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Report 09



BioCrossroads[®]

“Though every state wants to be a hub for life sciences, Indiana really is one...” © The Economist Newspaper Limited, London June 4, 2009

A Catalyst for Life Sciences

Throughout 2009, Indiana continued to gain significant ground on the national map as a center for life sciences, biotechnology, medical devices and health care information technology. Although Indiana was not immune from the major economic crisis that grabbed national headlines throughout 2009, our life sciences sector continued to see new opportunities coming to life—and new capital flowing to meet them. Highlighting the year were key investments totaling more than \$125 million, including a grant of \$2 million to expand our ongoing efforts to advance K-12 science, mathematics, engineering and technology education; a grant of \$7 million to launch a community-based orthopedics initiative in Warsaw, Indiana, truly

the Orthopedics Capital of the World; an investment of \$58 million in a new life sciences venture capital fund to fuel future growth of our most promising life sciences start-ups; and a \$60 million grant to expand the ranks of pre-eminent physician scientists engaged in transformational and translational life sciences research at the Indiana University School of Medicine.

For many of us and in many ways, 2009 was a challenging year. But Indiana's life sciences community weathered much of the economic storm. And through it all, BioCrossroads stayed focused on our catalytic mission to advance Indiana's life sciences leadership, invest in new enterprises and strengthen our state's health, economy and future.

Medical Devices

Home to companies bringing in more than \$11 billion in annual revenues, Warsaw, Indiana with its concentration of orthopedics corporate headquarters, suppliers, and contract service providers represents more than one-half of the U.S. market and more than one-third of the world's market for developing orthopedic medical devices. This northern Indiana cluster serves as a regional focal point for one of the largest economic drivers in the state and a major global medical device manufacturing hub. In an era of intense global competition and changing financial and regulatory markets, how does an industry—contained within a community—continue to maintain its strong economic presence and position itself for future growth?

Through a grant from Lilly Endowment, BioCrossroads researched this question by engaging expert consultations and doing extensive field research. In September, we published our findings in a signature report: *Warsaw, Indiana: The Orthopedics Capital of the World—An overview, analysis and blueprint for future industry and community growth*. This study generated wide publicity and was well received within the Warsaw community and the orthopedics sector. The result: the formation of OrthoWorx, a Warsaw-based industry, community and education initiative created to advance and support the continued vitality and growth of and innovation within the region's uniquely concentrated, globally significant orthopedics device sector. Lilly Endowment gave a generous \$7 million grant to the Kosciusko County Community Foundation to support the establishment of OrthoWorx and the advancement of its early, important mission.



Health Information Technology

The beginning of 2009 brought the federal jobs stimulus bill—the American Reinvestment and Recovery Act (ARRA)—and resulting opportunities for major amounts of federal funding to establish and advance the nation's "meaningful use" of health information technology (HIT). From the beginning, BioCrossroads has been committed to the advancement of Indiana's signature research and commercial capabilities surrounding HIT and HIT exchange, serving as a founder and initial investor in the nation's most successful health information organization, the Indiana Health Information Exchange, in 2004. Seeking to build on that strong base, in 2009 BioCrossroads spearheaded an unprecedented collaborative effort, bringing together the State of Indiana, Indiana's five independent health information exchanges and four state organizations. The consortium, coordinated by BioCrossroads, submitted an application to receive significant federal stimulus funding, starting in 2010, for a statewide health information technology program that will be used to further enhance the quality, reach and connectivity of the State of Indiana's HIT delivery system.

In addition, as a way to showcase the state's collective assets and national leadership in HIT, BioCrossroads created Exhibit Indiana (Expanding Indiana's Breakthroughs in Health Information Technology), an initiative focused on advancing the development and effective use of HIT within Indiana and across the U.S. A dedicated web site, www.exhibitindiana.com, provides descriptions and links to network partner organizations. The web site also provides current information regarding a range of other health IT opportunities under ARRA.



Biopharmaceutical Development

In 2009, BioCrossroadsLINX, our initiative to leverage Indiana's strengths in contract pharmaceutical research and manufacturing, continued to connect Indiana's contract service sector with biotechnology hubs. LINX sponsored educational programs focused on drug development, along with other sector development activities. BioCrossroadsLINX also continued our focus on other national centers of biotechnology innovation, particularly San Diego, as potential partners (and markets) for our contract research services. We advanced relationships with San Diego-based universities, research institutes and biotech companies through our continuing inter-regional partnership with CONNECT, one of the country's most successful non-profit organizations dedicated to creating and sustaining innovative, technology-based enterprises in San Diego. In February, BioCrossroadsLINX co-sponsored a CONNECT workshop entitled "Drug Development in a Capital Constrained Economy" featuring Indiana contract service providers and San Diego biotech companies. This educational program provided a forum for Indiana contract service providers to discuss industry trends and strategies for navigating the ever-increasing challenges of product development.

Even through the economic downturn in 2009, Indiana's contract pharmaceutical research and manufacturing sectors continued to expand. New service providers were formed, facility expansions were announced, and service line extensions were added. With the pharmaceutical and biotechnology industries' continued focus on lowering costs, partnering for increased capabilities and increasing flexibility through outsourcing, BioCrossroadsLINX moved a growing number of opportunities to highlight Indiana's leadership in this sector forward and developed creative partnerships with other regions.



Capital Returns

The year ended with some positive news. And Indiana was able to achieve something that no other state could.

In mid-December, at the end of a difficult year that saw venture capital formation decline nationally by over 50%, BioCrossroads announced the formation of a major new life sciences venture capital fund. Organized through BioCrossroads, and managed by the Credit Suisse Customized Fund Investment Group, the \$58 million INext Fund includes investments from Eli Lilly and Company, the Indiana State Teachers Retirement Fund, Indiana University, Purdue University, the University of Notre Dame, and the Richard M. Fairbanks Foundation, Inc. Established as a fund of funds, the INext Fund is a capital pool that will invest in venture capital firms strategically focused on life sciences and ready to seek out the best life sciences investment opportunities in Indiana.

The new INext Fund is a successor to the original Indiana Future Fund, a \$73 million fund of funds launched in 2003 to stimulate and grow Indiana's venture capital sector as a ready source of early investment for our most promising life sciences companies. Thus far, the Indiana Future Fund program has directly invested over \$40 million, and brought in an additional \$160 million from national venture capital investors into more than a dozen Indiana life sciences start-ups. The INext Fund will build on this promising foundation, providing a new and significant boost to Indiana's life sciences economy, at a time when other regions across the U.S. are struggling to assemble new venture capital resources to advance biotechnology start-up efforts.

Also in the area of start-up investment, BioCrossroads' own \$6 million Indiana Seed Fund continued to serve as an important resource for Indiana's entrepreneurs. In December, the fund invested in its ninth company, Bioscience Vaccines, a start-up company that is developing biologic materials to boost the effectiveness of a wide range of life-saving vaccines—a hot topic and active area of investment in this past year of anxiety over H1N1 influenza.

Since 2003, a total of 25 Indiana companies have received early funding from the Indiana Future Fund and BioCrossroads Indiana Seed Fund.



Supported more than **250**
companies and collaborations to date

Raised more than **\$220 million**
to build new life sciences opportunities



we are BioCrossroads

K-12

It does little good to create opportunities for the “jobs of the future” if our next generation lacks the education and skills to fill them. BioCrossroads is therefore committed to promoting more rigorous K-12 science and math education to prepare young Hoosiers for future life sciences opportunities, and our efforts progressed considerably in 2009. The Central Indiana Corporate Partnership Foundation received a \$2 million grant from the Lilly Endowment to support the Indiana Science, Technology, Engineering and Mathematics (I-STEM) Resource Network, a multi-institution organization that BioCrossroads conceived and established. Over the last two years, the I-STEM Network has focused on providing research-based professional development to enable Indiana teachers to meet statewide academic standards for teaching algebra and other mathematics subjects. To date, more than 6,000 teachers, working with over 150,000 K-12 students throughout Indiana, have participated in I-STEM professional development programs.

Partnering with the University of Notre Dame, BioCrossroads also worked on efforts to increase science and math Advanced Placement (AP) program offerings in areas serving disadvantaged populations (both urban and rural) with traditionally limited access to AP opportunities. Lilly Endowment, the Governor's Office and the Lumina Foundation provided funds to further develop these programs and offer enhanced professional development for STEM teachers who are teaching AP classes.

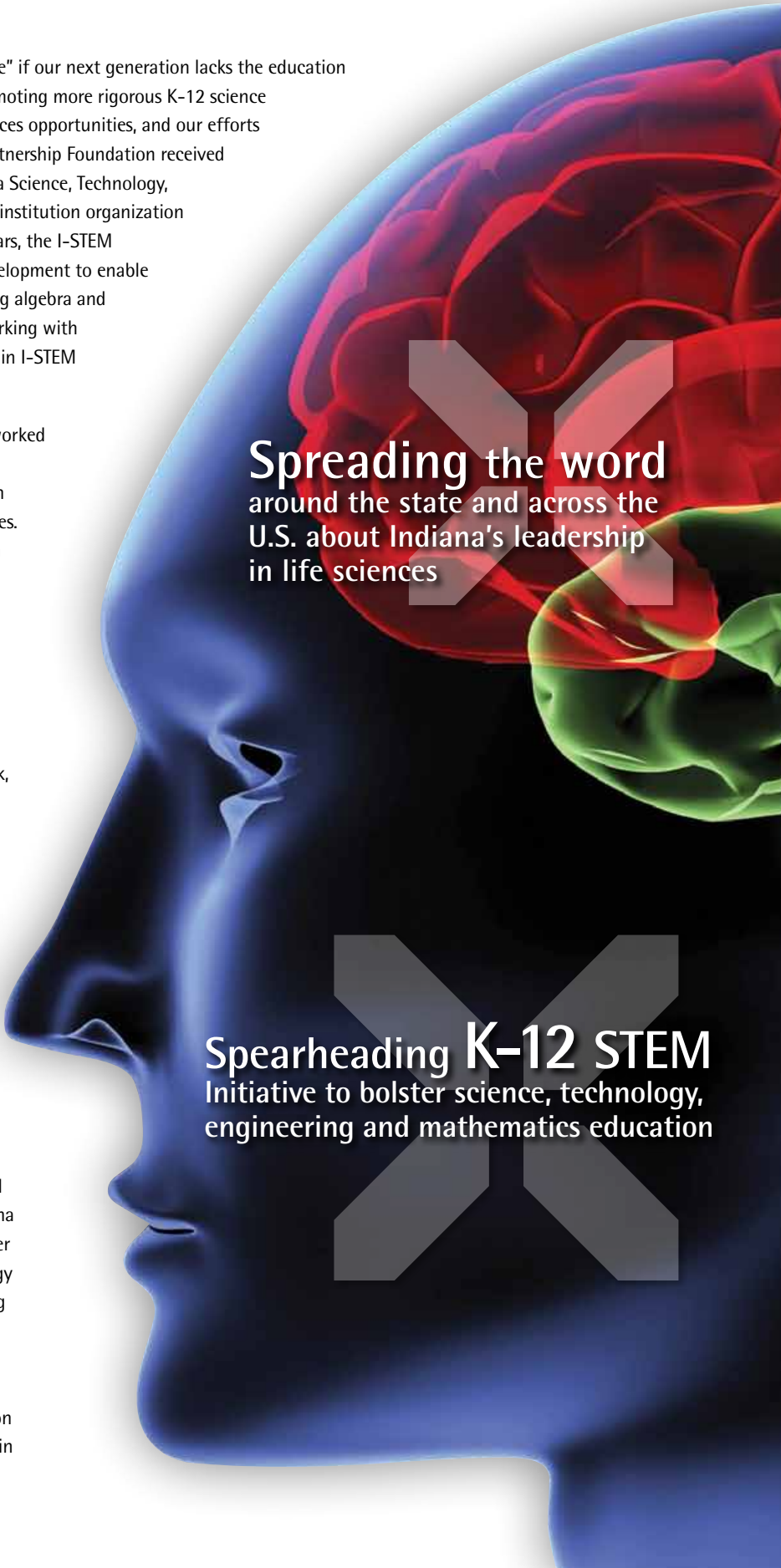
BioCrossroads also coordinated an extensive planning process to develop a statewide strategy for science education reform in 2009. These efforts will culminate in a statewide Science Summit in early 2010, co-sponsored by BioCrossroads, the I-STEM Resource Network, the Indiana Department of Education and Eli Lilly and Company.

Industry

For the sixth year in a row, Burrill Life Sciences Media Group/BioCrossroads hosted the Indiana Life Sciences Forum. Once again, over 250 thought leaders from Indiana and beyond convened to discuss the current state—and the future—of the life sciences and the sector's ever-increasing impact on Indiana. At the conference, BioCrossroads recognized Dr. Richard DiMarchi, one of the world's leading peptide scientists and biotechnology entrepreneurs, as the August M. Watanabe Life Sciences Champion of the Year. Dr. DiMarchi is the Linda & Jack Gill Chair in Biomolecular Sciences and Professor of Chemistry at Indiana University. He is also one of the founders and Chief Scientific Officer of Marcadia Biotech, one of Indiana's fastest-growing biotechnology companies, and is involved on the boards of several other promising biotechnology companies throughout the U.S. With his strong academic, industry, and entrepreneurial credentials, Dr. DiMarchi epitomizes the spirit—and the talent—that is essential to driving Indiana's life sciences growth. The Watanabe Life Sciences Champion of the Year Award presented to Dr. DiMarchi was renamed in 2009 in tribute to BioCrossroads' late Chairman, Dr. August Watanabe.

A large graphic of a human head in profile, facing left, rendered in a blue, semi-transparent style. Inside the head, a brain is depicted with red and green highlights, suggesting neural activity or specific brain regions. A large, semi-transparent 'X' logo is overlaid on the brain area.

Spreading the word
around the state and across the
U.S. about Indiana's leadership
in life sciences

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Spearheading K-12 STEM
Initiative to bolster science, technology,
engineering and mathematics education

In Memory

Though it was certainly a year of progress and success, 2009 was also a year of loss for BioCrossroads with the untimely death of our founding Chairman, mentor, and friend, **Dr. August Watanabe**. Gus epitomized everything good about Indiana's life sciences community. He brought strong academic credentials and brilliant



scientific insight from his many years of service as the Chairman of the Department of Medicine at the Indiana University School of Medicine. He contributed to a remarkable era of growth and success for Eli Lilly and Company in his later role as Lilly's Executive Vice President of Science and Technology and President of Lilly Research Laboratories, presiding over more than a decade of one blockbuster success after another for the company. And in his "retirement," Gus contributed both to the cause of entrepreneurship—in his role as founder and chairman of multiple, promising biotechnology companies—and also to the cause of community service, in his position as founding Chairman and

guiding spirit of BioCrossroads. Gus leaves behind a far more vibrant life sciences sector, where many are now coming forward to participate in a new era of exciting growth. But our excitement is tempered by the loss of this great man, and great friend. Gus will be profoundly missed. We are determined to build on the rich legacy he has left for us.



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