

US Biopharmaceuticals

ACIP Pneumococcal Vaccine Takeaways:
Preferential REC for V116 a Possibility

Industry Overview

Preliminary interpretations a positive for Merck's V116

At the Feb 29 ACIP meeting, Merck's V116 (PCV21) adult pneumococcal vaccine data were presented and preliminary interpretations on how V116 could potentially fit within the vaccine guidelines were discussed. In summary, the Work Group indicated that (1) V116 provides broader serotype coverage than currently recommended vaccines and (2) favors V116 use in adults 50-64 years without risk-based indication (vs. the current guideline of 65+ years). Overall, our takeaway from the meeting is that ACIP could potentially give a preferential recommendation to Merck's V116 over current recommendations of Vaxneuvance (PCV15) + Pneumovax (PPSV23) or Prevnar20 (PCV20), an outcome that we think is not being captured by consensus and investors. Indeed, based on our discussions with investors, most have either discounted such possibility and/or are unaware of the ACIP presentation or potential impact. To that end, we conducted KOL calls and a quick doc survey to assess the likelihood of a preferential recommendation for V116 and vaccine preference. Overall, half of the respondents expect V116 to get a preferential recommendation, and most still prefer V116 over other vaccines even if there's no preferential recommendation given V116's increased serotype coverage (81-84% of adult IPD vs. Prevnar20's 54-58%), including 8 unique serotypes. Importantly, we see multiple avenues for V116 to reach multi-billion in sales within 1-2 years post launch: 1) age expansion into 50-64yr (50M eligible population in the US), 2) 65+yr catch-up population or those who have received prior pneumococcal vaccines but not PCV15/20, and 3) 65+yr who have not received any prior pneumococcal vaccine (17M+ eligible population in the US). Maintain Buy rating and \$135 PO for Merck and maintain Neutral rating and \$35 PO for Pfizer

V116 near-term upside underappreciated

Overall, we see material upside for V116 outlook (consensus 2030e \$1.5B revenue) given a high probability of preferred recommendation of V116 use in ages 50-64 where a pneumococcal vaccine is not currently recommended unless there are certain risk conditions as well as market share gains at the expense of Prevnar20 in adults ages 65+. According to the 2021 National Health Interview Survey, only 66% of 65+yr adults and 22% of 19-64yr with risk-based indications have received any pneumococcal vaccination. Indeed, by our estimates, a 20% incremental market penetration in the 50-64 age group alone could represent \$3B revenue potential. Further, opportunities in the catch up and new to vaccine population could also provide significant upside for V116, which we estimate accounts for 40-50% of the 65+ US population. On the flip side, we believe Prevnar will likely face incremental pressure and view consensus 2030e sales of \$6.7B (\$4.4B in the US), including both adults and pediatrics, as at risk. We look forward to V116's approval (PDUFA: June 17) and the ACIP meeting in June to gain clarity on recommendation and market outlook. Separately, while there were some concerns and uncertainties around V116's lack of serotypes that classically cause IPD (invasive pneumococcal disease), data suggest the proportion of IPD cases associated with non-overlapping V116/ Prevnar20 serotypes is relatively low.

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Abbreviations:

IPD: invasive pneumococcal disease

KOL: key opinion leader

ACIP: Advisory Committee on
Immunization PracticesPDUFA: Prescription Drug User Fee
Act

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Exhibit 1: Stocks mentioned

Prices and ratings for stocks mentioned in this report

BofA Ticker	Bloomberg ticker	Company name	Price	Rating
MRK	MRK US	Merck & Co.	US\$ 126.96	A-1-7
PFE	PFE US	Pfizer	US\$ 26.59	B-2-7

Source: BofA Global Research

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Price objective basis & risk

Merck & Co. (MRK)

Our \$135 price objective (PO) is based on the intrinsic value of Merck standalone. We use a 50/50 blended average of our P/E multiple applied to 2025E EPS (we think the current 17x vs. 18x peer average makes sense to reflect continued strength of Merck's core growth franchises but broader Keytruda concentration risk concerns) and risk-adjusted DCF (7% WACC and -2% terminal growth rate).

Risks to our PO are 1) impressive competitor readouts results in key immuno-oncology (I/O) indications, 2) more rapid declines across the diabetes franchise than expected, 3) negative outcomes from the company's later-stage assets in ongoing development, and 4) pressures from headline risks facing the sector (including drug pricing reform).

Pfizer (PFE)

Our \$35/share for Pfizer is based on a 50/50 blended average of our discounted cash flow (DCF) analysis and P/E multiple based on the large cap global therapeutics group. For our DCF, we use a weighted-average cost of capital (WACC) of 7% and 1% terminal growth for an intrinsic value of \$47/share. Our P/E analysis assumes a 10x multiple of our 2025 EPS estimate, which yields a \$24 intrinsic value.

Downside risks: 1) sales downside, 2) inability for pipeline to overcome patent loss of exclusivities (LOEs) after 2025, 3) M&A transactions that are perceived to be value destructive.

Analyst Certification

I, Geoff Meacham, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

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US - Biopharmaceuticals Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	89bio, Inc	ETNB	ETNB US	Geoff Meacham
	Acumen Pharma	ABOS	ABOS US	Geoff Meacham
	Agios Pharmaceuticals	AGIO	AGIO US	Greg Harrison, CFA
	Amylyx Pharmaceuticals	AMLX	AMLX US	Geoff Meacham
	BioMarin	BMRN	BMRN US	Geoff Meacham
	BioXcel Therapeutics	BTAI	BTAI US	Greg Harrison, CFA
	BridgeBio Pharma	BBIO	BBIO US	Greg Harrison, CFA
	Caribou	CRBU	CRBU US	Geoff Meacham
	CRISPR Therapeutics	CRSP	CRSP US	Geoff Meacham
	Eli Lilly and Company	LLY	LLY US	Geoff Meacham
	Gilead Sciences Inc.	GILD	GILD US	Geoff Meacham
	HUTCHMED	HCM	HCM US	Alec W. Stranahan
	Immatics	IMTX	IMTX US	Alec W. Stranahan
	Insmmed Incorporated	INSM	INSM US	Jason Zemansky
	Intellia Therapeutics	NTLA	NTLA US	Greg Harrison, CFA
	Janux Therapeutics	JANX	JANX US	Alec W. Stranahan
	Keros	KROS	KROS US	Greg Harrison, CFA
	Kiniksa Pharmaceuticals, Ltd.	KNSA	KNSA US	Geoff Meacham
	Krystal Biotech	KRYS	KRYS US	Alec W. Stranahan
	Kura Oncology	KURA	KURA US	Jason Zemansky
	Liquidia Corporation	LQDA	LQDA US	Greg Harrison, CFA
	Lyell Immunopharma	LYEL	LYEL US	Geoff Meacham
	MeiraGTx	MGTX	MGTX US	Alec W. Stranahan
	Merck & Co.	MRK	MRK US	Geoff Meacham
	Mineralys Therapeutics	MLYS	MLYS US	Greg Harrison, CFA
	Neumora Therapeutics	NMRA	NMRA US	Geoff Meacham
	Rani Therapeutics	RANI	RANI US	Geoff Meacham
	Regenxbio, Inc.	RGNX	RGNX US	Alec W. Stranahan
	Revolution Medicines	RVMD	RVMD US	Alec W. Stranahan
	Rocket Pharmaceuticals, Inc.	RCKT	RCKT US	Greg Harrison, CFA
	Royalty Pharma	RPRX	RPRX US	Geoff Meacham
	Sana Biotechnology	SANA	SANA US	Geoff Meacham
	SpringWorks	SWTX	SWTX US	Alec W. Stranahan
	Syndax Pharmaceuticals	SNDX	SNDX US	Jason Zemansky
	Traverse Therapeutics Inc	TVTX	TVTX US	Greg Harrison, CFA
	Turnstone Biologics	TSBX	TSBX US	Geoff Meacham
	Vertex Pharmaceuticals Inc.	VRTX	VRTX US	Geoff Meacham
	Werewolf Therapeutics	HOWL	HOWL US	Jason Zemansky
	Xencor	XNCR	XNCR US	Alec W. Stranahan
NEUTRAL				
	AbbVie	ABBV	ABBV US	Geoff Meacham
	Alector, Inc	ALEC	ALEC US	Greg Harrison, CFA
	Amgen Inc.	AMGN	AMGN US	Geoff Meacham
	Arcus Biosciences	RCUS	RCUS US	Jason Zemansky
	Beam Therapeutics	BEAM	BEAM US	Greg Harrison, CFA
	Biogen Inc.	BIIB	BIIB US	Geoff Meacham
	Bristol-Myers Squibb	BMJ	BMJ US	Geoff Meacham
	Cytokinetics, Incorporated	CYTK	CYTK US	Jason Zemansky
	Editas Medicine	EDIT	EDIT US	Greg Harrison, CFA
	Erasca	ERAS	ERAS US	Alec W. Stranahan
	Esperion	ESPR	ESPR US	Jason Zemansky
	Exscientia	EXAI	EXAI US	Alec W. Stranahan
	IGM Biosciences	IGMS	IGMS US	Greg Harrison, CFA
	Johnson & Johnson	JNJ	JNJ US	Geoff Meacham
	Kymira Therapeutics	KYMR	KYMR US	Geoff Meacham
	Moderna	MRNA	MRNA US	Geoff Meacham
	Pfizer	PFE	PFE US	Geoff Meacham
	Recursion Pharmaceuticals, Inc.	RXR	RXR US	Alec W. Stranahan
	Tyra Biosciences	TYRA	TYRA US	Greg Harrison, CFA
	Vir	VIR	VIR US	Alec W. Stranahan
	Y-mAbs Therapeutics, Inc	YMAB	YMAB US	Alec W. Stranahan
UNDERPERFORM				
	AlloVir, Inc.	ALVR	ALVR US	Jason Zemansky



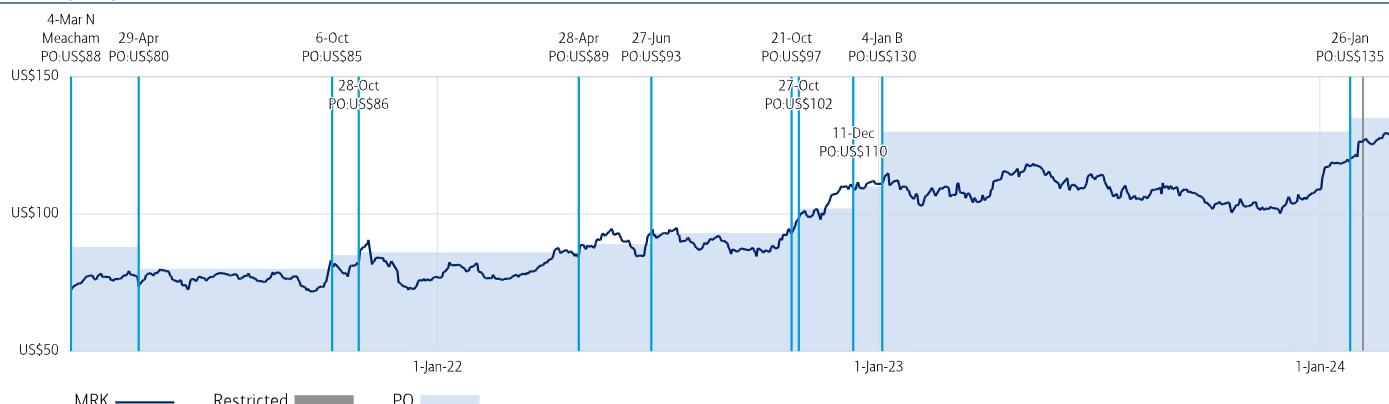
US - Biopharmaceuticals Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
	CureVac	CVAC	CVAC US	Geoff Meacham
	Day One Biopharmaceuticals	DAWN	DAWN US	Alec W. Stranahan
	Novavax	NVAX	NVAX US	Alec W. Stranahan
	Regeneron Pharmaceuticals Inc.	REGN	REGN US	Geoff Meacham
	Reneo Pharmaceuticals	RPHM	RPHM US	Jason Zemansky
	TG Therapeutics	TGTX	TGTX US	Alec W. Stranahan
	United Therapeutics Corporation	UTHR	UTHR US	Greg Harrison, CFA

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Important Disclosures

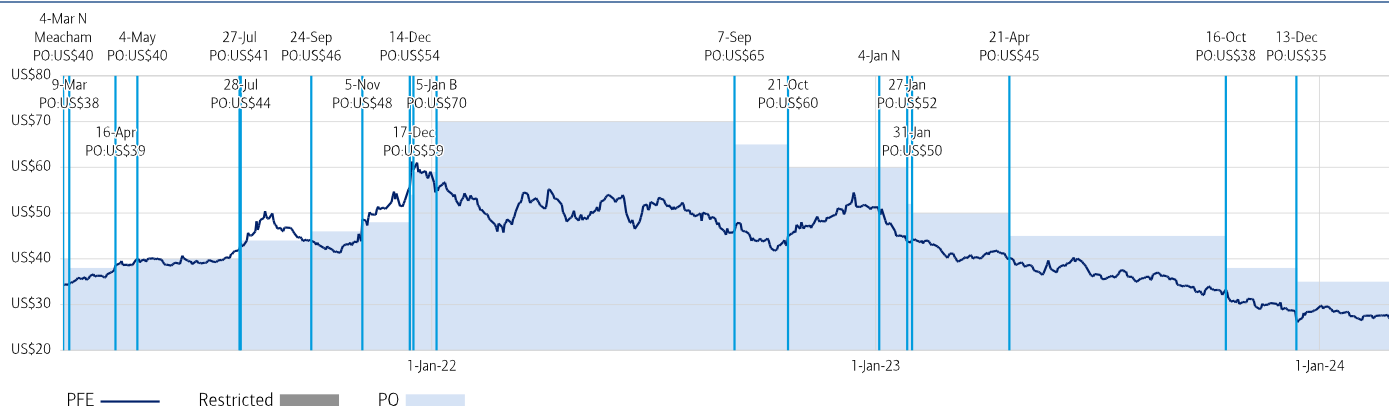
Merck & Co. (MRK) Price Chart



B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

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Pfizer (PFE) Price Chart



B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

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Equity Investment Rating Distribution: Health Care Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	234	60.94%	Buy	115	49.15%
Hold	80	20.83%	Hold	36	45.00%
Sell	70	18.23%	Sell	29	41.43%

Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	1895	53.62%	Buy	1083	57.15%
Hold	832	23.54%	Hold	454	54.57%
Sell	807	22.84%	Sell	383	47.46%

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R2}
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

^{R2} Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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