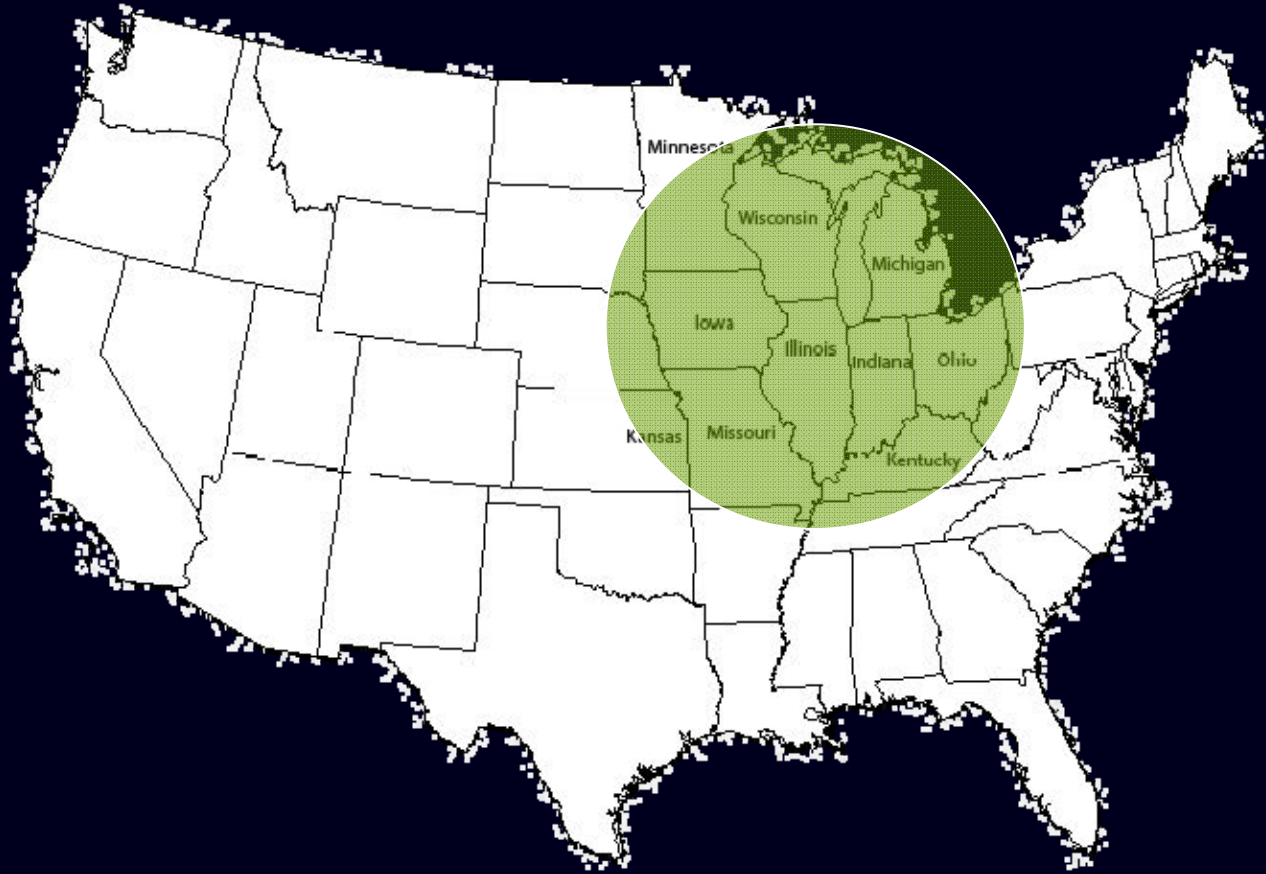


MIDWEST HEALTH CARE VENTURE REPORT



2008

SPONSORS



The [Mid-America Healthcare Investors Network \(MHIN\)](#) is a not-for-profit association of more than 48 venture capital firms from 14 states, with more than \$2 billion under management. MHIN focuses on life science investment opportunities in the Mid-America Region. These life science opportunities include companies involved in biotechnology, medical devices, bioinformatics, healthcare information technology, and healthcare services.



[BioEnterprise](#) is a business formation, recruitment, and acceleration initiative designed to grow health care companies and commercialize bioscience technologies. Based in Cleveland, BioEnterprise's founders and partners are Cleveland Clinic, University Hospitals, Case Western Reserve University, Summa Health System, and BioInnovation Institute in Akron. Since launching in 2002, BioEnterprise and its partners have accelerated over 70 companies that have attracted \$820 million in capital.

HIGHLIGHTS

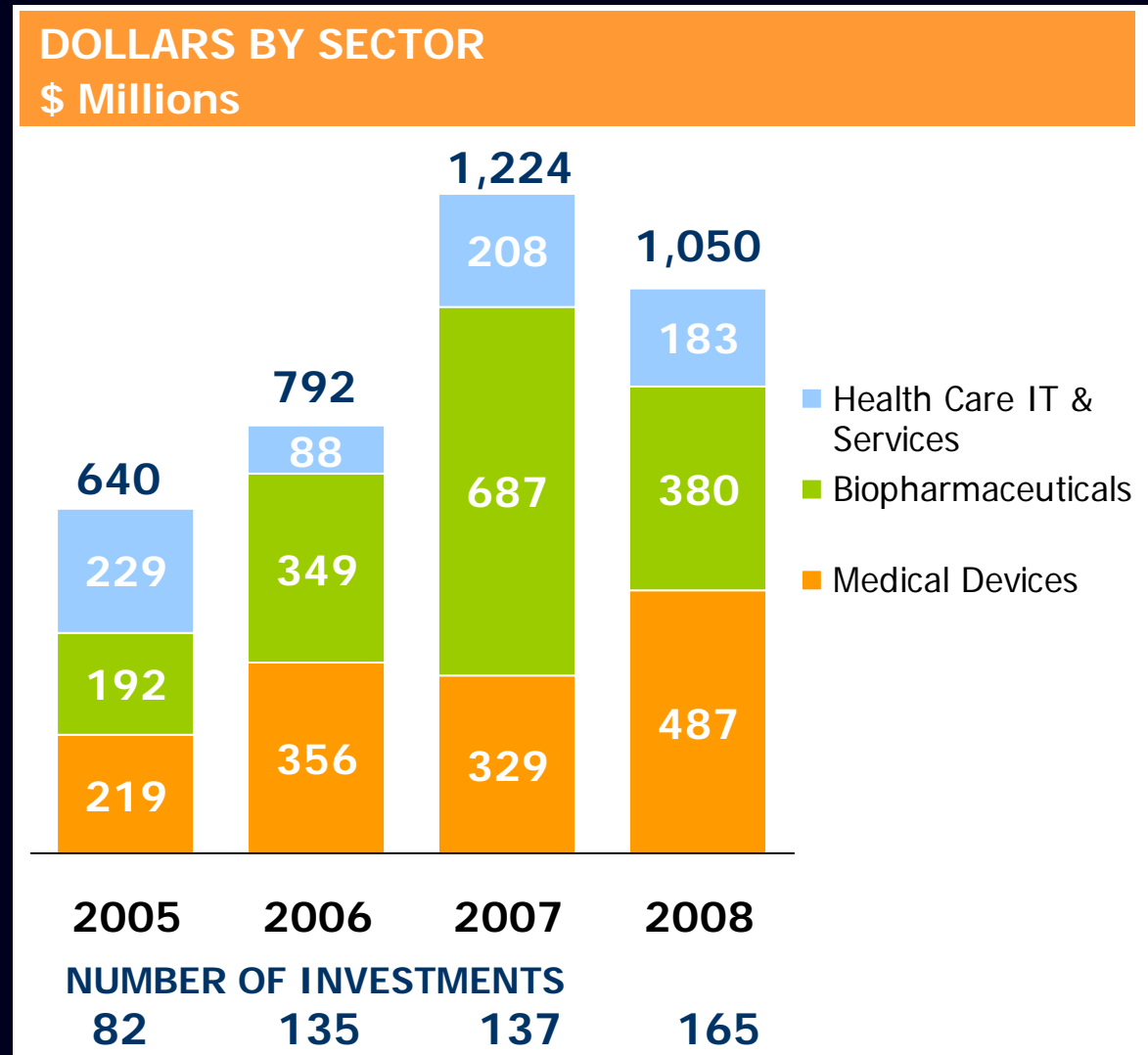
- Over \$1 Billion in annual health care venture investment across more than 130 companies, ranking 3rd among regions
- Numerous exits in all health care sectors
- Home to leading industry players and talent
- Over \$4.5 Billion in annual NIH research at world-class institutions
- Major state initiatives with billions of dollars to develop biomedical sector

VENTURE INVESTMENT

>\$1 Billion in annual health care venture investments

Over 130 new investments each year

Across all health care investment sectors



Source: Midwest Health Care Venture Investment Report by BioEnterprise compiled from Venture Wire, Private Equity Week, Venture Source, SEC Filings, company press releases, www.biospace.com, Midwest regional business publications, and Midwest bioscience organizations and institutions

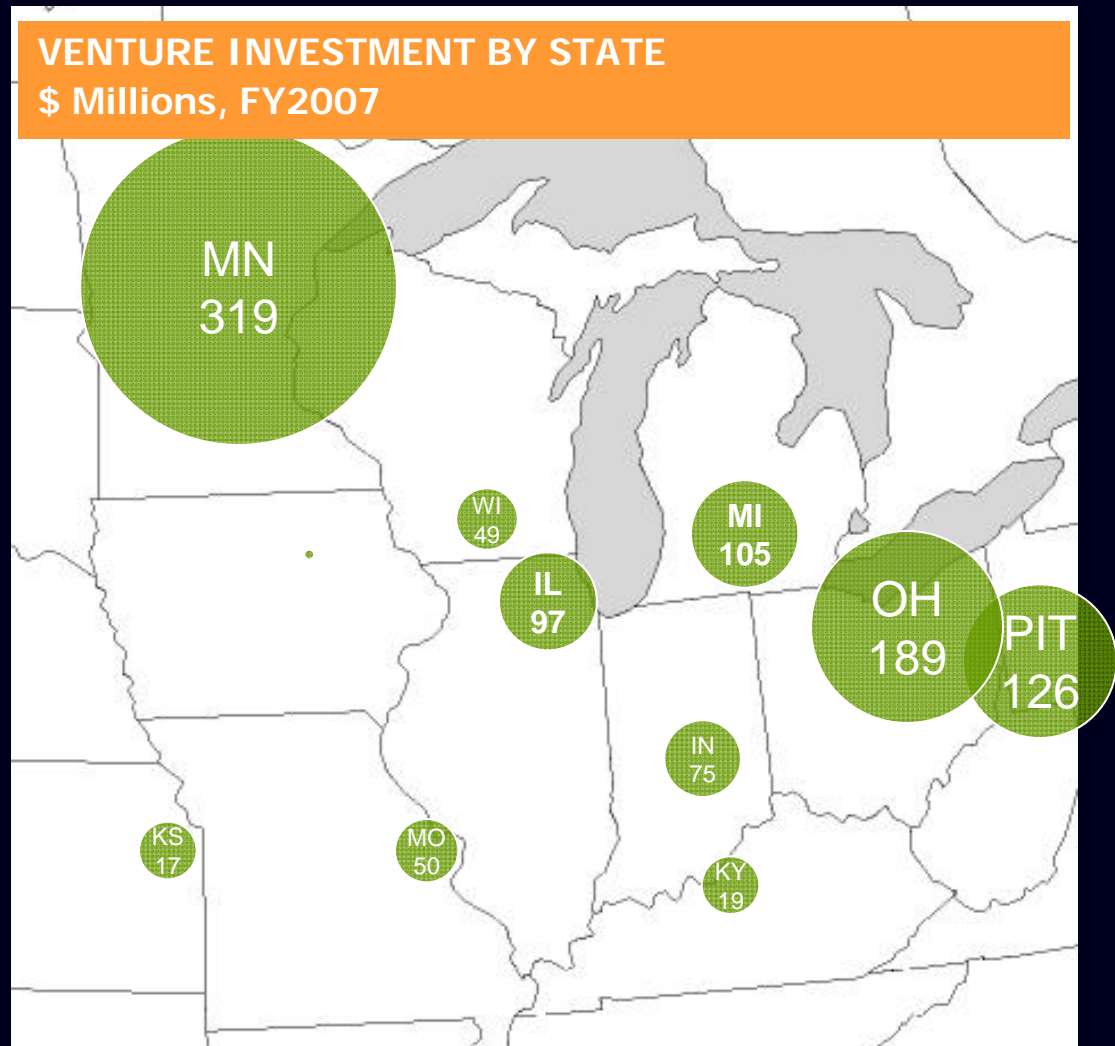
LARGEST DEALS BY SUBSECTOR

Company	Region	\$ Mns	Investors
Biopharmaceuticals			
Precision Therapeutics	Pittsburgh	43	Adams Capital Management, Birchmere Ventures, Draper Triangle Ventures, Longitude Capital Management, Quaker BioVentures, TVM Capital
Sagent Pharmaceuticals	Chicago	30	Vivo Ventures
CoLucid Pharmaceuticals	Indianapolis	25	Care Capital, Domain Associates, Pappas Ventures, Pearl Street Capital Group, Triathlon Medical Ventures
Esperion Therapeutics, Inc	Detroit/Ann Arbor	23	Aisling Capital, Alta Partners, Arboretum Ventures, Domain Associates
Medical Devices			
CVRx	Minneapolis	84	Frazier Healthcare Ventures, InterWest Partners, Johnson & Johnson Development, New Enterprise Associates, Sightline Partners, Thomas Weisel Healthcare Venture Partners
Proto Labs	Minneapolis	52	North Bridge Growth Equity
Celleration	Minneapolis	25	Venture Investors, Heron Capital, CID Capital, AAVIN Equity Partners, Baird Venture Partners, New Science Ventures, Triathlon Medical Ventures, Upper Lake Growth Capital
ViewRay	Cleveland	25	OrbiMed Advisors, Fidelity Biosciences, Aisling Capital, Kearny Venture
superDimension	Minneapolis	22	Pitango Venture Capital, CIBC, Medica Venture Partners, MI-3, Orbimed, Oxford, Pfizer Venture Investments
Health Care IT & Services			
PartsSource	Cleveland	50	Polaris Ventures Partners, Primus Capital
ProCure Treatment Centers	Indianapolis	35	McClendon Venture Company
Initiate Systems	Chicago	26	Paladin Capital Group
Immunetrics	Pittsburgh	13	Launchcyte, Undisclosed Investor

GEOGRAPHY OF INVESTMENT

Investment across
Midwest

Significant
concentrations in
Minnesota,
Cleveland-Pittsburgh
(Tech Belt), and
Chicago/Wisconsin



VENTURE DATA BY STATE

State	2008		2007		2006		2005	
	\$ Millions	# of Cos.	\$ Millions	# of Cos.	\$ Millions	# of Cos.	\$ Millions	# of Cos.
Illinois	97.3	13	125.5	7	101.6	12	39.2	7
Indiana	75.4	7	135.6	10	37.2	8	23.1	4
Iowa	4.0	1	-	-	-	-	-	-
Kansas	16.9	9	56.6	6	-	-	-	-
Kentucky	19.2	6	32.0	4	51.4	4	19.3	2
Michigan	105.0	12	56.2	5	135.5	11	52.9	8
Minnesota	318.9	22	296.1	25	233.9	22	151.0	18
Missouri	50.2	11	69.6	7	39.2	10	71.9	9
Ohio	189.1	43	295.5	44	113.9	39	185.4	18
Western Pennsylvania	126.2	33	101.4	17	54.4	22	58.3	10
Wisconsin	48.5	8	56.2	12	25.2	7	39.3	6
Total	1,050.5	165	1,224.7	137	792.3	135	640.4	82

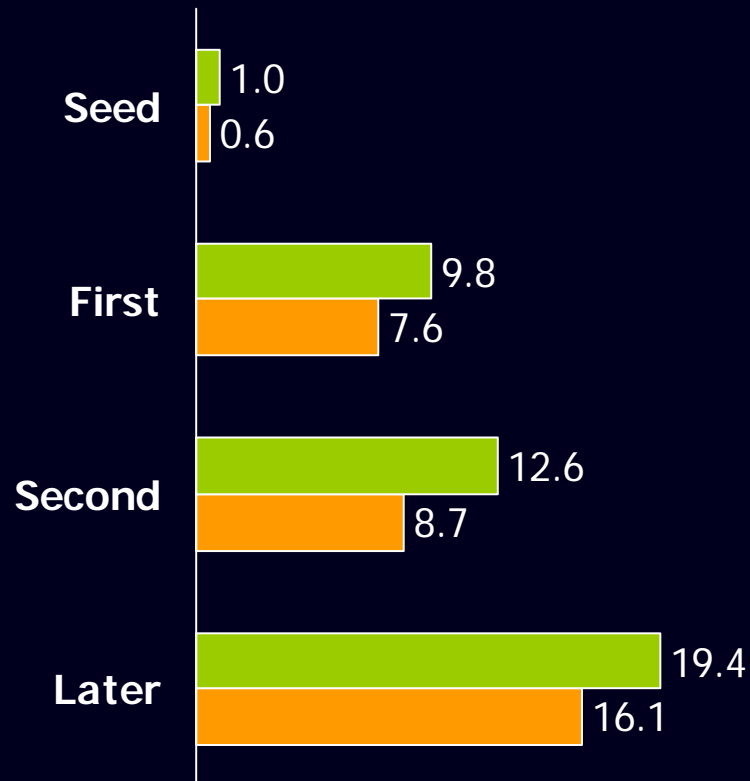
VENTURE DATA BY REGION

Region	2008		2007		2006	
	\$ Millions	# of Cos.	\$ Millions	# of Cos.	\$ Millions	# of Cos.
Chicago	97.3	13	125.5	7	101.6	12
Indianapolis	73.0	6	113.6	8	18.4	6
West Lafayette	2.5	1	22.0	2	18.8	2
Iowa	4.0	1	-	-	-	-
Lexington, KY	4.5	1	0.9	1	40.0	1
Louisville, KY	13.4	3	6.2	2	11.4	3
Detroit-Ann Arbor	89.0	8	56.2	5	98.3	8
SW Michigan	16.0	2	-	-	6.7	2
Minneapolis	318.9	22	296.1	25	233.9	22
St. Louis	47.2	10	57.6	6	20.2	9
Kansas City*	19.9	10	68.6	7	19.0	1
Cincinnati*	19.2	2	64.6	10	13.6	4
Cleveland	163.5	31	241.8	28	87.9	23
Columbus	6.4	10	14.2	7	12.4	12
Pittsburgh	126.2	33	101.4	17	54.4	22
Wisconsin	48.5	8	56.2	12	25.2	7
Total	1,050.5	165	1,224.7	137	792.3	135

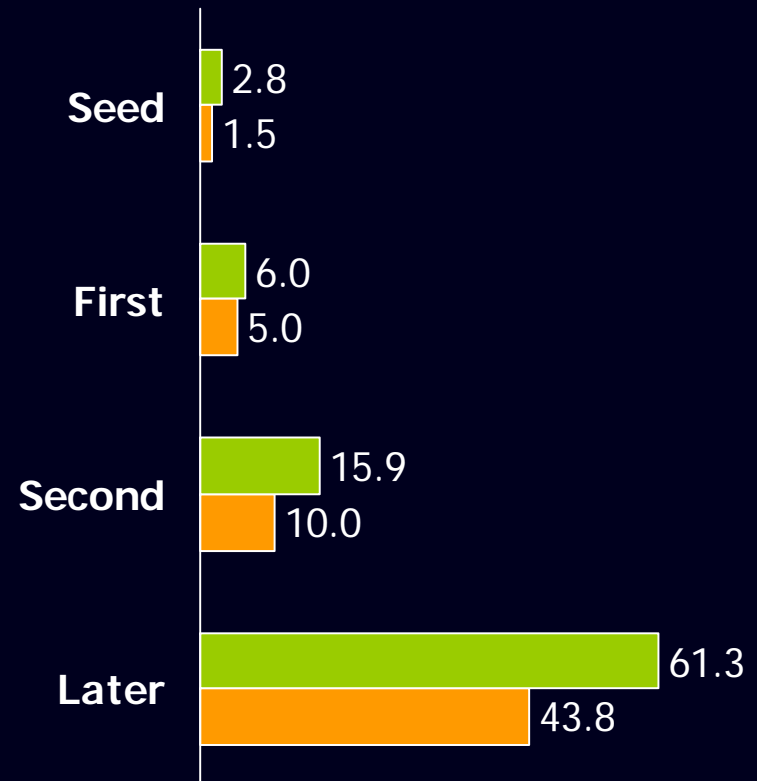
INVESTMENT COMPARISON



MEDIAN INVESTMENT \$ Millions



MEDIAN PRE-MONEY VALUATION \$ Millions



Source: Analysis of VentureSource data

COMPANIES RECEIVING INVESTMENT

MEDICAL DEVICES

AbbeyMoor Medical	eScreen	Regear Life Sciences
Accord Biomaterials	Freedom Meditech	Separation Design Group
Accuri Cytometers	Future Path Medical	Simbionix
Aethon	Glucose Sensing Tech	Spineology
ALung Technologies	Great Lakes	superDimension
Applied Computational Technologies	Harbinger Medical	Symbios Medical Products
AxioMed Spine	Intelect Medical	Syncro Medical
Blacktown NC	ISTO Technologies	Tactile Systems Tech.
BlueBelt Technologies	KC BioMediX	Thermal Therapeutics
BrainScope	Lutonix	ThermedX
Cardiac Concepts	m2m Imaging	Tissue Regeneration Systems
Cardio1Scan	MDG Medical	Torax Medical
CardioInsight	Minimally Inv. Devices	Transoma Medical
Cardiovascular Systems	Myocor	Tursiop Technologies
CarMell	NanoStatics	VasoLux MicroSystems
Cartesia Dx	Nephron	Veran Medical Tech.
Celleration	Nerites	Vertebration
CerviLenz	Neurolutions	ViewRay
Circadiance	NeuWave Medical	Vision Optimization
Clear Catheter Systems	OrthoData	Wright Therapy Products
ClearCount Medical	OrthoHelix	Zyga Technology
CleveX	Parent Plus	
Closys	Peritec	
CoAxia	Pioneer Surgical Technology	
Cohera Medical	PixelEXX	
Compact Particle Accel.	PrevaHealth	
CVRx	Proto Labs	
DiraMed	Pulse Needlefree Systems	
Entellus Medical		

BIOPHARMACEUTICALS

AcelleRx Therapeutics	Immunogenetix Therapeutics
Akebia Therapeutics	Intranasal Therapeutics
AnalizaDx	Invasc Therapeutics
ApoImmune	Kereos
Applied Isotope	Knopp Neurosciences
Asoyia	Lipella Pharmaceuticals
AssureRX	Maderia
Biomed Research & Tech.	Mithridion
Cell Targeting	Mork Process
Cellectar	NanoBio
Cellular Dynamics Intl.	Neoprobe
Chromatin	NephRx
Clarus Therapeutics	Nerites
Cognition Therapeutics	Neurotherapeutics Pharma
CoLucid Pharmaceuticals	Ohmx
Copernicus Therapeutics	Potentia Pharmaceuticals
CrossCheck Compliance	Precision Therapeutics
CS-Keys	ProNAi Therapeutics
Divergence	QuadraSpec
Edenspace	RedPath Integrated Pathology
EraGen Biosciences	RhinoCyte
Esperion Therapeutics	Rubicon Genomics
Evogen	Sagent Pharmaceuticals
FAST Diagnostics	SanoGene
GenTel Biosciences	Singulex
HandyLab	SteadySleepRx
HepGen	Tolera Therapeutics
iCyt Mission Technology	VasoGenix
	Ventria

SW & SERVICES

Advanced ICU Care
Almedtrac
Axiom
Brainstage
Brainwashed
Caliber Technologies
Chronic Health Metrics
Critical Signal Technologies
Eris Medical Technologies
Health Monitoring Systems
Healthsense
Hemosphere
Immunetrics
Informed
Initiate Systems
invivodata
Lead Horse
Millennium Pharmacy Systems
mPay Gateway
MyriadHealth
Neuronetrix
NineSigma
NXThera
Optamin Medical Services
PartsSource
Predictive Physiology and Medicine
ProCure Treatment Centers
Strategic Medicine
Treatment Online
within3

NOTABLE EXITS

MEDICAL DEVICES

 **85**
IPO

 **42**
Medtronic

 **180**
Fresenius

 **200**
Integra

 **996**
IPO

BIOPHARMACEUTICALS

 **151**
WuXi

 **125**
Roche

 **374**
IPO

 **273**
Roche

 **\$\$\$**
Quintiles

SOFTWARE & SERVICES

 **75**
Elekta

 **\$\$\$**
Johnson & Johnson

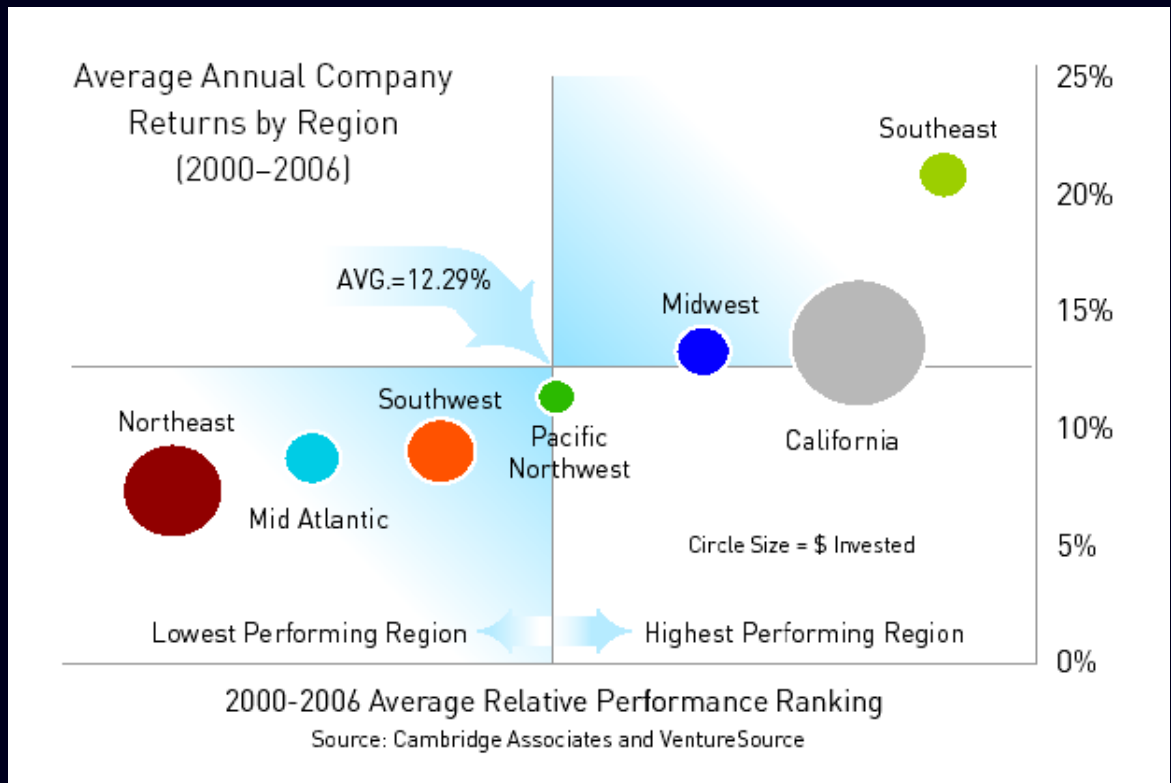
 **43**
McKesson

 **630**
Universal American

 **\$\$\$**
Walgreen

RETURNS ON MIDWEST INVESTMENTS

Returns from Midwest venture-backed companies (all sectors) are above the national average, ranking third highest in the nation



Methodology

Chrysalis Ventures conducted an in-depth analysis of venture industry data. Using both Cambridge Associates and VentureSource databases, the firm analyzed data on every venture-backed company in the country for which returns information was available— many thousands of data points in all.

INDUSTRY

Leading companies
in all sectors

>300,000 employed
in biomedical
industry

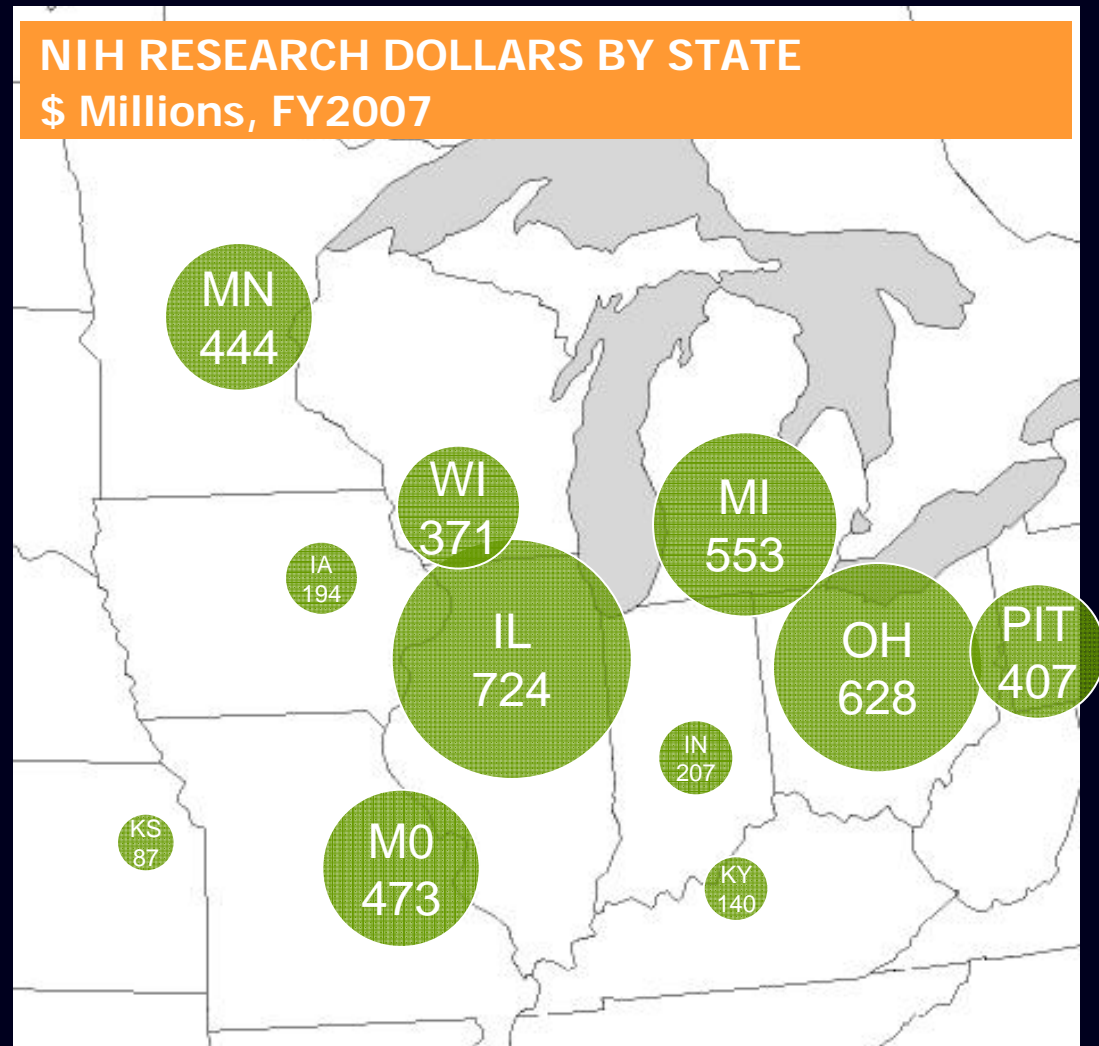
Over 38,000 annual
graduates in
bioscience fields
(26% of US total)



RESEARCH

\$4.5 Billion in Total NIH Research (21%)

\$9.9 Billion in Total University Research (19%)



TECHNOLOGY TRANSFER

Professional
technology transfer
capabilities

22% of Total U.S.
Licensing Revenues,
Total of \$265 Million

16% of Total U.S.
Patents

124 Startups
Launched in 2006

State	Institution	License Income (\$ Mns)	2006 Startups	Research (\$ Mns)
Iowa	Iowa	16.9	4	346
	Iowa State	7.2	3	248
Illinois	Illinois	10.2	9	808
	Chicago	8.9	2	391
	Southern Illinois	0.3	1	43
Indiana	Indiana	6.7	2	381
	Purdue	3.8	14	389
Kansas	Kansas State	1.3	0	98
	Kansas	0.2	0	132
Kentucky	Kentucky	0.9	4	184
	Louisville	0.1	3	148
Michigan	Michigan	20.4	9	797
	Michigan State	4.2	4	358
	Wayne State	4.0	2	221
	Michigan Tech	0.5	2	44
Minnesota	Minnesota	56.2	3	595
	Mayo Foundation	25.9	9	448
Missouri	Washington--St. Louis	11.6	2	520
	Missouri	2.4	2	332
Ohio	Case Western Reserve	10.8	4	291
	Cleveland Clinic	6.2	3	197
	Cincinnati Children's	3.1	3	125
	Akron	1.9	3	54
	Ohio State	1.0	5	652
	Cincinnati	0.5	2	149
	Toledo	0.3	2	48
	Dayton	0.1	1	71
W. Pennsylvania	Pittsburgh	10.2	5	602
	Carnegie Mellon	6.0	12	243
Wisconsin	Wisconsin	42.4	7	832
	Medical College of Wisconsin	0.5	2	104

Source: AUTM FY2006 Licensing Activity Survey; MRUN

STATE BIOMEDICAL INITIATIVES

- Ohio
 - \$2.3 Billion, 10-Year Third Frontier and Building Ohio Jobs Funds, 40% for Biosciences
 - Translational Research, Capital Formation, and Company Growth
 - >\$300 Million for Capital Formation Programs
- Michigan
 - \$2 Billion, 10-Year 21st Century Jobs Fund, 25% for Biosciences
- Kansas
 - \$580 Million, 15-Year Kansas Bioscience Authority
- Pennsylvania
 - \$550 Million Jonas Salk Fund
- Indiana
 - \$75 Million 21st Century Fund

STATE VENTURE DEVELOPMENT FUNDS

Midwest states have made significant dollars available to attract and develop venture capital firms

Fund of funds programs invest in seed through growth stage venture firms

<u>State and Programs</u>	<u>\$ Mns</u>
• Indiana	228
– Indiana Future Fund	
– Indiana Investment Fund	
• Iowa	100
– Iowa Fund of Funds	
• Illinois	75
– Technology Development Account	
• Ohio	>300
– Ohio Venture Capital Authority	
– Ohio-Midwest Fund	
– NEO Capital Fund	
– Seed and Preseed Programs	
• Kansas	
• Kentucky	21
– Commonwealth Seed Capital Fund	
• Michigan	>200
– 21 st Century Jobs Fund	
– Venture Michigan Fund	
– Renaissance Fund	
• Missouri	81
– Vectis Life Science Fund	
• Pennsylvania	60
– PA Venture Capital Investment Program	
• Wisconsin	135
– State of Wisconsin Investment Board	

MIDWEST HEALTH CARE VENTURE GROUPS

AAVIN Venture Capital
Accutive Medical Ventures
Adams Street Partners
Advantage Capital Partners
Affinity Capital Management
Apjohn Ventures
Arboretum Ventures
ARCH Development Partners
Arch Ventures
Ascension Health Ventures
Athenian Venture Partners
Baird Venture Partners
BioGenerator Fund
Birchmere Ventures
Blue Chip Venture Company
Bridge Investment Fund
Cargill Ventures
Channel Medical Partners
Charter Life Sciences
Chrysalis Ventures
CID Capital
Clarian Health Ventures
Corridor Ventures
Draper Triangle Ventures

Early Stage Partners
EDF Ventures
Everett Partners
First Analysis
Flavin Ventures
Fort Washington Capital
Foundation Medical Ventures
Frantz Medical Ventures
Heron Capital
iNetworks
InnovationWorks
JumpStart
KB Partners
Kegonsa Capital Partners
Kentucky Seed Capital
Lilly Ventures
MB Venture Partners
Morgenthaler Ventures
Mutual Capital Partners
NCT Ventures
Novitas Capital
Oakwood Medical
Ohio Innovation Fund
Open Prairie Equity Partners

Portal Capital
Primus Capital
Prolog Ventures
Radius Ventures
Reservoir Venture Partners
River Cities Capital Funds
Riverside Company
RiverVest Venture Partners
Seneca Partners
Sightline Partners
Sigvion Capital
Split Rock Partners
Spring Mill Venture Partners
Sterling Venture Partners
SWMF Life Science Fund
Talisman Capital
TechColumbus
TGap Ventures
Thomas McNerney
Triathlon Medical Ventures
Twilight Venture Partners
UPMC Ventures
Venture Investors
Ziegler Meditech Partners

MIDWEST ANGEL FUNDS AND GROUPS

3C Capital Partners - Northfield, MN
Akron ARCH Angels - Akron, OH
Blue Water Angels - Midland, MI
Bluegrass Angels - Lexington, KY
BlueTree Allied Angels - Pittsburgh, PA
Capital Community Angels - Lansing, MI
Centennial Investors - Columbia, MO
Central Minnesota Growth Fund - Willmar, MN
Core Network - Toledo, OH
Cornerstone Angels - Northbrook, IL
First Angels - Kalamazoo, MI
Grand Angels - Grand Rapids, MI
Great Lakes Angels - Rochester, MI
Hyde Park Angel Network - Chicago, IL
Irish Angels - Notre Dame, IN
Lakes Ventures II - Alexandria, MN
Louisville Angel Investor Network - Louisville, KY
Main Street Venture Partners - Fort Wayne, IN
Marquette Golden Angels - Milwaukee, WI
Mid-America Angels - Lenexa, KS
Midwest Venture Alliance - Wichita, KS

North Coast Angel Fund - Cleveland, OH
Ohio TechAngels - Columbus, OH
Phenomenelle Angels - Madison, WI
Prairie Capital II - Worthington, MN
Queen City Angels - Cincinnati, OH
RAIN Source Capital - St. Paul, MN
River Valley Capital - Montevideo, MN
Rock River Capital - Rock Rapids, IA
Rocket Ventures - Toledo, OH
Silicon Pastures - Milwaukee, WI
Sofia Angel Fund - Minneapolis, MN
South Metro Investors - Burnsville, MN
St. Louis Arch Angels - St. Louis, MO
Stateline Angels - Rockford, IL
Two Rivers Angel Network - Mankato, MN
Wellspring Investor Alliance - Mankato, MN
Wisconsin Investment Partners - Madison, WI
Women's Capital Connection - Lenexa, KS