

Markedsobservationer oktober 2023

~~*Var det bunden?*~~
~~*Skal vi op?*~~
Vi skulle ned igen

Onsdag d. 25. oktober 2023

V/Steen Albrechtsen, Redaktør og Porteføljemanager



LIFE SCIENCE
Økonomisk Ugebrev

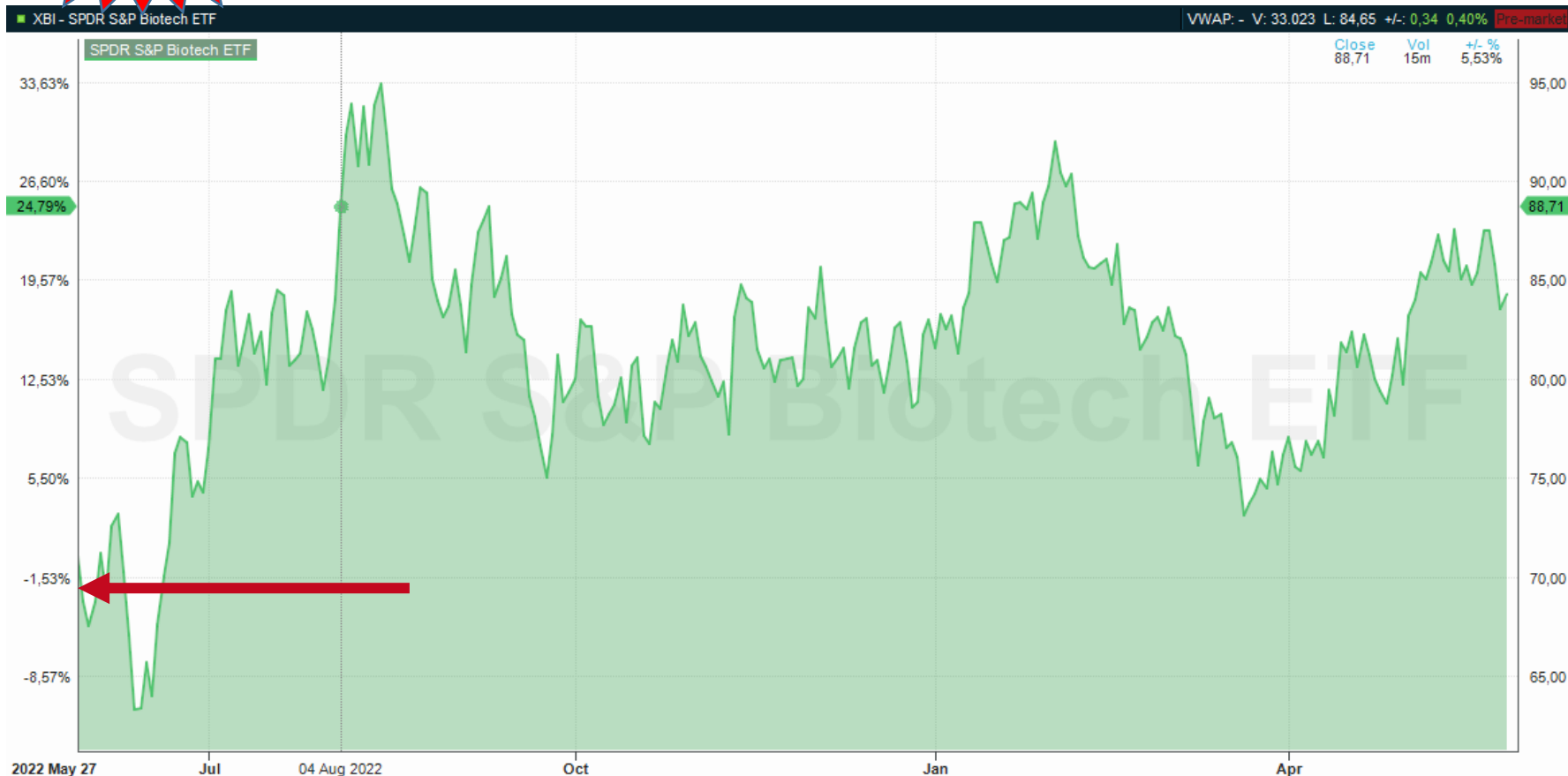
DISCLAIMER

Al investering er på eget ansvar

og stol ikke på noget af hvad jeg siger ☺

XBI (S&P Biotech ETF) (Seneste 12 mdr.)

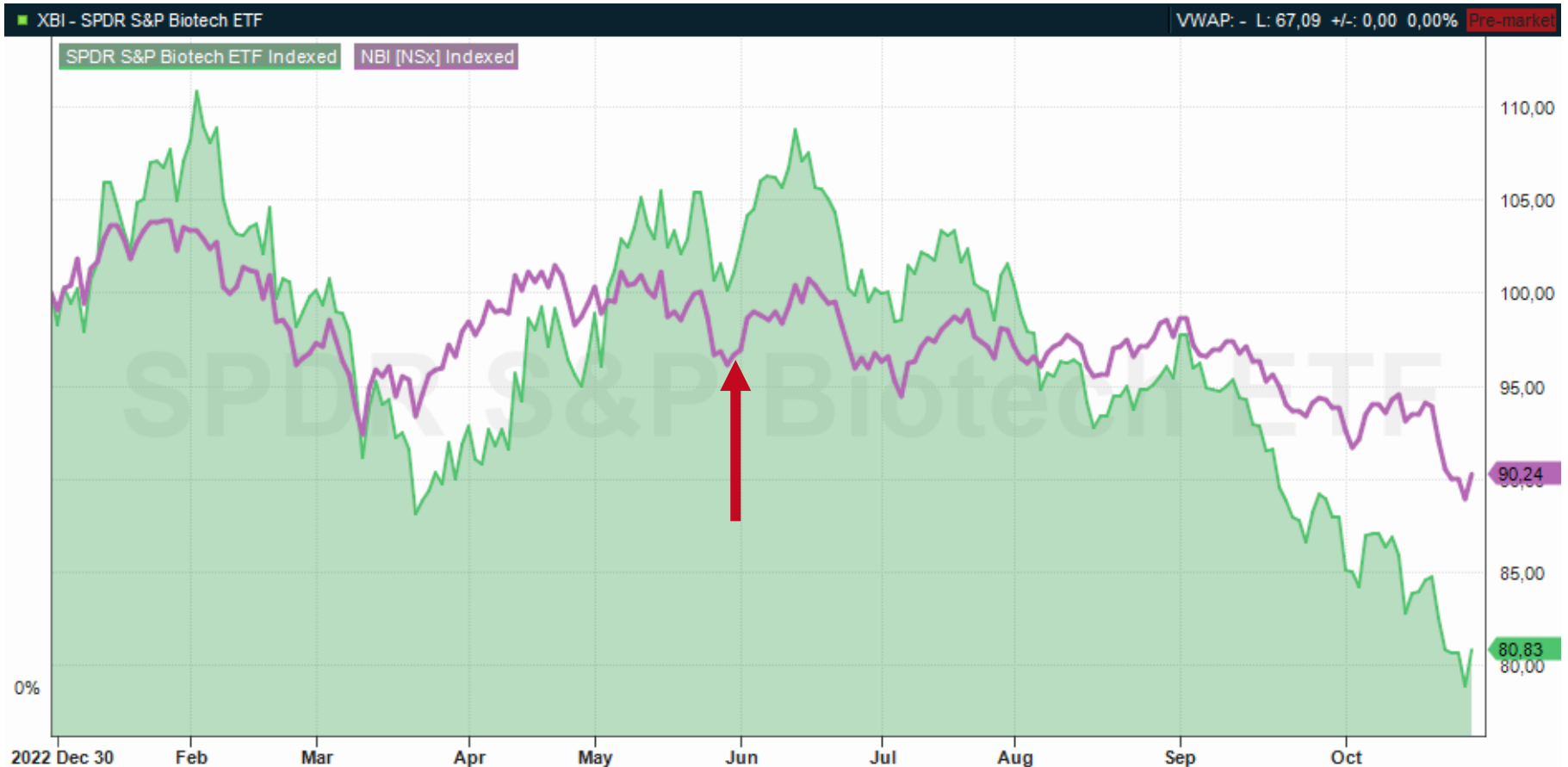
Fra maj
2023



XBI (S&P Biotech ETF) (År-til-dato)



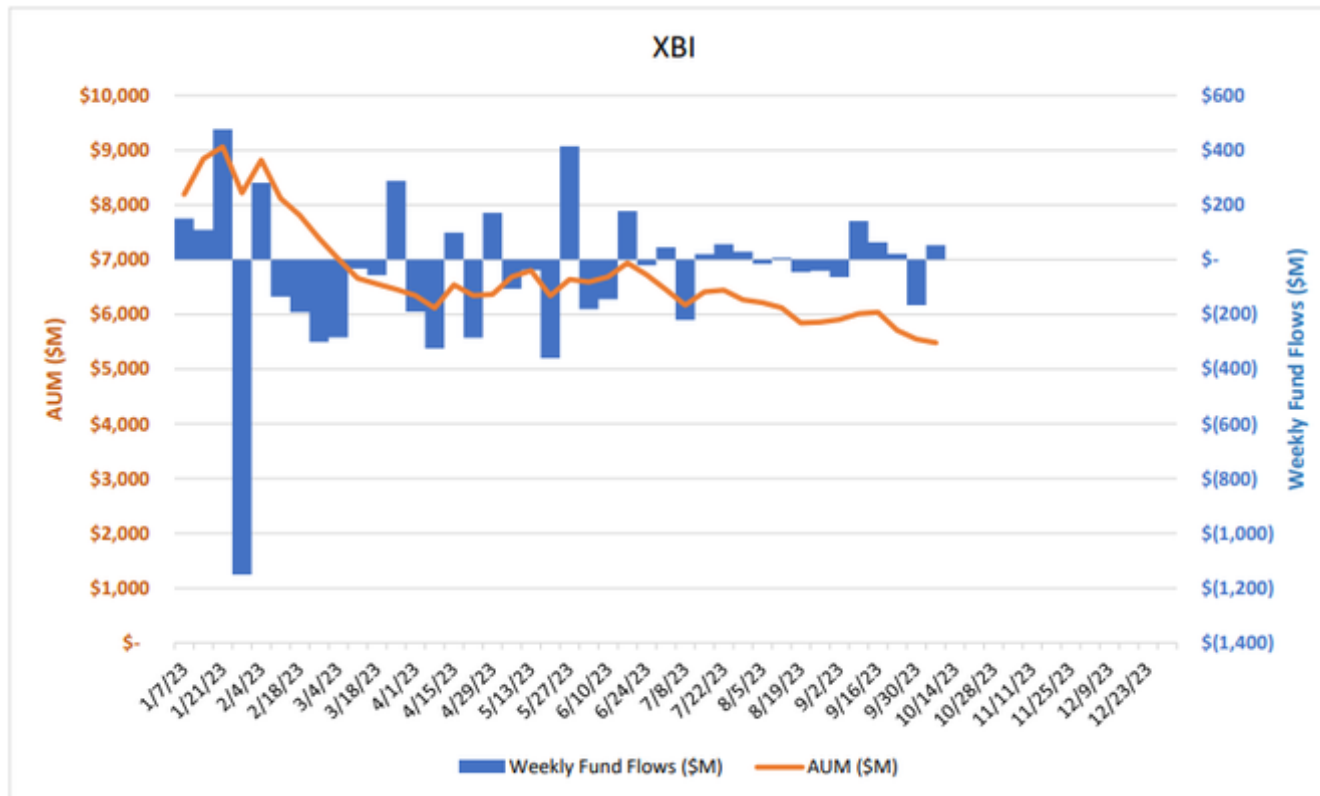
Nasdaq Bio vs. XBI (S&P Biotech ETF) (indekseret - år til dato)



Outflow fortsætter

Week Ending	XBI Fund Flows (\$M)	Week Ending	XBI Fund Flows (\$M)	Week Ending	XBI Fund Flows (\$M)	Week Ending	XBI Fund Flows (\$M)
1/7/23	\$ 150	4/8/23	\$ (324)	7/8/23	\$ (220)	10/7/23	
1/14/23	\$ 109	4/15/23	\$ 99	7/15/23	\$ 20	10/14/23	
1/21/23	\$ 477	4/22/23	\$ (285)	7/22/23	\$ 56	10/21/23	
1/28/23	\$ (1,151)	4/29/23	\$ 172	7/29/23	\$ 30	10/28/23	
2/4/23	\$ 281	5/6/23	\$ (107)	8/5/23	\$ (16)	11/4/23	
2/11/23	\$ (136)	5/13/23	\$ (38)	8/12/23	\$ 7	11/11/23	
1Q23 2/18/23	\$ (192)	2Q23 5/20/23	\$ (360)	3Q23 8/19/23	\$ (45)	4Q23 11/18/23	
2/25/23	\$ (301)	5/27/23	\$ 414	8/26/23	\$ (41)	11/25/23	
3/4/23	\$ (284)	6/3/23	\$ (181)	9/2/23	\$ (64)	12/2/23	
3/11/23	\$ (33)	6/10/23	\$ (144)	9/9/23	\$ 142	12/9/23	
3/18/23	\$ (57)	6/17/23	\$ 177	9/16/23		12/16/23	
3/25/23	\$ 288	6/24/23	\$ (20)	9/23/23		12/23/23	
4/1/23	\$ (190)	7/1/23	\$ 44	9/30/23		12/30/23	
QTD	\$ (1,038)	QTD	\$ (552)	QTD	\$ (130)	QTD	\$ -
						YTD	\$ (1,721)

Outflow fortsætter



Status i dag?

Description	Last	1W +/-%	1M +/-%	3M +/-%	1Y +/-%	YTD +/-%
OMX Copenhagen Health Care GI	9.266,74	-3,31%	3,98%	15,56%	46,08%	30,30%
N Health Care EUR GI	7.325,27	-3,49%	2,81%	11,93%	36,63%	22,58%
Next Biotech	2.595,97	-4,33%	-6,38%	-8,24%	4,40%	12,30%
OMX Nordic 40	2.255,96	-4,85%	-1,77%	-1,91%	13,22%	3,73%
OMX Stockholm Pharmaceuticals	6.066,09	-3,40%	-5,52%	-1,56%	10,15%	0,77%
OMX Stockholm Health Care GI	3.555,17	-2,76%	-5,28%	-5,78%	3,04%	-4,06%
NASDAQ Biotechnology	3.801,79	-3,92%	-3,65%	-7,57%	-2,75%	-9,76%
XBI - SPDR S&P Biotech ETF	66,52	-5,38%	-8,69%	-20,26%	-15,24%	-19,86%
OMX Helsinki Health Care GI	2.644,70	-3,16%	0,21%	-0,93%	-14,48%	-23,44%
First North Health Care GI	809,43	-2,23%	-9,18%	-20,50%	-28,19%	-24,07%
OBX Health Care GR	491,93	-7,60%	-14,06%	-18,33%	-19,06%	-30,13%

XBI afkast-matrix

SPDR S&P Biotech ETF [NYFA] - Seasonality Matrix													
Periods	January	February	March	April	May	June	July	August	September	October	November	December	Full-year
Average	2,58%	0,29%	-0,69%	0,73%	1,56%	3,24%	3,30%	-0,44%	-1,01%	-1,74%	4,07%	-0,03%	11,09%
2023	7,11%	-6,81%	-8,01%	5,24%	4,64%	-0,86%	1,31%	-6,04%	-7,80%	-8,12%	N/A	N/A	-19,17%
2022	-16,69%	-3,80%	0,32%	-18,08%	-6,84%	7,98%	9,24%	3,17%	-5,23%	3,57%	1,79%	-0,74%	-25,95%
2021	8,16%	-2,95%	-8,34%	0,85%	-6,21%	5,69%	-8,80%	7,54%	-5,37%	-0,83%	-6,50%	-3,95%	-20,50%
2020	-6,30%	0,07%	-13,16%	20,60%	10,89%	8,10%	-2,34%	2,27%	-0,34%	1,27%	18,57%	5,38%	48,25%
2019	18,52%	6,63%	1,57%	-5,90%	-6,76%	10,41%	-2,31%	-6,20%	-5,13%	7,06%	14,72%	1,56%	32,56%
2018	10,02%	-3,22%	-2,91%	-0,85%	8,84%	0,55%	0,11%	5,09%	-4,26%	-17,48%	3,21%	-12,12%	-15,46%
2017	9,65%	8,18%	-1,24%	3,03%	-5,22%	13,99%	1,28%	7,24%	3,27%	-3,38%	-0,54%	2,02%	43,39%
2016	-28,02%	-5,19%	7,93%	4,29%	7,64%	-6,84%	14,77%	-3,19%	10,32%	-15,30%	11,61%	-5,55%	-15,68%
2015	7,07%	7,46%	2,63%	-6,24%	15,56%	5,73%	1,24%	-12,93%	-16,01%	7,21%	8,29%	-2,86%	12,95%
2014	15,37%	8,99%	-12,97%	-9,65%	2,77%	16,39%	-5,15%	10,58%	-3,43%	9,80%	4,98%	3,70%	43,21%
2013	8,17%	-1,20%	6,31%	5,94%	4,96%	-6,12%	17,56%	-2,70%	8,30%	-7,87%	9,66%	-0,22%	48,11%
2012	15,38%	0,33%	4,68%	1,09%	-1,11%	9,98%	1,59%	-1,50%	5,51%	-10,27%	6,02%	-1,08%	32,39%
2011	-2,01%	1,23%	6,71%	10,51%	1,92%	-2,79%	-2,66%	-11,24%	-5,76%	11,09%	-1,26%	1,72%	5,26%
2010	3,06%	1,86%	7,16%	0,02%	-10,31%	-4,36%	6,01%	-4,43%	13,19%	0,29%	-0,44%	6,41%	17,60%
2009	-1,59%	-11,31%	2,91%	-6,02%	3,73%	7,60%	10,45%	-2,67%	-1,20%	-13,03%	7,50%	6,92%	0,04%
2008	-5,59%	-3,81%	-0,71%	4,35%	7,34%	-3,90%	20,10%	-7,02%	-6,53%	-11,04%	-8,24%	9,25%	-9,67%
2007	3,55%	0,82%	0,17%	8,91%	2,28%	-5,36%	-1,10%	10,67%	4,26%	4,39%	0,19%	-2,23%	28,65%
2006	N/A	7,92%	-5,42%	-4,93%	-5,98%	2,09%	-1,94%	3,38%	-2,00%	11,26%	-0,37%	-8,65%	-6,31%

NBI afkast-matrix

NASDAQ Biotechnology [NSX] - Seasonality Matrix													
Periods	January	February	March	April	May	June	July	August	September	October	November	December	Full-year
Average	1,64%	-0,37%	0,06%	1,10%	0,70%	1,38%	3,91%	-0,02%	0,03%	-1,20%	3,23%	0,20%	10,64%
2023	3,50%	-6,55%	1,23%	1,50%	-2,73%	0,10%	1,30%	-0,37%	-3,91%	-3,84%	N/A	N/A	-9,76%
2022	-11,87%	-4,12%	4,25%	-9,73%	-1,32%	1,02%	4,11%	-1,06%	-2,44%	8,91%	5,87%	-3,01%	-10,91%
2021	6,25%	-2,37%	-4,29%	2,97%	-2,03%	8,00%	-0,20%	4,09%	-4,91%	-1,89%	-3,95%	-1,31%	-0,63%
2020	-5,60%	0,30%	-5,38%	14,97%	8,45%	1,61%	-1,70%	0,90%	-0,13%	-3,73%	11,14%	4,49%	25,69%
2019	13,40%	2,67%	-0,88%	-4,82%	-6,10%	9,20%	-3,08%	-2,64%	-3,30%	7,73%	11,44%	0,84%	24,41%
2018	6,96%	-5,36%	-1,28%	-2,97%	4,69%	1,35%	6,17%	4,81%	-0,19%	-14,60%	4,69%	-11,25%	-9,32%
2017	4,96%	6,79%	-1,23%	1,48%	-3,95%	8,49%	2,90%	4,53%	0,06%	-5,81%	0,54%	1,47%	21,06%
2016	-31,01%	-4,87%	2,51%	2,87%	4,22%	-7,88%	12,43%	-2,88%	3,02%	-11,38%	6,78%	-3,21%	-21,68%
2015	5,90%	4,90%	1,91%	-2,75%	9,24%	1,13%	3,58%	-10,58%	-11,46%	7,61%	2,57%	1,21%	11,42%
2014	8,41%	7,63%	-10,70%	-2,69%	4,21%	7,30%	-2,34%	10,26%	-1,16%	8,52%	2,48%	-0,07%	34,10%
2013	7,96%	1,39%	8,33%	7,73%	4,10%	-3,15%	13,93%	-2,08%	8,21%	-2,06%	9,15%	1,26%	68,31%
2012	11,22%	2,54%	3,56%	1,63%	-1,65%	5,55%	2,95%	1,86%	4,85%	-7,45%	5,14%	-2,65%	29,79%
2011	0,41%	0,97%	5,83%	7,33%	1,63%	-2,37%	-2,51%	-7,44%	-3,06%	5,26%	4,17%	2,03%	11,81%
2010	1,96%	2,18%	6,85%	0,19%	-10,96%	-4,51%	4,51%	-2,86%	10,24%	3,61%	-2,17%	6,90%	15,01%
2009	-0,11%	-7,18%	0,94%	-1,20%	3,67%	7,17%	8,22%	-0,32%	3,84%	-9,67%	6,76%	4,41%	15,63%
2008	-3,58%	-2,62%	-0,40%	2,35%	2,33%	-2,99%	15,87%	-3,46%	-5,63%	-12,13%	-8,27%	8,25%	-12,63%
2007	2,47%	-3,38%	-1,71%	8,33%	-0,77%	-3,89%	-2,29%	3,75%	5,00%	4,39%	-2,86%	-3,62%	4,58%
2006	4,21%	4,40%	-2,17%	-5,64%	-5,35%	-1,13%	-1,38%	2,96%	0,35%	7,66%	0,91%	-2,91%	1,02%
2005	-4,30%	-4,29%	-6,28%	-0,59%	5,53%	1,16%	11,96%	0,26%	1,27%	-3,83%	3,76%	0,91%	4,28%
2004	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	0%

Procentuel ændring i Enterprise Value, segmenteret

The story of changing biotech valuations since mid-year is a recovery in gene therapy stocks (led by Taysha) and continued weakness in rare disease, oncology biologics, cell therapy (mainly oncology), RNA therapeutics and ophthalmology biotech stocks. Immunology stocks have seen some weakness as well, in part due to the major decline last week in Acelyrin.

Percent Change in Average Enterprise Value of U.S. Public Biotech by Field, Jan 1, 2020 to Sep 15, 2023

■ Since Jan 2020 ■ Since Jan 2021 ■ in 2023 ■ Since Jun 30



Source: CapitalIQ and Stifel research

17

Redningskransene – gælder stadig

- Ny patentkløft på vej i 2025-2030 (200 mia. USD / 46%)
- Big Pharma har masser af cash (kan købe hele XBI)
- Platform-selskaber og/eller ”ny” teknologi/MOA
- Udskilningsløb **stadig** i gang mellem lav- og høj kvalitet
- Kig på kassebeholdningen
- Emissioner → temperaturmåler på markedet
- ~~Generalist-fonde på vej ind?~~
- Rente/Inflation/Risk bestemmer dog i lang tid alt

M&A - IPO 2021 - selskaberne skal hente kapital

Biotechnology: Capital Markets

The 2021 IPO class on track for a -50% mean and -77% median return (1/2)

Pricing Date	Lockup Expiration	Ticker	Issuer Name	Offer Size (M)	Offer Price	Last Price	Mkt Cap (\$M)	Mkt Cap At IPO (\$M)	Performance To Date	Day 1 %	Week 1 %	Month 1 %	Key Focus Area	Lead Product	Stage at IPO	Lead Indication
3/12/21	9/8/21	RDX	Prometheus Biosciences	\$190	\$10.00	\$109.73	\$5,091	\$389	997%	153%	112%	129%	Autoimmune	PRA023	Phase I	UC, Crohn's
2/5/21	8/4/21	IMCR	Immunocore	\$258	\$26.00	\$58.59	\$2,807	\$1,100	125%	66%	83%	58%	Oncology	Tebentafusp	Phase III	Uveal melanoma
7/16/21	1/12/22	IMGO	Imago BioSciences	\$134	\$16.00	\$35.87	\$1,213	\$514	124%	2%	4%	29%	Oncology	Bomedemstat	Phase II	Essential Thrombocythemia
10/21/21	4/19/22	VTYX	Ventyx Biosciences	\$152	\$16.00	\$34.28	\$1,941	\$783	114%	17%	25%	37%	Autoimmune	VTX958	Preclinical	Crohn's, Psoriasis, PsA
9/15/21	3/14/22	DICE	DICE Therapeutics	\$204	\$17.00	\$33.84	\$1,292	\$618	99%	104%	92%	57%	Autoimmune	S011806	Preclinical	Psoriasis
6/30/21	12/27/21	AVTE	Aerovate Therapeutics	\$122	\$14.00	\$26.30	\$647	\$324	88%	39%	23%	-8%	Pulmonary	AV-101	Phase II	PAH
7/29/21	1/25/22	NUVL	Nuvalent	\$156	\$17.00	\$31.12	\$1,756	\$796	83%	7%	46%	104%	Oncology	NVL-520	Preclinical	NSCLC (ROS1)
5/14/21	11/10/21	VERA	Vera Therapeutics	\$48	\$11.00	\$19.50	\$539	\$234	77%	5%	80%	33%	Rare Diseases	Atacicept	Phase II	IgA Nephropathy (Kidney)
6/17/21	12/14/21	VERV	Verve Therapeutics	\$267	\$19.00	\$22.45	\$1,383	\$876	18%	100%	92%	156%	Cardiovascular	VERVE-101	Preclinical	HeFH
10/29/21	4/27/22	TRDA	Entrada Therapeutics	\$182	\$20.00	\$20.50	\$642	\$598	2%	20%	24%	45%	Rare Diseases	ENTR-601-44	Preclinical	DMD, DM1
10/29/21	4/27/22	AURA	Aura Biosciences	\$76	\$14.00	\$12.07	\$353	\$398	-14%	6%	34%	62%	Oncology	AU-011	Phase II	Choroidal Melanoma
6/11/21	12/8/21	JANX	Janux Therapeutics	\$194	\$17.00	\$14.31	\$596	\$678	-16%	48%	16%	63%	Oncology	PSMA-TRACT	Preclinical	Prostate Cancer (mCRPC)
7/29/21	1/25/22	RANI	Rani Therapeutics	\$73	\$11.00	\$8.20	\$203	\$528	-29%	0%	7%	82%	Various	RT-101	Phase I	NETs/ Acromegaly
6/25/21	12/22/21	GHRH	GH Research	\$160	\$16.00	\$10.87	\$565	\$808	-32%	20%	33%	8%	Neurology	GH001	Phase I/II	TRD Depression
6/25/21	12/22/21	ACXP	Acurx Pharmaceuticals	\$15	\$6.00	\$3.60	\$34	\$57	-40%	32%	-3%	-7%	Antibiotics	Ibezapolstat	Phase II	Clotridium difficile
1/8/21	7/7/21	CGEM	Cullinan Management	\$250	\$21.00	\$11.85	\$542	\$869	-44%	42%	67%	73%	Oncology	CLN-081	Phase I/II	NSCLC (Exon 20)
5/6/21	11/2/21	VALN-US	Valvea SE	\$61	\$26.41	\$14.39	\$994	\$1,293	-46%	12%	8%	2%	Infectious	Ixiaro	Marketed	Japanese encephalitis
12/16/21	6/14/22	BNOX	Bionomics	\$20	\$12.35	\$6.66	\$54	\$93	-46%	5%	0%	1%	Neurology	BNC210	Phase II	PTSD, SAD
7/23/21	1/19/22	CRBU	Caribou Biosciences	\$304	\$16.00	\$8.20	\$500	\$907	-49%	2%	1%	63%	Oncology	CB-010	Phase I	NHL
4/9/21	10/6/21	VECT	VectivBio Holding	\$128	\$17.00	\$8.49	\$345	\$578	-50%	43%	-5%	-21%	Rare Diseases	Apraglutide	Phase III	Short Bowel Syndrome
3/26/21	9/22/21	EWTX	Edgewise Therapeutics	\$176	\$16.00	\$7.98	\$504	\$761	-50%	88%	88%	72%	Rare Diseases	EDG-5506	Phase I	DMD, BMD, LGMD
4/16/21	10/13/21	RXR	Recursion Pharma	\$436	\$18.00	\$8.85	\$1,678	\$2,919	-51%	74%	66%	18%	Various	REC-4881	Phase I	FAP (cancer)
6/24/21	12/21/21	GLUE	Monte Rosa Therapeutics	\$222	\$19.00	\$9.03	\$437	\$808	-52%	-1%	17%	23%	Various	Undisclosed	Preclinical	NSCLC, SCLC
12/15/21	6/13/22	GNTA	Genenta Science	\$28	\$11.50	\$5.31	\$97	\$208	-54%	-2%	1%	-11%	Oncology	Temferon	Phase I/II	GBM
7/29/21	1/25/22	RLYB	Rallybio	\$81	\$13.00	\$5.90	\$219	\$406	-55%	31%	80%	0%	Various	RLYB211	Phase I/II	Maternal Fetal Blood Disorders
3/26/21	9/22/21	DSGN	Design Therapeutics	\$240	\$20.00	\$9.03	\$505	\$1,076	-55%	107%	49%	-4%	Rare Diseases	Undisclosed	Preclinical	Friedreich Ataxia
4/23/21	10/20/21	RAIN	Rain Therapeutics	\$126	\$17.00	\$7.56	\$196	\$441	-56%	-7%	-4%	-6%	Oncology	RAIN-32	Phase I	Solid Tumors
5/7/21	11/3/21	ANEB	Anebuo Pharmaceuticals	\$21	\$7.00	\$3.07	\$79	\$163	-56%	1%	0%	5%	Abuse/Addiction	ANEB-001	Phase I	Cannabinoid Overdose
6/18/21	12/15/21	IPSC	Century Therapeutics	\$211	\$20.00	\$8.73	\$515	\$1,096	-56%	14%	12%	38%	Oncology	CNTY-101	Preclinical	Lymphoma
2/5/21	8/4/21	PHVS	Pharvaris N.V.	\$165	\$20.00	\$8.57	\$284	\$637	-57%	45%	33%	44%	Rare Diseases	PHA121	Phase I	HAE
4/16/21	10/13/21	BMEA	Biomea Fusion	\$153	\$17.00	\$7.21	\$212	\$489	-58%	9%	-1%	-7%	Oncology	BMF-219	Preclinical	Menin Dependent Cancers
9/16/21	3/15/22	TYRA	Tyra Biosciences	\$173	\$16.00	\$6.69	\$282	\$655	-58%	24%	13%	2%	Oncology	TYRA-300	Preclinical	Bladder and Solid Tumors
2/5/21	8/4/21	VOR	Vor Biopharma	\$177	\$18.00	\$7.43	\$287	\$624	-59%	108%	171%	85%	Oncology	VCAR303	Phase I/II	AML
11/4/21	5/3/22	EVO	Evotech SE	\$435	\$21.75	\$8.49	\$3,000	\$890	-61%	4%	8%	3%	Various	EVT-201	Phase III	Insomnia
7/29/21	1/25/22	OMGA	Omega Therapeutics	\$126	\$17.00	\$6.49	\$312	\$794	-62%	-6%	-2%	12%	Various	OTX-2002	Preclinical	Hepatocellular Carcinoma
7/1/21	12/28/21	ABOS	Acumen Pharmaceuticals	\$160	\$16.00	\$5.83	\$239	\$618	-64%	27%	11%	-3%	Neurology	ACU193	Phase I	Alzheimer's
10/7/21	4/5/22	THR	Theseus Pharmaceuticals	\$160	\$16.00	\$5.50	\$213	\$600	-66%	5%	-1%	2%	Oncology	THE-630	Preclinical	GIST
2/12/21	8/11/21	LGVN	Longeveron	\$27	\$10.00	\$3.36	\$71	\$187	-66%	-26%	-38%	-19%	Anti-Aging	Lomecel-B	Phase II	Aging Frailty
7/30/21	1/26/22	IMRX	Immuneering	\$113	\$15.00	\$5.00	\$132	\$366	-67%	17%	88%	78%	Oncology	IMM-1-104	Preclinical	Solid Tumors (RAS)
6/16/21	12/13/21	MLN	Molecular Partners	\$64	\$21.25	\$6.91	\$249	\$683	-67%	-7%	-9%	-14%	Various	Abicipar	Phase III	Neovascular AMD
3/25/21	9/21/21	LVTX	Lava Therapeutics	\$101	\$15.00	\$4.64	\$120	\$380	-69%	-17%	-13%	-19%	Oncology	LAVA-051	Preclinical	CLL, MM, AML
7/16/21	1/12/22	ERAS	Erasca	\$300	\$16.00	\$4.93	\$679	\$1,858	-69%	9%	20%	26%	Oncology	ERAS-007	Phase II	Solid Tumors

Source: Jefferies estimates, FactSet
Data as of 12.13.22

IPO 2021 - selskaberne skal hente kapital

Biotechnology: Capital Markets

The 2021 IPO class on track for a -50% mean and -77% median return (1/2)

Pricing Date	Lockup Expiration	Ticker	Issuer Name	Offer Size (M)	Offer Price	Last Price	Mkt Cap (\$M)	Mkt Cap At IPO (\$M)	Performance To Date	Day 1 %	Week 1 %	Month 1 %	Key Focus Area	Lead Product	Stage at IPO	Lead Indication
12/16/21	6/14/22	IMMX	Immix Biopharma	\$21	\$5.00	\$1.46	\$20	\$38	-71%	-20%	-41%	17%	Oncology	IMX-110	Phase III	Soft Tissue Sarcoma
7/29/21	1/25/22	ICVX	Icosavax	\$182	\$15.00	\$4.20	\$168	\$863	-72%	66%	120%	164%	Infectious	IVX-411	Phase III	COVID19
3/18/21	9/14/21	GANX	Gain Therapeutics	\$40	\$11.00	\$3.05	\$36	\$125	-72%	11%	13%	32%	Rare Diseases	GLB1	Preclinical	GM1 Gangliosidosis
12/9/21	6/7/22	NRSN	NeuroSense Therapeutics	\$12	\$6.00	\$1.57	\$18	\$68	-74%	-47%	-45%	-57%	Neurology	PrimeC	Phase II	ALS
3/12/21	9/8/21	LBPB	Longboard Pharmaceuticals	\$80	\$16.00	\$4.00	\$69	\$271	-75%	4%	2%	0%	Neurology	LP352	Phase I	Rare Epilepsy (DEEs)
4/23/21	10/20/21	IMPL	Impel NeuroPharma	\$80	\$15.00	\$3.68	\$71	\$297	-75%	0%	1%	-9%	Neurology	Trudhesa	Filed	Acute Migraine
7/20/21	1/16/22	HCWB	HCW Biologics	\$56	\$8.00	\$1.93	\$69	\$285	-76%	-36%	-32%	-46%	Oncology	HCW9201	Phase II	AML
1/29/21	7/28/21	NLSP	NLS Pharmaceuticals	\$20	\$4.15	\$0.95	\$17	\$49	-77%	-30%	-27%	-31%	Neurology	Quilience	Phase II	Daytime Sleepiness/ ADHD
8/10/21	2/8/22	ELYM	Eliem Therapeutics	\$80	\$12.50	\$2.85	\$76	\$317	-77%	65%	35%	105%	Neurology	ETX-810	Phase II	DPNP and Lumbar Pain
8/26/21	2/22/22	RNKT	RenovoRx	\$17	\$9.00	\$2.00	\$18	\$75	-78%	-14%	-4%	-22%	Oncology	RenovoGem	Phase III	Pancreatic Cancer
7/30/21	1/26/22	NAB	InBio	\$40	\$10.00	\$2.17	\$53	\$188	-78%	0%	-3%	-27%	Oncology	INB-200	Phase I	GBM
10/1/21	3/30/22	EXAI	Exscientia	\$305	\$22.00	\$4.73	\$581	\$2,603	-79%	23%	9%	1%	Various	EXS21548	Phase I	Solid Tumors
10/8/21	4/8/22	CGTX	Cognition Therapeutics	\$46	\$12.00	\$2.56	\$61	\$256	-79%	6%	-1%	0%	Neurology	CT1812	Phase II	Alzheimer's
6/15/21	12/12/21	ALZN	Alzamend Neuro	\$13	\$5.00	\$1.06	\$101	\$425	-79%	107%	68%	40%	Neurology	AL001	Preclinical	Alzheimer's
6/17/21	12/14/21	LYEL	Lylell Immunopharma	\$425	\$17.00	\$3.60	\$898	\$4,070	-79%	-5%	-6%	-1%	Oncology	Undisclosed	Preclinical	NSCLC, TNBC, other
2/11/21	8/10/21	BVS	Bioventus	\$104	\$13.00	\$2.74	\$213	\$723	-79%	32%	5%	10%	Musculoskeletal	BMP Asset	Preclinical	TLF, PLIF
6/18/21	12/15/21	ATAI	ATAI Life Sciences	\$225	\$15.00	\$3.10	\$514	\$2,289	-79%	30%	13%	16%	Neurology	PCN-101	Phase I	TRD Depression
2/5/21	8/4/21	EVAX	Evaxion Biotech	\$30	\$10.00	\$2.02	\$47	\$192	-80%	-1%	-8%	-30%	Oncology	EVX-01	Phase III	Melanoma, NSCLC, bladder
11/5/21	5/4/22	IOBT	IO Biotech	\$100	\$14.00	\$2.78	\$80	\$388	-80%	12%	-18%	-22%	Oncology	IO102-103	Phase III	Melanoma
10/15/21	4/13/22	NKT	MiNK Therapeutics	\$40	\$12.00	\$2.30	\$78	\$402	-81%	0%	0%	37%	Oncology	AGENT-797	Phase I	Solid Tumors, Multiple Myeloma
6/25/21	12/22/21	GRPH	Graphite Bio	\$238	\$17.00	\$3.19	\$186	\$952	-81%	9%	67%	4%	Rare Diseases	GPH101	Preclinical	Sickle Cell Disease (SCD)
5/28/21	11/24/21	CNTA	Centessa Pharma	\$330	\$20.00	\$3.75	\$355	\$330	-81%	9%	14%	23%	Various	Lixivaptan	Phase III	Polycystic Kidney Disease
2/4/21	8/3/21	SANA	Sana Biotechnology	\$588	\$25.00	\$4.52	\$862	\$4,558	-82%	56%	73%	-4%	Various	SG295	Preclinical	NHL/ALL/CLL
10/29/21	4/27/22	BFR1	Bifrontera	\$18	\$5.00	\$0.90	\$21	\$58	-82%	-12%	-36%	58%	Dermatology	Ameluz	Marketed	Actinic Keratosis
3/26/21	9/22/21	KNA	Ikena Oncology	\$125	\$16.00	\$2.79	\$97	\$553	-83%	100%	63%	31%	Oncology	IK-930	Preclinical	Hippo-Mutated Cancers
12/8/21	6/8/22	CING	Cingulate	\$25	\$6.00	\$1.01	\$11	\$68	-83%	-35%	-50%	-59%	Neurology	CtX-1301	Phase III	ADHD
9/15/21	3/14/22	KTTA	Pasithea Therapeutics	\$24	\$5.00	\$0.82	\$17	\$85	-84%	-45%	-40%	-55%	Neurology	Undisclosed	Preclinical	Undisclosed
7/30/21	1/26/22	TNYA	Tenaya Therapeutics	\$180	\$15.00	\$2.37	\$152	\$690	-84%	2%	23%	78%	Cardiology	MYBPC3	Preclinical	gHCM
10/20/21	4/18/22	CNTX	Context Therapeutics	\$25	\$5.00	\$0.78	\$12	\$51	-84%	23%	34%	-2%	Oncology	ONA-XR	Phase III	Breast Cancer, Solid Tumors
10/22/21	4/20/22	XLO	Xlilo Therapeutics	\$118	\$16.00	\$2.41	\$66	\$427	-85%	0%	5%	42%	Oncology	XTX101	Phase I	Solid Tumors
7/13/21	1/9/22	UNCY	Unicycle Therapeutics	\$25	\$5.00	\$0.74	\$11	\$87	-85%	-24%	-43%	-44%	Renal	Renazorb	Phase I	CKD Hyperphosphatemia
5/26/21	11/22/21	DPNS	Day One Biopharma	\$200	\$10.00	\$1.44	\$94	\$257	-86%	1%	0%	-1%	Oncology	DAY101	Phase II	Brain cancer (pLGG)
4/9/21	10/6/21	RPHM	Remo Pharmaceuticals	\$94	\$15.00	\$2.11	\$52	\$363	-86%	-7%	-13%	0%	Rare Diseases	REN001	Phase II	PMM
4/30/21	10/27/21	VACC	Vaccitech	\$111	\$17.00	\$2.37	\$81	\$573	-86%	-17%	-20%	-13%	Various	VTP-800	Phase III	Prostate Cancer
7/16/21	1/12/22	TCCR	TScan Therapeutics	\$100	\$15	\$2.01	\$38	\$359	-87%	-30%	-33%	-31%	Oncology	TSC-100	Preclinical	AML, MDS, ALL
1/8/21	7/7/21	GRCL	Gracell Biotechnologies	\$209	\$19.00	\$2.48	\$163	\$1,245	-87%	32%	26%	61%	Oncology	GO012F	Phase I	Multiple Myeloma
4/30/21	10/27/21	HOWL	Werewolf Therapeutics	\$120	\$16.00	\$2.05	\$63	\$441	-87%	1%	-11%	-7%	Oncology	WDX-124	Preclinical	Solid Tumors
7/9/21	1/5/22	RNAZ	Resonance Therapeutics	\$25	\$4.00	\$0.49	\$6	\$48	-88%	32%	-20%	-21%	Oncology	TTX-MC138	Preclinical	Metastatic Cancer, GBM
6/18/21	12/15/21	AMAM	Ambrx Biopharma	\$128	\$18.00	\$2.04	\$79	\$678	-88%	-5%	-4%	9%	Various	ARX201	Phase I	Growth Hormone Deficiency
8/6/21	2/2/22	ADGI	Adagio Therapeutics	\$309	\$17.00	\$1.76	\$192	\$1,636	-90%	23%	57%	149%	Infectious	ADG20	Phase II	COVID19
11/1/21	4/30/22	LIAN	LianBio	\$325	\$16.00	\$1.44	\$156	\$325	-91%	-16%	-12%	-25%	Various	Mavacamten	Filed	Obstructive HCM
2/17/21	8/16/21	VRPX	Virpax Pharmaceuticals	\$18	\$18.00	\$0.82	\$4	\$49	-92%	-39%	-41%	-47%	Neurology	Epiladrem	Preclinical	Acute Pain
10/8/21	4/8/22	PYXS	Pyxis Oncology	\$168	\$16.00	\$1.16	\$38	\$524	-93%	-18%	-26%	-25%	Oncology	PYX-201	Preclinical	NSCLC, Breast
2/9/21	8/8/21	ADAG	Adagene	\$140	\$19.00	\$1.36	\$59	\$801	-93%	38%	35%	13%	Oncology	ADG106	Phase I	Solid Tumors, NHL
2/5/21	8/4/21	BOLT	Bolt Therapeutics	\$230	\$20.00	\$1.32	\$50	\$690	-93%	61%	67%	50%	Oncology	BDC-1001	Phase III	HER2 Breast/Gastric Cancer
6/25/21	12/22/21	ELEV	Elevation Oncology	\$100	\$16.00	\$0.93	\$22	\$372	-94%	-29%	-4%	-45%	Oncology	Seribantumab	Phase II	Solid Tumors
2/5/21	8/4/21	ANGN	Angion Biomedica	\$80	\$16.00	\$0.87	\$26	\$460	-95%	6%	22%	0%	Various	ANG-3777	Phase III	Kidney Injury
3/19/21	9/15/21	FNCH	Finch Therapeutics	\$128	\$17.00	\$0.89	\$43	\$801	-95%	25%	-6%	-6%	Microbiome	CP101	Phase II	Recurrent C. Difficile
3/19/21	9/15/21	CNTB	Connect Biopharma	\$191	\$17.00	\$0.86	\$47	\$191	-95%	9%	-6%	2%	Autoimmune	CBP-201	Phase II	Atopic Dermatitis
3/19/21	9/15/21	TIL	Instill Bio	\$320	\$20.00	\$0.67	\$87	\$2,518	-97%	32%	35%	-5%	Oncology	ITL-168	Phase I	Melanoma
2/10/21	8/9/21	VLON	Vallon Pharmaceuticals	\$18	\$8.00	\$0.25	\$2	\$49	-97%	-5%	-7%	-31%	Neurology	ADAIR	Phase I	ADHD, Narcolepsy
8/13/21	2/9/22	DRMA	Dermata Therapeutics	\$18	\$7.00	\$0.19	\$7	\$58	-97%	-26%	-34%	-26%	Dermatology	DMT310	Phase II	Acne
2/10/21	8/9/21	BPTS	Biophytis	\$20	\$16.75	\$0.40	\$5	\$192	-98%	0%	-9%	-13%	Rare Diseases	Sarcosene	Phase II	Sarcopenia
2/4/21	8/3/21	LABP	Landos Biopharma	\$100	\$16.00	\$0.33	\$11	\$827	-98%	-31%	-16%	-22%	Autoimmune	BT-11	Phase II	SC, Crohn's, Lupus, etc
2/12/21	8/11/21	NEXI	NexImmune	\$110	\$17.00	\$0.31	\$8	\$368	-98%	49%	35%	46%	Oncology	NXE1-001	Phase I	AML, MDS
Total:	105 IPOs			\$14,660					Average: -50%	15%	16%	14%				
									Median: -77%	6%	6%	1%				

Source: Jefferies estimates, FactSet
Data as of 12.13.22

M&A ?

List of Biopharma Companies Exploring Strategic Options

Ticker	Company	Announcement Date	Last Cash (\$mm)	Enterprise Value (\$mm)	Note
IMPL	Impel Pharmaceuticals	10/5/2023	\$15.2	\$103.5	Highly leveraged. Kicking off process. Commercial product.
GLTO	Galecto	9/26/2023	\$52.1	-\$33.4	Full pipeline. Executed large layoff.
ARAV	Aravive	8/21/2023	\$18.4	-\$6.3	
GRTX	Galera Therapeutics	8/14/2023	\$38.8	\$118.3	Can deliver \$5 to 10mm cash
TCRT	Alaunos Therapeutics	8/14/2023	\$18.3	\$9.9	
SLRX	Saliarius Pharmaceuticals	8/8/2023	\$11.5	-\$9.1	
NBSE	Neubase	8/3/2023	\$13.8	-\$6.3	
AVTX	Avalo Therapeutics	8/3/2023	\$6.3	\$36.8	
VXL	Vaxil Bio	8/2/2023	\$0.8	\$0.7	
FIXX	Homology Medicines	7/27/2023	\$127.1	-\$34.2	No recent updates
SQZB	SQZ Biotechnologies	7/25/2023	\$24.7	-\$0.7	
ELYM	Eliem Therapeutics	7/20/2023	\$102.6	-\$31.1	No recent updates
RKDA	Arcadia Biosciences	7/20/2023	\$18.5	-\$13.7	
NMTR	9 Meters	7/19/2023	\$0.0	\$0.0	In Bankruptcy. Ongoing auction
PIRS	Pieris Pharma	7/18/2023	\$54.9	-\$11.2	
AVRO	AvroBio	7/12/2023	\$124.7	-\$51.9	No recent updates
HSTO	Histogen	7/5/2023	\$7.3	-\$0.6	In Liquidation. Some assets.
RVLP	RVL Pharmaceuticals	7/5/2023	\$19.2	\$53.1	
SPEX	Spexis	6/30/2023	\$1.0	\$25.5	
AUPH	Aurinia Pharmaceuticals	6/29/2023	\$350.4	\$797.8	Process triggered by activist. Not necessarily a sale.
BLPH	Bellorophon Therapeutics	6/24/2023	\$10.6	-\$5.9	
ONCR	Oncorus	6/1/2023	\$45.0	\$25.0	
NOVN.Q	Novan	5/31/2023	\$12.5	\$24.6	In Bankruptcy. Loan from Ligand. Upcoming PDUFA date.
GMDA	Gamida Cell	5/15/2023	\$54.1	\$169.1	
IMVI.Q	IMV	5/1/2023	\$21.2	\$7.8	
INFI	Infinity Pharma	3/28/2023	\$0.4	\$1.8	In Bankruptcy
BLCM	Bellicum Therapeutics	3/14/2023	\$7.4	\$22.5	
FRTX	Fresh Tracks Therapeutics	3/7/2023	\$8.9	-\$2.9	In Bankruptcy
GRPH	Graphite Bio	2/23/2023	\$284.0	-\$152.0	Has not updated on process for over 9 months.
EVFM	Evoform Biosciences	2/23/2023	\$7.7	\$81.0	Has commercial product.
ALRN	Aileron	2/21/2023	\$13.7	-\$7.2	
GTTX	Genether	2/8/2023	\$2.0	\$1.0	
AXLA	Axcella Therapeutics	12/14/2022	\$8.9	\$22.0	Rich pipeline
MEIP	MEI Pharma	12/6/2022	\$100.7	-\$42.3	Activist involvement.
SNGX	Soligenix	11/10/2022	\$17.0	\$4.0	
HGEN	Humanigen	10/31/2022	\$3.1	-\$1.7	
XCUR	Excicure	9/26/2022	\$15.6	-\$3.0	In Liquidation
TENX	Tenax Therapeutics	9/14/2022	\$13.4	-\$6.5	
GLMD	Galmed	6/15/2022	\$22.4	-\$12.0	
ABIO	Arca Bio	4/18/2022	\$43.9	-\$12.0	Long running process. Activist in situation.
ADMA	ADMA Biologics	10/21/2021	\$62.5	\$842.4	Commercial stage company. Long process.

Source: Stifel Research

We count an unprecedented 41 biopharma companies that have publicly indicated that they are exploring strategic options.

A number of these companies are in a formal liquidation or bankruptcy process.

> 80 selskaber er forsvundet siden feb2021

Acquired

Acceleron Pharma
Akouos
Albireo Pharma
AGTC
AVEO Pharmaceuticals
Ayala Pharmaceuticals
Checkmate Pharmaceuticals
ChemoCentryx
Chinook Tx
Concert Pharma
Constellation Pharmaceuticals
Decibel Therapeutics
Dicerna Pharmaceuticals
Entasis Therapeutics
Five Prime
Forma Therapeutics
F-star Therapeutics
IVERIC bio
Jounce Therapeutics

Kadmon Holdings
LogicBio Therapeutics
Mirati Therapeutics
Myovant Sciences
NantKwest
Opiant Pharmaceuticals
Orchard Therapeutics
Oyster Point Pharma
Pandion Therapeutics
Prevention Bio
Reata Pharmaceuticals
Satsuma Pharmaceuticals
Sigilon Therapeutics
Spectrum Pharmaceuticals
Surface Oncology
TCR2 Therapeutics
Translate Bio
Turning Point Therapeutics
Urovant Sciences
Viela Bio

Reverse Merger

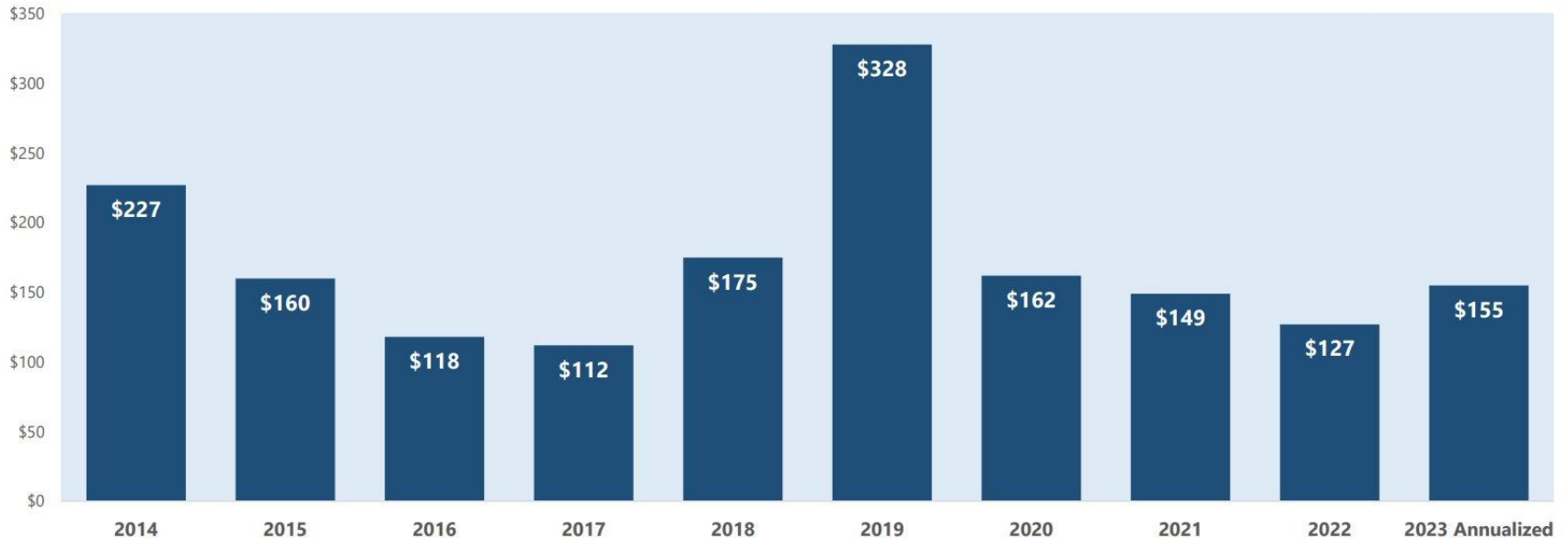
Aerpio Pharmaceuticals
Angion Biomedica
Brickell Biotech
Cancer Genetics
Catabasis Pharmaceuticals
Celsion Corporation
Cleveland BioLabs
Cortexyme
EyeGate Pharmaceuticals
Frequency Tx
Gemini Therapeutics
Graybug Vision
Idera Pharma
IMARA Inc.
Magenta Therapeutics
Neoleukin
Sesen Bio
Silverback Therapeutics
Sunesis Pharmaceuticals
Talaris Therapeutics
Tyme Technologies
Vallon Pharma

Liquidation / Bankruptcy

9 Meters Biopharma
Aptinyx
Codiak BioSciences
Exicure
Fresh Tracks Therapeutics
Genocea
Histogen
Infinity Pharmaceuticals
Kaleido Biosciences
Metacrine
Novan
Otonomy
PhaseBio Pharmaceuticals
PLx Pharma
PolarityTE
Rubius
SIO Gene Therapies
Tricida

Standard M&A år

M&A Volume in the Biopharma Sector, 2014 - October 14, 2023
(\$ Billions, Worldwide)



Kilde: Stifel

M&A – Ny valuation virkelighed?



M&A – Ny valuation virkelighed?



World ▾ Business ▾ Markets ▾ Sustainability ▾ Legal ▾ More ▾

Deals

Bristol-Myers Squibb to acquire Mirati in up to \$5.8 billion deal

By Michael Erman

October 9, 2023 5:10 PM GMT+2 · Updated 16 days ago



M&A – Ny valuation virkelighed?



World ▾ Business ▾ Markets ▾ Sustainability ▾ Legal ▾ More ▾

Deals

Bristol-Myers Squibb to acquire Mirati in up to \$5.8 billion deal

By Michael Erman

October 9, 2023 5:10 PM GMT+2 · Updated 16 days ago



pharma bro

@fakepharmabro

[\\$mrtx](#) proxy out

[\\$bmy](#) acquisition dates back to march '22, offering \$125/sh

\$140/sh april '22

\$124/sh dec '22

collab offer dec '22 \$0.5bn

\$64/sh aug '23

\$66/sh + \$10 cvr sept '23

\$68/sh sept '23

\$56/sh + \$10 cvr sept '23

\$58/sh + \$12 cvr oct '23

[sec.gov/Archives/edgar...](#)



LIFE SCIENCE
Økonomisk Ugebrev

Drug pricing – spørger altid

State Bills in 2023 Adopted into Law			
State	Initiative	Category	Description
AZ	SB 1382	PBM	PBMs will require certification
AR	HB 1481	PBM	PBM rebate calculation changes
	SB 94	PBM	State information gathering on PBM rebate financials
CA	SB 101	Cost Sharing	Funds biosimilar insulin
CO	HB 23-1225	Price Review	Expands price review board to 18 drugs, drugs with a launch price of over \$3,000, or an avg yearly cost of \$30,000 or more, or drugs with a 200% or \$300 increase in the last 12 months
	HB 1002	Cost Sharing	\$60 price cap for epi-pens
	HB 23-1201	PBM	Caps PBM charges for prescription drugs to what the pharmacy cost of the drug is
CT	SB 23-195	PBM	Requires PBMs to include cost sharing paid by the insured in the cost sharing requirement
	CT HB 6669	Cost Sharing	Establishes a drug discount card and authorizes the state to pool with other states to lower drug prices
DE	HB 54	Cost Sharing	Requires epi pens to be available on the lowest tier of pharmacy
	SB 2500	Importation	Authorizes \$15M to pay for drug importation from Canada
FL	SB 1550	Transparency	Requires pass through pricing for PBMs and bans gag clauses, also requires disclosures by manufacturers on price increases and patent extensions
	SB 2502	Cost Sharing	Requires competitive procurement of biologics, including but not limited to insulin and epi-pens
IN	SB 8	Cost Sharing	Cost sharing to be calculated at sale, requires pass through pricing
IA	HF 423	PBM	Bans discrimination by PBMs
ME	LD 1395	Transparency	Additional data collection on 340B programs
MD	HB 200/SB 181	Price Review	Provides \$1.5M in funding for the drug affordability review board
	HB 279/SB 202	Price Review	Enables the drug affordability review board to set a maximum price
	HB 382	Transparency	Information gathering on payments in 2021 and 2022 for the drug affordability board
MN	SF 2744	Price Review	Creates a price review board that can establish upper price limits for drugs costing \$60,000 per year, or with a greater than \$3,000 price increase.
	SF 2995	Transparency	Strengthens existing drug transparency laws
NV	AB 434	PBM	Prohibits discrimination against 340B programs
NM	SB 51	Cost Sharing	Third party payments on behalf of an enrolled plan member count towards the plan member's cost sharing
NY	A 2200/S 836	PBM	Requires PBMs to provide certain data at the request of an insured member
	HB 1413	Cost Sharing	Study on the impact of third party payers on drug costs
ND	SB 2140	Cost Sharing	Caps price of 30 days of insulin at \$25
	SB 2378	PBM	Prohibits PBMs from limiting insured choices regarding pharmacy and physician
	SB 608	Transparency	Survey on the cost of dispensing drugs
RI	SB 871	Cost Sharing	Caps coinsurance on speciality drugs at \$150 per 30 day supply
SC	S 520	PBM	Prohibits PBMs from being anti-competitive or restricting use of in-network pharmacies
SD	HB 1135	PBM	Requires PBM licensing
TX	HB 999	Cost Sharing	Third party payments on behalf of an enrolled plan member count towards the plan member's cost sharing
	HB 25	Importation	Establishes and requires Texas to seek certification for a drug importation program
	HB 4611	PBM	Establishes audits of PBMs
	HB 4990/SB 2402	PBM	Establishes bulk state purchasing of drugs for certain government employees and dependents
UT	SB 622	Transparency	Requires PBMs to provide certain data at the request of an insured member
	SB 193	PBM	Bans dispensing of physician administered drugs directly to patients
VA	HB 1471	PBM	Require PBMs to provide real time cost information to enrollees
WV	SB 577	Cost Sharing	Caps price of 30 days of insulin at \$35 and for devices at \$100
WY	SF 151	PBM	Bans PBMs from preventing pharmacies from filing batch appeal denials

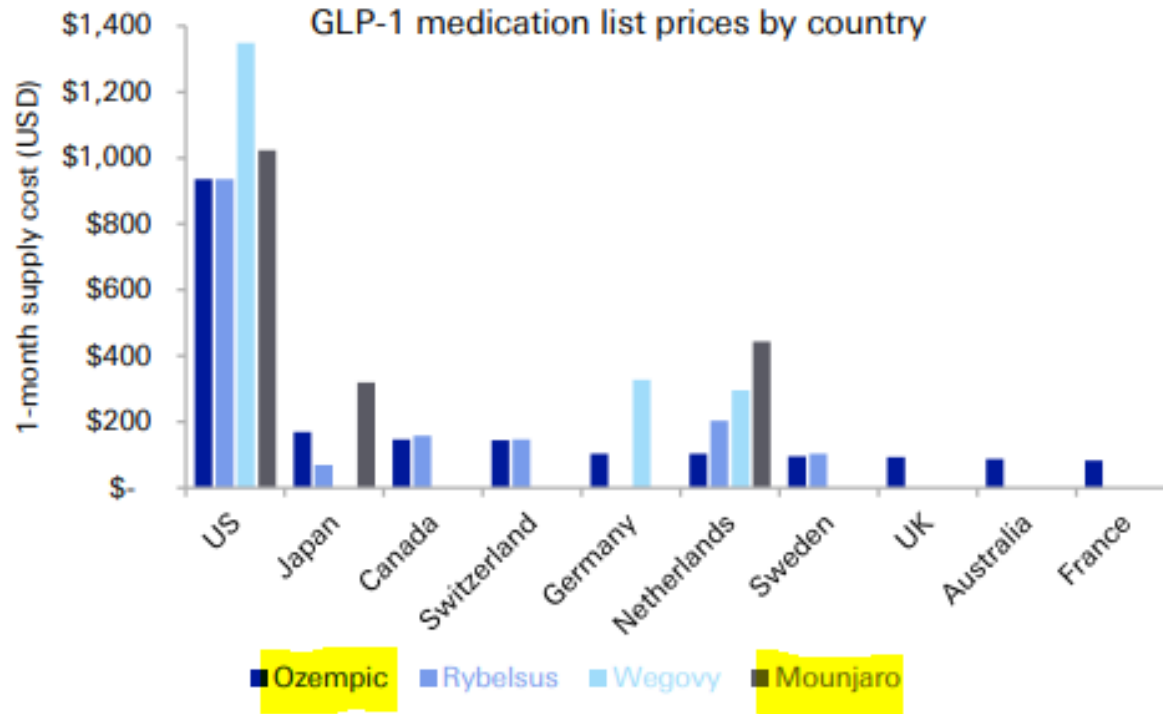
25 stater har vedtaget 40 lovforslag i 2023.

Dækkende f.eks.

- Studier
- gennemsigtighed
- Price review boards

Source: RBC Capital Markets, NASHP

Drug pricing – spørger altid

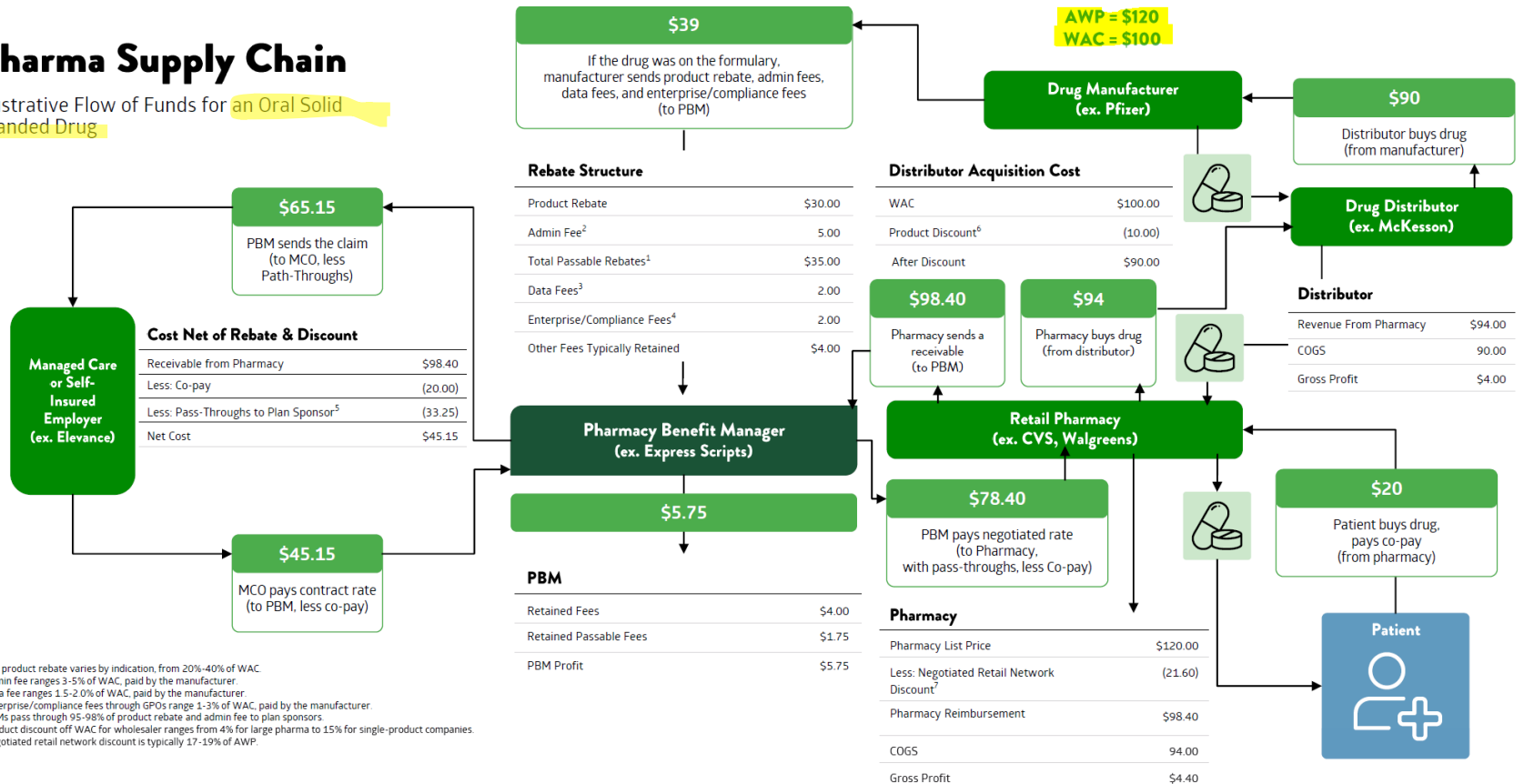


Source : Peterson-KFF Health System Tracker

Drug pricing - systemet

Pharma Supply Chain

Illustrative Flow of Funds for an Oral Solid Branded Drug

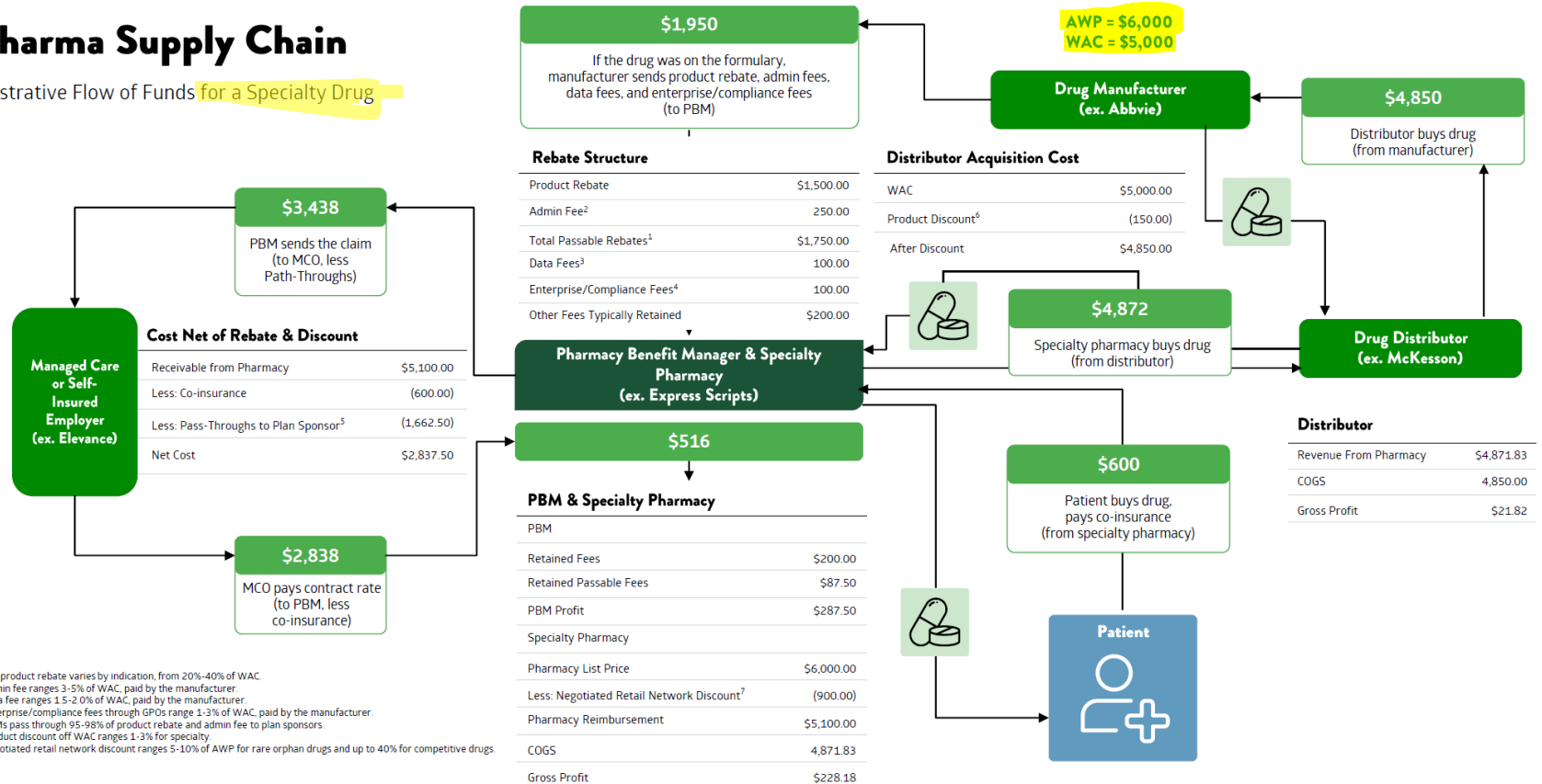


1 The product rebate varies by indication, from 20%-40% of WAC.
 2 Admin fee ranges 3-5% of WAC, paid by the manufacturer.
 3 Data fee ranges 1.5-2.0% of WAC, paid by the manufacturer.
 4 Enterprise/compliance fees through GPOs range 1-3% of WAC, paid by the manufacturer.
 5 PBMs pass through 95-98% of product rebate and admin fee to plan sponsors.
 6 Product discount off WAC for wholesaler ranges from 4% for large pharma to 15% for single-product companies.
 7 Negotiated retail network discount is typically 17-19% of AWP.

Drug pricing - systemet

Pharma Supply Chain

Illustrative Flow of Funds for a Specialty Drug



1 The product rebate varies by indication, from 20%-40% of WAC.
 2 Admin fee ranges 3-5% of WAC, paid by the manufacturer.
 3 Data fee ranges 1.5-2.0% of WAC, paid by the manufacturer.
 4 Enterprise/compliance fees through GPOs range 1-3% of WAC, paid by the manufacturer.
 5 PBMs pass through 95-98% of product rebate and admin fee to plan sponsors.
 6 Product discount off WAC ranges 1-3% for specialty.
 7 Negotiated retail network discount ranges 5-10% of AWP for rare orphan drugs and up to 40% for competitive drugs.

Fedme og Novo (Mange er ikke med)

Many large pharmas are **NOT** active in obesity



abbvie

GSK

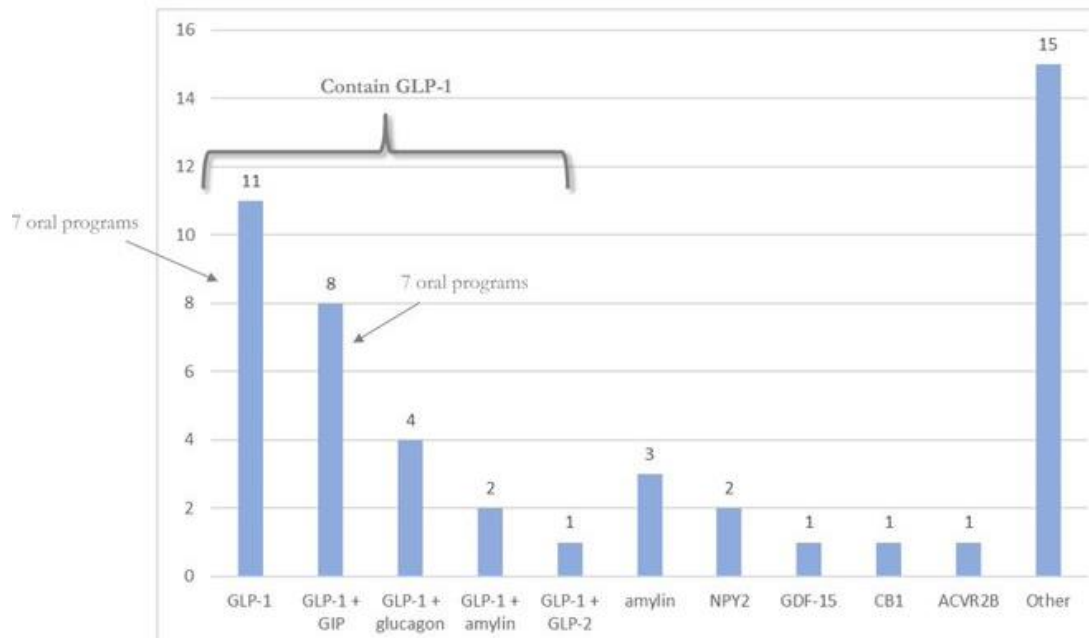


Kilde: Evercore

Fedme og Novo

49 programmer, 34 selskaber, 25 forskellige tilgange (MoA)

~50% of obesity programs contain GLP-1, focus is shifting to orals



Kilde: Evercore

Fedme og Novo – Novo og Lilly klart i front

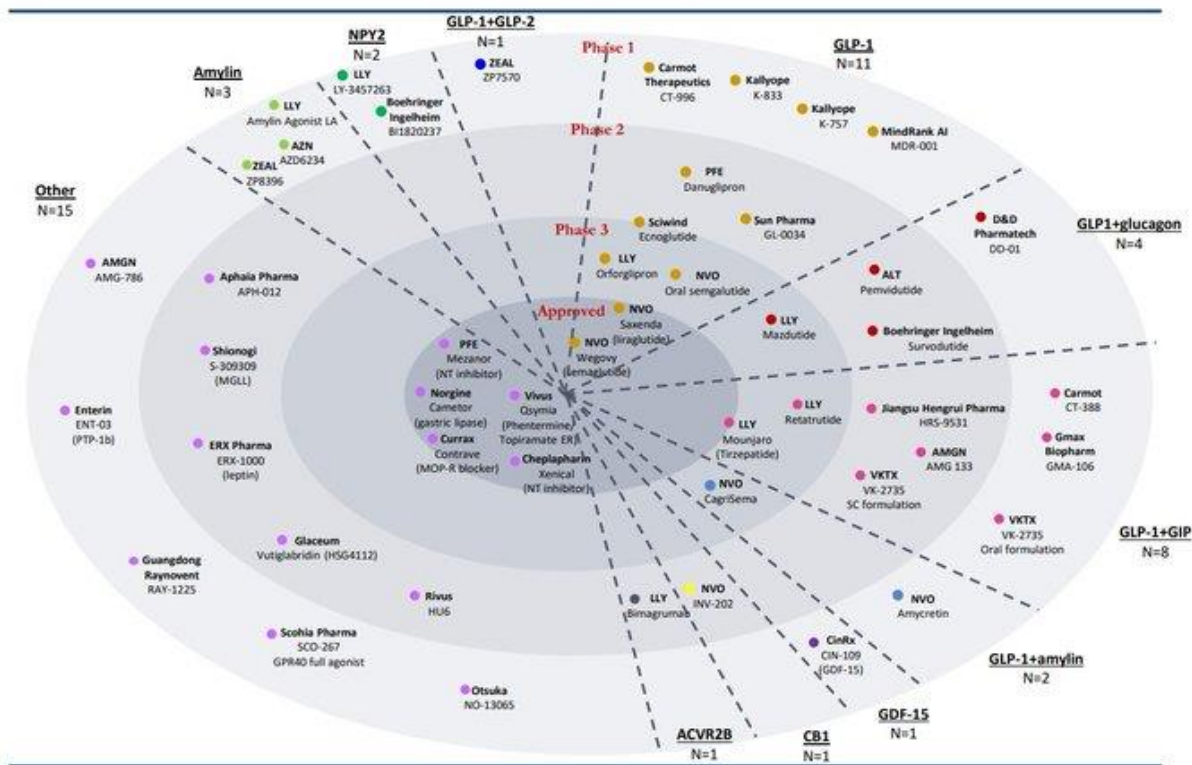
Presence of large pharma in obesity is highly concentrated



Kilde: Evercore

Fedme og Novo – Novo og Lilly klart i front

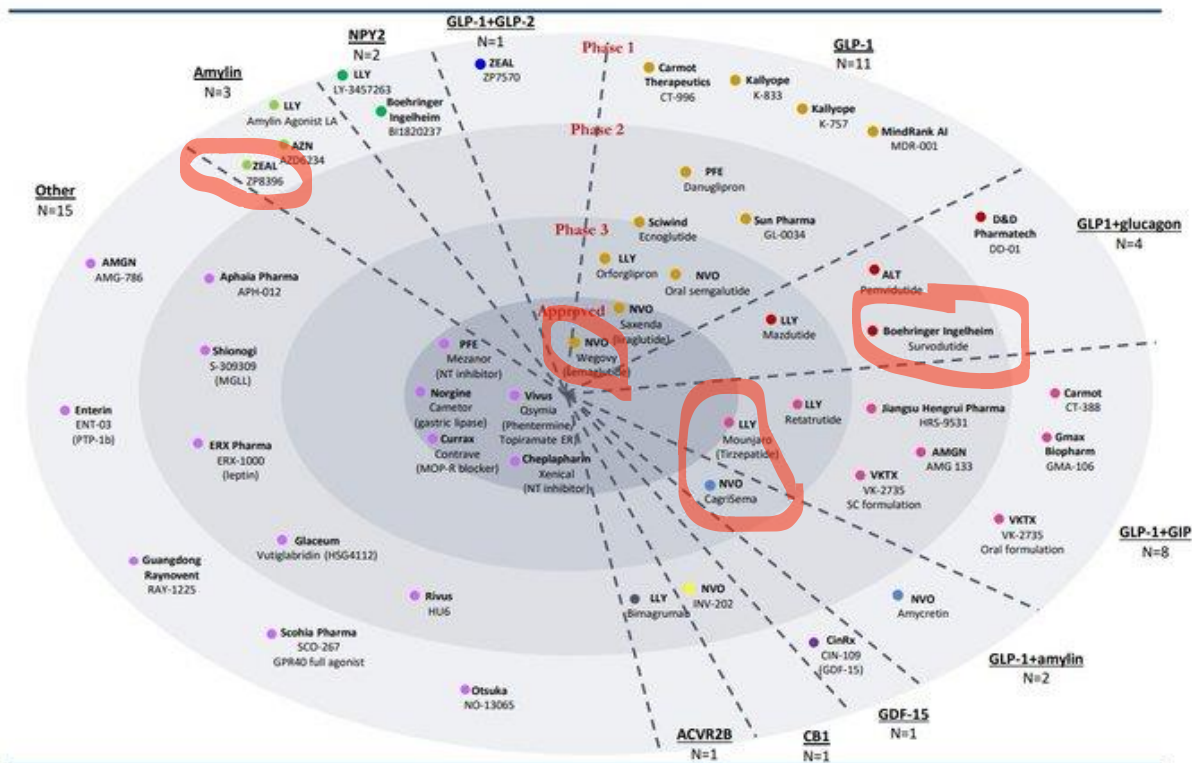
Obesity Landscape on a Page: 49 Programs from 34 Companies



Kilde: Evercore

Fedme og Novo – Novo og Lilly klart i front

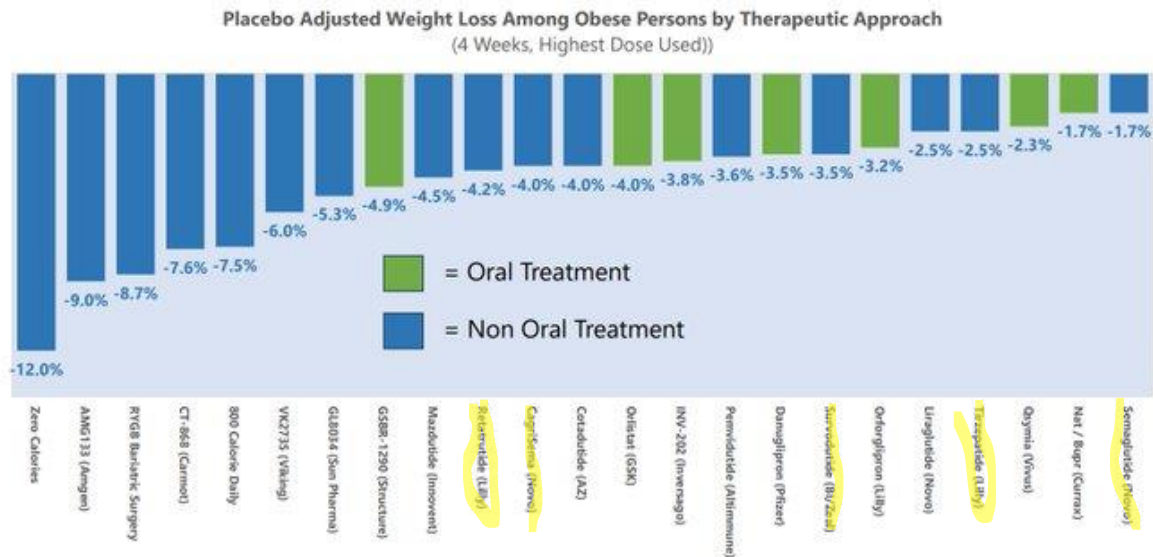
Obesity Landscape on a Page: 49 Programs from 34 Companies



Kilde: Evercore

Fedme og Novo – Novo og Lilly klart i front

Structure's GSKR-1290 Weight Loss Is The Most Impressive 4-Week Weight Loss Seen to Date With an Oral Treatment



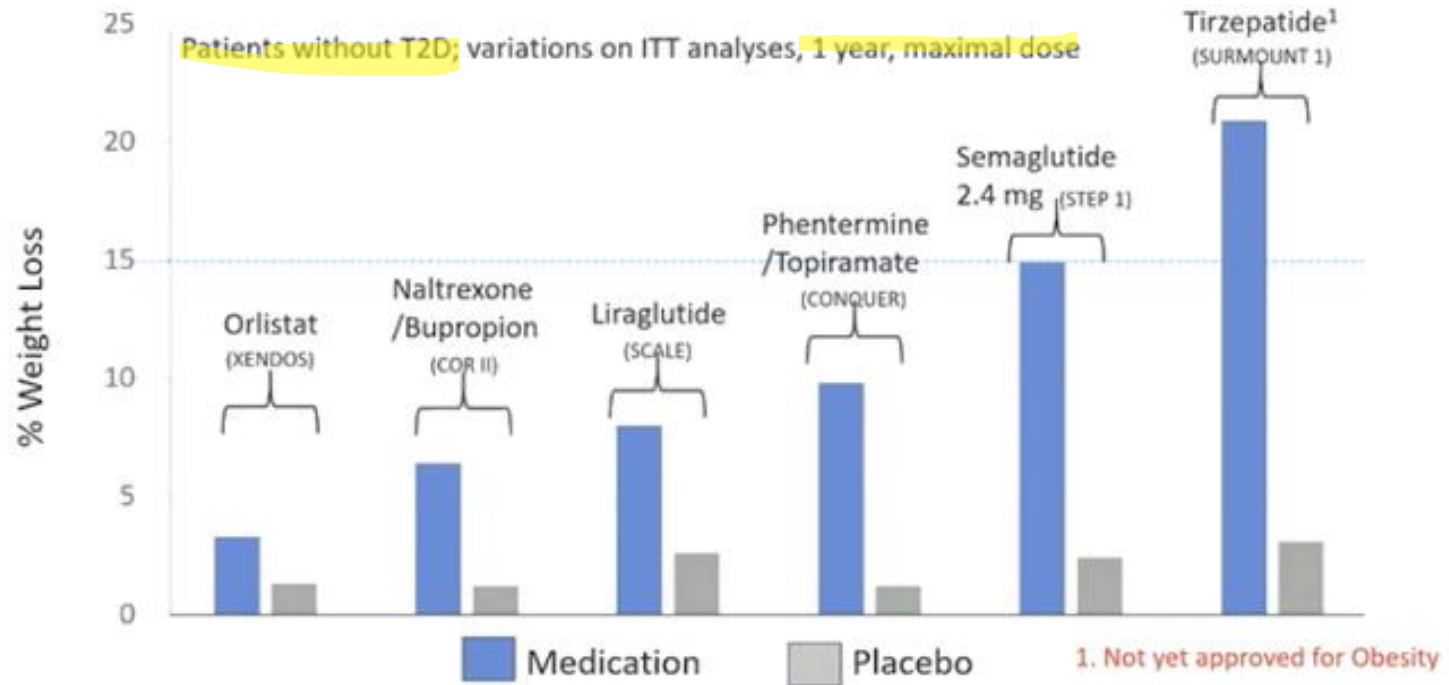
Kilde: Stifel

Fedme og Novo – GPCR – IPO 2023 succes



Kilde: Stifel

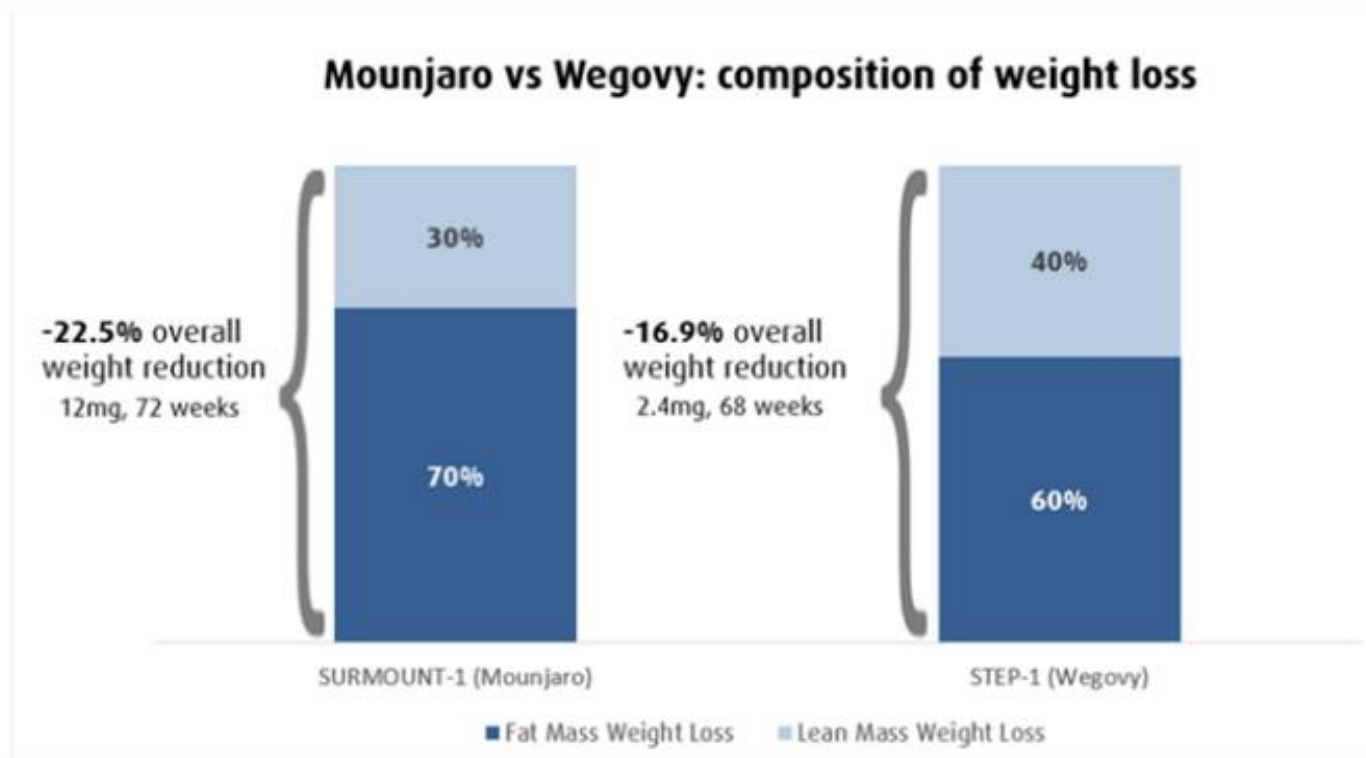
Fedme og Novo – væggtab efter 12 mdr.



Torgerson Diabetes Care 2004;27:155 - Apovian Obesity 2013;21:935 - Pi-Sunyer NEJM 2015;373:11 - Gadde Lancet 2011;377:1341 - Wilding NEJM 2021;384:989 - Jastreboff NEJM 2022;387:205

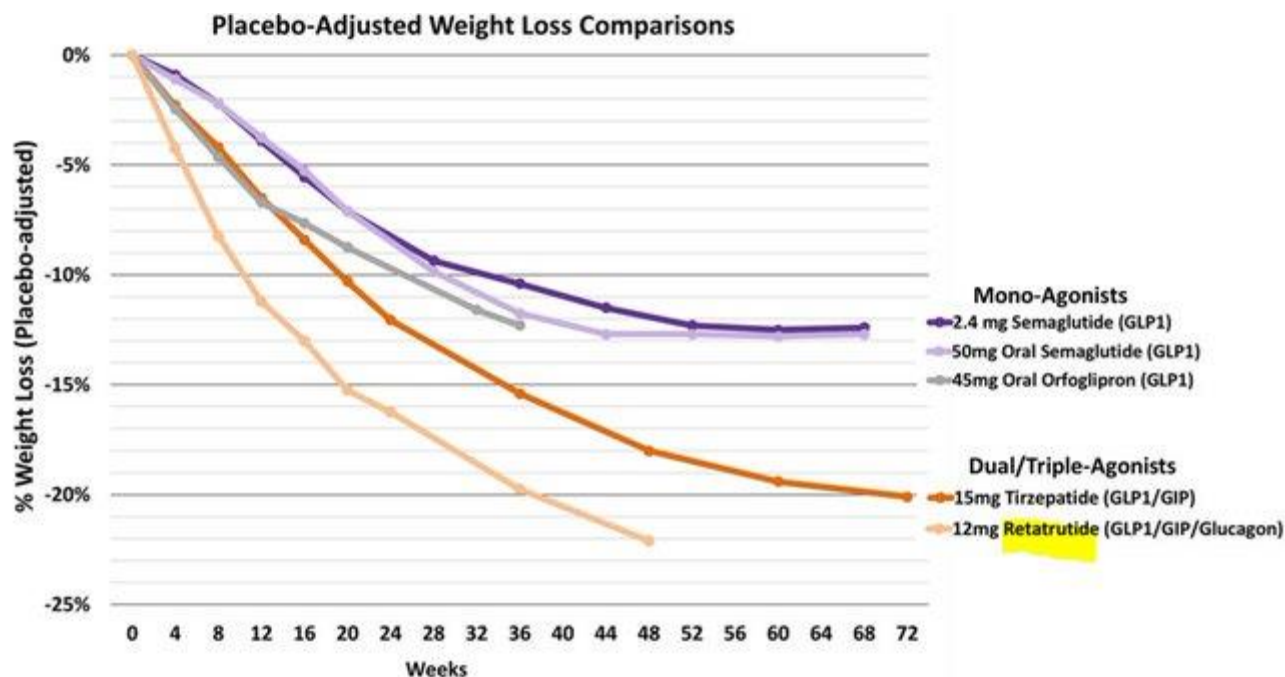
Source: ADA 2023

Fedme og Novo – Eli Lilly er godt på vej



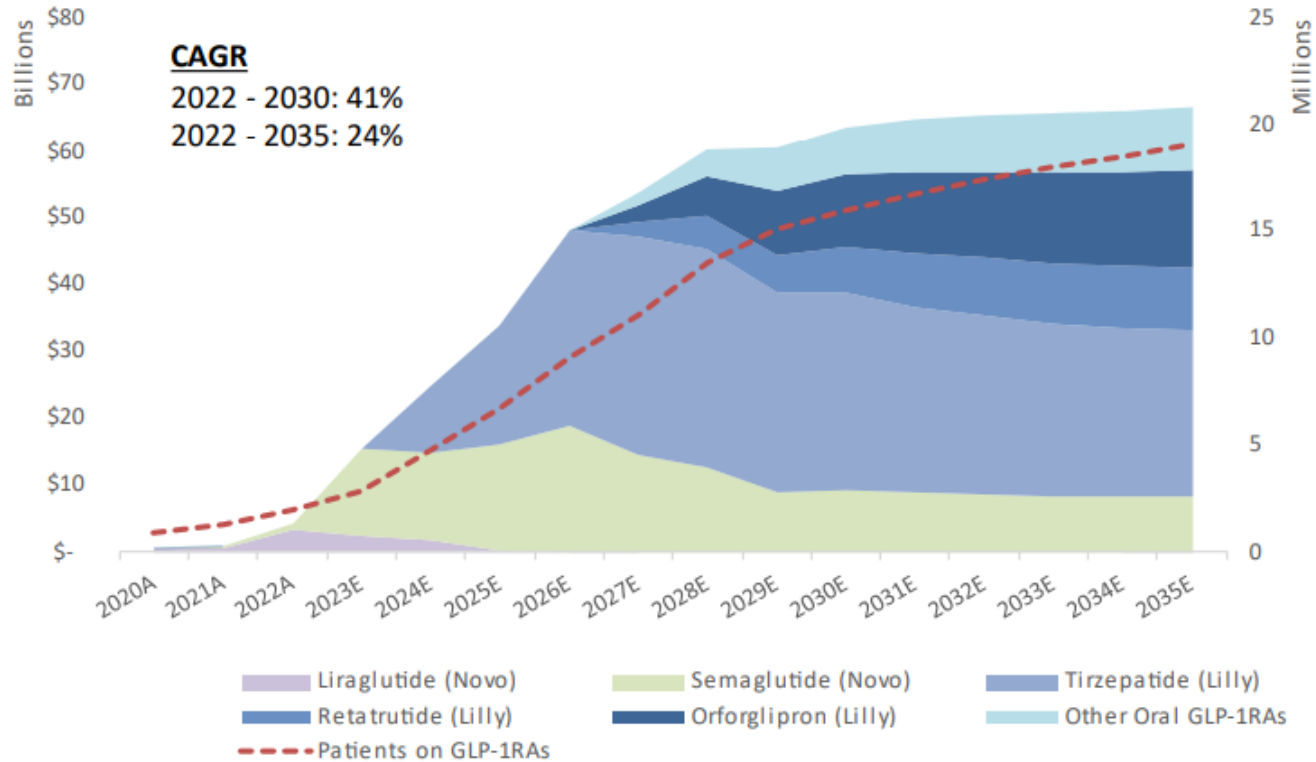
Source: BMO Capital Markets

Fedme og Novo – Dual/triple - Hurtigere og længere vægttab



Source: Truist Securities Research; pubmed.ncbi.gov



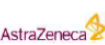











Fedme og Novo – Eli Lilly bliver størst?



Source: Evaluate Pharma; BMO Capital Markets

Novo og Eli Lilly vinder på egen R&D?

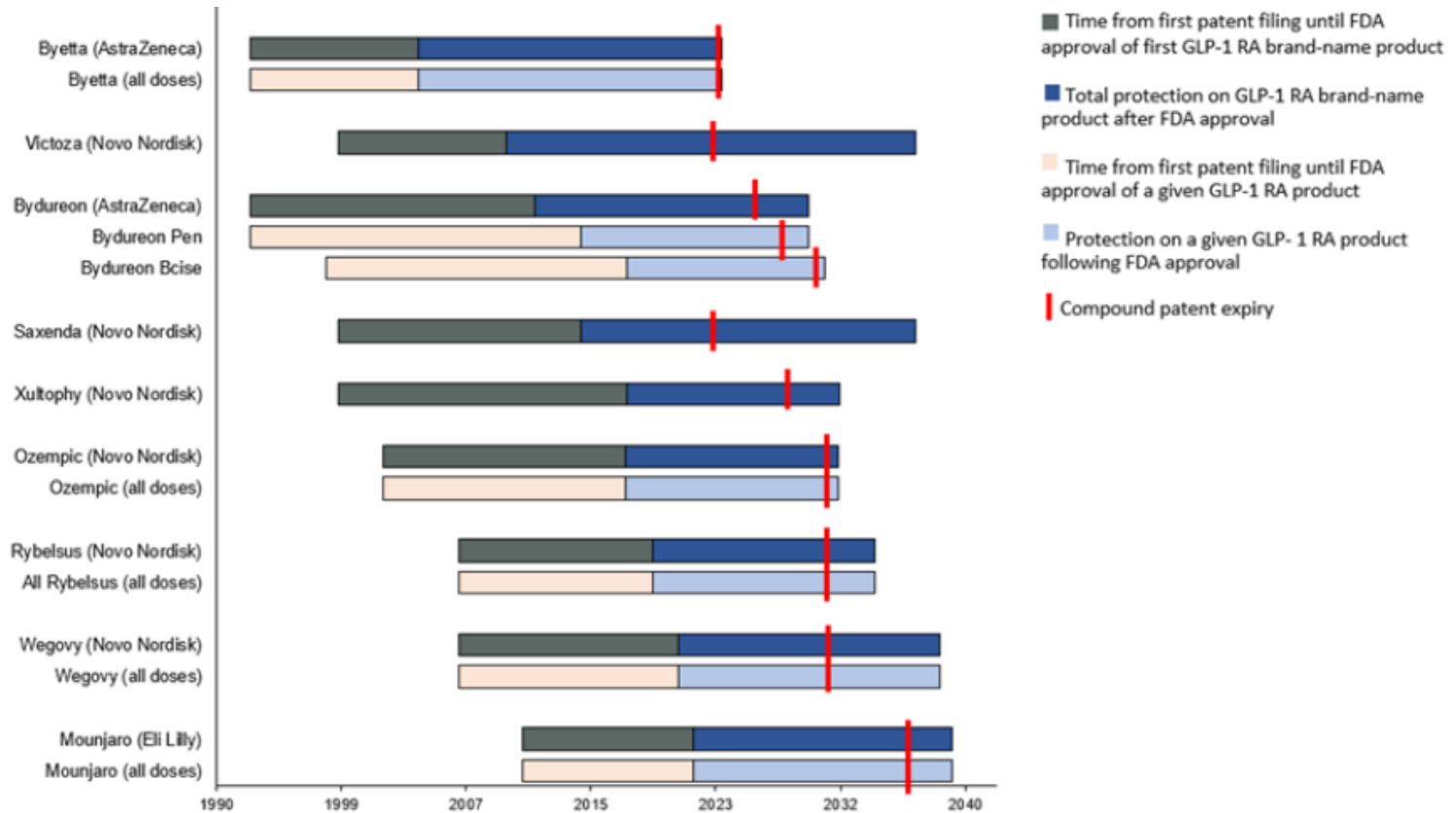
Origin of Key Pharma Products (Ranked by FY22 Sales)

Key Products														
#1 Product	Humira	Enbrel	Tagrisso	Eliquis	Trulicity	Biktarvy	Shingrix	Stelara	Keytruda	Cosentyx	Ozempic	Comirnaty	Ocrevus	Dupixent
#1 Source	Acquired	Acquired	Organic	Acquired	Organic	Acquired	Organic	Acquired	Acquired	Organic	Organic	Licensed	Licensed	Licensed
#2 Product	Botox	Otezla	Farxiga	Revlimid	Verzenio	Veklury	Xevudy	Darzalex	Gardasil	Entresto	Novorapid	Paxlovid	Perjeta	Flu Vaccine
#2 Source	Acquired	Acquired	Licensed	Acquired	Organic	Organic	Licensed	Licensed	Licensed	Organic	Organic	Organic	Organic	Organic
#3 Product	Skyrizi	Repatha	Imfinzi	Opdivo	Taltz	Genvoya	Triumeq	Invega	Lagevrio	Promacta	Tresiba	Eliquis	Hemlibra	DTaP vaccine
#3 Source	Licensed	Organic	Organic	Acquired	Organic	Acquired	Organic	Licensed	Licensed	Acquired	Organic	Licensed	Licensed	Organic
#4 Product	Imbruvica	Kyprolis	Lynparza	Pomalyst	Jardiance	Descovy	Trelegy	Imbruvica	Januvia	Gilenya	Victoza	Prevnar	Tecentriq	Lantus
#4 Source	Acquired	Acquired	Acquired	Acquired	Licensed	Acquired	Licensed	Licensed	Organic	Organic	Organic	Acquired	Organic	Acquired
#5 Product	Rinvoq	Neulasta	Symbicort	Orencia	Humalog	Harvoni	Nucala	Tremfya	Simponi	Tasigna	Rybelsus	Ibrance	Actemra	Aubagio
#5 Source	Organic	Organic	Organic	Acquired	Organic	Acquired	Organic	Organic	Licensed	Organic	Organic	Acquired	Licensed	Acquired
% Acquired / Licensed	80.0%	60.0%	40.0%	100.0%	20.0%	80.0%	40.0%	80.0%	80.0%	20.0%	-	80.0%	60.0%	60.0%
% of FY22 Sales	66.9%	40.6%	40.1%	80.9%	57.9%	73.7%	34.8%	53.8%	74.5%	30.6%	61.1%	74.4%	44.7%	47.1%
Market Cap (\$B)	\$260	\$138	\$212	\$129	\$525	\$96	\$72	\$428	\$282	\$235	\$328	\$207	\$246	\$136

Note: market data as of 8/23/2023

Andrew Pannu  @andrewpannu

Patentudløb



Source: Multiple Company reports, accessdata.fda.gov, JAMA, 2023⁵¹











GLP-1 patienter spiser mindre (n=500)

Category	GLP-1 Users	Total US	Difference
Meat Snacks	-27.2%	-1.5%	-25.6%
Snack Seeds, Nuts & Trail Mixes	-30.6%	-5.4%	-25.2%
Popcorn	-27.4%	-3.5%	-23.9%
Crackers	-22.5%	0.7%	-23.2%
Chips	-18.8%	-0.7%	-18.1%
Packaged Portable Sweet Snacks	-11.3%	3.3%	-14.6%
Total High Sugar/Carb	-14.0%	0.4%	-14.5%
Baking & Cooking	-7.8%	5.0%	-12.7%
Packaged Cookies	-10.5%	1.4%	-11.9%
Soft Drinks	-15.1%	-3.9%	-11.2%
<i>Total Packaged Food</i>	<i>-10.1%</i>	<i>1.0%</i>	<i>-11.1%</i>
Canned	-11.0%	-0.4%	-10.6%
Pasta & Noodles	-3.2%	7.3%	-10.5%
Deli & Prepared Foods	-12.4%	-2.2%	-10.2%
In-Store Bakery	-7.8%	2.4%	-10.1%
Frozen Foods	-6.7%	2.2%	-9.0%
<i>Total Fresh</i>	<i>-6.8%</i>	<i>1.2%</i>	<i>-8.0%</i>
Total Food	-6.8%	1.2%	-8.0%
Packaged Bakery	-6.4%	1.6%	-8.0%
Puffed Snacks	-0.2%	7.8%	-7.9%
Meat	-8.2%	-0.5%	-7.7%
Produce	-4.1%	3.5%	-7.7%
Other Non-Alcohol Beverages	-3.0%	4.2%	-7.2%
Pretzels	-4.1%	2.8%	-6.8%
Dairy	-4.1%	1.8%	-5.8%
Nutrition and Wholesome Bars	-11.6%	-6.9%	-4.8%
Herbs & Spices	1.2%	4.9%	-3.7%
Condiments	2.0%	2.3%	-0.2%
Bakery - Sweet Goods	-1.2%	-1.9%	0.6%
Alcoholic Beverages	-0.8%	-5.7%	5.0%
Breakfast	4.6%	-2.3%	6.9%
Shelf Stable Meals	12.8%	1.5%	11.3%

Source: Numerator.

ESMO 2023 – oversigt fra Stifel

Summary of Selected Lung Cancer Study Presentations at ESMO

 <p>Advanced NSCLC</p> <p>Regimen: RMC-6236 MOA: Multiple RAS mutations Doses: 80mg to 400mg (Ph 1) Evaluable Subjects: 40 Median Prior Lines of Tx: 2 ORR: 38% CR's: 2.5% Median Survival: NA Grade 3 TRAE's: 9% Write-Up: Link</p>	 <p>PAPILLON Study</p> <p>Advanced NSCLC w/EGFR Exon20 mutation</p> <p>Regimen: RYBREVANT + chemo vs chemo MOA: EGFR x MET (Phase 3) Doses: 1400mg weekly ITT Subjects: 308 Prior Lines of Tx: 0 ORR: 73% (vs. 47% chemo) Median PFS: 11.4 mo vs. 6.7 OS HR: 0.67 Grade 3 TRAE's: 75% (vs 54%) Write-Up: Link</p>	 <p>MARIPOSA Study</p> <p>Advanced NSCLC w/EGFR Exon19 mut</p> <p>Regimen: RYBREVANT + Lazertinib vs. Tagrisso MOA: EGFR x MET + EGFR TKI vs. EGFR TKI (Phase 3) Doses: NA Evaluable Subjects: 1,074 Prior Lines of Tx: 0 ORR: NA Complete Response: NA Grade 3 TRAE's: NA Write-Up: Link</p>	 <p>Metastatic NSCLC</p> <p>Regimen: Dostarlimab + Chemo vs. Pembrolizumab + Chemo MOA: PD-1 inhibitor (Phase 3) Doses: 500mg (d) or 200mg (p) Q3W Evaluable Subjects: 243 Prior Lines of Tx: NA ORR: 45% (d) vs. 39% (p) Complete Response: 4.4% % Deaths: 49% (d) vs. 61% (p) Grade 3 TRAE's: NA Write-Up: Link</p>	 <p>Metastatic NSCLC w/EGFR wt mut</p> <p>Regimen: BL-B01D1 MOA: EGFR x HER3 ADC Doses: Escalating Phase 1 Evaluable Subjects: 62 Prior Lines of Tx: 3 ORR: 40.3% Complete Response: 0% mDOR: Not reached Grade 3 TRAE's: 61% Write-Up: Link</p>
 <p>Tropion – Lung05</p> <p>Advanced or Metastatic NSCLC w/mutations</p> <p>Regimen: Datopotamab DXd MOA: Trop2 ADC Doses: 6mg/Kg (Phase 3) Evaluable Subjects: 137 Prior Lines of Tx: 3 ORR: 36% Complete Response: 3% mDOR: 7 months Grade 3 TRAE's: 14% Write-Up: Link</p>	 <p>ALK+ Stage IB – IIIA NSCLC</p> <p>Regimen: Alectinib MOA: ALK/Ret Inhibitor Doses: 10mg / 100mg ITT Subjects: 116 (Phase 3) Prior Lines of Tx: NA Death Rate: 12% (vs. 39% w/chemo) Grade 3 AE's: 23% Write-Up: Link</p>	 <p>RET Fusion+ Advanced NSCLC</p> <p>Regimen: Selpercatinib MOA: Ret Inhibitor vs. control Doses: 160mg twice daily or control (chemo +/- pembro) ITT Subjects: 261 (Phase 3) ORR: 84% (vs 65% control) Complete Response: 7% (vs 6%) mDOR: 24.2 mo (vs. 11.5 w/control) Grade 3 AE's: 70% (57% control) Write-Up: Link</p>	 <p>Advanced SCLC</p> <p>Regimen: Tarlatamab MOA: DLL T-cell engager Doses: 10mg / 100mg ITT Subjects: 188 (Phase 2) Prior Lines of Tx: NA ORR: 40% Complete Response: 4.4% Median Survival: 10.6 mos Grade 3 TRAE's (100mg): 33% Write-Up: Link</p>	 <p>Advanced SCLC</p> <p>Regimen: HPN328 MOA: DLL T-cell engager Doses: 1mg (priming dose) Evaluable Subjects: 19 (Phase 1) Prior Lines of Tx: 188 ORR: 32% Median Survival: 10.6 mos Grade 3 TRAE's (high dose): 25% Write-Up: Link</p>

ESMO 2023 – oversigt fra Stifel

Summary of Other Cancer Drug Study Presentations at ESMO


AstraZeneca
BEGONIA Arm 7

First Line Metastatic TNBC
Regimen: Datopotamab DXd + PD-L1 mAb MOA: Trop2 ADC Doses: 6mg/Kg (Phase 3) Evaluable Subjects: 62 Prior Lines of Tx: 0 ORR: 79% Complete Response: 10% mDOR: 15.5 months Grade 3 TRAE's: ~30% Write-Up: Link

HR+ / HER2- Breast Cancer
Regimen: SKB264 / MK-2870 MOA: TROP2 ADC Doses: 5 mg/kg Q2W Evaluable Subjects: 38 Prior Lines of Tx: 2 ORR: 36.8% Complete Response: 0% Grade 3 TRAE's: 48.8% Write-Up: Link

TNBC
Regimen: HS-20089 MOA: B7H4 ADC Doses: 5.8 to 7.2 mg/kg Evaluable Subjects: 24 Prior Lines of Tx: NA ORR: 30.3% Complete Response: 0% Grade 3 TRAE's: > 50% Write-Up: Link



Metastatic TNBC
Regimen: nadunolimab + chemo MOA: IL1 RAP mAb + chemo Doses: 1 to 5 mg/kg Evaluable Subjects: 15 Prior Lines of Tx: 1 ORR: 60% Complete Response: 7% Grade 3 TRAE's: NA Write-Up: Link



Heavily Pretreated Ovarian Cancer
Regimen: Raludotatug DXd MOA: CDH6 ADC Doses: 4.8 to 6mg Evaluable Subjects: 60 Median Prior Lines of Tx: 4 ORR: 46% CR's: 2% Median DoR: 11.2 months Median PFS: 7.9 months Grade 3 TRAE's: 52% Write-Up: Link



PDAC
Regimen: RMC-6236 MOA: Multiple RAS mutations Doses: 80mg to 400mg Evaluable Subjects: 46 Median Prior Lines of Tx: 3 ORR: 20% CR's: 2.5% Median Survival: NA Grade 3 TRAE's: 9% Write-Up: Link


CanBas
Cancer therapy by Basic research

Metastatic PDAC
Regimen: CBP-501 MOA: Calmodulin Modulator Doses: 25 mg/m2 + Cis/Nivo vs Cis/Nivo Alone (third line) Evaluable Subjects: 36 Median Prior Lines of Tx: 2 ORR: 22% vs. 0% Median 3M PFS: 44% vs. 22% Grade 3 TRAE's: NA Write-Up: Link



Refractory Metastatic Sarcoma
Regimen: Botensilimab / Balstilimab MOA: CTLA4 / PD1 Doses: 1 or 2mg/kg Q6W (Bot) / 3mg/kg Q2W (Bat) Evaluable Subjects: 41 Median Prior Lines of Tx: 3 ORR: 17% CR's: 2.5% Median Survival: NA Grade 3 TRAE's (100mg): 12% Write-Up: Link



Metastatic Prostate Cancer (mCRPC)
Regimen: ARX517 MOA: PSMA ADC Doses: Cohorts 6 to 8 (2-2.88mg/kg, Phase 1) Evaluable Subjects: 23 Prior Lines of Tx: 4 PSA50: 52% Complete Response: 0% Grade 3 TRAE's (Ch 6 to 8): 12.5% Write-Up: Link



Advanced Prostate Cancer
Regimen: Xaluritamig MOA: STEAP T-cell engager Doses: > .75mg QW Evaluable Subjects: 37 (53% metastatic, Phase 1) Prior Lines of Tx: 4 ORR: 41% Complete Response: 0% PSA50: 59% Grade 3 TRAE's (all doses): 55% Write-Up: Link



Noget positivt at slutte med ESMO 2023 – Blære cancer – risk of death reduced 53%



Elizabeth Plimack MD
@ERPlimackMD



Applause mid-presentation marking the moment the standard of care changed in #bladdercancer The data speaks for itself, but @tompowles1 spoke for all of us thanking patients, not just those on EV 302, but the many who came before allowing us to celebrate this milestone #EVPembro



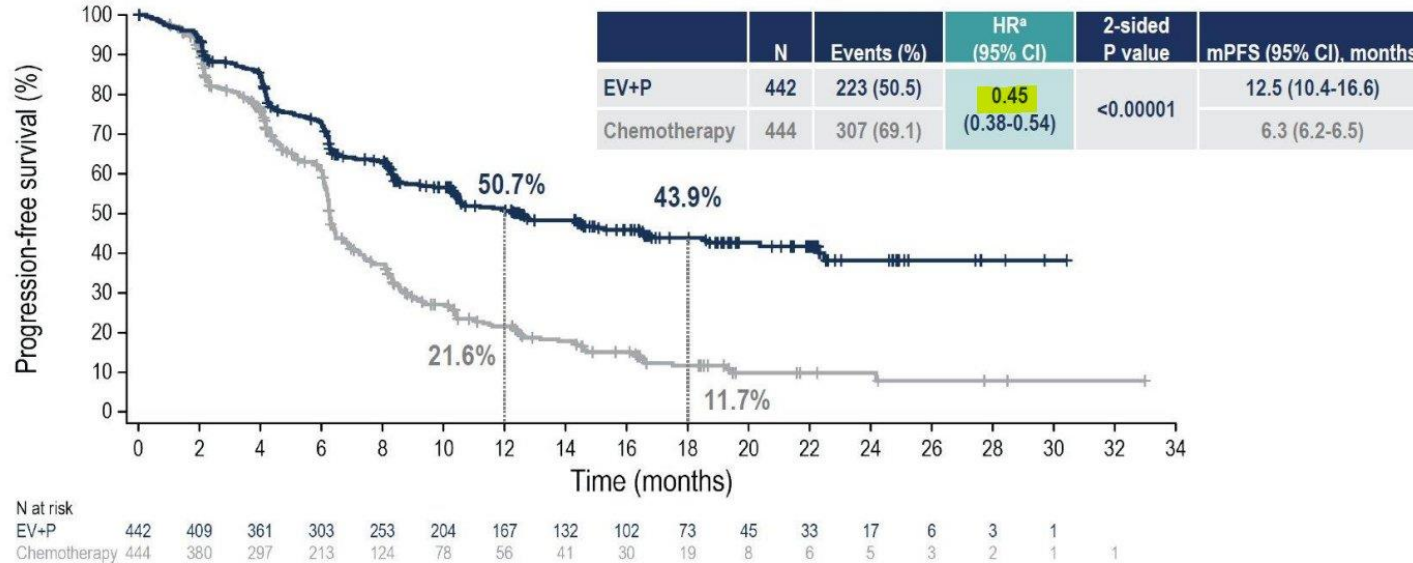
Last edited 5:57 PM · Oct 22, 2023 from Madrid, Spain · 201.2K Views

Noget positivt at slutte med ESMO 2023 - Standing ovations! (Blære cancer) PADCEV er et SEAGEN/Astellas lægemiddel

PADCEV + Keytruda in 1L Urothelial Cancer versus Chemo

Progression-Free Survival per BICR

Risk of progression or death was reduced by 55% in patients who received EV+P



Data cutoff: 08 Aug 2023



Powles et al.

PFS at 12 and 18 months as estimated using Kaplan-Meier method

HR, hazard ratio; mPFS, median progression-free survival

^aCalculated using stratified Cox proportional hazards model; a hazard ratio <1 favors the EV+P arm

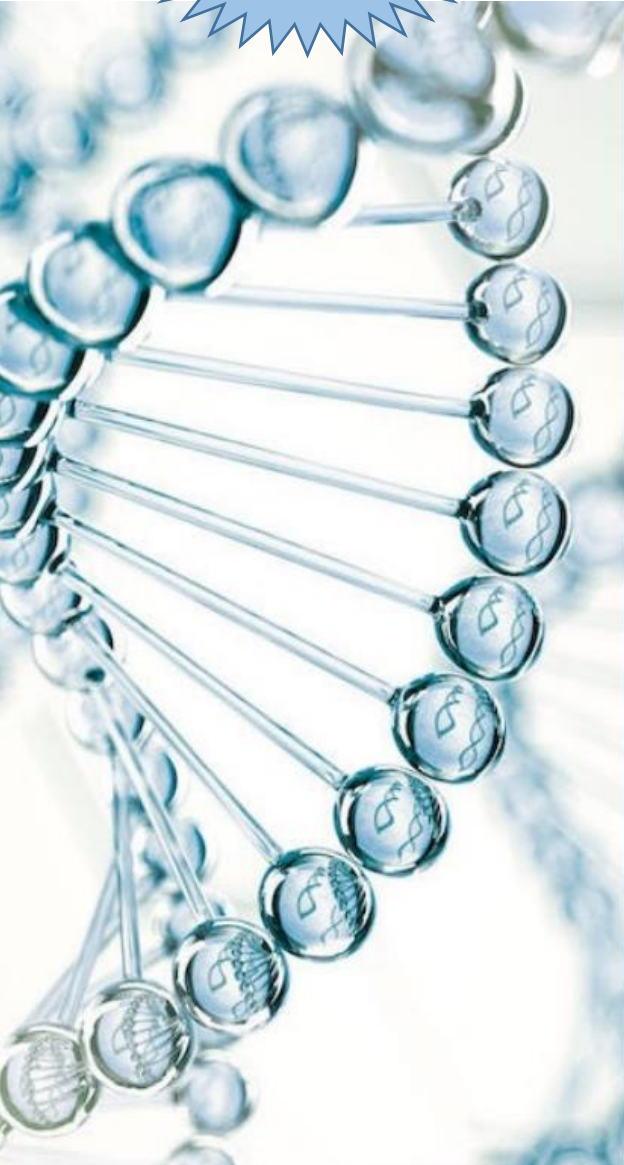
Content of this presentation is copyright and responsibility of the author. Permission is required for re-use.



LIFE SCIENCE
Økonomisk Ugebrev



Investér i DKs eneste børsnoterede biotekfond (ticker: ACIBB)



Breakthrough Biotech

Specialist fond designet til at finde de mest lovende lægemidler og opnå godkendelse i USA indenfor 3 år.

Derefter høste værditilvæksten ved at lade kommercialiseringen udfolde sig i 4 år.

35 selskaber primært i cancer og sjældne sygdomme

68% af fondens midler placeret i kommercielle biotekselskaber.



ADVICE CAPITAL
BREAKTHROUGH BIOTECH
ISIN: DK0061813250

Følg os på linkedin eller advicecapital.dk



AdviceCAPITAL

Advice Capital

Kapitalforvaltning, aktieinvesteringer, formueforvaltning, investeringsrådgivning, investering

Investment Management · København K · 983 followers · 7 employees



Peter & 4 other connections work here

✓ Following

Visit website ↗

More

Home

About

Posts

Jobs

People

Events

About

Advice Capital er en dansk investeringsrådgiver, som er etableret i 2009. Vi giver investorer en række muligheder for at investere i unikke og overlegne investeringsstrategier. Advice Capital Breakthrough Biotech investerer udelukkende i selskaber med Breakthrough Therapy Designation (BTD) eller Regenerative Medicine Advanced Therapy Designation (RMAT).

Tak for i dag!

Økonomisk Ugebrev A/S

facebook

LinkedIn

Spørgsmål, abonnement, ris/ros eller kommentarer

sa@ugebrev.dk



LIFE SCIENCE
Økonomisk Ugebrev