

# INDIANA LIFE SCIENCE CAPITAL: A summary of 2020 investments Mark Ivania

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# **PROLOGUE**

The past year has shown the importance of life sciences' innovation as the industry has responded to a global COVID-19 pandemic with diagnostic tests, therapeutics, and vaccines to identify, treat and, perhaps one day, eliminate the virus that has led to over 500,000 lives lost in the United States alone, Indiana's deep and diverse life sciences research and industrial bases were important drivers for our State's response and continue to be leaders for Indiana's overall economic health. The continuing vitality of this sector depends on innovation from a diversity of research settings - universities, nonprofit research institutes, and industry. Success relies upon significant investment over a long period of time, highly trained and specialized talent, as well as adherence to regulations to ensure safety and efficacy. It's a high bar for good reason. A dynamic and healthy life sciences community requires a solid research base and industry anchors to support the formation and growth of new life science companies.

The Biotechnology Industry Organization (BIO), with technical assistance from TEConomy Partners, defines life sciences as drugs and pharmaceuticals; medical devices and equipment; research, testing and medical laboratories; biosciences-related distribution; and agricultural feedstock and chemicals. In other words, it is "a grouping of diverse industries with a common link – the application of biological scientific knowledge as to how living organisms function to specific products and services involving health care, agriculture and food, and industrial chemicals." <sup>1</sup>

It is useful to track and report the amount of capital invested in Indiana's life sciences companies. It provides a measure of the amount of activity and connectivity within the ecosystem and is an early indicator of future innovation – all important for the growth of our

life sciences sector. While we have looked at longer term trends, such as with the report, Life Science Innovation Capital in Indiana, issued in 2014 describing innovation capital from 1993 to 2013, a review of activity on an annual basis is also worthwhile. This report marks our second edition of an annual summary of capital investment in Indiana.

Sources of capital for life sciences development included in this summary are: SBIR/STTR funding, Venture Capital, IPOs and related public offerings, as well as mergers and acquisitions. Primary sources include the SBIR award website; Pitchbook Data, Inc. a SaaS company that delivers data, research and technology covering the private capital markets, including venture capital, private equity and M&A transactions; company issued releases; data from BioCrossroads collected in concert with Indiana Business Research Center at Indiana University; and other public sources. For 2020, Indiana's life sciences companies accessed over \$9.0 billion in capital to grow and support innovation from the following sources:

- \$12.6 million SBIR awarded to 21 companies
- \$262 million in Venture Capital invested in 44 companies
- \$141.8 million accessed through public markets by three companies
- \$8.6 billion+ spent to acquire innovation representing nine transactions

<sup>1 &</sup>quot;Re-examining the Need for Innovation Capital to Advance Life Sciences Development in Indiana." October 2012, page 16

Even excluding the significant funding represented by mergers and acquisitions, Indiana's life sciences companies raised over \$400 million in capital in 2020. This funding supports the discovery and development of therapies and cures for diseases, adding to our community for life sciences entrepreneurship and innovation.

The following pages provide a more in-depth look at each of these sources of capital. There is a lot to be excited about, and more work to do. We appreciate all of the contributions from our innovators, those who support the advancement of their ideas, as well as those that provide capital to fuel discovery and development.

Thank you,

Patricia A. Martin President and CEO BioCrossroads Nora Doherty

Senior Managing Director, Indiana Seed Funds Executive Vice President, BioCrossroadss

### With thanks for their support in producing the report:

Matt Hall Managing Director Indiana Seed Funds Brian Stemme Senior Vice President BioCrossroads

# Recognition for those early stage programs that ignite innovators at earliest stages:

Ting Gootee, Chief Investment Officer Elevate Ventures

John Hanak, Managing Director Purdue Foundry, Purdue University Teri Wiley, Executive Director & Fund Manager IU PhV, Indiana University

Matthew Gardner, Managing Principal Pit Road Fund, University of Notre Dame

# Recognition for university technology transfer offices whose work supports movement of innovation from university labs to the marketplace:

Simran Trana, Associate Vice President Innovation and Commercialization Office Indiana University

Bryan Ritchie, Vice President Cathy and John Martin Associate Provost for Innovation University of Notre Dame Brooke Beier, Vice President Office of Technology Commercialization Purdue University

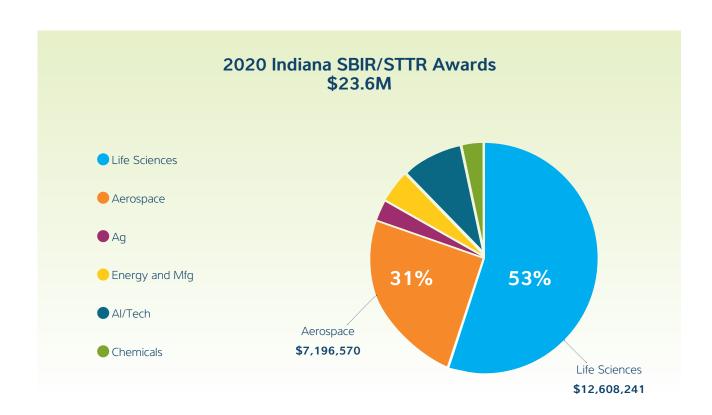
# SBIR/STTR

The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs support scientific excellence and technological innovation by providing competitive grant awards to small businesses and nonprofit research institutions to bridge the gap between performance of basic science and commercialization of resulting innovations. SBIR funding focuses on small businesses supporting R&D that has the potential for commercialization. It is structured with two phases of funding with awards: generally up to \$150,000 for 6-month programs in Phase I; followed by awards generally up to \$1 million for those successful Phase I programs to advance to Phase II for a 2-year period. The STTR program expands funding opportunities with a requirement for the small business to formally collaborate with a research institution in Phase I and Phase II. Funding for these programs comes from federal agencies with extramural R&D budgets that exceed \$100 million. Current participating

agencies include Department of Agriculture,
Department of Commerce's National Institute of
Standards and Technology and National Oceanic
and Atmospheric Administration, Department
of Defense, Department of Education,
Department of Energy, Department of Health
and Human Services, Department of Homeland
Security, Department of Transportation,
Environmental Protection Agency, National
Aeronautics and Space Administration, and
National Science Foundation.

In 2020, Indiana companies received 56 awards totaling \$23.6 million<sup>2</sup>. The life sciences represented the largest sector with 26 awards to 21 companies totaling \$12.6 million. Aerospace represented the next largest sector receiving 14 awards to eleven companies totaling \$7.2 million.

<sup>2</sup> The Award database is continually updated throughout the year. As a result, data for FY20 may not be complete. Data reported is a of 31 March 2021. SBIR -STTR Awards, https://www.sbir.gov/reports/state-summary. Accessed 31 March 2021.



Life Sciences	#Awards	Total	Ave
SBIR/STTR Phase I	13	\$2,435,653	\$187,358
SBIR/STTR Phase II	13	\$10,172,588	\$782,507
Total Life Sciences	26	\$12,608,241	\$484,932
Total SBIR/STTR Awards for Indiana	56	\$23,591,135	\$421,270

2020 SBIR/STTR Awards							
Company Name	Award	Agency	Total	City			
Akanocure Pharmaceuticals, Inc.	SBIR II	NSF	\$750,000	West Lafayette			
BDYWR, LLC	STTR I, STTR II	Air Force	\$275,000	West Lafayette			
Consensus Networks, LLC	SBIR II	DOD	\$149,476	South Bend			
Continuity Pharma, LLC	STTR I	HHS	\$1,499,443	West Lafayette			
Eperture LLC	STTR I	HHS	\$316,895	Columbus			
Grannus Therapeutics LLC	STTR I	HHS	\$233,195	Mishawaka			
KS and Associates LLC	STTR II	HHS	\$972,476	Bloomington			
Lgenia Inc.	STTR I	HHS	\$225,343	New Palestine			
Medosome Biotec, LLC	(2) STTR II	HHS	\$1,993,274	Bloomington			
Megadalton Solutions LLC	SBIR II	HHS	\$790,055	Bloomington			
Miftek Corporation	SBIR I	NSF	\$225,000	West Lafayette			
Monon Bioventures LLC	SBIR II	HHS	\$495,101	Fishers			
Neurodon LLC	STTR II	HHS	\$988,940	Saint John			
Novilytic, LLC	SBIR II	HHS	\$689,740	North Webster			
OMNIVIS INC	(2) SBIR II	NSF, DoC	\$1,143,559	West Lafayette			
Scientific Methods Inc.	SBIR I	EPA	\$99,998	Granger			
STAR Voltaic LLC	SBIR I	HHS	\$206,351	Bloomington			
Tayco Brace, LLC	SBIR I	DOD	\$50,000	South Bend			
Techshot, Inc.	SBIR I	NASA	\$124,928	Greenville			
Tymora Analytical Operations, LLC	SBIR II, (2) STTR I	HHS	\$1,144,884	West Lafayette			
Vasculonics LLC	SBIR I	HHS	\$234,583	Indianapolis			
		Total	\$12,608,241				

At the time this report was issued last year, the area of life sciences generated 27 awards to 21 companies totaling \$8.59 million. The final figures reported for 2019 included one additional award resulting in 28 awards to 22 companies totaling \$8.8 million.

As shown in the table below, there are seven companies that received SBIR/STTR awards in 2019 that also received awards in 2020. OmniVis,

a company developing a handheld smartphone device for rapid detection of pathogens, such as cholera, in environmental water sources, showed the largest increase in funding moving from a SBIR I for \$99,999 in 2019 to two SBIR II totaling \$1.14 million. Other companies receiving \$1 million or more in total awards in 2020 are Medosome and Tymora Analytical Operations.

Indiana Life Sciences SBIR/STTR Awards								
Company Name	2019 Award	Agency	Total	2020 Award	Agency	Total		
Medosome	SBIR I/(2) STTR I	HHS	\$673,899	(2) STTR II	HHS	\$1,993,274		
Megadalton Solutions	SBIR I	HHS	\$149,755	SBIR II	HHS	\$790,055		
Monon Bioventures	SBIR I	HHS	\$298,152	SBIR II	HHS	\$495,101		
Omnivis	SBIR I	DOC-NIST	\$99,999	(2) SBIR II	NSF, DoC	\$1,143,559		
Techshot	SBIR I	NASA	\$124,893	SBIR I	NASA	\$124,928		
Tymora Analytical Operations	(2) SBIR I	HHS	\$440,368	SBIR II, (2) STTR I	HHS	\$1,144,884		
Vasculonics	SBIR I	HHS	\$217,901	SBIR I	HHS	\$234,583		

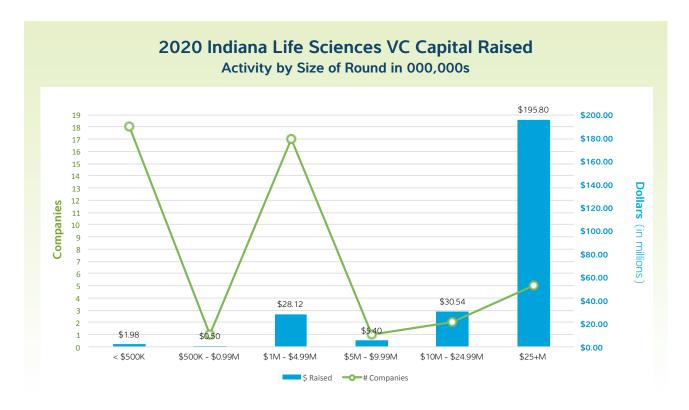
# **VENTURE CAPITAL**

Venture capital is the most used source of funding to support innovation. It represents funding raised by a company in exchange for equity. Sources of venture capital not only include traditional venture capital funds, but also investments from friends and family, angel investors, family offices, private equity and other financial institutions. Earlier this year, Pitchbook and the National Venture Capital Association, with support from Silicon Valley Bank and Velocity Global, reported that venture activity in 2020 "ended with new records in deal making, exit value, and fundraising. Investors and LPs remained active, and tech-enabled industries rode tailwinds created by the pandemicforced unlocationing of business, education and healthcare. 2020 top-line figures of the US VC industry are staggering: \$156.2 billion invested, \$290.1 billion exited, and \$73.6 billion raised by VC funds." 3 This represented a significant growth from \$136.5 billion deployed in US based companies in 2019 and marked the

third consecutive year investment surpassed the \$130 billion mark. Indiana had 44 life sciences companies raise \$262 million in 2020. Investments ranged from a low of \$20,000 to a high of nearly \$61 million.

The size of an investment round is indicative of the stage of development of a company. For this report, we have segmented financing rounds into six categories based on size:

- Under \$500K
- \$500K <\$1M
- \$1M < \$5M
- \$5M < \$10M
- \$10M < \$25M
- \$25M+



<sup>3</sup> Pitchbook. "Pitchbook – NVCA Venture Monitor." 13 Jan 2021. https://pitchbook.com/news/reports/q4-2020-pitchbook-nvca-venture-monitor

Sources for earliest stage capital, those fundraising rounds under \$1 million, are in high demand everywhere, and this need far outstrips supply. One reason for this is due to the inherent risks of investing in early-stage companies. At this point of development, the potential for failure may be at its highest as technical, financial, marketing, and execution risks have not been mitigated. In Indiana,

Elevate Ventures was a participant in 12 of the 19 financings disclosed. Purdue University and Indiana University were the next most common participants. In addition, although not listed, Purdue University and the University of Notre Dame were partners in the Elevate Venture investments in those companies with headquarters locations in West Lafayette and South Bend respectively.

Indiana Life Sciences Deals - 2020 - <\$499K						
Company Name	2020 Financing	Sector	HQ Location	Investors		
Blaire Biomedical	0.08	Diagnostic	Angola, IN	City of Angola, Elevate Ventures, Malcolm Groan		
Compact Medical Solutions	0.24	Medical Device	Indianapolis, IN	Brad Bopp, Howard Balkenbusch, Jennifer Diagostino, Joseph Merrell, Lowell Davis, Terry Merrell, Tim Ueber		
Confluence Pharmaceuticals	0.10	Therapeutic	Carmel, IN	Elevate Ventures, Foundry Partners, IU Ventures, Purdue Ventures		
Eradivir	0.10	Therapeutic	West Lafayatte, IN	Research Bridge Partners		
Lumen Bio	0.06	Ag Biotech	South Bend, IN	Elevate Ventures		
MediTrak Life	0.07	Medical Device	West Lafayette, IN	Elevate Ventures		
MIFtek	0.23	Therapeutic	West Lafayette, IN	National Science Foundation, Purdue Research Foundation		
Orthodontic Details	0.06	Medical Device	Indianapolis, IN	Angel Investor(s)		
OYE Therapeutics	0.05	Therapeutic	Crown Point, IN	Keiretsu Forum		
Poly Group	0.11	Medical Device	New Albany, IN	Purdue Research Foundation		
Probari	0.02	HIT	Indianapolis, IN	Elevate Ventures, IU Ventures		
Prosthetech	0.04	Medical Device	South Bend, IN	Elevate Ventures		
reflex (Decision/Risk Analysis)	0.13	HIT	Indianapolis, IN	Elevate Ventures, OCEAN Accelerator, Purdue Ventures		
RightFit Analytics	0.22	HIT	West Lafayette, IN	Elevate Ventures, National Science Foundation		
Sintact Medical Systems	0.10	Medical Device	Bloomington, IN	Elevate Ventures, Health Wildcatters, ImpactAssets, Indiana Economic Development Corporation, National Science Foundation, UM Ventures, VentureWell		
Spirrow Therapeutics	0.18	Therapeutic	West Lafayette, IN	Elevate Ventures, MassChallenge, Purdue University Endowment		
Springbuk	0.15	HIT	Indianapolis, IN	Echo Health Ventures, Elevate Ventures, HealthQuest Capital, Industry Ventures, Lewis & Clark Ventures, Pat East, Sovereign's Capital		
SummaForte	0.04	HIT	Bloomington, IN	IU Ventures		

Indiana Life Sciences Deals - 2020 - \$500K - \$0.9M					
Company Name	2020 Financing	Sector	HQ Location	Investors	
Wave Therapeutics	0.50	Medical Device	Nashville, IN	Elevate Ventures	

In 2020, there were 19 companies that participated in rounds up to \$1 million for a total of \$2.48 million raised compared with 18 companies that participated in rounds of this size for a total of \$4.89 million raised in 2019. As shown in the table below, there are

six companies that raised up to \$0.9 million in 2019 that also raised funds in 2020. Novosteo, a company commercializing technology licensed from Purdue University, showed the largest increase in funds raised moving from \$0.60 million in 2019 to \$4.29 million in 2020.

Indiana Life Sciences Deals - Raised up to \$0.9M in 2019					
Company Name	2019 Financing	2020 Financing	Sector	HQ Location	
Compact Medical Solutions	0.09	0.24	Medical Device	Indianapolis, IN	
Lumen Bio	0.02	0.06	Ag Biotech	South Bend, IN	
Novosteo	0.60	4.29	Therapeutic	West Lafayette, IN	
Poly Group	0.79	0.11	Medical Device	New Albany, IN	
Spirrow Therapeutics	0.02	0.18	Therapeutic	West Lafayette, IN	
Wave Therapeutics	0.52	0.50	Medical Device	Nashville, IN	



Indiana had 17 life sciences companies complete rounds of financing ranging from \$1 to \$4.9 million in 2020 for \$28.12 million in total funding. This amount of funding indicates a company has matured sufficiently to support a development team and conduct necessary proof of concept studies in order to discharge technical risk.

In addition to Elevate Ventures, local funds managed by BioCrossroads, Indiana University, Purdue University, and VisionTech Partners were participants in these funding rounds along with national funds including Techstars, DCVC Bio, and Kairos Ventures.

Indiana Life Sciences Deals - 2020 - \$1M - \$4.9M					
Company Name	2020 Financing	Sector	HQ Location	Investors	
30e Scientific	1.60	Medical Device	Carmel, IN	Undisclosed Angel investor(s)	
Adipo Therapeutics	1.25	Therapeutic	West Lafayette, IN	David Campbell, Michelle Campbell, U.S. Department of Health and Human Services	
Amplified Sciences	1.14	Diagnostic	West Lafayatte, IN	Beni Venture Capital, Elevate Ventures, Golden Seeds, Gravity Ventures, Houston Angel Network, IU Ventures, National Science Foundation, Purdue Research Foundation, Purdue Ventures, Racine Medical Angels, St. Louis Arch Angels	
Arizona Isotopes	1.40		Bunker Hill, IN	Undisclosed investor(s)	
Diagnotes	1.81	HIT	Indianapolis, IN	BioCrossroads, Cook Medical, DeveloperTown Starts, Elevate Ventures, IU Ventures, Purdue Research Foundation, Purdue Ventures, StepStone Angels, VisionTech Partners	
DocuMentor (Business/ Productivity Software)	1.10	HIT	Indianapolis, IN	Earnest Capital, Elevate Ventures, Techstars	
Gate Neurosciences	1.10	Therapeutic	Carmel, IN	BioCrossroads	
Koligo Therapeutics	1.70	Therapeutic	New Albany, IN	Undisclosed investor(s)	
Nanovis	2.00	Medical Device	Columbia City, IN	1st Source Bank, Apex One Equity, Commenda Capital, Elevate Ventures, Ellipsis Ventures, Indiana Economic Development Corporation, Micropulse, OFS Capital, Orthovation Center, Purdue Research Foundation, U.S. Department of Health and Human Services	
Novosteo	4.29	Therapeutic	West Lafayette, IN	BioCrossroads, Elevate Ventures, Kairos Ventures, National Institutes of Health, Purdue Ventures, Research Bridge Partners, U.S. Department of Health and Human Services	

Olio (Communication Software)	1.75	HIT	Indianapolis, IN	Innovatemap
OneCare (Electronics)	1.07	HIT	Batesville, IN	Undisclosed Angel investor(s)
RxLightning	1.00	Enterprise Systems (Healthcare)	New Albany, IN	Community Foundation of Louisville, XLerateHealth
Sabanto	3.00	Ag Biotech	Chicago, IL	DCVC, BioCrossroads
SpeechVive	1.51	Medical Device	Lafayette, IN	Ambassador Enterprises, BC Initiative, BioCrossroads, Elevate Ventures, National Institutes of Health, Purdue Research Foundation, Racine Medical Angels, SideCar Angels, Southwest Angel Network
Torigen Pharmaceuticals	1.00	Therapeutic	Farmington, CT	Connecticut Innovations, Emergence Incubator, Gigot Center for Entrepreneurship, MassChallenge, SoGal Ventures, The Fund, The University of Connecticut's Technology Incubation Program, UConn Innovation Fund
Vibronix	1.40	Medical Device	West Lafayette, IN	Elevate Ventures, Hanhai Investment, National Institutes of Health, National Science Foundation, Plug and Play Tech Center, U.S. Department of Health and Human Services

In 2019, there were 13 companies that participated in rounds of this size for a total of \$31.7 million in funding. Five of those companies raised additional funds in 2020. As shown in the table below, both Innovative Health Solutions and MBX Biosciences showed large increases in funds raised moving from rounds of up to \$4.9 million in

2019 to \$10 million to \$24.9 million for Innovative Health and over \$25 million for MBX Biosciences. National venture capital firms, Frazier Health Care Partners, New Enterprise Associate, and OrbiMed, participated in the fund raise for MBX Biosciences.

Indiana Life Sciences Deals - Raised \$1M - \$4.9M in 2019					
Company Name	2019 Financing	2020 Financing	Sector	HQ Location	
Confluence Pharmaceuticals	1.00	0.10	Therapeutic	Carmel, IN	
Gate Neurosciences	4.50	1.10	Therapeutic	Carmel, IN	
Innovative Health Solutions	4.00	10.54	Medical Device	Versailles, IN	
MBX Biosciences	3.00	34.60	Therapeutic	Carmel, IN	
Olio (Communication Software)	2.63	1.75	HIT	Indianapolis, IN	



Funding rounds in excess of \$5 million generally require syndication from funds outside of Indiana. This was the case for each of the eight life sciences companies that raised \$5 million or more in 2020 representing \$231.74 million in venture capital raised in 2020. In order to attract investment in rounds of this size, companies are competing on a national if not global basis. Often times, participants in these rounds have had a previous

working relationship with a key member of the company's executive team, development team or board of directors. Although much less risky than the earliest venture rounds, the amount of capital at risk in any single venture remains significant. Funds managed by BioCrossroads, Elevate Ventures, IU Ventures, Purdue Research Foundation, and VisionTech Partners are investors in these companies.

Indiana Life Sciences Deals - 2020 - \$5M - \$9.9M							
Company Name	2020 Financing	Sector	HQ Location	Investors			
IVDiagnostics	5.4	Diagnostic	Valparaiso, IN	Ken Harrington, Purdue Research Foundation, St. Louis Arch Angels, U.S. Department of Health and Human Services			
	Indiana Life Sciences Deals - 2020 - \$10M - \$24.9M						
Company Name	2020 Financing	Sector	HQ Location	Investors			
Innovative Health Solutions (Biotechnology)	10.54	Medical Device	Versailles, IN	Undisclosed Investor(s)			
WishBone Medical	20.00	Medical Device	Warsaw, IN	LKCM Headwater Investments			
	India	na Life Sciences	Deals - 2020 - \$25	iM+			
Company Name	2020 Financing	Sector	HQ Location	Investors			
Inari	45.00	Ag Biotech	Cambridge, MA	K2 HealthVentures, Flagship Pioneering, Acre Venture Partners, EDBI and Investment Company of Dubai			
INCOG Biopharma	28.77	Contract Development	Indianapolis, IN	Undisclosed Investor(s)			
MBX Biosciences	34.60	Therapeutic	Carmel, IN	BioCrossroads, Frazier Healthcare Partners, IU Ventures, New Enterprise Associates, OrbiMed,			

Indiana Life Sciences Deals - 2020 - \$25M+					
Company Name	2020 Financing	Sector	HQ Location	Investors	
Ossium Health*	60.93	Therapeutic	San Francisco, CA	Alex Felix, AlloSource, Elevate Ventures, First Round Capital, Gaingels Syndicate, General Catalyst, Hemisphere Ventures, Junchao Shangguan, Manta Ray Ventures, Maynd Jolly, Mike Kruzeniski, National Institutes of Health, Nitin Agarwal, U.S. Department of Health and Human Services, Village Global, Vivian Cheng	
Scioto Biosciences	26.50	Therapeutic	Indianapolis, IN	BioCrossroads, Elevate Ventures, Genome & Company, Indiana Economic Development Corporation, IU Ventures, National Institutes of Health, Rev1 Ventures, VisionTech Partners	

<sup>\*</sup>Following the date these data were accessed, Ossium has updated information to report this round as completed on March 19, 2021 and a move of the primary offices to Indianapolis, IN.

In 2019, Indiana had six companies that participated in rounds over \$5 million for a total of \$140.5 million in funding. Of the companies listed above, Inari, Innovative Health Solutions,

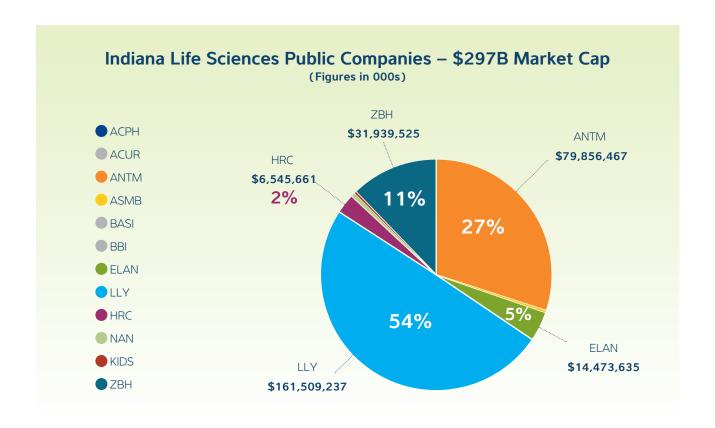
MBX Biosciences, and Ossium Health were also reported as raising funds in 2020 with both lnari and Ossium Health reporting rounds in excess of \$5 million.

# **PUBLIC COMPANIES**

Indiana's strong life sciences sector is anchored by a significant base of public companies. A query to Pitchbook lists 12 life sciences public companies representing \$297.6 billion in market cap value as of December 31, 2020. This is not a census of all public life sciences companies with operations in Indiana rather it is limited to those that list an Indiana office or headquarters in its Pitchbook profile. Eli Lilly and Company represents more than half of the value with a \$161.5 billion market cap as of December 31, 2020. The next largest companies are Anthem at \$79.8 billion, Zimmer Biomet at \$31.9 billion and Elanco at \$14.5 billion. Acacia Pharma and Bioanalytical Systems showed the largest percentage gain in market cap recording 186% and 156% increases over 2019 market value respectively. In all, these 12 companies achieved a 17% gain in market cap value over 2019.

Indiana Life Sciences Public Companies						
			12/31/2020	12/31/2020	12/31/2019	
Date Public	Name	Symbol	Share Price	Market Cap	Market Cap	+/-
Mar-18	Acacia Pharma*	ACPH	\$3.37	\$228,946	\$ 80,048	186%
Oct-96	Acura Pharmaceuticals	ACUR	\$0.21	\$4,547	\$6,390	-29%
Oct-01	Anthem	ANTM	\$321.09	\$79,856,467	\$76,583,843	4%
May-14	Assembly Biosciences	ASMB	\$6.05	\$199,785	\$661,573	-70%
Nov-97	Bioanalytical Systems	BASI	\$12.30	\$136,018	\$53,216	156%
Sep-19	BrickellBio	BBI	\$0.78	\$ 41,769	\$32,527	28%
Sep-18	Elanco	ELAN	\$30.67	\$14,473,635	\$10,984,968	32%
Jan-52	Eli Lilly and Co.	LLY	\$168.84	\$161,509,237	\$126,189,987	28%
Jan-71	Hill-Rom Holdings	HRC	\$97.97	\$6,545,661	\$7,030,979	-7%
May-07	Nanosonics	NAN	\$6.17	\$1,858,652	\$1,335,767	39%
Oct-17	Orthopediatrics	KIDS	\$41.25	\$806,628	\$785,796	3%
Jul-01	Zimmer Biomet	ZBH	\$154.09	\$31,939,525	\$30,786,835	4%
		Total		\$297,600,870	\$254,531,929	17%

<sup>\*</sup>ACPH data as of 6/30/19 and 6/30/20



For life sciences companies, the public market can also be a source of capital to fund discovery and development, including clinical trials. In 2020, there were three companies that used public markets to provide capital: Acacia Pharma; Brickell Biotech; and OrthoPediatrics. These financings resulted in aggregate funding of \$141.8 million. In August, Acacia Pharma completed a private placement through the European capital markets in the amount of EUR 27 million (@\$31.5 million US) to support marketing and post-approval research and development activities for BARHEMYS®

	Life Sciences : Offerings 2020	figure	figures in 000s		
Date	Name	Symbol	\$ Raised		
Aug-20	Acacia Pharma	ACPH	\$31.5		
Jun-20	Brickell Biotech	BBI	\$20.1		
Oct-20	Brickell Biotech	BBI	\$15.0		
Jun-20	OrthoPediatrics	KIDS	\$75.2		
		Total	\$141.8		

and BYFAVO, along with general corporate purposes. In June and again in October, Brickell Biotechnologies raised a total of \$35.1 million in aggregate gross proceeds before deducting underwriting discounts and commissions and other offering expenses payable by Brickell Biotech to support Phase 3 Cardigan I and Cardigan II clinical trials for its lead asset, sofpironium bromide. In June, OrthoPediatrics announced and completed a public offering with aggregate gross proceeds of \$75.2 million before deducting underwriting discounts and commissions and other offering expenses payable by OrthoPediatrics. The Company intends to use the net proceeds from the sale of the common stock to invest in implant and instrument sets for consignment to its customers; to fund research and development activities; to expand its sales and marketing programs; and for working capital and general corporate purposes.

# MERGER AND ACQUISITION ACTIVITY

Nine M&A transactions were completed in 2020 representing activity of more than \$8.6 billion, not including those transactions where figures were not disclosed. Although announced in 2020, this does not include the acquisition of Prevail Therapeutics by Eli Lilly and Co for \$1.04 billion as the transaction was completed in January 2021. Activity in 2020 was dominated by the completion of Elanco's acquisition of Bayer Animal Health for \$6.89 billion, announced in August

2019. The next largest deal was the \$1.1 billion acquisition of Dermira by Eli Lilly and Co followed by Zimmer Biomet's acquisition of A&E Medical Corporation for \$250 million and Incisive LLC and Relign Corporation for a combined \$178 million (inclusive of \$98 million in milestone payments).

IN Life Sciences Acquisitions					
	Purchase price in 000s	Sector	Completed	Announced	
Anthem acquired Medicaid plans in Missouri and Nebraska	not disclosed	Insurance	Jan-20		
Elanco acquired Bayer Animal Health*	\$6,890,000	\$6,890,000 AgBio A		Aug-19	
Eli Lilly and Co acquired Disarm Therapeutics	\$135,000	\$135,000 Pharma Oct-20		Oct-20	
Eli Lilly and Co acquires Dermira	\$1,100,000	Pharma	Feb-20	Jan-20	
OrthoPediatrics acquired ApiFix, Ltd	\$67,000	Med Device	Apr-20		
Rehab Medical acquired Mobility Specialists	not disclosed	Med Device	Jan-20		
Wishbone Medical acquired Back 2 Basics Direct and Orbbö Surgical**	not disclosed	Med Device	Aug-20		
Zimmer Biomet acquired Incisive LLC and Relign Corp	\$178,000	Med Device	Nov-20		
Zimmer Biomet acquired A&E Medical Corporation	\$250,000	Med Device	Dec-20		
	Total \$8,620,000				

<sup>\*</sup>announced in August 2019

https://www.calcalistech.com/ctech/articles/0,7340,L-3805654,00.html \$67M for ApiFix

<sup>\*\*</sup>single amount disclosed for Incisive LLC and Relign Corp includes \$98M in milestone payments



