

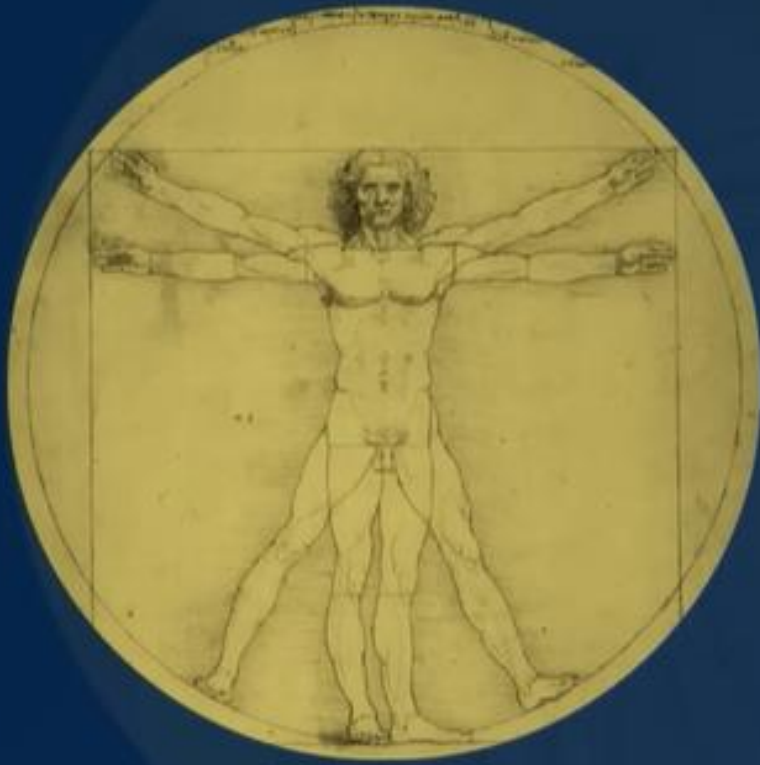


ATLAS VENTURE

YEAR IN REVIEW 2023



RECORDED ON NOVEMBER 7, 2023



BIOPHARMA INNOVATION

BIOMEDICAL ADVANCES

R&D PRODUCTIVITY

INDUSTRY RISKS

PUTTING THE BIG BACK IN BIG PHARMA



Obesity & Metabolic Disease

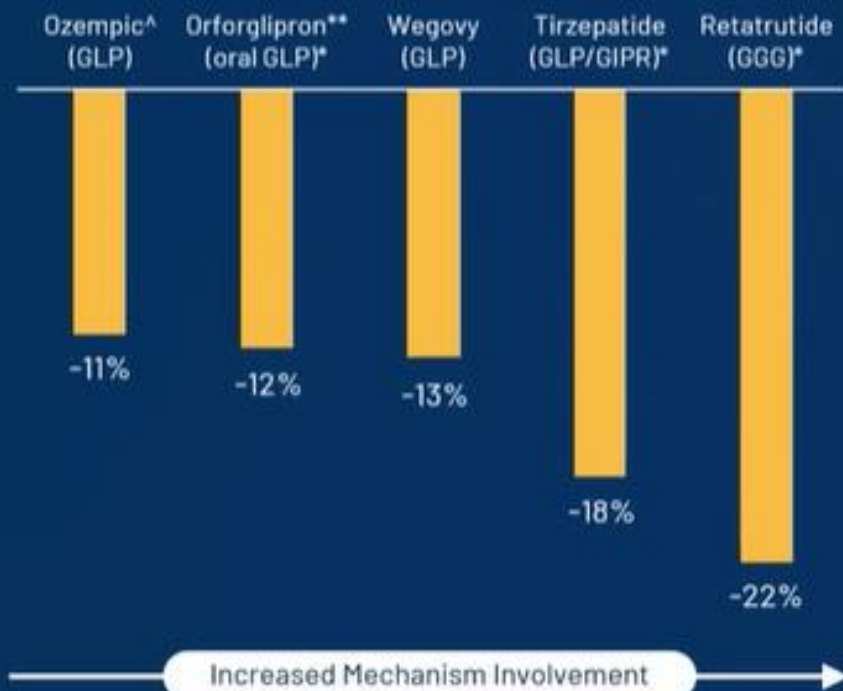


Alzheimer's & Neurodegenerative Disease

COMPELLING GLP1 DATA OPENING UP A HUGE OPPORTUNITY

INCRETIN PERFORMANCE IN OBESITY

Placebo-corrected weight loss at ~1 year in obese, non-diabetic population



SELECT

Cardiovascular Outcomes Trial

— **BIG WIN** —

20%
Reduction in Stroke, Heart Attack, Or Death

17K
Patients

Notes: ^{*} Not yet approved in obesity indication; ^{**} Data at 36 weeks;

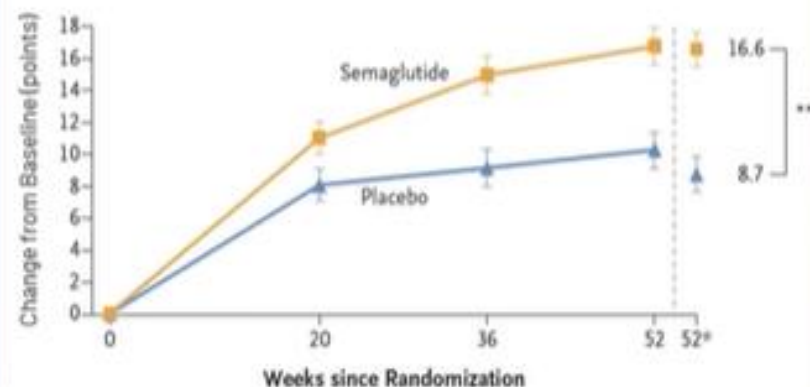
[^] Labeled for diabetes but used off-label for obesity (data representative of small RCT in non-diabetic obese population)

STEP

HFpEF Heart Failure Trial

— **STRONG DATA** —

Improvement in Heart Failure Symptoms^{*}



Source: Koslborod et al., NEJM (2023)

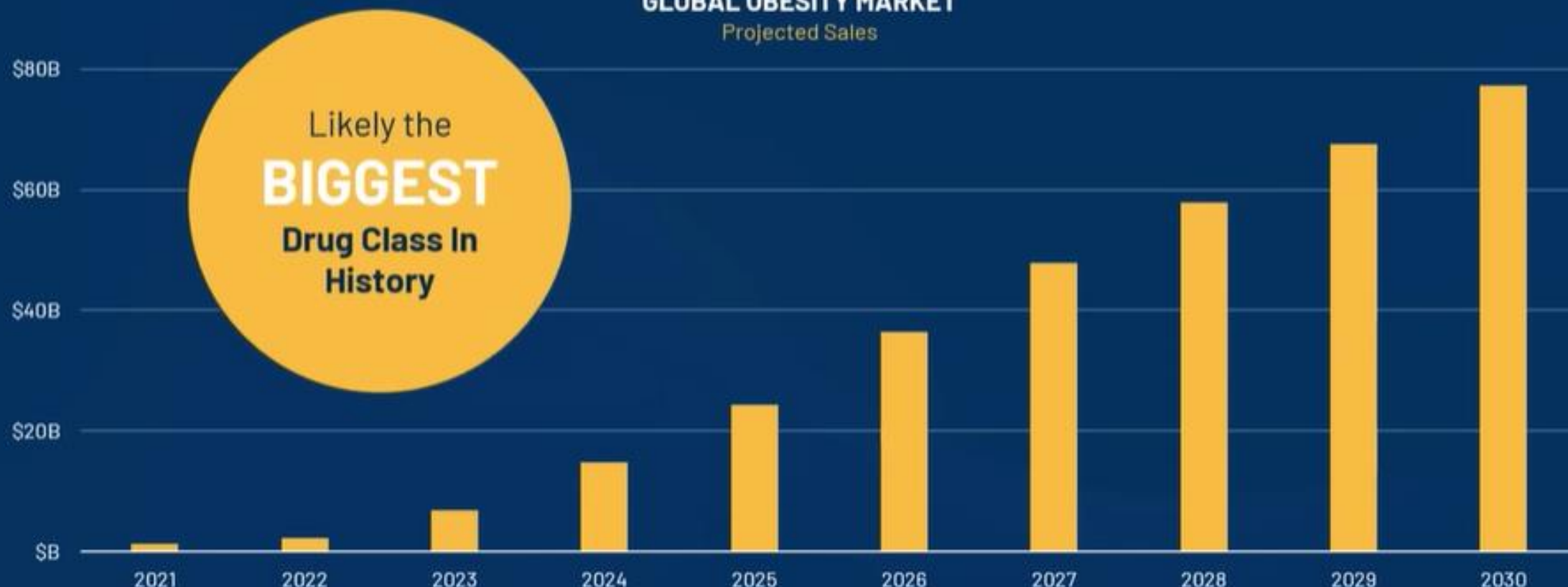
Note: ^{*} Change in KCCQ-CSS

Source: FDA labels; company corporate presentations and PR; Jastreboff et al., NEJM (2022); Jastreboff et al., NEJM (2023); Wharton et al., NEJM (2023); O'Neill et al., Lancet (2018)

...AND SUGGESTING A COMMERCIAL BEHEMOTH

GLOBAL OBESITY MARKET

Projected Sales

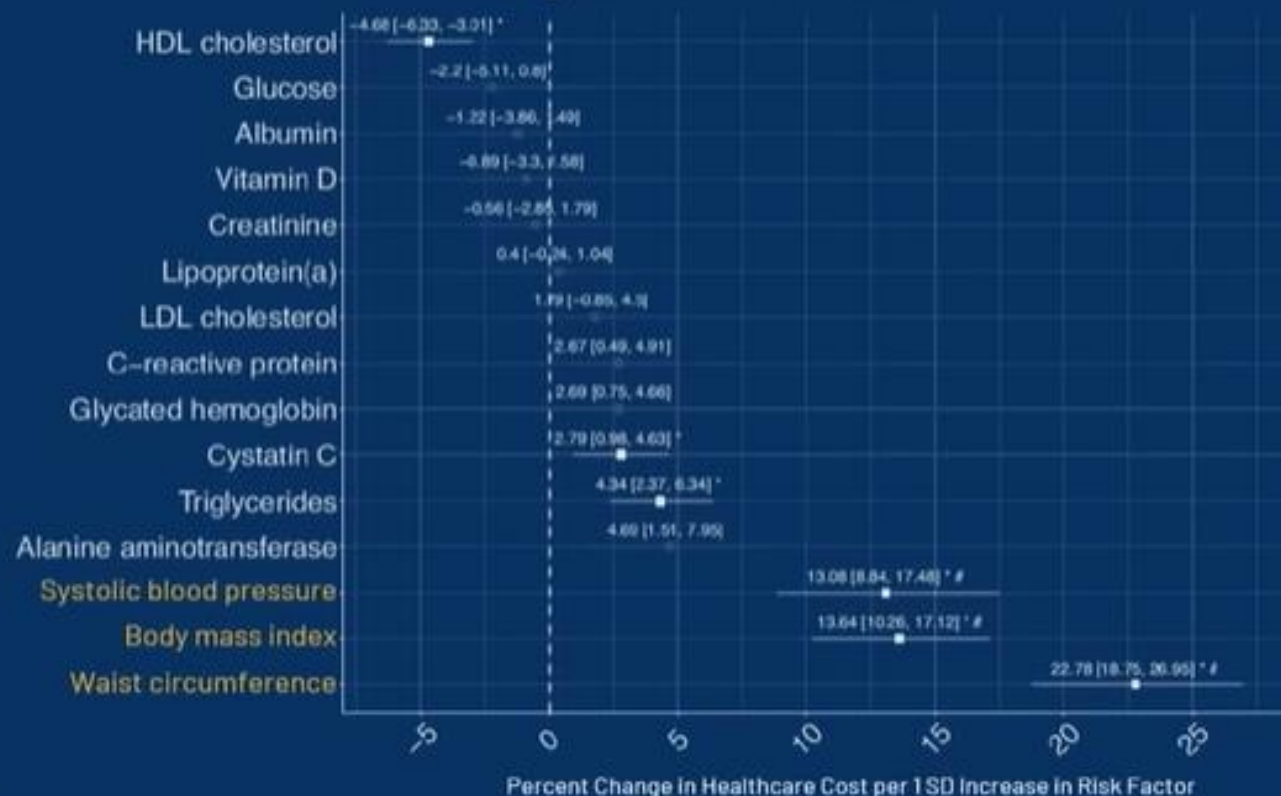


Source: Morgan Stanley; data as of July 2023

BUT ADDRESSING OBESITY REDUCES OTHER HEALTHCARE SPENDING

ESTIMATED CAUSAL IMPACT OF RISK FACTORS ON HEALTHCARE COSTS

Using Mendelian Randomization



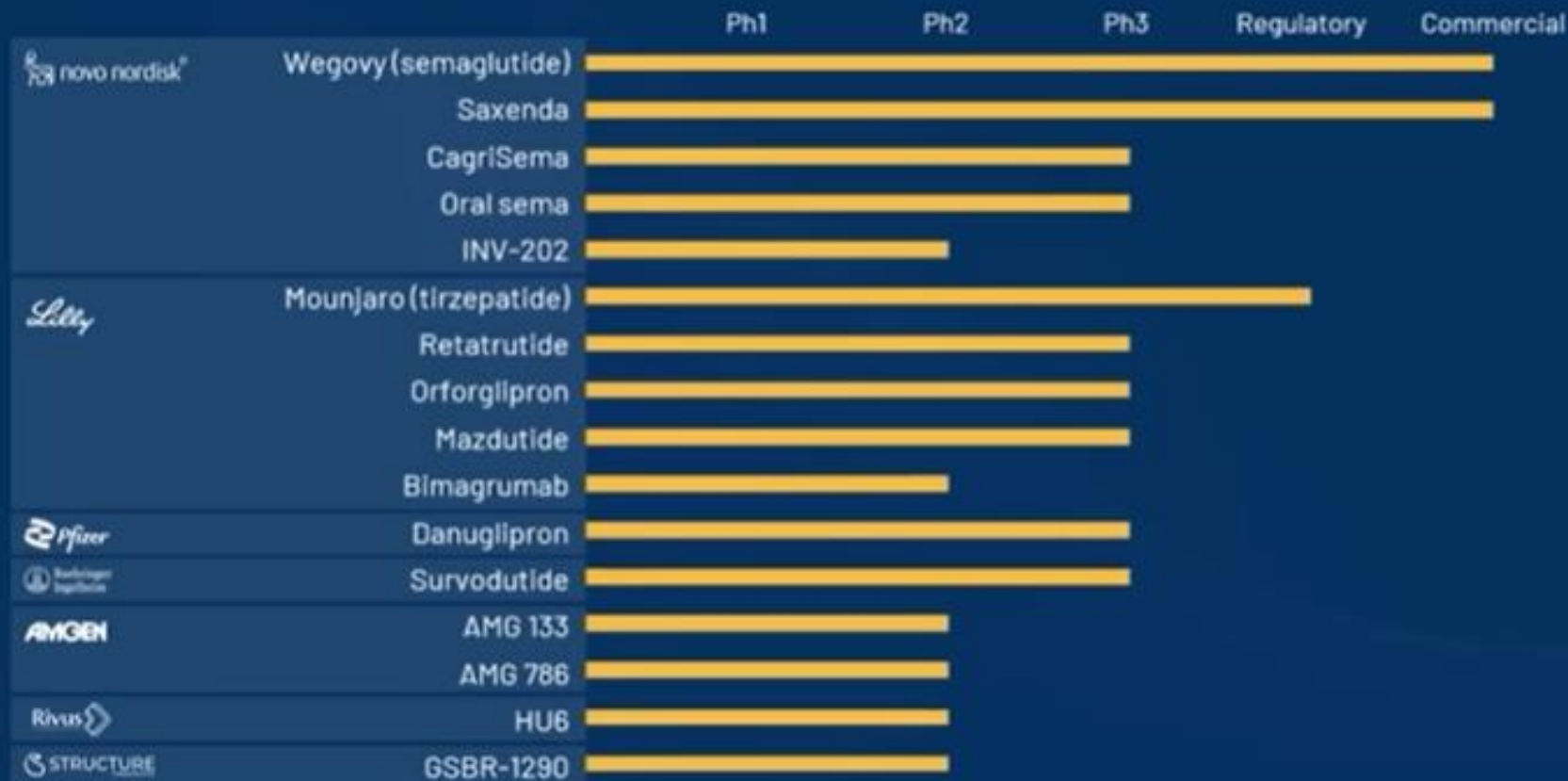
Source: Lee et al., Nat Comm (2023)

- Obesity accounted for \$170B in excess healthcare costs in 2019 in the US
- Obese individuals face ~\$2K of annual excess costs
- Addressing waist circumference, BMI, and SBP could have dramatic impact on overall system costs

Source: Ward et al., PLoS One (2021)

BURGEONING OBESITY PIPELINE & MECHANISTIC PROLIFERATION

GROWING OBESITY PIPELINE: SELECT PROGRAMS



Validated MOAs

- GLP1
- GIPR
- Mixed Incretin

Emerging MOAs

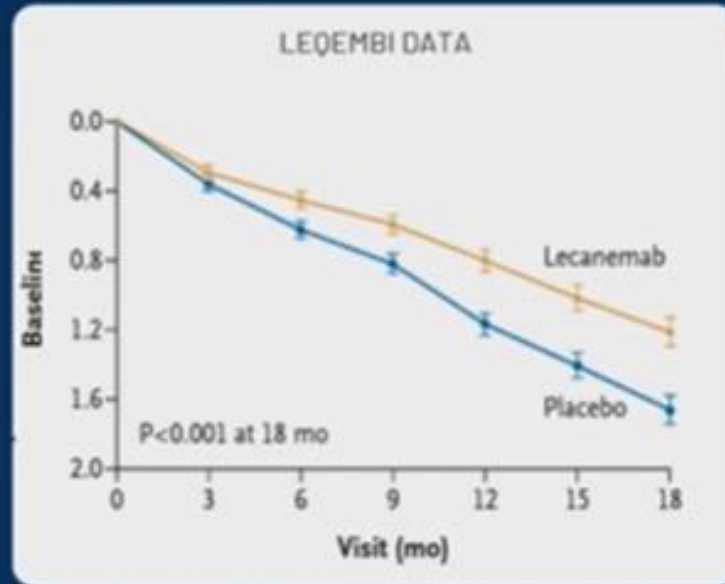
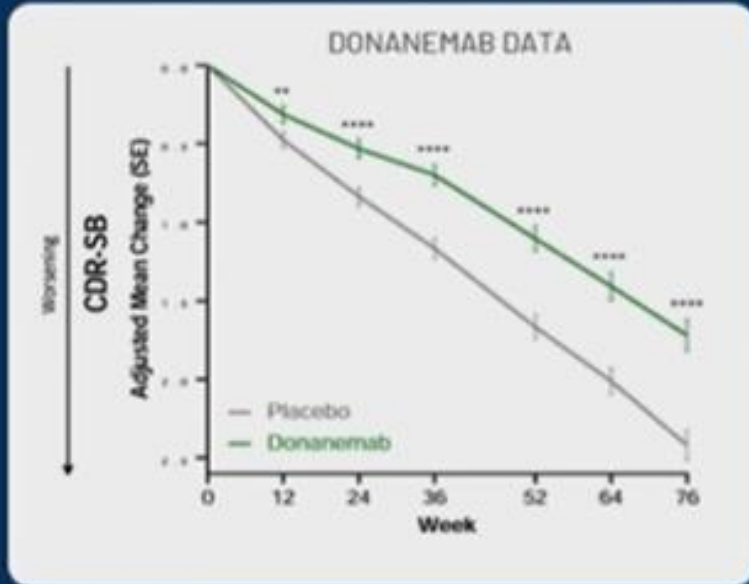
- Glucagon
- Amylin
- ActRII(A,B)
- CB1
- GPR75
- GPR40
- D5D
- TASR2
- MOGAT2
- INHBE

Source: Company websites; Evercore

ALZHEIMER'S AMYLOID ADVANCEMENTS

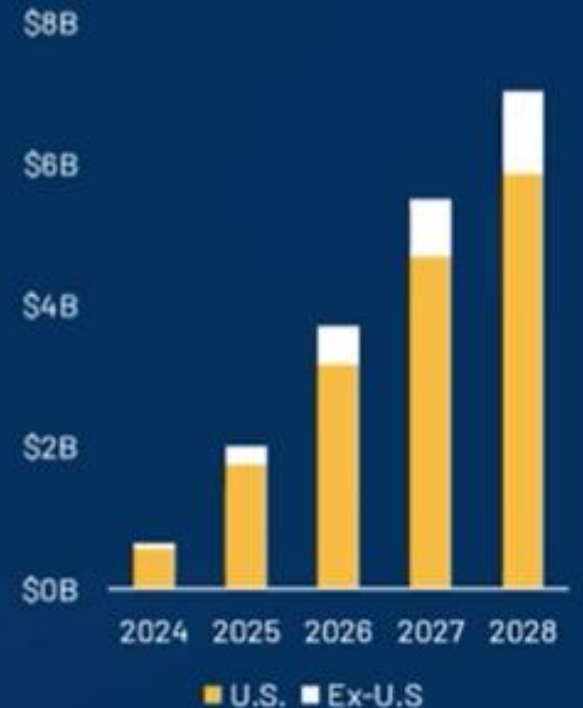
DONANEMAB VERSUS LEQEMBI DATA

CDR-SB measures cognitive function



AMYLOID CLASS FORECAST (LEQEMBI, DONANEMAB)

Projected Sales



35%

slowed cognitive decline rate

80%

saw cleared plaque

40%

showed delayed disease progression

Donanemab Data Source: Eli Lilly company presentation (AAIC, July 2023);

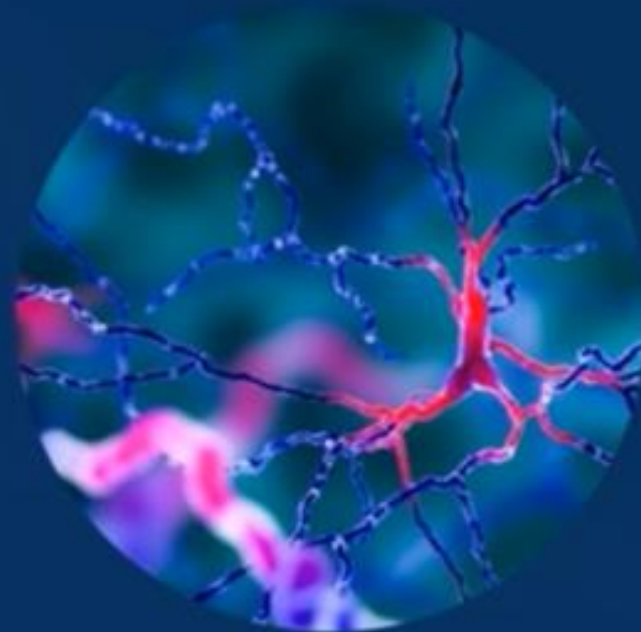
Leqembi Data Source: van Dyck et al., NEJM (2023)

Source: Morgan Stanley, Data as of 9/5/23

RENEWED INTEREST IN NEURODEGENERATIVE DISEASE

Emerging Targets in Neurodegeneration

TREM2	MSH3
PGRN	UNC13A
O-GlcNAcase	STMN2
LRRK2	ATXN2
SARM1	RIPK1
D1, D5	GBA



Additional CNS Milestones

- Approval of surrogate endpoints: NfL biomarker used in ALS, likely other diseases
- BBB delivery: oligos into the brain for siRNA targeting APP in Alzheimer's
- Imaging: increasing use of MRI and PET for monitoring PD effects

Source: Company websites; GlobalData

THE MARKETS LOVE THESE BIG AREAS... WHILE DISFAVORING OTHERS

CHANGE IN MARKET CAPITALIZATION

Sept 2021 to Oct 2023



**COVID NAMES
HIT HARD
AS PANDEMIC
RECEDES**

Source: Yahoo Finance; Macrotrends

THE COVID PANDEMIC VACCINE & DRUG WINDFALL IS OVER



COVID VACCINE & DRUG REVENUES

Global Sales

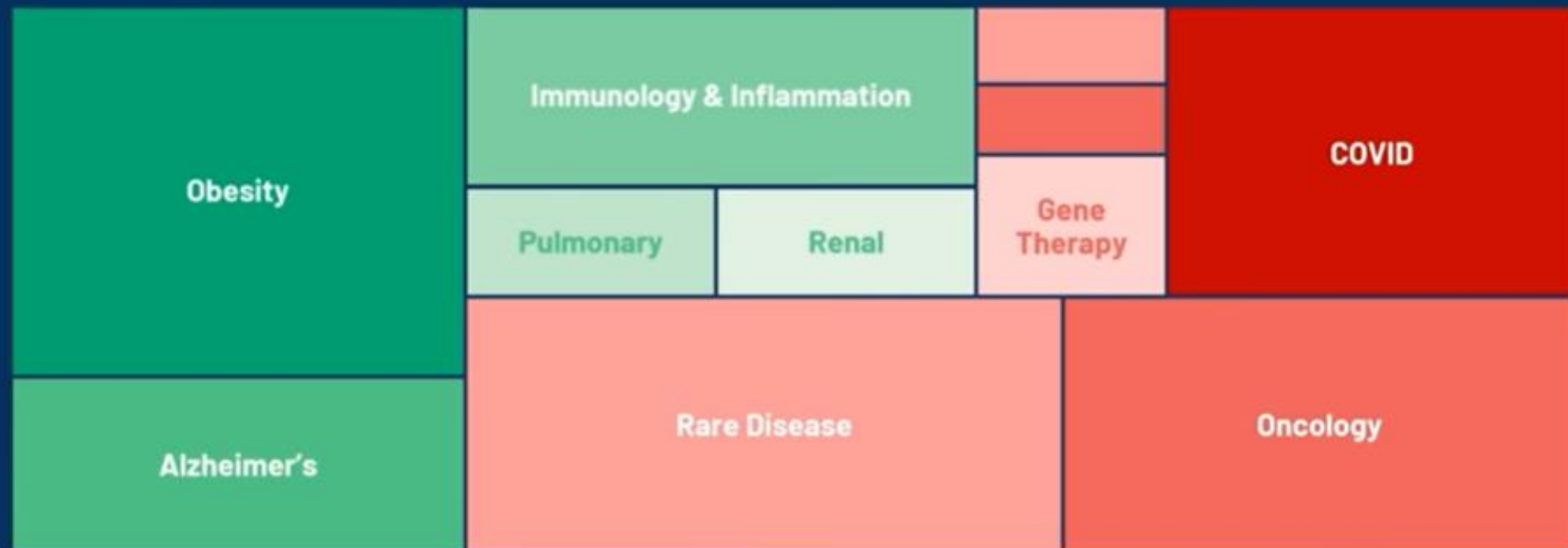


Downtrend Factors

- Vaccine hesitation
- Questions about durability of vaccine protection
- Partially protective herd immunity in place
- Risk/benefit questions linger for different demographics

Source: Company press releases for realized sales; Jefferies for forecast sales (analysis as of 5/30/23)

INNOVATION & MARKET HEATMAP



I&I: DECADE OF IMMUNOLOGY CONTINUES



I&I: DECADE OF IMMUNOLOGY CONTINUES

Big New Drugs & Data

Mechanism	Drug	Sponsor
TYK2	Sotyktu	
	TAK-279	 
FcRN	Vyvgart	
	Rystiggo	
	IMVT-1402	
IL17	Sonelokimab	
	DC-806	

Mechanism	Drug	Sponsor
IL23	JNJ-2113	 
	PRA023	 
TL1A	RVT-3101	  
	TEV-48574	 
TSLP	Tezspire	 
	Dupixent	 
IL4 / IL13	Lebrikizumab	

Other Mechanisms

IRAK4

STAT6

STAT3

MK2

SIK

IL31R / OSMR

MRGPRX2

I&I: DECADE OF IMMUNOLOGY CONTINUES

Mechanism	Drug	Sponsor
TYK2	Sotyktu	Bristol Myers Squibb
	TAK-279	Takeda nimbus
FcRN	Vyvgart	argenx
	Rystiggo	ucb
IL17	IMVT-1402	IMMUNOVANT
	Sonelokimab	MoonLake
	DC-806	DICE Lilly

330+
DRUGS IN DEVELOPMENT

— with —

165
TARGETS

— across —

75
INDICATIONS

Johnson	Protagonist
theus	MERCK
ant	Pfizer Roche
sanofi	
AstraZeneca	
fi	REGENERON

Other Mechanisms

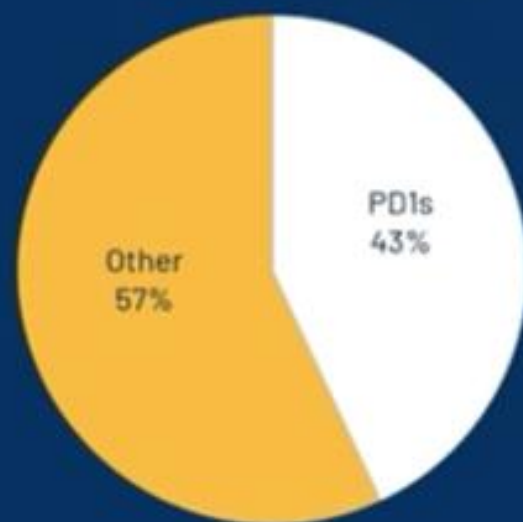
- IRAK4
- STAT6
- STAT3
- MK2
- SIK
- IL31R / OSMR
- MRGPRX2

CAUTIOUS OPTIMISM FOR ONCOLOGY...

Few transformative breakthroughs dominate

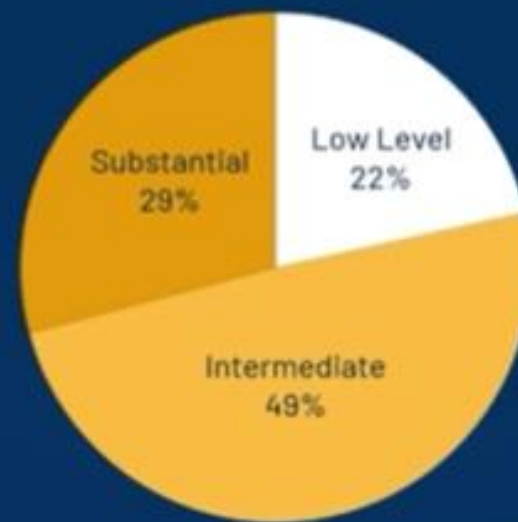
NEW SOLID TUMOR APPROVALS

FROM 2017 TO 2021, n=161



LEVEL OF BENEFIT IN ADVANCED DISEASE SETTING

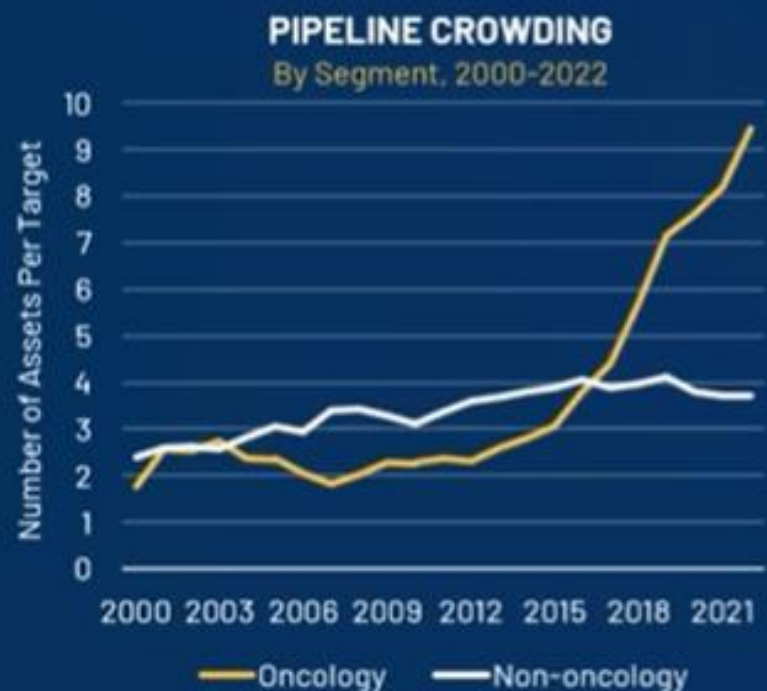
n=146



Source: Cherney Nat Rev Clin Onc (2022)

CAUTIOUS OPTIMISM FOR ONCOLOGY...

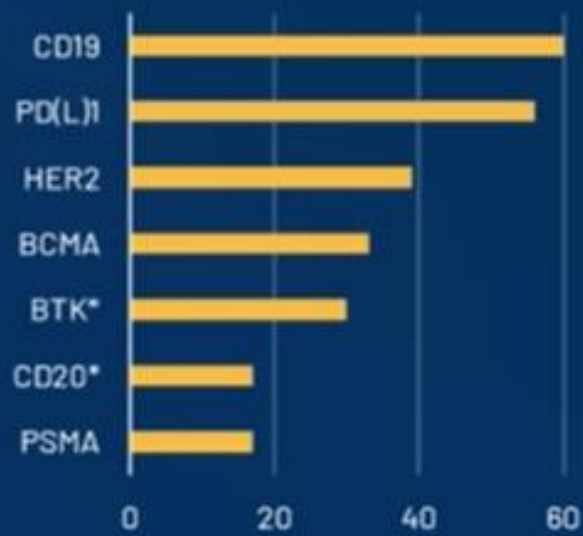
Crowding in certain indications makes trials challenging



All assets in active clinical development

CROWDING FOR TOP TARGETS IN ONCOLOGY

2022



Not all assets in pipeline strictly in development for oncology

Industry wastes tons chasing "hot" unvalidated targets

IGF1R CASE STUDY

- 16 IGF1R inhibitors entered clinic
- 183 clinical trials
- 12,000 patients treated
- ~\$2B spent
- No approvable data
- Hindsight: weak preclinical, unvalidated MoA

Source: Fougner et al., Nat Rev Drug Discov (2023); McKinsey analysis

Source: Jentzsch et al., JAMA (2023)

CAUTIOUS OPTIMISM FOR ONCOLOGY...

Rare oncology, often precision genetics, dominate >50% of cancer trials

RARE ONCOLOGY CLINICAL TRIAL STARTS AS PORTION OF TOTAL

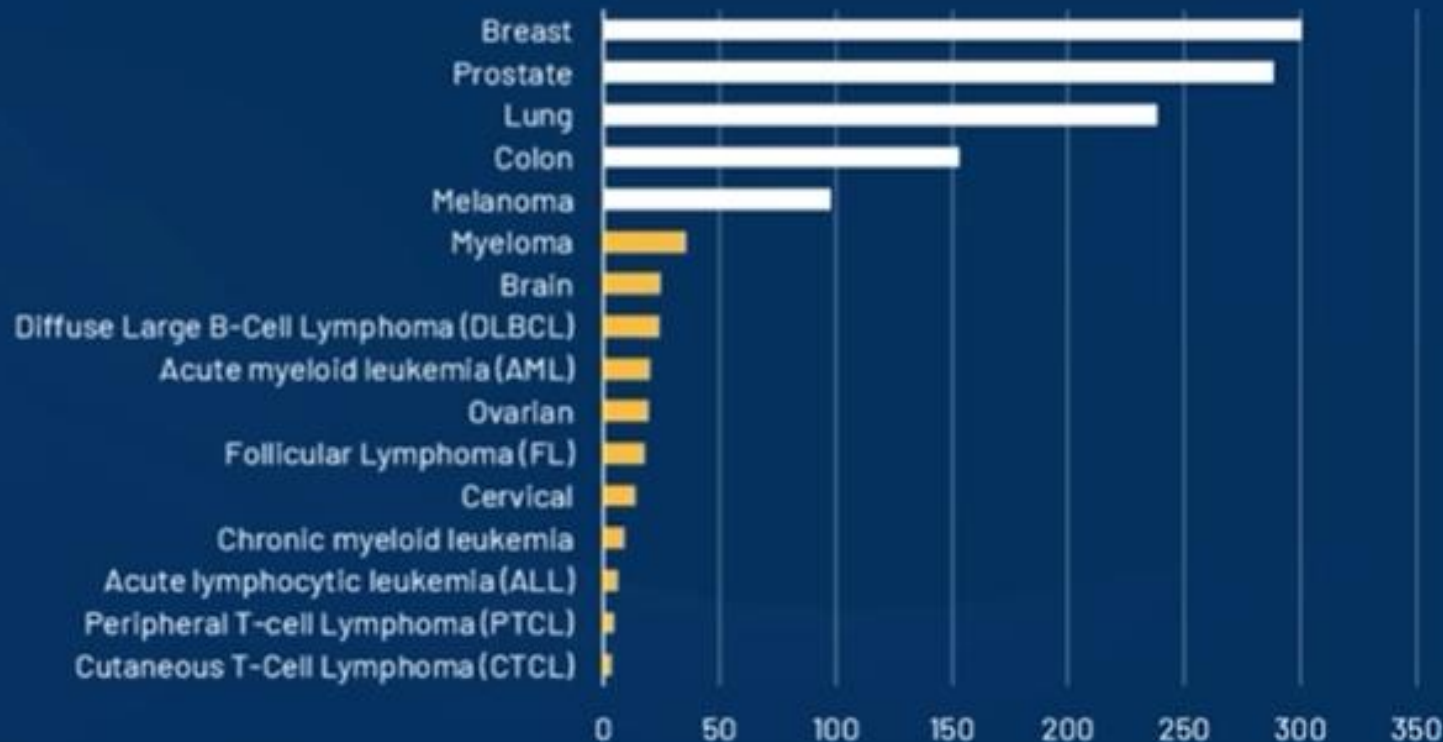
2012-2022, Phase I through Phase III



Source: Report from IQVIA Institute for Human Data Science - Global Use of Medicines 2023: Outlook to 2027, January 2023

U.S. CANCER INCIDENCE

Estimated New Cases (000's), 2023



Source: American Cancer Society, LLS, 2023

BUT SOME BRIGHT SPOTS IN THE CANCER R&D LANDSCAPE

Antibody
Drug
Conjugates

New
Modalities for
Undruggables

Bispecific
T-Cell
Engagers

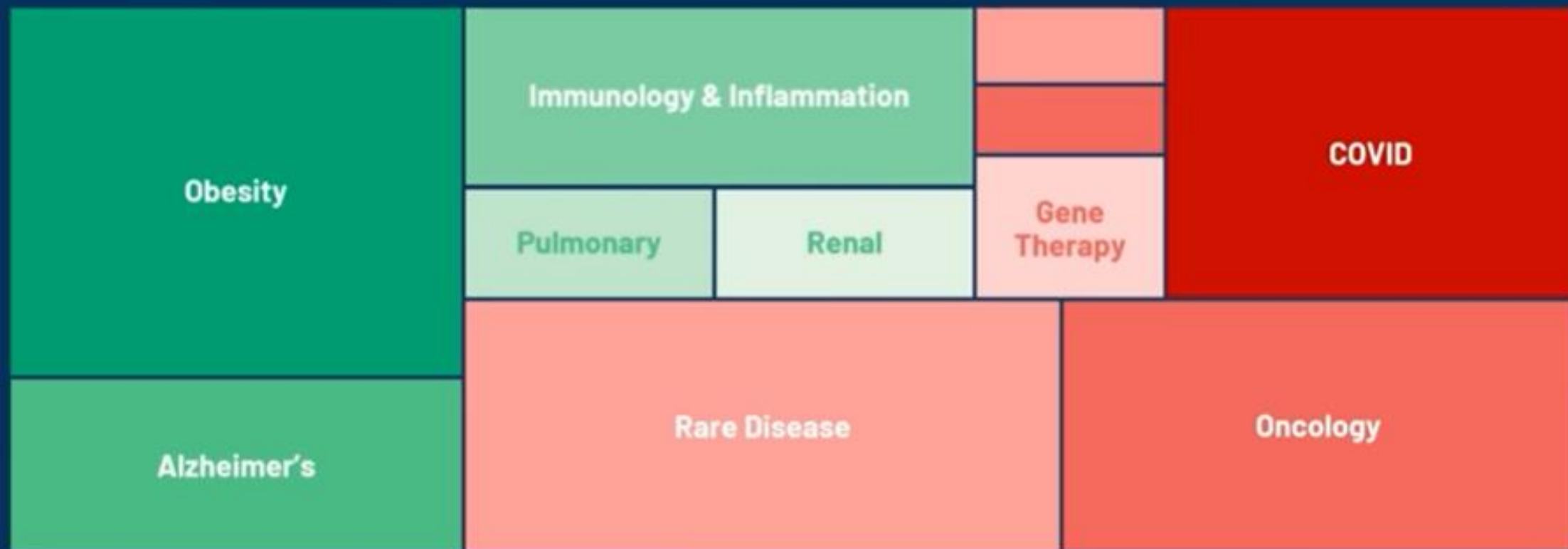
Next-gen
Synthetic
Lethality

Drugging
Transcription
Factors

Tumor-
Infiltrating
Lymphocytes

Radio
Pharma

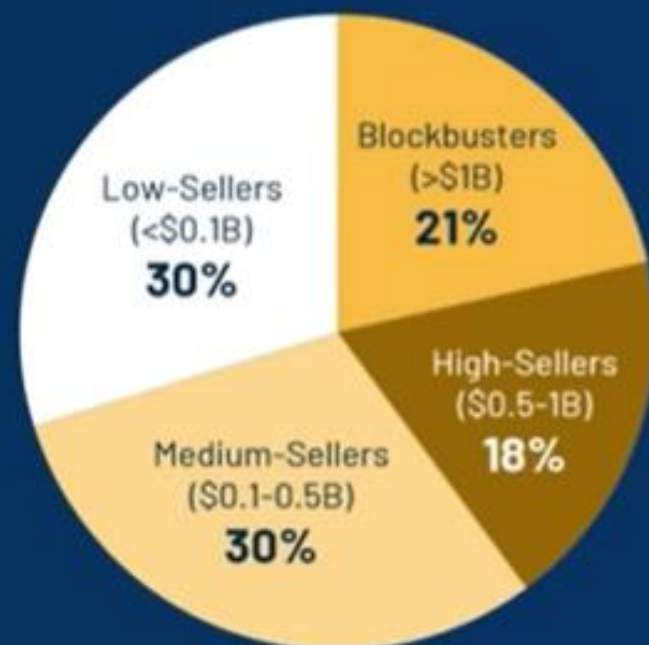
INNOVATION & MARKET HEATMAP



BLOCKBUSTER MODEL REMAINS A MAJOR INDUSTRY FORCE

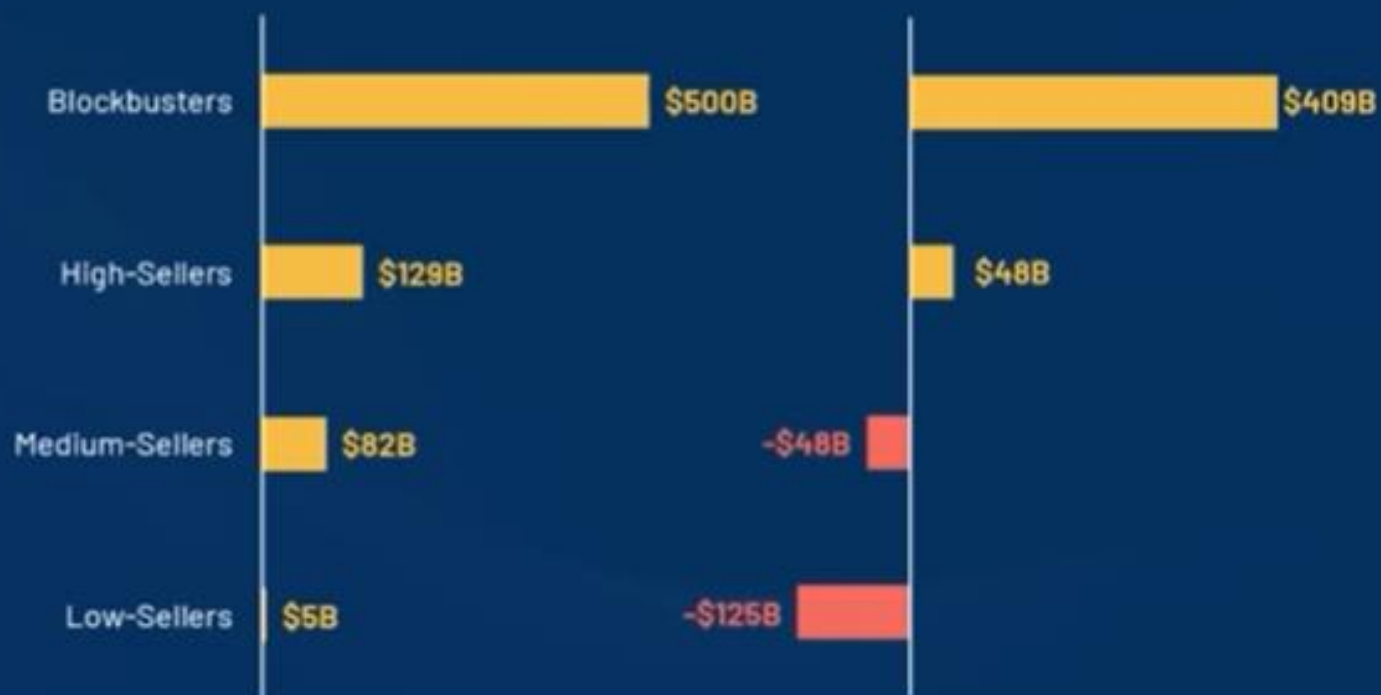
NEW DRUGS LAUNCHED BY TOP 20 PHARMA

By Sales Performance from 2011-2020, n=168



CUMULATIVE REVENUES

ESTIMATED CONTRIBUTION TO R&D RETURNS



Source: Schumacher et al., Nat Rev Drug Discov (2023)

BLOCKBUSTER MODEL REMAINS A MAJOR INDUSTRY FORCE

NEW DRUGS LAUNCHED BY TOP 20 BIAPMA

By Sale:

Eliquis.
(apixaban) tablets

HARVONI
ledipasvir/sofosbuvir
90 mg/400 mg tablets

IBRANCE
palbociclib | 125 mg capsules

KEYTRUDA
(pembrolizumab) injection 100mg

\$409B

OPDIVO
(nivolumab)
300 mg INJECTION

Tecfidera.
(dimethyl fumarate) delayed-release capsules 120mg

SOVALDI
SOFOSBUVIR
400mg TABLETS

Seven new drugs

Just 4% of all approvals in this data set

> generated >

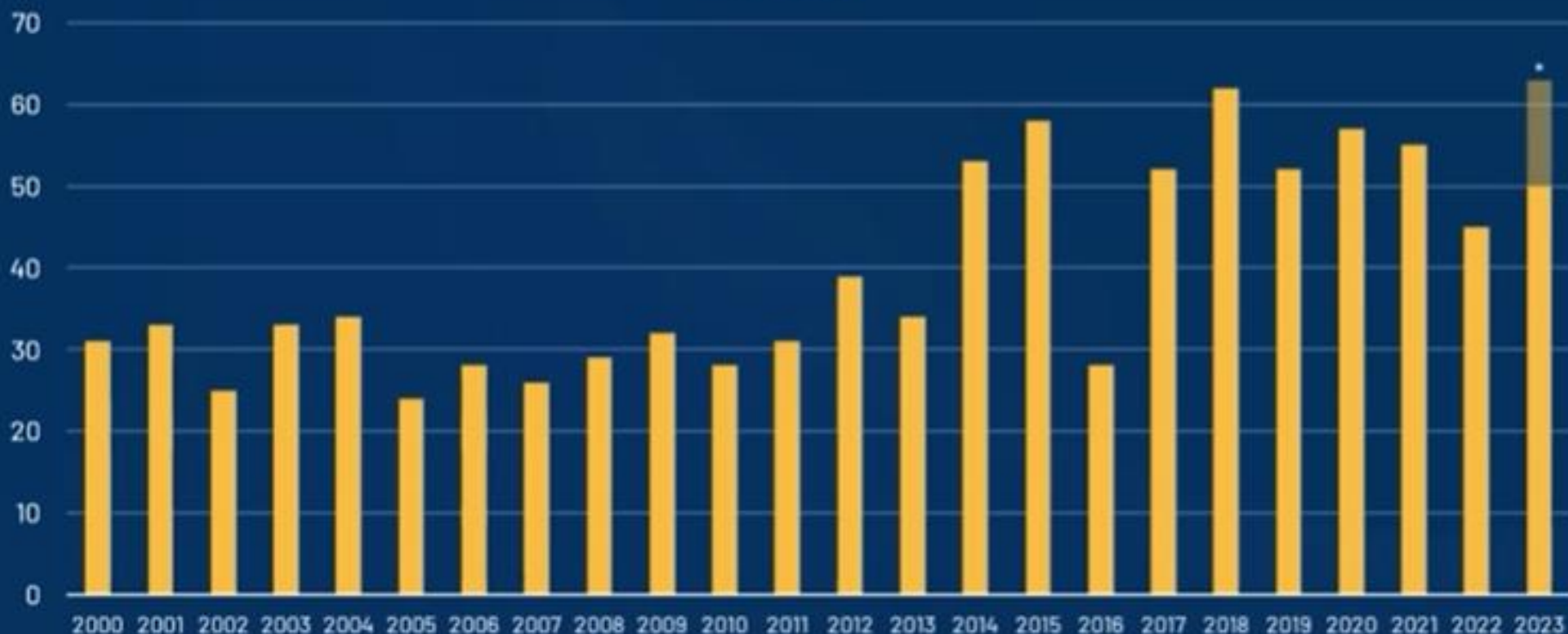
28% of all revenues

Totaling ~\$204B

Source: Schumacher et al., Nat Rev Drug Discov (2023)

STEADY PACE OF FDA APPROVALS

FDA APPROVALS OVER TIME
2000-2023



Selected 2023 Medicines

QALSODY
(tofersen) oral solution

FILSPARI
oparsetan oral solution

SKYCLARYS
(omaveloxolone) oral suspension

LEQEMBI
lecanemab intravenous injection

ZURZUVAE

VOWST
local anesthetic agents
for topical use

Jesduvroq
(daprodustat) tablets

ROCTAVIAN
roctavian intravenous injection

Note: Approvals through Oct 17, 2023

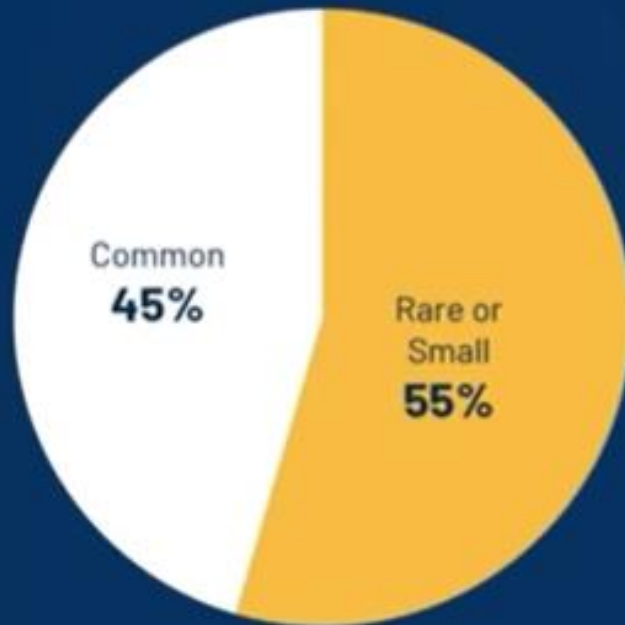
*Annualized

Source: AV analysis of CDER and CBER FDA approvals

MOST NEW APPROVALS FOR SMALL MARKETS BY SMALL COMPANIES

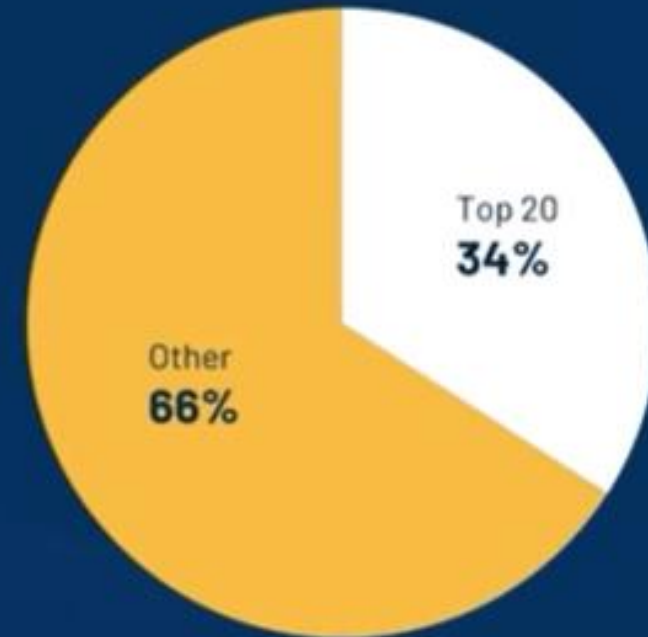
FDA APPROVALS 2022-2023

Share for Rare or Small Diseases
n=88 new drugs



SHARE BY SPONSOR

n=88 new drugs



Note: Common defined as >200K prevalent patients in U.S.; Top 20 designation at time of approval

Source: Atlas analysis of FDA

THESE SMALLER PLAYERS APPEAR TO BE LAUNCHING DRUGS "BETTER"

POST-LAUNCH STOCK PERFORMANCE

For Mid-cap Biotech



- Better expectations – getting coupled with better execution
- M&A post-approval is a big driver

biohaven
pharmaceuticals

HORIZON

Kadmon

MIRATI
THERAPEUTICS

proventionbio

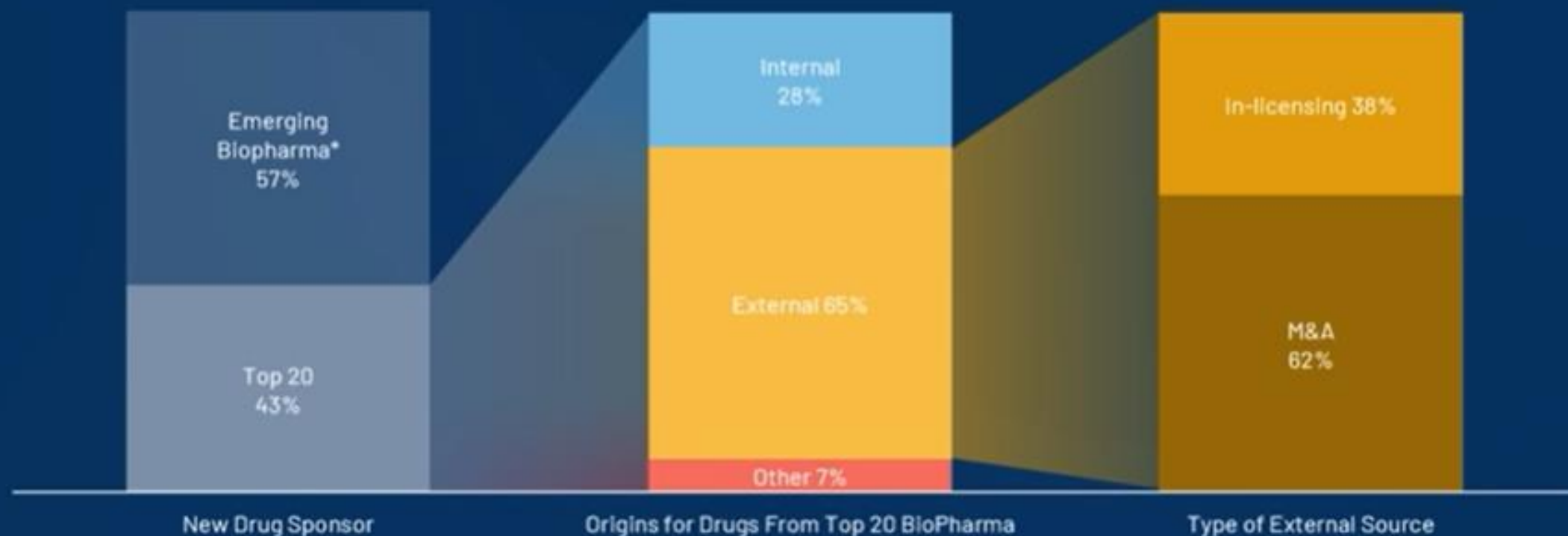
REATA
PHARMACEUTICALS

Source: Evercore, Josh Schimmer analysis May 2023

EXTERNAL INNOVATION CONTINUES ITS IMPORTANCE

ORIGINS OF NEW DRUGS

2015-2021, n = 323



Source: Schumacher et al., Nat Rev Drug Discov (2023)

Note: * All Non-Top 20 Drug Sponsors Included

LATE STAGE ASSETS: DIVERSE & COMPELLING



External

MK-0616

Oral PCSK9

- FOR -

Hypercholesterolemia



External

ACORAMIDIS

TTR stabilizer

- FOR -

ATTR-Cardiomyopathy



AMG-133

GLP1 agonist / GIPR antagonist

- FOR -

Obesity

Johnson & Johnson

External

JNJ2113

Oral IL23 antagonist

- FOR -

Psoriasis



VX-548

Nav1.8 inhibitor

- FOR -

Pain



MRTX 1719

PRMT5 inhibitor

- FOR -

Solid Tumors

ATLAS' LATER STAGE ASSETS EXCITING, TOO

Intellia
THERAPEUTICS

NTLA-2002

KLKB1 gene editing (knockout)

— FOR —

HAE

KYMERA | **sanofi**

Partnered

KYMR-474

IRAK4 degrader

— FOR —

HS / AD

discmedicine

External

BITOPERTIN

GlyT1 inhibitor

— FOR —

Erythropoietic protoporphyria

Dyne
THERAPEUTICS

DYNE-101

DMPK knockdown

— FOR —

DM1

akero

External

EFRUXIFERMIN

Fc-FGF21 fusion protein

— FOR —

F2/F3 NASH

AIOLOS BIO

External

AIO-001

TSLP antagonist

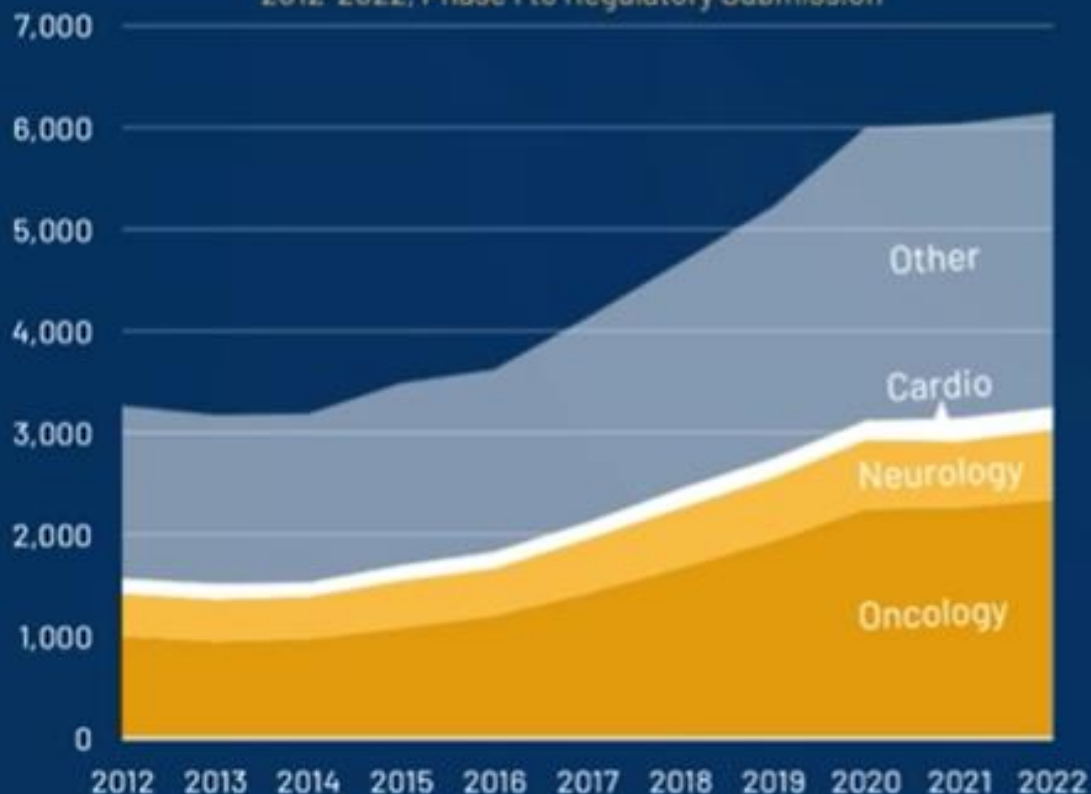
— FOR —

Asthma

INDUSTRY PIPELINE & CLINICAL ACTIVITY INCREMENTALLY LARGER

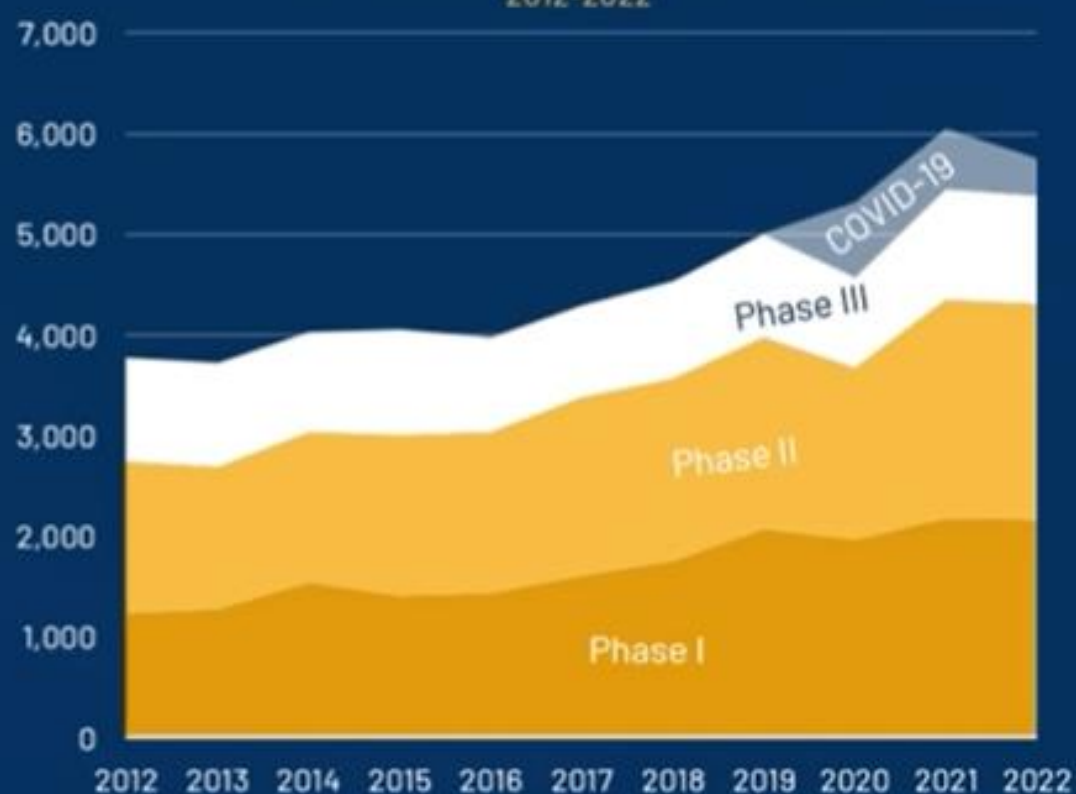
PIPELINE PRODUCTS IN THE CLINIC

2012-2022, Phase I to Regulatory Submission



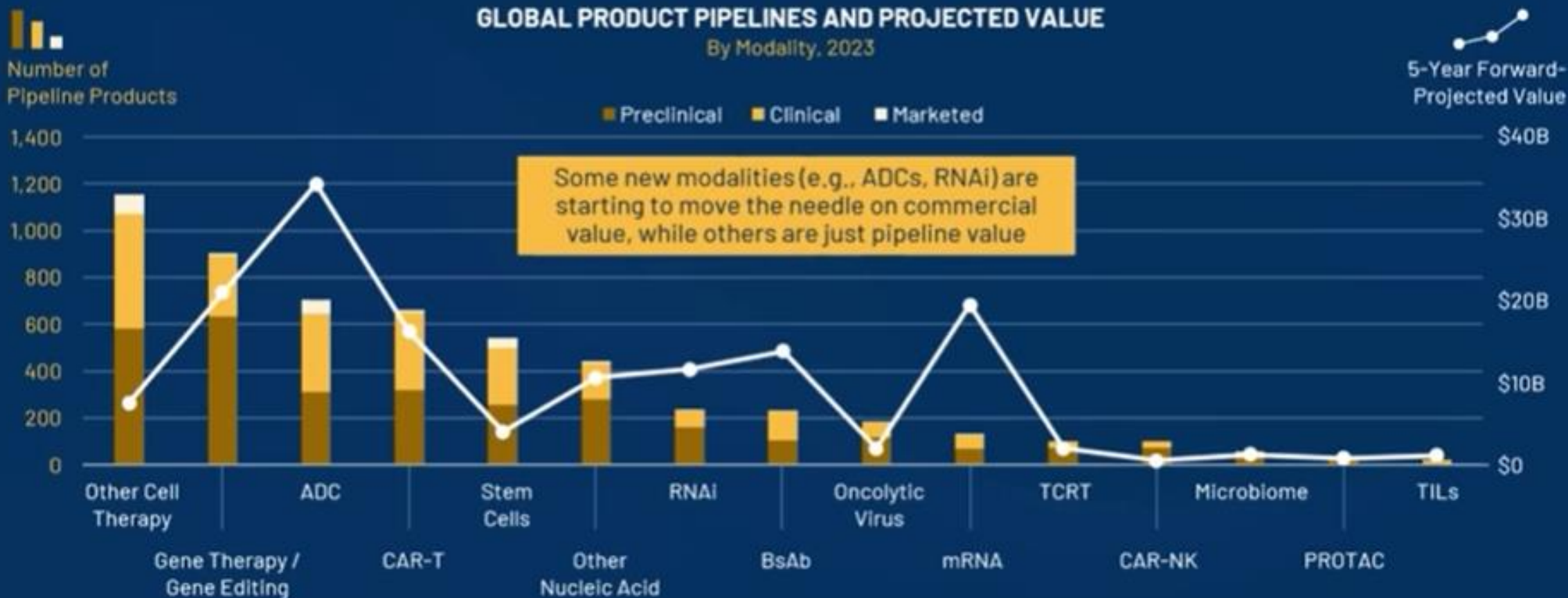
CLINICAL TRIAL STARTS BY PHASE

2012-2022



Source: IQVIA Institute, "Global Trends in R&D 2023" Report

INCREDIBLE NEXT GEN MODALITY DIVERSITY ACROSS THE INDUSTRY

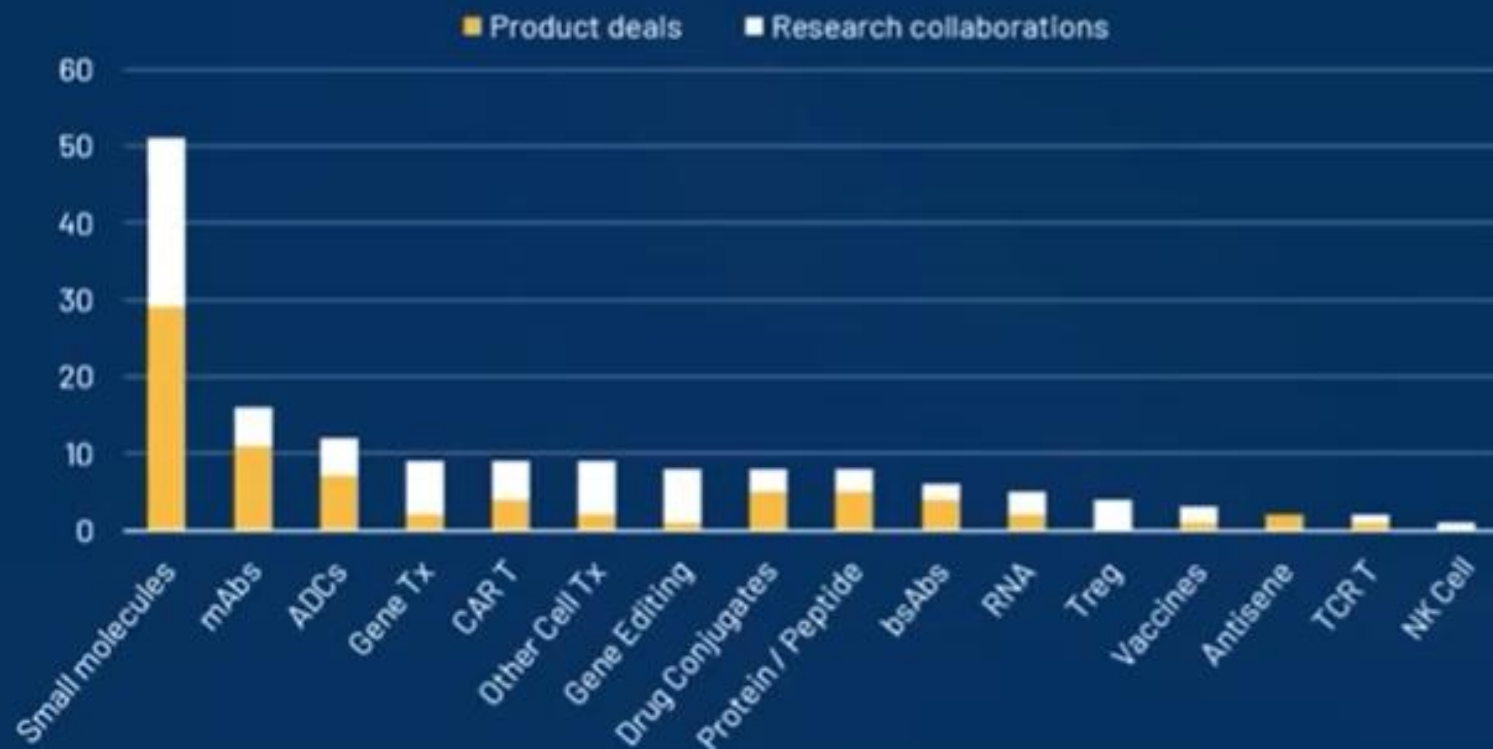


Source: Boston Consulting Group analysis ("New Drug Modalities 2023" report), including BCG analysis of EvaluatePharma

PHARMAS HAVE BEEN FOCUSING ON A FEW MODALITIES OF INTEREST

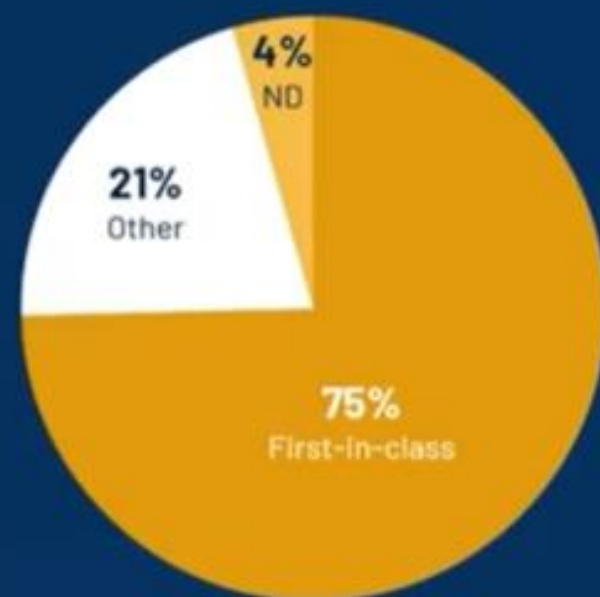
RECENT PHARMA DEAL ACTIVITY

By Modality, 3Q22-2023



TYPE OF PHARMA ASSET DEAL

3Q22-2023



Source: BioCentury

Note: Includes therapeutic product deals and research collaborations by top 21 pharmas in 3Q22-2023

FACTORS AFFECTING R&D PRODUCTIVITY



RISK



TIME



COST



RISK: DEVELOPMENT SUCCESS RATES DETERIORATE

SUCCESS RATES

By Phase, 2017 vs 2022



COMPOSITE SUCCESS RATES

16% 2017

6.3% 2022

Below 10-year trend in every disease area, except vaccines

- Novel modalities
- Regulatory goalposts
- Late stage blow-ups

Source: IQVIA, Global Trends in R&D report, Feb 2023



RISK: HIGH PROFILE FAILURES ARE PART OF THE BUSINESS

FDA



Zuranolone

– FOR –

Depression (MDD)

Data



Pamrevlumab

– FOR –

IPF

Safety

Apellis

Syfovre

– FOR –

Vasculitis

Data



Gantenerumab

– FOR –

Alzheimer's Disease

FDA

Intercept 

OCA

– FOR –

NASH

Data

ACELYRIN 

Izokibep

– FOR –

Hidradenitis
Suppurativa

All

EQRx

Entire
Business
Model

Data

Benevolent^{AI}BEN-2293
(pan-TRKi)

– FOR –

Atopic Dermatitis

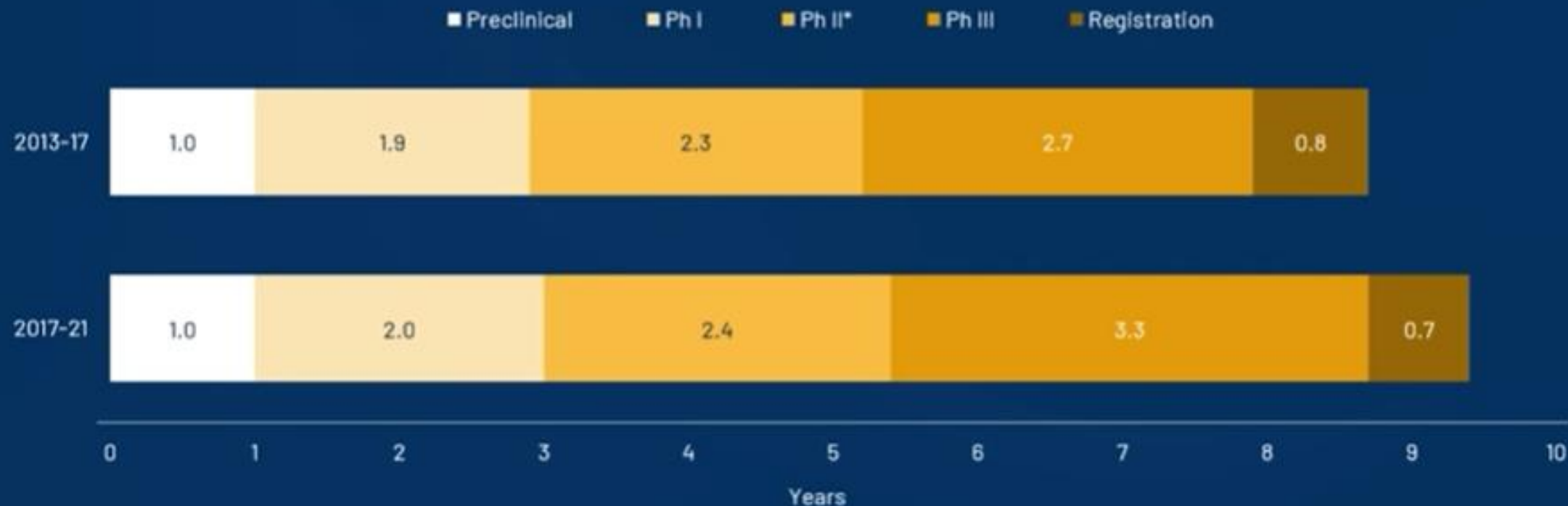
Source: Atlas analysis of company press releases



TIME: DEVELOPMENT CYCLES HAVEN'T GOTTEN BETTER

BIG PHARMA COMPOSITE CYCLE TIME

Years Per Stage



Source: Roche R&D Presentation, Sept 2023

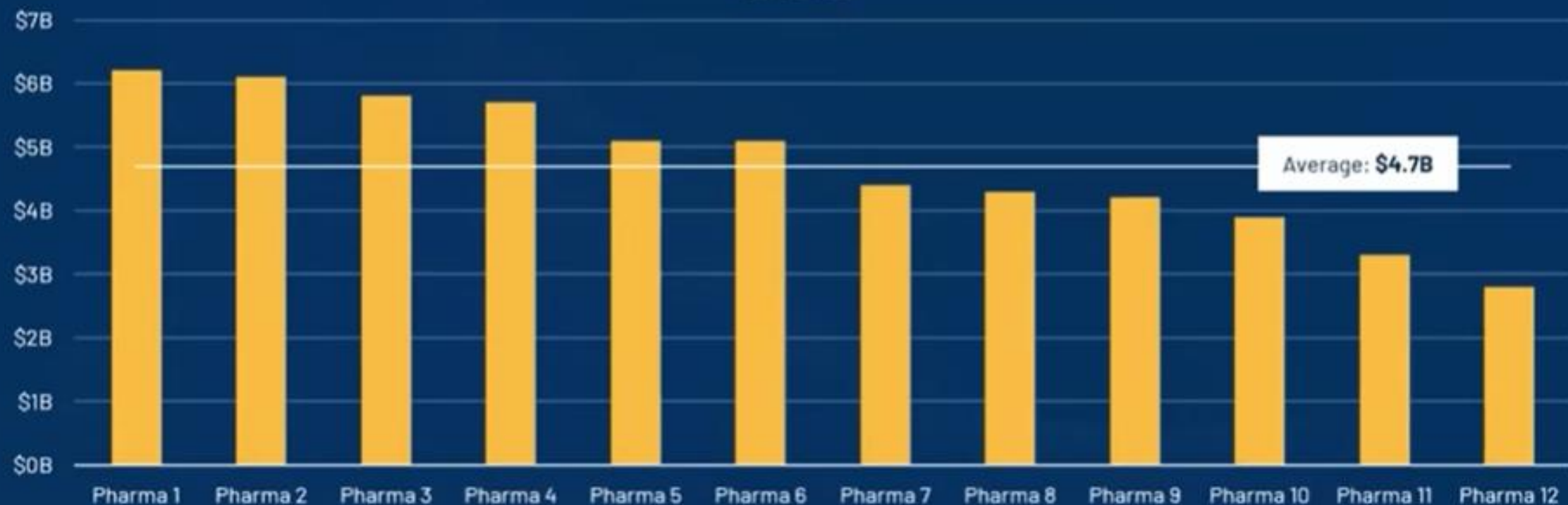
Note: * Includes Ph Ib expansions for oncology, single arm Ph IIs, and randomized Ph IIs



COST TO BRING BIG PHARMA DRUGS TO MARKET REMAINS ENORMOUS

PHARMA TOTAL R&D SPEND PER NME* LAUNCH

2018-2022



Source: Roche R&D Presentation, Sept 2023; Roche analysis of EvaluatePharma (data as of March 2023)

Note: * New Molecular Entity (including novel biologics)

FACTORS AFFECTING R&D PRODUCTIVITY



FIVE BIG RISKS FROM WASHINGTON



INFLATION
REDUCTION
ACT



FEDERAL
TRADE
COMMISSION



PATENT
LANDSCAPE
SHIFTS



REGULATORY
TRANSPARENCY



INTEREST
RATES

IRA: THE DRUG PRICING "FIX" IS IN

THE "HIT LIST"

Pharma

Drug



Eliquis
apixiban tablets



Jardiance
empagliflozin tablets



Xarelto
rivaroxaban tablets and oral suspension



Januvia
sitagliptin oral tablet, chewable tablet



farxiga
dapagliflozin tablets

Pharma

Drug



Entresto
sacubitril/valsartan tablets, oral suspension



Enbrel
etanercept



Imbruvica
ibrutinib tablets, oral suspension



Stelara
ustekinumab



NovoLog
insulin aspart injection 100 units/mL and other branded insulin pens



AN OFFER YOU CAN'T REFUSE



ORAL CONVENIENT DRUGS DISCOURAGED



DELAYS IN BRINGING DRUGS TO PATIENTS

Source: CMS

WAVE OF LAWSUITS CHALLENGING THE IRA

PLAINTIFFS



Johnson & Johnson



CLAIM

THE LAW
VIOLATES
THE

1st, 5th & 8th
AMENDMENTS

FTC: M&A AVOIDS GETTING KHAN-CELED?

AMGEN **HORIZON**

- Creating hesitation on part of buyers
- FTC risk very present in every deal dialogue
- Uncertainty is risk
- Impact on actual deals remains to be seen

PATENTS: ANTIBODY IP JUST GOT NARROWED

SUPREME COURT OF THE UNITED STATES

Syllabus

AMGEN INC. ET AL. v. SANOFI ET AL.

CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR
THE FEDERAL CIRCUIT

No. 21-757. Argued March 27, 2023—Decided May 18, 2023

- Broad, field-blocking patents (like to entire epitopes) without complete enablement ruled invalid by Supreme Court
- Prophetic, platform-IP may be narrowed in time
- More 'me-too's in future



FDA: PERHAPS GROWING TOUGHER, BUT CERTAINLY MORE INSULAR

CLINICAL HOLDS BY THE FDA

2010-2023



Source: Jefferies (via FactSet, Company reports)
Data as of 9/15/2023 Note: *Annualized

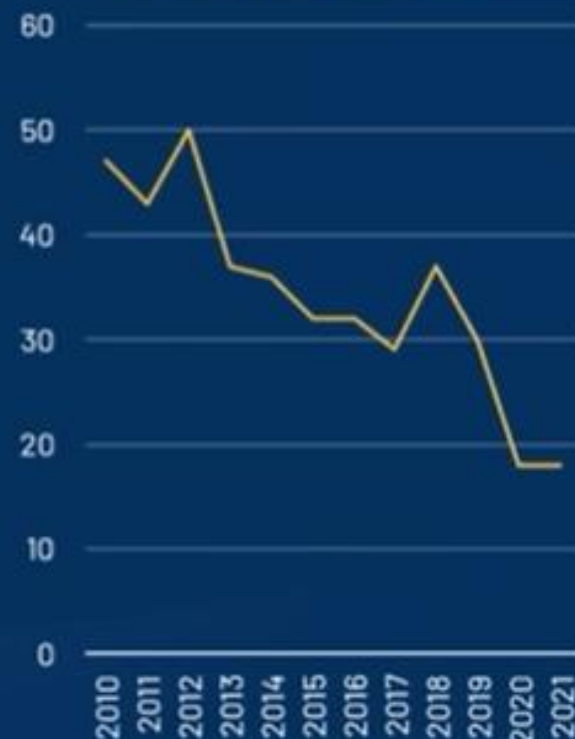
FDA Rejections

Rejections (CRLs) as Share of FDA Actions**



Source: PinkSheet Citeline Jan 2023
Note: **Share of actions for Novel agents only

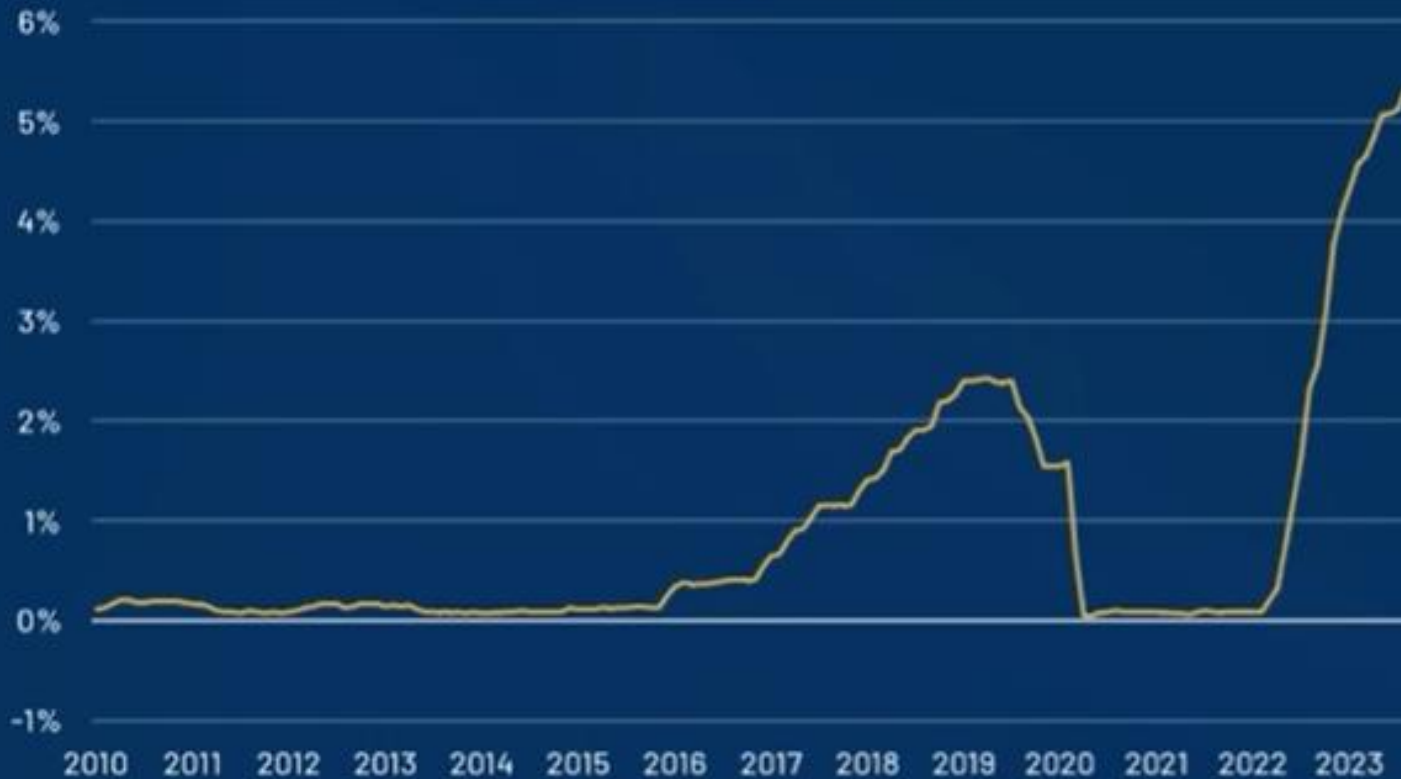
U.S. FDA ADVISORY COMMITTEE MEETINGS



Source: Deval et al., JAMA Health Forum (2023)

INTEREST RATES

EFFECTIVE FED FUNDS RATE



Source: Federal Reserve Bank of St. Louis





VENTURE ECOSYSTEM

CONTEXT

VC CYCLE

PERFORMANCE

CHALLENGING TIMES IN BIOTECH

“

We lived and witnessed a phenomenon in the biotechnology arena I characterized as **gravity suspended... Discriminating capital allocation** is replacing the honeymoon phase of prior years.

“

Only a few years ago the buzzwords were about **platform technologies**... Today, it is difficult even for companies with late-stage technologies and Phase II **clinical data** to receive any interest from the institutional investors who for decades have dominated this industry

Source: Ernst & Young Resilience Americas Biotech Report 2003

CHALLENGING TIMES IN BIOTECH

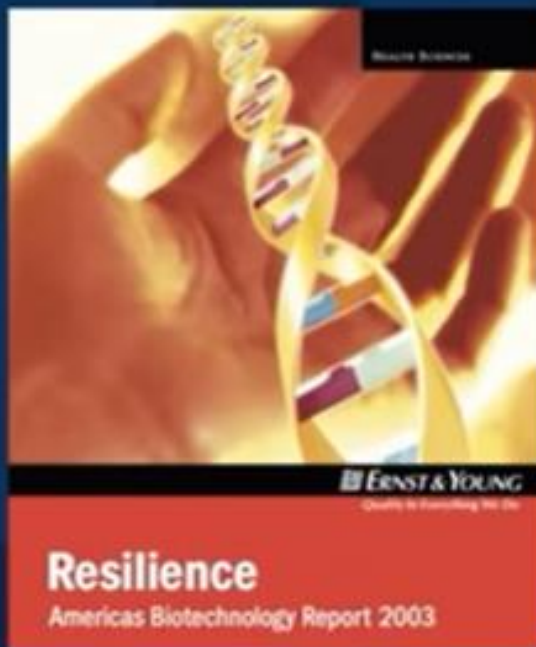
“

We lived and witnessed a phenomenon in the biotechnology arena I characterized as **gravity suspended... Discriminating capital allocation** is replacing the honeymoon phase of prior years.



Fred Frank

Vice Chairman, Lehman Brothers



“

Only a few years ago the buzzwords were about **platform technologies**... Today, it is difficult even for companies with late-stage technologies and Phase II **clinical data** to receive any interest from the institutional investors who for decades have dominated this industry



Frank Baldino

CEO, Cephalon

Source: Ernst & Young Resilience Americas Biotech Report 2003

PARALLELS: 2003 & 2023



Source: Yahoo Finance
Data as of 10/20/2023

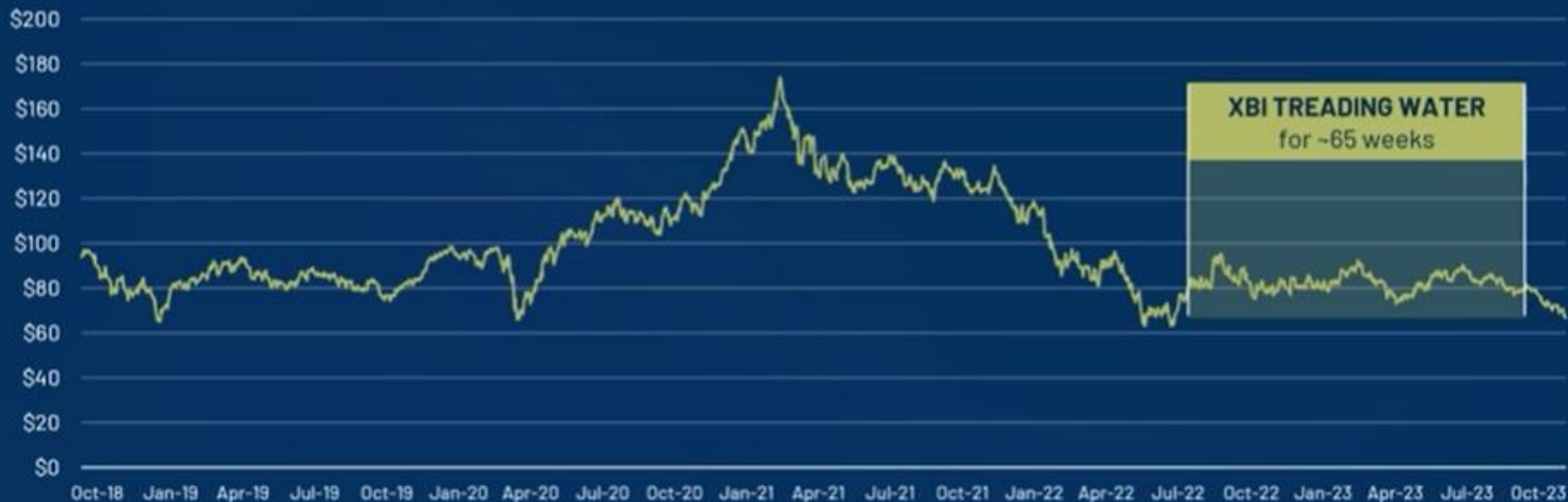
COMMON THEMES

- ✓ Public markets finding bottoms
- ✓ Venture funding collapsed
- ✓ IPO window closed
- ✓ Platforms out, products in
- ✓ Consolidation / M&A
- ✓ Spike in restructurings
- ✓ Bubblicious hindsight
- ✓ Drug pricing & policy issues

AFTER WILD RIDE, BIOTECH PUBLIC MARKETS MOSTLY RANGE-BOUND

SPDR S&P BIOTECH ETF

\$XBI



Source: Yahoo Finance: Data as of 10/20/2023

TIGHT POST-BUBBLE CORRELATIONS...

CORRELATION AMONG INNOVATIVE GROWTH SECTOR ASSETS



Source: Yahoo Finance, Goldman Sachs; Data as of 9/15/23

TIGHT POST-BUBBLE CORRELATIONS... NOW BIOTECH & TECH DECOUPLED

PERFORMANCE YEAR-TO-DATE, BY INDEX

Data as of October 20, 2023



Source: Yahoo Finance, Goldman Sachs

BIOTECH HAVING ONE OF ITS WORST EVER FUND FLOW HEADWINDS

HC/BIOOTECH FUND FLOW

Weekly, Over Last 12 months



NET FUND FLOWS*

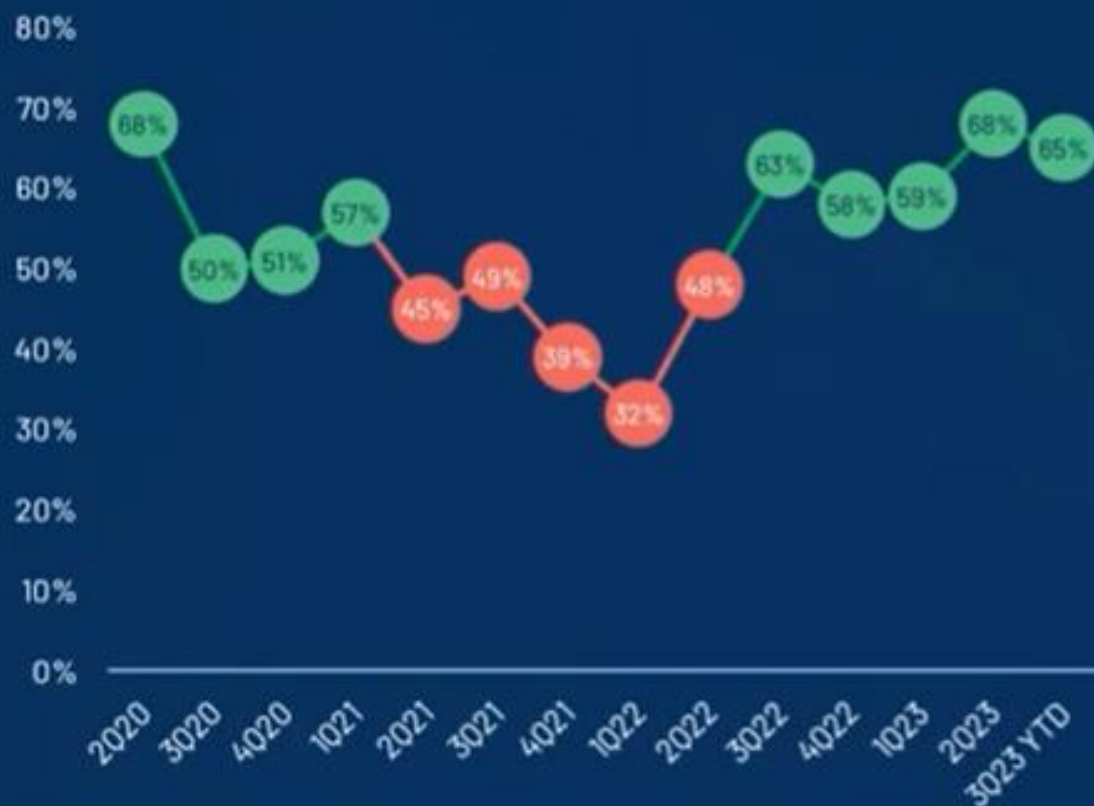


Source: Raymond James; Lipper/Refinitiv; Piper Sandler

Note: *Data as of Aug 16, 2023

BIOTECH IS IN THE STATE OF MISSOURI

SHARE OF POSITIVE NEWS FLOW



ONLY REALLY GOOD NEWS
IS REWARDED

ARCTURUS
LABORATORIES

argenx

bridgebio

Crinetics
Pharmaceuticals

IMMUNOVANT

UroGen
Pharma

Source: Morgan Stanley, Yahoo Finance: Data as of August 2023.

VENTURE ECOSYSTEM CYCLE: CAPITAL



RETRENCHMENT ON VENTURE FUNDING



Total VC Funding

TOTAL VC FUNDING & DEAL COUNT

By Quarter, 2010 - 2023



Number of Deals



- Appears to have stabilized at ~\$5B
- In line with robust pre-pandemic levels
- 3x+ more than early in the cycle (2012-2014)

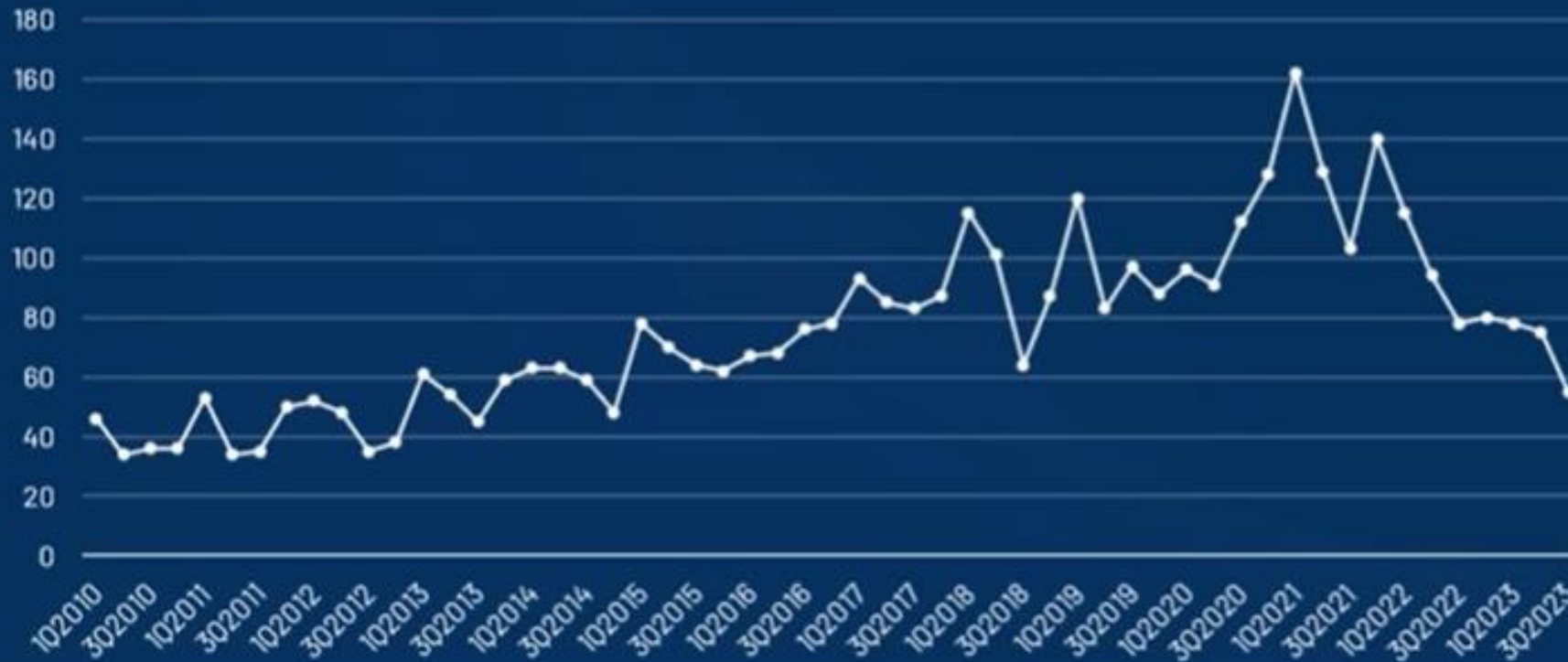
Source: PitchBook

Data as of 10/4/23: All rounds into US-based BioPharma companies

VENTURE CREATION: PUSHING RESET ON PACE

NUMBER OF FIRST FINANCINGS

By Quarter, 2010 - 2023



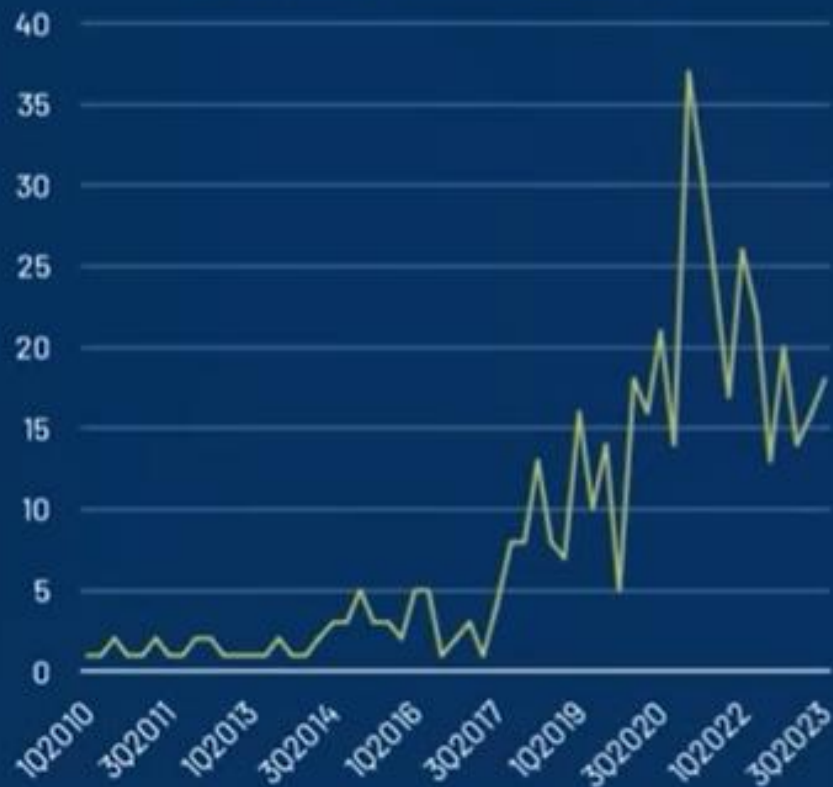
- >60% slower pace of company creation
- Great new ideas still getting supported
- Core venture creation firms still very active

Source: PitchBook

Data as of 10/4/23: First Rounds into US-based Biopharma companies

FEWER HUGE ROUNDS, FEWER BONAFIDE CROSSOVERS

NUMBER OF ROUNDS > \$100M



Source: PitchBook

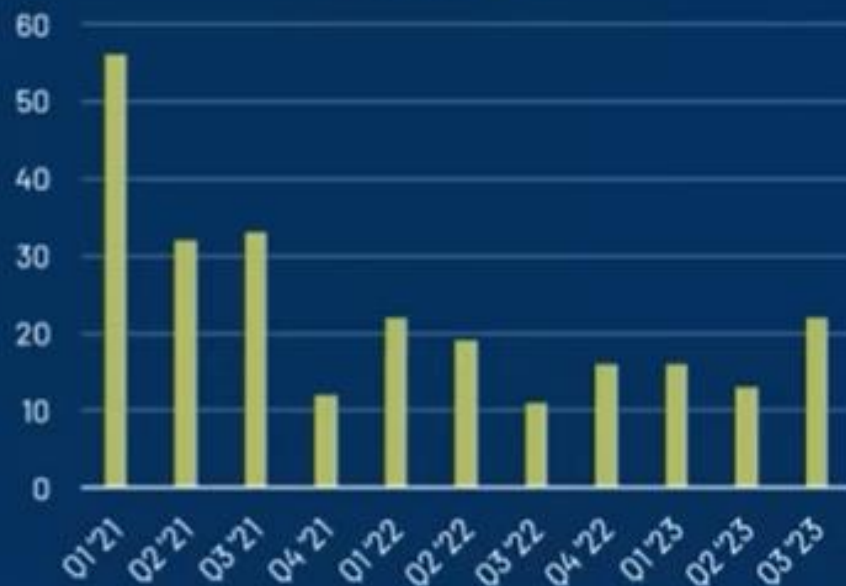
Data as of 10/4/23: Rounds into US-based Biopharma companies

NOTABLE LARGER FINANCINGS

elevatebia	\$401M
ReNAgenix	\$300M
Generate: Biomedicines	\$273M
ORBITAL	\$270M
ANLOS BIO	\$245M
APOLLO THERAPEUTICS	\$227M
MapLight	\$225M
nimbus	\$210M
CARGO	\$200M
UpstreamBio	\$200M
ADAR	\$200M

CROSSOVERS BY TOP 20 PUBLIC INVESTORS

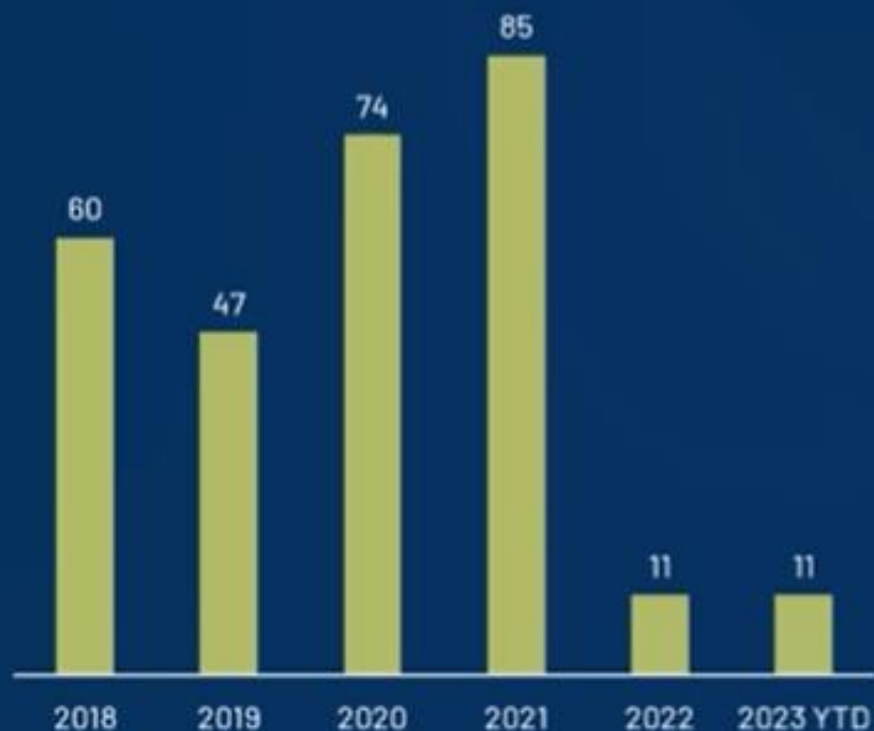
2021-2023



Source: Cowen analysis of Pitchbook, company filings and press releases
 Note: Data as of 10/05/2023. Includes life sciences private rounds since 2021 with proceeds raised greater than \$50mm. Investors include Adage, BlackRock, BVF, Casdin, Cormorant, Deerfield, EcoR1, Farallon, Fidelity, Invus, Janus, Logos, OrbiMed, Perceptive, RA Capital, Redmile, Rock Springs, RTW, Surveyor, T. Rowe Price, Viking and Wellington

IPOs: LARGELY CLOSED FOR BUSINESS

NUMBER OF IPOs



OFFER TO CURRENT

2023 IPOs



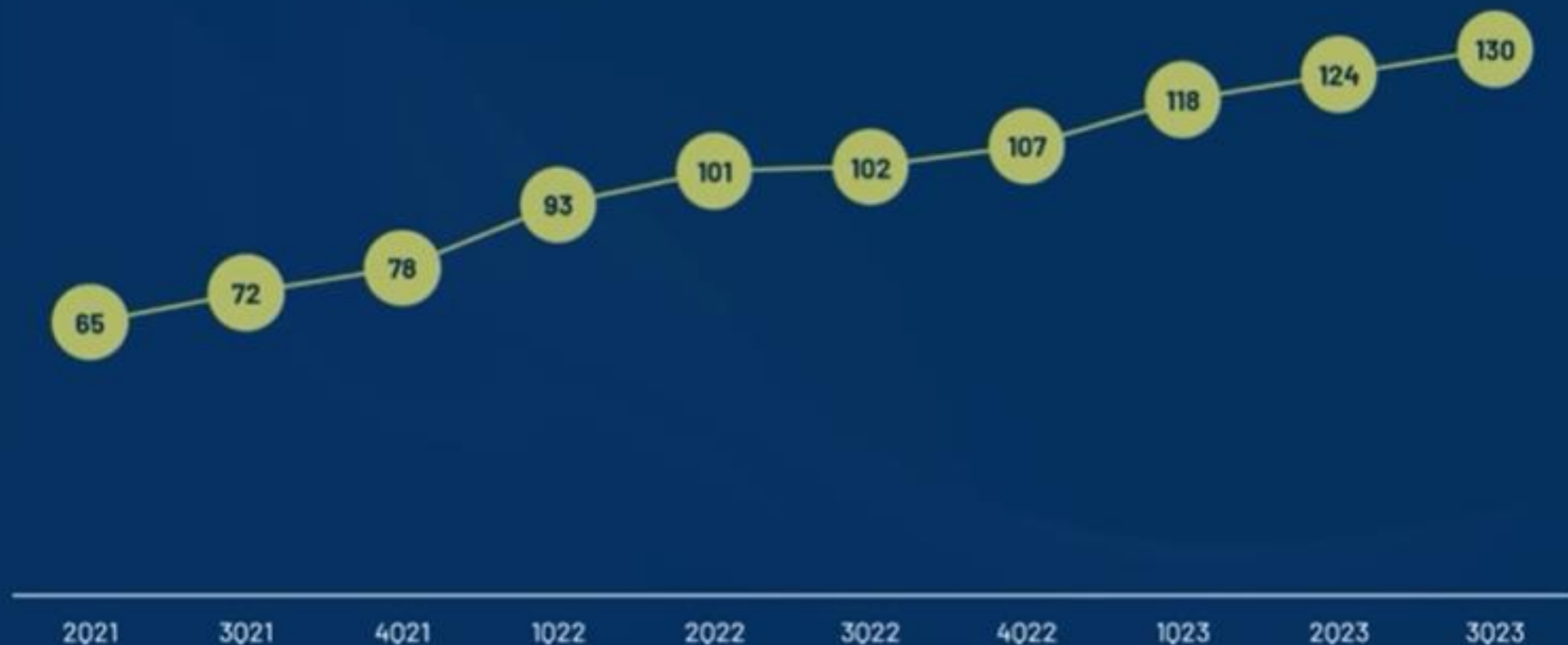
Source: Cowen, BMO Capital Markets IPO Database, Data as of 11/03/23

Source: Yahoo Finance, Data as of 11/06/23

Note: Only includes IPOs with proceeds >\$50M

LACK OF IPOs CREATES BACKLOG OF LATER STAGE PRIVATES

BACKLOG OF IPO-ELIGIBLE BIOTECH COMPANIES

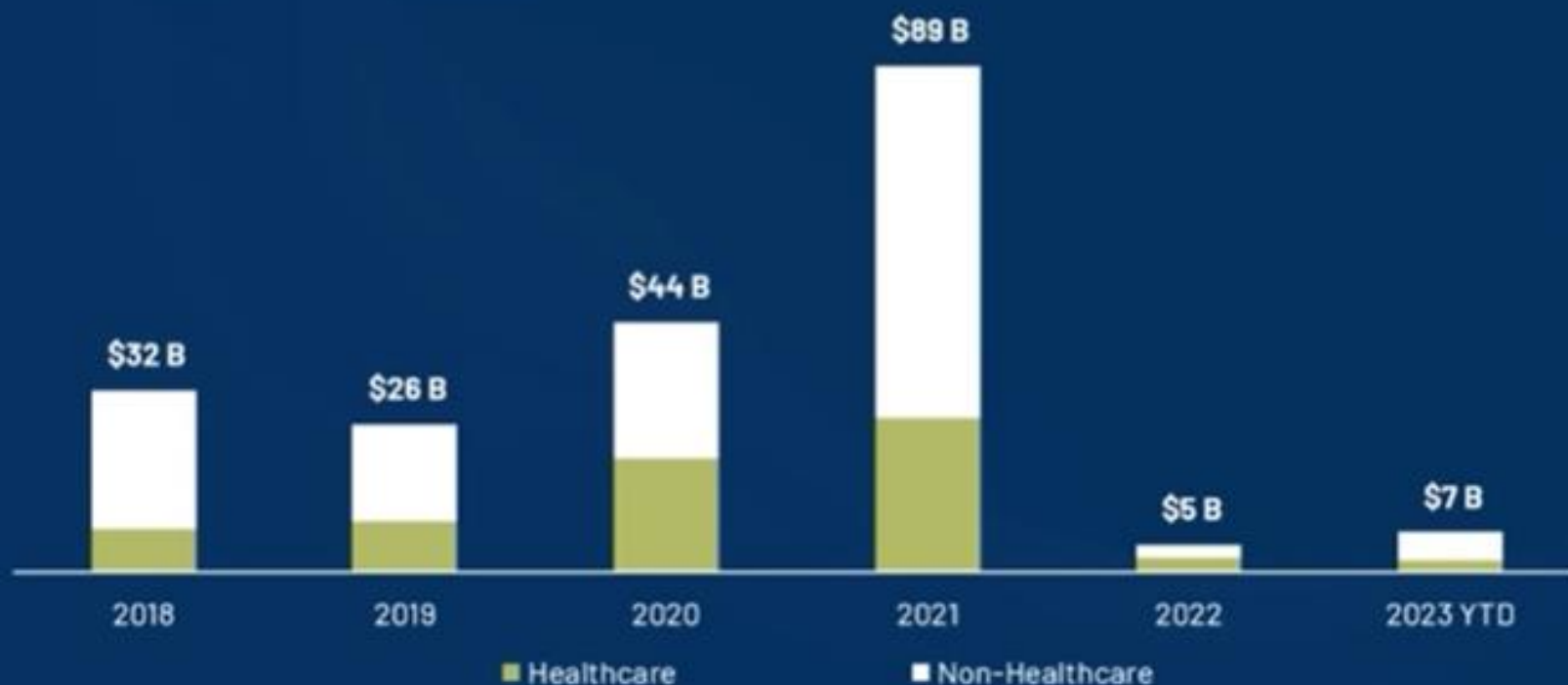


Source: Jack Bannister, Leerink analysis of PrivateRaise and press releases; Data as of 10/20/23

Note: Includes biotech companies that have completed crossover raises (private financing that includes at least 3 traditional public-side investors) but remain private

IPO CHALLENGES ARE NOT UNIQUE TO BIOTECH

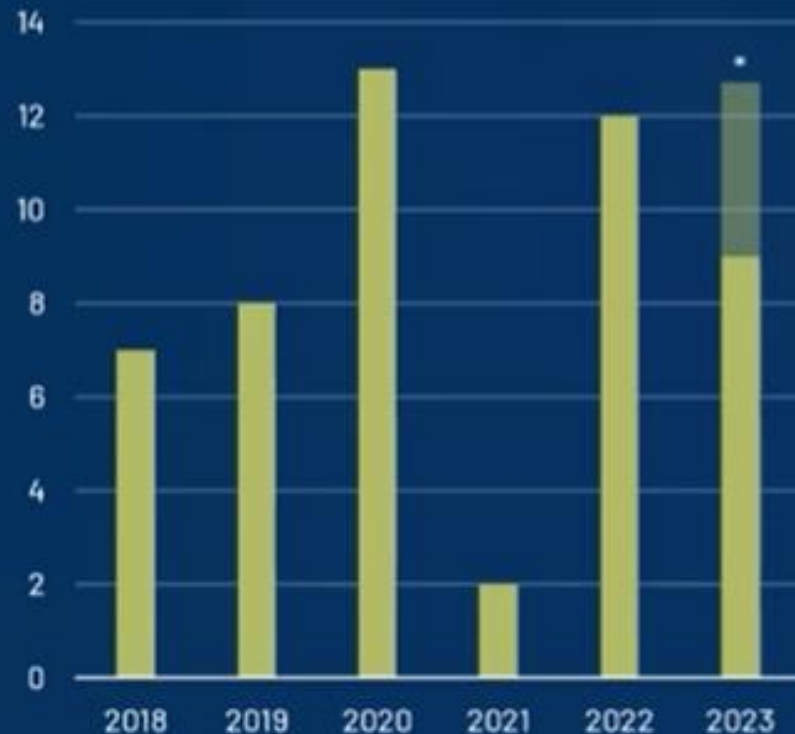
DOLLARS RAISED IN IPOs



Source: Jack Bannister, Leerink; Data as of 10/04/23

THE GOLDEN AGE OF REVERSE MERGERS?

NUMBER OF REVERSE MERGERS

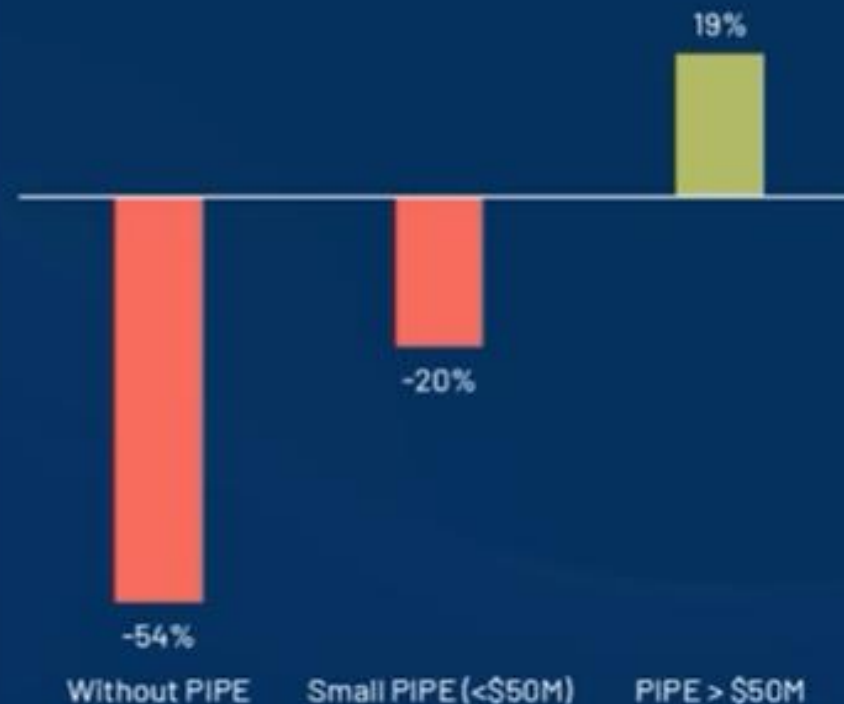


Source: Raymond James, data as of 9/11/2023

Note: Counted as date of merger announcement: *Annualized

MEDIAN POST-ANNOUNCEMENT PERFORMANCE**

For Reverse Mergers After 1/2022



Source: Raymond James, data as of 9/11/2023

Note: ** Stock price change from day before announcement to 9/11/23 for reverse mergers completed since 2022

- Reverse mergers no longer a second-class vehicle
- Supply of shells meet demand of emerging privates
- Performance improves with PIPE validation and funding

FOPOs: CATALYST-DRIVEN FINANCINGS DOMINATING THE MARKETS



- Event-driven financings getting done
- After-market performance mixed
- Participation mostly by specialists

Source: Leerink; Data as of 10/04/2023

BOLT-ON M&A BY PHARMA UNDERPINNING THE MARKETS

TOP 9 PUBLIC M&A DEALS

TARGET	ACQUIRER	TOTAL DEAL VALUE
 SeattleGenetics	 Pfizer	\$42.8B
 Prometheus Biosciences	 MERCK	\$10.2B
 REATA	 Biogen	\$7.2B
 MIRATI Therapeutics	 Bristol Myers Squibb	\$5.8B*
 IVERIC BIC	 astellas	\$5.4B
 CHINDOK	 NOVARTIS	\$3.1B
 proventionbio	 sanofi	\$2.7B
 DICE Therapeutics	 Lilly	\$1.9B
 Bellus Health	 GSK	\$1.7B

PUBLIC M&A*

Total Deal Value



Notes: * Excluding SPACs and Reverse Mergers; * Includes CVR

Source: Atlas analysis of BMO Capital Markets dataset

Date as of 8/31/23: Excludes deals <\$50M in size and involving generics, biosimilars, reformulations, drug delivery, devices, diagnostics, manufacturing, etc. deals

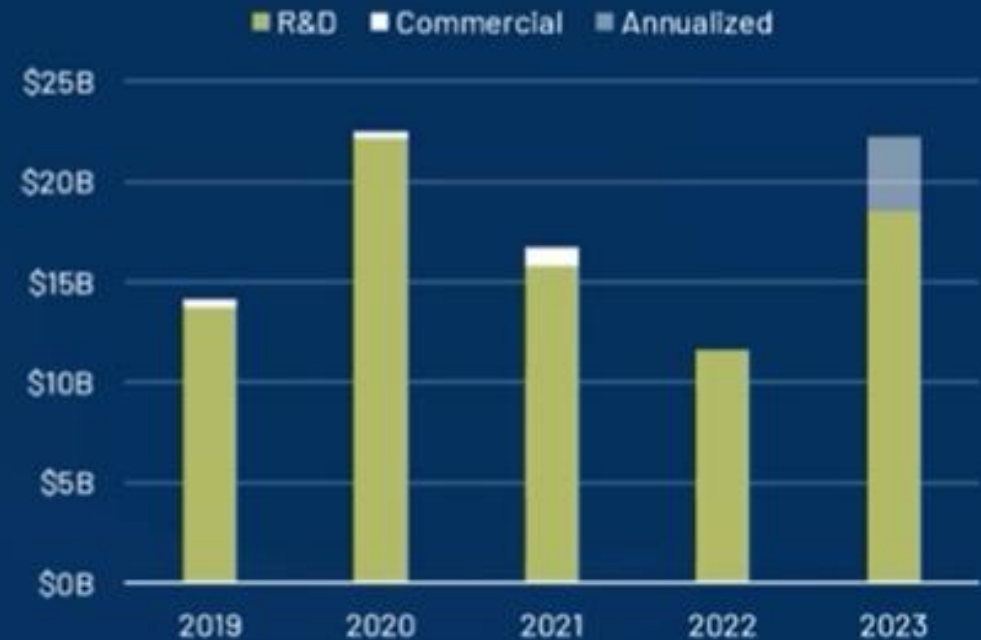
PRIVATE M&A HAS ALSO BEEN STEADY

TOP 5 PRIVATE M&A DEALS

TARGET	ACQUIRER	TOTAL DEAL VALUE
 		\$7.25B
		\$6.0B
		\$1.9B
		\$1.1B
		\$1.0B

PRIVATE M&A*

Total Deal Value



Note: * Excluding SPACs and Reverse Mergers

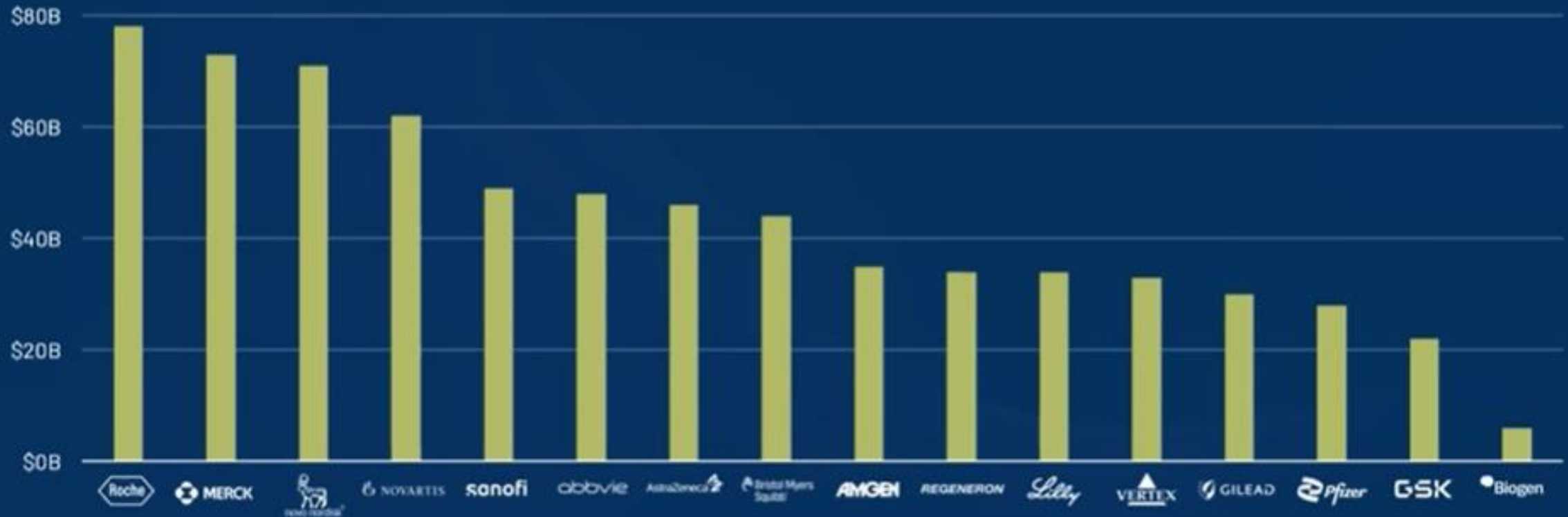
Source: Atlas analysis of BMO Capital Markets dataset

Data as of 10/31/23; Excludes deals <\$50M in size and involving generics, biosimilars, reformulations, drug delivery, devices, diagnostics, manufacturing, etc. deals

WITH SO MUCH FIREPOWER, M&A LIKELY TO CONTINUE

PHARMA CAPACITY AVAILABLE

Cash and Debt



Source: Jefferies; Data as of 8/20/23

Note: Includes cash and additional debt; Amgen and Biogen figures indicate capacity post closing SeaGen and Reata deals, respectively

VENTURE ECOSYSTEM CYCLE: TALENT



TALENT MARKET IS VERY DYNAMIC

U.S. TURNOVER RATES

■ Facilitated ■ Voluntary



28%

Turnover in 2023

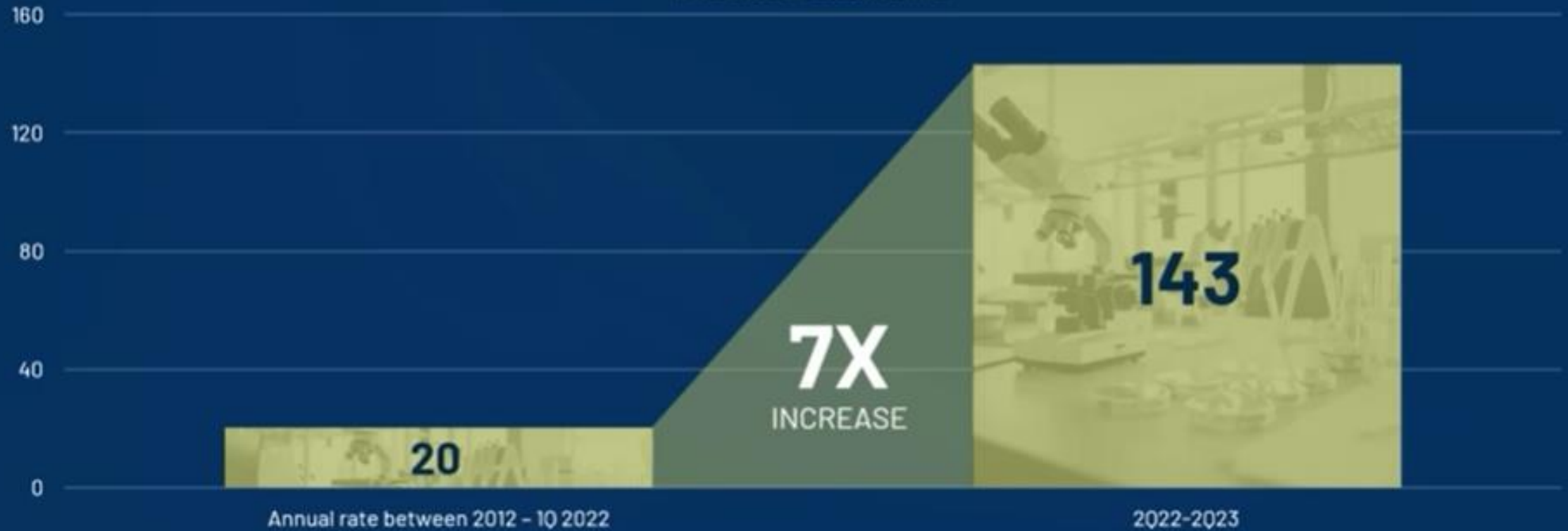
Northeast / Boston

Source: Radford. U.S. Turnover Rate data through Q2 2023; Northeast / Boston turnover rate data through Q1 2023

SPACE NO LONGER A CONSTRAINT

NUMBER OF NEW SUBLEASES AVAILABLE

In the Greater Boston Market



Source: Colliers

IMPLICATIONS OF THIS CHALLENGING CYCLE ON VC RETURNS

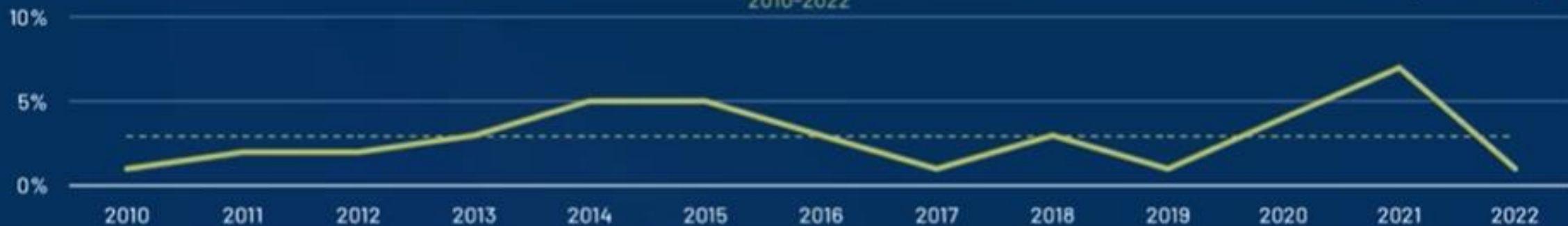


VC RETURN DISTRIBUTIONS: MEAN REVERSION

>10x WIN PERCENTAGE FOR BIOPHARMA VC

2010-2022

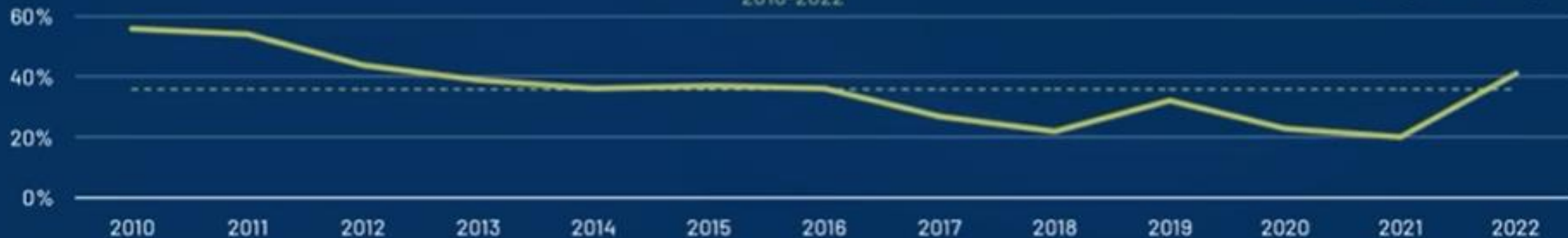
---- Long-term average



<1x LOSS PERCENTAGE FOR BIOPHARMA VC

2010-2022

---- Long-term average



Source: David Coats, Correlation Ventures Database

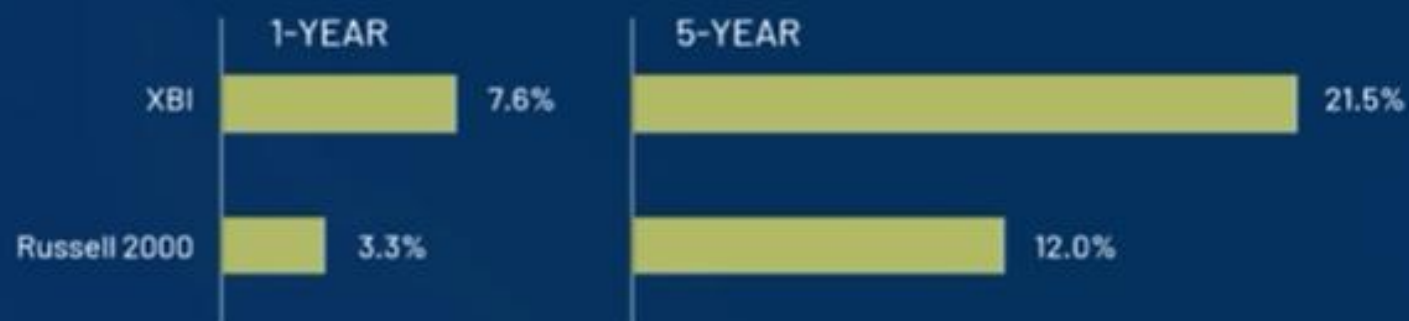
Note: * US Venture Capital Realized Cash-on-cash multiples

VENTURE'S RELATIVE RETURNS VS PUBLIC MARKETS

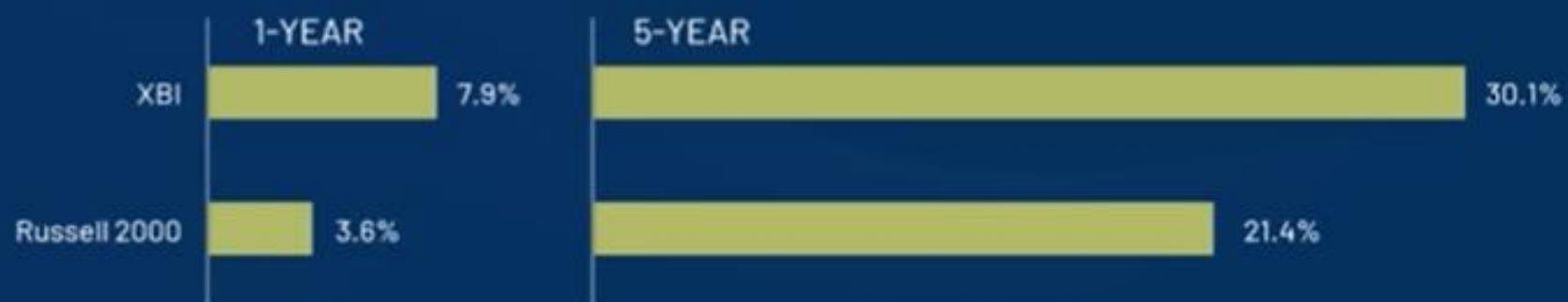
RELATIVE OUTPERFORMANCE vs PUBLIC MARKETS*

As of March 31, 2023

ALL FUNDS vs.



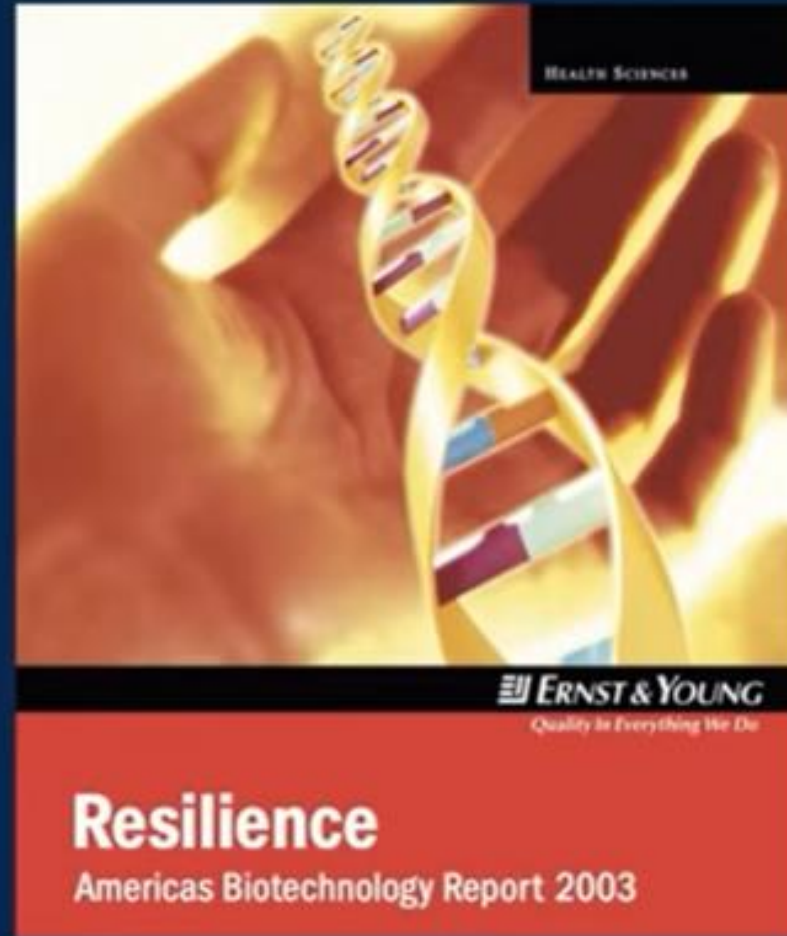
TOP QUARTILE vs.



Source: Cambridge Associates, including U.S. VC Healthcare funds, vintage years after 2012

Note: * Pooled Horizon IRRs versus Public Market Equivalent (PME) index returns

SO WHERE ARE WE?





SO WHERE ARE WE? ...WHAT HAPPENED LAST TIME (~2003)?

IPO MARKETS WERE BAD FOR THE REST OF THE DECADE

nature
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Published: August 2009

Beyond the biotech IPO: a brave new world

Bruce L. Booth

Nature Biotechnology 27, 706-709 (2009) | Cite this article

906 Accesses | 21 Citations | 19 Altmetric | Metrics

After a decade of significant challenges, biotech's long-term sustainability depends on making fundamental changes to its traditional business model.

Source: Booth BL, Nature Biotech (2009)

MANY VC FIRMS DISAPPEARED

MAJOR LIFE SCIENCE VENTURE FUNDS

Funds in 2002

Fund name	Firm	Location
MFM Bioventures II	MFM Capital	Boston, MA
Pericon-Soma BioPharmaceutical Fund, LP	Pericon-Soma BioPharmaceutical Fund	New York, NY
Forward Ventures V	Forward Ventures	San Diego, CA
ProQuest Investments II, LP	ProQuest Investments	Providence, RI
Hamilton Apex Technology Ventures	Hamilton Apex Technology Ventures	San Diego, CA
SB Life Science Ventures I	SB Life Science Equity Management	Menlo Park, CA
Radco Venture Partners II, LP	Radco Ventures	New York, NY
Coastline Bioscience Partners I	Coastline Capital	Los Angeles, CA
POSCO BioVentures Fund I	POSCO BioVentures	Carlsbad, CA
Oxford Bioscience Partners II (Juno) LP	Oxford Bioscience Partners	Boston, MA
Versant Affiliates Fund II - A	Versant Ventures	Menlo Park, CA
Prospect Associates II	Prospect Venture Partners	Palo Alto, CA

Source: 2003 E&Y Biotech Report (E&Y and Venture One data)



SO WHERE ARE WE? ...WHAT HAPPENED LAST TIME (~2003)?

IPO MARKETS WERE BAD FOR THE REST OF THE DECADE

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MANY VC FIRMS DISAPPEARED

MAJOR LIFE SCIENCE VENTURE FUNDS Funds In 2002

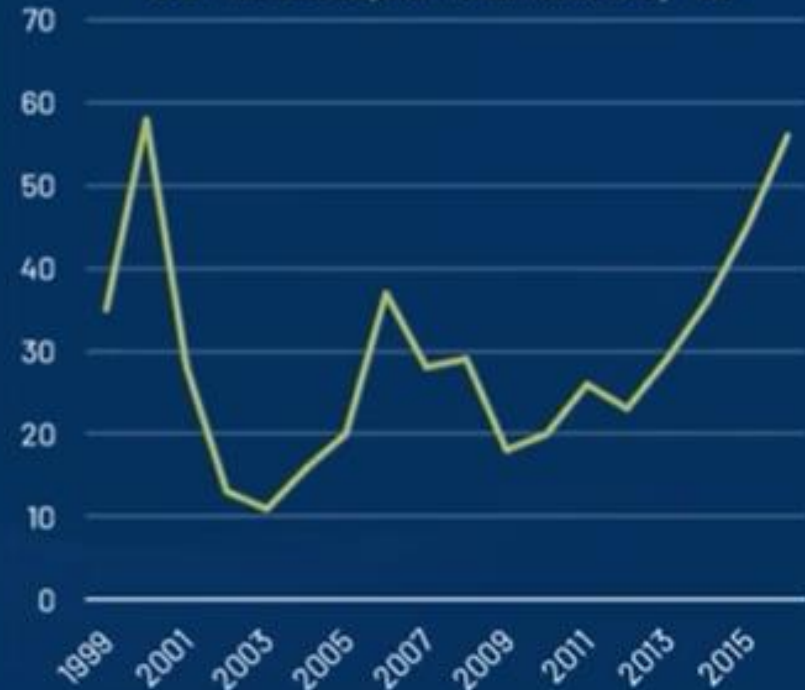
Fund name	Firm	Location
MPW Ventures II	MPW Capital	Boston, MA
Prospect Capital Partners Fund II LP	Prospect Capital Partners	New York, NY
Capital Partners I	Capital Partners	San Diego, CA
PerQuest Investments II LP	PerQuest Investments	Providence, RI
Horizon East Strategic Partners	Horizon	San Diego, CA
US Life Science Partners I	US Life Science Partners	Menlo Park, CA
Partners Venture Partners II LP	Partners Venture Partners	New York, NY
Capital Partners Partners	Capital Partners	Los Angeles, CA
MPW Ventures Fund	MPW Capital	Cambridge, MA
US Life Science Partners II LP	US Life Science Partners	Boston, MA
Venust Ventures Fund II - A	Venust Ventures	Menlo Park, CA
Prospect Capital Partners	Prospect Capital Partners	New York, NY

All but two
ARE GONE

Source: 2003 E&Y Biotech Report (E&Y and Venture One data)

...LPs LEFT THE SECTOR

U.S. VC FUNDRAISING BY LPs U.S. Venture Capital Funds Raised, By Year



Source: Pitchbook

THIS TIME IS DIFFERENT... WE HOPE



- Deeper equity capital markets, with broader private and public participation
- Many more successful mid & large biotechs, creating more opportunities for generalist investors
- Scientific breakthroughs with translational potential as rich as ever
- Industry structure favors external innovation and biotech origination
- Fewer tourist LPs to the asset class today; institutional LPs generally take longer term view across cycles with top tier funds



ATLAS VENTURE

RESILIENCE: FLASHBACK TO 2002-2004



THEN...

STARTUP	YEAR
 Alynlam [®]	2002
 Momenta [™]	2003
 HORIZON (then Nitec)	2004

...AND NOW

STATUS	DRUGS
SALNY: -\$22B	5 approved drugs, incl.  onpatro [®]  GIVLAARI [®]
Acquired by Johnson & Johnson	2 approved drugs, & Nipocalimab in Ph3
Acquired by AMGEN	12 approved drugs, incl.  TEPEZZA [®]  KRISTEXXA [®]

THE ATLAS STRATEGY



**SEED-LED
VENTURE
CREATION**



**SCIENCE
FIRST**



**SOURCE
GLOBALLY
BUILD
LOCALLY**



**100%
Rx**



**DOING
WELL BY
DOING
GOOD**

BUSINESS MODEL DIVERSITY

BIG BIOLOGY PRODUCT PLATFORMS

ASSET-CENTRIC COMPANIES

CAPITAL INTENSITY

VIRTUAL R&D

CAPITAL MARKETS CORRELATION

RETURNS

Intellia
THERAPEUTICS

KYMERA

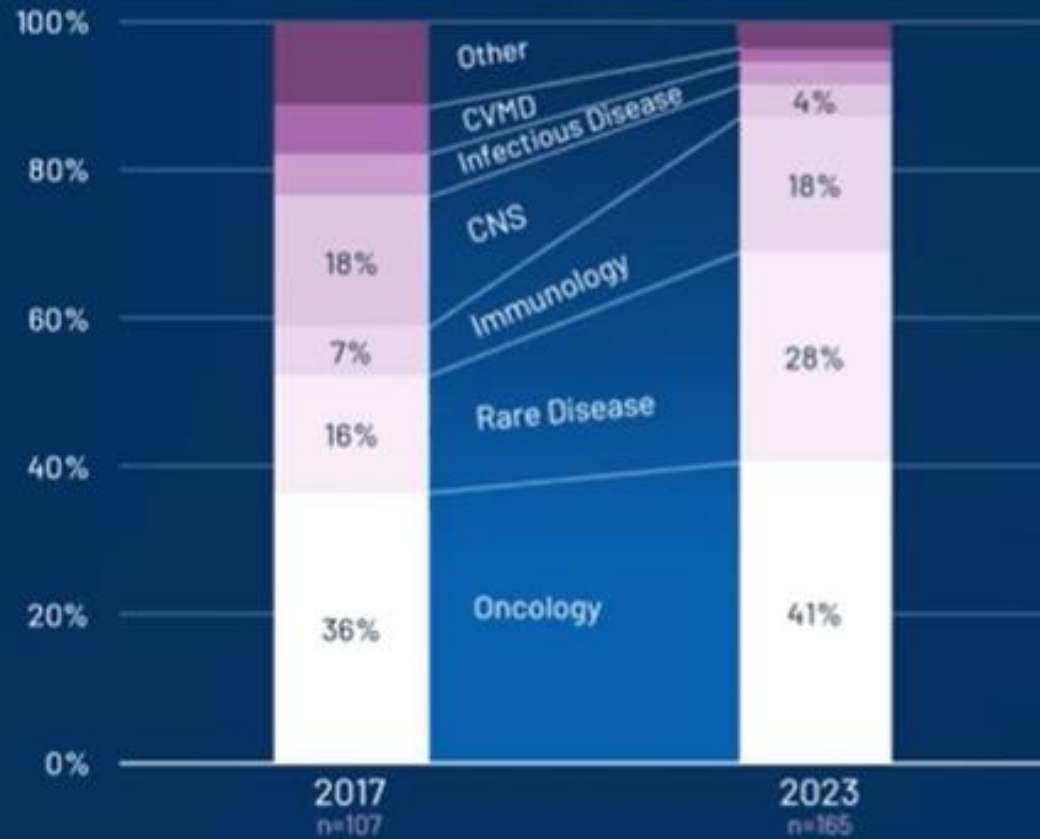
nimbus
THERAPEUTICS

akero

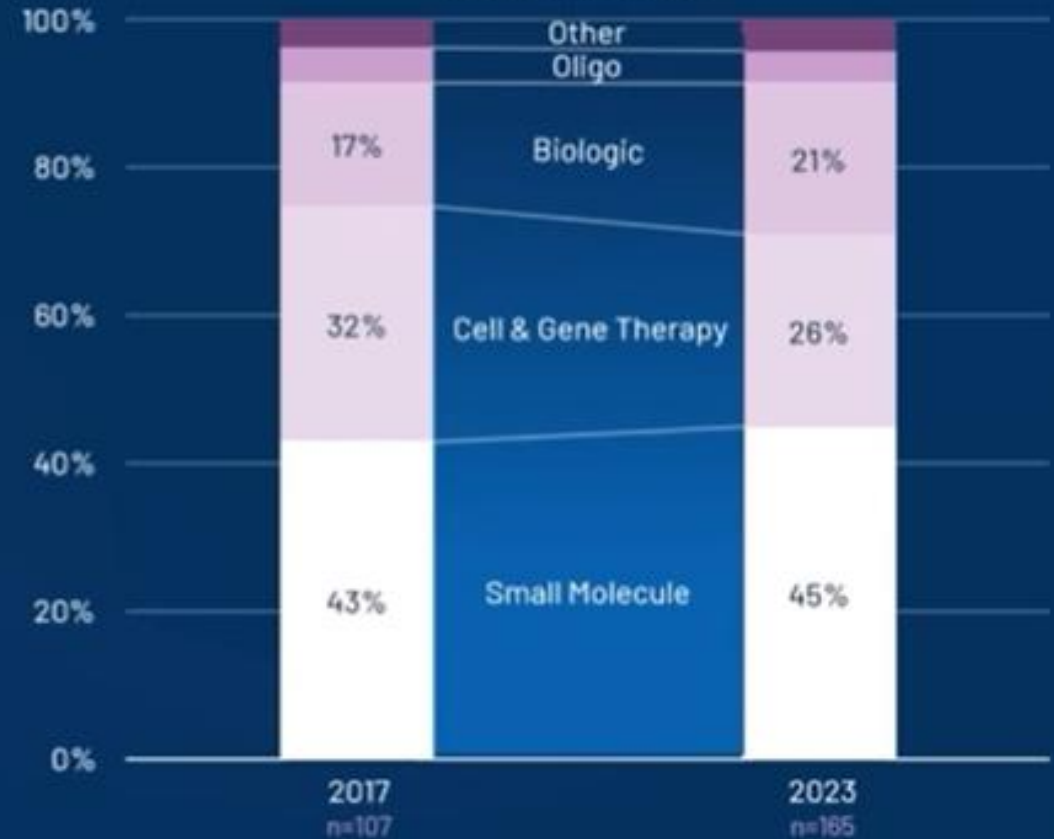
Versanis

EVOLUTION OF OUR SCIENCE-FIRST APPROACH

THERAPEUTIC AREA MIX



MODALITY MIX



Source: Atlas Analysis

ATLAS' PIPELINE ACCELERATION

2017 2023



Source: Atlas Analysis

Note: * Phase 2 trials include Phase 1/2 combined

ATLAS: PHARMA PARTNERING

AVROBIO

NOVARTIS

Novartis to buy Avrobio gene therapy for \$88M, leaving rest of the biotech on the shelf



generation bio

moderna

Moderna, Generation Bio Launch Up-to-\$1.9B Non-Viral Genetic Medicines Collaboration



SCORPION

Pierre Fabre

Scorpion scores \$65M as it lines up a partner to take EGFR programs global

ENDPOINTS NEWS

HOTSPOT THERAPEUTICS

abbvie

AbbVie offers up to \$335M for connection with HotSpot's preclinical small-molecule program



NOTABLE EQUITY FINANCINGS



\$66M
Series A

MARCH 2023

LIFORDI

\$70M
Series A

AUGUST 2023

AI@LOS BIO

\$245M
Series A

SEPTEMBER 2023



\$92M
Series A

OCTOBER 2023



\$135M
Series B

FEBRUARY 2023



\$70M
Series B

JUNE 2023



\$175M
Series B

AUGUST 2023



\$210M
Series 2023

AUGUST 2023

REVERSE MERGERS

disc)medicine



~\$175M*

CLOSED DECEMBER 2022

DIANTHUS
THERAPEUTICS



~\$180M*

CLOSED SEPTEMBER 2023

KORRO

FREQUENCY
THERAPEUTICS

~\$170M*

CLOSED NOVEMBER 2023

Source: AV analysis; Cowen

Note: * Includes cash balance for both companies as well as concurrent PIPE

OUR TWO BIG M&A DEALS

nimbus
THERAPEUTICS



~\$6.0B

CLOSED FEBRUARY 2023

Versanis

Lilly

~\$1.9B

CLOSED AUGUST 2023

MATURING FUND PERFORMANCE

PME+*: OUTPERFORMANCE RELATIVE TO PUBLIC MARKET INDICES

Percentage point difference in returns



Note: PME+ compares private fund IRR with returns of a public market index over the same period of time using equivalent cash flows.

Net to LP fund performance as of June 30, 2023

ATLAS INVESTMENT TEAM



Kevin Bitterman, PhD
PARTNER



Bruce Booth, DPhil
PARTNER



Jean-François Formela, MD
PARTNER



Peter Barrett, PhD
PARTNER, LEGACY FUNDS



Patrice Grooms, PhD
ANALYST



Jernej Godec, PhD
PRINCIPAL



Jeff Albers
VENTURE PARTNER



Chelsea Place Johnson, PhD
PRINCIPAL



Rajesh Devraj, PhD
VENTURE PARTNER



Aimee Raleigh, PhD
PRINCIPAL



Steve Robinette, PhD
VENTURE PARTNER



Michael Gladstone
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David Grayzel, MD
PARTNER



Jason Rhodes
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Maurizio Fazlo, MD, PhD
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John Maraganore
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ASSOCIATE

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CHIEF FINANCIAL OFFICER

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TALENT



Andrea DiMella

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Meaghan Gallagher

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Sarah Gerrish

EXECUTIVE ASSISTANT



Kelley Lynch

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EXECUTIVE ASSISTANT

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Diana Francis, CPA

CONTROLLER



Josh Powers, CPA

SENIOR FINANCE ASSOCIATE



Kyle Shuckerow

SENIOR FINANCE ASSOCIATE

CONTINUING TO MANAGE THE VENTURE CYCLE



- Abundant dry powder
- 50 portfolio companies
- Exit & liquidity optionality
- Optimistic about biotech's future

THANK YOU