

Arrowhead Pharmaceuticals

Raise PO to \$51 to reflect pipeline updates; Reiterate Buy on catalyst-rich '24

Reiterate Rating: BUY | PO: 51.00 USD | Price: 37.66 USD

PO to \$51, financing clears path to high value targets

We update our ARWR model post a recent company financing and early-year pipeline updates (program prioritization); our updated PO is now \$51/shr (from \$37). Armed with sufficient capital to aggressively interrogate key pulmonary and cardiometabolic programs, we see a path to greater value recognition for 1) pulmonary assets – Arrowhead is the most advanced RNA-targeting player in this space and safety milestones achieved at YE23 position ARWR to potentially start Ph2 trials for ARO-RAGE and ARO-MMP7 [sometime in 2024] for asthma and IPF, respectively. We view 3Q24 clinical data for ARO-RAGE as a key catalyst to substantiating RAGE as a relevant target that could improve the probability of clinical success; 2) tentative prioritization of ANG3 [zodasiran] for cardiovascular outcomes trial. Zodasiran's impact on multiple lipid parameters opens a larger addressable market. The bulk of our PO increase is explicit recognition of risk-adjusted pipeline value for pulmonary (MMP7) and ANG3-CVOT. We reiterate our Buy rating on attractive risk/reward on key '24-'25 pipeline readouts.

2024: advancing pulmonary and cardio programs key

At a presentation at an investor conference yesterday, Arrowhead mgmt focused on the company's strategy to value creation for its RNAi candidates highlighting plans for go-to market path for three therapeutic areas of cardiometabolic, pulmonary, and adipose while partnerships in other disease areas (neuromuscular, CNS) could be a key source of capital. Importantly, mgmt expects a non-dilutive partnership announcement in the next several months which should put the company in a position of strength from a balance sheet perspective. On CVOT trial, mgmt. is leaning towards zodasiran given benefit on key lipid parameters (including remnant cholesterol) with a decision expected this quarter. On lead pulmonary drug ARO-RAGE, Ph1 data in asthmatics with high FeNo (biomarker) is expected in mid-'24. Both ARO-RAGE and ARO-MMP7 have mechanistic support, have cleared chronic tox and could start Ph2 in 2024. ARWR's CNS platform is more of a 2025 story. Beyond ARO-RAGE, key data catalysts: plogasiran Ph3 data in FCS patients in 2Q24 and initial Ph1/2 HV data for ARO-MMP7 and ARO-MUC5AC in mid-'24.

Model updates: equity offering + pipeline refinement

We update our model to reflect ARWR's public offering which now equips ARWR with ~\$850m in cash [-\$1/sh]. Our +\$14/shr PO increase was driven by: 1) increasing ARO-RAGE probability of success in asthma to 10% (vs prior 5%) to reflect chronic tox + healthy volunteer knockdown. [+\$/shr]; 2) explicitly add ARO-MMP7 to our pipeline [+\$/shr] to reflect clearance of chronic tox; 3) expand total addressable population for ARO-ANG3 to reflect ANG3 product profile's applicability... **Cont'd on page 3.**

Estimates (Sep) (US\$)	2022A	2023A	2024E	2025E	2026E
EPS	(1.67)	(1.92)	(3.93)	(4.03)	(2.59)
EPS Change (YoY)	-15.2%	-15.0%	-104.7%	-2.5%	35.7%
Consensus EPS (Bloomberg)			(3.04)	(3.42)	(2.55)
DPS	0	0	0	0	0
Valuation (Sep)					
Free Cash Flow Yield*	-4.1%	-3.8%	-8.2%	-7.2%	-4.1%

* For full definitions of *IQmethod*SM measures, see page 5.

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09 January 2024

Equity

Key Changes

(US\$)	Previous	Current
Price Obj.	37.00	51.00

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Stock Data

Price	37.66 USD
Price Objective	51.00 USD
Date Established	9-Jan-2024
Investment Opinion	C-1-9
52-Week Range	20.67 USD - 42.48 USD
Mkt Val (mn) / Shares Out (mn)	4,641 USD / 123.2
Free Float	95.4%
Average Daily Value (mn)	68.92 USD
BofA Ticker / Exchange	ARWR / NAS
Bloomberg / Reuters	ARWR US / ARWR.OQ
ROE (2024E)	-58.6%
Net Dbt to Eqty (Sep-2023A)	-36.5%
ESGMeter TM	Low

ESGMeter is not indicative of a company's future stock price performance and is not an investment recommendation or rating. ESGMeter is independent of BofA Global Research's equity investment rating, volatility risk rating, income rating, and price objective for that company. For full details, refer to "BofA ESGMeter Methodology".

Acronyms:

ARO-ANG3, RAGE, MMP7, MUC5AC: drug (targets)

CNS: central nervous system

CVOT: cardiovascular outcomes trial

FCS: familial chylomicronemia syndrome

FeNo: exhaled nitric oxide

HV: healthy volunteer

IPF: idiopathic pulmonary fibrosis

NDA: new drug application

NPV: net present value

iQprofileSM Arrowhead Pharmaceuticals

iQmethodSM – Bus Performance*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Return on Capital Employed	-28.0%	-25.3%	-35.2%	-28.1%	-16.7%
Return on Equity	-42.6%	-47.9%	-58.6%	-41.9%	-23.8%
Operating Margin	-73.4%	-85.2%	NA	NA	-153.8%
Free Cash Flow	(188)	(178)	(382)	(333)	(189)

iQmethodSM – Quality of Earnings*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash Realization Ratio	NM	NM	NM	NM	NM
Asset Replacement Ratio	5.1x	4.8x	3.4x	0x	0x
Tax Rate	2.2%	1.3%	NM	NM	NM
Net Debt-to-Equity Ratio	-25.8%	-36.5%	-43.3%	-28.0%	-24.7%
Interest Cover	NA	-11.2x	NA	NA	NA

Income Statement Data (Sep)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Sales	243	241	0	0	195
% Change	89.6%	-1.0%	-100.0%	NA	NA
Gross Profit	243	241	0	0	194
% Change	89.6%	-1.0%	NM	NA	NA
EBITDA	(168)	(195)	(422)	(436)	(288)
% Change	-11.5%	-16.1%	-116.5%	-3.1%	33.9%
Net Interest & Other Income	6	(1)	15	15	15
Net Income (Adjusted)	(176)	(205)	(420)	(435)	(282)
% Change	-16.7%	-16.6%	-104.5%	-3.6%	35.0%

Free Cash Flow Data (Sep)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Net Income from Cont Operations (GAAP)	(169)	(204)	(420)	(435)	(288)
Depreciation & Amortization	10	10	13	14	13
Change in Working Capital	(98)	(38)	(30)	(5)	(6)
Deferred Taxation Charge	NA	NA	NA	NA	NA
Other Adjustments, Net	121	101	97	92	93
Capital Expenditure	(53)	(47)	(42)	0	0
Free Cash Flow	-188	-178	-382	-333	-189
% Change	NM	5.4%	-114.4%	12.8%	43.3%
Share / Issue Repurchase	0	0	423	0	0
Cost of Dividends Paid	0	0	0	0	0
Change in Debt	0	0	0	0	0

Balance Sheet Data (Sep)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash & Equivalents	108	160	431	302	318
Trade Receivables	1	1	0	0	2
Other Current Assets	296	514	739	939	1,146
Property, Plant & Equipment	110	148	178	163	151
Other Non-Current Assets	176	69	62	60	59
Total Assets	692	892	1,409	1,465	1,676
Short-Term Debt	0	0	0	0	0
Other Current Liabilities	139	98	58	28	32
Long-Term Debt	0	0	0	0	0
Other Non-Current Liabilities	135	356	356	356	356
Total Liabilities	274	454	414	384	388
Total Equity	418	439	995	1,081	1,288
Total Equity & Liabilities	692	892	1,409	1,465	1,676

* For full definitions of iQmethodSM measures, see page 5.

Company Sector

Biotechnology

Company Description

Arrowhead Pharmaceuticals is a biotechnology company that develops RNAi-based therapeutics to treat diseases by silencing causative genes. The company's drug platform is called Targeted RNAi Molecule (TRiM) which aims to modify/reduce the production of disease-causing proteins by destroying RNA. ARWR has two (wholly owned) drugs in Ph3 trials and >10 drugs in early to late-stage development with the aim of having 20 drugs in clinical development or on the market in 2025.

Investment Rationale

We rate ARWR a Buy. We expect ARWR to deliver P&L leverage driven by the rollout of new products that are either wholly owned or partnered (future royalty streams). Our thesis is based on favorable risk/reward in front of several key 2024 catalysts including 1) topline data from Ph3 ARO-APOC3 in FCS in 2Q24 - data could facilitate an NDA leading to ARWR's first approved product, 2) Ph1/2 biomarker data from respiratory assets.

Stock Data

Average Daily Volume 1,830,171

Quarterly Earnings Estimates

	2023	2024
Q1	-0.60A	-1.00E
Q2	0.45A	-1.01E
Q3	-0.98A	-1.03E
Q4	-0.80A	-1.03E

...for all-comer mixed dyslipidemia patients, which is ~10mill (vs prior ~2.5mill was high-risk patients only), [+7/shr].



Price objective basis & risk

Arrowhead Pharmaceuticals (ARWR)

Our \$51 price objective (PO) is based on a risk-adjusted DCF analysis which assumes 1) risk-adjustment to pipeline programs based on abundance and strength of clinical data with <30% POS assigned to early-stage programs vs >50% POS for mid-to-late stage assets, 2) the biggest value drivers in our DCF valuation are ARO-APOC3 for FCS and SHTG (30%), ARO-AAT (16%), and pipeline programs (60%), 3) we assume 10% discount rate.

Downside risks to our PO: 1) failure of wholly-owned late stage clinical trials, 2) competitor clinical data outperform vs our expectation, 3) failure to partner programs for financing requirements.

Upside potential to our PO: 1) delay to regulatory approval of competitors products, 2) failure of competitors' clinical trials, 3) better-than-expected performance of wholly-owned and/or pipeline assets.

Analyst Certification

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US - Specialty Pharma & Biotechnology Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	Arcellx, Inc.	ACLX	ACLX US	Jason M. Gerberry
	Arrowhead Pharmaceuticals	ARWR	ARWR US	Jason M. Gerberry
	bluebird bio	BLUE	BLUE US	Jason M. Gerberry
	Exelixis	EXEL	EXEL US	Jason M. Gerberry
	Immunovant, Inc.	IMVT	IMVT US	Jason M. Gerberry
	Intra-Cellular Therapies	ITCI	ITCI US	Jason M. Gerberry
	Ionis	IONS	IONS US	Jason M. Gerberry
	Jazz Pharmaceuticals	JAZZ	JAZZ US	Jason M. Gerberry
	Lyra Therapeutics	LYRA	LYRA US	Jason M. Gerberry
	Oculus Holding AG	OCS	OCS US	Jason M. Gerberry
	Relay Therapeutics	RLAY	RLAY US	Jason M. Gerberry
	Tarsus Pharmaceuticals	TARS	TARS US	Jason M. Gerberry
	Teva Pharmaceuticals	TEVA	TEVA US	Jason M. Gerberry
	Vaxcyte Inc	PCVX	PCVX US	Jason M. Gerberry
	Xenon Pharmaceuticals	XENE	XENE US	Jason M. Gerberry
NEUTRAL				
	Alkermes	ALKS	ALKS US	Jason M. Gerberry
	Amphastar Pharmaceuticals	AMPH	AMPH US	Jason M. Gerberry
	Axsome Therapeutics	AXSM	AXSM US	Jason M. Gerberry
	Galapagos	GLPG	GLPG US	Jason M. Gerberry
	ProKidney Corp	PROK	PROK US	Jason M. Gerberry
	Roivant	ROIV	ROIV US	Chi M. Fong
UNDERPERFORM				
	Bausch Health Cos Inc	BHC	BHC US	Jason M. Gerberry
	FibroGen Inc.	FGEN	FGEN US	Jason M. Gerberry
	Harmony Biosciences	HRMY	HRMY US	Jason M. Gerberry
	Organon	OGN	OGN US	Jason M. Gerberry
	Viatis Inc.	VTRS	VTRS US	Jason M. Gerberry

iQmethodSM Measures Definitions

Business Performance

Return On Capital Employed

Return On Equity
Operating Margin
Earnings Growth
Free Cash Flow

Quality of Earnings

Cash Realization Ratio
Asset Replacement Ratio
Tax Rate
Net Debt-To-Equity Ratio
Interest Cover

Valuation Toolkit

Price / Earnings Ratio
Price / Book Value
Dividend Yield
Free Cash Flow Yield
Enterprise Value / Sales

EV / EBITDA

Numerator

NOPAT = (EBIT + Interest Income) × (1 – Tax Rate) + Goodwill Amortization

Net Income
Operating Profit
Expected 5 Year CAGR From Latest Actual
Cash Flow From Operations – Total Capex

Numerator

Cash Flow From Operations
Capex
Tax Charge
Net Debt = Total Debt – Cash & Equivalents
EBIT

Numerator

Current Share Price
Current Share Price
Annualised Declared Cash Dividend
Cash Flow From Operations – Total Capex
EV = Current Share Price × Current Shares + Minority Equity + Net Debt +
Other LT Liabilities
Enterprise Value

Denominator

Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill
Amortization
Shareholders' Equity
Sales
N/A
N/A

Denominator

Net Income
Depreciation
Pre-Tax Income
Total Equity
Interest Expense

Denominator

Diluted Earnings Per Share (Basis As Specified)
Shareholders' Equity / Current Basic Shares
Current Share Price
Market Cap = Current Share Price × Current Basic Shares
Sales

Basic EBIT + Depreciation + Amortization

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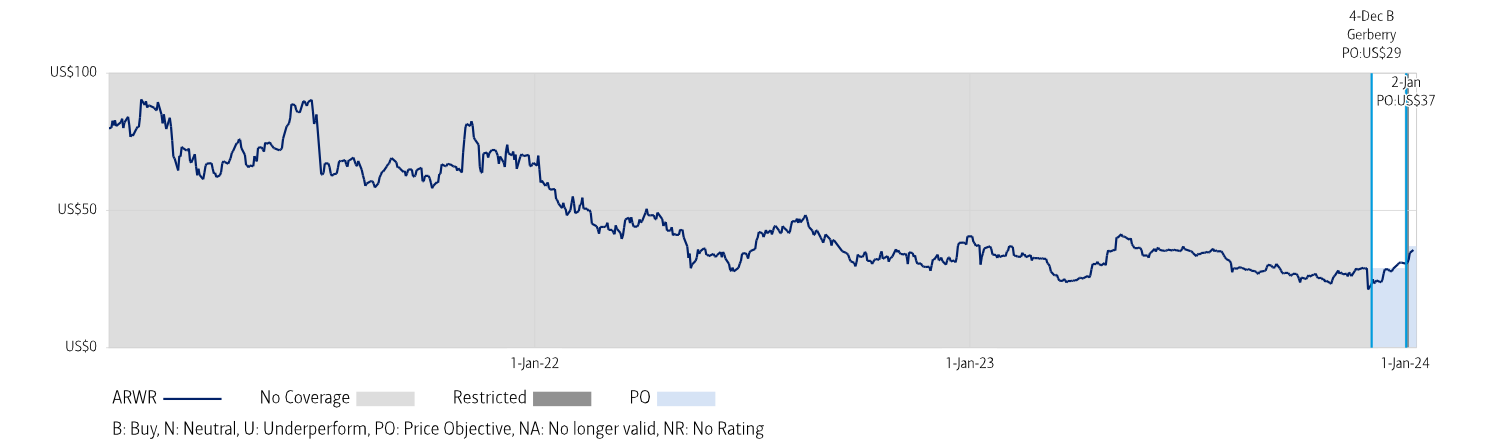
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Arrowhead (ARWR) Price Chart



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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%

^{R1} Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.

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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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