

Life Sciences in Review



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September Update

M&A



- September was a quiet month for both M&A and licensing transactions
 - Only 2 M&A and 15 licensing transactions announced vs 4 M&A and 40 licensing transaction announced in September of 2023
- Deal size has remained smaller with no announced transactions greater than \$5bn in value
- Announced activity is not reflective of the level of private discussion that we are seeing and expect activity to pick up through the rest of the year

Financing



- We have seen several IPOs price and file although too early to call it a trend
 - All priced at the high or near the high-end of the range and traded up ~22%⁽¹⁾ on average
 - Current backlog of 5 IPOs on file
 - We expect activity to remain sporadic
- Follow-on market remains constructive with 15 priced transactions
 - LS companies raised \$4,354 in the aggregate
 - Average file-to-offer discount of (7.2%)

Industry News



- Obesity market continues to be a focus with Novo's Phase 2 CB1 data affecting Corbus and Skye Biosciences negatively and raising oral GLP-1 developers Viking and Structure
- Karuna transaction pays off for BMS with Cobenfy approval, the first new schizophrenia drug approved in decades
- U.S. House of Representatives reauthorized the rare pediatric priority review voucher program through 2029

(1) ~22% represents the T+1 day premium from the offer price.

Source(s): Capital IQ, public filings, and news.

Month in Review: At-a-Glance

Market Updates

Index	% Change			
	1 Week	1 Month	6 Months	YTD
S&P 500	0.6%	1.6%	9.2%	21.0%
Nasdaq Biotech (NBI)	(2.7%)	(2.8%)	7.1%	6.4%
Large Pharma	(0.9%)	(5.2%)	6.8%	13.9%
Biotech	(2.6%)	(1.4%)	3.7%	21.2%
Large-cap (\$10-50bn)	(1.4%)	1.3%	33.9%	41.9%
Mid-cap (\$2-10bn)	(3.4%)	(2.0%)	8.3%	41.5%
Small-cap (\$500mm-2bn)	(3.3%)	(1.8%)	2.8%	23.0%
Micro-cap (<\$500mm)	(2.4%)	(3.2%)	(30.3%)	(21.5%)
Specialty Pharma	0.6%	(2.6%)	(3.6%)	3.2%

Key Data Events and News

FDA approves first new schizophrenia drug in decades – Cobenfy, a new oral medication from Bristol Myers Squibb ("BMS"), was approved for schizophrenia. Cobenfy represents the first new class of medicine in several decades and introduces a fundamentally new approach to treating schizophrenia by selectively targeting M1 and M4 receptors in the brain without blocking dopamine receptors. For BMS, Cobenfy's approval following the acquisition of Karuna represents a re-entry into the market for drugs to treat psychiatric and neurological diseases.

Novo's Phase 2 CB1 obesity drug data reveals efficacy and safety concerns – Novo Nordisk's CB1 blocker monlunabant for obesity failed to meet weight loss expectations in its Phase 2 trial. After 16 weeks, the treatment showed a placebo-adjusted weight loss of only 5.8%. The study also reported frequent neuropsychiatric side effects, such as anxiety. Following the news, Novo's market cap dropped by over \$33bn, Corbus Pharmaceuticals' stock fell 62% and Skye Bioscience's shares fell 43%.

Summit's Phase 3 data suggests potential to outperform Keytruda in Lung Cancer – Ivonescimab, a bispecific antibody from Summit Therapeutics, showed a 49% reduction in risk of progression or death compared with Keytruda in Phase 3 trials conducted in China. The study enrolled patients with PD-L1-positive, advanced non-small cell lung cancer and showed a median progression-free survival improvement of 5.3 months compared with Keytruda.

MFO = Marketed Follow-on; CMPO = Confidentially Marketed Public Offerings.

Source(s): Capital IQ, public filings, and news.

Key Select M&A Updates

Acquirer	Target	Ent. Value (\$mm)
 ORGANON	 dermavant	\$1,200

Key Select Equity Financing Updates

Company	Deal Type	Offer / T + 1 Day	Financing (\$mm)
 ascendis pharma	MFO	(0.8%)	\$300
 Summit Therapeutics	PIPE	20.7%	235
 IONIS	CMPO	(2.6%)	500
 VAXCYTE <i>protect humankind</i>	MFO	8.8%	1,300

Key Select Priced IPO Updates

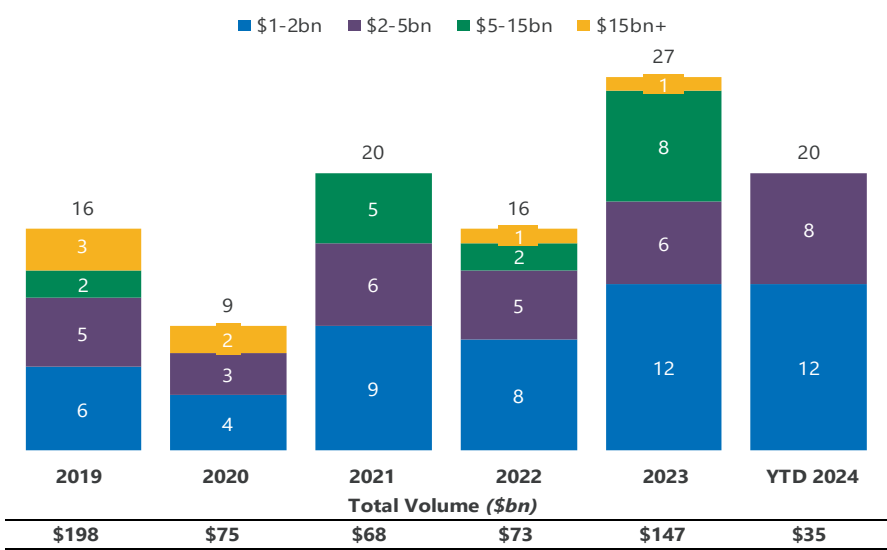
Company	Offer Price	Filing Amt. (\$mm)	Offer / T + 1 Day
 BICARA Therapeutics	\$18.00	\$250	30.1%
 Zenos 泽纳 BioPharma	17.00	200	6.8%
 MBX Biosciences	16.00	128	47.8%

Month in Review: M&A Update

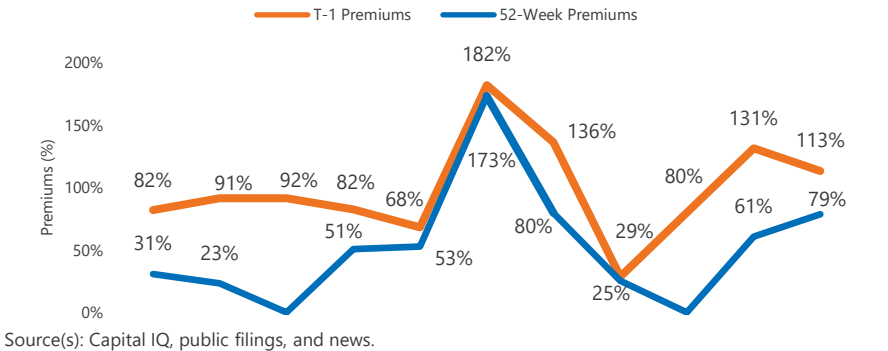
M&A Transaction Highlights

Organon to acquire Dermavant for up to \$1.2bn, including \$175mm upfront – Organon entered into an agreement to acquire Dermavant for up to \$1.2bn, including an upfront payment of \$175mm and potential milestone payments of up to ~\$1bn. The deal includes Dermavant’s VTAMA (tapinarof) cream, a non-steroidal topical therapy for plaque psoriasis, approved in 2022. The FDA is reviewing an sNDA for VTAMA cream as a potential treatment for atopic dermatitis, with a PDUFA date in Q4 '24. This acquisition aims to expand Organon’s dermatology portfolio, particularly in the US, and leverage its global commercial network.

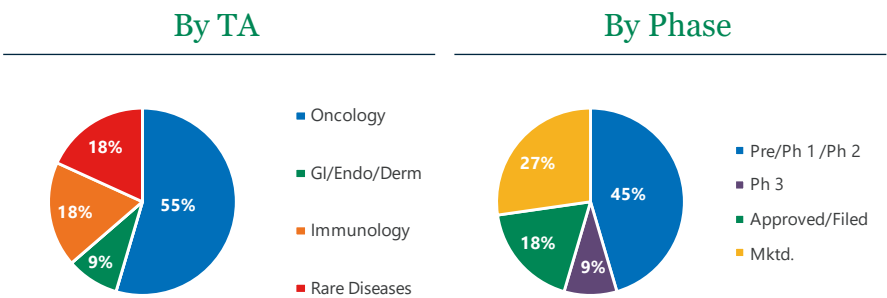
Biopharma M&A Dynamics by Deal Size



YTD 2024 Premiums Paid



YTD 2024 Transaction Distribution



Month in Review: M&A Update

Mergers and Acquisitions

Ann. Date	Acquiror	Target	Drugs / Lead Programs	Indications	Drugs Highest	Upfront	Projected	Upfront as	Milestones	Territories
					Status	Payment	Total	% of total		Included
09/25/24	OncoC4 ⁽¹⁾	AcrolImmune ⁽¹⁾	AI-071 AI-081	Acute respiratory failure Bispecific antibody targeting PD-1 and VEGF	Phase 2 ready Preclinical	ND	ND ⁽²⁾	ND	ND	WW
09/18/24	Organon	Dermavant	VTAMA (tapinarof)	Psoriasis Atopic dermatitis	Approved sNDA filed	175	1,200 ⁽³⁾	15%	1,025	WW ex Japan, China

(1) Both companies were co-founded by OncoC4 CEO Yang Liu and OncoC4 Chief Medical Officer Pan Zheng. OncoC4 is a spinout from Liu- and Zheng-founded OncoImmune, which was acquired by Merck in Nov '20 for \$425mm.

(2) OncoC4 and AcrolImmune announced that the companies, which are under common control, have entered into a definitive merger agreement to combine in an all-stock transaction. Under the terms of the agreements, OncoC4 will acquire 100% of the outstanding equity interests of AcrolImmune.

(3) Organon has agreed to acquire Dermavant for aggregate consideration of up to approximately \$1.2bn, with an upfront payment of \$175mm and a \$75mm milestone payment upon regulatory approval in atopic dermatitis, as well as payments of up to \$950mm for the achievements of certain commercial milestones. In addition, Organon will pay Dermavant shareholders tiered royalties on net sales. Dermavant owns the rights to VTAMA cream globally excluding China and has out licensed Japan rights.

Note: \$ in mm.

Source: Cortellis, Company websites, filings and press releases as of 09/30/24.

Month in Review: Licensing Update

Licensing, Collaboration and Asset Sales

Ann. Date	Originator	Partner	Drugs / Asset(s)	Indications	Drugs Highest Status	Upfront Payment	Projected Total	Upfront as % of total	Milestones	Territories Included
09/26/24	Evaxion	Merck	EVX-B2 EVX-B3	Gonorrhea Undisclosed infectious agent	Preclinical	\$3	\$1,187 ⁽¹⁾	<1%	\$1,184	ND
09/25/24	Aitia	Orion	Gemini digital twins ⁽²⁾	Multiple oncology indications	Preclinical	ND	ND	ND	ND	WW
09/24/24	Generate: Biomedicines (a Flagship Pioneering company)	Novartis	The Generate Platform ⁽³⁾	ND	Preclinical	50	1,050	5%	1,000	ND
09/18/24	NanoVation	Novo Nordisk	lCLNP platform ⁽⁴⁾	Genetic rare diseases	Preclinical	ND	600 ⁽⁴⁾	ND	ND	WW
09/17/24	Capricor Therapeutics	Nippon Shinyaku	Deramiciel	Duchenne muscular dystrophy	Phase 3	20	735 ⁽⁵⁾	3%	715	EU, UK, and others ⁽⁶⁾

(1) Under the terms of the agreement, Evaxion has granted Merck an option to exclusively license Evaxion's preclinical vaccine candidates EVX-B2 and EVX-B3. In return, Evaxion will receive an upfront payment of \$3.2mm and up to \$10mm in 2025, contingent upon Merck exercising its option to license either one or both candidates. In addition, Evaxion is eligible for development, regulatory and sales milestone payments with a potential value of up to \$592mm per product, as well as royalties on net sales.

(2) "Digital twins" refer to simulations that help drug developers and others understand how a theoretical situation might play out in the real world. Aitia's Gemini Digital Twins leverage multi-omic patient data, plus AI and simulations, to help identify potential new molecules and the patient groups most likely to benefit from them.

(3) The Generate Platform is an AI-driven system that combines machine learning with high-throughput experimental validation. It's designed to efficiently produce antibodies, peptides, enzymes, and stealth proteins on demand across multiple therapeutic modalities.

(4) Under the terms of the agreement, Novo Nordisk and NanoVation will collaborate on two lead programs to develop base-editing therapies for certain rare genetic diseases, and up to five additional future targets for cardiometabolic and rare diseases. Novo Nordisk will receive a defined exclusive, worldwide license to use NanoVation's LNP technology for the two lead programs. NanoVation will receive research funding and is eligible to receive up to approximately \$600mm in upfront cash and potential milestone payments, as well as tiered royalties on future product sales as part of the multi-year deal.

(5) Capricor will receive an upfront payment of \$20mm, potential additional development and sales-based milestone payments of up to \$715mm and double-digit share of product revenue. Concurrently, Nippon Shinyaku has also agreed to purchase 2,798,507 shares of common stock at a price of \$5.36 per share, which represents a 20% premium to the 60-day VWAP of Capricor's common stock, for an aggregate purchase price of approximately \$15mm.

(6) Capricor will be responsible for the development and manufacturing of deramiciel for potential approval in all countries in the European Union, United Kingdom and several other countries in the region. Nippon Shinyaku will be responsible for the sales and distribution of deramiciel in those territories.

Note: \$ in mm.

Source: Cortellis, Company websites, filings and press releases as of 09/30/24.

Month in Review: Licensing Update (Cont'd)

Licensing, Collaboration and Asset Sales

Ann. Date	Originator	Partner	Drugs / Asset(s)	Indications	Drugs Highest	Upfront	Projected	Upfront as	Milestones	Territories
					Status	Payment	Total	% of total		Included
09/17/24	Variational AI	Rakovina Therapeutics	Enki platform ⁽¹⁾	ND	Preclinical	ND	ND ⁽²⁾	ND	ND	ND
09/16/24	Korro Bio	Novo Nordisk	OPERA platform ⁽³⁾	Cardiometabolic diseases	Preclinical	ND	530 ⁽⁴⁾	ND	ND	ND
09/12/24	Debiopharm	ITM	Debio 0228/0328 ⁽⁵⁾	ccRCC PDAC CRC	Phase 1/2	ND	332 ⁽⁶⁾	ND	ND	WW
09/12/24	RadioMedix Orano Med	Sanofi	AlphaMedix ⁽⁷⁾	Neuroendocrine tumors	Phase 2	110	353 ⁽⁸⁾	31%	\$243	WW
09/10/24	Bayer	Pulmovant ⁽⁹⁾	Mosliciguat	PH-ILD	Phase 1	14	294 ⁽¹⁰⁾	5%	280	WW

- (1) Under the terms of the agreement Rakovina Therapeutics has been granted an exclusive right to compounds generated by the Enki platform against the selected target product profiles and an option to license validated drug candidates for further development. Variational AI will employ the Enki platform to identify novel inhibitors of specific DDR kinase targets selected by Rakovina Therapeutics. Rakovina Therapeutics will synthesize and evaluate the viability of these drug candidates as potential cancer therapies in its laboratories at the University of British Columbia.
- (2) Rakovina Therapeutics will pay a low upfront fee to initiate work against each selected target and a "TPP Fee" upon exercise of its option to acquire rights to drug candidates meeting a pre-specified target-product profile and additional payments upon achievement of specified development milestones.
- (3) Korro's platform, Oligonucleotide Promoted Editing of RNA (OPERA), seeks to use an oligonucleotide to co-opt a natural process in the human body to make changes in mRNA encoding the protein, leaving the DNA genome unaltered, thus aiming to bring a pharmacologically titratable approach using genetic medicine.
- (4) Korro will advance up to two programs through preclinical development after which point Novo Nordisk could further advance the programs through clinical studies.
- (5) ITM gains exclusive global development and commercialization rights to Debiopharm's first-in-class, peptide-based theranostic pair which combines therapeutic compound, Debio 0228 ([¹⁷⁷Lu]Lu-DPI-4452) and diagnostic imaging agent, Debio 0328 ([⁶⁸Ga]Ga-DPI-4452) to target Carbonic Anhydrase IX (CA IX).
- (6) Debiopharm will receive low double-digit royalties on potential future sales. Does not include additional commercial milestones on potential future sales.
- (7) AlphaMedix is a targeted alpha therapy which consists of a somatostatin receptor-targeting peptide complex radiolabeled with lead-212 (²¹²Pb) that serves as an in vivo generator of alpha particles.
- (8) Sanofi will be responsible for the global commercialization of AlphaMedix, while Orano Med will be responsible for the manufacturing of AlphaMedix through its global industrial platform currently under development. RadioMedix and Orano Med will also received tiered royalties.
- (9) Roivant created Pulmovant, a wholly-owned Roivant subsidiary, to in-license from Bayer exclusive worldwide rights to develop and commercialize mosliciguat.
- (10) Bayer will be eligible to receive tiered high-single digit sales-based royalties.

Note: \$ in mm.

Source: Cortellis, Company websites, filings and press releases as of 09/30/24.

Month in Review: Licensing Update (Cont'd)

Licensing, Collaboration and Asset Sales

Ann. Date	Originator	Partner	Drugs / Asset(s)	Indications	Drugs Highest Status	Upfront Payment	Projected Total	Upfront as % of total	Milestones	Territories Included
09/10/24	Genesis Therapeutics	Gilead	GEMS AI platform ⁽¹⁾	ND	Preclinical	\$35	ND ⁽²⁾	ND	ND	ND
09/05/24	Genetic Leap	Eli Lilly	RNA-targeted AI platform ⁽³⁾	ND ⁽³⁾	Preclinical	ND	409 ⁽⁴⁾	ND	ND	ND
09/05/24	Voyager Therapeutics	Novartis	TRACER capsid ⁽⁵⁾	ND	Preclinical	15	320 ⁽⁶⁾	5%	305	ND
09/04/24	HAYA Therapeutics	Eli Lilly	RNA-guided regulatory genome platform ⁽⁷⁾	Obesity and related metabolic conditions	Preclinical	ND	1,000 ⁽⁸⁾	ND	ND	ND
09/03/24	EpimAb Biotherapeutics	Vignette Bio	EMB-06	Multiple myeloma	Phase 1/2	60	635 ⁽⁹⁾	9%	575	WW ex. Greater China

(1) The collaboration will deploy Genesis' field-leading AI platform, GEMS (Genesis Exploration of Molecular Space), to assist in generating and optimizing molecules for targets selected by Gilead. The companies will collaborate closely on preclinical research activities and Gilead will have exclusive rights for potential clinical development and commercialization of collaboration compounds.

(2) Under the terms of the agreement, Genesis will receive an upfront cash payment of \$35mm across three targets and Gilead will have an option to nominate additional targets for a predetermined per-target fee.

(3) The collaboration will leverage Genetic Leap's RNA-targeted AI platform to generate oligonucleotide drugs against targets selected by Lilly in high priority therapeutic areas.

(4) Under the terms of the agreement, Genetic Leap will receive up to \$409mm in upfront, development, clinical, regulatory, and commercial milestone payments, in addition to tiered royalties.

(5) Voyager entered into a licensing agreement to provide Novartis with a novel capsid developed through its proprietary TRACER capsid discovery platform. This capsid will be utilized in a gene therapy program targeting a rare, undisclosed neurological disease. The license is granted under the terms of the partnership established between Voyager and Novartis in Mar '22.

(6) In consideration for the current capsid license, Voyager will receive \$15mm upfront and is eligible to receive up to \$305mm in associated potential development, regulatory, and commercial milestone payments, as well as tiered mid- to high-single digit royalties on a potential product incorporating the licensed capsid for this target.

(7) HAYA's proprietary regulatory genome discovery platform enables the identification of tissue-, disease- and cell-specific long non-coding RNA (lncRNA) targets and the development of RNA-targeting therapies, with potentially better efficacy and less toxicity than current treatments, to reprogram disease-driving cell states.

(8) Under the terms of the collaboration, HAYA will receive an upfront payment, including an equity investment, and is eligible to receive up to an aggregate \$1bn in preclinical, clinical and commercial milestone payments, as well as royalties on product sales.

(9) EpimAb will receive total upfront considerations of \$60mm in cash and equity of Vignette and will be eligible to receive up to \$575mm development, regulatory and commercial milestones, plus royalties on net sales.

Note: \$ in mm.

Source: Cortellis, Company websites, filings and press releases as of 09/30/24.

Month in Review: Financing Update

Priced IPOs

Filing	Pricing			Shares	Shares	Filing Range		Offer	File to	Filing	Deal Value	Mkt. Cap	Offer /	Offer /
Date	Date	Ticker	Company	Filed	Offered	Low	High	Price	Offer	Amount	(Excl Ovl)	At Offer (\$mm)	T+1 Day	Current
09/03/24	09/25/24	BIOA	BioAge Labs	7,500,000	11,000,000	\$17.00	- \$19.00	\$18.00	0.0%	\$135	\$198	\$615	1.7%	16.7%
08/22/24	09/12/24	BCAX	Bicara Therapeutics	14,705,882	17,500,000	\$16.00	- \$18.00	\$18.00	5.9%	\$250	\$315	\$881	30.1%	41.3%
08/23/24	09/12/24	ZBIO	Zenas BioPharma	11,760,000	13,235,294	\$16.00	- \$18.00	\$17.00	0.0%	\$200	\$225	\$676	6.8%	0.8%
08/23/24	09/12/24	MBX	MBX Biosciences	8,500,000	10,200,000	\$14.00	- \$16.00	\$16.00	6.7%	\$128	\$163	\$510	47.8%	49.7%

n = 4

Max	6.7%	\$250	\$315	\$881	47.8%	49.7%
Mean	3.1%	\$178	\$225	\$671	21.6%	27.1%
Median	2.9%	\$167	\$211	\$646	18.4%	29.0%
Min	-	\$128	\$163	\$510	1.7%	0.8%

OVL = Overallotment.
Note(s): Minimum deal value of \$15mm. Completed equity offerings include CMPOs, RD and PIPEs.
Source: News, Dealogic, Placement Tracker, and Capital IQ, as of 09/30/24.

Month in Review: Financing Update (Cont'd)

Completed Equity Offerings

Filing Date	Pricing		Company	Deal Sub Type	Deal Value	Pre-\$ Mkt. Cap	Value as % of Pre-\$ Mkt. Cap	Mkt. Cap At Offer (\$mm)	Deal Size Multiple of 90-Day ADTV	Offer Price	% Price Change Initial/Offer	Offer / T + 1 Day	Offer / Current	Warrant Coverage
	Date	Ticker												
09/25/24	09/25/24	MDXH	MDxHealth SA	CMPO	\$40	\$69	57.7%	\$109	NM (>100x)	\$2.00	(21.3%)	0.0%	41.5%	No
09/24/24	09/25/24	WVE	Wave Life Sciences Ltd	MFO (1-day)	\$200	\$1,026	19.5%	\$1,226	27.9x	\$8.00	(2.3%)	0.2%	(35.9%)	No
09/18/24	09/19/24	ASND	Ascendis Pharma A/S	MFO (1-day)	\$300	\$8,538	3.5%	\$8,838	3.8x	\$150.00	0.8%	0.8%	(20.6%)	No
09/16/24	09/16/24	NUVL	Nuvalent Inc	MFO (1-day)	\$500	\$7,268	6.9%	\$7,768	14.5x	\$100.00	14.4%	12.2%	(13.8%)	No
09/12/24	09/12/24	ORKA	Oruka Therapeutics, Inc.	PIPE	\$201	\$764	26.2%	\$965	NM (>100x)	\$23.00	(22.3%)	13.0%	8.7%	No
09/12/24	09/12/24	SMMT	Summit Therapeutics Inc.	PIPE	\$235	\$16,447	1.4%	\$16,682	3.3x	\$22.70	0.0%	20.7%	(45.9%)	No
09/11/24	09/12/24	CNTA	Centessa Pharmaceuticals plc	MFO (1-day)	\$225	\$1,558	14.4%	\$1,783	36.4x	\$14.75	7.3%	15.2%	(3.1%)	No
09/11/24	09/11/24	LQDA	Liquidia Corp	RD & PIPE	\$67	\$845	8.0%	\$913	6.3x	\$8.90	0.0%	14.1%	2.2%	No
09/10/24	09/11/24	VRDN	Viridian Therapeutics Inc	MFO (1-day)	\$225	\$1,198	18.8%	\$1,423	11.5x	\$18.75	0.0%	10.4%	(24.9%)	No
09/10/24	09/11/24	XNCR	Xencor Inc	CMPO	\$175	\$1,183	14.8%	\$1,358	20.2x	\$18.00	(5.9%)	17.4%	(10.1%)	No
09/09/24	09/10/24	TERN	Terns Pharmaceuticals Inc	MFO (1-day)	\$150	\$641	23.4%	\$792	11.9x	\$10.50	15.1%	1.7%	(25.6%)	No
09/09/24	09/10/24	RLAY	Relay Therapeutics Inc	MFO (1-day)	\$200	\$1,273	15.7%	\$1,473	24.8x	\$7.00	(26.4%)	10.8%	(10.9%)	No
09/09/24	09/09/24	IONS	Ionis Pharmaceuticals Inc	CMPO	\$500	\$7,057	7.1%	\$7,558	8.8x	\$43.50	(10.0%)	(2.6%)	7.8%	No
09/03/24	09/04/24	PCVX	Vaxcyte Inc	MFO (1-day)	\$1,300	\$12,294	10.6%	\$13,594	18.1x	\$103.00	(6.5%)	8.8%	8.3%	No
09/03/24	09/03/24	ATRA	Atara Biotherapeutics, Inc.	RD	\$36	\$33	107.6%	\$69	52.3x	\$8.25	21.1%	9.7%	14.8%	No

n = 15

Max	\$1,300	\$16,447	107.6%	\$16,682	52.3x	\$150.00	21.1%	20.7%	41.5%
Mean	\$290	\$4,013	22.4%	\$4,303	18.4x	\$35.89	(2.4%)	8.8%	(7.2%)
Median	\$201	\$1,198	14.8%	\$1,423	14.5x	\$18.00	0.0%	10.4%	(10.1%)
Min	\$36	\$33	1.4%	\$69	3.3x	\$2.00	(26.4%)	(2.6%)	(45.9%)

MFO = Marketed Follow-on; CMPO = Confidentially Marketed Public Offerings; RD = Registered Direct; BD = Bought Deal; ADTV = Average Daily Trading Volume.

Note(s): Minimum deal value of \$15mm. Completed equity offerings include CMPOs, RD and PIPEs.

Source: News, Dealogic, Placement Tracker, and Capital IQ, as of 09/30/24.

Month in Review: Financing Update (Cont'd)

Completed Private Financings

Ann.			Deal	Post-\$	Total Amt.		
Date	Company	Round	Value	Valuation	Raised	Lead Investors	Other Participants
09/25/24	Genespire	Series B	\$52	ND	\$69	Sofinnova Partners, XGEN Venture and CDP Venture Capital	Indasco SGR
09/23/24	Vicebio	Series B	\$100	ND	\$118	TCGX, Goldman Sachs Alternatives, Avoro Ventures, venBio	UniQuest, Medicxi
09/23/24	Eradivir	Series A	\$10	ND	\$30	Philip Low (Founder)	Members of the Board of Directors, other undisclosed members of the Company
09/19/24	GC Therapeutics	Series A	\$65	ND	\$75	Cormorant Asset Management	Mubadala Capital, a16z, Medical Excellence Capital, Cercano Management, Pear VC
09/18/24	Brenus Pharma	Series A	\$25	ND	\$29	Angelor	BIOJAG, 33 CALIFORNIE
09/17/24	Nomic Bio	Series B	\$42	ND	\$59	Undisclosed US-based life-sciences-focused investor	Amplitude Ventures, AVANT BIO, Lux Capital, Real Ventures, SR One
09/17/24	ImmunOs Therapeutics	Series C	\$11	ND	\$104	Gimv, Pfizer Ventures, Mission BioCapital, BioMed Partners	Double Point Ventures, other undisclosed investors
09/11/24	RADIANT BIOTHERAPEUTICS	Series A	\$35	ND	\$43	Bill & Melinda Gates Foundation, Amplitude Ventures	BDC Capital, abrdn, FACIT, Alexandria Venture Investments, TIAP
09/11/24	ONL Therapeutics	Series D	\$65	ND	\$133	Johnson & Johnson Innovation	Bios Partners, Novartis Venture Fund, Visionary Ventures, other undisclosed investors
09/09/24	Bambusa Therapeutics	Seed	\$15	\$60	\$15	BVF Partners, Dawn Biopharma	Salvia GmbH, INCE Capital
09/04/24	Feldan Bio	Series B	\$21	ND	\$55	Genesys Capital, Fonds de solidarité FTQ	Québec, Amgen Ventures, GC Holdings, other existing shareholders
09/03/24	Shengshi Taike	Series C	\$14	ND	\$48	Tongren Boda	NA
08/30/24	Pulmotect	Series C	\$10	ND	\$28	Fannin Partners	Axil Capital

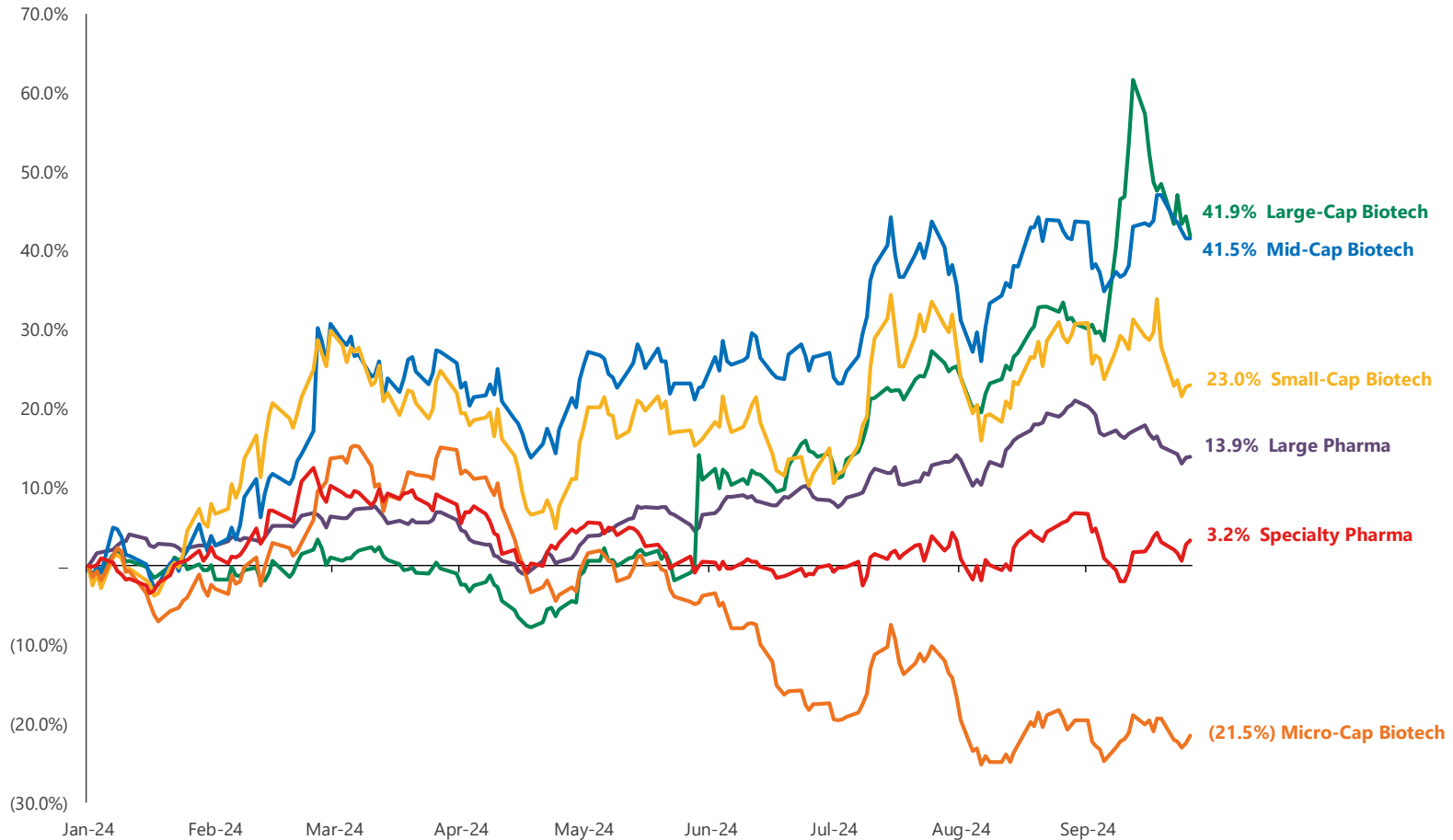
n = 13

Max	\$100	\$60	\$133
Mean	\$36	\$60	\$62
Median	\$25	\$60	\$55
Min	\$10	\$60	\$15

Source: News, Dealogic, Placement Tracker, and Capital IQ, as of 09/30/24.

Month in Review: YTD Stock Performance

By Industry Sub-vertical



Source(s): Capital IQ.

Month in Review: Industry and Company News

Pfizer withdraws sickle cell disease treatment on risk of complication, death

- “U.S. drugmaker Pfizer said it was withdrawing its sickle cell disease treatment Oxbryta from all markets where it is approved, citing risks of a painful complication and deaths. Pfizer bought Oxbryta, also known as voxelotor, as part of its \$5.4bn buyout of Global Blood Therapeutics in 2022. It reported \$328mm in revenues from the therapy for the full year 2023. Pfizer is also discontinuing all studies and access programs related to the treatment based on the available clinical data, which shows that the benefit of the drug no longer outweighs the risks associated with its use, it said. The company added that the data showed an imbalance in vaso-occlusive crises, a complication of the disease and “fatal events” that required further assessment. Vaso-occlusive crisis occurs when blood flow gets blocked, depriving a tissue of oxygen and triggering an inflammatory response. The withdrawal comes ahead of an “extraordinary meeting” of the European health regulator’s Committee for Medicinal Products for Human Use to review Pfizer’s drug.” [Reuters | 09.26.24](#)

Celldex reveals Phase 2 responses for chronic hives drug

- “Celldex Therapeutics has unveiled 52-week results from a mid-stage study of its anti-KIT drug in chronic hives, raising anticipation for ongoing registrational studies. But the company’s shares were down by as much as 27%, right after the company’s announcement, due to its adverse event data. The drug, dubbed barzolvolimab, is in a pair of Phase 3 trials in chronic spontaneous urticaria (CSU) following positive topline Phase 2 data announced in February. Some Wall Street analysts have said Celldex could challenge Novartis’ remibrutinib, which has already completed its registrational studies. Celldex’s latest results show 71% of 52 CSU patients dosed with 150 mg barzolvolimab every four weeks had a complete response, defined as no itch or hives, at 52 weeks. In the cohort of 51 patients given 300 mg every eight weeks, just over half of them had a complete response.” [Endpoints | 09.25.24](#)

House passes reauthorization of rare pediatric voucher programs

- “The US House of Representatives unanimously passed a wide-ranging bill via voice vote that will reauthorize the rare pediatric priority review voucher program through 2029, among other FDA-related tweaks. The bill’s passage comes just before the Senate HELP Committee’s vote on its own version of the reauthorization, which includes an extension through 2030. While the House and Senate may not meet the Sept. 30 deadline to reauthorize the program, the short-term continuing resolution that will keep the government’s lights on until Dec. 20 also includes an extension of the rare pediatric PRV program through Dec 20.” [Endpoints | 09.24.24](#)

Gene therapy biotech Bluebird bio lays off 25% of workforce

- “After bluebird bio acknowledged troubles keeping its business operational, the gene therapy biotech is launching a restructuring that will reduce the size of its workforce by about 25%. The overhaul is designed to reduce bluebird’s cash operating expenses by about 20% and to help the company break even on quarterly cash flows in the second half of 2025. The layoff round means that nearly 100 bluebirds will have to leave the nest based on a head count of 375 full-time employees as of the end of June. Although cuts are being made across the board, R&D and general administration staffers will bear the brunt of the restructuring so that the company can focus its spending on commercial activities, bluebird Chief Financial Officer James Sterling said on an investor call. “The decision to reduce our workforce in support of a more focused set of priorities was made following a detailed review of the needs and capabilities of our organization,” bluebird CEO Andrew Obenshain said in a statement.” [Fierce Pharma | 09.24.24](#)

Moderna plans \$1.1bn in R&D and program cuts

- “To kick off its annual R&D day in New York, Moderna said that it will slash its annual spending on research and development by \$1.1bn by 2027. The biotech will also stop developing five early-stage programs, place other drugs on the backburner and focus on a handful of late-stage mRNA medicines. Simultaneously, Moderna overhauled its long-term financial projections, and it now forecasts the company’s break-even point in 2028 instead of 2026. The shake-up will not include major layoffs, Bancel told Endpoints News, and he envisions the company staying around its 6,000-employee headcount for the next three to five years. The new measures are the latest in Moderna’s attempt to diversify beyond the Covid-19 vaccine that supercharged its growth over the past few years and is one of only two approved products.” [Endpoints | 09.12.24](#)

Roivant acquires drug for pulmonary hypertension from Bayer

- “Roivant has acquired from Bayer, the German pharma company, an experimental drug called mosliciguat that will be developed as a treatment for certain types of pulmonary hypertension, a family of serious lung diseases in which high blood pressure affects the arteries in the lungs and causes damage to the heart. Bayer was paid \$14mm upfront by Roivant for global rights to mosliciguat and will be eligible for another \$280mm in milestone-based payments, plus royalties on sales, Roivant said. As it often does, Roivant will spin out a new, wholly owned “vant” company — Pulmovant—to develop mosliciguat. The initial focus will be on pulmonary hypertension associated with interstitial lung disease, or PH-ILD, a severe form of the disease that causes greater loss of function and carries a median survival of less than five years.” [Stat News | 09.10.24](#)

Upcoming PDUFAs (Next Twelve Months)

(N=103)

Company	Mkt Cap	Product		Indication	PDUFA Date
		Name	Target		
Bristol Myers Squibb	\$104,897	Opdivo	Immune System, Programmed death-1 receptor (PD-1)	Non-Small Cell Lung Cancer (NSCLC)	10/08/2024
Zealand Pharma	8,627	Zegalogue	Glucagon Receptor	Congenital Hyperinsulinism	10/08/2024
Amgen	173,133	Lumakras	Kras	Colorectal Cancer (CRC)	10/17/2024
Camurus	3,746	Oclaiz	Somatostatin Receptors	Acromegaly	10/21/2024
Iterum Therapeutics	25	Sulopenem	Gram-Negative Bacteria, Penicillin Binding Proteins (PBP)	Urinary Tract and Reproductive Tract Infections (Antibacterial)	10/25/2024
PharmaTher	19	Ketarx	NMDA Glutamate Receptor	Anesthesia	10/29/2024
Medexus Pharmaceuticals	48	Ovastat	DNA	Bone Marrow Transplant and Stem Cell Transplant	10/30/2024
Laboratorios Salvat	Pvt.	SVT-15473	Unknown	Postsurgical Pain	10/31/2024
Zhuhai Beihai Biotechnology	Pvt.	BH-009	Microtubules (Tubulin)	Solid Tumors	11/01/2024
Journey Medical	117	Minolira	Bacterial ribosome, Protein synthesis	Rosacea	11/04/2024
Astellas Pharma	20,614	Vyloy	Claudin 18 (CLDN18), GC182 (CLDN18.2)	Gastric Cancer	11/09/2024
PTC Therapeutics	2,854	Upstaza	Aromatic L-amino acid decarboxylase (AADC)	Neurology - Other	11/13/2024

Note(s): \$ in mm. PDUFA dates based on Citeline analysts' data, as of 09/30/24.
Source: Citeline, as of 09/30/24.

Upcoming PDUFAs (Next Twelve Months)

(N=103) (Cont'd)

Company	Mkt Cap	Product		Indication	PDUFA Date
		Name	Target		
Autolus Therapeutics	\$966	Obe-cel	Autologous Chimeric Antigen Receptor T-cells (CAR-T), Cluster of Differentiation 19 (CD19), Immune System, Stem Cells/Other Cell Therapies, T lymphocytes	Acute Lymphoblastic Leukemia (ALL)	11/16/2024
Roche	257,623	Inavolisib	PI3K/AKT pathway	HR+/HER2- Breast Cancer	11/27/2024
Applied Therapeutics	976	AT-007	Aldose Reductase	Metabolic - General	11/28/2024
BridgeBio Pharma	4,787	Acoramidis	Transthyretin (TTR)	Transthyretin Amyloid Cardiomyopathy (ATTR-CM, Wild Type Or Hereditary)	11/29/2024
Jazz Pharmaceuticals	6,880	Zanidatamab	HER2/neu or ErbB-2	Biliary Tract Cancer	11/29/2024
Nevakar	Pvt.	NVK-002	Muscarinic acetylcholine receptor	Myopic Macular Degeneration (MMD)/Pathological Myopia (Ophthalmology)	11/30/2024
Lupin	11,924	Armlupeg (pegfilgrastim)	Granulocyte Macrophage Colony-Stimulating Factor Receptor (GM-CSFR)/CD116	Leukopenia / Neutropenia	11/30/2024
Visiox Pharma	Pvt.	PDP-716	Alpha 2 Adrenergic Receptor	Glaucoma / Ocular Hypertension (Ophthalmology)	11/30/2024
Humacyte	649	Humacyl	Tissue Scaffolding	Peripheral Arterial Disease (PAD)	11/30/2024
Almatica Pharma	Pvt.	ALM004	Unknown	Undisclosed	11/30/2024
Azurity Pharmaceuticals	Pvt.	AZ-06	Unknown	Neurology - Other	11/30/2024
Shorla Oncology	Pvt.	SH-201	Chemotherapy Agents	Acute Lymphoblastic Leukemia (ALL)	11/30/2024

Note(s): \$ in mm. PDUFA dates based on Citeline analysts' data, as of 09/30/24.

Source: Citeline, as of 09/30/24.

Upcoming PDUFAs (Next Twelve Months)

(N=103) (Cont'd)

Company	Mkt Cap	Product		Indication	PDUFA Date
		Name	Target		
Scinture	Pvt.	SCN-102	Unknown	Cardiovascular Disease	11/30/2024
Intas Pharmaceuticals	Pvt.	Ustekinumab (Dong-A ST) biosimilar	IL-12 (Interleukin-12) and IL-12 receptor, IL-23 (Interleukin-23)	Psoriasis	11/30/2024
Galderma	Pvt.	Nemluvio	IL-31/IL-31R (Interleukin-31/Interleukin-31 Receptor)	Atopic Dermatitis (Eczema)	12/14/2024
Neurotech Pharmaceuticals	Pvt.	Renexus	Ciliary Neurotrophic Factor Receptor (CNTFR)	Macular Telangiectasia	12/17/2024
CSPC Pharmaceutical	9,076	Irinotecan Liposome (CSPC)	Topoisomerase I (Topo-I)	Pancreatic Cancer	12/18/2024
Akcea Therapeutics	Pvt.	Olezarsen	Apolipoprotein C-III (apoCIII, apo-CIII, apo-C3)	Familial Chylomicronemia Syndrome (FCS)/Lipoprotein Lipase Deficiency (LPLD)	12/19/2024
Daiichi Sankyo	62,477	Datopotamab Deruxtecan	Trop-2	Non-Small Cell Lung Cancer (NSCLC)	12/20/2024
Lexicon Pharmaceuticals	568	Inpefa	SGLT	Diabetes Mellitus, Type I	12/20/2024
Zealand Pharma	8,627	Glepaglutide	GLP-2 Receptor	Short Bowel Syndrome (SBS)	12/22/2024
Bristol Myers Squibb	104,897	Opdivo (Subcutaneous)	Immune System, Programmed death-1 receptor (PD-1)	Bladder Cancer	12/27/2024
Bristol Myers Squibb	104,897	Opdivo (Subcutaneous)	Immune System, Programmed death-1 receptor (PD-1)	Renal Cell Cancer (RCC)	12/27/2024
Bristol Myers Squibb	104,897	Opdivo (Subcutaneous)	Immune System, Programmed death-1 receptor (PD-1)	Solid Tumors	12/27/2024

Note(s): \$ in mm. PDUFA dates based on Citeline analysts' data, as of 09/30/24.

Source: Citeline, as of 09/30/24.

Upcoming PDUFAs (Next Twelve Months)

(N=103) (Cont'd)

Company	Mkt Cap	Product		Indication	PDUFA Date
		Name	Target		
Soleno Therapeutics	\$1,963	DCCR	Potassium channels	Prader-Willi Syndrome	12/27/2024
Bristol Myers Squibb	104,897	Opdivo (Subcutaneous)	Immune System, Programmed death-1 receptor (PD-1)	Melanoma	12/27/2024
Xcovery	Pvt.	Ensartinib	Anaplastic lymphoma kinase (ALK)	Non-Small Cell Lung Cancer (NSCLC)	12/28/2024
Checkpoint Therapeutics	101	Cosibelimab	Immune System, Programmed death-ligand 1 (PD-L1)	Skin Cancer - Squamous Cell Carcinoma (SCC)	12/28/2024
Jiangsu Vcare PharmaTech	Pvt.	Vicagrel	Adenosine Diphosphate P2Y12 Receptor	Cardiovascular Disease	12/28/2024
Neurocrine Biosciences	11,634	Crinecerfont	Corticotropin Releasing Factor -Receptor1 (CRF-R1), Corticotropin Releasing Factor -Receptor2 (CRF-R2)	Congenital Adrenal Hyperplasia (CAH)	12/29/2024
Laboratorios Salvat	Pvt.	Clotrimazole	Unknown	Ear Infections (Antibacterial)	12/31/2024
Omeros Corporation	230	Narsoplimab	Mannose-binding lectin-Associated Serine Proteases (MASPs)	Transplant-Associated Thrombotic Microangiopathy (TA-TMA)	12/31/2024
CSL	96,109	Garadacimab	Coagulation Factor XII	Hereditary Angioedema (HAE)	12/31/2024
Novo Nordisk	521,599	Alhemo	Tissue Factor Pathway Inhibitor (TFPI)	Hemophilia A and B - General Clotting Products	12/31/2024
AstraZeneca	240,782	Evusheld	SARS-CoV-2	COVID-19 Treatment	12/31/2024
Quoin Pharmaceuticals	2	QRX-003	LEKTI/SPINK5	Congenital Ichthyosis	12/31/2024

Note(s): \$ in mm. PDUFA dates based on Citeline analysts' data, as of 09/30/24.

Source: Citeline, as of 09/30/24.

Upcoming PDUFAs (Next Twelve Months)

(N=103) (Cont'd)

Company	Mkt Cap	Product		Indication	PDUFA Date
		Name	Target		
Eli Lilly	\$797,723	Lebrikizumab	IL-13 (Interleukin-13)	Atopic Dermatitis (Eczema)	12/31/2024
StemCyte	Pvt.	HPC-Cord Blood Therapy	Unknown	Ischemic Stroke	12/31/2024
Amneal Pharmaceuticals	2,575	K127	Cholinesterases	Myasthenia Gravis (MG)	12/31/2024
GSK	82,908	Brexafemme	Beta (1, 3)-D-Glucan	Fungal Infections - Systemic	12/31/2024
Pfizer	163,994	Marstacimab	Tissue Factor Pathway Inhibitor (TFPI)	Hemophilia A and B - General Clotting Products	12/31/2024
Vertex Pharmaceuticals	120,038	Vanzacaftor/tezacaft or/deutivacaftor	CF transmembrane conductance regulator (CFTR)	Cystic Fibrosis (CF)	01/02/2025
OWP Pharmaceuticals	Pvt.	SUBVENITE	Sodium and Calcium Channels	Partial / Focal Seizures (Epilepsy)	01/03/2025
OWP Pharmaceuticals	Pvt.	SUBVENITE	Sodium and Calcium Channels	Bipolar Disorder	01/03/2025
Merus	3,408	Zenocutuzumab	ErbB3/HER3, HER2/neu or ErbB-2	Pancreatic Cancer	01/06/2025
Merus	3,408	Zenocutuzumab	ErbB3/HER3, HER2/neu or ErbB-2	Non-Small Cell Lung Cancer (NSCLC)	01/06/2025
Mesoblast	926	Ryoncil	Stem Cells/Other Cell Therapies	Graft vs. Host Disease (GVHD) - Treatment	01/07/2025
Pierre Fabre	Pvt.	Tabelecleucel	Epstein Barr Virus (EBV), Immune System, Stem Cells/Other Cell Therapies, T lymphocytes	Hematologic Cancer	01/15/2025

Note(s): \$ in mm. PDUFA dates based on Citeline analysts' data, as of 09/30/24.

Source: Citeline, as of 09/30/24.

Upcoming PDUFAs (Next Twelve Months)

(N=103) (Cont'd)

Company	Mkt Cap	Product		Indication	PDUFA Date
		Name	Target		
Stealth BioTherapeutics	Pvt.	Elamipretide (Systemic Delivery)	Mitochondria, Reactive Oxygen Species/Free Radicals	Cardiomyopathy - Dilated	01/29/2025
Daiichi Sankyo	62,477	Datopotamab Deruxtecan	Trop-2	HR+/HER2- Breast Cancer	01/29/2025
Vertex Pharmaceuticals	120,038	VX-548	Sodium Channel Nav1.8 (SCN10A)	Postsurgical Pain	01/30/2025
Luye Pharma	1,622	LY03005	Dopamine Reuptake, Norepinephrine (Noradrenaline) Reuptake/Transporter, Serotonin Reuptake	Major Depressive Disorder (MDD)	01/31/2025
Axsome Therapeutics	4,314	AXS-07	Cyclooxygenase 2 (COX2) / Prostaglandin-Endoperoxide Synthase 2 (PTGS2), Serotonin 5-HT1B receptor , Serotonin 5-HT1D receptor	Migraine and Other Headaches	01/31/2025
Supernus Pharmaceuticals	1,718	SPN-830	Alpha 1 Adrenergic Receptor , Alpha 2 Adrenergic Receptor, Dopamine 1 (D1) Receptor, Dopamine 2 (D2) Receptor, Dopamine 3 (D3) Receptor	Parkinson's Disease (PD)	01/31/2025
GSK	82,908	MenABCWY (GSK)	Immune System, Neisseria meningitidis - Group B, Neisseria meningitidis - Groups A, C, Y, and W-135	Meningococcal Vaccines and Other Meningococcus-Specific Agents (Antibacterial)	02/14/2025
Bavarian Nordic	2,720	CHIKV VLP	Immune System	Chikungunya Virus	02/14/2025
Ono Pharmaceutical	6,266	Vimseltinib	Macrophage Colony Stimulating Factor 1 (M-CSF1)/M-CSF Receptor/FMS/CD115/CSF-1/CSF1R	Tenosynovial Giant Cell Tumor (TGCT) / Pigmented Villonodular Synovitis (PVNS)	02/17/2025
Johnson & Johnson	390,118	Amivantamab SC	EGFR (Epidermal Growth Factor Receptor), Tyrosine Kinases	Non-Small Cell Lung Cancer (NSCLC)	02/17/2025
Eton Pharmaceuticals	155	ET-400	Unknown	Endocrine Disorder	02/28/2025
SpringWorks Therapeutics	2,379	Mirdametinib	Mitogen-activated ERK kinase (MEK, MAPKK, MAP2K)	Neurofibromatosis (NF)	02/28/2025

Note(s): \$ in mm. PDUFA dates based on Citeline analysts' data, as of 09/30/24.

Source: Citeline, as of 09/30/24.

Upcoming PDUFAs (Next Twelve Months)

(N=103) (Cont'd)

Company	Mkt Cap	Product		Indication	PDUFA Date
		Name	Target		
Celltrion	\$30,701	Omlyclo	Immunoglobulin E (IgE)	Asthma	03/10/2025
Celltrion	30,701	Omlyclo	Immunoglobulin E (IgE)	Chronic Rhinosinusitis	03/10/2025
Celltrion	30,701	Omlyclo	Immunoglobulin E (IgE)	Food Allergies	03/10/2025
Celltrion	30,701	Omlyclo	Immunoglobulin E (IgE)	Nasal Polyposis	03/10/2025
Celltrion	30,701	Omlyclo	Immunoglobulin E (IgE)	Urticaria	03/10/2025
Telix Pharmaceuticals	4,810	TLX007-CDx	Unknown	Prostate Cancer - Imaging	03/24/2025
Milestone Pharmaceuticals	101	Cardamyst	Calcium Channel	Supraventricular Tachycardia	03/26/2025
Sanofi	143,853	Fitusiran	Thrombin (Coagulation Factor IIa)	Hemophilia A and B - General Clotting Products	03/28/2025
Laboratoires SERB SAS	Pvt.	Bentracimab	Anti-platelet drugs	Drug Toxicity	03/31/2025
UroGen Pharma	535	VesiGel	DNA, Tumor Cells	Bladder Cancer	04/30/2025
Curium Pharma	Pvt.	Lutetium Lu 177 Dotatate (Curium)	Somatostatin Receptors	Neuroendocrine Tumors (NET)	05/09/2025
Ferring Pharmaceuticals	Pvt.	SI-6603	Extracellular Matrix (ECM)	Sciatica	05/14/2025

Note(s): \$ in mm. PDUFA dates based on Citeline analysts' data, as of 09/30/24.

Source: Citeline, as of 09/30/24.

Upcoming PDUFAs (Next Twelve Months)

(N=103) (Cont'd)

Company	Mkt Cap	Product		Indication	PDUFA Date
		Name	Target		
Telix Pharmaceuticals	\$4,810	TLX250-CDx	Carbonic Anhydrase	Renal Cell Cancer (RCC) - Imaging	06/02/2025
KalVista Pharmaceuticals	500	Sebetralstat	Kinin-Kallikrein System	Hereditary Angioedema (HAE)	06/17/2025
Mirum Pharmaceuticals	1,861	Chenodal	Farnesoid X receptor (FXR)/NR1H4	Cerebrotendinous Xanthomatosis (Cerebral Cholesterosis)	06/28/2025
Novartis	232,847	Atrasentan	Endothelin Receptor Type A (EDNRA)	Immunoglobulin A (IgA) Nephropathy (Berger's Disease)	06/30/2025
Unicycive Therapeutics	38	Renazorb	Phosphate	Hyperphosphatemia	07/03/2025
AbbVie	348,818	Rinvoq	JAK/STAT	Giant Cell Arteritis	07/11/2025
PTC Therapeutics	2,854	Sepiapterin	phenylalanine hydroxylase	Phenylketonuria (PKU)	07/30/2025
Novartis	232,847	Lutathera	Somatostatin Receptors	Neuroendocrine Tumors (NET)	07/31/2025
Bayer	33,228	Elinzanetant	Neurokinin Receptor	Menopause (including Hormone Replacement Therapy [HRT])	08/01/2025
George Medicines	Pvt.	GMRx2	Unknown	Hypertension (Systemic)	08/06/2025
LENZ Therapeutics	653	LNZ-100	Muscarinic acetylcholine receptor	Presbyopia	08/12/2025
Telix Pharmaceuticals	4,810	Pixclara	Carbonic Anhydrase	Brain Cancer - Imaging	08/27/2025

Note(s): \$ in mm. PDUFA dates based on Citeline analysts' data, as of 09/30/24.
 Source: Citeline, as of 09/30/24.

Upcoming PDUFAs (Next Twelve Months)

(N= 103) (Cont'd)

Company	Mkt Cap	Product		Indication	PDUFA Date
		Name	Target		
Johnson & Johnson	\$390,118	Nipocalimab	Neonatal Fc Receptor	Myasthenia Gravis (MG)	08/29/2025
Tonix Pharmaceuticals	3	Tonmya	Alpha 2 Adrenergic Receptor, Serotonin 5-HT2A receptor	Fibromyalgia	12/31/2025
Verastem	120	Avutometinib	Mitogen-activated ERK kinase (MEK, MAPKK, MAP2K), Raf kinase	Ovarian Cancer	12/31/2025
Organon	4,925	HLX-14	RANK Ligand (RANKL)	Osteoporosis / Osteopenia	12/31/2025
Rakuten Medical	Pvt.	ASP-1929	EGFR (Epidermal Growth Factor Receptor)	Head and Neck Cancer	12/31/2025
Organon	4,925	Biosimilar Pertuzumab (Henlius)	HER2/neu or ErbB-2	HER2+ Breast Cancer	12/31/2025
Sedana Medical	235	SEDACONDA (ISOFLURANE)	Unknown	Anesthesia	04/30/2026

Note(s): \$ in mm. PDUFA dates based on Citeline analysts' data, as of 09/30/24.
Source: Citeline, as of 09/30/24.

Upcoming Key Catalysts (Coming Quarter)

(N=292)

Company	Mkt Cap	Product			Data	
		Drug	Indication	Phase	Event	Timing
Novo Nordisk A/S	\$521,599	Semaglutide (MASH)	Non-Alcoholic Steatohepatitis (MASH)	III	Phase III ESSENCE – Topline Results	By 10/31/2024
AbbVie Inc.	348,818	ABBV-CLS-484	Solid Tumors	I	Phase I - Top-Line Results	By 10/31/2024
Novartis AG	232,847	Atrasentan	Alport Syndrome	II	Phase II AFFINITY – Top-Line Results	By 10/31/2024
Pfizer Inc.	163,994	PF-07252220	Seasonal Influenza Vaccines	III	Phase III Quadrivalent - Top-Line Results	By 10/31/2024
Pfizer Inc.	163,994	BNT167	Chickenpox and Shingles - Vaccines and Treatments	I/II	Phase I/II - Top-line Results	By 10/31/2024
Bristol Myers Squibb Company	104,897	CC-97540	Systemic Lupus Erythematosus (SLE)	I	Phase I - Top-Line Results	By 10/31/2024
GSK plc	82,908	WVE-006	Alpha-1 Antitrypsin Deficiency (A1AD or AATD)	I/II	Phase I/II U.S. - Top-Line Results	By 10/31/2024
GSK plc	82,908	GSK4023393A	Meningococcal Vaccines and Other Meningococcus-Specific Agents (Antibacterial)	I/II	Phase I/II FIH - Top-Line Results	By 10/31/2024
argenx N.V.	32,386	Vyvgart Hytrulo	Sjogren's Syndrome	II	Phase II RHO (PoC) - Top-Line Results	By 10/31/2024
BeiGene, Ltd.	23,875	Tevimbra	Non-Small Cell Lung Cancer (NSCLC)	III	Phase II AdvanTIG-205 - Top-Line Results	By 10/31/2024
Corcept Therapeutics Incorporated	4,836	CORT113176	Amyotrophic Lateral Sclerosis (ALS)	II	Phase II - DAZALS - Top-Line Results	By 10/31/2024
Geron Corporation	2,737	Rytelo	Myelofibrosis (MF)	III	Phase I - IMproveMF - Preliminary Results	By 10/31/2024
Arvinas, Inc.	1,691	ARV-110	Prostate Cancer	I/II	Combination Trial - Top-Line Results	By 10/31/2024
Valneva SE	481	Shigella4V	Antibacterial and Antifungal - Miscellaneous Vaccines and Treatments	II	Phase I/II Dose Finding Study - Top-Line Results	By 10/31/2024
Alto Neuroscience	308	ALTO-100	Major Depressive Disorder (MDD)	II	Phase IIb ALTO-100-201 - Top-Line Results	10/01/2024 - 10/31/2024
Allergy Therapeutics plc	300	VLP Peanut	Food Allergies	I	Phase I PROTECT - Top-Line Results	By 10/31/2024
Sutro Biopharma, Inc.	284	Luvelta	Ovarian Cancer	II/III	Phase I - Top-Line Results	By 10/31/2024
Omeros Corporation	230	OMS1029	Undisclosed	I	Phase I MAD - Topline Results	By 10/31/2024
Fulcrum Therapeutics Inc.	223	Losmapimod	Facioscapulohumeral Muscular Dystrophy (FSHD)	III	Phase III REACH - Top-Line Results	10/01/2024 - 10/31/2024
Eli Lilly and Company	797,723	Mazdutide	Obesity	II	Phase III High Dose - Top-Line Results	By 11/30/2024
Johnson & Johnson	390,118	JNJ-2113	Psoriasis	III	Phase III ICONIC-LEAD - Topline Results	11/01/2024 - 11/30/2024
Johnson & Johnson	390,118	NM26	Atopic Dermatitis (Eczema)	I	Phase I - MAD Study Results	11/01/2024 - 11/30/2024
Novartis AG	232,847	Atrasentan	Focal Segmental Glomerulosclerosis (FSGS)	II	Phase II AFFINITY – Top-Line Results	By 11/30/2024
Novartis AG	232,847	Atrasentan	Diabetic Nephropathy	II	Phase II AFFINITY – Top-Line Results	By 11/30/2024
Novartis AG	232,847	NeoBOMB1	Solid Tumors	I/II	Phase I/IIa NeoRay - Top-Line Results	By 11/30/2024
Bristol Myers Squibb Company	104,897	EVT8683	Neurology - Other	I	Phase I - Top-Line Results	By 11/30/2024
Bristol Myers Squibb Company	104,897	Cendakimab	Eosinophilic Esophagitis (EoE)	III	Phase III EoE - Top-Line Results	By 11/30/2024
Ionis Pharmaceuticals, Inc.	6,310	IONIS-AGT-LRx	Hypertension (Systemic)	II	Phase IIb - Top-Line Results	By 11/30/2024
Structure Therapeutics, Inc.	2,510	GSBR-1290	Diabetes Mellitus, Type II	II	Formulation Bridging and Titration Optimization - Topline Results	By 11/30/2024
Celldex Therapeutics, Inc.	2,253	CDX-1140	Cancer	II	Phase Ib w/ Odetiglucan - Topline Results	By 11/30/2024
Evotec SE	1,271	EVT894	Infectious Disease	I	Phase I 18-0006 - Top-Line Results	By 11/30/2024
Praxis Precision Medicines, Inc.	1,022	PRAX-944	Essential Tremor	III	Phase III - Top-Line Results	By 11/30/2024
Aura Biosciences, Inc.	442	AU-011	Bladder Cancer	I	Phase I - NMIBC - Initial Data	By 11/30/2024
COMPASS Pathways	431	COMP360	Major Depressive Disorder (MDD)	III	Phase III COMP 005 - Top-Line Results	By 11/30/2024
Aldeyra Therapeutics, Inc.	320	ADX-629	Alcoholic Liver Disease / Alcoholic Hepatitis	I/II	Phase II (Moderate Alcoholic Hepatitis) - Top-Line Results (First Cohort)	By 11/30/2024
Nektar Therapeutics	239	NKTR-255	Diffuse Large B-Cell Lymphoma (DLBCL) - NHL	II/III	Phase Ib 10802 - Top-Line Results	By 11/30/2024
Omeros Corporation	230	OMS906	C3 Glomerulopathy (C3G), including Dense Deposit Disease (DDD) and C3 Glomerulonephritis (C3GN)	I	Phase Ib - Preliminary Data	By 11/30/2024
Enanta Pharmaceuticals, Inc.	220	EDP-938	Respiratory Syncytial Virus (RSV) Treatment	IIb	Phase II RSVPEDs - Top-Line Results	10/01/2024 - 11/30/2024
Actuate Therapeutics, Inc.	146	Etlarglusb	Myelofibrosis (MF)	II	Phase II w/Ruxolitinib - Top-Line Results	By 11/30/2024
Spyre Therapeutics, Inc.	Pvt.	SPY001	Inflammatory Bowel Disease (IBD)	I	Phase I Healthy Volunteers - PK/PD/Safety Data	By 12/31/2024
Eli Lilly and Company	797,723	Efsitora alfa	Diabetes Mellitus, Type I	III	Phase III QWINT-5 – Topline Results	By 12/31/2024
Eli Lilly and Company	797,723	DC-806	Psoriasis	IIb	Phase IIb Illuminate - Top-Line Results	By 12/31/2024
Novo Nordisk A/S	521,599	Ozempic	Peripheral Arterial Disease (PAD)	III	Phase IIb STRIDE – Topline Results	By 12/31/2024
Novo Nordisk A/S	521,599	CagriSema	Obesity	III	Phase III - Topline Results	10/01/2024 - 12/31/2024
Novo Nordisk A/S	521,599	IcoSema	Diabetes Mellitus, Type II	III	Phase III Combine 2 - Topline Results	By 12/31/2024
Novo Nordisk A/S	521,599	Rybelsus	Cardiovascular Disease	III	Phase III SOUL – Topline Results	10/01/2024 - 12/31/2024

Note(s): \$ in mm. Catalyst dates based on Citeline analysts' data, as of 09/30/24.

Source: Citeline, Company press releases, Company websites and filings, as of 09/30/24.

Upcoming Key Catalysts (Coming Quarter)

(N=292) (Cont'd)

Company	Product			Data		
	Mkt Cap	Drug	Indication	Phase	Event	Timing
Novo Nordisk A/S	\$521,599	NN-6019	Hereditary Transthyretin (hATTR) Amyloidosis With Polyneuropathy (Familial Amyloid Polyneuropathy)	II	Phase II NN6019-4940 - Top-Line Results	10/01/2024 - 12/31/2024
Novo Nordisk A/S	521,599	NN9389	Diabetes Mellitus, Type II	II	Phase II Dose Finding Study - Top-Line Results	10/01/2024 - 12/31/2024
Novo Nordisk A/S	521,599	Oral Amycretin	Obesity	I	Phase I SAD/MAD - Topline Results at EASD	10/01/2024 - 12/31/2024
Johnson & Johnson	390,118	JNJ-4804	Psoriatic Arthritis (PsA)	II	Phase II AFFINITY - Top-Line Results	By 12/31/2024
Johnson & Johnson	390,118	Aticaprant	Major Depressive Disorder (MDD)	III	Phase III VENTURA-1 - Top-Line Results	By 12/31/2024
Johnson & Johnson	390,118	NBTRX3	Head and Neck Cancer	III	Phase III NANORAY-312- Futility Analysis	By 12/31/2024
Johnson & Johnson	390,118	NBTRX3	Non-Small Cell Lung Cancer (NSCLC)	I/II	Phase I/II - Lung/Liver Metastases - Top-line Results	By 12/31/2024
Johnson & Johnson	390,118	Rybrevant	Colorectal Cancer (CRC)	I/II	Phase I/II OrigAMI-1 - Top-Line Results at ESMO	By 12/31/2024
Johnson & Johnson	390,118	NBTRX3	Esophageal Cancer	I	Phase Ib/II - Top-Line Results	By 12/31/2024
AbbVie Inc.	348,818	Elezanumab	Ischemic Stroke	II	Phase II EALISE - Top-Line Results	By 12/31/2024
AbbVie Inc.	348,818	Navitoclax	Myelofibrosis (MF)	III	Phase III TRANSFORM-2 - Top-Line Results	By 12/31/2024
AbbVie Inc.	348,818	Emraclidine	Schizophrenia	III	Phase II 15/30mg - Top-Line Results	By 12/31/2024
AbbVie Inc.	348,818	Emraclidine	Schizophrenia	III	Phase II 10/30mg - Top-Line Results	By 12/31/2024
AbbVie Inc.	348,818	AGN-151586	Wrinkles	III	Phase III - M21-509 - Topline Results	By 12/31/2024
AbbVie Inc.	348,818	ABBV-154	Crohn's Disease	II	Phase II - Top-Line Results	By 12/31/2024
AbbVie Inc.	348,818	CVL-865	Seizure Disorders (Epilepsy)	II	Phase II REALIZE - Top-Line Results	By 12/31/2024
AbbVie Inc.	348,818	CVL-871	Neuropsychiatric Symptoms in Alzheimer's Disease	II	Phase IIa - Top-Line Results	By 12/31/2024
AbbVie Inc.	348,818	NX-13	Ulcerative Colitis (UC)	II	Phase II - Top-Line Results	By 12/31/2024
AbbVie Inc.	348,818	ABBV-453	Multiple Myeloma (MM)	I	Phase I - Top-Line Results	10/01/2024 - 12/31/2024
Merck & Co., Inc.	287,853	MK-3475A	Non-Small Cell Lung Cancer (NSCLC)	III	Phase III MK-3475A-D77 (SC vs. IV) - Top-Line Results	By 12/31/2024
Merck & Co., Inc.	287,853	PRA052	Ulcerative Colitis (UC)	I	Phase I - Top-Line Results	By 12/31/2024
Merck & Co., Inc.	287,853	Patritumab Deruxtecan	Non-Small Cell Lung Cancer (NSCLC)	BLA	Phase III HERTHENA-Lung02 - Topline Results	By 12/31/2024
Merck & Co., Inc.	287,853	MK-7240	Systemic Sclerosis-Associated Interstitial Lung Disease (SSc-ILD)	II	Phase II ATHENA-SSc-ILD - Top-Line Results	By 12/31/2024
AstraZeneca PLC	240,782	Truqap	Prostate Cancer	III	Phase III CAPitello-281 - Top-Line Results	By 12/31/2024
AstraZeneca PLC	240,782	Imfinzi	Bladder Cancer	III	Phase III NILE - Top-Line Results	By 12/31/2024
AstraZeneca PLC	240,782	Fasenra	Hypereosinophilic Syndrome (HES)	III	Phase III NATRON - Top-Line Results	By 12/31/2024
AstraZeneca PLC	240,782	AZD5718	Asthma	II	Phase II FLASH - Top-Line Results	By 12/31/2024
AstraZeneca PLC	240,782	FPI-1966	Head and Neck Cancer	I/II	Phase I - Top-Line Results	By 12/31/2024
AstraZeneca PLC	240,782	FPI-1966	Bladder Cancer	I/II	Phase I - Top-Line Results	By 12/31/2024
AstraZeneca PLC	240,782	AZD1390	Brain Cancer (Malignant Glioma; AA and glioblastoma (GBM))	I	Phase I - Top-Line Results	By 12/31/2024
AstraZeneca PLC	240,782	Fasenra	Nasal Polyposis	BLA	Phase III ORCHID - Top-Line Results	By 12/31/2024
Novartis AG	232,847	Beovu	Diabetic Retinopathy (Ophthalmology)	III	Phase III Vs Panretinal Photocoagulation Laser - Top-Line Results	By 12/31/2024
Novartis AG	232,847	Fabhalta	Hemolytic Uremic Syndrome (HUS)	III	Phase III APPELHUS - Top-Line Results	By 12/31/2024
Novartis AG	232,847	JDQ-443	Non-Small Cell Lung Cancer (NSCLC)	III	Phase III KonTRAST-02 - Top-Line Results	By 12/31/2024
Novartis AG	232,847	KAF156	Malaria	IIb	Phase II KALUMI - Top-Line Results	By 12/31/2024
Novartis AG	232,847	LNA043	Osteoarthritis	II	Phase II ONWARDS - Top-Line Results	By 12/31/2024
Novartis AG	232,847	XXB750	Hypertension (Systemic)	II	Phase II CXXB750B12201 - Top-Line Results	By 12/31/2024
Amgen, Inc.	173,133	Rocatinimab	Atopic Dermatitis (Eczema)	III	Phase III ROCKET - Topline Results	By 12/31/2024
Amgen, Inc.	173,133	Uplizna	Myasthenia Gravis (MG)	III	Phase III MINT - Top-Line Results	By 12/31/2024
Amgen, Inc.	173,133	Tezspire	Chronic Rhinosinusitis	III	Phase III WAYPOINT - Top-Line Results	By 12/31/2024
Amgen, Inc.	173,133	Nplate	Thrombocytopenia	III	Phase III RECITE- Top-Line Results	By 12/31/2024
Amgen, Inc.	173,133	Tezspire	Nasal Polyposis	III	Phase III WAYPOINT - Top-Line Results	By 12/31/2024
Amgen, Inc.	173,133	Fixaxalparant	Idiopathic Pulmonary Fibrosis (IPF)	IIb	Phase IIb - Topline Results	By 12/31/2024
Amgen, Inc.	173,133	Mani Tide	Obesity	II	Phase II - Top-Line Results	By 12/31/2024
Amgen, Inc.	173,133	AMG-786	Obesity	I	Phase I - Top-Line Results	By 12/31/2024
Sanofi	143,853	Duvakitug	Crohn's Disease	IIb	Phase IIb - Top-Line Results	10/01/2024 - 12/31/2024

Note(s): \$ in mm. Catalyst dates based on Citeline analysts' data, as of 09/30/24.

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Upcoming Key Catalysts (Coming Quarter)

(N=292) (Cont'd)

Company	Mkt Cap	Drug	Product		Data	
			Indication	Phase	Event	Timing
Sanofi	\$143,853	Duvakitug	Ulcerative Colitis (UC)	IIb	Phase IIb - Top-Line Results	By 12/31/2024
Sanofi	143,853	PRV-3279	Systemic Lupus Erythematosus (SLE)	II	Phase IIa PREVAIL-2 - Top-Line Results	By 12/31/2024
Sanofi	143,853	PRN1008	Autoimmune Disorders	II	Phase IIb wAIIHA - Top-Line Results	10/01/2024 - 12/31/2024
Sanofi	143,853	Amltelimab	Asthma	II	Phase II - Top-Line Results	10/01/2024 - 12/31/2024
Vertex Pharmaceuticals Incorporated	120,038	VX-548	Neuropathic Pain	II	Phase II PLSR - Top-Line Results	By 12/31/2024
Regeneron Pharmaceuticals, Inc.	113,465	Libtayo	Melanoma	III	Phase III - w/ Fianlimab Vs Pembrolizumab - Top-Line Results	By 12/31/2024
Regeneron Pharmaceuticals, Inc.	113,465	Veopoz	Paroxysmal Nocturnal Hemoglobinuria (PNH)	III	Phase III ACCESS-1 - Topline Results	By 12/31/2024
Bristol Myers Squibb Company	104,897	Camzyos	Chronic Heart Failure - Preserved Ejection Fraction (Chronic HFpEF)	II	Phase II EMBARK-HFpEF - Top-Line Results	By 12/31/2024
Bristol Myers Squibb Company	104,897	Opdualag IV	Non-Small Cell Lung Cancer (NSCLC)	II	Phase II CA224-104 - Top-Line Results	By 12/31/2024
Bristol Myers Squibb Company	104,897	BL-B01D1	Non-Small Cell Lung Cancer (NSCLC)	II	Phase I BL-B01D1-LUNG-101 - Top-Line Results	By 12/31/2024
Bristol Myers Squibb Company	104,897	MRTX-0902	Solid Tumors	I/II	Phase I/II - Initial Data	By 12/31/2024
Bristol Myers Squibb Company	104,897	BMS-986288	Solid Tumors	I/II	Phase I/II - Top-Line Results	By 12/31/2024
Bristol Myers Squibb Company	104,897	Opdualag IV	Hepatocellular (Liver) Cancer (HCC) (Including Secondary Metastases)	I/II	Phase I/II RELATIVITY-106 - Top-Line Results	By 12/31/2024
Bristol Myers Squibb Company	104,897	MRTX1133	Solid Tumors	I/II	Phase I/II - Top-Line Results	By 12/31/2024
Bristol Myers Squibb Company	104,897	BBP-398	Solid Tumors	I/II	Phase I/II - NAV-1001 - Top-Line Results	By 12/31/2024
Bristol Myers Squibb Company	104,897	RYZ101	Small Cell Lung Cancer (SCLC)	I	Phase I U.S. - Top-Line Results	By 12/31/2024
Gilead Sciences, Inc.	104,380	Sunlenca	HIV Prevention	III	Phase III PURPOSE-2 Initial Data	By 12/31/2024
Gilead Sciences, Inc.	104,380	GS-5423	HIV / AIDS Treatment	II	Phase II - w/GS-2872 & Lenacapavir - Topline Results	By 12/31/2024
Gilead Sciences, Inc.	104,380	GS-2872	HIV / AIDS Treatment	II	Phase II - w/GS-5423 & Lenacapavir - Topline Results	By 12/31/2024
Gilead Sciences, Inc.	104,380	GS-1614	HIV / AIDS Treatment	I	Phase I - Topline Results	By 12/31/2024
GSK plc	82,908	GSK3511294	Chronic Rhinosinusitis	III	Phase III ANCHOR-1/2 - Topline Results	By 12/31/2024
GSK plc	82,908	Zejlula	Non-Small Cell Lung Cancer (NSCLC)	III	Phase III ZEAL-1L - Topline Results	By 12/31/2024
GSK plc	82,908	Jemperli	Ovarian Cancer	III	Phase III FIRST - Top-Line Results	By 12/31/2024
GSK plc	82,908	GSK2330672	Primary Biliary Cholangitis (PBC)	III	Phase III GLISTEN - Top-Line Results	By 12/31/2024
GSK plc	82,908	Jemperli	Non-Small Cell Lung Cancer (NSCLC)	III	Phase II GALAXIES Lung-201 - Top-Line Results	By 12/31/2024
GSK plc	82,908	AFX3772	Pneumococcal (Streptococcus pneumoniae) Vaccines (Antibacterial)	II	Phase II Healthy Infants (42-90 days) - Topline Results	By 12/31/2024
GSK plc	82,908	Mosquirix (with MPL adjuvant)	Malaria	II	Phase II - Top-Line Results	By 12/31/2024
Merck KGaA	76,617	Enpatoran	Systemic Lupus Erythematosus (SLE)	II	Phase II WILLOW LTE - CLE Readout	By 12/31/2024
Alnylam Pharmaceuticals Inc.	35,308	VIR-2218	Hepatitis B (HBV) Treatment (Antiviral)	II	Phase IIa w/GS-9688 + Nivolumab - Top-Line Results	By 12/31/2024
UCB S.A.	34,279	UCB0599	Parkinson's Disease (PD)	II	Phase IIa Early PD - Top-line Results	By 12/31/2024
UCB S.A.	34,279	Fintepla	CDKL5 Deficiency Disorder (CDD) (Epilepsy)	II	Phase III CDKL5 Deficiency Disorder - Topline Results	By 12/31/2024
UCB S.A.	34,279	UCB0107	Alzheimer's Disease (AD)	II	Phase II AH0003 - Top-line Results	By 12/31/2024
UCB S.A.	34,279	UCB1381	Atopic Dermatitis (Eczema)	I/II	Phase I/IIa Single-Ascending Dose/Repeat-Dose - Top-Line Results	By 12/31/2024
argenx N.V.	32,386	Vyvgart Hytrulo	Bullous Pemphigoid	II/III	Phase II/III BALLAD - Top-Line Results	By 12/31/2024
argenx N.V.	32,386	Vyvgart Hytrulo	Autoimmune Disorders	II/III	Phase II/III ALKIVIA - Top-Line Results	By 12/31/2024
BioNTech SE	28,239	BNT-165	Malaria	I/II	Phase I - Top-line Results	By 12/31/2024
Moderna, Inc.	25,689	mRNA-1647	Cytomegalovirus (CMV) Infection (Antiviral)	III	Phase III CMVictory - Topline Results	By 12/31/2024
Moderna, Inc.	25,689	mRNA-1018	Pandemic Influenza Vaccines	I/II	Phase I/II - Top-Line Results	10/01/2024 - 12/31/2024
BeiGene, Ltd.	23,875	BGB-43395	HR+/HER2- Breast Cancer	I	Phase I - Top-Line Results	10/01/2024 - 12/31/2024
Incyte Corporation	12,731	Opzelura	Dermatology	III	Phase II Lichen Planus - Top-Line Results	By 12/31/2024
Incyte Corporation	12,731	Zynyz	Non-Small Cell Lung Cancer (NSCLC)	III	Phase III POD1UM-304 - Top-Line Results	By 12/31/2024
Incyte Corporation	12,731	Zynyz	Anal Cancer	III	Phase III PODIUM-303 - Top-Line Results	By 12/31/2024
Incyte Corporation	12,731	Zilurgesitib	Myelofibrosis (MF)	I/II	Phase III POC - Top-Line Results (w/Jakafi)	By 12/31/2024
Incyte Corporation	12,731	INC857643	Myelofibrosis (MF)	I	Phase III POC - Top-Line Results (w/Jakafi)	By 12/31/2024
Neurocrine Biosciences, Inc.	11,634	Ingrezza	Neurology - Other	III	Phase III - Registrational Study - Top-Line Results	By 12/31/2024
Neurocrine Biosciences, Inc.	11,634	Ingrezza	Schizophrenia	III	Phase III - Journey Study (Adjunctive Treatment) - Top-Line Results	By 12/31/2024

Note(s): \$ in mm. Catalyst dates based on Citeline analysts' data, as of 09/30/24.

Source: Citeline, Company press releases, Company websites and filings, as of 09/30/24.

Upcoming Key Catalysts (Coming Quarter)

(N=292) (Cont'd)

Company	Mkt Cap	Product		Data		
		Drug	Indication	Phase	Event	Timing
Ascendis Pharma A/S	\$8,906	TransCon CNP	Achondroplasia	II/III	Phase II COACH - Top-Line Results (26 Week)	10/01/2024 - 12/31/2024
Ascendis Pharma A/S	8,906	Skytrofa	Turner Syndrome	II	Phase II New InSiGHTS - Top-Line Results	10/01/2024 - 12/31/2024
Revolution Medicines, Inc.	7,575	RMC-6236	Solid Tumors	I/II	Phase III RMC-6236 vs Docetaxel - Top-Line Results	By 12/31/2024
Revolution Medicines, Inc.	7,575	RMC-6291	Solid Tumors	I/II	Phase I/Ib w/RMC-6236 - Top-Line Results	By 12/31/2024
Revolution Medicines, Inc.	7,575	RMC-9805	Solid Tumors	I	Phase I/Ib Dose-Escalation/Expansion (US) - Top-Line Results	By 12/31/2024
Viking Therapeutics, Inc.	7,015	VK0214	Adrenoleukodystrophy	I	Phase Ib - Topline Results	By 12/31/2024
Jazz Pharmaceuticals plc	6,880	DSP-0187	Narcolepsy	I	Phase I - Top-Line Results	By 12/31/2024
Krystal Biotech, Inc.	5,230	KB707	Lung Cancer - Unspecified	I	Phase I KYANITE-1 - Top Line Results	By 12/31/2024
Krystal Biotech, Inc.	5,230	KB407	Cystic Fibrosis (CF)	I	Phase I - CORAL-1/US - Data	By 12/31/2024
Krystal Biotech, Inc.	5,230	KB707	Solid Tumors	I	Phase I FIH Study - Top Line Results	10/01/2024 - 12/31/2024
Krystal Biotech, Inc.	5,230	KB408	Alpha-1 Antitrypsin Deficiency (A1AD or AATD)	I	Phase I Serpentine-1 - Top-Line Results	10/01/2024 - 12/31/2024
Ultragenyx Pharmaceutical Inc.	5,116	UX701	Wilson's Disease	II/III	Phase I/II/III Cyprus2+ - Top-Line Results (Stage 1)	By 12/31/2024
Corcept Therapeutics Incorporated	4,836	Relacorilant	Cushing's Syndrome	III	Phase III GRADIENT - Top-Line Results	10/01/2024 - 12/31/2024
Corcept Therapeutics Incorporated	4,836	Relacorilant	Ovarian Cancer	III	Phase III - ROSELLA - Top-Line Results	By 12/31/2024
Corcept Therapeutics Incorporated	4,836	Miricorilant	Weight Gain from Antipsychotic Use	II	Phase II GRATITUDE II - Top-Line Results	10/01/2024 - 12/31/2024
Corcept Therapeutics Incorporated	4,836	Relacorilant	Adrenocortical Cancer	I	Phase Ib - Top-Line Results	10/01/2024 - 12/31/2024
Biohaven Ltd.	4,724	BMS-986089	Spinal Muscular Atrophy	III	Phase III RESILIENT - Top-Line Results	By 12/31/2024
Biohaven Ltd.	4,724	Troriluzole	Obsessive-Compulsive Disorder (OCD)	III	Phase III 303 - Top-Line Results	10/01/2024 - 12/31/2024
Arcellx, Inc.	4,489	Anito-cel	Multiple Myeloma (MM)	II	Phase II iMMagine-1 - Top-Line Results	By 12/31/2024
Axsome Therapeutics, Inc.	4,314	AXS-07	Migraine and Other Headaches	NDA	Phase III EMERGE - Topline Results	By 12/31/2024
Axsome Therapeutics, Inc.	4,314	Sunosi	Attention Deficit Hyperactivity Disorder (ADHD)	III	Phase III FOCUS - Top-line Results	By 12/31/2024
Axsome Therapeutics, Inc.	4,314	AXS-12	Narcolepsy	III	Phase III SYMPHONY OLE - Topline Results	By 12/31/2024
Apellis Pharmaceuticals, Inc.	3,512	Syfovre	Transplant-Associated Thrombotic Microangiopathy (TA-TMA)	II	Phase II - Top-Line Results	By 12/31/2024
Apellis Pharmaceuticals, Inc.	3,512	APL-3007	Undisclosed	I	Phase I Dose Escalation - Top-Line Results	By 12/31/2024
Apogee Therapeutics, LLC	3,435	APG-808	Chronic Obstructive Pulmonary Disease (COPD)	I	Phase I - Interim Data	By 12/31/2024
Rhythm Pharmaceuticals, Inc.	3,203	CAM4072	Metabolic - General	III	Phase III Weekly Vs Daily Formulations - Weekly PK/Tolerability Data	By 12/31/2024
Xenon Pharmaceuticals, Inc.	2,983	Azetukalner	Partial / Focal Seizures (Epilepsy)	III	Phase III X-TOLE2 - Top-Line Results	By 12/31/2024
PTC Therapeutics, Inc.	2,854	Utreloxastat	Amyotrophic Lateral Sclerosis (ALS)	II	Phase II CardinALS - Top-Line Results	10/01/2024 - 12/31/2024
IDEAYA Biosciences, Inc.	2,676	IDE196	Uveal Melanoma	III	Phase II Monotherapy (Neoadjuvant & Adjuvant UM) - Top Line Results	By 12/31/2024
Edgewise Therapeutics, Inc.	2,503	EDG-7500	Cardiomyopathy - Hypertrophic	II	Phase I SAD/MAD - Topline Results	10/01/2024 - 12/31/2024
Edgewise Therapeutics, Inc.	2,503	EDG-5506	Becker Muscular Dystrophy (BMD)	II	Phase II CANYON - Topline Results	By 12/31/2024
Edgewise Therapeutics, Inc.	2,503	EDG-5506	Duchenne Muscular Dystrophy (DMD)	II	Phase II LYNX - Top-Line Results	10/01/2024 - 12/31/2024
SpringWorks Therapeutics Inc.	2,379	Ogsiveo	Ovarian Cancer	II	Phase II - NIR-OGT-201 - Topline Results	By 12/31/2024
SpringWorks Therapeutics Inc.	2,379	Ogsiveo	Multiple Myeloma (MM)	I/II	Phase I - Top-Line Results (w/BCMA-directed therapies)	By 12/31/2024
Neumora Therapeutics, Inc.	2,114	NMRA-140	Major Depressive Disorder (MDD)	III	Phase III - KOASTAL-1 - Top-Line Results	10/01/2024 - 12/31/2024
Centessa Pharmaceuticals plc	2,056	SerpinPC	Hemophilia A and B - General Clotting Products	IIb	Phase II Present-2 - Top-Line Results	By 12/31/2024
Beam Therapeutics Inc.	1,937	BEAM-101	Sickle Cell Anemia	I/II	Phase I/II BEACON - Top-Line Results	By 12/31/2024
Beam Therapeutics Inc.	1,937	BEAM-201	Acute Lymphoblastic Leukemia (ALL)	I/II	Phase I/II R/R T-ALL/T-LL - Top-Line Results	By 12/31/2024
Reursion Pharmaceuticals, Inc.	1,852	REC-3964	Clostridium difficile-Associated Diarrhea/Infection (CDAD/CDI)	II	Phase II Study - Top-Line Results	10/01/2024 - 12/31/2024
Viridian Therapeutics, Inc.	1,737	VRDN-002	Thyroid Eye Disease (TED)	I	Phase II POC Trial - Topline Results	By 12/31/2024
MannKind Corporation	1,730	MNKD-201	Idiopathic Pulmonary Fibrosis (IPF)	I	Phase I - Top-Line Results	10/01/2024 - 12/31/2024
Arvinas, Inc.	1,691	Vepdegestrant	HR+/HER2- Breast Cancer	III	Phase Ib/II TACTIVE-U (Sub-Study A) - Top-Line Results	By 12/31/2024
Immunocore, Ltd.	1,557	Kimmtrak	Melanoma	III	Phase II/III TEBE-AM - Topline Results	10/01/2024 - 12/31/2024
Disc Medicine, Inc.	1,461	DISC-1459	Anemia	I/II	Phase I/II - Topline Results	By 12/31/2024
Dynavax Technologies Corporation	1,460	DV2-PLG-01	Vaccines (General)	II	Phase II - Top-Line Results	10/01/2024 - 12/31/2024
Belite Bio, Inc.	1,435	LBS-008	Stargardt Disease (Ophthalmology)	III	Phase III DRAGON - Top-Line Results	10/01/2024 - 12/31/2024

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Source: Citeline, Company press releases, Company websites and filings, as of 09/30/24.

Upcoming Key Catalysts (Coming Quarter)

(N=292) (Cont'd)

Company	Mkt Cap	Product		Data		
		Drug	Indication	Phase	Event	Timing
Arcus Biosciences, Inc.	\$1,398	Domvanalimab	Non-Small Cell Lung Cancer (NSCLC)	III	Phase III VELOCITY-Lung - Topline Results	By 12/31/2024
Ocular Therapeutix, Inc.	1,357	OTX-DED	Dry Eye (Ophthalmology)	II	Phase II OTX-DED-2022-C01 - Top-Line Results	10/01/2024 - 12/31/2024
Tyra Biosciences, Inc.	1,240	TYRA-300	Bladder Cancer	I/II	Phase I/II - SURF301 - Initial Results	By 12/31/2024
Tyra Biosciences, Inc.	1,240	TYRA-300	Solid Tumors	I/II	Phase I/II - SURF301 - Initial Results	By 12/31/2024
Vir Biotechnology, Inc.	1,023	VIR-2482	Influenza (excluding vaccines)	I/II	Phase Ib - Prophylaxis - Top-Line Results	By 12/31/2024
Vir Biotechnology, Inc.	1,023	VIR-1388	HIV Prevention	I	Phase I First-in-Human - Top-Line Results	By 12/31/2024
Praxis Precision Medicines, Inc.	1,022	PRAX-944	Parkinson's Disease (PD)	II	Phase II - Topline Results	By 12/31/2024
AnaptysBio, Inc.	1,012	ANB032	Atopic Dermatitis (Eczema)	II	Phase IIb - Top-line Interim Data	10/01/2024 - 12/31/2024
Cullinan Therapeutics, Inc.	971	HBM7008	Solid Tumors	I	Phase I - Top-Line Results	By 12/31/2024
Sana Biotechnology, Inc.	925	SC291	Autoimmune Disorders	I	Phase I - Preliminary Clinical Data	By 12/31/2024
Sana Biotechnology, Inc.	925	SC-262	Non-Hodgkin's Lymphoma (NHL)	I	Phase I First-in-Human - Top-Line Results	By 12/31/2024
Philogen S.p.A.	890	Fibromun	Soft Tissue Sarcoma - General	IIb	Phase II - FLASH (Europe) - Top-line Results	By 12/31/2024
Erasca, Inc.	771	ERAS-007	Hematologic Cancer	I/II	Phase I/II HERKULES-4 - Top-Line Results	By 12/31/2024
Erasca, Inc.	771	LXH254	Solid Tumors	I	Phase Ib SEACRAFT-1 - Top-Line Results	10/01/2024 - 12/31/2024
Rapport Therapeutics Inc.	749	RAP-219	Partial / Focal Seizures (Epilepsy)	II	Phase I MAD Results	By 12/31/2024
Arbutus Biopharma Corporation	727	AB-729	Hepatitis B (HBV) Treatment (Antiviral)	II	Phase IIa - POC - SAVE-1 - Top-Line Results	By 12/31/2024
Abivax S.A.	717	Obefazimod	Ulcerative Colitis (UC)	III	Phase II - Follow Up Study - Top-Line Results	By 12/31/2024
Terns Pharmaceuticals, Inc.	704	TERN-701	Chronic Myelogenous Leukemia (CML)	I	Phase I - Initial Interim Data (Dose Escalation Cohorts)	By 12/31/2024
Terns Pharmaceuticals, Inc.	704	TERN-601	Obesity	I	Phase I - Topline Results	By 12/31/2024
Pliant Therapeutics, Inc.	682	PLN-101095	Solid Tumors	I	Phase I - Top-Line Results	By 12/31/2024
Scholar Rock, LLC	641	Apitegromab	Spinal Muscular Atrophy	III	Phase III SAPPHIRE - Top-Line Results	10/01/2024 - 12/31/2024
Arcturus Therapeutics Ltd.	628	ARCT-810	Ornithine Transcarbamylase (OTC) Deficiency	II	Phase II - Safety & Biomarker Data	By 12/31/2024
Mineralys Therapeutics, Inc.	602	Lorundrostat	Hypertension (Systemic)	II/III	Phase II ADVANCE HTN - Top-Line Results	By 12/31/2024
Y-mAbs Therapeutics Inc.	586	Danyelza	Osteosarcoma	I/II	Phase II 15-096 - Topline Results	By 12/31/2024
Y-mAbs Therapeutics Inc.	586	GD2-SADA	Solid Tumors	I	Phase I SAD/MAD - Top-line Results at the Medical Meeting	10/01/2024 - 12/31/2024
4D Molecular Therapeutics Inc.	562	4D-150	Diabetic Macular Edema (Ophthalmology)	II	Phase II SPECTRA - Top-Line Results	10/01/2024 - 12/31/2024
Celcuity, Inc.	552	Gedatolisib	HR+/HER2- Breast Cancer	III	Phase III VIKTORIA-1 - Top-Line Results	By 12/31/2024
PYC Therapeutics Limited	550	VP-001	Retinitis Pigmentosa (RP) (Ophthalmology)	I	Phase I Wallaby - Top-Line Results	10/01/2024 - 12/31/2024
Neurogene Inc.	545	NGN-101	Neuronal Ceroid Lipofuscinosis (NCL)	I/II	Phase I/II - Preliminary Data	By 12/31/2024
Neurogene Inc.	545	NGN-401	Rett Syndrome	I/II	Phase I/II - Preliminary Data (Cohort 1)	10/01/2024 - 12/31/2024
Oculus S.A.	512	OCS-01	Ocular Pain and/or Inflammation (Ophthalmology)	III	Phase III OPTIMIZE-2 - Top Line Results	By 12/31/2024
Oculus S.A.	512	OCS-01	Cystoid Macular Edema (CME) (Ophthalmology)	II	Phase II LEOPARD - Top-Line Results	By 12/31/2024
Oculus S.A.	512	OCS-05	Optic Neuritis (Ophthalmology)	II	Phase II - ACUITY - Top-Line Results	10/01/2024 - 12/31/2024
Acelyrin, Inc.	492	ABY-035	Uveitis (Ophthalmology)	II/III	Phase IIb/III - Top-Line Results	By 12/31/2024
PureTech Health plc	471	LYT-100	Idiopathic Pulmonary Fibrosis (IPF)	II	Phase IIb - Top-Line Results	10/01/2024 - 12/31/2024
Alector Inc.	454	AL-002	Alzheimer's Disease (AD)	II	Phase II INVOKE-2 - Topline Results	10/01/2024 - 12/31/2024
Tectonic Therapeutic	446	TX45	Chronic Heart Failure - Preserved Ejection Fraction (Chronic HFpEF)	I	Phase Ia Study - Top-Line Results	11/01/2024 - 12/31/2024
Sage Therapeutics, Inc.	441	Dalzanemdor	Huntington's Disease	III	Phase II DIMENSION - Top-Line Results	By 12/31/2024
Sage Therapeutics, Inc.	441	Dalzanemdor	Alzheimer's Disease (AD)	II	Phase II LIGHTWAVE - Top-Line Results	By 12/31/2024
Larimar Therapeutics, Inc.	418	CTI-1601	Friedreich's Ataxia	II	Phase II Open Label Extension - Top Line Results	10/01/2024 - 12/31/2024
AC Immune SA	374	ACI-24	Down Syndrome	I	Phase Ib/II - ABATE (UK) - Interim Data	By 12/31/2024
iTeos Therapeutics Inc.	373	Belrestotug	Non-Small Cell Lung Cancer (NSCLC)	III	Phase II GALAXIES Lung-201 - Top-Line Results	By 12/31/2024
iTeos Therapeutics Inc.	373	Inupadenant	Non-Small Cell Lung Cancer (NSCLC)	II	Phase II - A2A-005 - Top-Line Results	By 12/31/2024
iTeos Therapeutics Inc.	373	Belrestotug	Head and Neck Cancer	I/II	Phase I/II - TIG-006 - Top-Line Results	By 12/31/2024
iTeos Therapeutics Inc.	373	EOS-984	Solid Tumors	I	Phase I - Top-Line Results	By 12/31/2024
Lyell Immunopharma Inc.	353	LYL845	Melanoma	I	Phase I LYL845-101 - Top-Line Results	By 12/31/2024

Note(s): \$ in mm. Catalyst dates based on Citeline analysts' data, as of 09/30/24.

Source: Citeline, Company press releases, Company websites and filings, as of 09/30/24.

Upcoming Key Catalysts (Coming Quarter)

(N=292) (Cont'd)

Product				Data		
Company	Mkt Cap	Drug	Indication	Phase	Event	Timing
Lyell Immunopharma Inc.	\$353	LYL845	Solid Tumors	I	Phase I - Topline Results	By 12/31/2024
Corvus Pharmaceuticals, Inc.	330	Soquelitinib	Atopic Dermatitis (Eczema)	I	Phase I - Top line Results	By 12/31/2024
Inozyme Pharma Inc.	328	INZ-701	Metabolic - General	III	Phase Ib ENERGY-1 - Interim Results	By 12/31/2024
Genfit SA	302	VS-01	Liver Failure / Cirrhosis	I	Phase II UNVEIL-IT - Data	By 12/31/2024
Lexeo Therapeutics	299	LX2020	Cardiovascular Disease	I	Phase I/II HEROIC-PKP2 - Top-Line Results (Cohort 1)	By 12/31/2024
Ocugen Inc.	286	OCU410ST	Stargardt Disease (Ophthalmology)	I/II	Phase I/II Top Line Results - (Phase I Part)	By 12/31/2024
Ocugen Inc.	286	OCU410	Dry Age-Related Macular Degeneration (Dry AMD)/Geographic Atrophy (Ophthalmology)	I/II	Phase I/II - ArMaDa - Top line Results	By 12/31/2024
Rigel Pharmaceuticals, Inc.	285	R835	Autoimmune Disorders	I	Phase Ib - Top Line Results	10/01/2024 - 12/31/2024
Jasper Therapeutics, Inc.	284	Briquilimab	Urticaria	I/II	Phase Ib/IIa BEACON (Chronic Spontaneous Urticaria) - Preliminary Results	10/01/2024 - 12/31/2024
Jasper Therapeutics, Inc.	284	Briquilimab	Myelodysplastic Syndrome (MDS)	I/II	Phase I Dose Escalation (U.S.) - Top-Line Results	By 12/31/2024
PepGen Inc.	279	PGN-EDODM1	Myotonic Muscular Dystrophy	I	Phase I FREEDOM-DM1 - Top-Line Results	By 12/31/2024
PepGen Inc.	279	PGN-EDO51	Duchenne Muscular Dystrophy (DMD)	II	Phase II CONNECT1-EDO51 - Top-line Results	By 12/31/2024
Poseida Therapeutics, Inc.	278	P-CD19CD20-ALLO1	Hematologic Cancer	I	Phase I - Top-Line Results	By 12/31/2024
Solid Biosciences Inc.	269	SGT-003	Duchenne Muscular Dystrophy (DMD)	I/II	Phase I/II SGT-003-101 - Top-line Results	10/01/2024 - 12/31/2024
TScan Therapeutics	264	TSC-203	Solid Tumors	I	Phase I - Top-Line Results	By 12/31/2024
TScan Therapeutics	264	TSC-200	Solid Tumors	I	Phase I w/TSC-204 - Top-Line Results	By 12/31/2024
Zentalis Pharmaceuticals	262	ZN-c3	Solid Tumors	II	Phase I/II - Preliminary Data	By 12/31/2024
Zentalis Pharmaceuticals	262	ZN-c3	Ovarian Cancer	I/II	Phase II DENALI - Top-Line Results	By 12/31/2024
Zentalis Pharmaceuticals	262	ZN-d5	Acute Myelogenous Leukemia (AML)	I/II	Phase I/II - Preliminary Data	By 12/31/2024
Zentalis Pharmaceuticals	262	ZN-c3	Colorectal Cancer (CRC)	I/II	Phase I/II w/ Encorafenb/Cetuximb - Top-Line Results	By 12/31/2024
Compass Therapeutics Inc.	253	CTX-009	Biliary Tract Cancer	II/III	Phase II/III COMPANION-002 - Top-Line Results	By 12/31/2024
Compass Therapeutics Inc.	253	CTX-009	Colorectal Cancer (CRC)	II	Phase II COMPANION-003 - Top-Line Results	By 12/31/2024
Adaptimmune Therapeutics plc	243	ADP-A2M4CD8	Ovarian Cancer	II	Phase II SURPASS-3 - Top-Line Results	By 12/31/2024
Trevi Therapeutics, Inc.	242	Haduvio	Chronic Cough	II	Human Abuse Potential Study - Top-Line Results	By 12/31/2024
Nektar Therapeutics	239	NKTR-255	Bladder Cancer	II	Phase II JAVELIN Bladder Medley - Updated Results	By 12/31/2024
Sedana Medical AB	235	SEDACONDA (ISOFLURANE)	Anesthesia	III	Phase III INSPIRE-ICU2 - Top-Line Results	By 12/31/2024
Mersana Therapeutics, Inc.	232	XMT-1660	Solid Tumors	I	Phase Ib - Top-Line Results	By 12/31/2024
Cabaletta Bio, Inc.	231	CABA-201	Myasthenia Gravis (MG)	I/II	Phase I/II RESET-MG - Topline Results	By 12/31/2024
Cabaletta Bio, Inc.	231	CABA-201	Systemic Sclerosis	I/II	Phase I/II RESET-SSc - Topline Results	By 12/31/2024
Cabaletta Bio, Inc.	231	MuSK-CAART	Myasthenia Gravis (MG)	I	Phase I - Top-Line Results (6-month Data Combination Cohort)	By 12/31/2024
Candel Therapeutics, Inc.	222	CAN-2409	Prostate Cancer	III	Phase II ULYSSES - Read Out	10/01/2024 - 12/31/2024
Enanta Pharmaceuticals, Inc.	220	EDP-323	Respiratory Syncytial Virus (RSV) Treatment	II	Phase IIa Human Challenge Study - Top-Line Results	By 12/31/2024
Pyxis Oncology	218	PYX-106	Solid Tumors	I	Phase I - Dose Escalation - Top-Line Results	By 12/31/2024
Pyxis Oncology	218	PYX-201	Solid Tumors	I	Phase I Dose Escalation - Top-Line Results	By 12/31/2024
Atossa Therapeutics, Inc.	191	(Z)-Endoxifen	HR+/HER2- Breast Cancer	II	Phase II Karisma Endoxifen Study - Top-Line Results	By 12/31/2024
Caribou Biosciences, Inc.	177	CB-011	Multiple Myeloma (MM)	I	Phase I - CaMMouflage - Top-Line Results	By 12/31/2024
Galectin Therapeutics Inc.	171	Belapectin	Esophageal Varices	II/III	Phase IIb/III - NAVIGATE - Top-Line Results	10/01/2024 - 12/31/2024
Tenaya Therapeutics, Inc.	152	TN-201	Cardiomyopathy - Hypertrophic	I	Phase Ib - Initial Data	By 12/31/2024
Outlook Therapeutics, Inc.	126	Lytenava	Wet Age-Related Macular Degeneration (Wet AMD) (Ophthalmology)	III	Phase III NORSE 8 - Topline Results	10/01/2024 - 12/31/2024
Prelude Therapeutics Incorporated	114	PRT2527	Hematologic Cancer	I	Phase I - Top-Line Results	10/01/2024 - 12/31/2024
Prelude Therapeutics Incorporated	114	PRT1419	Hematologic Cancer	I	Phase I - Top-line Results	By 12/31/2024
Prelude Therapeutics Incorporated	114	PRT3789	Solid Tumors	I	Phase I - Top-Line Results	By 12/31/2024
Omeros Corporation	230	OMS906	Paroxysmal Nocturnal Hemoglobinuria (PNH)	I	Phase Ib PNH - Preliminary Data	By 01/31/2025
Eli Lilly and Company	797,723	PR006	Frontotemporal Dementia (FTD)	I/II	Phase I/II PROCLAIM - Top-Line Results	By 02/28/2025
Eli Lilly and Company	797,723	PNT-6555	Solid Tumors	I	Phase I FRONTIER - Top-Line Results	By 02/28/2025
Vertex Pharmaceuticals Incorporated	120,038	ALPN-303	Autoimmune Disorders	I	Phase Ib RUBY-4 - Top-Line Results	12/01/2024 - 02/28/2025

Note(s): \$ in mm. Catalyst dates based on Citeline analysts' data, as of 09/30/24.

Source: Citeline, Company press releases, Company websites and filings, as of 09/30/24.

Upcoming Key Catalysts (Coming Quarter)

(N=292) (Cont'd)

Company	Product			Data		
	Mkt Cap	Drug	Indication	Phase	Event	Timing
Viartis Inc.	\$13,857	Tyrvaya	Neutrotrophic Keratopathy	II	Phase II - OLYMPIA - Topline Results	By 02/28/2025
Merck & Co., Inc.	287,853	MK-8189	Schizophrenia	II	Phase II MK-8189-008 - Top-Line Results	By 03/31/2025
Vaxcyte, Inc.	14,135	VAX-24	Pneumococcal (Streptococcus pneumoniae) Vaccines (Antibacterial)	II	Phase II Pediatric - Top-Line Data (Primary Three-dose Immunization Series)	By 03/31/2025
Immunovant, Inc.	4,173	Batoclimab	Myasthenia Gravis (MG)	III	Phase III SAD - Top-Line Results	By 03/31/2025
Immunovant, Inc.	4,173	Batoclimab	Chronic Inflammatory Demyelinating Polyneuropathy (CIDP)	II	Phase II - Initial Results	By 03/31/2025
Mineralys Therapeutics, Inc.	602	Lorundrostat	Chronic Kidney Disease (CKD)	II	Phase II w/SGLT2 - Top-Line Results	10/01/2024 - 03/31/2025
Vertex Pharmaceuticals Incorporated	120,038	VX-147	Focal Segmental Glomerulosclerosis (FSGS)	II/III	Phase IIb/III - Topline Results	By 04/30/2025
Gilead Sciences, Inc.	104,380	GS-6212	HIV / AIDS Treatment	I	Phase I - Topline Results	By 04/30/2025
Prothena Corporation plc	900	Birtamimab	Amyloid light-chain (AL) Amyloidosis	III	Phase III AFFIRM-AL - Top-Line Results	10/01/2024 - 06/30/2025
Merck & Co., Inc.	287,853	Reblozyl	Myelofibrosis (MF)	III	Phase III - INDEPENDENCE - Top-Line Results	By 12/31/2025
Regeneron Pharmaceuticals, Inc.	113,465	bbT369	Non-Hodgkin's Lymphoma (NHL)	I/II	Phase I/II - Top-Line Results	By 12/31/2025
Regeneron Pharmaceuticals, Inc.	113,465	REGN-4336	Prostate Cancer	I/II	Phase I/II w/ Cemiplimab - Top-Line Results	By 12/31/2025
Bayer AG	33,228	Kerendia	Chronic Kidney Disease (CKD)	III	Phase III - FIND-CKD - Topline Results	By 12/31/2025
Recursion Pharmaceuticals, Inc.	1,852	REC-2282	Neurofibromatosis (NF)	II/III	Phase II/III POPLAR - Phase II Preliminary Data	By 12/31/2025
Schrodinger, Inc.	1,350	SGR-2921	Myelodysplastic Syndrome (MDS)	I	Phase I - Top-Line Results	By 12/31/2025
Valneva SE	481	VLA-15	Antibacterial and Antifungal - Miscellaneous Vaccines and Treatments	III	Phase III - Top-Line Results	By 12/31/2025

Note(s): \$ in mm. Catalyst dates based on Citeline analysts' data, as of 09/30/24.

Source: Citeline, Company press releases, Company websites and filings, as of 09/30/24.

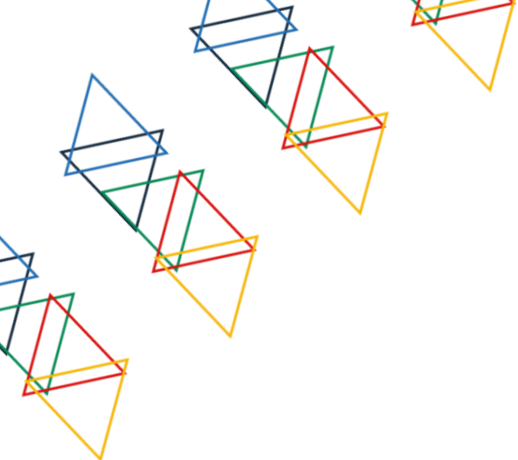
Schedule of Key Biotech Conferences

4Q 2024 – 1Q 2025

October							November							December						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
		1	2	3	4	5						1	2	1	2	3	4	5	6	7
6	7	8	9	10	11	12	3	4	5	6	7	8	9	8	9	10	11	12	13	14
13	14	15	16	17	18	19	10	11	12	13	14	15	16	15	16	17	18	19	20	21
20	21	22	23	24	25	26	17	18	19	20	21	22	23	22	23	24	25	26	27	28
27	28	29	30	31			24	25	26	27	28	29	30	29	30	31				
January							February							March						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2	3	4							1							1
5	6	7	8	9	10	11	2	3	4	5	6	7	8	2	3	4	5	6	7	8
12	13	14	15	16	17	18	9	10	11	12	13	14	15	9	10	11	12	13	14	15
19	20	21	22	23	24	25	16	17	18	19	20	21	22	16	17	18	19	20	21	22
26	27	28	29	30	31		23	24	25	26	27	28		23	24	25	26	27	28	29
														30	31					

Key Conferences

- Oct 1: Agri-Tech Innovation Summit (London, UK)
- Oct 8-9: LSX Nordic Conference (Copenhagen, Denmark)
- Oct 9-10: BiotechX Europe (Basel Switzerland)
- Oct 15-17: Festival of Biologics (Basel, Switzerland)
- Oct 18-21: AAO (Chicago, IL)
- Oct 29: AusBioInvest (Melbourne, Australia)
- Oct 29-30: BioFuture (New York, NY)
- Nov 3-6: ObesityWeek (Austin, TX)
- Nov 16-18: AHA (Chicago, IL)
- Nov 19-21: Jefferies Healthcare Conference (London, UK)
- Dec 7-10: ASH (San Diego, CA)
- Dec 10-14: SABCS (San Antonio, TX)
- Jan 13-16: JPM Healthcare Conference (San Francisco, CA)
- Feb 10-11: BIO CEO & Investor Conference (New York, NY)
- Feb 27 – Mar 2: ICBCB (Seoul, South Korea)
- Mar 2-5: ECFG17 (Dublin, Ireland)
- Mar 17-19: BIO-Europe (Milan, Italy)
- Mar 18-20: Bioprocessing Summit (Barcelona, Spain)



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