

The Brookline Brief

Healthcare Equity Capital Markets Update

November 8, 2023



**BROOKLINE
CAPITAL MARKETS**

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New York, New York 10022

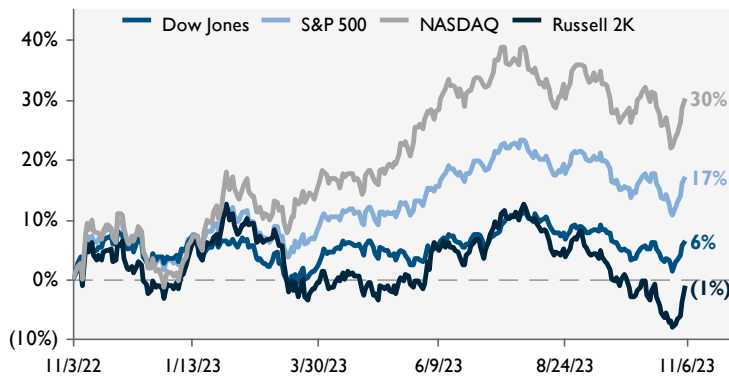
Equity Market / New Issue Market **Tailwinds**

- Follow-on volume (*deal count*) throughout the life sciences-, med. tech., and diagnostics-focused subsectors totaled 36 transactions this past month, raising a combined \$2.9bn in aggregate gross proceeds (*prior to overallocments, where applicable*) and marking the 4th strongest calendar month of follow-on new issue activity (*in terms of combined aggregate gross proceeds raised*) for 2023. In addition, even against a backdrop of a souring XBI (*which delivered a disappointing -9.3% return this past month*), October's 36 follow-on offerings produced an average offer-to-current return of +5.7% as of this past Friday's close (*mean basis*). While some remain concerned over the increasing disparity of outcomes between the "haves" (*larger-cap issuers*) and the "have nots" (*smaller-cap issuers*) in the follow-on new issue marketplace, others remain hopeful that improving post-offering performance trends - combined with an increasingly supportive fundamental macro backdrop - may, in turn, catalyze an uptick in new issue activity during the final 2 months of the year.
- Although the follow-on market has remained challenging for small, cash constrained issuers during 2023, positive clinical data has allowed issuers to significantly extend their runway. "Data catalyst financings" completed by issuers with less than a year of estimated cash runway have yielded \$128mm median gross proceeds (*n=11*) compared to \$6mm median gross proceeds for deals completed without a data release (*n=250*). Moreover, median after-market performance of "data catalyst financings" by cash constrained issuers has proven much stronger (+19% for "data catalyst financings" vs. -34% for non-data catalyst financings).
- Investors reacted positively to the Fed's decision to pause rate hikes at its November FOMC meeting for the second consecutive time as well as an October jobs report that showed unemployment ticking up to 3.9% (*vs. 3.8% cons.*) and nonfarm payrolls increasing by 150,000 (*vs. 170,000 cons.*), their lowest levels since June. Additionally, industry observers viewed CRSP's recent advisory committee outcome and LLY's acquisition of licensing rights from BEAM for VERV's gene editing programs as positive developments for gene editing companies and the subsector as a whole. Last week marked the best weekly return for the XBI during 2023 YTD, climbing +11.4% after falling -12.2% from the beginning of the month through the close of trading on October 27. The ETF was up each trading day last week, its first five-day win streak since June.

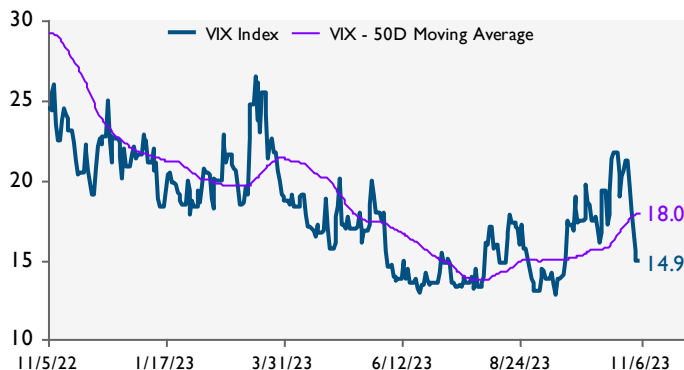
Equity Market / New Issue Market **Headwinds**

- The XBI finished October at \$66.23, its lowest monthly close since January 2017. The equal-weighted biotech ETF returned -9.3% for the month, marking its third consecutive month of negative returns and worst monthly performance since April 2022. Additionally, 83% of XBI constituents posted negative returns during the month, with 22% returning -20% or worse, compared to just 3% returning +20% or better. Market observers attributed the sector's widespread poor performance for the month to a rising interest rate backdrop that saw US 10-year treasuries eclipsing 5% yields for the first time since July 2007, as well as increasing broader market volatility during October (*VIX +32.2% from October 11-27*) in response to the rise in treasury yields and escalating geopolitical tensions.
- The prevalence of follow-on deals featuring 200% warrant coverage in the life sciences-, med. tech., and diagnostics-focused subsectors remained elevated in October, continuing a persistent trend throughout 2023. During October, 22% of completed deals featured 200%+ warrant coverage (*the second highest month of the year after March, n = 24%*), bringing the incidence of 200%+ warrant coverage through the first 10 full months of the year to 16%. While some of these deals were completed with fundamental investors with warrants tied to clinical and regulatory milestones (e.g., *UNCY, NSPR, TSHA, SABS*), the median after-market performance of these deals has lagged deals featuring less or no warrant coverage by 31 percentage points on an offer-to-current basis (*n = -62% for deals with 200%+ warrant coverage vs. n = -31% for deals with <200% warrant coverage*).
- October marked the fourth month of the year with no IPOs by life sciences-, med. tech., and diagnostics-focused issuers, exceeding 2022's total of three months with no IPOs in the subsector. However, despite the challenging market conditions, Lexeo Therapeutics (*NASDAQ: LXEO*) priced its \$100mm IPO last Thursday, November 2, becoming the first IPO in the subsector since September 15. Although Lexeo's offering was completed successfully, it was the first IPO to price below its initial filing range since Intensity Therapeutics' (*NASDAQ: INTS*) offering in June. Further, Lexeo's stock traded down -8.6% in its debut, making it the worst performing IPO with ≥\$100mm in gross proceeds on an initial midpoint-to-first-close basis since Elevation Oncology's (*NASDAQ: ELEV*) debut in June 2021. Looking ahead, industry observers remain focused on Cargo Therapeutics' \$134mm and Invea Therapeutics' \$100mm anticipated offerings, both filed publicly for the first time at the end of October, as the market's next test heading into 2024.

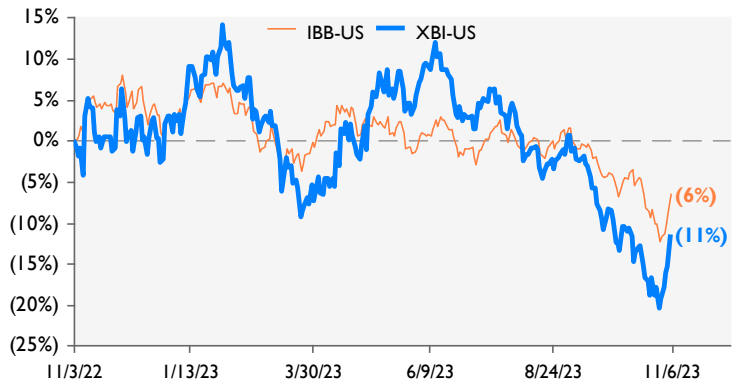
General Indices (LTM)



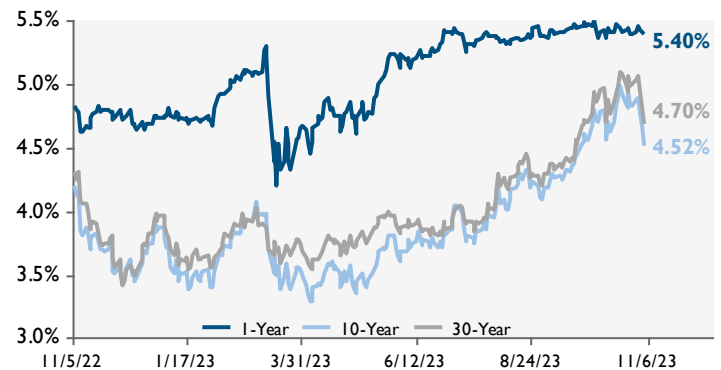
CBOE Market Volatility Index (VIX)



Biotech Tracking Funds: **XBI** and **IBB** (LTM)



U.S. Treasury Yields (LTM)

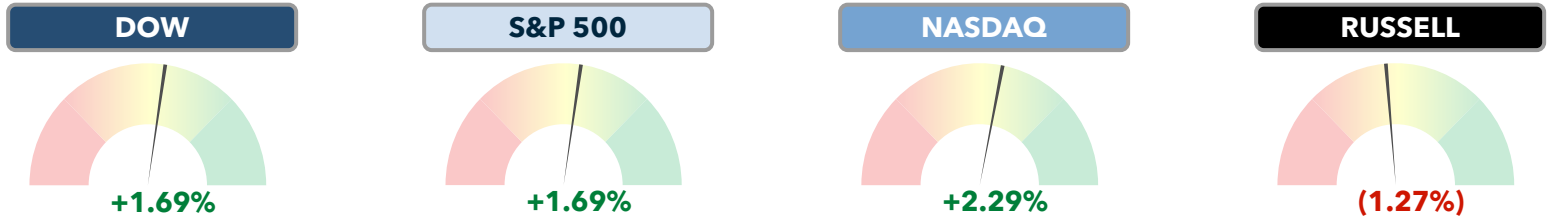


Sources: FactSet, Bloomberg, Brookline Capital Markets Investment Banking Data, US Food & Drug Administration Data. Market data as of 8:00 AM on November 6, 2023, unless otherwise noted.

Major US Indices ETF Performance - Monthly Performance Montage (2022 to 2023 YTD)

	Yr	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Full Yr / YTD
Dow Jones iShares Dow Jones ETF (DIA)	2023	+2.9%	-4.2%	+1.9%	+2.5%	-3.4%	+4.3%	+3.4%	-2.2%	-3.7%	-1.3%	+3.1%	--	+2.8%
	2022	-3.4%	-3.3%	+2.2%	-4.9%	+0.2%	-6.8%	+6.8%	-4.0%	-9.0%	+14.0%	+5.7%	-4.3%	-8.8%
S&P 500 SPDR S&P 500 ETF (SPY)	2023	+6.3%	-2.5%	+3.3%	+1.6%	+0.5%	+6.1%	+3.3%	-1.6%	-5.1%	-2.2%	+3.9%	--	+13.7%
	2022	-5.3%	-3.0%	+3.4%	-8.8%	+0.2%	-8.6%	+9.2%	-4.1%	-9.6%	+8.1%	+5.6%	-6.2%	-19.5%
NASDAQ Fidelity NASDAQ Comp (ONEQ)	2023	+10.8%	-1.1%	+6.8%	+0.1%	+6.0%	+6.4%	+4.2%	-2.0%	-5.9%	-2.6%	+5.0%	--	+29.8%
	2022	-8.8%	-3.3%	+3.5%	-13.3%	-1.9%	-8.7%	+12.5%	-4.6%	-10.5%	+4.0%	+4.4%	-9.0%	-32.7%
Russell 2000 iShares Russell 2000 ETF (IWM)	2023	+9.8%	-1.7%	-5.2%	-1.8%	-0.8%	+7.8%	+6.1%	-5.1%	-6.3%	-6.9%	+6.1%	--	+0.1%
	2022	-9.5%	+1.0%	+1.0%	-9.9%	+0.2%	-8.6%	+10.6%	-2.0%	-10.1%	+11.2%	+2.2%	-6.9%	-21.6%

Major US Index ETFs - Q4 2023 QTD Performance ⁽¹⁾



Major US Index ETF Constituents - Largest Movers During Q4 2023 QTD ⁽¹⁾

DOW	Company	Ticker	% Chg.
	NIKE	NKE-US	+12.0%
	Microsoft	MSFT-US	+11.7%
	Verizon Communications	VZ-US	+11.1%
	Intel	INTC-US	+7.3%
	Visa	V-US	+5.9%
	Chevron	CVX-US	(12.5%)
	Caterpillar	CAT-US	(11.8%)
	Dow	DOW-US	(3.5%)
	Johnson & Johnson	JNJ-US	(2.8%)
	Home Depot	HD-US	(2.2%)
S&P	Company	Ticker	% Chg.
	Allstate	ALL-US	+18.2%
	NRG Energy	NRG-US	+16.8%
	American Tower	AMT-US	+15.9%
	Arista Networks	ANET-US	+15.5%
	Cardinal Health	CAH-US	+15.4%
	SolarEdge Tech	SEDG-US	(41.6%)
	Paycom Software	PAYC-US	(38.7%)
	Align Technology	ALGN-US	(35.3%)
	Enphase Energy	ENPH-US	(32.7%)
	Hasbro	HAS-US	(29.0%)
NASDAQ	Company	Ticker	% Chg.
	MMTec	MTC-US	+123.6%
	Cipher Mining	CIFR-US	+76.0%
	Sophia Genetics	SOPH-US	+59.9%
	Lyell Immunopharma	LYEL-US	+45.6%
	MicroStrategy	MSTR-US	+38.3%
	Moneyhero	MNY-US	(87.5%)
	Spectaire Holdings	SPEC-US	(76.7%)
	Akero Therapeutics	AKRO-US	(71.2%)
	ProKidney	PROK-US	(64.8%)
	Ventyx Biosciences	VTYX-US	(55.1%)
RUSSELL	Company	Ticker	% Chg.
	Immunity Bio (fka NK)	IBRX-US	+121.9%
	Outlook Therapeutics	OTLK-US	+93.4%
	POINT Biopharma	PNT-US	+91.2%
	BioXcel Therapeutics	BTAI-US	+83.4%
	Cipher Mining	CIFR-US	+76.0%
	Akero Therapeutics	AKRO-US	(71.2%)
	PMV Pharmaceuticals	PMVP-US	(68.9%)
	Aldeyra Therapeutics	ALDX-US	(66.9%)
	Generation Bio	GBIO-US	(65.2%)
	ProKidney	PROK-US	(64.8%)

(1): Note: Index and individual stock performance (% chg.) indexed to each security's respective closing price on September 30, 2023.

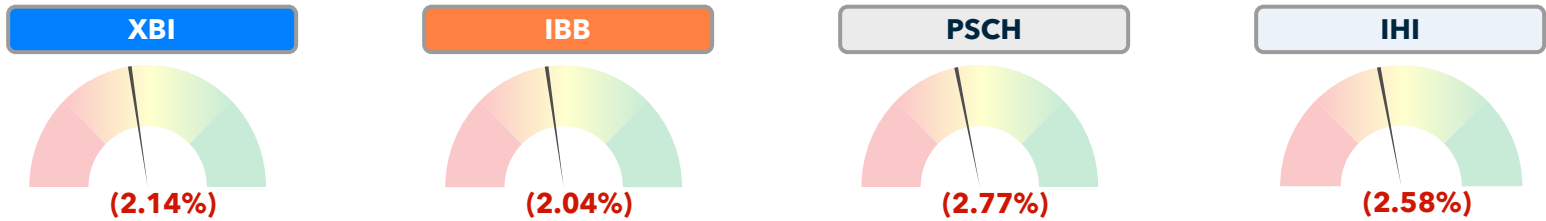
Sources: FactSet, Bloomberg, Brookline Capital Markets Investment Banking Data, US Food & Drug Administration Data.

Market data as of 8:00 AM on November 6, 2023, unless otherwise noted.

Healthcare ETF Performance - Monthly Performance Montage (2022 to 2023 YTD)

	Yr	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Full Yr / YTD
SPDR S&P Biotech ETF (XBI)	2023	+7.1%	-6.8%	-8.0%	+5.2%	+4.6%	-0.9%	+1.3%	-6.0%	-7.8%	-9.3%	+7.9%	--	-13.9%
	2022	-16.6%	-3.9%	+0.1%	-17.9%	-6.8%	+8.0%	+9.2%	+3.2%	-5.2%	+3.6%	+1.8%	-0.7%	-25.9%
iShares NASDAQ Biotech ETF (IBB)	2023	+4.0%	-6.9%	+1.6%	+1.0%	-3.2%	+0.5%	+1.9%	-0.5%	-5.0%	-7.0%	+5.4%	--	-8.8%
	2022	-13.6%	-4.4%	+3.4%	-10.5%	+0.0%	+0.8%	+5.5%	-2.1%	-3.7%	+9.9%	+6.2%	-3.8%	-14.0%
Invesco S&P SmallCap Healthcare ETF (PSCH)	2023	+6.0%	-2.8%	-3.8%	+1.3%	-2.9%	+3.5%	+0.0%	-7.1%	-9.1%	-5.5%	+2.9%	--	-17.0%
	2022	-13.0%	+2.5%	+0.5%	-10.9%	-3.1%	-1.5%	+9.8%	-6.2%	-6.6%	+4.3%	+2.5%	-6.2%	-26.5%
iShares U.S. Medical Devices ETF (IHI)	2023	+2.7%	-3.7%	+3.8%	+5.2%	-6.8%	+6.7%	-0.6%	-6.4%	-7.6%	-6.7%	+4.4%	--	-10.1%
	2022	-10.4%	+0.3%	+3.0%	-9.7%	-1.1%	-7.3%	+6.5%	-6.0%	-6.6%	+6.4%	+5.7%	-0.9%	-20.2%

Major US Healthcare Index ETFs - Q4 2023 QTD Performance ⁽¹⁾



Major US Healthcare Index ETF Constituents - Largest Movers During Q4 2023 QTD ⁽¹⁾

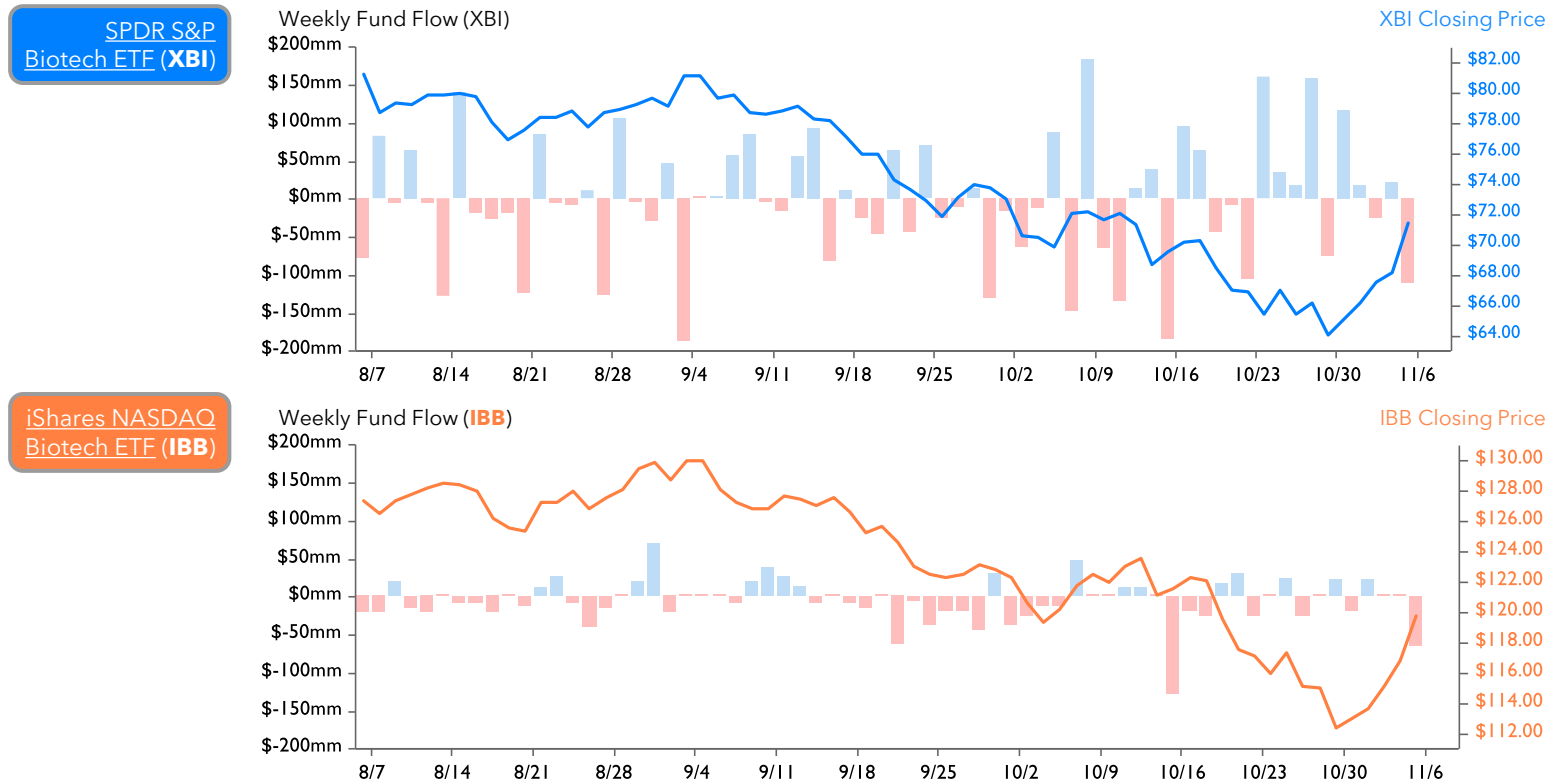
XBI	Company	Ticker	% Chg.
	POINT Biopharma	PNT-US	+91.2%
	Lyell Immunopharma	LYEL-US	+45.6%
	TG Therapeutics	TGTX-US	+32.3%
	Mirati Therapeutics	MRTX-US	+28.6%
	Arcellx	ACLX-US	+24.4%
	Akero Therapeutics	AKRO-US	(71.2%)
	Aldeyra Therapeutics	ALDX-US	(66.9%)
	Arcutis Biotherapeutics	ARQT-US	(54.0%)
	89Bio	ETNB-US	(45.5%)
	Seres Therapeutics	MCRB-US	(45.4%)
IBB	Company	Ticker	% Chg.
	Immunity Bio (fka NK)	IBRX-US	+121.9%
	Autolus Therapeutics	AUTL-US	+75.5%
	Scholar Rock	SRRK-US	+74.8%
	ALX Oncology	ALXO-US	+73.3%
	Olink	OLK-US	+69.1%
	Evelo Biosciences	EVLO-US	(89.2%)
	Akero Therapeutics	AKRO-US	(71.2%)
	PMV Pharmaceuticals	PMVP-US	(68.9%)
	Repare Therapeutics	RPTX-US	(68.5%)
	Generation Bio	GBIO-US	(65.2%)
PSCH	Company	Ticker	% Chg.
	Integer Holdings	ITGR-US	+10.3%
	Shockwave Medical	SWAV-US	+8.3%
	Teleflex	TFX-US	+7.4%
	GE Healthcare Technologies	GEHC-US	+5.2%
	DexCom	DXCM-US	+4.5%
	Outset Medical	OM-US	(60.9%)
	Silk Road Medical	SILK-US	(41.6%)
	Omniceil	OMCL-US	(32.4%)
	Inari Medical	NARI-US	(26.1%)
	Tandem Diabetes Care	TNDM-US	(24.2%)
IHI	Company	Ticker	% Chg.
	ModivCare	MODV-US	+51.2%
	NeoGenomics	NEO-US	+24.1%
	Cytokinetics	CYTK-US	+23.3%
	Owens & Minor	OMI-US	+22.0%
	HealthStream	HSTM-US	+18.6%
	Omniceil	OMCL-US	(32.4%)
	Avid Bioservices	CDMO-US	(31.3%)
	Tandem Diabetes Care	TNDM-US	(24.2%)
	Organon	OGN-US	(23.4%)
	Enhabit	EHAB-US	(22.9%)

(1): Note: Index and individual stock performance (% chg.) indexed to each security's respective closing price on September 30, 2023.

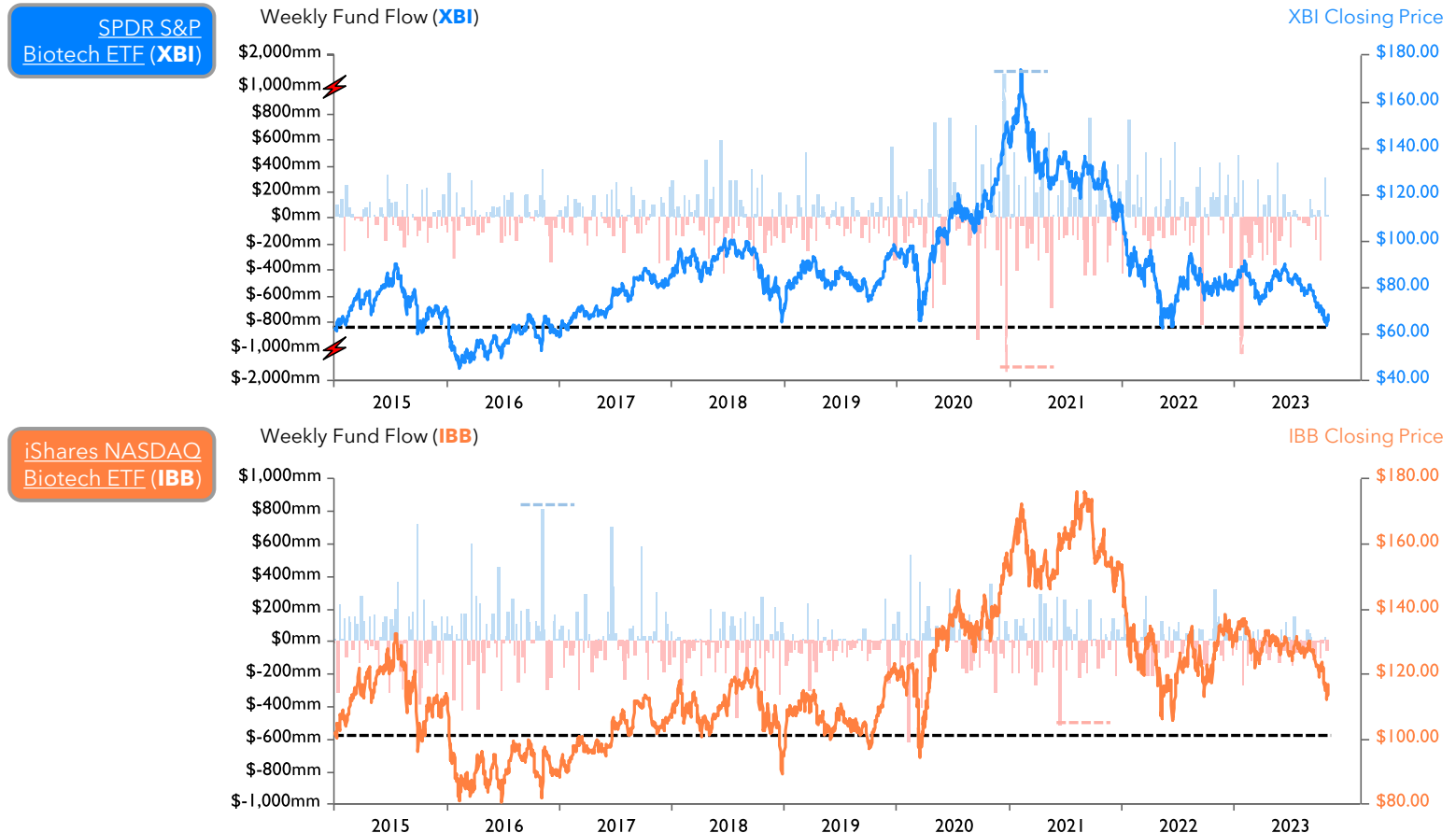
Sources: FactSet, Bloomberg, Brookline Capital Markets Investment Banking Data, US Food & Drug Administration Data.

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Selected Healthcare ETF Fund Flows: **Weekly Net ETF Fund Flow Data - Last 3 Months**



Selected Healthcare ETF Fund Flows: **Weekly Net ETF Fund Flow Data - January 2015 to Current**



Note: ETF fund flow data reflects weekly net fund flow, unless otherwise noted.
 Sources: FactSet, Bloomberg, Brookline Capital Markets Investment Banking Data, US Food & Drug Administration Data.
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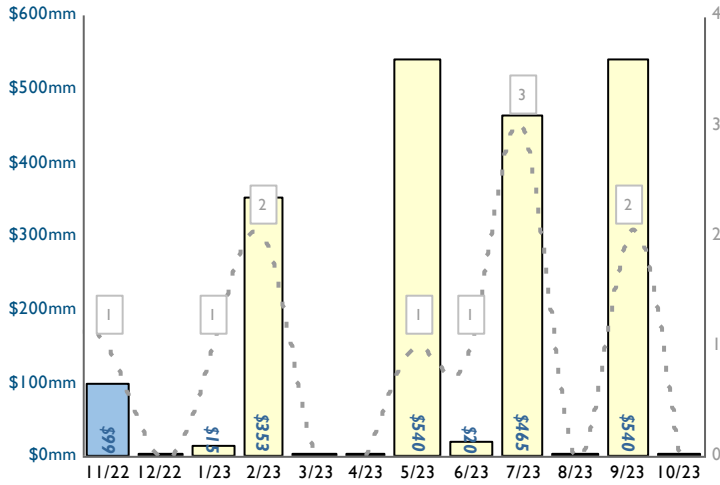
IPO Market Update - Life Sciences, Med. Tech, and Diagnostics

IPO Gross Proceeds Raised

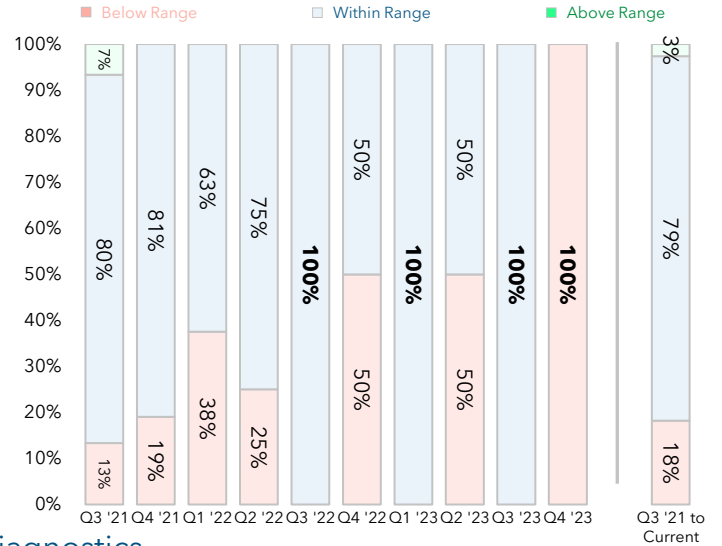
[columns] (monthly, aggregate)

IPO Deal Count

[curve] (monthly, aggregate)



IPO Pricing Relative to Initial Filing Range (%)



Selected Recent IPOs - Life Sciences, Med. Tech, and Diagnostics

Company	Ticker	Indication	Offer Date	Offer Price	Gross Proceeds Raised ⁽¹⁾	Pre-Money Equity Valuation ⁽²⁾	Within Initial Range?	Disclosed Insider Part. (%)	% Change Offer / Current
Lexeo Therapeutics	LXEO	Gene Editing (AAVrh10)	11-03-23	\$11.00	\$100.0mm	\$182.6mm	Below	--	(8.6%)
Neumora Therapeutics	NMRA	CNS (MDD / KOR antagonist)	09-15-23	\$17.00	\$250.1mm	\$2,509.6mm	In Range	--	(30.3%)
RayzeBio	RYZB	Oncology (Ac225 radioisotope)	09-15-23	\$18.00	\$290.1mm	\$822.8mm	In Range	--	+24.2%
Turnstone Biologics	TSBX	Oncology (next-gen TIL)	07-21-23	\$12.00	\$80.0mm	\$194.1mm	In Range	49%	(73.2%)
Apogee Therapeutics	APGE	Immunology (SubQ IL-13 mAb)	07-14-23	\$17.00	\$300.1mm	\$516.4mm	In Range	32%	+12.2%
Sagimet Biosciences	SGMT	NASH (FASN inhibitor)	07-14-23	\$16.00	\$85.0mm	\$301.4mm	In Range	--	(74.5%)
Intensity Therapeutics	INTS	Oncology (cisplatin / vinblastine sulfate)	06-30-23	\$5.00	\$19.5mm	\$46.0mm	Below	10%	(39.0%)
Acelyrin	SLRN	Immunology (SubQ IL-17 antagonist)	05-05-23	\$18.00	\$540.0mm	\$1,221.2mm	In Range	5%	(49.3%)
Mineralys Therapeutics	MLYS	Cardiovascular Diseases (HTN / aldosterone synthase inhibitor)	02-10-23	\$16.00	\$192.0mm	\$452.8mm	In Range	--	(48.1%)
Structure Therapeutics	GPCR	Metabolic Diseases (GLP-1R sm. mol.)	02-03-23	\$15.00	\$161.1mm	\$414.3mm	In Range	5%	+365.9%
Genelux	GNLX	Oncology (Oncolytic Viral Immunotherapy)	01-26-23	\$6.00	\$15.0mm	\$128.1mm	In Range	--	+187.3%
Acrivon Therapeutics	ACRV	Oncology (CHK1/2 inhibitor)	11-15-22	\$12.50	\$99.4mm	\$182.8mm	Below	89%	(54.0%)
Prime Medicine	PRME	Gene Editing (PRIME editing / pegRNA + Cas)	10-20-22	\$17.00	\$175.0mm	\$1,500.8mm	In Range	63%	(54.1%)
Third Harmonic Bio	THRD	Immunology (urticaria / KIT inhibitor)	09-15-22	\$17.00	\$185.3mm	\$496.0mm	In Range	--	(61.7%)
Maia Biotechnology	MAIA	Oncology (telomere-targeting sm. mol.)	07-28-22	\$5.00	\$10.0mm	\$58.4mm	In Range	--	(57.4%)
PepGen	PEPG	Rare Diseases (DMD / exon-51 skipping EDO)	05-06-22	\$12.00	\$108.0mm	\$169.5mm	Below	46%	(56.3%)
Belite Bio	BLTE	Ophthalmology (STGD1 / RBP4 antagonist)	04-29-22	\$6.00	\$36.0mm	\$119.6mm	In Range	42%	+550.5%
Hillevax	HLVX	Infectious Diseases (VLP Norovirus Vaccines)	04-29-22	\$17.00	\$200.0mm	\$449.8mm	In Range	5%	(25.0%)
Tenon Medical	TNON	Med. Tech (SI-Joint fixation/fusion surgery)	04-27-22	\$50.00	\$16.0mm	\$40.6mm	In Range	--	(97.5%)
AN2 Therapeutics	ANTX	Infectious Diseases (LeuRS inhibitor / NTM lung disease)	03-25-22	\$15.00	\$69.0mm	\$226.9mm	In Range	61%	+0.4%
Blue Water Vaccines	BWV	Infectious Diseases (ELV / universal flu vaccine)	02-18-22	\$9.00	\$20.0mm	\$85.2mm	In Range	--	(95.9%)
Arcellx	ACLX	Oncology (next-gen CAR-T / CART-ddBCMA)	02-04-22	\$15.00	\$123.8mm	\$434.8mm	In Range	5%	+197.5%
Nuvectis Pharma	NVCT	Oncology (HSF1 inhibitor)	02-04-22	\$5.00	\$16.0mm	\$48.2mm	Below	44%	+91.2%
Hillstream BioPharma	HILS	Oncology (ferroptosis / IMCD inducer)	01-12-22	\$4.00	\$15.0mm	\$29.9mm	Below	--	(96.0%)
Amylyx Pharma	AMLX	CNS (ALS / UPR-Bax inhibitor)	01-07-22	\$19.00	\$190.0mm	\$955.8mm	In Range	5%	(3.0%)

Sources: Dealogic, Brookline Capital Markets Investment Banking Data.

(1) Excludes Shoe; (2) based on fully diluted shares outstanding immediately prior to offering.

Note: All offerings <\$10mm have been excluded. Includes life sciences, medical technology, and diagnostics companies.

Market data as of 8:00 AM on November 6, 2023, unless otherwise noted.

Follow-On Market Update - Life Sciences, Med. Tech, and Diagnostics

Follow-On Gross Proceeds Raised

[columns] (monthly, aggregate)

Follow-On Deal Count

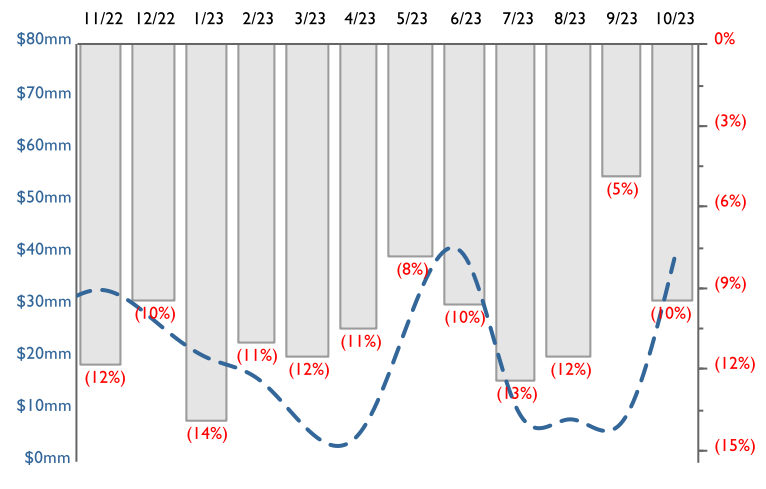
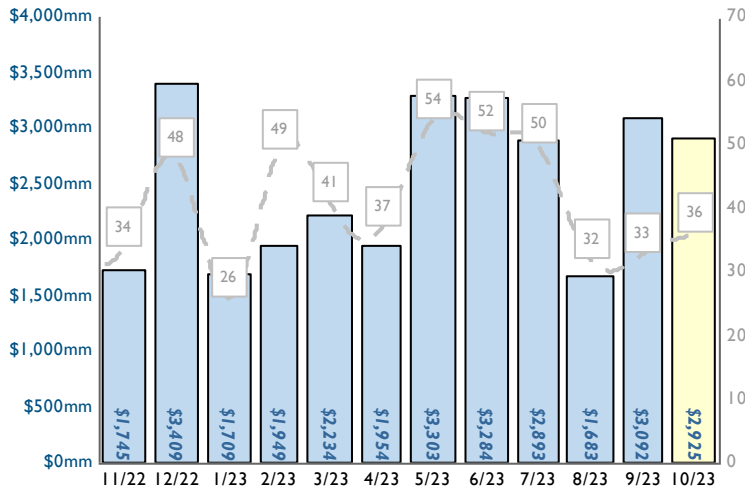
[line] (monthly, aggregate)

Median Follow-On Offering Size (single-deal)

[curve] (monthly median)

File-to-Offer Discount %

[columns] (monthly median discount %)



Selected Recent Follow-Ons / CMPOs / Reg. Directs / PIPEs - Life Sciences, Med. Tech, and Diagnostics

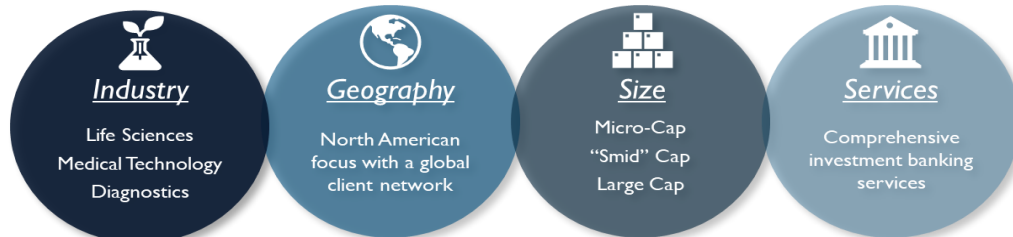
Company	Ticker	Indication	Offer Date	SEC Form	Offer Price	Gross Proceeds Raised ⁽¹⁾	Pre-Offer Market Cap ⁽²⁾	% Chg. File / Offer	% Chg. Offer / Current
Nanobiotix SA	NBTX	Oncology (Radiation Enhanced Therapies)	11-03-23	CMPO	\$5.36	\$55.0mm	\$224.7mm	(13.7%)	+10.9%
OKYO Pharma	OKYO	Ophthalmology (DED / GPCR)	11-01-23	R/D	\$1.50	\$1.6mm	\$46.1mm	(6.3%)	+20.0%
Avenue Therapeutics +++	ATXI	CNS (Pain)	10-31-23	S-1	\$0.30	\$5.0mm	\$7.5mm	(62.4%)	(16.6%)
Annovis Bio ++	ANVS	CNS (Alzheimer's Disease)	10-31-23	CMPO	\$6.00	\$7.5mm	\$73.5mm	(26.7%)	+6.2%
Biofrontera ++	BFRI	Dermatology (Spec. Pharma)	10-31-23	S-1	\$3.74	\$4.5mm	\$11.7mm	(56.5%)	+19.0%
SELLAS Life Sciences ++	SLS	Oncology (WT1)	10-31-23	R/D	\$1.10	\$4.0mm	\$32.3mm	(5.6%)	(12.7%)
Vivos Therapeutics +++	VVOS	Med. Tech (mild-to-moderate OSA)	10-31-23	PIPE	\$4.08	\$4.0mm	\$4.6mm	+6.5%	(16.2%)
Viridian Tx (fka MGEN)	VRDN	Rare Diseases (Thyroid Eye Disease / IGF-1R)	10-30-23	PIPE	\$12.38	\$185.0mm	\$725.2mm	at market	+22.7%
VYNE Therapeutics	VYNE	Dermatology (Spec. Pharma)	10-30-23	PIPE	\$2.25	\$88.3mm	\$7.4mm	at market	+34.7%
Monte Rosa Therapeutics [FF]	GLUE	Oncology (GSPT1 Protein Degradar)	10-27-23	R/D	\$2.50	\$25.0mm	\$124.0mm	at market	+43.2%
Mustang Bio ++	MBIO	Oncology (CD123/CD20 CAR-T)	10-26-23	R/D	\$1.70	\$4.4mm	\$14.5mm	(0.6%)	+1.8%
Theratechnologies	THTX	Infectious Diseases (HIV antiviral)	10-26-23	CMPO	\$1.00	\$25.0mm	\$30.5mm	(21.9%)	+33.0%
Alphatec	ATEC	Musculoskeletal Diseases	10-25-23	CMPO	\$10.50	\$150.2mm	\$1,673.9mm	(18.1%)	(1.3%)
IDEAYA Biosciences	IDYA	Oncology (MAT2A inhibitor)	10-25-23	CMPO	\$23.50	\$125.0mm	\$1,674.6mm	(13.8%)	+23.2%
Sonnet Biotherapeutics +++	SONN	Oncology (albumin binding mAb)	10-25-23	S-1	\$1.60	\$4.6mm	\$6.3mm	(55.3%)	(19.4%)
Lipella Pharmaceuticals ++	LIPO	Rare Diseases (Radiation Cystitis 505b2)	10-24-23	PIPE	\$1.52	\$2.0mm	\$12.9mm	(32.5%)	(27.0%)
Aligos Therapeutics +	ALGS	Infectious Diseases (HCB)	10-23-23	PIPE	\$0.82	\$92.2mm	\$33.1mm	+7.8%	(7.2%)
Harpoon Therapeutics +	HARP	Oncology (allogenic TriTAC / PSMA)	10-23-23	PIPE	\$5.83	\$100.2mm	\$27.6mm	(15.2%)	(5.6%)
Palatin Technologies ++	PTN	Inflammatory Diseases (Melanocortin agonist)	10-23-23	R/D	\$2.12	\$5.0mm	\$28.2mm	(11.7%)	0.0%
Abivax *	ABVX	IBD (miR-124 enhancer)	10-20-23	S-1	\$11.60	\$235.8mm	\$678.3mm	(24.7%)	(12.9%)
Adial Pharmaceuticals +++	ADIL	CNS (Substance Abuse)	10-20-23	PIPE	\$2.82	\$4.0mm	\$3.4mm	at market	(17.7%)
Arcutis Biotherapeutics	ARQT	Dermatology (PDE4 inhibitor)	10-20-23	CMPO	\$2.50	\$100.0mm	\$186.7mm	(17.5%)	(2.4%)
Ultragenyx	RARE	Rare Diseases (FGF23)	10-19-23	CMPO	\$30.00	\$300.0mm	\$2,632.1mm	(18.5%)	+29.4%
Celcuity	CELC	Molecular Diagnostics	10-18-23	PIPE	\$8.70	\$50.0mm	\$233.4mm	at market	+22.8%
Nuvalent	NUVL	Oncology (ROS1 inhibitor)	10-17-23	CMPO	\$56.00	\$300.0mm	\$3,350.9mm	(3.4%)	+0.6%

Sources: Dealogic, Brookline Capital Markets Investment Banking Data. Market data as of 8:00 AM on November 6, 2023, unless otherwise noted.

Notes re: SEC Form: (S-1): fully marketed offering; (R/D): registered direct offering; (CMPO): confidentially marketed public offering (S-3/F-3); (PIPE): private investment in public equity. (1) Excludes Shoe; (2) based on basic shares outstanding immediately prior to offering. †, ††, and ††† denote transactions with <100% warrant coverage, 100% to 199% warrant coverage, and ≥200% warrant coverage, respectively. [FF] denotes transactions representing an issuer's first follow-on offering post-IPO (or rev. merger). (**) denotes OTC-to-NAS Uplisting / "NASDAQ IPO" (*) denotes ex-US public company dual listing / "US IPO." Dataset excludes transactions classified as convertible offerings and secondary offerings (block trades with no proceeds to issuers). Includes transactions completed by life sciences, medical technology, and diagnostics companies.

Firm Overview

Brookline Capital Markets is a **full-service** investment bank and was co-founded by three former colleagues with **deep roots** on Wall Street. The team is led by **seasoned professionals**, each with more than **25 years** of capital markets, advisory and equity sales experience at some of the world's **most prominent** financial institutions such as Alex. Brown, Citi, Cowen, Credit Suisse First Boston, Deutsche Bank, Lazard, Leerink and Orbimed



Selected Recent Transactions

 Biopharmaceuticals Company Ongoing Engagement Capital Markets Advisor	 Biopharmaceuticals Company Ongoing Engagement Capital Markets Advisor	 Diagnostics Company Ongoing Engagement Capital Markets Advisor	 Specialty Pharma Company Ongoing Engagement Capital Markets Advisor	 LungTherapeutics \$18,500,000 PIPE Co-Placement Agent October 2023
 HEPION PHARMACEUTICALS Completed Engagement Capital Markets Advisor October 2023	 CIRCULOGENE THERAPEUTICS \$12,670,000 Secured Note Sole Placement Agent October 2023	 Quetta Acquisition Corp. \$69,000,000 IPO Co-Manager October 2023	 SAb BIOTHERAPEUTICS \$7,500,000 PIPE Financial Advisor October 2023	 HEPION PHARMACEUTICALS \$5,000,000 Registered Direct Financial Advisor September 2023
 TONIX PHARMACEUTICALS \$4,500,000 Follow-On Co-Placement Agent September 2023	 Ainos \$2,000,000 Secured Convertible Promissory Note Co-Placement Agent September 2023	 WAVE AEROSPACE \$3,100,000 Series A Placement Agent September 2023	 CALIDI \$335,000,000 Merger Financial Advisor September 2023	 CALIDI \$25,000,000 Series B Placement Agent September 2023
 eyenovia \$12,000,000 Registered Direct Co-Placement Agent August 2023	 99 ACQUISITION GROUP \$75,000,000 IPO Joint Bookrunner August 2023	 Adial PHARMACEUTICALS Completed Engagement Capital Markets Advisor August 2023	 TONIX PHARMACEUTICALS \$7,000,000 Follow-On Co-Placement Agent July 2023	 KVAC Keen Vision Acquisition Corporation \$149,500,000 IPO Joint Bookrunner July 2023
 BUJAU BUKIT JALIL GLOBAL ACQUISITION I LTD. \$57,500,000 IPO Co-Manager June 2023	 GENELUX REDEFINING IMMUNO-ONCOLOGY \$5,500,000 PIPE Financial Advisor June 2023	 9METERS BIOPHARMA Completed Engagement Capital Markets Advisor June 2023	 Biocept Completing the Answer \$5,000,000 Follow-On Lead Manager May 2023	 GENELUX REDEFINING IMMUNO-ONCOLOGY \$18,000,000 PIPE Financial Advisor May 2023

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