

Improving Medical Technologies:

Private equity's role
in life sciences

MARCH 2022



Executive summary

The life sciences industry is a major component of the US health care system. The words “health care” often bring to mind a hospital or urgent care center, or trained doctors and nurses caring for their patients.

Life sciences is, in many ways, the beating heart of the US health care system: novel drug development, innovative research, and technology-enhanced machines and devices—all of which are used by health care professionals and ultimately help the patients themselves. Unlike many other industries, life sciences companies of all stripes must always obey strict rules, regulations, and approval processes. After all, patients’ lives are at stake.

Private equity (PE) is playing an increasingly important role in the sector. In conjunction with PitchBook, this report highlights that role, which often goes unheralded. Over the past decade, PE firms have sponsored 966 American life sciences companies and 924 medical devices and supplies companies, investing more than \$280 billion in the process. Their investments didn’t slow down under COVID-19, with almost \$36 billion invested in life sciences and nearly \$55 billion invested in medical device manufacturers since 2020.

PE firms help strengthen a spectrum of life sciences companies, including drug manufacturers, service providers, research firms, and medical device manufacturers, to name a few. Their goal is to make those companies more efficient, more innovative, and better at serving their ultimate customers: their patients. In the process, PE firms are helping reduce costs throughout the entire US health care system, a vital job as the broader health care industry positions itself for demographic shifts—and especially, an aging population.

At the end of this report, we want to highlight a truly unique role that specialized PE firms play in life sciences. “Royalty monetization” firms such as Healthcare Royalty Partners and Royalty Pharma help finance promising but under-resourced drug candidates that can potentially treat a long line of diseases. By partnering with Big Pharma and leading colleges and universities, and sometimes with the inventors themselves, royalty investors can finance drug candidates that ultimately get approved and wind up in patients’ hands. The list includes drug treatments for HIV, cancer, leukemia, epilepsy, and dozens of other dangerous diseases. Thanks to specialized PE firms, many of those drugs have made their way to patients, and more are on the way.

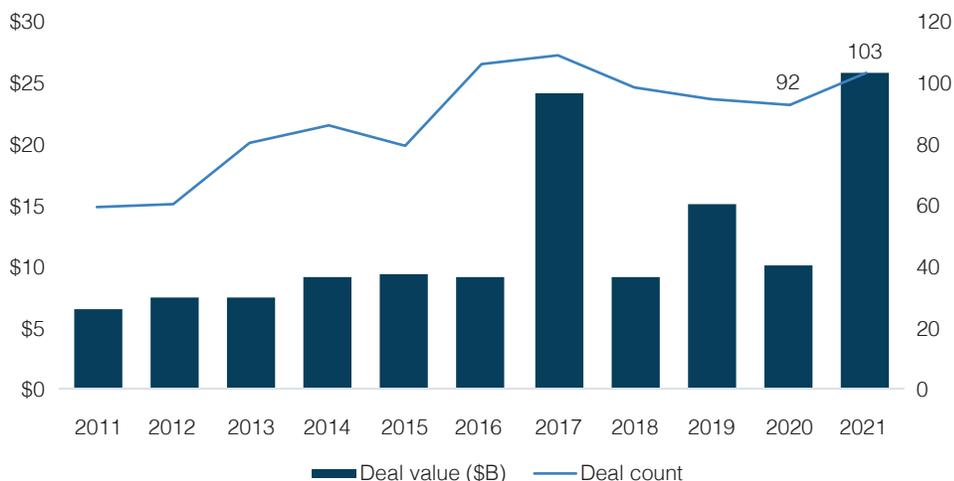
- Executive summary
- Innovative medicines
- Innovative medical devices
- Carving out new companies
- Improving the system
- Funding the future
- Spotlight on pharmaceutical royalties

Innovative medicines

PE has undertaken an important role in the life sciences industry—sometimes in a visible way, but more often as a behind-the-scenes benefactor to the broader community. To most of us, “life sciences” means the medicines themselves—novel drug treatments, therapeutics, or a room full of scientists coming up with something new and lifesaving. Some investors are beginning to finance drug candidates directly. Last year, AIC member Bain Capital, alongside NovaQuest Capital Management, invested \$125 million into Cerevel Therapeutics. The money will finance the entire Phase 3 program for Tavapadon, which has the potential to become “a backbone therapy for patients with Parkinson’s Disease,” according to Cerevel’s CEO..

However, the life sciences industry is much bigger than the drugs themselves, and it requires a broad ecosystem of service providers to keep it running smoothly. PE firms play a big role in improving that broader landscape, which includes services such as contract research organizations, staffing providers, and manufacturers of drug ingredients, to name a few. Not every PE firm is equipped to directly invest in the drugs themselves (see page

US life sciences PE deal activity



Source: PitchBook | Geography: US
*As of December 31, 2021

8), but many investors are able to dramatically improve the hundreds of service providers that play a vital role in health care innovation and patient care. Moreover, there is an increasing trend of drug manufacturers outsourcing more and more tasks to third-party service providers. While this provides a business opportunity to PE firms, it makes having the right skillsets even more important today. PE firms can

help drastically reduce costs and make drug development much more efficient. Over the past decade, nearly 1,000 PE transactions have been struck in life sciences, many of which were for service providers that operate behind the scenes. That is good news for the broader health care system, which will ultimately benefit from PE’s efforts.

Private equity at work



In April 2020, AIC member Blackstone committed up to \$2 billion to support Alnylam Pharmaceuticals (NASDAQ: ALNY), a Massachusetts-based pharmaceutical company. Alnylam focuses on RNAi therapeutics, a cellular process with promising implications for drug development. RNAi’s discoverers were awarded the 2006 Nobel Prize for Physiology or Medicine. Blackstone’s investment will help Alnylam become financially self-sustaining while expediting the commercial viability of its product portfolio, including a therapeutic that treats hypercholesterolemia. If approved, the therapeutic, Inclisiran, could help patients lower their levels of LDL cholesterol, a contributing factor for cardiovascular disease. Other Alnylam drug candidates could help amyloidosis patients with cardiomyopathy as well as patients with hypertension.

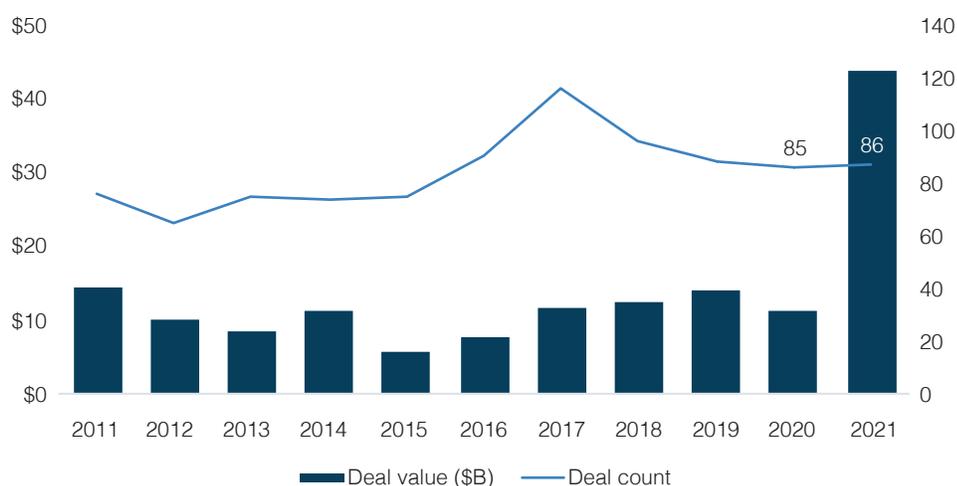
Innovative medical devices

The PE industry is also an increasingly large part of the medical device industry. According to PitchBook, more than 900 health care device and supply companies have been sponsored by PE firms over the past decade.

PE investors bring valuable skillsets to medical device manufacturers. Many pockets of the industry are fragmented, which means many manufacturers are small and inefficient. PE firms can help the industry consolidate, creating bigger and more diverse manufacturers that can take advantage of scale.

That's important for an expensive health care system that needs to care for an aging baby boom generation. The demand for safe, cost-efficient, and innovative medical devices will continue to increase, and PE firms are in a position to help the industry across all fronts. Aside from the patients themselves, there will also be demands from the US government for cost-effective instruments. Lawmakers

US health care devices and supplies PE deal activity



Source: PitchBook | Geography: US
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and regulators recognize the pricing pressures facing Medicare and Medicaid programs; reimbursements are a major conversation in the health care industry, and reduced prices are

needed wherever they can be found. PE firms can help reduce those costs through consolidation and investing in newer, less-expensive innovations across a variety of markets.

Private equity at work



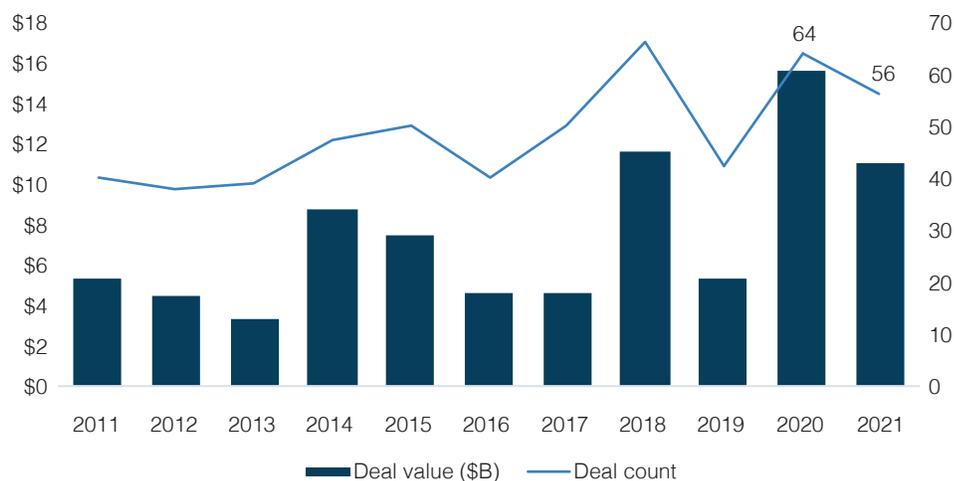
In June 2021, a group of PE firms acquired Medline, the country's largest private manufacturer of health care supplies. When AIC members Blackstone, The Carlyle Group, and Hellman & Friedman invested in Medline, they made sure it remained a family-led company, with the entire senior management team retaining their roles. Medline's new sponsors intend to grow the company's product line, which includes diagnostics, lab supplies, durable medical equipment, and dozens of other products. The sponsors also plan to grow Medline's presence internationally and to strengthen the company's global supply chain along the way.

Carving out new companies

One of the most unique investing methods used by PE firms is something called a “carveout.” Because PE firms are hyper-focused on a business’ potential, investors expand their searches to underperforming or under-valued businesses of larger companies. Within the health care industry, there are dozens of multi-billion-dollar manufacturers and service providers that prioritize some products or services over others that they sell.

To PE firms, those under-resourced businesses have much more potential than what their corporate “parents” are giving them credit for. After talking to those companies, PE firms agree to “carve out” entire business units of the health care company and turn those businesses into standalone companies, including name changes, new logos, and often new management. Over the next few years following a carveout, PE firms bring their resources to bear on those unloved businesses—providing capital for research and development, introducing their management teams to new vendors and end users, and instilling a sense of confidence in what those businesses are trying to accomplish.

US health care PE carveouts



Source: PitchBook | Geography: US
*As of December 31, 2021

Over the past decade, PE firms have created more than 500 new health care companies using this method, according to PitchBook. Those new companies can be an incredible source of innovation and efficiency for the broader health care system. PE firms routinely carve out under-resourced drug candidates,

medical device businesses, software solutions, and health care technology systems. As new standalone companies, many go public or are acquired by other health care companies, which are thrilled to acquire their solutions and grateful to the PE firms who spotted their potential when others didn’t.

Private equity at work



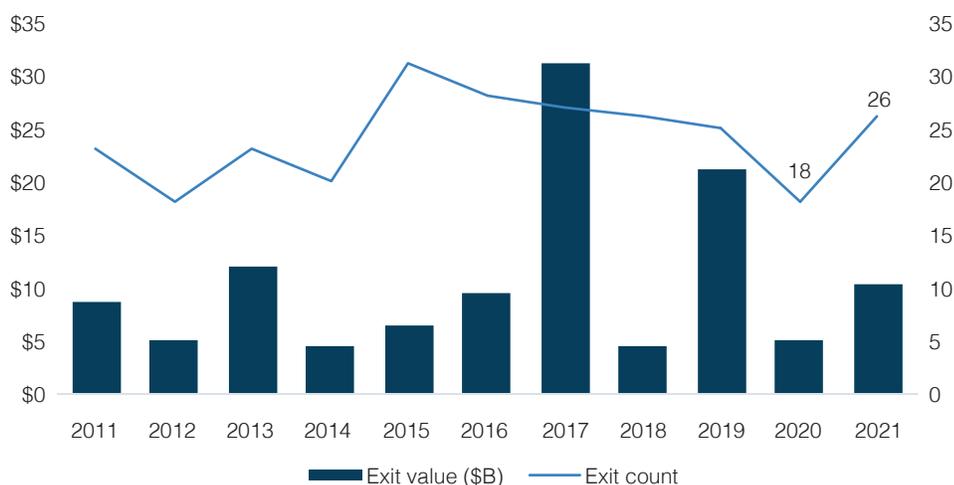
In 2018, AIC member Platinum Equity acquired LifeScan, a subsidiary of Johnson & Johnson (NYSE: JNJ) that makes blood glucose monitoring products. Blood glucose monitors help people with diabetes instantly measure their blood sugar levels. At the time of the deal, LifeScan’s products were being used by 20 million patients around the world. Val Abury, CEO of LifeScan, said Platinum Equity’s buyout led to a “rebirth” for the company and helped LifeScan “realize where the inefficiencies are” after spending years as a subsidiary of a Fortune 500 company. Platinum’s early focus on LifeScan’s digital capabilities also helped the company navigate the COVID-19 pandemic, as its diabetic customers were forced to avoid trips to the doctor and pharmacies to get their prescriptions.

Improving the system

PE-sponsored health care companies are an important source of innovation for the broader health care system. For example, if a PE firm can buy and improve a medical device manufacturer—a company that makes surgical instruments, imaging systems, or stethoscopes, for example—the PE firm will eventually sell that company to larger medical device manufacturers. That’s important for patients because hospitals and other operators will be able to buy and use those products at a scale the smaller company would not have been able to match. Unsurprisingly, large health care companies are enthusiastic beneficiaries of PE-sponsored companies because the companies’ PE sponsors have worked for years to improve them—making them more efficient, more innovative, and more cost-effective. Ultimately, however, patients are the biggest beneficiaries, even if they are unaware of the path those products took to reach them.

PE exits are an important and sometimes overlooked source of that innovation.

US health care devices and supplies PE exit activity



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Much attention is paid to the deals themselves and how PE investors improve their portfolio companies. Eventually, however, every portfolio company is destined for a new home—either as a public company or as a

subsidiary of a larger corporation. Over the past decade, PE firms have improved and exited more than 265 medical device and supply companies, and the numbers get much larger when more health care sectors are taken into account.

Private equity at work



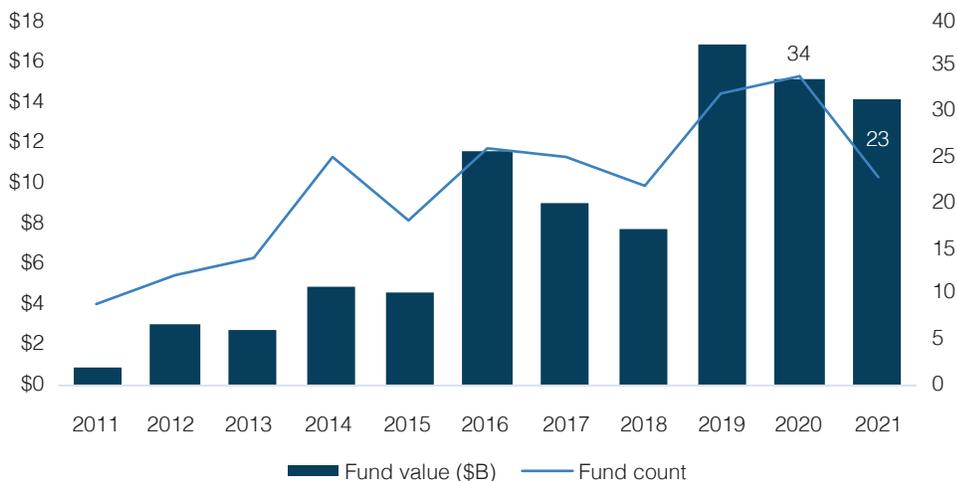
In 2007, orthopedics manufacturer Biomet was acquired by AIC members Blackstone, Goldman Sachs, KKR, and TPG. Biomet’s sponsors helped the company navigate the 2008 global financial crisis while growing its value over its seven-year holding period. In 2014, Biomet was sold to Zimmer Holdings, creating the second-largest manufacturer of orthopedics equipment and a leading supplier to the musculoskeletal health care market.

Funding the future

While many PE firms invest in the health care industry, some of them invest in health care exclusively. Health care-focused investors employ large teams of industry experts—including Ph.D.s and medical doctors—who can apply their knowledge to all types of companies. Over the past three years, more than \$46 billion has been raised by health care-focused funds, which can potentially help capitalize and innovate hundreds of companies over the next several years.

Institutional investors such as public pension funds and college endowments value specialized PE teams. By employing experienced professionals in a nuanced industry such as health care, specialized PE firms can spot unique opportunities to unlock value. For example, most PE firms use “operating partners,” who are often former CEOs and founders themselves. In many cases, operating partners are former CEOs of some of the biggest corporations in their industry, and they can bring decades of knowledge and operational know-how to much smaller companies in the same industry. In

US health care PE fundraising activity



Source: PitchBook | Geography: US
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the health care sector, for example, a former CEO of a successful dental equipment manufacturer can bring an institutional mindset to a family-owned company in the same market. Their expertise in the industry can help the portfolio company grow at

an ambitious pace. The public pension funds and college endowments that ultimately fund those transactions can reap healthy returns, which are funneled back to payments to future retirees or for future student programs in universities throughout the country.

Health care-focused PE



700+ deals since its founding in 1989, including investments in biopharma, life sciences, and digital health (AUM: \$18 billion)



200+ deals since its founding in 1985, including investments in pharmaceuticals, medical devices, and health care IT (AUM: \$3 billion)



60+ deals since its founding in 1998, including investments in specialty pharmaceuticals, medical devices, and life sciences (AUM: \$172 million)



400+ deals since its founding in 1991, including investments in health care devices, biotechnology, and oncology (AUM: \$7 billion)



100+ deals since its founding in 2005, including investments in life sciences and health care services (AUM: \$543 million)



50+ deals since its founding in 2013, including investments in medical products, diagnostics & tools and health care IT

Spotlight on pharmaceutical royalties

Within the pharmaceutical industry, several specialized PE firms have helped bring new drugs to market. “Royalty monetization” investors are collaborative firms that work with pharmaceutical companies, colleges and universities, nonprofits, and even individual drug inventors to bring life-saving products to patients. One of their most innovative methods is

financing a drug candidate’s late-stage clinical trials in exchange for receiving royalties if the drug is approved. Drug candidates often face steep challenges just to get to that point; many are under-resourced and overlooked by large pharma companies, while others are developed by academics and can’t be financed by their universities. Whatever their backgrounds, hundreds of drug

candidates can fall by the wayside without financial help. The three royalty-based PE firms below, alongside others, have collectively invested in hundreds of drug candidates over the past two decades. Thousands of patients across the country have benefited from those drugs, which got their boost from innovative and risk-taking PE investors.

ROYALTY PHARMA

- Kalydeco (cystic fibrosis)
- NurtecOCD (migraines)
- Xtandi (prostate cancer)
- Soliqua (diabetes)
- Tecfidera (multiple sclerosis)
- Trodelvy (breast cancer)
- Prezista (HIV)
- Entyvio (Crohn’s Disease)
- Bosulif (leukemia)
- Mircera (chronic kidney disease)

HEALTHCARE ROYALTY PARTNERS™

- Vafseo (anemia)
- Adynovate (hemophilia A)
- Movantik (opioid-induced constipation)
- Vimpat (epilepsy)
- Trelegy Ellipta (chronic obstructive pulmonary disease)
- Copiktra (lymphoma)
- Lyrica (fibromyalgia)
- Cervarix (human papillomavirus)
- Xpovio (multiple myeloma)
- Cetrocide (infertility)

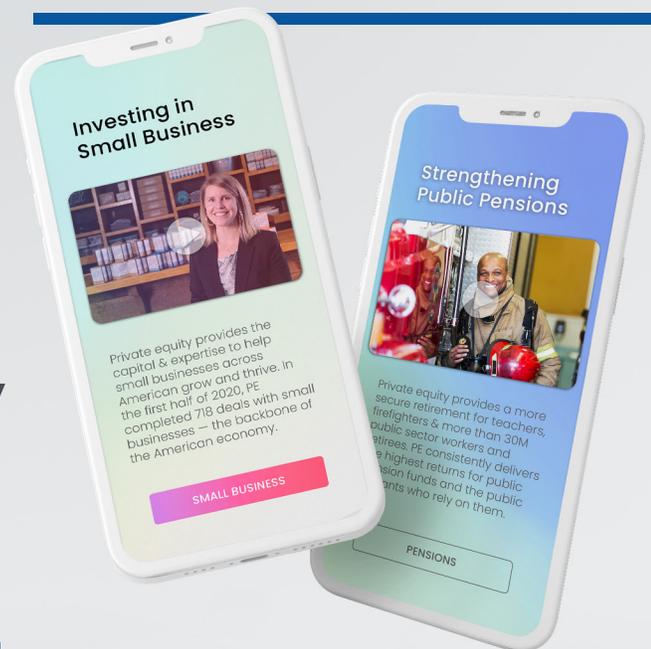
DRI CAPITAL

- Ampyra (multiple sclerosis)
- FluMist Quadrivalent (influenza)
- Zytiga (prostate cancer)
- Arzerra (leukemia)
- Pegintron (hepatitis C)
- Complera (HIV)
- Advate (hemophilia A)
- Xolair (asthma)
- Sinraza (spinal muscular atrophy)
- Simponi (rheumatoid arthritis)

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- Back small businesses
- Support good-paying jobs
- Boost the American economy
- Strengthen public pensions



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