

Industry BlueBook

Diagnostics & Tools

February 2024

The industry's authoritative information resource for
valuations, M&A transactions, and Financings

DASHBOARD^{1,2,3,4,5}

EV MULTIPLES

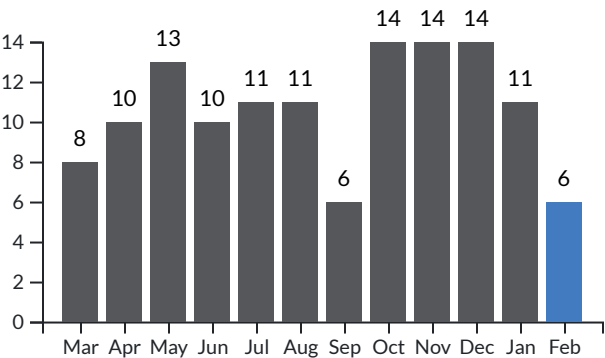
	REVENUE				EBITDA			
	LTM	%Δ	FTM	%Δ	LTM	%Δ	FTM	%Δ
In Vitro Diagnostics	3.0x	-1%	3.3x	10%	14.4x	9%	13.9x	2%
Diagnostic Services	2.4x	11%	2.3x	-1%	12.1x	9%	10.6x	-6%
Life Science Tools	5.2x	0%	4.9x	-9%	22.6x	6%	19.9x	1%
In Vivo Diagnostics	2.9x	9%	2.6x	-1%	17.9x	-16%	14.5x	3%
Digital Detection and Diagnosis	NM	NM	NM	NM	NM	NM	NM	NM

M&A DEALS & FINANCINGS

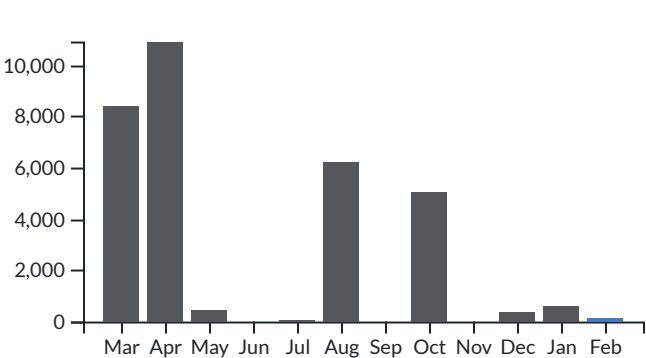
	DEAL COUNT				VOLUME (\$MM)			
	M&A	%Δ	FINANCINGS	%Δ	M&A	%Δ	FINANCINGS	%Δ
In Vitro Diagnostics	1	0%	5	67%	0	NM	15	-13%
Diagnostic Services	2	-33%	5	-17%	0	NM	267	178%
Life Science Tools	1	-80%	5	-38%	132	-9%	43	142%
In Vivo Diagnostics	2	0%	8	33%	0	NM	32	-43%
Digital Detection and Diagnosis	0	NM	3	200%	0	NM	20	881%

- 1. Enterprise value (EV) equals equity market value (market capitalization) plus debt, plus preferred stock, minus cash and cash equivalents
- 2. Deals counted once in total if included in multiple segments
- 3. LTM = last twelve months; FTM = forward twelve months
- 4. %Δ – percent change month over month
- 5. NM – Not Meaningful

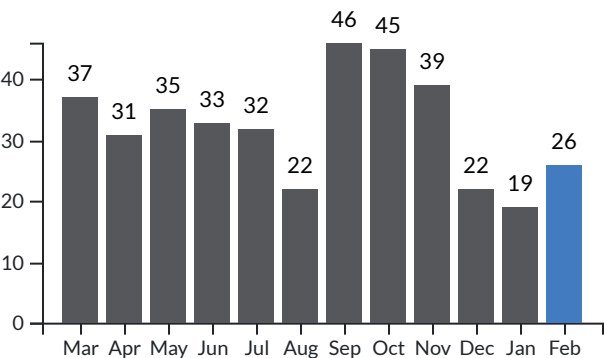
12 Month Deal Count M&A



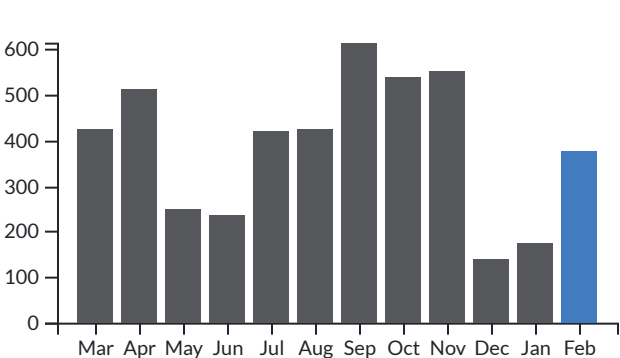
12 Month Volume M&A (\$MM)



12 Month Deal Count Financings

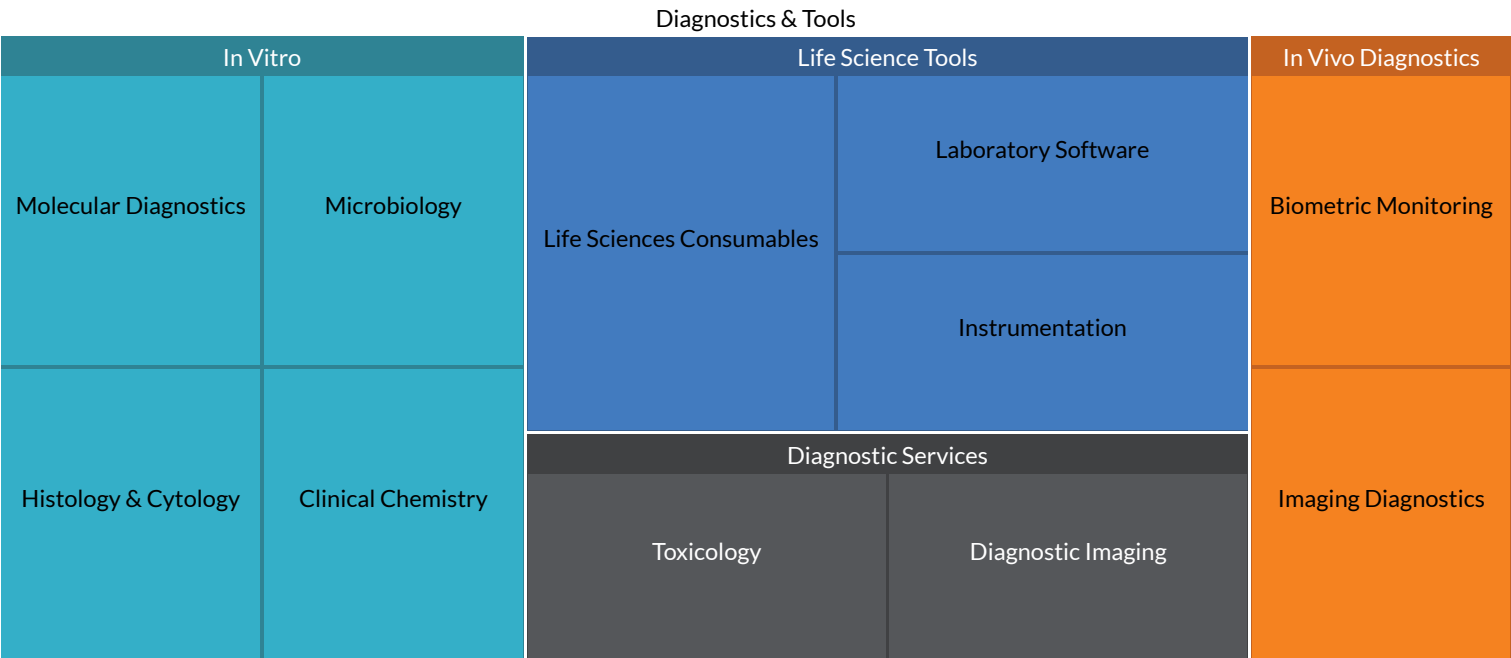


12 Month Volume Financings (\$MM)

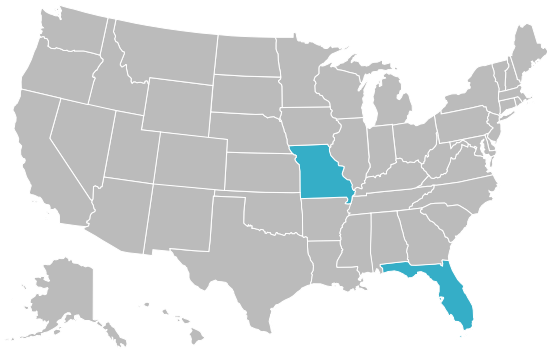


M&A ACTIVITY

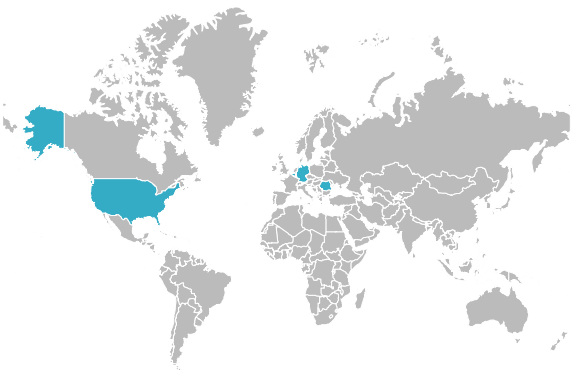
DEALS BY SEGMENT



U.S. DEALS BY STATE



WORLDWIDE DEALS BY COUNTRY

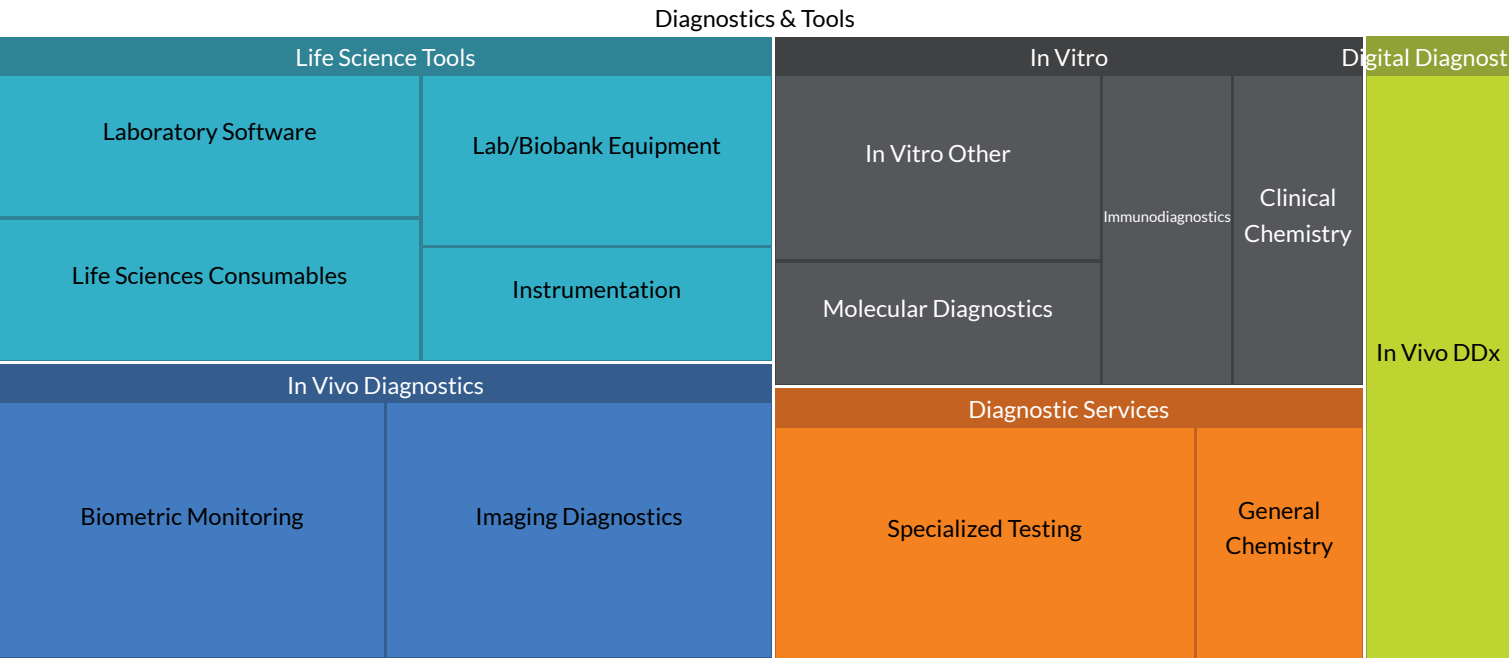


SELECTED TRANSACTIONS						
Announced Date	Segment	Sub-Segment	Target Company	Geography	Selected Buyers	Size (\$mm)
2/29/2024	Life Science Tools	Consumables	Paragon Care Limited (ASX:PGC)	Australia	CH2 Holdings Pty Limited	131.8
2/28/2024	In Vivo Diagnostics	Biometric Monitoring	Evolution Medtec Srl	Romania	Cicor Technologies Ltd. (SWX:CICN)	-
2/13/2024	In Vivo Diagnostics	Imaging Diagnostics	Osimis SA	Belgium	deepc GmbH	-
2/13/2024	In Vitro	Histology & Cytology	Cyclomics	-	Renovaro Biosciences Inc.	-
2/12/2024	Diagnostic Services	Toxicology	The National Center for Drug Free Sport, Inc.	United States	CPC Management LLC	-

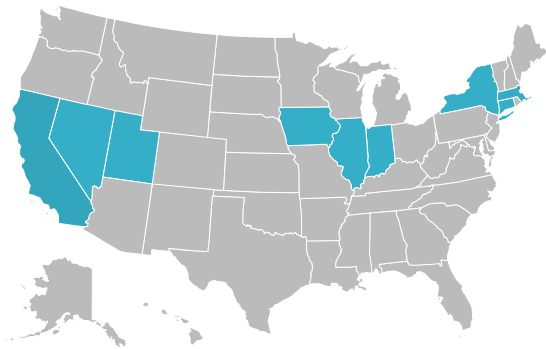
Announced Date Segment		Sub-Segment	Target Company	Geography	Selected Buyers	Size (\$mm)
2/8/2024	Diagnostic Services	Diagnostic Imaging	Specialists in Diagnostic Imaging, LLC	United States	Premier Radiology Services, LLC	-

FINANCINGS

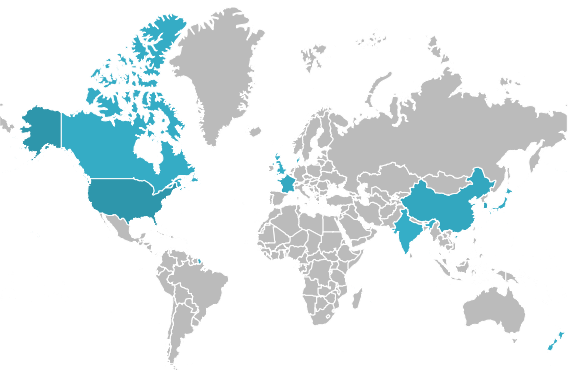
DEALS BY SEGMENT



U.S. DEALS BY STATE



WORLDWIDE DEALS BY COUNTRY



SELECTED TRANSACTIONS						
Closed Date	Segment	Sub-Segment	Target Company	Geography	Selected Investors	Size (\$mm)
2/29/2024	Life Science Tools	Lab Software	Orbis Medicines ApS	Denmark	Forbion Capital Partners B.V., Forbion Capital Partners B.V.	28.1
2/29/2024	Diagnostic Services	Specialized Testing	Newtopia Inc. (TSXV:NEWU)	Canada	Undisclosed	0.6
2/21/2024	In Vivo Diagnostics	Biometric Monitoring	MaRI Co. Ltd.	Japan	Kampo NEXT Partners	0.7
2/21/2024	Digital Diagnostics	In Vivo DDx	Honeynaps Co.,Ltd.	Korea (Republic of)	Korea Development Bank, Investment Arm, Quad Investment Management Corp., Hi Investment Partners	11.2

Closed Date	Segment	Sub-Segment	Target Company	Geography	Selected Investors	Size (\$mm)
2/21/2024	Life Science Tools	Consumables	Bio-Link Pharmaceutical Technology (Shanghai) Co., Ltd.	China	Cathay Capital Private Equity SAS, Sino Biological, Inc. (SZSE:301047), Suzhou GSL Venture Capital Management Company, Beijing GSR United Capital Management Consulting Co., Ltd., Shanghai Pudong Haiwang Private Fund Management Co., Ltd., Tianjin Qianxi Investment Management Partnership Ent. (L.P.)	-
2/21/2024	Diagnostic Services	Specialized Testing	Tagomics	-	Calculus Capital	8.5
2/20/2024	In Vitro	In Vitro Other	Trace Genomics, Inc.	United States	Rabo Corporate Investments B.V., S2G Ventures, Ajax Strategies LLC	10.5
2/19/2024	Digital Diagnostics	In Vivo DDx	AVATAR MEDICAL, SAS	France	Rives Croissance SAS, Plug and Play, LLC, Rives Croissance SAS, Acorn Pacific Ventures, Cenitz	5.4
2/19/2024	Diagnostic Services	General Chemistry	GlycanAge Ltd.	United Kingdom	LaunchHub Advisors Ood, Kadmos Capital Limited	4.2
2/15/2024	In Vivo Diagnostics	Imaging Diagnostics	IMDEV	France	Atalante SAS, Bpifrance	-
2/15/2024	Diagnostic Services	Specialized Testing	Freenome, Inc.	United States	Roche Diagnostics Corporation	254.0
2/14/2024	Life Science Tools	Lab/Biobank Equipment	XiltriX North America, LLC	United States	Undisclosed	2.5
2/13/2024	In Vivo Diagnostics	Imaging Diagnostics	Wellumio Limited	New Zealand	NZ Innovation Booster (NZIB)	0.3
2/12/2024	Diagnostic Services	Specialized Testing	Ludwig Enterprises, Inc. (OTCPK:LUDG)	United States	Undisclosed	0.0
2/8/2024	In Vitro	Chemistry	NeoDocs Technologies Pvt. Ltd.	India	Omidyar Network Services LLC, Y Combinator Management, LLC, Gemba Capital, Titan Capital, Neo	2.0
2/8/2024	In Vivo Diagnostics	Imaging Diagnostics	DeepLook, Inc.	United States	Connecticut Innovations, Incorporated, Angel Investor Forum, Werth Family Investment Associates LLC, Tidal River, OKG Capital	1.7
2/8/2024	In Vitro	Immunodiagnostics	Precision Biosensor, Inc.	Korea (Republic of)	SV Investment Corporation (KOSDAQ:A289080), Shinhan Investment & Securities Co., Ltd.	2.3
2/8/2024	Life Science Tools	Consumables Instrumentation Lab/Biobank Equipment	Suzhou Wanguiyuan Precision Technology Co., Ltd.	China	Sihaixincal Fund, Suzhou Capital Group Co., Ltd.	-
2/8/2024	In Vivo Diagnostics	Biometric Monitoring	EOFLOW Co., Ltd.	Korea (Republic of)	Samsung Securities Co., Ltd. (KOSE:A016360), NH Investment & Securities Co., Ltd. (KOSE:A005940), DB Financial Investment Co., Ltd. (KOSE:A016610), Korea Investment & Securities Co., Ltd., Hana Investment Banking & Securities Inc., Investment Arm	12.8
2/6/2024	In Vivo Diagnostics	Biometric Monitoring	Life Plus SAS	France	Banque des Territoires, Investment Arm, Tsinor Venture Studio	3.2
2/5/2024	Digital Diagnostics	In Vivo DDx	Brain Gear Inc.	Korea (Republic of)	Undisclosed	3.0

Closed Date Segment		Sub-Segment	Target Company	Geography	Selected Investors	Size (\$mm)
2/2/2024	In Vivo Diagnostics	Biometric Monitoring	Cardio Diagnostics Holdings, Inc.	United States	Undisclosed	1.0
2/2/2024	In Vitro	Molecular	Hangzhou Jieyi Biotechnology Co., Ltd.	China	Hangzhou Yuhang State-owned Capital Investment Management Group Co., Ltd., Kuntai Capital, Operation Group Co., Ltd.	-
2/1/2024	In Vitro	In Vitro Other	Triple Ring Technologies, Inc.	United States	1315 Capital, LLC	-
2/1/2024	In Vivo Diagnostics	Imaging Diagnostics	Guangzhou Baishi Medical Technology Co., Ltd.	China	Undisclosed	12.5
2/1/2024	Life Science Tools	Lab Software	Biosim Inc.	United States	Undisclosed	12.3

PUBLIC MARKETS¹

IN VITRO DIAGNOSTICS

Molecular Diagnostics

Company Name	Geography	Enterprise Value (\$mm)	xRevenue		xEBITDA	
			LTM EV	FTM EV	LTM EV	FTM EV
Amoy Diagnostics Co., Ltd.	China	1,093	8.3x	6.3x	34.1x	22.0x
Biocartis Group NV	Belgium	167	2.5x	2.6x	NM	NM
Dx & Vx Co., Ltd.	Korea (Republic of)	131	3.9x	NM	NM	NM
Genomictree Inc.	Korea (Republic of)	318	NM	NM	NM	NM
Guangdong HybriBio Biotech Co.,Ltd.	China	565	1.9x	3.3x	5.5x	NM
Qiagen N.V.	Netherlands	9,924	5.1x	4.9x	15.1x	13.9x
Sansure Biotech Inc.	China	1,071	7.7x	NM	14.8x	NM
Seegene, Inc.	Korea (Republic of)	578	2.0x	2.0x	14.1x	8.5x
Tellgen Corporation	China	234	2.8x	NM	12.1x	NM
Zhejiang Orient Gene Biotech Co., Ltd. (SHSE:688298)	China	205	1.8x	NM	NM	NM
Mean		1,429	4.0x	3.8x	15.9x	14.8x
Median		442	2.8x	3.3x	14.4x	13.9x

Microbiology

Company Name	Geography	Enterprise Value (\$mm)	xRevenue		xEBITDA	
			LTM EV	FTM EV	LTM EV	FTM EV
bioMérieux S.A. (ENXTPA:BIM)	France	12,998	3.3x	3.2x	15.0x	13.8x
OraSure Technologies, Inc. (NasdaqGS:OSUR)	United States	251	0.6x	1.3x	3.3x	NM
QuidelOrtho Corporation	United States	5,494	1.8x	1.9x	7.0x	8.9x
Sansure Biotech Inc.	China	1,071	7.7x	NM	14.8x	NM
Mean		4,954	3.3x	2.1x	10.0x	11.3x
Median		3,283	2.5x	1.9x	10.9x	11.3x

Histology & Cytology

Company Name	Geography	Enterprise Value (\$mm)	xRevenue		xEBITDA	
			LTM EV	FTM EV	LTM EV	FTM EV
Guangzhou LBP Medicine Science & Technology Co., Ltd.	China	205	3.0x	NM	27.0x	NM
Mean		205	3.0x	NM	27.0x	NM
Median		205	3.0x	NM	27.0x	NM

Hematology & Coagulation

Company Name	Geography	Enterprise Value (\$mm)	xRevenue		xEBITDA	
			LTM EV	FTM EV	LTM EV	FTM EV
Beijing Succeder Technology Inc.	China	191	5.0x	3.4x	10.0x	NM
Sysmex Corporation	Japan	11,611	4.0x	3.6x	16.4x	14.0x
Mean		5,901	4.5x	3.5x	13.2x	14.0x
Median		5,901	4.5x	3.5x	13.2x	14.0x

DIAGNOSTIC SERVICES

Diagnostic Imaging

Company Name	Geography	Enterprise Value (\$mm)	xRevenue		xEBITDA	
			LTM EV	FTM EV	LTM EV	FTM EV
Centro de Imagem Diagnósticos S.A.	Brazil	417	1.8x	NM	17.9x	NM
Integral Diagnostics Limited (ASX:IDX)	Australia	559	1.9x	1.8x	9.9x	8.7x
RadNet, Inc. (NasdaqGM:RDNT)	United States	3,924	2.4x	2.3x	11.2x	15.4x
Mean		1,633	2.0x	2.0x	13.0x	12.1x
Median		559	1.9x	2.0x	11.2x	12.1x

Specialized Testing

Company Name	Geography	Enterprise Value (\$mm)	xRevenue		xEBITDA	
			LTM EV	FTM EV	LTM EV	FTM EV
Adaptive Biotechnologies Corporation	United States	479	2.8x	2.7x	NM	NM
BGI Genomics Co., Ltd.	China	1,811	3.0x	NM	25.9x	NM
Biora Therapeutics, Inc.	United States	106	NM	80.9x	NM	NM
CareDx, Inc (NasdaqGM:CDNA)	United States	350	1.3x	1.3x	NM	NM
Castle Biosciences, Inc. (NasdaqGM:CSTL)	United States	268	1.2x	1.1x	NM	NM
Dx & Vx Co., Ltd.	Korea (Republic of)	131	3.9x	NM	NM	NM
Exact Sciences Corporation	United States	12,232	4.9x	4.3x	NM	36.1x
Genetron Holdings Limited (NasdaqGM:GTH)	China	98	1.0x	NM	NM	NM
Guardant Health, Inc.	United States	2,498	4.4x	3.8x	NM	NM
Invitae Corporation (Prenatal Testing)	United States	1,257	2.6x	NM	NM	NM
MDxHealth SA	Belgium	108	1.7x	1.4x	NM	NM
Myriad Genetics, Inc. (NasdaqGS:MYGN)	United States	1,892	2.5x	2.3x	NM	89.8x
Natera, Inc.	United States	10,007	9.2x	7.5x	NM	NM
NeoGenomics, Inc.	United States	2,187	3.7x	3.3x	NM	NM
Sema4 Holdings Corp.	United States	202	1.0x	0.9x	NM	NM
Veracyte, Inc. (NasdaqGM:VCYT)	United States	1,564	4.3x	3.9x	NM	NM
Mean		2,199	3.2x	9.5x	25.9x	62.9x
Median		868	2.8x	3.0x	25.9x	62.9x

General Chemistry

Company Name	Geography	Enterprise Value (\$mm)	xRevenue		xEBITDA	
			LTM EV	FTM EV	LTM EV	FTM EV
Diagnósticos da América S.A. (BOVESPA:DASA3)	Brazil	3,663	1.3x	1.2x	8.8x	6.6x
Dr. Lal PathLabs Limited (NSEI:LALPATHLAB)	India	2,288	8.7x	7.9x	31.3x	28.8x
Guangzhou Kingmed Diagnostics Group Co., Ltd.	China	3,752	2.8x	2.7x	22.2x	14.3x
H.U. Group Holdings, Inc.	Japan	1,173	0.7x	0.7x	10.5x	5.8x
Integrated Diagnostics Holdings plc	Jersey	228	1.8x	1.6x	6.9x	5.4x
Laboratory Corporation of America Holdings	United States	23,584	1.9x	1.9x	12.5x	10.6x
Medicover AB (publ) (OM:MCOV B)	Sweden	3,110	1.7x	1.4x	11.4x	10.0x
Metropolis Healthcare Limited (NSEI:METROPOLIS)	India	1,005	7.2x	6.5x	30.7x	25.2x
Quest Diagnostics Incorporated (NYSE:DGX)	United States	18,749	2.0x	2.0x	8.7x	10.1x
Sonic Healthcare Limited	Australia	11,589	2.1x	2.0x	12.1x	10.0x
Thyrocare Technologies Limited	India	437	6.5x	5.8x	29.0x	21.6x
Mean		6,325	3.4x	3.0x	16.7x	13.5x
Median		3,110	2.0x	2.0x	12.1x	10.1x

LIFE SCIENCE TOOLS						
Laboratory Software						
Company Name	Geography	Enterprise Value	xRevenue		xEBITDA	
		(\$mm)	LTM EV	FTM EV	LTM EV	FTM EV
Precigen, Inc. (NasdaqGS:PGEN)	United States	317	46.9x	67.4x	NM	NM
Schrödinger, Inc.	United States	1,506	7.0x	7.0x	NM	NM
Simulations Plus, Inc. (NasdaqGS:SLP)	United States	716	11.5x	10.3x	44.7x	31.3x
SyntekaBio, Inc.	Korea (Republic of)	123	NM	NM	NM	NM
Mean		666	21.8x	28.3x	44.7x	31.3x
Median		517	11.5x	10.3x	44.7x	31.3x
Life Sciences Consumables						
Company Name	Geography	Enterprise Value	xRevenue		xEBITDA	
		(\$mm)	LTM EV	FTM EV	LTM EV	FTM EV
Adaptive Biotechnologies Corporation	United States	479	2.8x	2.7x	NM	NM
Avantor, Inc.	United States	22,095	3.2x	3.2x	16.3x	18.0x
Bio-Techne Corporation	United States	11,985	10.5x	10.1x	35.2x	28.3x
Bioneer	Korea (Republic of)	440	2.4x	NM	41.7x	NM
Borosil Limited (BSE:543212)	India	548	3.9x	4.4x	27.2x	28.1x
Cellectis S.A.	France	193	7.7x	6.9x	NM	NM
Genscript Biotech Corporation	China	3,761	5.3x	3.5x	NM	NM
Guangzhou Jet Bio-Filtration Co., Ltd.	China	201	3.1x	2.2x	16.6x	12.6x
Guerbet SA (ENXTPA:GBT)	France	779	0.9x	0.9x	7.7x	6.3x
NKMAX CO., Ltd.	Korea (Republic of)	138	16.8x	NM	NM	NM
Porton Pharma Solutions	China	1,467	2.2x	3.5x	8.7x	10.5x
Qiagen N.V.	Netherlands	9,924	5.1x	4.9x	15.1x	13.9x
Repligen Corporation	United States	10,780	16.9x	16.9x	72.2x	NM
Twist Bioscience Corporation	United States	2,052	7.8x	6.7x	NM	NM
Vitrolife AB (publ)	Sweden	2,477	7.3x	6.8x	NM	20.1x
Viva Biotech Holdings	China	414	1.2x	NM	6.1x	NM
Mean		4,233	6.1x	5.6x	24.7x	17.2x
Median		1,123	4.5x	4.4x	16.5x	16.0x
Instrumentation						
Company Name	Geography	Enterprise Value	xRevenue		xEBITDA	
		(\$mm)	LTM EV	FTM EV	LTM EV	FTM EV
10x Genomics, Inc.	United States	5,265	8.5x	7.8x	NM	NM
AnHui Wanyi Science and Technology Co., Ltd.	China	269	2.5x	1.4x	33.7x	9.8x
Biotage AB (publ) (OM:BIOT)	Sweden	1,333	7.4x	6.4x	29.4x	22.5x
Bruker Corporation (NasdaqGS:BRKR)	United States	12,803	4.3x	3.9x	20.0x	19.7x
Harvard Bioscience, Inc.	United States	225	2.0x	1.9x	18.1x	12.4x
Illuminate	United States	23,427	5.2x	5.2x	50.8x	53.0x
Mettler-Toledo International Inc.	United States	28,915	7.6x	7.6x	23.9x	23.5x
NanoString Technologies, Inc.	United States	156	1.0x	NM	NM	NM
Pacific Biosciences of California, Inc.	United States	1,781	8.9x	7.4x	NM	NM
Quanterix Corporation (NasdaqGM:QTRX)	United States	632	5.2x	4.6x	NM	NM

Standard BioTools Inc.	United States	947	8.9x	4.7x	NM	NM
Waters	United States	22,036	7.5x	7.4x	20.8x	20.3x
Mean		8,149	5.7x	5.3x	28.1x	23.0x
Median		1,557	6.3x	5.2x	23.9x	20.3x
Lab/Biobank Equipment						
Company Name	Geography	Enterprise Value	xRevenue		xEBITDA	
		(\$mm)	LTM EV	FTM EV	LTM EV	FTM EV
BICO Group AB (publ)	Sweden	391	1.7x	1.5x	21.3x	10.4x
Sartorius Aktiengesellschaft	Germany	29,432	8.0x	7.5x	32.3x	24.8x
Stratec SE	Germany	632	2.3x	2.1x	16.9x	10.9x
Tecan Group Ltd. (SWX:TECN)	Switzerland	4,978	4.0x	4.1x	23.8x	20.6x
Mean		8,858	4.0x	3.8x	23.6x	16.6x
Median		2,805	3.1x	3.1x	22.6x	15.7x

IN VIVO DIAGNOSTICS

Biometric Monitoring

Company Name	Geography	Enterprise Value	xRevenue		xEBITDA	
		(\$mm)	LTM EV	FTM EV	LTM EV	FTM EV
Contec Medical Systems Co.,Ltd	China	885	7.3x	NM	28.0x	NM
Guangdong Transtek Medical Electronics Co., Ltd	China	175	1.5x	1.4x	NM	19.7x
iRhythm Technologies, Inc.	United States	3,672	7.5x	6.3x	NM	NM
TaiDoc Technology Corporation	Taiwan (Province of China)	370	2.1x	2.6x	7.8x	7.8x
Zhejiang Starry Pharmaceutical Co.,Ltd.	China	829	2.5x	2.4x	17.9x	12.4x
Mean		1,186	4.2x	3.2x	17.9x	13.3x
Median		829	2.5x	2.5x	17.9x	12.4x

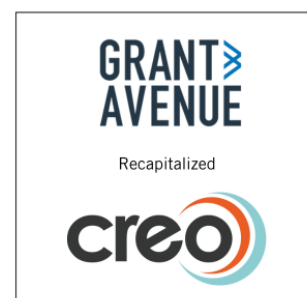
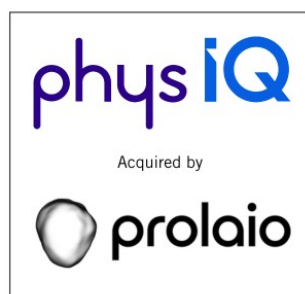
Imaging Diagnostics

Company Name	Geography	Enterprise Value	xRevenue		xEBITDA	
		(\$mm)	LTM EV	FTM EV	LTM EV	FTM EV
4DMedical Limited	Australia	141	NM	16.1x	NM	NM
Detection Technology Oyj	Finland	203	1.8x	1.7x	15.9x	10.3x
iRay Technology Company Limited	China	3,408	13.0x	9.9x	33.9x	22.6x
Kromek Group plc	United Kingdom	65	2.9x	2.5x	NM	57.2x
Nano-X Imaging Ltd.	Israel	555	57.6x	29.0x	NM	NM
Ray Co., Ltd.	Korea (Republic of)	229	2.1x	2.0x	14.4x	13.0x
Siemens Healthineers AG	Germany	82,694	3.5x	3.3x	22.1x	15.9x
SonoScape Medical Corp.	China	2,121	7.7x	6.0x	32.2x	21.6x
Varex Imaging Corporation (NasdaqGS:VREX)	United States	990	1.1x	1.2x	9.4x	8.3x
Mean		10,045	11.2x	8.0x	21.3x	21.3x
Median		555	3.2x	3.3x	19.0x	15.9x

1. NM - Not Meaningful

RECENT CROSSTREE TRANSACTIONS

Crosstree Capital Partners provides mergers and acquisitions and financing advisory services exclusively to leading Health Sciences companies. Since inception, the firm has been a consistent leader within our focus areas, closing more than 100 successful transactions with companies ranging from private equity-backed consolidators to Fortune 500 publicly-traded companies. In the process, we have represented clients on five continents, and roughly 35% of our transactions have been cross-border.



Contact Us

Jeff Ellis, CFA
Head of Diagnostics & Tools
813-774-4753
jeff.ellis@crosstreecapital.com
m www.crosstreecapital.com

Location

Tampa (Headquarters)
5411 Skycenter Dr. Suite 625
Tampa, FL
33607

CROSSTREE