

March 2024

LIFE SCIENCES 2024 OUTLOOK

GIBSON DUNN

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Today's Panelists



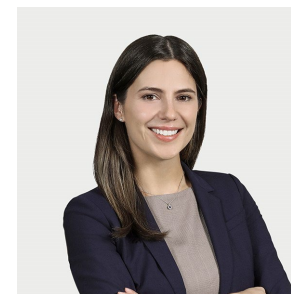
Branden Berns

[Branden Berns](#) is a partner in the San Francisco office of Gibson, Dunn & Crutcher, where he practices in the firm's Corporate Transactions Practice Group, focusing on representing leading life sciences companies and investors. Branden advises clients in connection with a variety of financing transactions, including initial public offerings, secondary equity offerings and venture and growth equity financings, as well as complex corporate transactions, including mergers and acquisitions, asset sales, spin-offs, joint ventures, PIPEs and leveraged buyouts. Mr. Berns regularly serves as principal outside counsel for publicly-traded companies and advises management and boards of directors on corporate law matters.



Todd Trattner

[Todd Trattner](#), Ph.D. is Of Counsel in the San Francisco office of Gibson, Dunn & Crutcher, where he is a member of the firm's Corporate Department with a practice focused on intellectual property transactions in the life sciences and technology industries. Todd represents public and private companies, investors, and academic institutions in the biotechnology, pharmaceutical, technology, medical device, and diagnostics industries in connection with licensing transactions, royalty financings, technology transactions, and mergers and acquisitions.



Melanie Neary

[Melanie Neary](#) is a senior associate in the San Francisco office of Gibson, Dunn & Crutcher, where she practices in the firm's Corporate Transactions Practice Group, with a practice focused on advising clients in connection with a variety of financing transactions, including initial public offerings, secondary equity offerings and venture and growth equity financings as well as complex corporate transactions, including mergers and acquisitions. Melanie also regularly advises clients on corporate law matters, Securities and Exchange Commission reporting requirements and ownership filings and corporate governance.



Yasha Dyatlovitsky

[Yasha Dyatlovitsky](#) is a Managing Director in TD Cowen's Private Capital Solutions Group focused exclusively on healthcare. Mr. Dyatlovitsky has over 20 years of experience in leveraged finance and structured credit products. Since 2020, he has helped companies raise over \$7B in financing across debt, royalty, and preferred equity transactions. Mr. Dyatlovitsky joined TD Cowen in 2018 from Stifel, where he served as a Director in its Debt Capital Markets group. Mr. Dyatlovitsky started his career in the securitization group at Lehman Brothers, where he traded and securitized adjustable rate mortgage products.

Agenda

01 Capital Markets

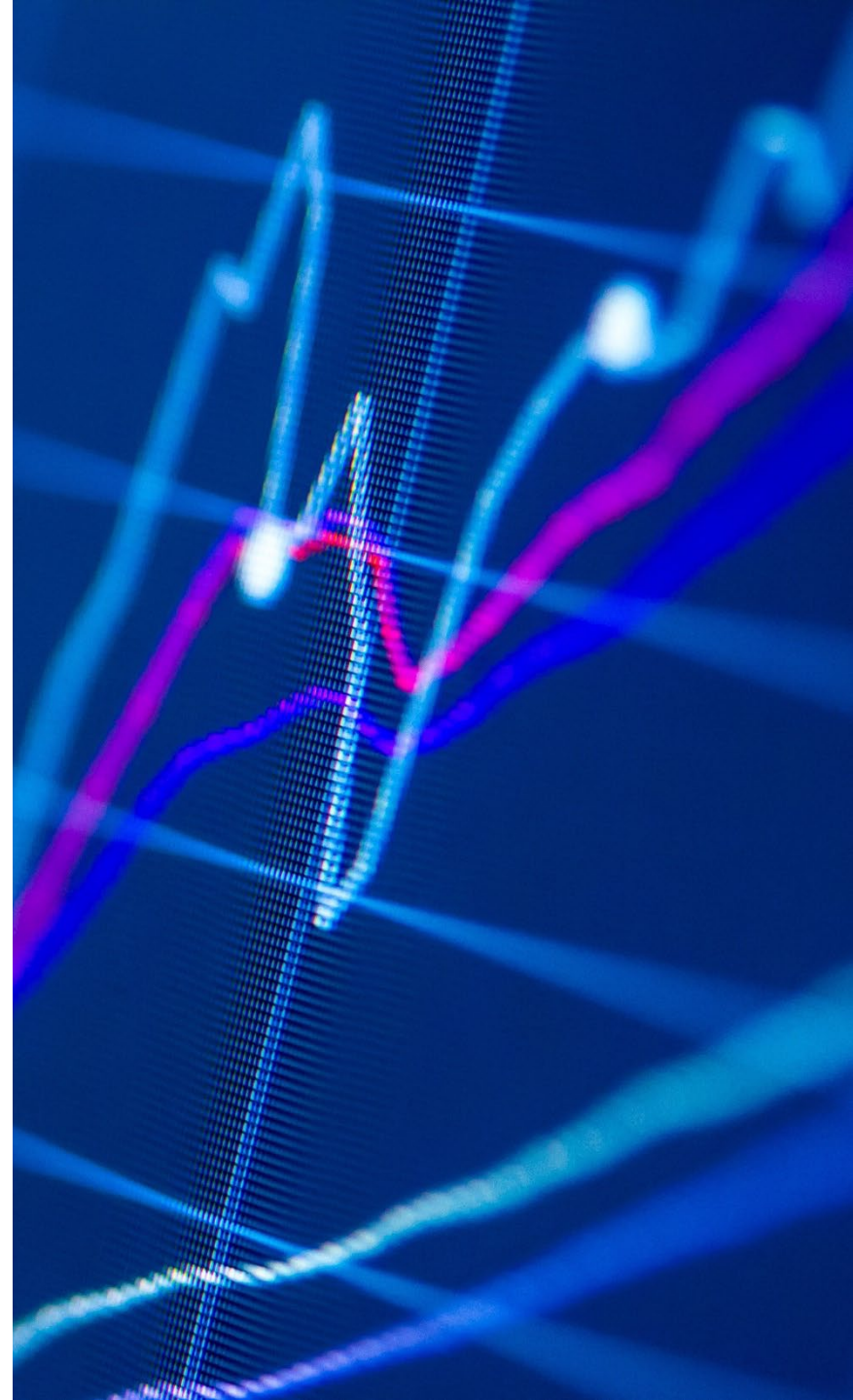
02 Mergers & Acquisitions

03 Royalty Financings

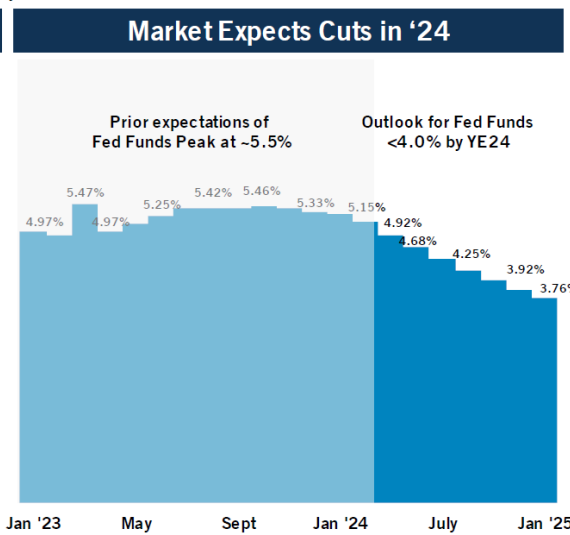
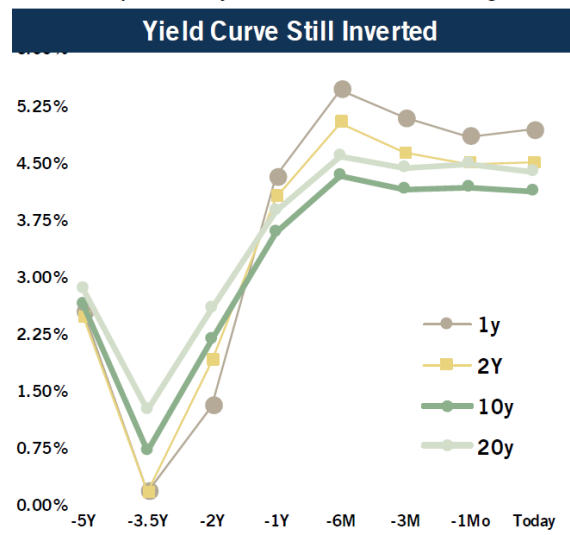
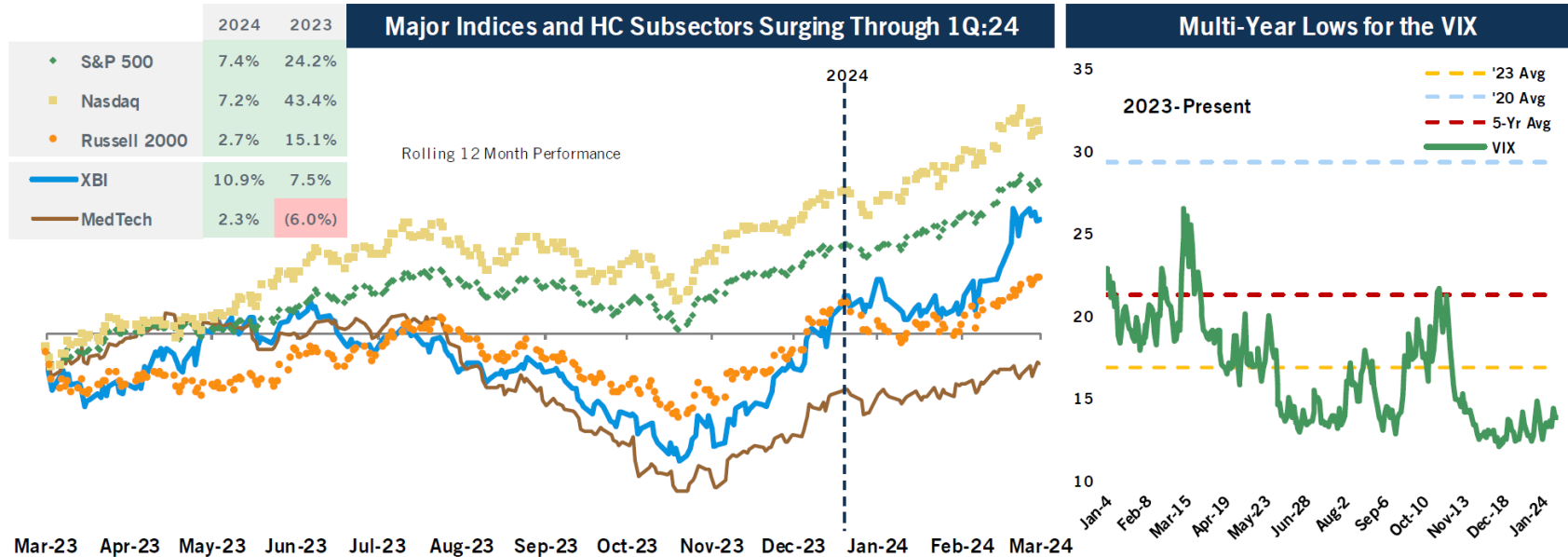
04 Clinical Funding Agreements

Capital Markets

- 1) Market Overview
- 2) IPO Issuances and Post-IPO Transactions
- 3) Biotech Follow-on Issuances



U.S. Market Overview

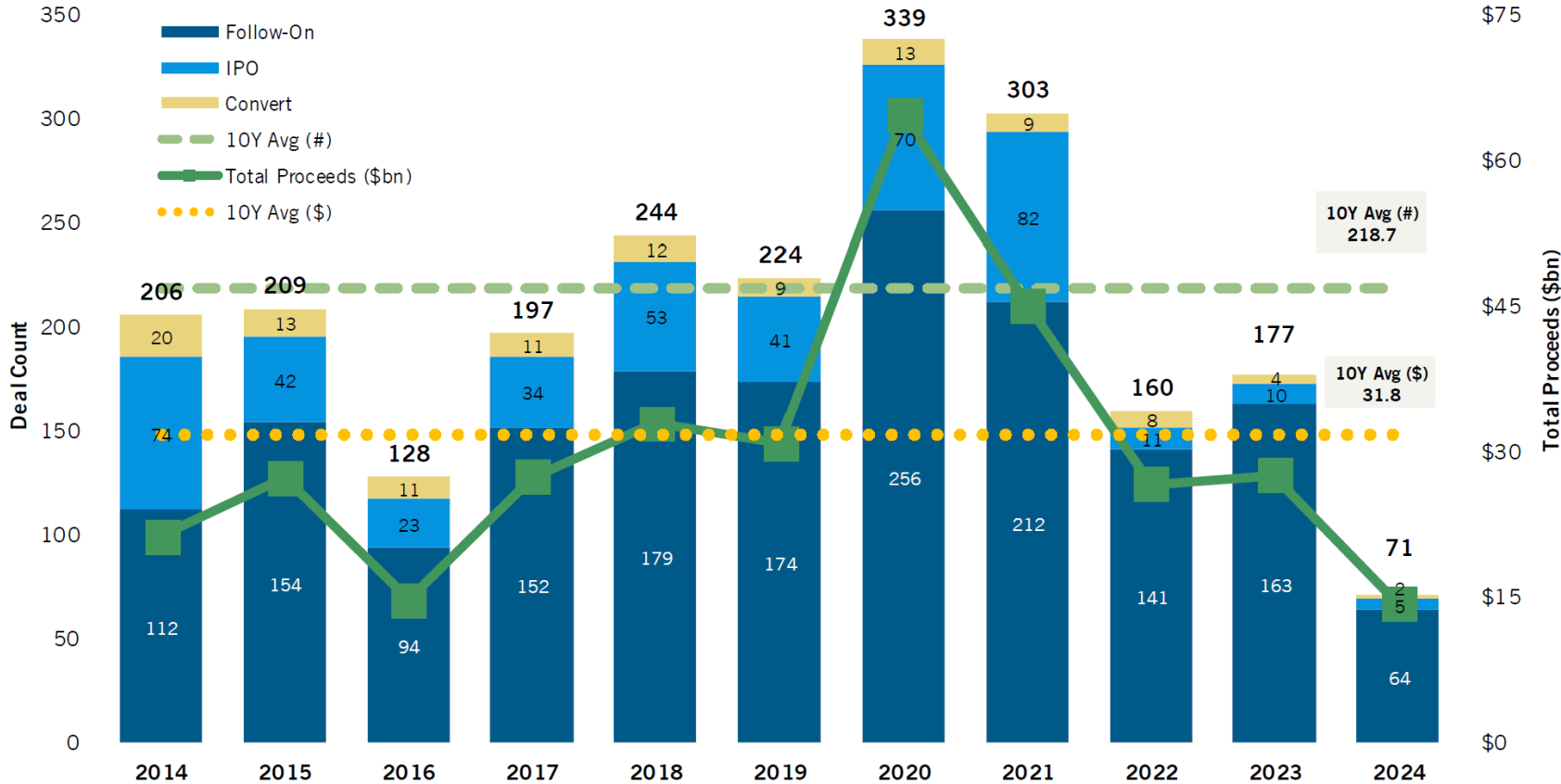


Equity Market Themes

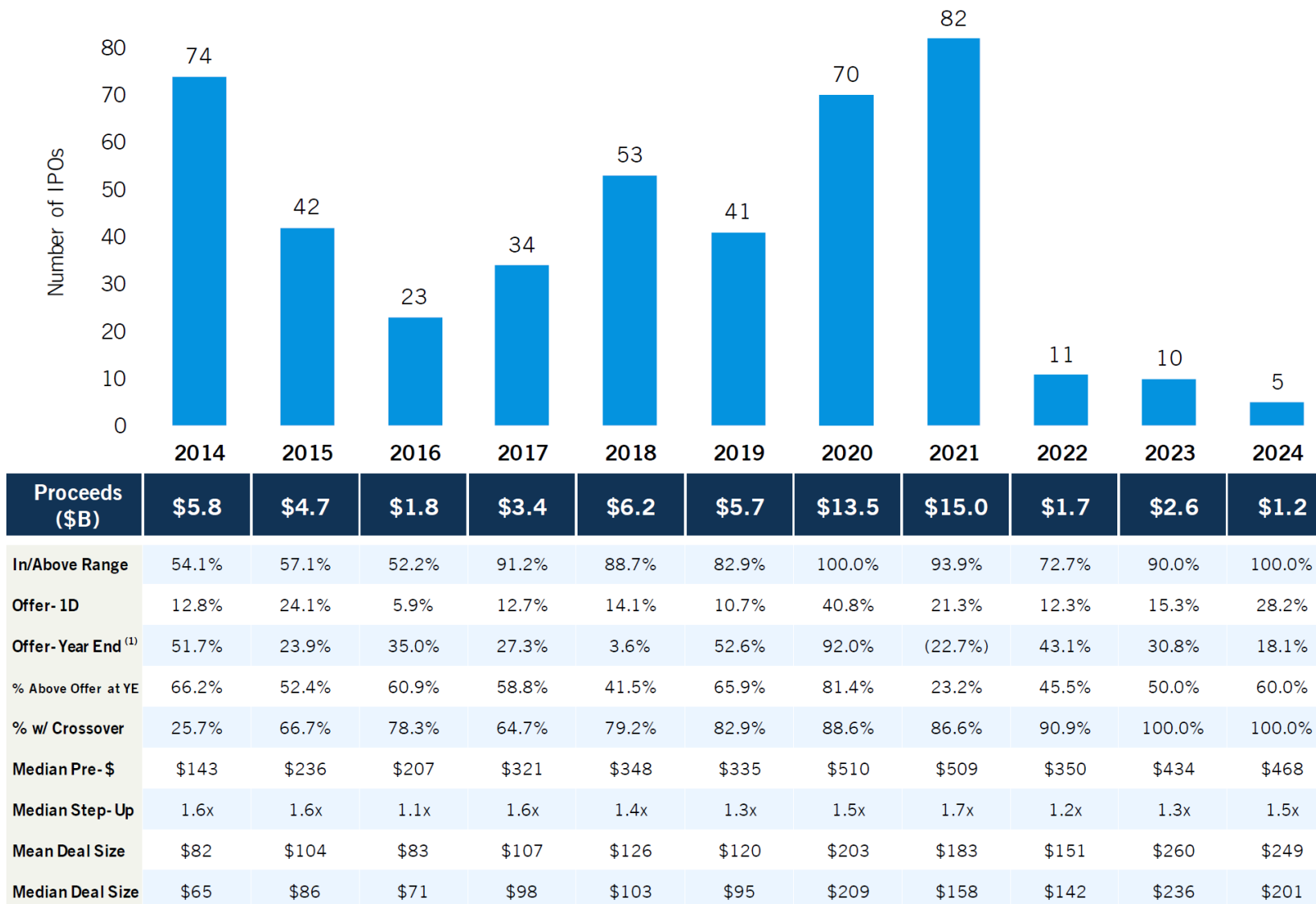
- Magnificent 7 Driving the Rally
- Soft Landing?
- FED Put Back on the Table
- 2024 Election
- Artificial Intelligence
- FTC versus M&A
- IPO Activity Picks Up

Biotech New Issue Market Over the Last 10 Years

- Still well below '20-'21's record levels, biotech new issuance activity climbed back towards its longer-term average in 2023
- 2023's IPO market stalled, matching 2022's limited activity level
- Optimism abounds however: ~3 months into the year, deal activity is at this highest level since 2021

















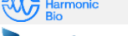







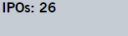
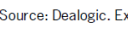


U.S. Biotech IPO Issuances Since 2014



Source: Dealogic. Excludes deals less than \$30mm and previously listed companies.
 (1): Reflects offer-to-current for 2024 IPOs.

Summary of Biotech IPOs Since 2022

Issuer	Pricing Date	Lead Program Overview			IPO Summary								Crossover Summary		
		Indication	Stage	Initial Range	Offer Price	Pricing vs. Range	Deal Value (\$m)	Market Cap (\$m) Pre	Market Cap (\$m) Post	1 Day	Aftermarket 1 Month	Current	Date	Deal Value (\$m)	Offer Price Step-Up
 Metagenomi	2/8/24	Gene Editing	Preclinical	\$15 - 17	\$15.00	In Range	94.0	468.0	562.0	(31.3%)	(21.5%)	(21.5%)	1/5/23	100.0	0.6x
 kyverna	2/7/24	Autoimmune Diseases	P2	\$20 - \$21	\$22.00	Above	367.0	652.3	1,019.1	36.4%	30.8%	30.3%	7/31/23	150.0	2.6x
 ALTO	2/1/24	Major Depressive Disorder	P2	\$14 - 16	\$16.00	In Range	148.0	321.5	469.4	29.4%	(7.0%)	(14.0%)	11/21/23	45.0	1.6x
 ARRIVENT	1/25/24	Solid Tumors	P3	\$17 - 19	\$18.00	In Range	201.0	435.1	636.4	11.1%	7.3%	8.9%	3/27/23	155.0	1.1x
 CCG Oncology	1/24/24	Bladder Cancer (NMIBC)	P3	\$16 - 18	\$19.00	Above	437.0	911.7	1,348.7	95.6%	129.5%	86.9%	8/2/23	105.0	1.5x
 CARGO Therapeutics	11/9/23	B-cell lymphoma	P2	\$15 - 17	\$15.00	In Range	319.0	327.0	646.0	(3.1%)	7.0%	104.8%	3/1/23	200.0	1.0x
 LEXEO Therapeutics	11/2/23	Genetic Medicine (Friedreich's ataxia)	P1/2	\$13 - 15	\$11.00	Below	112.0	182.6	282.6	(8.6%)	39.6%	37.6%	9/9/21	100.0	0.6x
 RayzeBio	9/14/23	Solid Tumors (GEP-NETs)	P3	\$16 - 18	\$18.00	In Range	358.0	821.5	1,158.2	33.3%	19.2%	247.2%	9/14/22	160.0	1.4x
 Neumora	9/14/23	Major Depressive Disorder	P3	\$16 - 18	\$17.00	In Range	250.0	2,508.2	2,758.3	(4.4%)	(41.7%)	5.9%	10/11/22	112.0	1.4x
 TURNSTONE BIOLOGICS	7/21/23	Solid Tumors	P1	\$12 - 14	\$12.00	In Range	88.0	194.1	281.9	(8.3%)	(26.2%)	(73.7%)	6/21/21	80.0	0.5x
 APOGEE Therapeutics	7/13/23	Inflammatory / Immunology (Atopic Dermatitis)	Preclinical	\$15 - 17	\$17.00	In Range	345.0	511.9	856.9	24.9%	27.5%	297.3%	12/7/22	149.0	2.0x
 SAGIMET BIOLOGICALS	7/13/23	NASH	P2	\$15 - 17	\$16.00	In Range	96.0	300.2	396.6	(0.3%)	0.0%	(64.1%)	2/11/21	80.0	1.5x
 ACELYRIN	5/4/23	Immunology	Ph2b/3	\$16 - 18	\$18.00	In Range	621.0	1,230.0	1,851.0	30.6%	(2.8%)	(58.4%)	9/13/22	300.0	1.5x
 MINERALYS	2/9/23	Uncontrolled Hypertension	Ph2	\$14 - 16	\$16.00	In Range	221.0	452.8	673.6	15.3%	5.4%	(11.9%)	6/8/22	118.0	1.7x
 STRUCTURE Therapeutics	2/2/23	T2DM / Obesity	P1b/2a	\$13 - 15	\$15.00	In Range	185.0	414.3	599.6	73.3%	52.2%	145.7%	8/1/22	133.0	1.2x
 Acrivon Therapeutics	11/14/22	Platinum-Resistant Ovarian Cancer	P2	\$16 - 18	\$12.50	Below	112.3	182.8	295.1	33.1%	0.1%	(60.4%)	11/11/21	100.0	0.9x
 prime medicine	10/19/22	Sickle Cell Disease	Preclinical	\$16 - 18	\$17.00	In Range	199.0	1,500.0	1,699.0	(9.6%)	14.1%	(52.5%)	7/13/21	200.0	1.2x
 Third Harmonic Bio	9/14/22	Allergic / Inflammatory diseases (Chronic Urticaria)	P1b	\$16 - 18	\$17.00	In Range	213.0	500.0	713.0	15.8%	0.4%	(41.4%)	2/16/22	105.0	1.0x
 PepGen	5/5/22	DMD / Neuromuscular Disorders	P1	\$13 - 15	\$12.00	Below	123.0	185.7	309.9	7.4%	(11.8%)	18.7%	8/5/21	112.5	0.8x
 Belite Bio	4/28/22	Retinal degeneration (dry AMD) / STGD1	P3	\$5.50 - 6.50	\$6.00	In Range	41.0	108.6	150.0	76.5%	142.2%	667.5%	---	---	---
 HILLEVAX	4/28/22	Vaccines / Acute Gastroenteritis (AGE)	P2	\$16 - 18	\$17.00	In Range	230.0	349.8	579.8	12.3%	(43.7%)	8.4%	9/8/21	135.0	1.3x
 AN2Therapeutics	3/24/22	Infectious Diseases / NTM Lung Disease	P2/3	\$14 - 16	\$15.00	In Range	79.0	226.9	306.3	2.7%	(2.9%)	(80.5%)	1/7/22	80.0	1.0x
 ARCELLX	2/3/22	R/R Multiple Myeloma	P1	\$15 - 17	\$15.00	In Range	142.0	434.8	577.1	12.0%	19.3%	382.3%	4/13/21	115.0	1.3x
 vigil NEURO	1/6/22	Axonal Spheroids and Pigmented Glia	P1	\$15 - 17	\$14.00	Below	98.0	327.0	425.0	(9.6%)	(2.4%)	(76.9%)	8/18/21	90.0	1.4x
 AMYLYX	1/6/22	ALS	NDA	\$18 - 20	\$19.00	In Range	216.0	955.8	1,171.8	(4.9%)	18.5%	(82.3%)	7/20/21	135.0	1.9x
 CINCOR	1/6/22	Hypertension / Primary Aldosteronism	P2	\$15 - 17	\$16.00	In Range	213.0	417.9	630.9	0.0%	27.3%	62.5%	10/12/21	143.0	1.2x
IPOs: 26	Average:						A/I: 211.9	573.9	784.5	16.5%	14.6%	56.4%		Average: 135.0	1.3x
	Median:						B: 200.0	426.4	615.2	11.6%	6.2%	7.1%		Median: 135.0	1.3x

Source: Dealogic. Excludes deals less than \$30mm. Excludes previously listed companies and Adlai Norbye Ltd.

Post-IPO Follow-on: Apogee Therapeutics

- \$483 million upsized offering; closed March 2024
- Follow-on on Form S-1 with two-day wall cross

Practice Point:

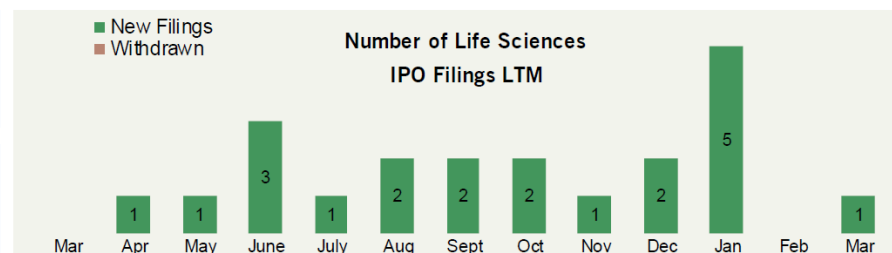
- Within one year of IPO, registered offering must be done using Form S-1
- Incorporation by reference not available until Form 10-K is filed
- Form 10-K must include Part III information in order for Form S-1 to go effective



Current Life Sciences IPO Backlog

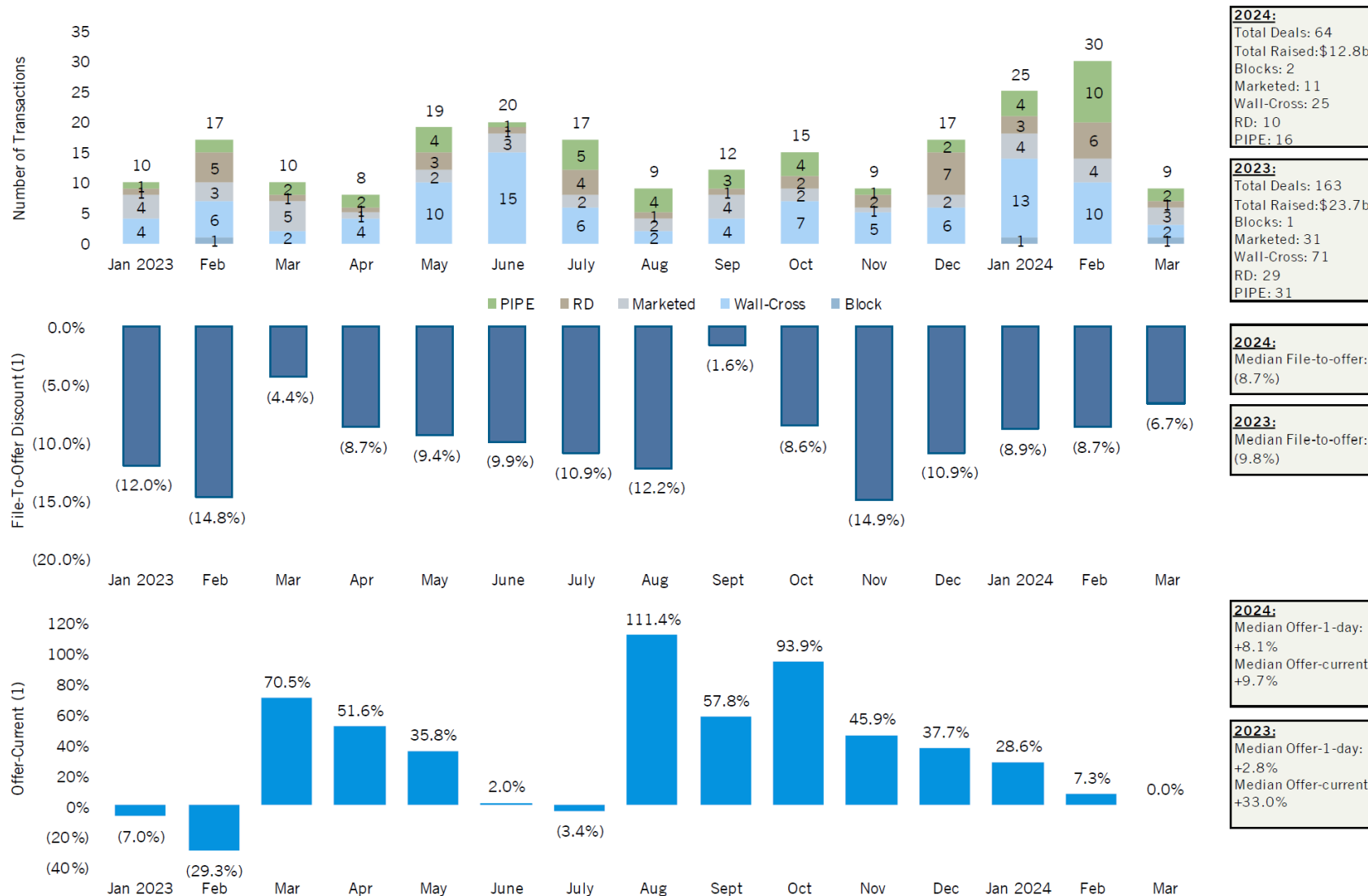
4 Life Sciences IPOs currently on file

2 past 15-day period; can launch any time



Filing Date	Earliest Launch	Expected Date	Issuer	Bookrunners	Filed Val. (\$m)	Filing Range	Mid-Pt Val. Pre / Post (\$m)	Mid-Pt Step-Up	Disclosed Investors	Indication / Focus	Next Milestone Event	Time to
Biotech												
12/18/23	-	3/12/24	NEONC	LCM	75	\$11.25 - \$13.75	\$207 - \$282	-	Eminent II Venture Capital, Orion BioScience, Lin Family Office	Intracranial malignancies	Ph2 Data Readout	2024
3/6/24	3/27/24	TBA	BOUNDLESS BIO	GS; LEER; PSC; GUGPAR	-	-	-	-	Leaps by Bayer, RA Capital Management, Sectoral Asset Management, Piper Heartland Healthcare Capital	Oncogene Amplified Cancers	Ph 1/2 Data	2024
10/20/23	Past 15 Days	TBA	Inveo therapeutics	BOAML; CITI; TRUIST	-	-	-	-	-	Atopic Dermatitis	IND Filing / Ph2b Initiation	2024
MedTech / Diagnostics & Tools												
5/22/23	Past 15 Days	TBA	ADVANCED BIOMED INC.	UNISEC	113	\$4 - \$5	\$450 - \$563	-	-	Tumor Screening	-	-

Since 2023 Biotech Follow-on Issuance



PIPE Transaction: Spyre Therapeutics

- \$180 million private placement; closed December 2023
- Offering of common stock and non-voting convertible preferred stock

Practice Point:

- Under Nasdaq rules, company may not issue more than 20% of TSO below the Minimum Price without stockholder approval
- Use of non-voting convertible preferred stock allows for offering of greater than 20%, with conversion subject to stockholder approval



Observations of Recent Biotech Follow-ons

Pricing Date	Issuer	Marketing Period	Deal Value (\$m)	Market Cap	% of Mkt Cap	File-to Offer	Discount to Last	Offer-to 1 Day	Offer-to 1 Week	Offer-to Current	Reason For Raise
03/07/24	Apogee Therapeutics Inc	2-Day	\$483	\$3,305	14.6%	4.6%	(5.0%)	8.9%	---	8.9%	Catalyst
03/07/24	Mind Medicine (MindMed) Inc	URD	\$100	\$246	40.7%	1.0%	1.0%	50.0%	---	61.7%	Catalyst
03/07/24	Ventyx Biosciences, Inc.	PIPE	\$100	\$507	19.7%	0.0%	0.0%	13.2%	---	10.8%	Catalyst
03/06/24	Regenxbio Inc	Wall-Cross	\$140	\$1,066	13.1%	(4.2%)	(4.2%)	1.0%	---	(1.1%)	Catalyst
03/05/24	BridgeBio Pharma Inc	1-Day	\$287	\$5,205	5.5%	(10.4%)	(2.0%)	1.6%	---	(0.1%)	Catalyst
03/05/24	Akero Therapeutics Inc	1-Day	\$367	\$1,718	21.4%	(6.7%)	(5.0%)	3.5%	---	7.5%	Catalyst
03/04/24	Perspective Therapeutics, Inc.	PIPE	\$87	\$478	18.3%	0.0%	0.0%	11.6%	---	25.3%	Opportunistic
03/04/24	Revance Therapeutics Inc	Block	\$100	\$616	16.2%	(10.5%)	(10.5%)	(2.9%)	---	(3.8%)	Opportunistic
03/01/24	Precision BioSciences Inc	Wall-Cross	\$40	\$75	53.2%	(13.5%)	(13.5%)	(20.5%)	(21.4%)	(24.9%)	Catalyst
02/29/24	Tarsus Pharmaceuticals Inc	Wall-Cross	\$115	\$1,308	8.8%	(16.3%)	(16.3%)	15.5%	10.9%	4.2%	Catalyst
02/29/24	CellDex Therapeutics Inc	1-Day	\$461	\$2,687	17.2%	(8.5%)	(2.2%)	10.4%	(0.1%)	1.9%	Catalyst
02/29/24	Humacyte Inc	Wall-Cross	\$40	\$450	8.9%	(31.0%)	(31.0%)	8.0%	9.0%	12.3%	Catalyst
02/29/24	Janux Therapeutics Inc	1-Day	\$341	\$2,151	15.9%	(6.5%)	(0.2%)	4.0%	(9.5%)	(14.4%)	Catalyst
02/29/24	Milestone Pharmaceuticals Inc	Wall-Cross	\$30	\$71	42.1%	(29.6%)	(29.6%)	12.0%	(3.3%)	0.7%	Catalyst
02/29/24	Avidity Biosciences, Inc.	PIPE	\$400	\$1,217	32.9%	8.1%	8.1%	10.9%	21.3%	30.1%	Catalyst
02/29/24	Achieve Life Sciences Inc	URD	\$60	\$94	63.6%	2.8%	2.9%	(11.7%)	(3.4%)	(4.3%)	Catalyst
02/28/24	Viking Therapeutics Inc	1-Day	\$633	\$9,451	6.7%	(0.1%)	(9.6%)	(9.4%)	7.3%	(15.6%)	Catalyst
02/28/24	Arcutis Biotherapeutics Inc	Wall-Cross	\$173	\$1,008	17.2%	(8.7%)	(8.7%)	8.2%	9.9%	17.4%	Catalyst
02/28/24	Applied Therapeutics, Inc.	PIPE	\$100	\$431	23.2%	25.4%	25.4%	5.7%	(11.9%)	(1.0%)	Catalyst
02/28/24	Crinetics Pharmaceuticals, Inc.	PIPE	\$350	\$2,703	12.9%	3.8%	3.8%	1.8%	2.2%	0.7%	Catalyst
02/27/24	Pyxis Oncology, Inc.	PIPE	\$50	\$215	23.2%	0.0%	0.0%	33.3%	35.4%	17.8%	Opportunistic
02/22/24	Ocular Therapeutix, Inc.	PIPE	\$325	\$864	37.6%	0.0%	0.0%	29.0%	32.3%	32.7%	Catalyst
02/20/24	Iovance Biotherapeutics Inc	URD	\$211	\$2,342	9.0%	0.0%	0.0%	31.5%	81.4%	71.6%	Catalyst
02/15/24	KalVista Pharmaceuticals Inc	Wall-Cross	\$160	\$498	32.2%	5.9%	5.9%	(3.2%)	(14.5%)	(5.8%)	Catalyst
02/14/24	Prime Medicine Inc	Wall-Cross	\$161	\$668	24.1%	(9.0%)	(9.0%)	24.8%	35.8%	29.3%	Opportunistic
02/14/24	Cogent Biosciences, Inc.	PIPE	\$225	\$499	45.1%	37.4%	37.4%	16.0%	14.1%	(12.1%)	Catalyst
02/14/24	enGene Holdings Inc.	PIPE	\$200	\$179	111.7%	31.2%	31.2%	65.0%	55.0%	60.1%	Catalyst
02/14/24	Larimar Therapeutics Inc	Wall-Cross	\$172	\$384	44.8%	0.0%	0.0%	36.8%	38.0%	16.7%	Catalyst
02/13/24	NewAmsterdam Pharma Co NV	Wall-Cross	\$202	\$1,646	12.3%	(5.0%)	(5.0%)	5.5%	11.2%	10.4%	Opportunistic
02/13/24	Immunome Inc	Wall-Cross	\$230	\$968	23.8%	(10.7%)	(10.7%)	8.7%	15.0%	33.1%	Catalyst
30 Transactions		Average:	\$211	\$1,435	27.2%	(1.7%)	(1.6%)	12.3%	14.3%	12.3%	
		Median:	\$173	\$766	20.5%	(0.0%)	(1.1%)	8.8%	10.4%	8.2%	
25 Catalyst Driven Transactions		Average:	\$230	\$1,577	28.9%	(1.0%)	(0.9%)	11.9%	12.2%	11.6%	
		Median:	\$200	\$968	21.4%	0.0%	(0.2%)	8.7%	9.0%	4.2%	
5 Opportunistic Transactions		Average:	\$120	\$725	18.8%	(4.9%)	(4.9%)	14.5%	27.5%	15.8%	
		Median:	\$100	\$616	18.3%	(5.0%)	(5.0%)	11.6%	35.4%	17.8%	

Source: Dealogic. Includes follow-ons with deal value >\$20mm.

Shelf Follow-on: 89bio

- \$172.5 million upsized offering; closed December 2023
- Offering of common stock and pre-funded warrants
- Catalyst-driven financing with one day of public marketing

Practice Point:

- Use of pre-funded warrants enables large existing or new investors to manage ownership levels



Mergers & Acquisitions

Notable Trends and Considerations

- 1) Big Pharma Revenue Replacement Requirements
- 2) Are Reverse Mergers Dead?
- 3) New Structures to Obtain Value in Sale for Non-core Assets



Mergers & Acquisitions

Notable Trends and Considerations

1) Big Pharma Revenue Replacement Requirements

- Lackluster projected revenue growth
- What is needed to get a minimum revenue growth rate (4% CAGR)?
- Where are the de-risked assets?



Mergers & Acquisitions

Notable Trends and Considerations

2) Are Reverse Mergers Dead?

- New Rule 145(a)
- What Is a shell?
- A “deemed” or “constructive” Offer
- Impact on “sign and close” reverse mergers
- Impact on “traditional” reverse mergers



Mergers & Acquisitions

Notable Trends and Considerations

3) New Structures to Obtain Value in Sale for Non-core Assets

Expert Analysis

Behind The 'CVR Spin' Method Of Unlocking Assets In M&A

By *Ryan Murr, Stephen Glover and Branden Berns* · [Listen to article](#)



Law360 (March 11, 2024, 5:33 PM EDT) -- The S&P 500 recently reached all-time highs, with a forward price-to-earnings multiple that is well above the market's historical average.

Against this backdrop of rising equity valuations, fueled by the so-called Magnificent Seven stocks — [Apple Inc.](#), [Microsoft Corp.](#), [Google LLC](#) parent [Alphabet](#), [Amazon.Com Inc.](#), [NVIDIA Corp.](#), [Meta Platforms Inc.](#) and [Tesla Inc.](#) — and a boom in large pharma driven by GLP-1 drugs used for weight loss, buyers and sellers in the mergers and acquisition setting are finding that they frequently have divergent valuation expectations.

In the current environment, buyers often value a target company based on a subset of the target company's assets, typically the most mature assets, whereas sellers expect to be compensated for their entire asset portfolio, including earlier-stage assets that may be more speculative or addressing a market that is less attractive to the buyer.

In the biopharma sector,[1] this dynamic is often manifested in one of two ways: the buyer is valuing a later-stage drug program and is not ascribing value to an earlier-stage set of assets, or the buyer is valuing an asset in a particular therapeutic space, e.g., oncology, and is not ascribing value to assets in other indications or therapeutic areas — e.g., cardiometabolic.

This misalignment of valuation expectations can lead to several challenges in consummating an M&A transaction.



Ryan Murr



Stephen Glover



Branden Berns

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Government Agencies



Royalty **Financings** & Clinical Funding **Arrangements**

- Overview of Non-Dilutive Structures
- Royalty Financings
 - Summary
 - 2023 Year in Review
 - Representative Transaction
- Clinical Funding Arrangements
 - Summary
 - 2023 Year in Review
 - Representative Transaction
- Q&A - 2024 Outlook



Overview of Non-Dilutive Structures

FIXED TERM		PERMANENT CAPITAL		
Financing Type				
CORPORATE LOAN	ROYALTY BOND	DEVELOPMENT FINANCING	SYNTHETIC ROYALTY	ROYALTY SALE
<i>Interest-bearing corporate debt with fixed duration and repayment schedule</i>	<i>Non-recourse debt at an SPV level, collateralized and repaid by passive royalty stream(s)</i>	<i>Asset/Trial-specific financing with active or passive partner, MOIC-based repayments post-approval</i>	<i>Can be structured as True Sale of future revenue or contain more debt-like structural features</i>	<i>True Sale of passive royalties to financial or strategic buyer(s)</i>
COLLATERAL				
1 st lien on all assets	1 st lien SPV assets	Active: Product IP in SPV Passive: 1 st lien on all assets	Back-up security interest in portion of future revenue	Buyer entitled to all contractual rights
REPAYMENTS				
Quarterly coupon and post-interest-only period amort.	Excess cash above interest swept to amort. at par, shortfalls will PIK	Success-based fixed repayments (over ~5-7 yrs), potential to also include royalties	Sales-tiered royalty payments on % of annual sales, in perpetuity or up to a cap	All cash flows sold to investor, in perpetuity or potentially up to a cap
PREPAYMENTS				
Venture: ~103/102/101/Par Later-Stage: ~NC-2/103/Par	~NC-2 @ ~50% of coupon, declining annually to par	Highly negotiated but typically able to terminate at MOIC	N/A – True Sale of revenue (potential to structure cap)	N/A – True Sale of Asset(s)
RETURN PROFILE				
10% – 15% IRR	8% – 15% IRR	20%+ IRR; 3.00x – 5.00x MOIC	Commercial: 12% – 17% IRR; 1.35x – 2.00x MOIC Pre-Launch: 15% – 25% IRR; 2.00x – 3.50x MOIC	Commercial: 12% – 17% IRR; 1.35x – 2.00x MOIC Pre-Launch: 15% – 25% IRR; 2.00x – 3.50x MOIC
CONSIDERATIONS				
<ul style="list-style-type: none"> ✓ Lowest cost of capital ✓ Non-dilutive ✓ Delayed-draw minimizes negative carry ✓ Long IO periods preserve cash <ul style="list-style-type: none"> • Financial covenants • Can temporarily inhibit material BD activity 	<ul style="list-style-type: none"> ✓ No mandatory interest or scheduled amortization ✓ SPV structure only encumbers pledged royalty asset ✓ Fixed return preserves upside <ul style="list-style-type: none"> • Investors receive majority / all royalties until repaid • Note structure will typically require over-collateralization 	<ul style="list-style-type: none"> ✓ Can supplement internal R&D ✓ Only repaid on trial success ✓ Retain higher % of NPV vs. traditional partnerships ✓ SPV structure can provide P&L relief / take off balance sheet <ul style="list-style-type: none"> • Most expensive alternative • Cedes unilateral trial control, governed via Joint committee 	<ul style="list-style-type: none"> ✓ Permanent capital acts as an equity substitute ✓ True Sale maximizes proceeds ✓ Premier partner can signal arbitrage vs. public valuation <ul style="list-style-type: none"> • On-balance sheet, need inter-creditor if paired with debt • Foregone upside if asset outperforms valuation 	<ul style="list-style-type: none"> ✓ Permanent capital acts as an equity substitute ✓ True Sale maximizes proceeds ✓ Ability to monetize a non-core asset and efficiently redeploy <ul style="list-style-type: none"> • Foregone upside if asset outperforms valuation

Royalty Financings - Summary

- Context: volatile capital markets and depressed equity valuations since February 2021
- Companies: desire more non-dilutive financing arrangements
- Investors: seeking returns uncorrelated with stock market



Royalty Financings – 2023 Year in Review

- Starting in 2020: increase in both the number of transactions and overall deal size completed by the top royalty funds from 2019
- No. of Transactions
 - synthetic royalty transactions: 350%
 - royalty financing transactions (traditional and synthetic): 25%
- Deal Size
 - synthetic royalty transactions: 450%
 - royalty financing transactions (traditional and synthetic): 30%
- Other Stats
 - Average upfront: \$140 million
 - 60% did not have a cap
 - 25% had liens on product-related assets
 - Data was compiled from a Gibson Dunn survey of royalty financings from 2019-June 2023 by Royalty Pharma, DRI Capital, Healthcare Royalty Partners, OMERS, Oberland Capital, CPPIB, and Blackstone. Also, a special thanks to Cowen for contributing data regarding royalty financing arrangements.



Royalty Financings – Representative Transaction

- Royalty Bond - Blue Owl | Xoma Corporation transaction
- \$140 million royalty-backed loan
- XOMA contributed its rights to receive royalties on sales of VABYSMO (faricimab) to an SPV, which then borrowed \$130 million (with a potential \$10 million draw later) against this royalty stream
- The SPV is obligated to make semi-annual payments at a fixed rate of 9.875% per year until the loan is repaid, at which time the royalty payments will revert back to XOMA's subsidiary.
- The loan is non-recourse to XOMA and repayment is tied to future VABYSMO royalties



Clinical Funding Arrangements

- Summary
- 2023 Year in Review
- Representative Royalty Financing Arrangement
- 2024 Outlook

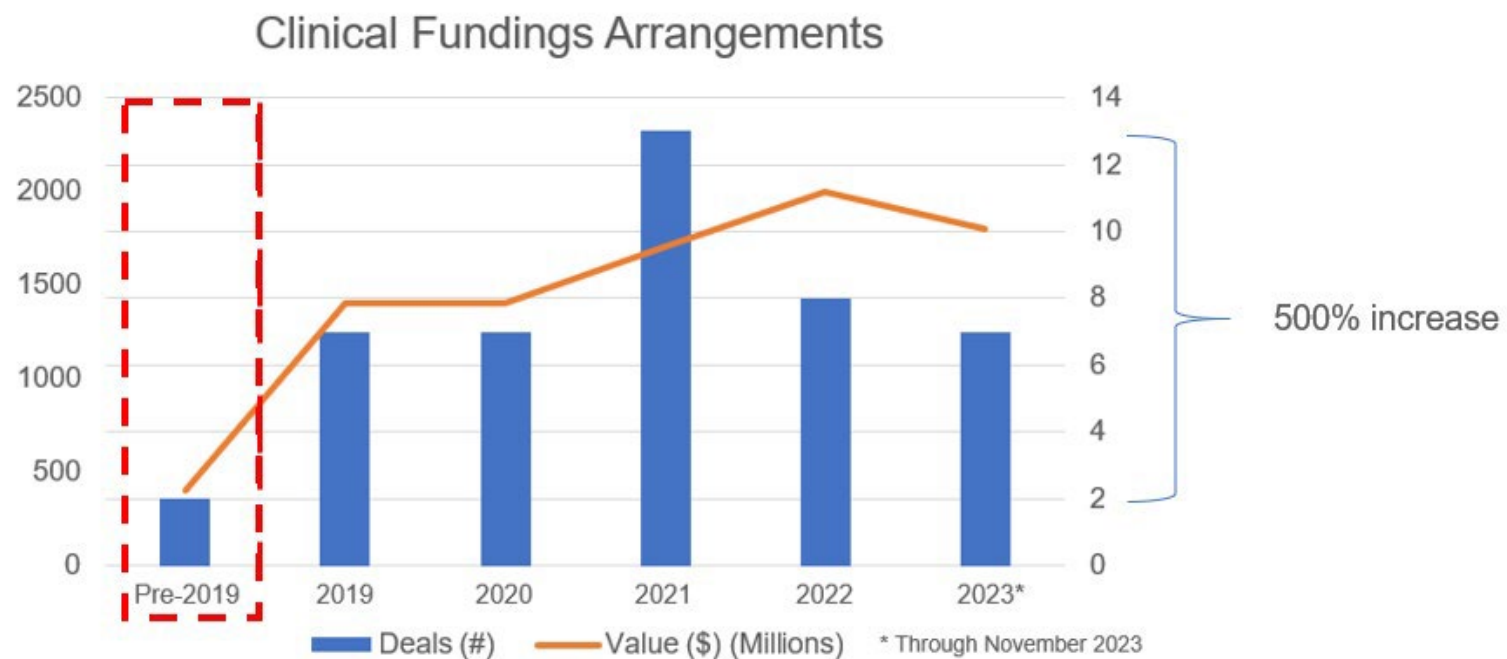


Clinical Funding Arrangements - Summary

- Similar context:
 - Biotech valuations dropped and an increasing demand for non-dilutive financing alternatives
- Investors bear clinical development and regulatory risks, with a return of capital in a positive outcome scenario.



Clinical Funding Arrangements – 2023 Year in Review



Clinical Funding Arrangements – 2023 Year in Review

- Typical indicative terms
- Payments to Company:
 - Upfront funding of capital in support of a late-stage clinical program (typically a Phase 3 program, with some Phase 2 programs)
 - Additional funding payments made over time as development costs are incurred;
- Payments to Investor:
 - Milestone payments upon regulatory approval of the program, providing for a return of capital over a period of several years (e.g., 5 –8 years from approval); and
 - Sales-based milestone payments and/or royalty payments upon commercialization, providing for a further return on the investment by the capital provider, frequently capped at an overall rate of return (e.g., 300% -400% of the invested amount).



Clinical Funding Arrangements – Representative Transaction

- Royalty Pharma | Teva Clinical Funding Arrangement
- Royalty Pharma will provide Teva up to \$100 million for Phase 3 development costs, with a mutual option to increase the total funding amount to \$125 million.
- Upon FDA approval, Teva will repay to Royalty Pharma the total amount funded over five years.
- Upon commercialization, Teva will pay a low-to-mid single-digit royalty on product sales.
- If Teva chooses not to file a New Drug Application with the FDA following positive Phase 3 study results, Teva will pay Royalty Pharma 125% of the total amount funded.



Royalty Financing and Clinical Funding Arrangements

Q&A | 2024 Outlook



A photograph of a laboratory with a microscope in the foreground, shelves of glassware, and a computer monitor in the background. The scene is dimly lit with a blue tint. The text "GIBSON DUNN" is overlaid in the center.

GIBSON DUNN