



The Walden Group

2021 Year-end Strategic Healthcare M&A Report

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for

The Healthcare Industry

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The Strategic Healthcare M&A Report analyzes important merger, acquisition and strategic transactions taking place in the healthcare industry. A complimentary copy of the Report can be obtained by subscribing at www.waldenmed.com. With 30 years of experience and a lengthy track record, The Walden Group is a strategic merger & acquisition advisory firm focused on the healthcare industry.

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Market Overview

While covid infections and serious impacts are improving, the economic recovery is inhibited by supply chain problems, inflation, geo-political issues and other factors. And of course, the turbulence in Ukraine and its cascading ripple effects. The Delta variant upended recovery efforts forcing companies to brace for another surge and then were hit again in late 2021 by Omicron. The stop-and-start nature of the recovery has made procedure volumes hard to predict, especially given staffing shortages. These headwinds will lessen and clear, but provide opportunities for medtechs to adjust to "new normals".

Some "new normals":

- Sourcing vendors closer to core markets.
- Shrinking, focusing and "di-diversifying" -- divesting and spinning out businesses that deserve more attention in their own right, not just as a part of a conglomerate. Many companies are unlocking shareholder value by spinning out units that would thrive better on their own.
- Making manufacturing more efficient.
- Bringing on new connectivity capabilities for remote patient care, data analysis and central processing.

Uncertainty presents opportunity for well-resourced companies, especially in regard to operating improvements, sharpening strategic plans and M&A.

From Geoff Martha, Chairman and CEO of **Medtronic**:

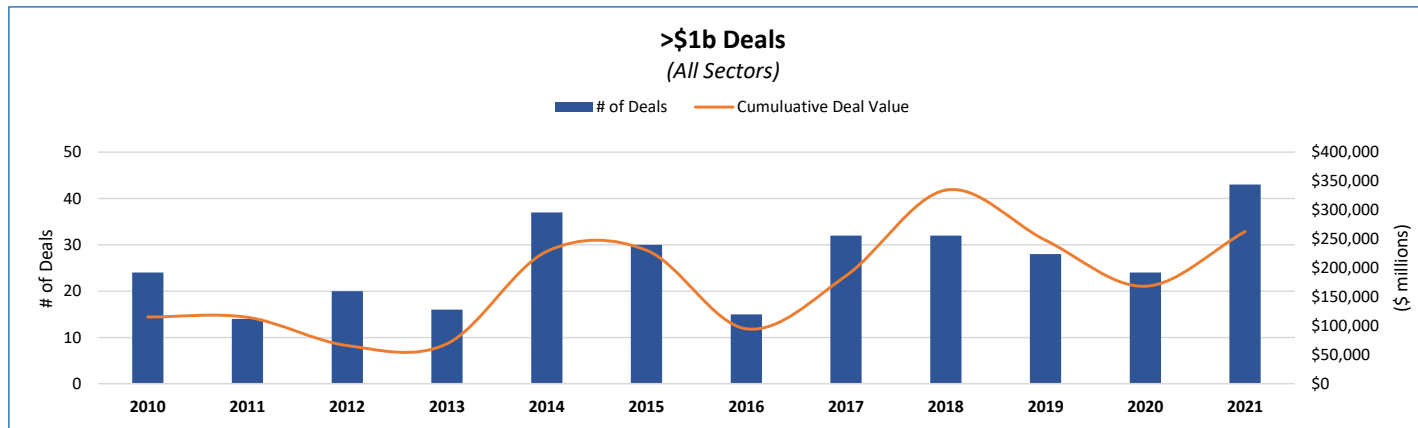
"While some of the impacts from the pandemic, like inflation, supply chain issues and healthcare worker shortages will linger, we do expect that our markets, our customers and our industry are on the path to recovery. Over the last 18 months, we have made significant changes to our operating model, moving to 20 focused operating units as well as making major enhancements to our culture and incentives. These changes have improved our pace of innovation and our competitiveness, as evidenced by recent product filings and approvals that came faster than expected. And we are not finished driving change."

Healthcare mergers and acquisitions surged in 2021, including those among hospital and physician groups, as well medtech, pharma, diagnostics and healthcare IT. M&A spurts after an economic downturn are normal. As per the Darwinian process, the fittest firms tend to buy up those having trouble or are otherwise willing to pay up for solid firms that will fortify their competitive positions in the future.

According to PwC, pharmaceutical and life sciences M&A rebounded in 2021 with an increase of 52% in deal volume from 2020 and a 46% increase in deal value.

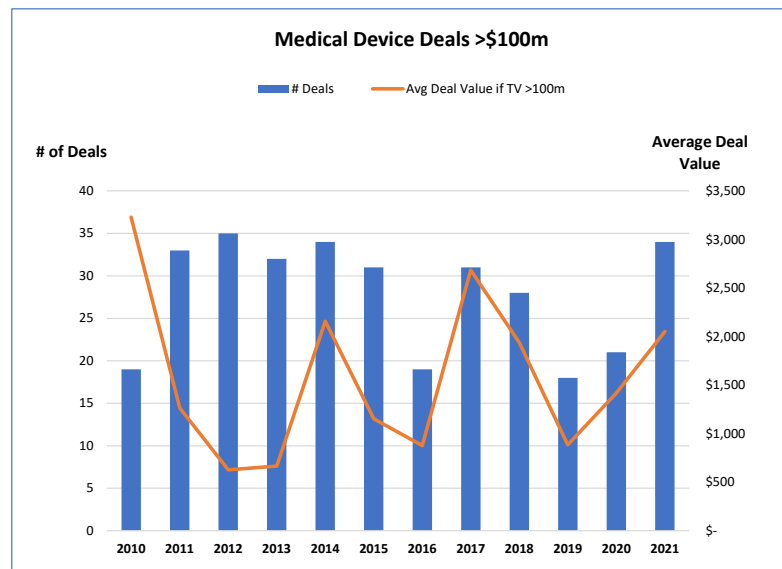
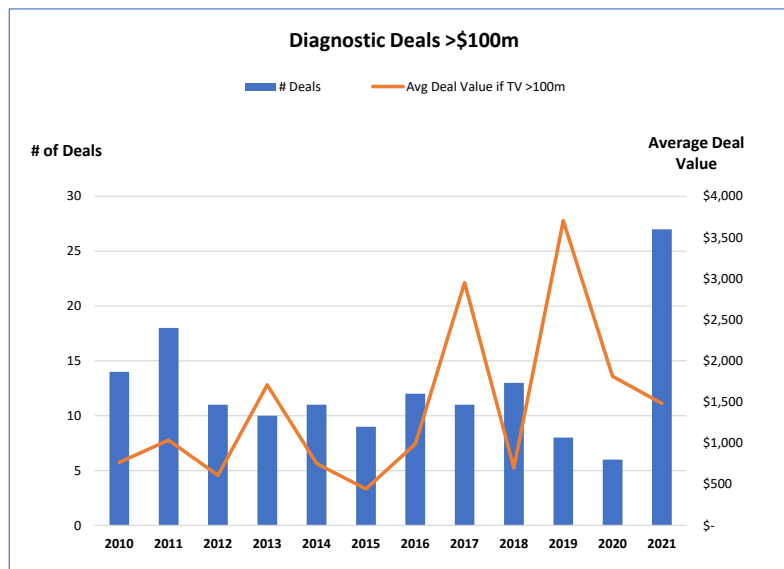
While The Walden Group's M&A database may not be as extensive as PwC's, we show major growth in deal value and volume for 2021 deals with valuations over \$1b, in all healthcare sectors that we track.

Deals with valuations over \$1b, all sectors.



Focusing just on Diagnostics and Medical Device segments, deal volume greatly increased in 2021 for deals over \$100m in value, but in the Diagnostics sector average deal size was lower in 2021 vs 2019, due to mega deals in the earlier year.

Deals with valuations over \$100m, Diagnostics and Medical Devices.



Noteworthy M&A Deals

Last year many large companies made multiple acquisitions, taking advantage of market uncertainty to add new technologies and expand their markets in core areas.

Diagnostics

- **Mega Deal.** *Qidel*, a \$1.7b producer of rapid molecular testing devices and assays, is buying ***Ortho Clinical Diagnostics*** (formerly part of J&J) for \$6.0b on sales of \$1.8b (3.3x), creating an in vitro diagnostic powerhouse.
- **Molecular Testing.**
 - ***Hologic*** bought: Finland-based ***Mobidiag*** for \$795m on sales of \$42m (19x); Belgium-based ***Diagenode, Inc.*** for \$159m on sales of \$30m (5.3x); San Diego-based ***Biotheranostics*** for \$230m on sales of \$33m (7.0x); and Germany-based ***Somatex Medical Technologies GmbH*** for \$64m on sales of \$13m (5.0x).
 - ***Thermo Fisher Scientific*** paid \$450m for ***MesaBiotech*** on sales of \$50m (9.0x). Separately, it bought Belgium-based ***Groupe Novasep SAS' Henogen S.A. Viral Vector business***, a vaccine manufacturer, for \$879.4m on sales of \$95m (9.3x).
- **Drug Development Services.**
 - ***Thermo Fisher*** also bought CRO firm ***PPD*** for \$17.4b to add drug development, QC, supply chain and other production capabilities to comprehensively service its

pharma clients. In 2022 ***Thermo Fisher*** agreed to pay \$1.9b for ***Peprotech***, a developer of recombinant proteins, used in making cell and gene therapies.

- ***Danaher Corporation*** bought ***Aldevron***, a manufacturer of plasmid DNA, mRNA, and proteins, serving biotechnology and pharmaceutical customers, for \$9.6b.
- ***PerkinElmer*** bought ***BioLegend***, a producer of antibodies and reagents, in a \$5.3b deal on sales of \$380m (14x).

Medical Devices

- **MedTech Products and Distribution.**
 - A majority stake in hospital supplies and consumer health products distributor ***Medline*** was purchased by ***Blackstone, Carlyle*** and ***Hellman & Friedman*** for \$34b.
 - ***Hellman & Friedman*** separately paid \$1.0b for ***Cardinal Health's Cordis business*** focused on the distribution of minimally-invasive cardiovascular technologies.
- **Continuum of Care and Connectivity.** ***Baxter International*** acquired ***Hill-Rom*** for \$10.5b to penetrate homecare and add connected devices to its broad base of hospital-focused products.
- **Infection Control.** ***Steris*** bought ***Cantel Medical*** (\$4.0b, on sales of \$1.0b) for its infection prevention, dental and endoscopic consumables businesses, following its 2020

Key Surgical buyout for \$850m on sales of \$170m (5.0x) and EBIT of \$50m (80.0x).

- **Glaucoma Devices.** **Alcon** paid \$475m for **Invantis Inc.**, adding the Hydrus Microstent – a minimally invasive glaucoma surgery (MIGS) device – after its CyPass Micro-Stent was recalled in 2018.
- **Cardiovascular Technologies.** **Boston Scientific** acquired **Baylis Medical**, which developed a cardiac radiofrequency puncture platform that eliminates wire and sheath exchanges. Deal value -- \$1.8b on sales of \$200m (8.8x). **Boston Scientific** also bought **Lumenis' global surgical business** for \$1.1 from **Baring Private Equity Asia**. **Lumenis'** laser systems, fibers and accessories are used in urology and otolaryngology procedures.
- **Visualization and Robotics.**
 - **Medtronic** bought **Intersect ENT**, a manufacturer of a virtual surgical guidance platform and steroid releasing implants for chronic sinusitis patients. Deal terms – \$1.1b on sales of \$80.6m (13.6x).
 - **GE Healthcare** is buying **BK Medical**, a manufacturer of intraoperative ultrasonic imaging technologies that help guide robotic surgeries in a \$1.5b deal.

Distribution

- **Scaling Pharma Market Penetration.** **AmerisourceBergen** paid \$6.3b for **Walgreens Boots Alliance's Alliance Healthcare businesses** to expand its pharmaceutical distribution operations.

- **Home Healthcare Market.** **Owens & Minor** is paying \$1.5b for **Apria**, a provider of integrated home healthcare equipment, on sales of \$1.1b (7.7x) and normalized EBITDA of \$187m (8x).

Healthcare IT and Data Management

- **Hospital Information Systems.** **Oracle Corporation** bought **Cerner Corporation** (electronic medical record and healthcare IT systems) for \$28.3b on sales of \$5.7b (5.0x) and normalized EBITDA of \$1.4b (20x).
- **Mobile Communications.**
 - **Becton, Dickinson** bought **Scanwell**, an at-home infectious disease mobile app developer. Cloud connectivity is a new frontier many firms are pursuing,
 - **Stryker** spent \$3.1b on mobile communications solutions developer **Vocera Communications** on sales of \$198m (15.7x) to implement cloud-connected capabilities and expand into clinical IT management.
 - **Vocera Communications** acquired **PatientSafe Solutions**, a developer of a cloud-based cellphone technology that combines nurse call notifications, secure messages, voice and other alerts from EHRs.
- **Clinical Data Management**
 - **UnitedHealth Group's Optum** announced plans to pay \$13b for **Change Healthcare**, a provider of data and analytics healthcare systems. However, The U.S. Justice Department is investigating possible antitrust impacts.

- **Hellman & Friedman** and **Bain Capital** paid \$17b for **Athenahealth**, a provider of cloud-based enterprise software for medical groups and health systems. **Athenahealth** went private after **Veritas Capital** acquired it for \$5.7b in 2019.
- **Edifecs** bought **Health Fidelity**, a developer of risk-adjustment tools for both payers and providers.

Split-Ups and Divestitures – Unlocking Market Value

- **Johnson & Johnson** plans to spin off its consumer health division to focus on pharmaceuticals and medical devices in the biggest shake-up in the U.S. company's 135-year history.
- **Toshiba** announced an ambitious plan to separate into three standalone companies: infrastructure services; electronic and medical devices; and office equipment.
- **GE** is also splitting up into three companies: Healthcare; Renewable Energy and Power; and Aviation.
- **Bausch Health** will soon be spinning off its eye health business. In 2021 it announced it was spinning out its **Solta Medical** skincare business. **Bausch + Lomb** was taken private by **Warburg Pincus** and **Welsh, Carson, Anderson & Stowe** for \$4.5b. In 2013, **Valeant Pharmaceuticals** paid \$8.7b to buy **Bausch + Lomb**, but after a tumultuous five years, it was rebranded as **Bausch Health Companies**.
- **Zimmer Biomet**, a \$7.8b orthopedic, spine and dental device leader is spinning off its Spine and Dental business into **ZimVie** and **Zimmer Biomet** will retain focus on orthopedics, biologics and craniomaxillofacial products.
- **Danaher Corporation** IPO'd **Envista Holdings Corporation** composed of three operating companies within Danaher's Dental segment: **Nobel Biocare Systems, KaVo Kerr, and Ormco**. These businesses have significant positions in dental implants, orthodontics, dental equipment and consumables.
- **Becton Dickinson**, after recently acquiring radiofrequency ablation device developer **Venclose** and **Tissue-Med**, a producer of surgical sealants, will be spinning off its Diabetes care business into a new \$1b public company called **Embeta** in 2022.
- **Smiths Group plc** divested **Smiths Medical** to **ICU Medical**, for an enterprise value of \$2.7b, a larger deal than the one Smiths had with TA Associates. Smiths is a diversified technology company.

Operating Trends

- **Growth in ASC Usage.** Ambulatory Surgery Centers provide alternative sites of care for specific procedures, freeing up hospital capacity and resources. In recent years, CMS has allowed Medicare to cover more procedures in ASCs, helping to compensate for short-staffed hospitals and regional surges in covid case admissions. Orthopedic companies are targeting ASCs with their robotic surgery platforms, including **Zimmer** with Rosa, **Stryker** with Mako, and **J&J** with Velys.
- **FDA Proposes Major Changes to Medical Device Quality Regulation.** The FDA recently published a long-awaited proposal to overhaul U.S. medical device quality regulation to better align with regulations worldwide. The proposed rule, Medical Devices; Quality System Regulation Amendments, incorporates ISO 13485:2016, the international consensus standard for medical device manufacturers. The rule would harmonize quality management system requirements for devices with requirements used by many other regulatory authorities worldwide.
- **Telemedicine is Here to Stay.** Around 11% of patients reported using telemedicine services in 2019 – currently more than 45% do now. Telemedicine startups received close to \$1.8b in VC funding in 2019. In contrast, in a single 9-month period of 2020 alone, VCs invested \$3.2b in telemedicine companies – even before Covid (*Mercom Capital*). **Teladoc/Livongo** and others benefitted from huge demand during covid. **Teladoc** expects its FY 2021

revenue to reach \$2.03b, nearly double its 2020 revenue. The platform delivered more than 14.7 million virtual visits in 2021 – about 4 million visits over 2020.



- **Artificial Intelligence(AI) Used in More Healthcare Processes.** Healthcare AI funding is rapidly growing and even the FDA is leveraging AI to develop and update certain regulatory frameworks. Reflective of the trend, **Infermedica**, a Poland-founded digital health company that offers AI-powered solutions for symptom analysis and patient triage, raised \$30m in Series B funding in January 2022. Including previous funding, **Infermedica** raised \$45m in total to date. Other VC AI fundings include:
 - **Eikon Therapeutics, Inc.**, a pioneer in the application of live-cell super-resolution microscopy to drug discovery closed a \$517.8m Series B financing.
 - **Alumis** (formerly **Esker Therapeutics**), a precision immunology company incubated by **Foresite Labs**, focusing on the discovery, development, and treat-

ment of autoimmune disorders, raised \$200m in financing led by **Matrix Capital** and another health-focused U.S.-based fund.

- **Iterative Scopes** raised \$150m in Series B financing to fund algorithmic innovations designed to transform GI patient care.
- **Septerna**, a biotech discovering and advancing novel small molecule medicines targeting G protein-coupled receptors (GPCRs), launched with a \$100m Series A financing raise.
- **Medical Robots Continue to Gain Traction.** The worldwide market size of medical robots expected to reach \$23.9b by 2028 (*Verified Market Research*). Given its decreased human-to-human physical contact, medical robotic use surged during the pandemic. As just one example of the hot market, **AquaBeam**, an ultrasound-guided surgical robot developed by **PROCEPT BioRobotics**, raised \$77m in venture funding, demonstrating potential for enhancement robotics can bring to traditional modalities. And **Medtronic** just announced that it is scal-

ing up production of its Hugo surgical robot system, stating the platform’s launch is “not on-schedule but not off-track” amid supply chain issues.

- **Digital Therapeutics (“DTx”) Taking Off.** DTx is the “delivery of evidence-based therapeutic interventions that are driven by high quality software programs to prevent, manage, or treat a medical disorder or disease.” The increasingly dominant role of mobile technology and AI have broadened the role of DTx in healthcare. The DTx market is expected to grow tenfold in the next three to five years, with a projected market value of \$9b by 2025. In December 2021, **Pear Therapeutics**, a leader in substance abuse prescription therapeutics, went public via a SPAC merger with **Thimble Point Acquisition Corp**, raising about \$175m (with a current market cap of about \$540m).
- **3D Bioprinting Gaining Steam.** The market for additive medical device manufacturing (or “3D printing”) was estimated to be worth \$1.1b in 2019 and projected to reach \$4b by 2027. **Protolabs** acquired Amsterdam-based **3D Hubs** for \$280m in early 2021 and orthopedic leader **Paragon 28** purchased **Additive Orthopaedics**, among other M&A’s and strategic investment plans.

What the CEOs are Saying

Medtronic, Geoff Martha, Chairman and CEO: *“We felt the short-term impacts of Omicron in January, particularly in the U.S., causing our Q3 revenue to fall short of our expectations. The COVID resurgence affected not only procedure volumes, but also created acute periods of worker absenteeism with our customers, suppliers and in our own operations and field teams. Now that said, COVID infections in the U.S. are declining. Available hospital ICU capacity is increasing and procedure volumes are picking up We are accelerating improvements to our global supply chain and operations, leveraging our scale to further improve quality, increase product availability and reduce cost... Our new operating model is giving us line of sight into what is required to compete and win over the long-term in each of our businesses. As a result, we are looking at our portfolio with a more critical eye, with a focus on growth and creating shareholder value.”*

Danaher Corporation, Rainer Blair, President and CEO: *“Now given the size and scope of our business, we’re certainly not immune to ongoing supply chain constraints and inflationary pressures, but we’re proactively addressing these challenges across Danaher, leveraging the Danaher Business System and tools such as daily management and working closely with our customers and suppliers to mitigate the impact. We’re also using DBS to accelerate price action and manage cost pressures. In fact, we’ve achieved nearly 150 basis points of price each of the last three quarters, which is approximately double our historical price realization.”*

Baxter International, Joe Almeida, CEO: *“...our cost structure has been negatively impacted by rising rates of inflation as well as an increasingly challenging supply chain network, which has at times resulted in expedited shipments and extraordinary steps to procure necessary components. While our teams have worked diligently to*

offset many of these pressures, our fourth quarter results reflect higher than expected freight costs given the critical and essential nature of our products. We made decisions to expedite product to our customers to ensure we stay true to our mission...”

Becton Dickinson and Company, Christopher DeLorefice, EVP & CFO: *“For COVID-only testing, we are now assuming \$450 million in revenue, which is a little more than double our original expectation of \$200 million. As we communicated last quarter, higher testing revenues position us well to manage through this period of uncertainty and also provide the potential to create value through re-investment in our business.”*

Cardinal Health, Mike Kaufman, CEO: *In At-Home Solutions, we continue to see strong demand as care continues to shift into the home. We recently announced an additional strategic investment in **Medically Home**, a technology company that enables health systems with other partners like **Cardinal Health** to safely bring the hospital at home for patients increasingly preferred to receive their care. Not only does this hospital at home model benefit patients, it also provides needed capacity for hospitals and delivers care in a lower cost setting. And in our higher margin medical services businesses **OptiFreight Logistics** and **WaveMark**, we continue to enable clinically integrated and digitally automated supply chain and are seeing growth driven by an expanded customer base and diversified solution.”*

Henry Schein, Stanley Bergman, Chairman & CEO: *“We have increased our safety stock for some items, and we are leveraging our global supply chain partners to mitigate delays and expedite our shipments where possible. We have very good logistics partners as*

well, I might add...During the fourth quarter, we continued to experience some delivery and installation delays in the U.S. traditional dental equipment business as we had expected. These are caused by a combination of component shortages and construction delays, component shortages with our suppliers and construction delays, which we expect to continue through the second half of this year. We also experienced, for the first time, some modest delays in the delivery of digital imaging units, which we expect to last a quarter or so.

Hologic, Karleen Oberton, CFO: “As it relates to supply chain headwinds, these challenges have become more specific in recent weeks. Due to the lack of available chips, we expect a temporary shortage of supply that will lengthen delivery timelines for mammography capital ... we are estimating around \$200 million of revenue will be pushed out of fiscal 2022. ...we are proactively beginning to extend lead times of new units to preserve inventory and maintain service continuity for gantries already in the field. This headwind is purely a supply issue and not one of underlying demand which remain strong... We expect our diagnostics and surgical businesses along with COVID contributions to more than offset mammography headwinds.”

Intuitive Surgical, Gary Huthart, CEO: “Our customer digital efforts now represent roughly 5% of our total operating expenses and drive the business in 4 ways. First, the use of data and digital tools by customers to analyze their operations helps improve outcomes, reduce costs and increase customer satisfaction and retention. Second, digital and internal investments can decrease our cost to serving our customer. Third, some of our digital tools generate revenue themselves and finally, use of data and analytics internally can help our teams make better decisions.”

Koninklijke Philips N.V., Frans van Houten, CEO: “We faced stronger than anticipated supply chain disruptions across our businesses which was primarily related to the shortage of electronic components, shipping times, and COVID-19 also affecting our suppliers. We have been working through the global supply chain headwinds for some time now, but earlier in the year our ability to mitigate supply risks was higher. We were increasingly challenged with suppliers that are unable to give visibility on e-component availability and shipping times or even de-commitment orders on short notice. During the first half of the year, inventory started depleting due to our strong growth and then global supply challenges intensified making the inventory situation very tight.”

ZimmerBiomet Holdings, Inc, Suky Upadhyay, EVP and CFO: “Some of the key drivers that I would say beyond revenue growth that can help drive margin expansion in the near term is our establishment of global business services or large shared service regional centers, which we planned for in 2020 and actually implemented in '21...In addition, we continue to look at and our supply chain is always looking at opportunities to optimize and rationalize our overall manufacturing footprint, but also to continue to combat input cost rises through very aggressive procurement....”

Thermo Fisher Scientific, Mark Casper, CEO: “In 2021, we were very active, investing \$24 billion in M&A and completing ten transactions to further strengthen our customer value proposition. This was highlighted by the addition of **PPD**, which we closed in December...We're executing our proven integration methodology, At the end of the year, we completed the acquisition of **PeproTech**, a leading provider of recombinant proteins, which is an excellent complement to our industry-leading biosciences business.”

Top Deals > \$100m in Transaction Value Announced or Closed in 2021 (See also M&A Deal-by-Deal Analysis)

Sector	Acquiror	Target	Target Focus	Deal Value (millions)	Target Sales (millions)	Target EBITDA (millions)	Sales Multiple	EBITDA Multiple
Animal Health								
	Elanco Animal Health Inc.	Kindred Biosciences Inc	Veterinary biotechnology	\$440.0	\$44.0	-	10.0x	-
Biopharmaceuticals								
	CSL Limited	Vifor Pharma Ltd	Iron deficiency, nephrology and cardio-renal	\$11,700.0	\$1,720.0	\$695.0	6.8x	16.8x
	Merck & Co., Inc.	Acceleron Pharma Inc.	Growth factor proteins for cell growth and repair	\$11,500.0	\$92.5	-	124.3x	-
	Jazz Pharmaceuticals, Inc. plc	GW Pharmaceuticals Ltd.	Cannabinoids	\$7,200.0	\$311.3	\$3.4	23.1x	2,117.6x
	Pfizer Inc.	Arena Pharmaceuticals, Inc.	Colitis; Crohn's; dermatitis	\$6,700.0	\$319.0	-	21.0x	-
	Sanofi	Translate Bio, Inc.	mRNA therapeutics	\$5,200.0	\$168.8	\$10.9	30.8x	477.1x
	Novo Nordisk A/S	Dicerna Pharmaceuticals Inc.	Cardiometabolic, viral, and liver diseases	\$3,300.0	\$164.3	-	20.1x	-
	Horizon Therapeutics	Vielia Bio	Inflammatory; autoimmune diseases	\$3,050.0	\$50.0	-	61.0x	-
	Pfizer Inc.	Trillium Therapeutics Inc.	Immuno-oncology	\$2,260.0	-	-	-	-
	Sanofi	Kadmon Holdings, Inc.	Inflammatory and fibrotic diseases	\$1,900.0	\$8.3	-	228.9x	-
	UCB	Zogenix, Inc.	Anti-seizure therapeutics	\$1,900.0	\$63.6	-	29.9x	-
	Amgen Inc.	Five Prime Therapeutics, Inc.	Immuno-oncology	\$1,900.0	\$15.0	-	126.7x	-
	Merck & Co., Inc.	Pandion Therapeutics	Autoimmune	\$1,850.0	\$7.0	-	264.3x	-
	MorphoSys AG	Constellation Pharmaceuticals, Inc.	Oncology	\$1,700.0	-	-	-	-
	Bayer AG	Vividion Therapeutics, Inc.	Drug discovery	\$1,500.0	-	-	-	-
	Sanofi S.A.	Kymab	Inflammatory disorders	\$1,100.0	-	-	-	-
	Eli Lilly and Company	Protomer Technologies	Insulin level management	\$1,000.0	-	-	-	-
	Sanofi	Amunix Pharmaceuticals	Immuno-oncology	\$1,000.0	-	-	-	-

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Biopharmaceuticals								
	Amgen Inc.	TeneoBio, Inc.	Antibody biologics	\$900.0	-	-	-	-
	Novartis AG	Gyroscope Therapeutics	Geographic atrophy	\$800.0	-	-	-	-
	Merck KGaA	Exelead	Contract development	\$780.0	-	-	-	-
	Angelini Pharma	Arvelle Therapeutics	CNS	\$610.0	-	-	-	-
	Pacific Biosciences of California, Inc.	Omnioime Inc.	DNA sequencing	\$600.0	-	-	-	-
	Takeda Pharmaceutical Company Limited	Maverick Therapeutics	Immunotherapy	\$525.0	-	-	-	-
	Roivant Sciences	Silicon Therapeutics	Drug discovery	\$450.0	-	-	-	-
	Supernus Pharmaceuticals	Adamas Pharmaceuticals	Neurology	\$400.0	\$82.0	-	4.9x	-
	Sanofi	Tidal Therapeutics	Oncology and immune diseases	\$160.0	-	-	-	-
	Repligen Corporation	Avitide Inc.	Purification solutions	\$150.0	\$10.0	-	15.0x	-
	AstraZeneca Plc	Caelum BioSciences	Amyloidosis (abnormal protein build-up)	\$150.0	-	-	-	-
	Rayner Surgical Group Limited	The OMIDRIA® franchise of Omeros Corporation	Inflammation, CNS and immune-threapeutics	\$125.0	-	-	-	-
	Sartorius AG	51% stake in CellGenix GmbH	Cell culture components	\$118.0	\$23.7	-	5.0x	-
Data Management/ Healthcare IT								
	Oracle Corporation	Cerner Corporation	Tech-enabled IT	\$28,300.0	\$5,700.0	\$1,700.0	5.0x	16.6x
	Hellman & Friedman and Bain Capital	athenahealth, Inc.	Cloud-based enterprise solutions	\$17,000.0	-	-	-	-
	Nordic Capital	Inovalon	Cloud-based enterprise solutions	\$7,300.0	\$718.7	\$209.0	10.2x	34.9x
	Datavant, Inc.	Ciox Health LLC	Data connection	\$7,000.0	-	-	-	-
	Stryker Corporation	Vocera Communications, Inc.	Integrated workflow solutions for mobile applications	\$3,090.0	\$198.4	\$4.1	15.6x	753.7x
	Centene Corporation	Magellan Health, Inc.	Pharmacy management services	\$2,200.0	\$7,159.4	\$248.5	0.3x	8.9x

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Data Management/ Healthcare IT								
	Koninklijke Philips N.V. (Royal Philips)	Capsule Technologies	Device date integration technologies	\$635.0	-	-	-	-
	Accolade, Inc.	PlushCare, Inc.	Primary care telehealth	\$450.0	\$35.0	-	12.9x	-
	23andMe Holding Co.	Lemonaid Health, Inc.	Telehealth and pharmacy delivery	\$400.0	-	-	-	-
	Omniceil, Inc.	FDS Ampicare	Medication adherence	\$177.0	\$29.0	-	6.1x	-
Dental								
	Dentsply Sirona	Byte	Direct-to-consumer aligner	\$1,040.0	-	-	-	-
	Envista Holdings Corporation	The Intra-Oral Scanner (IOS) business of Carestream Health	X-ray systems	\$600.0	\$60.0	-	10.0x	-
Diagnostics								
	Danaher Corporation	Aldevron, LLC	Plasmid DNA, proteins, mRNA and antibodies	\$9,600.0	-	-	-	-
	Quidel Corporation	Ortho Clinical Diagnostics	In vitro diagnostics	\$6,000.0	\$2,038.0	\$417.6	2.9x	14.4x
	PerkinElmer, Inc.,	BioLegend	Antibodies and reagents	\$5,250.0	\$380.0	-	13.8x	-
	VG Acquisition Corp.	23andMe, Inc.,	Consumer genetic research	\$3,500.0	-	-	-	-
	Avantor, Inc.	The Masterflex bioprocessing business of Antylia Scientific	Diagnostic instruments	\$2,900.0	\$300.0	-	9.7x	-
	Thermo Fisher Scientific Inc.	PeproTech, Inc.	Recombinant proteins	\$1,850.0	-	-	-	-
	DiaSorin S.p.A.	Luminex Corporation	Biological testing	\$1,800.0	\$417.4	\$71.3	4.3x	25.2x
	Roche Holding AG	GenMark Diagnostics	Molecular diagnostics	\$1,800.0	\$171.6	-	10.5x	-
	Avantor, Inc.	Ritter GmbH	Robotic tooling and liquid handling consumables	\$1,059.9	-	-	-	-
	Thermo Fisher Scientific Inc.	The Henogen S.A., viral vector manufacturing business of Groupe Novasep SAS	Vaccine manufacturing	\$879.4	\$95.0	-	9.3x	-

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Diagnostics								
	Charles River Laboratories International, Inc.	Cognate BioServices, Inc.	Cell and gene therapy contract development	\$875.0	-	-	-	-
	Hologic, Inc.	Mobidiag	Point of care molecular diagnostics	\$795.0	\$42.0	-	18.9x	-
	Veracyte, Inc.	Decipher Biosciences, Inc..	Urologic cancers	\$600.0	\$40.0	-	15.0x	-
	PerkinElmer Inc.	Oxford Immunotec Global PLC	Immunology and infectious diseases	\$591.0	\$73.0	-	8.1x	-
	Novo Holdings A/S	BBI Group	In vitro diagnostics	\$563.0	-	-	-	-
	Agilent Technologies Inc.	Resolution Bioscience Inc.	Oncology diagnostics	\$550.0	\$35.0	-	15.7x	-
	Thermo Fisher Scientific Inc.	Mesa Biotech	Molecular diagnostics	\$450.0	\$50.0	-	9.0x	-
	NeoGenomics, Inc.	Inivata	Liquid biopsy	\$390.0	-	-	-	-
	Abcam plc	The BioVision, Inc. subsidiary of Boai NKY Medical Holdings Ltd.	Polymers	\$340.0	\$33.8	\$12.6	10.1x	27.0x
	Veracyte, Inc.	HalioDx	Immune-based diagnostics	\$317.9	-	-	-	-
	Mesa Laboratories, Inc.	Agena Bioscience, Inc.	Molecular diagnostics	\$300.0	-	-	-	-
	Charles River Laboratories	Vigene Biosciences, Inc.	Viral vector-based gene delivery manufacturing	\$292.5	-	-	-	-
	PerkinElmer, Inc.	Nexcelom Bioscience	Automated cell counting, assays and reagents	\$260.0	\$40.0	-	6.5x	-
	Hologic, Inc.	Biotheranostics, Inc.	Breast cancer	\$230.0	\$33.0	-	7.0x	-
	Bio-Techne Corporation	Asuragen, Inc.	Oncology	\$215.0	\$30.0	-	7.2x	-
	Invitae Corporation	Genosity Inc.	Sequencing-based detection	\$200.0	-	-	-	-
	Exact Sciences	PreventionGenetics	Genetic testing	\$190.0	\$36.0	\$3.0	5.3x	63.3x
	Hologic, Inc.	Diagenode, Inc.,	Molecular diagnostics	\$159.0	\$30.0	-	5.3x	-
	PerkinElmer	Immunodiagnostic Systems Holdings PLC ("IDS")	In-vitro diagnostics	\$124.0	\$39.0	\$4.0	3.2x	31.0x

Sector	Acquiror	Target	Target Focus	Deal Value (millions)	Target Sales (millions)	Target EBITDA (millions)	Sales Multiple	EBITDA Multiple
Distribution/Retail								
	AmerisourceBergen Corporation	Alliance Healthcare businesses of Walgreens Boots Alliance, Inc. (WBA)	Retail and wholesale pharmaceutical distribution	\$6,500.0	-	-	-	-
	Owens & Minor, Inc.	Apria, Inc.	Home care equipment	\$1,450.0	\$1,100.0	\$186.9	1.3x	7.8x
	AURELIUS Group	McKesson UK	Device and pharmaceutical supplies	\$642.0	-	-	-	-
Medical Devices								
	Blackstone, Carlyle and Hellman & Friedman	Medline Industries Inc.	Operating room-focused and OTC supplies	\$34,000.0	\$17,500.0	\$0.0	1.9x	-
	Baxter International Inc.	Hill-Rom Holdings, Inc.	Patient support, surgical equipment and front line care	\$10,500.0	\$2,881.0	\$588.0	3.6x	17.9x
	Steris plc	Cantel Medical Corp.	Infection prevention	\$4,600.0	\$1,016.0	\$122.7	4.5x	37.5x
	Coloplast A/S	Atos Medical	Prosthetic voice boxes	\$2,490.0	-	-	-	-
	ICU Medical, Inc.	The Smiths Medical business of Smiths Group plc	Ambulatory infusion devices; vascular access	\$2,350.0	-	-	-	-
	Boston Scientific Corporation	Baylis Medical Company	Cardiology, endovascular and oncology	\$1,750.0	\$200.0	-	8.8x	-
	The Cooper Companies, Inc.	Generate Life Sciences	Fertility cryopreservation; newborn stem cell storage	\$1,600.0	\$250.0	-	6.4x	-
	GE Healthcare, Inc	BK Medical Holding Company, Inc.	Intraoperative ultrasonic surgical visualization	\$1,450.0	-	-	-	-
	Medtronic plc	Intersect ENT	ENT implants and surgical guidance	\$1,100.0	\$80.6	-	13.6x	-
	Boston Scientific Corporation	The global surgical business of Lumenis LTD.	Kidney and urinary stones laser devices	\$1,070.0	\$200.0	-	5.4x	-
	Hellman & Friedman (H&F)	The Cordis business of Cardinal Health, Inc.	Pharmaceutical and medical supplies	\$1,000.0	\$750.0	-	1.3x	-
	Tecan Group Ltd	Paramit Corporation	Electronics-based medical devices	\$1,000.0	\$280.0	\$50.0	3.6x	20.0x

Sector	Acquiror	Target	Target Focus	Deal Value (millions)	Target Sales (millions)	Target EBITDA (millions)	Sales Multiple	EBITDA Multiple
Medical Devices								
	Boston Scientific Corporation	Preventice Solutions, Inc.	Mobile cardiac monitoring	\$720.0	\$158.0	-	4.6x	-
	The Cooper Companies, Inc.	The Reproductive Health Business of Cook Medical	In Vitro Fertilization (IVF)	\$675.0	\$158.0	-	4.3x	-
	AbbVie Inc.	Soliton, Inc.	Rapid acoustic pulse-based devices for dermatology	\$550.0	-	-	-	-
	Asahi Kasei Corporation	Itamar Medical Ltd.	Sleep apnea	\$538.0	\$41.0	-	13.1x	-
	Bioventus Inc.	Misonix, Inc.	Ultrasonic devices	\$518.0	\$62.5	-	8.3x	-
	Haemonetics Corporation	Cardiva Medical, Inc.	Vascular closure	\$475.0	-	-	-	-
	Agiliti, Inc.	Northfield Medical, Inc.	Equipment repair and preowned equipment sales	\$475.0	-	-	-	-
	Alcon Inc.	Ivantis Inc.	Glaucoma devices	\$475.0	-	-	-	-
	Hillrom Holdings, Inc.	Bardy Diagnostics, Inc.	Ambulatory cardiac monitoring	\$375.0	\$30.0	-	12.5x	-
	Boston Scientific Corporation	Devoro Medical, Inc	Blood clot retrieval	\$320.0	-	-	-	-
	Venus Medtech HangZhou Inc.	Cardiovalve Ltd.	Transcatheter aortic valve replacement	\$300.0	-	-	-	-
	Boston Scientific Corporation	The remaining stake of Farapulse	Afib ablation	\$295.0	-	-	-	-
	Medline Industries	Select respiratory assets of Teleflex Incorporated	Consumables for vascular access, urology and anesthesia	\$286.0	\$139.0	-	2.1x	-
	Integer Holdings	Oscor Inc.	Vascular surgery and diagnostic devices	\$220.0	\$57.0	-	3.9x	-
	Organon	Alydia Health	Postpartum hemorrhage (PPH) prevention	\$215.0	-	-	-	-
	Mettler-Toledo International Inc.	PendoTECH	Single-use sensors and software	\$185.0	-	-	-	-
	Novanta Inc.	ATI Industrial Automation	Robotic arm tooling	\$172.0	\$70.0	-	2.5x	-
	Hologic, Inc.	Bolder Surgical	Surgical sealing	\$160.0	\$10.0	-	16.0x	-

Sector	Acquiror	Target	Target Focus	Deal Value (millions)	Target Sales (millions)	Target EBITDA (millions)	Sales Multiple	EBITDA Multiple
Medical Devices								
	NuVasive	Simplify Medical	Spinal implants	\$150.0	-	-	-	-
	Smith+Nephew plc	Engage Surgical	Partial knee implants	\$135.0	-	-	-	-
	Avanos Medical, Inc.	OrthogenRx, Inc.	Knee osteoarthritis injection systems	\$130.0	\$65.0	-	2.0x	-
	ConvaTec, Inc	Triad Life Sciences	Woundcare	\$125.0	-	-	-	-
	Colfax Corporation	MedShape, Inc.	Foot and ankle implants	\$125.0	-	-	-	-
	Essity AB	Hydrofera LLC	Woundcare	\$116.0	\$27.6	\$7.9	4.2x	14.7x
	SeaSpine Holdings Corporation	7D Surgical, Inc.	Image-guided spine and cranial surgery	\$110.0	-	-	-	-
	Nanox-x Imaging Ltd.	Zebra Medical Vision Ltd.	AI imaging	\$110.0	-	-	-	-
Medical Services								
	Thermo Fisher Scientific Inc.	PPD Inc.	Pharma clinical research	\$17,400.0	\$4,681.0	\$689.0	3.7x	25.3x
	ICON plc	PRA Health Sciences, Inc.	Clinical research and data management	\$12,000.0	\$3,066.0	\$482.0	3.9x	24.9x
	EQT IX fund and the Private Equity business within Goldman Sachs Asset Management	Parexel International Corporation	Pharma clinical research	\$8,500.0	\$450.0	-	18.9x	-
	1Life Healthcare, Inc. (One Medical)	Iora Health, Inc.	Tech-enabled primary care	\$2,100.0	-	-	-	-
	Grifols, S.A.	25 U.S.-based plasma centers of BPL Plasma Inc.	Plasma centers	\$370.0	-	-	-	-
	WELL Health Technologies Corp.	CRH Medical Corp.	Outpatient anesthesia services	\$292.7	\$106.2	-	2.8x	-
OTC/Consumer								
	Prestige Consumer Healthcare Inc.	The Consumer Health business of Akorn Operating Company LLC	OTC health and veterinary	\$230.0	-	-	-	-

Performance of Leading Healthcare Companies (as of 02/23/2022)

Sector	Company	Market Cap (billions)	EV (billions)	EV/ EBITDA	EV/ SALES	52 WK Perf	Revenue (TTM, billions)	Revenue Growth	Gross Margin
Benefits	UnitedHealth	\$440.2	\$473.8	18.1x	1.7x	41.2%	\$287.6	11.8%	24.2%
Biopharm	AbbVie	\$254.8	\$322.6	11.5x	5.7x	36.0%	\$56.2	22.7%	69.2%
	AstraZeneca	\$192.2	\$219.2	28.0x	5.9x	20.3%	\$37.4	40.6%	68.7%
	BioNTech	\$37.9	\$35.5	3.0x	2.2x	30.8%	\$16.0	8,263.0%	82.8%
	Bristol-Myers Squibb	\$147.2	\$175.7	8.5x	3.8x	10.6%	\$46.4	09.1%	79.9%
	Eli Lilly	\$217.3	\$229.3	25.4x	8.1x	19.2%	\$28.3	15.4%	74.2%
	Gilead Sciences	\$76.6	\$68.8	5.5x	2.5x	-4.9%	\$27.3	10.6%	75.8%
	GlaxoSmithKline	\$107.1	\$142.5	10.3x	3.1x	24.0%	\$46.1	00.0%	66.4%
	Merck	\$192.9	\$209.4	10.0x	4.3x	6.3%	\$48.7	01.5%	76.1%
	Moderna	\$59.1	\$50.8	6.5x	4.3x	-9.0%	\$11.8	4,708.4%	68.1%
	Novartis	\$191.7	\$194.7	11.4x	3.7x	-2.4%	\$52.9	06.0%	70.8%
	Novavax	\$6.2	\$4.7	-	3.9x	-67.6%	\$1.2	487.9%	-63.9%
	Pfizer	\$272.4	\$282.8	8.9x	3.5x	38.7%	\$81.3	94.0%	62.3%
	Regeneron	\$65.5	\$55.6	6.0x	3.5x	30.9%	\$16.1	89.1%	66.7%
Devices	Baxter	\$41.2	\$44.5	16.6x	3.5x	7.1%	\$12.8	09.5%	40.4%
	Becton Dickinson	\$75.2	\$90.7	17.2x	4.6x	7.4%	\$19.9	09.5%	46.7%
	Boston Scientific	\$60.6	\$68.2	22.4x	5.7x	9.6%	\$11.9	19.9%	69.6%
	Carl Zeiss	\$13.1	\$13.2	29.9x	6.9x	17.5%	\$1.9	26.5%	58.8%
	Colfax Corp.	\$6.5	\$8.1	14.0x	2.2x	-6.7%	\$3.7	16.9%	42.4%
	Edwards Lifesciences	\$65.8	\$65.1	37.8x	12.4x	27.1%	\$5.2	19.3%	76.1%
	Glaukos	\$2.3	\$2.3	-	7.8x	-48.3%	\$0.3	35.1%	76.4%
	Integra LifeSciences	\$5.5	\$6.8	17.1x	4.4x	-5.1%	\$1.5	10.7%	64.0%
	Intuitive Surgical	\$100.5	\$96.4	45.3x	16.9x	14.9%	\$5.7	31.0%	69.3%

Sector	Company	Market Cap (billions)	EV (billions)	EV/ EBITDA	EV/ SALES	52 WK Perf	Revenue (TTM, billions)	Revenue Growth	Gross Margin
Devices	Medtronic	\$135.2	\$150.3	15.7x	4.7x	-10.4%	\$31.8	14.1%	67.6%
	Smith & Nephew	\$14.0	\$16.2	14.1x	3.2x	-13.8%	\$5.1	9.3%	69.9%
	STERIS	\$22.6	\$25.8	24.1x	6.1x	30.6%	\$4.3	39.0%	43.6%
	Stryker	\$93.7	\$103.6	22.3x	6.1x	2.9%	\$17.1	19.2%	65.8%
	Zimmer Biomet	\$25.3	\$31.9	13.5x	4.1x	-23.3%	\$7.8	11.6%	70.7%
Diagnostics	Bio-Rad	\$17.8	\$17.1	24.9x	5.9x	-3.4%	\$2.9	14.8%	57.0%
	Danaher	\$190.9	\$213.7	22.2x	7.3x	18.0%	\$29.5	32.2%	61.0%
	Hologic	\$17.5	\$19.2	7.2x	3.5x	-5.4%	\$5.5	21.1%	70.9%
	Laboratory Corp	\$24.6	\$29.5	7.3x	1.8x	9.3%	\$16.1	15.3%	34.9%
	Qiagen	\$11.1	\$11.9	13.5x	5.3x	-10.2%	\$2.3	20.4%	67.9%
	Quest Diagnostics	\$15.6	\$19.5	6.8x	1.8x	12.3%	\$10.8	14.3%	39.3%
	Thermo Fisher	\$211.7	\$242.2	18.9x	6.2x	14.4%	\$39.2	21.7%	51.6%
Distribution	AmerisourceBergen	\$29.6	\$34.8	10.4x	0.2x	32.5%	\$221.1	13.7%	3.3%
	Cardinal Health	\$15.0	\$17.5	6.8x	0.1x	3.4%	\$171.3	9.5%	3.9%
	Henry Schein	\$11.5	\$13.8	13.1x	1.1x	26.4%	\$12.4	22.6%	29.6%
	Mckesson	\$40.6	\$46.4	13.2x	0.2x	51.1%	\$257.0	8.2%	5.0%
Diversified	3M	\$84.3	\$97.9	10.1x	2.8x	-16.7%	\$35.4	9.9%	46.9%
	Abbott	\$206.0	\$215.2	16.9x	5.0x	-4.1%	\$43.1	24.5%	58.1%
	Johnson & Johnson	\$429.5	\$432.7	13.3x	4.6x	-0.5%	\$93.8	13.6%	68.3%

M&A Deal-by-Deal Analysis—Q4 2021 (announced or closed)

The information contained in the table below was derived from publicly available sources. Transaction analysis is inferential and not intended to be relied upon as pronouncements by the transaction participants or for any other reason. Transactions are pending or closed.

Sector	Acquiror	Target	Analysis
Animal Health	Zomedica Corp. (NYSE American: ZOM) , a developer of a diagnostic biosensor platform for the detection of thyroid disorders in dogs and cats, and adrenal disorders in dogs.	Pulse Veterinary Technologies , a developer of non-invasive animal health pain management solutions.	Pulse Veterinary Technologies is a leader in electro-hydraulic shock wave technology for the treatment of a wide variety of conditions in veterinary patients. The technology is used in conditions including tendon and ligament healing, bone healing, osteoarthritis, chronic pain, and wound healing. Deal terms -- \$71m.
Biopharmaceuticals	CSL Limited (ASX: CSL; USOTC:CSLLY) , a \$10.3b Australia-based biotechnology company.	Vifor Pharma Ltd , a \$1.72b Switzerland-based pharmaceutical company focuses on iron deficiency, nephrology & cardio-renal therapies.	Gives CSL access to Vifor’s pipeline of treatments for iron deficiency, kidney, and cardio-renal diseases. CSL will also add Vifor’s 2,600+ employees and get its production sites in Switzerland and Portugal. The company offers Ferinject/Injectafer, a solution of ferric carboxymaltose used for the treatment of iron deficiency and iron deficiency anemia; Maltofer, an oral iron polymaltose complex for infants, children, adolescents, and pregnant woman with iron deficiency; and Mircera, a long-acting erythropoiesis-stimulating agent to treat symptomatic anemia associated with the chronic kidney disease. It also develops vamifeport, an oral ferroportin inhibitor being studied in diseases with ineffective production of red blood cells and iron overload conditions and Korsuva, the first and only FDA-approved therapy for the treatment of moderate-to-severe pruritus (itching) associated with chronic kidney disease in adults who are undergoing hemodialysis. Deal value - \$11.7b on sales of \$1.72b (6.8x) and EBITDA of \$695m (16.8x).

Sector	Acquiror	Target	Analysis
Biopharmaceuticals	Novartis AG (NYSE: NVS) , a \$49.9b Switzerland-based pharma for ophthalmic, dermatologic and respiratory diseases and more.	Gyroscope Therapeutics , a UK-based clinical-stage developer of gene therapies for geographic atrophy (GA).	Complements Novartis' 2020 acquisition of Vedere Bio, developing a gene therapy to restore vision from inherited retinal degenerations and its 2021 purchase of Arctos Medical, an early-stage developer of optogenetic-based technologies targeting blindness due to photoreceptor death. An estimated 8m people globally have GA, an advanced form of dry age-related macular degeneration and there are no approved therapies that can stall disease progression. Deal terms -- \$800m upfront plus \$700m in milestones.
Biopharmaceuticals	Novo Nordisk A/S (NOVO-B.CO) , a \$19.3b Denmark-based pharma focused on diabetes, obesity and other clinical areas.	Dicerna Pharmaceuticals Inc. , a developer of ribonucleic acid interfere (RNAi)-based pharmaceuticals that treat rare cardiometabolic, viral, and liver diseases.	Novo Nordisk and Dicerna have been collaborated since 2019 to discover and develop RNAi therapies using Dicerna's proprietary GalXC RNAi platform. The collaboration between Novo Nordisk and Dicerna generated 30 liver cell targets with the potential to deliver multiple clinical candidates for disorders including chronic liver disease, non-alcoholic steatohepatitis (NASH), type 2 diabetes, obesity and rare diseases. Novo Nordisk expects to initiate clinical development of the first investigational RNAi therapeutic to emerge from this collaboration in 2022. Deal terms -- \$3.3b on sales of \$164.3m (20.1x) and negative EBITDA.
Biopharmaceuticals	Organon & Co. (NYSE: OGN) , a \$8.1b developer of women's health pharmaceuticals and biosimilars.	Forendo Pharma , a developer of intracrinology (sex steroid) physiology solutions for women's health.	Organon spun out of Merck in '20 and consists of portfolio of 60+ products across reproductive health, biosimilars and other products. Forendo's lead clinical compound is a potential first-in-class oral treatment for endometriosis -- where painful tissue develops outside of the uterus. Forendo's preclinical pipeline includes a candidate for treating polycystic ovarian syndrome (PCOS). Deal terms -- \$75m upfront plus milestones of up to \$870m.

Sector	Acquiror	Target	Analysis
Biopharmaceuticals	Pfizer Inc. (NYSE: PFE) , a \$42.0b biopharmaceutical producer focused on cardiovascular and metabolic health, pain management and vaccines.	Arena Pharmaceuticals, Inc. , a clinical-stage developer of biopharmaceuticals for ulcerative colitis, Crohn's disease and atopic dermatitis.	Complements Pfizer's inflammation and immunology business with a portfolio of experimental treatments for immuno-inflammatory diseases. Arena's etrasimod is an oral medicine in two Phase III studies in ulcerative colitis, a Crohn's disease study, and is moving into a late-stage program in atopic dermatitis. Deal terms -- \$6.7b on sales of \$319m (21x).
Biopharmaceuticals	Rayner Surgical Group Limited , a UK-based manufacturer of intraocular lenses and proprietary injection devices for cataract surgery.	The OMIDRIA® franchise of Omeros Corporation , a \$73.8m commercial-stage biopharmaceutical company focused on inflammation, CNS and immune-related diseases.	OMIDRIA (phenylephrine and ketorolac intraocular solution) 1% / 0.3% is the first and only FDA-approved product of its kind and is marketed in the U.S. for use during cataract surgery or intraocular lens replacement to maintain pupil size by preventing intraoperative miosis (pupil constriction) and to reduce postoperative ocular pain. OMIDRIA has been shown to prevent intraoperative floppy iris syndrome (IFIS) and iris prolapse, reduce complication rates, decrease the need for pupil-expansion devices, and surgical times, reduce intraoperative and postoperative prescription opioids or steroids and improve uncorrected visual acuity on the first day following cataract surgery. The addition will complement Rayner's recently FDA-approved RayOne EMV intraocular lens, viscoelastic devices and dry eye treatments. Deal terms -- \$125m upfront plus \$200m in commercial milestones and additional royalties based on sales in certain regions after completion of the first \$200m commercial milestone based on a more aggressive royalty rate.
Biopharmaceuticals	Sanofi (Nasdaq: SNY) , a \$37.4b France-based maker of pharmaceuticals, vaccines, and consumer healthcare products.	Origimm Biotechnology GmbH , an Austria-based developer of therapeutics that discover and address antigens from bacteria causing skin diseases including acne.	Origimm's lead candidate is a recombinant protein-based vaccine for acne vulgaris which entered preliminary clinical studies in Q3 2021. Acne affects millions of teenagers globally but also adults with over 10% of adults having acne after age 50. Origimm's expertise is focused on the modulation of skin microbiome-associated disorders and complements Sanofi's mRNA vaccine programs. Terms not announced.

Sector	Acquiror	Target	Analysis
Biopharmaceuticals	Sanofi (Nasdaq: SNY) , a \$37.4b France-based producer of pharmaceuticals, vaccines, and consumer healthcare products.	Amunix Pharmaceuticals , a developer of immuno-oncology pharmaceuticals.	Amunix is developing cytokine therapies to treat breast cancer. Its lead candidate is designed to become active only in tumor tissues while sparing normal tissues to minimize side effects and define a more targeted approach. Amunix's platform technology involves a half-life extension mechanism that enables its drugs to remain harmless in the body but then rapidly clear the system once activated and its cancer-killing properties initiate. Deal terms -- \$1b upfront plus \$225m in milestones.
Biopharmaceuticals	Supernus Pharmaceuticals (Nasdaq:SUPN) , a \$570m developer of therapies for central nervous system diseases.	Adamas Pharmaceuticals , a \$82m developer of medicines for patients suffering from chronic neurologic disorders.	Added two Adamas' Parkinson's drugs, Gocovri and Osmolex ER, to Supernus' portfolio. Gocovri (amantadine) was approved in 2018 to treat dyskinesia in Parkinson's disease patients receiving levodopa-based therapy. It was also approved for OFF episodes in Parkinson's patients. Osmolex ER, an extended-release formulation of amantadine, was also approved in 2018. The drug was approved for the treatment of Parkinson's disease and drug-induced extrapyramidal reactions in adult patients. Deal value - \$400m on sales of \$82m (5.0x) and negative EBITDA.
Biopharmaceuticals	Takeda Pharmaceutical Company Limited , a \$28b Japan-based pharmaceutical company focused on gastroenterology; oncology; neuroscience, rare diseases and more.	GammaDelta Therapeutics Limited , a clinical-staged biotechnology company developing allogeneic gamma delta T cell therapies for cancer.	Adds Gamma-delta T cell-based therapies that represent a new approach for Takeda to target both solid tumors and hematological malignancies via immunotherapy. The two companies had a collaboration since 2017. Terms not announced.

Sector	Acquiror	Target	Analysis
Data Management/ Healthcare IT	23andMe Holding Co. (Nasdaq: ME) , a \$243.9m provider of consumer genetics and research services.	Lemonaid Health, Inc. , a developer of an on-demand online platform for accessing medical care and pharmacy services.	Adds Lemonaid Health’s telemedicine and prescription drug delivery services to 23andMe’s consumer business. Lemonaid Health offers direct online access to medical care for several medical conditions, using evidence-based guidelines and clinically-backed protocols to enable patients to interact with a licensed doctor or nurse practitioner within minutes. Patients are also offered free and fast delivery of prescription medications through the platform. Deal terms -- \$400m.
Data Management/ Healthcare IT	Carbon Health Technologies, Inc. , a multimodal healthcare provider.	Alertive Healthcare , a developer of remote patient monitoring (RPM) platforms.	Expands Carbon Health’s remote patient care offerings and extends its home-based care capabilities. Alertive Healthcare offers a robust platform of RPM tools for providers to manage patients proactively across a range of specialties spanning primary care, cardiology, neurology, and nephrology. The platform records physiological data from patients and sends intelligent alerts to providers to streamline documentation and decrease treatment time for critical chronic conditions. Terms not announced.
Data Management/ Healthcare IT	Oracle Corporation (NYSE: ORCL) , a \$42b business software company.	Cerner Corporation , a \$5.7b provider health care IT solutions and tech-enabled services.	Deepens Oracle's penetration into healthcare. Cerner sells software that hospitals and doctors use to store and analyze medical records. It is the second-largest vendor in the market after Epic Systems Corp. The market for software that stores and analyzes medical records is estimated at \$29.1b in 2021 and is projected to reach \$35.5b by 2025. In 2019, Cerner selected Amazon Web Services as its main partner for moving to the cloud. By acquiring Cerner, Oracle could be trying to buy a strategic healthcare customer away from Amazon. Big players has been focusing on the cloud services in the healthcare Microsoft has said it will pay \$19.7b for Nuance Communications, an expert in speech-recognition software widely used by healthcare professionals. Deal value - \$28.3b on sales of \$5.7b (4.9x) and EBITDA of \$1.7b (16.6x).

Sector	Acquiror	Target	Analysis
Dental	Envista Holdings Corporation (NYSE: NVST) , a \$2.3b producer of implant systems, guided surgery systems, biomaterials and other products for dental applications.	The Intra-Oral Scanner (IOS) business of Carestream Health , a provider of x-ray systems for medical, industrial and electronic applications and a subsidiary of Canada-based investment firm Onex Corporation.	Complements Envista's efforts to digitalize dental workflows involving its existing dental brands which include KaVo, Kerr, Nobel Biocare, andOrmco. Envista was spun off from Danaher in 2019. In mid-2021, Envista purchased HCM Systems, a systems integrator for hardware and software, controls, robotics, accessory equipment and other automated processes. Deal terms -- \$600m on sales of \$60m (10x).
Diagnostics	Apposite Capital LLP , a UK-based healthcare specialist private equity investor.	CrestOptics S.p.A. , an Italy-based manufacturer of microscopy solutions and advanced systems for fluorescence microscopy and diagnostic applications.	CrestOptics manufactures high-end microscopy instruments under its own brand and as an OEM. The acquisition represents a new platform for Apposite Capital, which will focus on international commercial expansion and product development efforts to scale the organization. Terms not announced.
Diagnostics	Bruker Corporation (Nasdaq: BRKR) , a \$2.0b manufacturer of scientific instruments, and analytical and diagnostics.	MOLECUBES NV , a Belgium-based preclinical and translational imaging research.	MOLECUBES sells high-end PET, SPECT, and CT CUBES systems. MOLECUBES has an installed base of 70+ systems. The modular benchtop CUBES complement Bruker's integrated, floor-standing preclinical small animal imaging systems. MOLECUBES was founded in 2015 and generated \$5.6m in 2020. Terms not announced.

Sector	Acquiror	Target	Analysis
Diagnostics	<p>Calibre Scientific, a portfolio company of Stone-Isis focused on lifesciences and diagnostics products.</p>	<p>Msscientific Chromatographie, a Germany-based distributor of chromatography analytical products.</p>	<p>Calibre Scientific gains expertise and capability in distributing fluidics, low-pressure chromatography products, semi-consumables for IR spectroscopy, laboratory filtration consumables, reference standards, and chemicals for academic/pharmaceutical research settings. In 2021, Calibre bought out Reagecon, an Ireland-based manufacturer and distributor of physical and chemical standards, certified reference materials, reagents, consumables, chemicals, and equipment. Also in 2021, Calibre bought Carl Stuart Group (Lab Unlimited), a UK-based laboratory and analytical consumables and equipment distributor, and Elkay Laboratory Products, a UK-based distributor of liquid handling, specimen collection, storage, biobanking, test tubes, caps and vials, filtration and centrifugation, multi-well plates, and calibration services. Terms not announced.</p>
Diagnostics	<p>Calibre Scientific, a portfolio company of Stone-Isis focused on lifesciences and diagnostics products.</p>	<p>Benson Polymeric, a manufacturer of polymer-based High-performance liquid chromatography (HPLC) columns and resins.</p>	<p>Benson Polymeric makes a variety of polymeric exclusion columns for the analysis of carbohydrates, organic acids, and alcohols. Applications range from food and beverage to biofuel analysis. Calibre Scientific includes 18 portfolio companies that can cross-sell Benson Polymeric's offerings to potentially new customers and consolidate vendors for other businesses under Calibre ownership. Recently, Calibre purchased a German-based distributor of chromatography products and equipment. The terms of these acquisitions were not announced. Both complement Calibre's strategic efforts on vertically integrating the chromatography market, globally.</p>

Sector	Acquiror	Target	Analysis
Diagnostics	Castle Biosciences (Nasdaq: CSTL) , a \$62.6m commercial-stage developer of solutions for dermatological cancers.	Cernostics Inc. , a developer of spatial biology and AI-image analysis of tissue biopsies.	Cernostics's TissueCypher Barrett's Esophagus Assay is the first precision medicine test designed to detect the development of high-grade dysplasia (HGD) and/or esophageal cancer in patients with Barrett's esophagus (BE). There are approximately 4 million patients in the U.S. diagnosed with BE annually. Cernostics was an Illumina Ventures portfolio company. Deal terms -- \$30 up-front plus up to \$50m in milestones.
Diagnostics	Laboratory Corporation of America Holdings (LH) (NYSE: LH) , a \$13.4b independent clinical laboratory.	Toxikon , a contract research organization providing pre-clinical in vivo, in vitro, and analytical testing services.	Establishes a strategic footprint for Labcorp to partner with pharmaceutical and biotechnology clients particularly in Boston, Mass, and bolsters its presence in nonclinical development and device investigational device exemption (IDE) submissions. Terms not announced. Tokixon expects to generate \$40m in 2020. Terms not announced.
Diagnostics	Predictive Health Diagnostics Company, Inc. (PHDC) , a diagnostics platform company that develops specialty diagnostic tests.	MUSE Microscopy Inc. , an intellectual property portfolio.	Supports PHDC's future development of imaging-based diagnostics. MUSE (Microscopy with Ultraviolet Surface Excitation) Microscopy is a histology-free digital microscope delivering non-subjective empirically-derived diagnoses for a range of diseases. The MUSE Microscope uses short-wavelength UV light which penetrates only microns-deep into tissue eliminating the need for precision-cut, thin specimens and even slides. In addition, short-wavelength UV light excites many fluorescent dyes simultaneously, for snap-shot color images.
Diagnostics	Quest Diagnostics, Inc. (NYSE: DGX) , a \$11.1b provider of diagnostic testing and information services.	Labtech Diagnostics , an independent clinical diagnostic laboratory provider serving physicians and patients in South and North Carolina, Georgia and Florida.	Labtech provides cost effective diagnostic services for all laboratory disciplines, including allergy, autoimmune, clinical biochemistry, hematology, immunology, infectious disease, microbiology, molecular, serology and toxicology. The company has the ability to yield 50,000 tests/hour. Terms not announced.

Sector	Acquiror	Target	Analysis
<p>Diagnostics</p>	<p>Qidel Corporation (NSDQ:QDEL), a \$1.87b maker of diagnostic tests for infectious diseases, women's health, and gastrointestinal diseases.</p>	<p>Ortho Clinical Diagnostics (Ortho), a \$2b in vitro diagnostics company that makes products and diagnostic equipment for blood testing.</p>	<p>Complements Qidel's offerings and enables Qidel to access new and emerging markets. Ortho offers automated diagnostic equipment, as well as assays, reagents, and other consumables that are used to generate test results. Qidel has heavily benefited from COVID-19-related revenues over the past nearly two years of the pandemic. The company won the FDA's initial emergency use authorization to bring a rapid antigen test for the coronavirus to the U.S. and Ortho gained the first FDA approval for high-volume antibody and antigen tests for the virus. In January 2021, Ortho (a former J&J unit) went public, raised \$1.29b. Deal value - \$6b on sales of \$2b(3.0x) and EBITDA of \$417.6m(14.36x).</p>
<p>Diagnostics</p>	<p>Thermo Fisher Scientific Inc. (NYSE: TMO), a \$32.2b provider of analytical instruments, specialty diagnostics, and laboratory products and services.</p>	<p>PharmaFluidics, a Belgium-based developer of microchip-based chromatography columns used in biomarker, proteomics and drug development applications.</p>	<p>PharmaFluidics' micro Pillar Array Columns (μPAC) portfolio characterizes glycosylation (a common cell processing modification) of therapeutic enzymes and complements Thermo Fisher's existing chromatography solutions to identify more compounds in biological samples. Terms not announced.</p>

Sector	Acquiror	Target	Analysis
Distribution/Retail	AURELIUS Group , a pan-European asset management group.	McKesson UK , the UK unit of McKesson, a \$245.2b medical device and pharmaceutical company.	The biggest deal in Aurelius' history. The transaction includes Lloyds Pharmacy, Lloyds Direct (previously Echo by Lloyds Pharmacy), AAH Pharmaceuticals, Lloyds Pharmacy Clinical Homecare, Lloyds Pharmacy Online Doctor, MASTA and John Bell & Croyden. McKesson UK operates four divisions: retail, digital, homecare and wholesale. The business has over 18,000 employees, including pharmacists, nurses, logistics operatives as well as store, warehouse and administration personnel. The divestiture enables McKesson to streamline its business and to fully exit the European region. In 2021, McKesson sold its European businesses in France, Italy, Ireland, Portugal, Belgium and Slovenia to the PHOENIX group, the largest German pharmaceutical wholesaler. Terms not announced. Deal value - \$642m.
Distribution/Retail	Quadrifolia Management GmbH (NYSE: MCK) , an Austria-based asset management group.	McKesson Austrian , the Austrian unit of McKesson, a \$245.2b medical device and pharmaceutical company.	Streamlines McKesson's portfolio as part of broader enterprise strategy to exit Europe. The transaction includes McKesson Austria's Herba Chemosan Apotheker-AG, together with Sanova Pharma GesmbH. In November 2021, McKesson sold its UK business to AURELIUS Group for \$642m, a pan-European asset management group. In July, McKesson sold its European businesses in France, Italy, Ireland, Portugal, Belgium and Slovenia to the PHOENIX group, the largest German pharmaceutical wholesaler. Terms not announced.

Sector	Acquiror	Target	Analysis
Medical Devices	Alcon Inc. (NYSE: ALC) , a \$6.8b Switzerland-based manufacturer of ophthalmic equipment, instrumentation and diagnostics, intraocular lenses and other eye care products.	Ivantis Inc. , a developer of a minimally invasive glaucoma surgery (MIGS) devices.	Adds the Hydrus Microstent which has demonstrated 65% of implanted patients remained medication-free at five years post-implant. The trial also showed 60% reduction in risk of invasive secondary glaucoma surgeries compared to cataract surgery alone. At the 2021 AAO, Ivantis announced the results of the five-year Horizon study showing the Hydrus Microstent lowering the rate of visual field loss by 47% versus cataract surgery alone. The Hydrus Microstent received the highest grade for quality body of evidence and a strong recommendation among MIGS rated in the 2020 American Academy of Ophthalmology (AAO) Primary Open-Angle Glaucoma Preferred Practice Pattern. 85,000 Hydrus devices have been implanted to date. Ivantis' investors prior to Alcon's purchase included Delphi Ventures, Foresite Capital, RA Capital Management, Ascension Ventures, MemorialCare Innovation Fund, and Vertex Healthcare. In late 2021, MIGS implant producer Glaukos settled a patent litigation with Ivantis. Ivantis will be paying \$60m plus additional royalties as part of that settlement. Deal terms -- \$475m upfront plus additional milestones.
Medical Devices	Arch Medical Solutions Corp , a contract manufacturer of surgical instruments, implants, and medical devices.	Medical Machining Specialists (MMS) , a contract manufacturer of surgical instruments for the spine, orthopedic, trauma, and extremity markets.	Expands Arch Medical's breadth of capabilities. MMS is a full-service medical device contract manufacturer specialized in manufacturing capability to produce tissue retractors for minimally invasive spinal procedures. The company has 20,000-square-foot manufacturing space and 65 employees. Terms not announced.
Medical Devices	Argon Medical Devices, Inc. , a maker of devices for interventional procedures.	Matrex Mold and Tool, Inc. , a custom mold manufacturer for plastic injection molding.	Enables Argon to vertically integrate its production and decrease the time-to-market for new products in development. Also builds Argon's Custom Product Solutions business which serves as a manufacturer for other OEM clients. Terms not announced.

Sector	Acquiror	Target	Analysis
Medical Devices	Avanos Medical, Inc. (NYSE: AVNS) , a \$1.43b medical device maker with a focus on surgical and infection prevention.	OrthogenRx, Inc. , a developer of viscosupplementation therapies for the treatment of knee osteoarthritis (OA) pain.	Enhances Avanos chronic pain portfolio. OrthogenRx has two commercial hyaluronic acid (HA) therapy products. HA injections are a nonsurgical option that clinicians use to treat millions of patients impacted by pain and sustained discomfort due to knee OA. OA is the most common cause of knee pain, causing sufferers significant pain and disability. Deal value - \$130m on sales of \$65m(2.0x) plus \$30m in milestones.
Medical Devices	Becton, Dickinson and Company (NYSE: BDX) , a \$20.2b developer of supplies, devices, laboratory equipment, and diagnostics.	Tissuemed, Ltd , a UK-based developer of self-adhesive surgical sealant films.	Tissuemed's flagship product, Tissuepatch, is a proprietary sealant technology that bonds to tissue to control internal bleeding or prevent leaks from surgical incisions. Tissuepatch has a thin, flexible and transparent composition that is ready to use out of the package -- making it suited for a range of surgical sealant applications. The acquisition builds on BD's OR focus to assist in minimally invasive surgery solutions. Terms not disclosed.
Medical Devices	Becton, Dickinson and Company (NYSE: BDX) , a \$20.2b producer of medical supplies, devices, laboratory equipment, and diagnostics.	Venclose, Inc. , a developer of chronic venous insufficiency (CVI) treatments.	CVI results from malfunctioning valves and can lead to varicose veins. It affects up to 40% of women and 17% of men in the US. Venclose makes a Radio Frequency (RF) ablation technology platform that can reduce post-operative pain and bruise in patients relative to laser therapies. Venclose's catheter also delivers 30% more heating length than competitive RF ablation catheters, reducing the total number of ablations per in-vein treatment. Venclose was founded in 2014. Terms not announced.

Sector	Acquiror	Target	Analysis
Medical Devices	Becton, Dickinson and Company (NYSE: BDX) , a \$20.2b producer of supplies, devices, laboratory equipment, and diagnostics.	Scanwell Health, Inc. , a developer of a smartphone-enabled at-home medical test app.	BD partnered with Scanwell to develop an at-home smartphone app for COVID-19 testing -- the first to feature a camera and that produces objective results, The BD/Scanwell app, unlike at-home antigen tests, generates a simple "positive" or "negative" interpretation. The acquisition supports BD's plans to develop at-home diagnostics for a range of infectious diseases including influenza and strep and for managing chronic diseases. Terms not announced.
Medical Devices	BICO Group , a \$20m Sweden-based life sciences holding company.	Qinstruments (formerly Cellink Life Sciences) , a Germany-based manufacturer of tools for precise and efficient sample preparation.	Strengthens BICO's ability to improve workflows and advance technologies in new instruments. Qinstruments makes advanced sample preparation automation by mixing solutions for liquid handling robots and workflows for biomedical and life science research and clinical diagnostics. The company has 28 employees and is expected to grow 40% in 2021. Deal value - \$71m on sales of \$12.5(5.7x) and EBIT of \$5.63m (12.6x).
Medical Devices	Blue Wolf Capital Partners LLC , a private equity firm.	The CIVCO Radiotherapy business of Roper Technologies, Inc. , a \$5.5b developer of software solutions and devices for healthcare, electronics and industrial applications.	CIVCO Radiotherapy serves academic and community hospitals, cancer centers and OEM manufacturers with operations in over 90 countries. The acquisition represents a new platform for Blue Wolf with a leader in the provision of radiotherapy positioning equipment. The CIVCO business has 115 employees. Terms not announced.

Sector	Acquiror	Target	Analysis
Medical Devices	Boston Scientific Corporation (NYSE: BSX) , a \$10b producer of interventional medical technologies for general surgery, neurosurgery, cardiovascular health.	Baylis Medical Company , a Canada-based provider of high-technology cardiology, endovascular and oncology products.	Expands Boston Scientific's electrophysiology and structural heart product portfolio. Baylis develops radiofrequency NRG and VersaCross transseptal puncture platforms, as well as a family of guidewires, sheaths and dilators used to support left heart access. The NRG transseptal platform uses a quick, focused burst of radiofrequency energy to create a small hole in the heart's inner wall. This allows the device to have a blunt tip versus a sharp needle and enables surgeons to fine-tune its position before making the crossing with less physical force. The three-in-one VersaCross system combines hardware for accessing the atrium, widening the pathway and delivering therapies, without requiring devices to be swapped out during a procedure. The NRG platform received 510(k) clearance in 2008 and the VersaCross platform is cleared in 2020. Baylis has ~800 employees. Deal value - \$1.75b on sales of \$200m (8.75x).
Medical Devices	Coloplast A/S (COLO-B.CO) , a \$3.0 Denmark-based manufacturer of products for chronic care, interventional urology, and woundcare.	Atos Medical , a producer of prosthetic voice boxes.	Adds laryngectomy, removal of part or all of the larynx or voice box, solutions to Coloplast's newly developed chronic care business. In 2014, Atos Medical released a hands-free version of its Provox device and has since also launched a smartphone app for voice rehabilitation exercises and designed pediatric devices. Atos Medical recently acquired Germany-based tracheostomy company TRACOE medical GmbH, a developer of neck stoma devices. Atos Medical was purchased previously by France-based private equity firm PAI Partners for \$982m in 2016. Coloplast purchased Atos from PAI Partners, which was considering an IPO before Coloplast's acquisition. Deal terms -- \$2.49b.

Sector	Acquiror	Target	Analysis
Medical Devices	Corza Medical , a producer of medical technologies including advanced sutures, hemostatic collagen and other solutions.	Katena Products Inc. , a maker of ophthalmic instruments, biologic grafts and dry eye plugs and a portfolio company of Audax Management.	Katena adds ophthalmic products used across cataract, glaucoma and corneal surgeries, including surgical instruments, single-use devices and specialty biologics that have been sold in more than 110 countries to more than 5,000 customers, including hospitals, ambulatory surgery centers and distributors. Katena has more than 200 employees across North America and Europe. The transaction represents Corza's first add-on acquisition since its formation in January 2021 with the transformational merger of Surgical Specialties and TachoSil, a carve-out from Takeda Pharmaceutical. Corza was purchased by GTCR in 2019 to build a "market leading" healthcare business. Terms not announced.
Medical Devices	Depuy Synthes (OTCQX: TRNLY) , J&J's orthopedic unit.	The 51% remaining stake in the OrthoSpin unit of Trendlines Group Ltd. , an \$82.6b producer of consumer health, pharmaceuticals, vaccines and devices.	OrthoSpin's automated, digitally-enabled strut system converts a traditional manual external fixation system with the help of an automatic process that complies with a treatment plan created by the external fixation software. Recently cleared by the FDA, it is used in setting complex fractures, correcting limb deformities and bone lengthening procedures. Upon completion of the deal, Trendlines will receive net proceeds of \$15.8m for its 27% stake in OrthoSpin. Deal value for the 73% interest -- \$79.5m.

Sector	Acquiror	Target	Analysis
Medical Devices	DePuy Synthes , a major manufacturer of orthopedic products and a subsidiary of J&J.	OrthoSpin Limited , an Israel-based developer of a robot-assisted external fixation system for orthopedic treatments.	Orthospin's AutoStrut system converts the traditional tiring manual treatment with an automatic process that is fully comply with a treatment plan generated by the external fixation software. The system eliminates the need to manually adjust up to 1440 adjustments needed along the treatment period (usually done by a family member). The platform is used in conjunction with DePuy Synthes' Maxframe multi-axial correction system, an external ring fixation system. OrthoSpin raised \$3m for the external fixation system in a 2018 Series A funding round led by J&J. The company also led OrthoSpin's Series B in 2020. In 2017, DePuy Synthes introduced its Maxframe system. In early 2021, J&J announced the FDA clearance and U.S. launch of its Velys robot-assisted knee replacement system. Terms not announced.
Medical Devices	Hologic, Inc. (Nasdaq: HOLX) , a \$3.8b producer of diagnostics, imaging systems and surgical products for women's health.	Bolder Surgical , a developer of advanced energy vessel sealing surgical devices.	Adds a differentiated portfolio of advanced vessel sealing and dissection tools used in laparoscopic procedures. To date, Bolder has focused on pediatric vessel sealing -- Hologic estimates Bolder Surgical's technologies have 5x more applications in OB/GYN applications, Hologic's focus. Hologic's existing surgical offerings, include the NovaSure endometrial ablation system for the treatment of abnormal uterine bleeding, the MyoSure tissue removal devices for the treatment of intrauterine fibroids and polyps, the Acesa laparoscopic radiofrequency ablation system for the treatment of fibroids, and the Fluent fluid management system for streamlining hysteroscopic procedures. Deal terms - \$160m on sales of \$10m (16.0x).

Sector	Acquiror	Target	Analysis
Medical Devices	Innovia Medical, LLC , a developer of surgical instruments and supplies.	Lacrimedics , a developer of collagen plugs for Lacrimal Efficiency Testing in ophthalmics.	Lacrimedics' plugs are a cost-effective method to diagnose Dry Eye Disease and also can determine if a patient will respond to Occlusion Therapy. The acquisition complements Innovia's existing ophthalmic products which include their Dissolvable VisiPlug and OPAQUE Herrick Lacrimal Plugs and ComfortTip and AccuFlo Punctal Occluders. Innovia acquired Eagle Labs, a manufacturer of single-use cannulas and micro surgical knives in 2018. Innovia is a portfolio company of Shore Capital. Terms not announced.
Medical Devices	Integer Holdings (NYSE: ITGR) , a \$1.17b OEM maker of cardiac, neuro-modulation, and orthopedic products.	Oscor Inc. , a developer of specialized diagnostic devices for cardiology, radiology, vascular surgery, oncology and peripheral areas.	Broadens Integer's product portfolio, expands its R&D capabilities, and adds low-cost manufacturing capacity. Oscor designs and manufactures specialized diagnostic devices, including implantable cardiac pacing leads, venous access systems, and diagnostic catheters, temporary external pacemakers, temporary pacing leads and temporary heart wires, implantable lead adaptors, pacing accessories, custom products and more. Oscor has 900 employees, two manufacturing plants in the US and three in the Dominican Republic. Oscor products are regulatory approved and sold worldwide in over 100 countries, while servicing leading medical device companies with fully integrated contract manufacturing and sterilization services. Deal value - \$220m on sales of \$57m (3.8x).
Medical Devices	Koninklijke Philips N.V (NYSE: PHG) , a \$23.0b Netherlands-based producer of medical imaging and diagnostic technologies.	Cardiologs , a France-based developer of artificial intelligence (AI) and cloud technology for cardiac diagnostics.	Complements Philips's late 2020 \$2.8b purchase of BioTelemetry, a provider of remote cardiac diagnostics and monitoring. BioTelemetry has a portfolio of real-time patient monitoring, therapeutic devices, telehealth and informatics for the hospital, as well as ambulatory cardiac diagnostics and monitoring solutions. Cardiologs adds a vendor-neutral heart disorder screener with ECG analysis applications that is CE-marked and FDA cleared for detection of cardiac arrhythmias. Terms not announced.

Sector	Acquiror	Target	Analysis
Medical Devices	Koninklijke Philips N.V. (NYSE: PHG) , a \$23.0b Netherlands-based producer of medical imaging and diagnostic technologies.	Vesper Medical Inc. , a developer of minimally-invasive peripheral vascular devices.	Adds a venous stent portfolio for the treatment of deep venous disease. Philips' 2020 acquisition of Intact Vascular added peripheral atherectomy devices to remove blockages, peripheral therapy devices, including a drug-coated balloon to treat lesions, and an implantable dissection repair device that restores blood flow in small limb vessels. Terms not announced.
Medical Devices	Laborie Medical Technologies , a medical technology company focused on urology, gynecology, gastroenterology, obstetrics, and neonatal health.	Pelvalon , a developer of a non-surgical, patient-controlled device for fecal incontinence (FI) in women.	FI is a pelvic floor disorder that affects one in ten women. Pelvalon's Eclipse System is FDA-cleared and has favorable reimbursement. Laborie is a portfolio company of Patricia Industries -- a subsidiary of Sweden-based investment firm Investor AB. In October 2020, Laborie and growth equity firm Signet Health Partners acquired GI Supply, a producer of specialty endoscopy and paracentesis products for gastroenterologists, colorectal surgeons, and interventional radiologists. Terms not announced.
Medical Devices	LumiThera Inc. , a producer of photobiomodulation (PBM) treatments for ocular damage and disease.	Diopsys, Inc. , a developer of visual electrophysiology devices that analyze pathways for visual and neuro-visual disorders.	Adds a complementary diagnosis and monitoring platform to LumiThera's PBM platform. Diopsys offers an Electroretinography (ERG) diagnostic test that measures the electrical activity of the retina in response to light stimulus. Diopsys also has an established commercial U.S. sales force whereas LumiThera does not yet have FDA clearance to penetrate the U.S. market. LumiThera's Valeda Light Delivery System is CE marked and in current use in the EU. Terms not announced.

Sector	Acquiror	Target	Analysis
Medical Devices	MGC Diagnostics Corporation , a global medical developer of cardio-respiratory technologies.	Lemon Medical GmbH , a Germany-based designer and maker of single-patient infection-control disposables.	Strengthens MGC's in-house manufacturing capabilities, product offerings, and European presence. Lemon's primary products are viral and bacterial filters designed to protect patients, medical personnel, and diagnostic instruments against cross contamination during cardiorespiratory function testing. The usage of these protective products is experiencing significant growth during the pandemic. Lemon also develops and markets non-invasive diagnostic systems for detecting, classifying, and managing cardiorespiratory disease. MGC is a portfolio company of Altus Capital Partners. Terms not announced.
Medical Devices	Ottobock SE & Co. KGaA , a producer of prosthetics, orthotics, and exoskeletons.	suitX , a developer of occupational and medical exoskeletons.	Fortifies Paexo, Ottobock's Bionic Exoskeleton division, as a leader in the production, logistics, servicing, and trade of exoskeletons. suitX adds a portfolio of occupational exoskeletons including the backX, legX, and shoulderX modules designed to reduce industrial work injuries. The modules can be worn individually or in combinations. suitX's healthcare platform, Phoenix, is lightweight, FDA-cleared and enables individuals with spinal cord injuries to remain upright and mobile. Exoskeletons are positioned on the user's body and augment and reinforce mobility while preventing musculoskeletal disorders. Terms not announced.
Medical Devices	Precision Optics Corporation, Inc. (OTCQB: PEYE) , a leading manufacturer of advanced optical instruments for the medical and defense industries.	Lighthouse Imaging LLC , a maker of imaging systems for medical device companies.	Lighthouse makes components used in minimally invasive surgical procedures, such as endoscopies, and has 2D and 3D camera systems that integrate with surgical robots. The company was most recently owned by Anania & Associates Investment. Deal value - \$7.85m (\$2.85m in cash plus 2.5 million shares of Precision Optics) on sales of \$4.5m (1.74x) and EBITDA of \$0.232m (33.8x).

Sector	Acquiror	Target	Analysis
Medical Devices	Resonetics, LLC , a contract manufacturer focused on laser and nitinol processing, metal tubing and photochemical machining.	The Hudson Medical Innovations business of Preco, Inc. , a provider of laser, die cutting and other contract manufacturing services.	Hudson is a manufacturer of microfluidics, point-of-care diagnostics (including reagent production), biosensors, and advanced wound care devices. Hudson adds high-volume production to Resonetics, which Regatta invested in early 2018. Resonetics and Regatta Medical are GTCR portfolio companies. Terms not announced.
Medical Devices	Resonetics, LLC , a provider of contract manufacturing services specializing in laser processing and complex nitinol and metal technologies.	FISO Technologies Inc. , a Canada-based developer and maker of fiber optic sensors and signal conditioners.	FISO's sensors measure pressure, temperature, force, displacement, and position. Its fiber optic development and advanced manufacturing support high-volume production of complex fiber optic products for the medical device and energy markets. Resonetics is owned by Regatta Medical, a portfolio company of GTCR. Terms not announced.
Medical Devices	Tekni-Plex Healthcare, Inc. , a globally-integrated OEM provider of packaging materials, medical compounds and precision-crafted medical tubing solutions.	Johnson Plastic Group (JPG) , a Mexico-based developer of precision extrusions for medical device applications.	Expands Tekni-Plex 's medical device capabilities and broadens its global footprint. JPG develops precision extrusions with training programs. It also provides process troubleshooting, computer simulation and material analysis services. Terms not announced.

Sector	Acquiror	Target	Analysis
Medical Devices	The Cooper Companies, Inc. (NYSE: COO) , a producer of spherical lenses and fertility, genomics, diagnostics, and contraception devices.	Generate Life Sciences , a provider of donor egg and sperm for fertility treatments, fertility cryopreservation services and newborn stem cell storage.	Expands Cooper's offerings serving fertility clinics and Ob/Gyns to build its leading women's healthcare business. Hologic, a competitor of Cooper in women's health, recently acquired Bolder Surgical, a developer of advanced energy vessel sealing surgical devices used in laparoscopic procedures OB/GYN applications for \$160m. Generate was created by GI Partners in 2018 by combining donor sperm and egg bank California Cryobank Life Sciences and Cord Blood Registry, a provider of newborn stem cell services. The combined business became a key player in three highly complementary end-markets. Deal terms -- \$1.6b on sales of \$250m (6.4x).
Medical Devices	Venus Medtech Hangzhou Inc. , a China-based structural heart disease treatment company.	Cardiovalve Ltd. , an Israel-based transcatheter mitral and tricuspid valve treatment company.	Expands Venus' offerings, enhances its product pipeline and accelerates its global growth. Cardiovalve's Cardiovalve System is a transcatheter interventional replacement product for patients suffering from mitral or tricuspid regurgitation. Its transfemoral approach improves safety and its 55mm annuli is suitable for 95% of the patient population with a short frame designed to lower the risk of LVOT obstruction. The Company has 40 employees, operates from 1,700 sq. ft. facilities with inhouse manufacturing and clean rooms, and is the holder of over 200 patents and patent applications. Cardiovalve spun out of Valtech Cardio at the time of Valtech's \$690m acquisition by Edwards in 2017. Deal value - \$300m plus milestones.
Medical Services	EyeCare Partners , a network of optometry and ophthalmology clinics and surgery centers.	CEI Vision Partners (CVP) , a network of ophthalmology practices in the Midwest and Mid-Atlantic.	Creates a combined group of more than 280 ophthalmologists and over 700 optometrists supported by almost 5,000 clinical staff and 1,200 support services team members across 18 states. EyeCare Partners is supported by Partners Group, a private markets investment manager. Terms not disclosed.

Sector	Acquiror	Target	Analysis
Medical Services	Omnice ll Inc. (Nasdaq:OMCL), a \$892.2m provider of medication management solutions and adherence tools for health systems and pharmacies.	ReCept Holdings, Inc. , a provider of specialty pharmacy management services.	Expands Omnicell’s portfolio of capabilities and service offerings to improve access to and care coordination for complex medications. Specialty medications represent over 50% of the country’s total spending on retail, mail-order, and provider-administered drugs. Specialty pharmacies connect patients, prescribing physicians, and payors and streamline access and adherence to specialty drugs, ReCept provides implementation and managed services for health systems and other provider organizations to optimize specialty pharmacy programs. Deal terms -- \$100m on sales of \$24m (4.2x).

The Walden Group is a healthcare mergers & acquisitions advisory firm. We represent privately-owned companies seeking to divest operations or find a home within (or relationship with) an appropriate strategic or private equity firm. We also represent operating companies and financial sponsors seeking to make corporate acquisitions and investments in the healthcare sector. Our approach is "full-immersion", with more than 30 years of healthcare experience, deep industry knowledge, a worldwide network of close relationships and a lengthy track record of completed transactions.

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