he has received awards and honors from numerous professional organizations. He was designated a Distinguished



Scientist of the American Heart Association – the highest award the organization presents.

In 2000, the "Feigenbaum Lecture" was inaugurated at the American Society of Echocardiography annual meeting. He has received the Primio Mantevergine Award as "Father of Modern Echocardiography" in Naples, Italy and also was the recipient of the Pioneer Award from the Mayo Clinic for the development of Echo.

Dr. Feigenbaum received his medical degree from Indiana University and following an internship at Philadelphia General Hospital, he returned to the Indiana University Medical Center to complete his residency. He joined the faculty of the IU School of Medicine and serves as the director of non-invasive diagnostic cardiac laboratories.

"Dr. Feigenbaum's contribution to life sciences can't be overstated," said Patty Martin, president and CEO, BioCrossroads. "Tens of millions of echocardiograms are performed around the world every year. They are central to the assessment and management of cardiac disease and have saved millions of lives. Indiana's life sciences sector is proud to have such an influential scientist and leader as part of our community."

## Dr. Peter Kissinger

#### AUGUST M. WATANABE LIFE SCIENCES CHAMPION OF THE YEAR

Purdue chemistry professor and founder of Inotiv, Dr. Peter Kissinger, was honored as the 2021 August M. Watanabe Life Sciences Champion of the Year. A renowned educator, innovator and researcher whose work has benefited patients around the world, his leadership has led to great advances for the Indiana life sciences community.

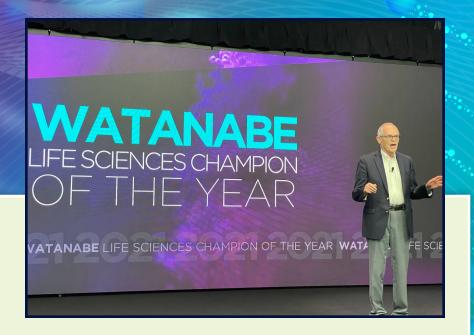
Dr. Kissinger is highly recognized for his pioneering work in sophisticated techniques for drug development. He taught at Purdue University for more than 40 years, influencing thousands of students.

He has helped guide multiple startup companies, including Prosolia, Phlebotics, Animated Dynamics and Tymora Analytical. Dr. Kissinger's teams have enabled painless sampling of laboratory animals that both sped up drug development and reduced the number of animals required.

In 1974, Dr. Kissinger founded Bioanalytical Systems, Inc., recently rebranded and formally renamed Inotiv, Inc., headquartered in West Lafayette, Ind. Inotiv conducts contract preclinical research to support FDA filings and develops instruments and procedures for pharmacology research. It was the first life sciences business in the Purdue Research Park to go public. Kissinger quickly became involved in planning the park itself, where he also co-founded with the Purdue Research Foundation a business incubator called INventure. This was likely the first university-affiliated new business incubator in Indiana.

Inotiv has grown into a leading publicly traded contract research services and instruments provider to the pharmaceutical industry with more than 300 Indiana employees. Inotiv now has operations in Indiana, Maryland, Missouri and Colorado. In 2021 Inotiv completed acquisition of Envigo, a leading global provider of research models and services based in Indianapolis. The combination adds additional operations in the US and Europe.

Dr. Kissinger is focused on better data for better decisions in preclinical and clinical pharmacology. The data comes from valid samples,



methods, and instrumentation that few patients will ever see. He notes that "we don't discover new drugs. Our role is in development, where safety and efficacy in the clinic are the ultimate objectives. We've provided support for many successful pharmaceuticals across multiple therapeutic areas for four decades. You won't see our name at Walgreens or CVS. That's OK."

Dr. Kissinger was a finalist for Ernst & Young Entrepreneur of the Year Award in the Indiana Heartland region for 2001 and 2002 and is a recipient of the Outstanding Commercialization Award for Purdue University Faculty. He received a Sagamore of the Wabash in 2019 as well as Purdue's Wetherill Medal, established to recognize outstanding efforts in service and outstanding teaching and scholarship by its members.

He has served on company and nonprofit boards, including the Indiana Medical Device Manufacturers Council (IMDMC) and the Indiana Health Industry Forum (IHIF). He is a Fellow of the American Association of Pharmaceutical Scientists and the American Association for the Advancement of Science. He has published more than 240 peer-reviewed scientific papers.

"The Indiana life sciences landscape would look much different without Peter Kissinger," said Patty Martin, president and CEO, BioCrossroads. "He is a leader, teacher, mentor, scientist, innovator, and entrepreneur. Dr. Kissinger has been teaching and training tomorrow's scientists at Purdue University since 1975 and at the same time demonstrating an amazing ability for turning scientific research into commercial success."

## **Nora Doherty**

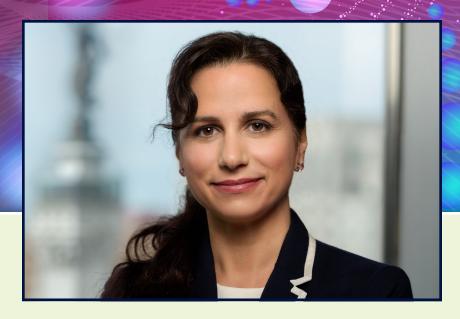
AUGUST M. WATANABE LIFE SCIENCES CHAMPION OF THE YEAR

The 2022 August M. Watanabe Life Sciences Champion of the Year is Nora Doherty, former executive vice president of strategy of BioCrossroads and managing director of the Indiana Seed Funds. Her contributions of impactful and meaningful outcomes have shaped Indiana's life sciences sector statewide.

Some of Doherty's most significant achievements were in developing a market for Indiana's life sciences start-ups, including forming and managing funding mechanisms like the Indiana Seed Fund program. She also helped secure investments from national venture capital firms and cultivated Indiana's entrepreneurial ecosystem.

Recognizing the need for early stage or seed stage capital, BioCrossroads, began a Seed Fund program in 2005, with Nora as Manager; followed by Fund II in 2012; and Fund III in 2018. These three Indiana Seed Funds, totaling \$24.25 million, have invested in 32 life sciences start-ups since 2006. Those companies have gone on to raise an additional \$796 million, more than 33 times BioCrossroads' initial investment. In addition to returns to investors, the Funds have succeeded in unlocking considerable new (and lasting) entrepreneurial activity and talent, spurred the participation of significant additional investors and forged invaluable relationships with Indiana's research universities, the State of Indiana and national venture capital firms. In addition, Doherty has guided dozens of other start-up companies with her advice, wisdom, and connections. She has also served on advisory committees for Indiana Future Fund (\$73M), INext (\$58M), and Next Level Fund (\$250M). Her involvement in growing not just the life sciences entrepreneurial ecosystem but Indianapolis' larger start-up landscape is impressive.

"Nora's work with start-ups encouraged deep relationships with our research institutions, especially Indiana and Purdue universities, bringing some of their research to market. It has also led to additional activities and collaborations between industry and academia," said Patty Martin, president and CEO of BioCrossroads. "She is incredibly well regarded by many of the leading scientists and start-up CEOs in the state, as well as venture capital fund managers across the country. She was instrumental in putting Indiana's life sciences entrepreneurial ecosystem on the map."



In addition to BioCrossroads' capital strategy, Doherty's strategic insight over two decades has driven a number of successful research projects that helped identify a collective response to a changing environment including the launch of the Indiana Biosciences Research Institute (2012) and activation of 16Tech (2015).

Doherty's impact is evident through the management of a research report that turned into an actionable and impactful project — Analytix Indiana. She conceptualized and facilitated the 2020 TEConomy Partners study titled Artificial Intelligence and Advanced Analytics in Indiana: An Initial Discussion of Industry Needs and University Capabilities. This study supported the creation of Analytix Indiana, an initiative to support the recruitment of academic talent, foster corporate and academic collaboration, create significant data assets to support both life sciences and advanced manufacturing, and establish an Indianapolis-based common place for university and industry engagement at the 16 Tech Innovation District.

Doherty has always had a strong entrepreneurial mindset. Prior to her work at BioCrossroads, she was a co-founder, vice president of operations and vice president legal, human resources and administration, and corporate secretary with Indianapolis- based Escient Technologies, Doherty received her BA and MBA from Indiana University, where she was a member of the honors program. She also received the Excellence in Leadership award as special recognition from the professors and administration of Indiana University MBA-CIP for her leadership and contributions to the program.

"It is difficult, if not impossible, to capture the full impact of Nora's initiative, intellect and leadership on Indiana's life sciences sector, remarked Martin. "She has tirelessly, often from behind the scenes, ensured that ideas were activated and results achieved."

## BioCrossroads celebrates two decades of advancing Indiana's life sciences sector

The Watanabe Life Sciences Champions awardees have been the trailblazers of Indiana's life sciences industry and are the embodiment of scientific, academic, entrepreneurial and philanthropic innovation and collaboration. Likewise, BioCrossroads has helped paved the way for important work around the state.

On February 13, 2002, Central Indiana Life Sciences Initiative (CILSI), which would ultimately become BioCrossroads, was established. The goal of the group was to create an intentional, collaborative life sciences network.

Today, 20 years later, the result is a vibrant and unique life sciences community that has increased its economic impact to the state by nearly \$50 billion from \$32 billion in 2002 to \$80 billion in 2022.

Throughout those two decades, BioCrossroads has encouraged growth within Indiana's life sciences industry through both direct and indirect activities that have advanced Indiana's standing as a national life sciences leader.

#### The organization has:

- Directly raised over \$649 million of market capital and philanthropic funding to identify and pursue promising new Indiana life sciences opportunities;
- Organized two life sciences venture capital funds the Indiana Future Fund (\$73 million) and the INext Fund (\$58 million);
- Organized and actively managed the Indiana Seed Fund (\$6 million), Indiana Seed Fund II (\$8.5 million); and currently manages Indiana Seed Fund III (\$9 million). Collectively these three seed funds have invested in 32 companies;
- Formed ten enterprises to advance signature Indiana life sciences strengths, including the Indiana Health Information Exchange, the Indiana Biosciences Research Center, AgriNovus, the 16 Tech Innovation District and OrthoWorx;
- Assisted in the attraction of thousands of jobs in life sciences companies establishing, expanding or consolidating operations in Indiana;
- Supported over 500 start-up companies and collaborations by connecting them with industry partners and capabilities, providing basic business planning guidance, and linking with additional funding sources;



- Developed more than 100 events connecting the industry and educating the community about the healthcare and life sciences sector; and
- Released 32 market knowledge and research reports.

BioCrossroads has also been recognized by national organizations including the Brookings Institution and TEConomy Partners for collaborative and innovative efforts to advance and promote the Indiana's life sciences industry.

According to authors Bruce Katz and Jeremy Nowak in The New Localism - How Cities Can Thrive in the Age of Populism, "We were particularly enamored of CICP's BioCrossroads, an effort to steer hundreds of millions of private and civic resources towards recruiting talented researchers, building world-class centers of excellence, investing in STEM education in elementary and secondary schools, giving start-up and scale-up companies access to risk capital and developing quality places."

While there is considerable uncertainty in the world today, there remains reason to be optimistic that life sciences will continue to be a core competency and growth driver for Indiana. BioCrossroads is at the center of a successful, collaborative approach, where entities such as industry, university, government, and philanthropy can focus on their strengths while utilizing each other to collectively respond to new challenges in the ecosystem, such as access to investment capital, the need for talent, and the ongoing threats and opportunities of technological disruption. By addressing shared challenges and helping to sustain an ecosystem that can positively respond to promising opportunities, BioCrossroads will continue to serve a critical and central role in Indiana's ongoing economic advancement.

Written by Lori Green LeRoy and Steve Crider © 2022 BioCrossroads **B B** . . . . . 🜃 🌃 🗀 田 田 . **B B**• Ш, **10 10** -Ш, **10** 10 ... **.** . . **3. 3** П 

