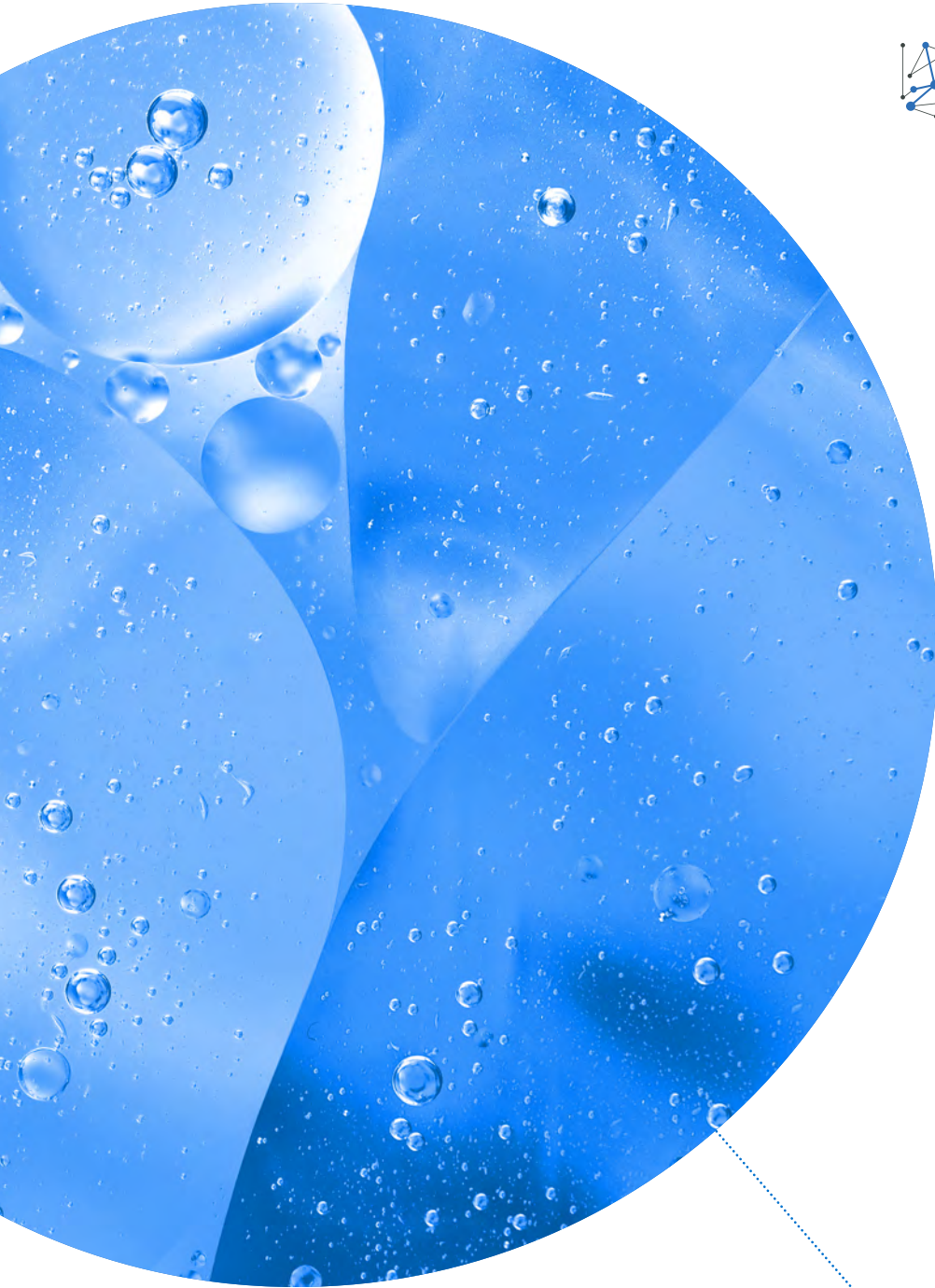




Ohio Life Sciences



Q4-2024

Member Investor Portfolio Report

A letter from the president & CEO

Fellow Life Sciences Supporter,

Welcome to the fourth edition of the Ohio Life Sciences Member Investor Portfolio Report, highlighting key trends and activities during Q4-2024. I'd like to personally welcome all our new members and sponsors, who drove 45% growth in our membership ranks during 2024.

We had the pleasure of attending the J.P. Morgan Healthcare Conference along with at least 50 Ohio life sciences leaders to build and deepen relationships with over 8,000 attendees from around the world. JobsOhio and Ohio Life Sciences are committed to driving more awareness of our state's life sciences innovations and we encourage you to join us in the Ohio Pavilion at BIO 2025 in Boston, June 16-19.

We are also working hard to bring more investment dollars to Ohio to address the gap between the strong science created in Ohio and the funding needed to commercialize it. This quarterly report is one of the ways that we celebrate and elevate the stories behind your funding successes and milestone achievements, so please congratulate those companies highlighted in this issue.

I invite you to review and forward this report to your colleagues to spread the word about the \$158 million of financing deals this quarter and exciting milestone updates from 17 of our member companies.

Together, we are building a thriving, innovative ecosystem, and I'm excited to see what the future holds for our members and the broader life sciences industry in Ohio.



Eddie Pauline

President & CEO, Ohio Life Sciences

National Trends

JPM Cross-Talk

Collaboration and partnerships were highlighted at the 2025 J.P. Morgan Healthcare Conference as the theme of “Cross-Talk” emerged as a key to staying competitive for both large healthcare companies and younger biotechs alike. Technology & semiconductor giants have entered the industry, established incumbents are making more and larger acquisitions, GLP-1s are finding multiple biological pathways, and new collaborations are forming to build powerful LLMs.¹

AI Dominance

AI continues to dominate innovation investment and activities. McKinsey estimates that Generative AI will produce \$60–110B in annual value across the pharma value chain, \$15–28B of which will come directly from cutting the drug discovery timeline in half, along with significant efficiency gains in clinical development, commercialization, operations & medical affairs.²

New Administration

The new administration in the US is expected to strengthen US biomanufacturing capacity and be more supportive of M&A and consolidation in Cell & Gene Therapy. Additionally, the Center for Biologics Evaluation & Research (CBER) and Office of Therapeutic Products (OTP) are expected to continue modernization efforts including regulatory flexibility, accelerated approvals and gene editing platform efforts.³

Cell & Gene Therapies

Cell & Gene Therapies continue their momentum as Sarepta Therapeutics’ ELEVIDYS gene therapy for Duchenne Muscular Dystrophy was named one of Time Magazine’s Best Inventions of 2024.⁴ Sarepta also completed enrollment & dosing for Phase 3 clinical trials for EMERGENE.

The FDA approved several new therapies including Ionis Pharmaceuticals’ Tryngolza⁵, Autolus’ AUCATZYL T-cell therapy⁶, PTC Therapeutics’ Kebilidi gene therapy⁷ and Mesoblast’s Remestemcel-L cell therapy.⁸

Bayer’s BlueRock Therapeutics is accelerating its investigational cell therapy for Parkinson’s disease to Phase III clinical trials under the RMAT designation (Regenerative Medicine Advanced Therapy) based on positive data from its Phase I trial.

Sana Biotechnology announced promising data in a first in-human allogeneic cell therapy for Type 1 diabetes—without immunosuppression.⁹

\$6.9B

INVESTED ACROSS
384 DEALS

▲
“Pitchbook | Venture Monitor Q4-2024”
Pitchbook Data, Inc., 2024.

Ohio Trends

Ohio Discovery Corridor

The Ohio Discovery Corridor is a collaboration that connects Ohio's three Innovation Districts in Cincinnati, Columbus and Cleveland to lead opportunity, innovation and collaboration unlike anywhere else in the Midwest. Enabled by \$3 billion in investment from anchor institutions, the State of Ohio and JobsOhio, the Ohio Discovery Corridor is expected to inspire 47,500 additional STEM graduates and fuel an estimated 60,000 new jobs.¹⁰ Their new website frames this powerful network of innovation designed to push breakthroughs across industries and helping companies gain access to the talent, resources and collaboration they need to grow and thrive.

Summa Health Acquired

General Catalyst, a California venture capital firm that manages over \$6 billion of investment capital, acquired Summa Health via its newly formed subsidiary HATCo (Health Assurance Transformation) for \$485 million in November. HATCo CEO Dr. Marc Harrison is former President & CEO of Intermountain Healthcare and served at the Cleveland Clinic in multiple roles including CEO of Cleveland Clinic Abu Dhabi and Chief of International Business.¹¹

Attracting Capital

Ohio produces outstanding scientific and medical breakthroughs, but there is a significant gap in the investment dollars needed to commercialize those innovations. A majority of the venture capital funding in Ohio comes from out-of-state investors, so OLS is working hard to create programs that will connect Ohio's Life Science entrepreneurs with the most active investors in the country. Upcoming opportunities include the Ohio Pavilion at BIO 2025 in Boston and September Innovation Showcase in Columbus.

\$158M

ACROSS 17 OHIO LIFE
SCIENCE COMPANIES

\$123M

IN SOFTWARE SOLUTIONS

\$30M

IN THERAPEUTICS

\$5M

IN DEVICES

Funding Trends

Life Science Venture funding in the US during 2024 increased 20% from \$30 billion in 2023 to \$36 billion in 2024 across 1,825 deals. There was a decline in Q4 from \$9.5 billion to \$6.9 billion, however, most analysts expect more dealflow in 2025 as expectations for interest rate adjustments and policy changes become more clear.¹²

AI continues to dominate the investment landscape across all industries, capturing 42% of all venture investment in 2024, up from 36% in 2023 and 22% in 2022.¹³

The AI competition is playing out with partnership investments from leading semiconductor companies. NVIDIA announced new partnerships to accelerate drug discovery, enhance genomic research and pioneer advanced healthcare services with agentic and generative AI with IQVIA, Illumina, Mayo Clinic and the Arc Institute.¹⁴ Advanced Micro Devices (AMD) also announced a \$20 million investment in AI drug startup Absci, which will use AMD chips and software.¹⁵

Eli Lilly is expanding its innovation footprint significantly with an over \$400 million collaboration with Genetic Leap to accelerate AI developments in genetic medicine. Lilly also formed a new \$500 million Venture Fund in partnership with Silicon Valley powerhouse Andreessen Horowitz, which already manages over \$43 billion of investment capital.¹⁶

\$307B

DRY POWDER

▲
 "Pitchbook | Venture Monitor" Pitchbook Data, Inc., 2024.

McKinsey forecasts \$60-110 billion of Annual Value from Gen AI in the Pharmaceutical Industry. This chart shows 21 use-cases across 5 functional areas of the pharmaceutical industry.²

Pharmaceutical Industry Value Chain Gen AI Expected Annual Value² (NOT EXHAUSTIVE)

\$15-28B
 Research & Discovery



- Scientific knowledge extraction
- In silico compound screening
- Large molecule optimization and drug-vector design
- Indication selection for asset strategy
- Trial and portfolio optimization

\$13-25B
 Clinical Development



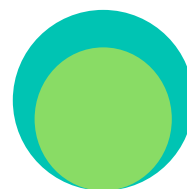
- Trial performance copilot
- Smart data management
- Regulatory intelligence engine
- Major submission content writer

\$4-7B
 Operations



- Augmented sourcing
- Generative AI virtual assistant for manufacturing
- Reimagined investigations in quality
- No-touch planning and real-time inventory optimization

\$18-30B
 Commercial



- Personalized content creation
- Medical and legal review assistance and automation
- Customer-enabled copilot
- Strategic insights generation
- Patient experience optimization

\$3-5B
 Medical Affairs



- Customer insight generation
- Sharper, more efficient medical writing
- Rapid summaries of scientific and medical literature

Exit Activity in Life Sciences

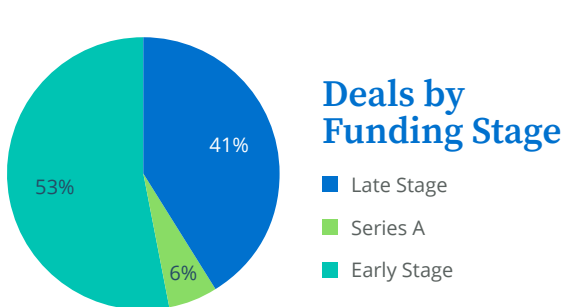
While exit activity in Life Sciences was down in 2024, the stage is set for more deals going forward. Patent cliffs threaten over \$300 billion in revenue in 2028–2030 and Pharma is estimated to have \$260 billion of M&A capacity, along with MedTech acquirers having an estimated \$300 billion in dry powder for dealmaking.

“Regardless of where you look, the industry is flush with capital, enabling incumbents to be highly acquisitive.”

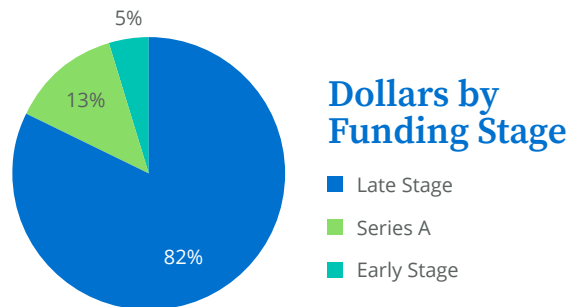
OLIVIA SCHWERN
Senior Associate, JP Morgan

Notable M&A deals in Q4 include Carebridge’s acquisition by Elevance Health for \$2.7 billion, Merck’s acquisition of Modifi Biosciences (\$1.3B), AbbVie’s acquisition of Aliada Therapeutics (\$1.4B) and Novo completing its \$16.5 billion acquisition of Catalent. Notable IPOs include Upstream Bio, a developer of asthma treatments, and Ceribell, focused on EEG technology and CAMP4 Therapeutics to restore gene expression.¹

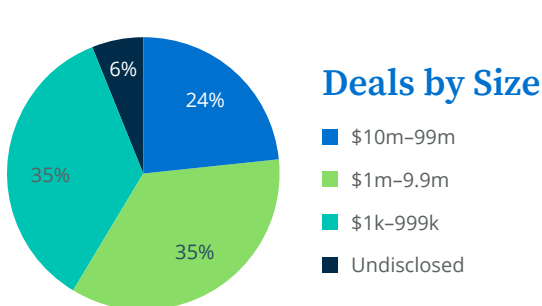
Ohio Deal Dashboard, Q4



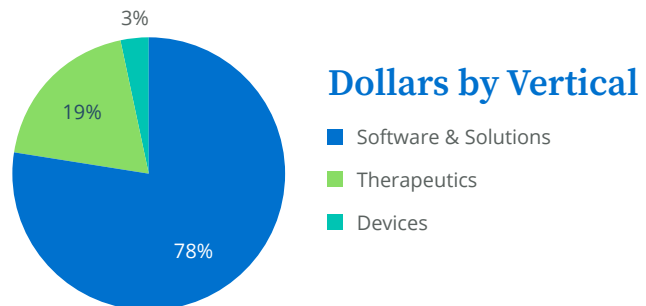
By dealcount, we had a balance between late stage and early stage deals, but only one Series A transaction.



As expected, late stage companies consume the largest amount of capital with 82% of all venture funds raised.



Dealsizes were fairly evenly distributed with four raising over \$10m, six between \$1–9.9m and another six under \$1m.



Software and Digital Solutions are dominating fundraising nationwide; Ohio’s were 78% of dollars in Q4.

Ohio's Class of 2024, Q4

\$158M Raised

Late Stage Companies

COMPANY	AMOUNT RAISED	HQ LOCATION	DEAL TYPE
Paradigm (Healthcare Technology Systems)	\$50,000,000	Columbus	Series D (est)
Beam Benefits	\$40,000,000	Columbus	Private Equity
STAQ Pharma	\$30,000,000	Columbus	Series E
IncludeHealth	\$5,000,000	Dublin	Series B+
Biohm Health	\$3,020,000	Cleveland	Series B+
DOCS Dermatology	\$2,290,000	Blue Ash	Private Equity
IdentifySensors	\$100,000	Shaker Heights	Equity Crowdfunding
Total	\$130,410,000		

Series A Companies

COMPANY	AMOUNT RAISED	HQ LOCATION	DEAL TYPE
Droxi	\$21,000,000	Youngstown	Series A
Total	\$21,000,000		

Early Stage Companies

COMPANY	AMOUNT RAISED	HQ LOCATION	DEAL TYPE
Ugen Monitoring Equipment	\$2,820,000	Cuyahoga Falls	Seed
DASI Simulations	\$1,700,000	Dublin	Seed
BAND Connect	\$1,250,000	Cincinnati	Seed
Amptiv Biosciences	\$500,000	Cleveland	Pre-Seed
Aatru	\$350,000	Cleveland	Seed
DNA Nanobots	\$100,000	Powell	Pre-Seed
Lemur	\$100,000	Columbus	Seed
TheV_Expert	\$10,000	Cincinnati	Pre-Seed
Karneyium	UND	Cincinnati	Accelerator/Incubator
Total	\$6,830,000		

OLS Company Highlights, Q4



\$1.25M SEED FINANCING
December, 2024

\$2.5M TOTAL FINANCING
December, 2024

Transforming the orthopedic rehab for clinicians and patients by providing an evidence-based hybrid therapy platform.

INVESTORS



\$50M SERIES A1 FINANCING
October, 2024

\$253M TOTAL FINANCING
December, 2024

Intelligent research platform that connects and empowers patients, providers, and sponsors.

INVESTORS



\$40M VENTURE CREDIT
October, 2024

\$243M TOTAL FINANCING
December, 2024

Provider of dental insurance-related services intended for digitally tracking dental hygiene data.

INVESTORS



\$3.02M SERIES B+ FINANCING
December, 2024

\$11.5M TOTAL FINANCING
December, 2024

Supporting overall wellness by helping to optimize gut health.

PRIOR INVESTORS





\$5M

SERIES B+ FINANCING
November, 2024

\$30.6M

TOTAL FINANCING
December, 2024

Web-based platform powered by advanced computer vision to remotely deliver care, monitor progress and collect outcomes.

PRIOR INVESTORS



cincytech



\$21M

SERIES A FINANCING
December 2024

\$25M

TOTAL FINANCING
December, 2024

Developer of an AI-based clinical workflow platform designed to streamline and automate administrative tasks.

INVESTORS



INDIVIDUAL INVESTORS

Elad Litman



Safety | Transparency | Availability | Quality

\$30M

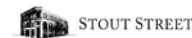
SERIES E FINANCING
December, 2024

\$95.7M

TOTAL FINANCING
December, 2024

FDA-registered 503B outsourcing partner owned and backed by hospitals nationwide to supply critical medications and combat drug shortages.

INVESTORS



\$2.82M

SEED FINANCING
December, 2024

\$7.12M

TOTAL FINANCING
December, 2024

Movement sensor technology designed to help patients with physical therapy and capture the necessary movement data.

PRIOR INVESTORS



OLS Company Highlights, Cont.

CLARAMETYX biosciences

- Clarametyx Biosciences has secured \$2.6 million in funding from CARB-X to advance its groundbreaking anti-biofilm vaccine candidate. CMTX-301 is designed to prevent biofilm-associated infections and reduce antibiotic resistance.



- Cx Design Consultants reports that it received 510(k) clearance on its LivsMed Laparoscopic Vessel Sealer (K241138).
- The company also reports 510(k) submissions made for two products; its Orthomod Cervical Intervertebral Body Fusion Device (K242303), and its Orthomod Cranioplasty Plate (K243083).

Bristol Myers Squibb®

- In September 2024, OLS member BMS received FDA approval for Cobenfy (xanomeline and trospium chloride) for the treatment of schizophrenia in adults. Named one of TIME's Best Inventions of 2024, Cobenfy targets muscarinic receptors, rather than dopamine receptors, and is the first schizophrenia treatment to introduce a new mechanism of action in decades.

Neuron off

- Neuronoff secured \$5m in NIH and DOD funding to advance minimally invasive neuromodulation platform.

enable injections

- Enable Injections Announced an Agreement with Sobi to Develop and Distribute Aspaveli in Combination with enFuse in Sobi Territories

Genetesis

- Genetesis announced a partnership with the City of Mason, Ohio to become the first commercial customer for CardioFlux, a unique cardiac imaging approach to managing cardiovascular disease and advancing heart health literacy.

SOIN NEUROSCIENCE

- Soin BioScience announced that it signed a termsheet to be acquired by Alt5Sigma, a NASDAQ public company specializing in non-opioid based painkillers. Soin's Clear Patch pain platform will combine with Alt5 subsidiary Alyea Therapeutics and Soin CEO Dr. Amol Soin will become CEO of Alyea.

GENERAL CATALYST

- General Catalyst, a California Venture Capital firm acquired Summa Health via its newly formed subsidiary HATCo (Health Assurance Transformation) for \$485 million. HATCo CEO Dr. Marc Harrison previously served at the Cleveland Clinic in multiple roles including Chief of International Business and CEO of Cleveland Clinic Abu Dhabi.

SonoStik®

- SonoStik received FDA clearance to market its Guidewire Introducer on a special 510(k) application in November.

sanofi

- Sanofi & Enable Injections announced that their new Sarclisa subcutaneous formulation met co-primary endpoints in the IRAKLIA phase 3 study in multiple myeloma.



Safety | Transparency | Availability | Quality

- In addition to receiving Series E Funding in Q4, STAQ Pharma also grew their business 60% from Q3, added 20 new employees in Ohio, launched 2 new sterile injectable products for hospitals.
- STAQ Pharma is one of the first FDA-registered 503B outsourcing suppliers to produce oncology medications in its Columbus facility, which was built with the capability to manufacture hazardous drugs to address critical oncology drug shortages.



- Beyond Air announced that its LungFit (r) PH system has received market authorization from the Australian Therapeutic Goods Administration (TGS) for sale as a Class IIb medical device. LungFit PH, the first device in the LungFit therapeutic platform of nitric oxide generators, leverages the company's patented Ionizer(r) technology and has already received FDA clearance in the US and European CE Mark approval.



- IR Medtek reports that it has 100 patients enrolled in clinical trials for its rapid infrared skin cancer detection technology. The company has had 6 patents awarded to date.



- Sarepta's ELEVIDYS gene therapy was named one of Time Magazine's Best Inventions of 2024.
- Sarepta and Arrowhead Pharmaceuticals announced a licensing & collaboration agreement for genetic diseases.
- Sarepta completed enrollment & dosing for EMERGENCE's Phase 3 clinical trial.
- Sarepta presented study results at the World Muscle Society Annual Congress, the premier scientific meeting for neuromuscular disorders.
- Sarepta's Grant Award Program announced over \$100,000 to accelerate the diagnostic journey and enhance testing program participation.



- In addition to closing \$1.7 million additional funding in Q4, DASI Simulations reports 500% revenue growth in 2024. DASI also launched its new Auto Segmentation product which significantly increases commercial scaling.
- DASI CEO Teri Sirset won the Tie Women Global Pitch Competition 2024 and CTO Dr. Prasad Dasi was recognized in Columbus Business First for the Innovators in Healthcare and Life Sciences Award.



- The FDA accepted for review a resubmission of Abeona's pz-cel as a potential new treatment for patients with RDEB in November.
- An FDA submission of a BLA seeking accelerated approval was made in December for Abeona's UX111 (ABO-102) AAV gene therapy, which is licensed to Ultragenyx Pharmaceutical Inc. It is a treatment for patients with Sanfilippo syndrome type A (MPS IIIA).



- Airway Therapeutics announced its launch of a multinational Phase 3 clinical trial of Zelpultide Alfa for Preterm Neonates at Risk of Bronchopulmonary Dysplasia.



- John Maslowski has been promoted to CEO, President and Board Member of Forge. CoFounder & CEO Timothy Miller, Ph.D. steps down after leading the company through fundraising over \$330 million, creating 350 jobs, a 200,000 sqft manufacturing facility and completing a successful sale to Ajinomoto.
- Forge signed new development & manufacturing partnerships with Affinia Therapeutics the Muscular Dystrophy Association's Kickstart Program.

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- 1 Olivia Schwern, [“Coined from the JPMorgan Healthcare Conference: ‘Cross-Talk’”](#) JP Morgan Life Sciences Private Capital, January 2025.
 - 2 Boyd Spencer et al., [“Generative AI in the Pharmaceutical Industry: Moving from Hype to Reality”](#) McKinsey, January 2025.
 - 3 Tim Hunt, [2025 State of the Industry Briefing](#), Alliance for Regenerative Medicine, January 2025.
 - 4 Don Steinberg, [“Hope for a Genetic Disease: Sarepta Therapeutics Elevidys”](#) TIME, October 2024.
 - 5 Kevin Dunleavy, [“A Pivotal Moment: Ionis enters next phase of commercial evolution with Tryngolza’s FDA Approval”](#) Fierce Pharma, December 2024.
 - 6 Frank Vinluan, [“‘Serial Killing’ Cell Therapy From Autolus Lands FDA Approval in Blood Cancer”](#) MedCityNews, November 2024.
 - 7 [“PTC Therapeutics Announces FDA Approval of AADC Deficiency Gene Therapy”](#) PTC Therapeutics, Inc., November 2024.
 - 8 [“Mesoblast’s RYONCIL® is the First U.S. FDA-Approved Mesenchymal Stromal Cell \(MSC\) Therapy”](#) GlobalNewswire, December 2024.
 - 9 Juergen Eckhardt, [“5 Insights from the 2025 JP Morgan Healthcare Conference”](#) Forbes, January 2025.
 - 10 [Ohio Innovation Districts](#), JobsOhio, February 2025.
 - 11 [“Summa Health and General Catalyst’s HATCo Sign Definitive Agreement to Advance Vision for Future of Healthcare Delivery”](#) Business Wire, November 2024.
 - 12 [PitchBook-NVCA Venture Monitor](#), Pitchbook, January 2025.
 - 13 [“AI Companies Receive 42% of US Venture Capital Investment”](#) PYMNTS, December 2024.
 - 14 [“NVIDIA Partners With Industry Leaders to Advance Genomics, Drug Discovery and Healthcare”](#) NVIDIA Corporation, January 2025.
 - 15 [“Absci and AMD Announce Collaboration and Strategic Investment to Accelerate the Future of AI Drug Discovery”](#) Nasdaq Inc., January 2025.
 - 16 Zoey Becker, [“Eli Lilly, Andreessen Horowitz link up on \\$500 Million Biotech Venture Fund”](#) Fierce Biotech, January 2025.

Information in this report was compiled primarily from publicly available information, reports, press releases and/or company representatives.

Please email any additions or corrections to data@SmartMoneyVentures.com.

EDITOR

SmartMoneyVentures, LLC

DESIGN

SPOKE.



The mission of Ohio Life Sciences is to align the life sciences ecosystem in the State of Ohio, building collaborative partnerships and advocating for policies and funding that will help to accelerate life science priorities and drive sustainable economic growth.



Ohio Life Sciences

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