BofA SECURITIES

Catalyst Pharma

Initiate Buy: Emerging orphan disease player with solid track record

Initiating Coverage: BUY | PO: 23.00 USD | Price: 15.86 USD

An undervalued biotech with key drug launch this year

We think Catalyst Pharma (CPRX) is a unique aggregator of innovative therapies in the premium-multiple rare disease space. CPRX has a track-record of highly capital efficient license/ acquisition deals that have generated favorable ROI. We see the upcoming launch of muscular dystrophy drug Agamree as the next phase of strategy validation. We believe Agamree will be successful given its competitive profile. Further, CPRX's largest revenue-generating product, Firdapse, has room to grow. Ultimately, we think the shares are undervalued. On a P/E basis, the stock trades at a discount relative to comparable small- to mid-cap biopharma cos. Current valuation also implies a conservative outcome of Firdapse patent litigation. Thus, we initiate at Buy and a $23 PO (~44% potential upside).

Firdapse: We see ~$530m peak sales through 2033

A treatment for Lambert-Eaton Syndrome (LEMS), an ultra-rare, serious neuromuscular condition, Fridapse offers further growth from: 1) increased diagnosis and treatment rates – ~35% of diagnosed patients are being treated and 2) potential price increases – given its pricing power. We forecast ~$530m peak sales through 2033 LOE. We concede Firdapse patent litigation is a key risk, but current valuation factors in the worst-case scenario. If there is a favorable outcome, then there is upside to CPRX shares.

Agamree offers clinical differentiation in well-defined mkt

Clinical data for Agamree, the 3rd approved corticosteroid for treating Duchenne Muscular Dystrophy (DMD), show it confers clinical benefit in bone biomarkers and stature. It also offers differentiation around product safety. We think Agamree may achieve 30% peak share of the steroid market, which translates to ~$290m peak in sales (2.8k pts) through 2033 LOE. That compares favorably to Emflaza with ~$255m in sales from ~4k pts treated through 2023.

Strong balance sheet can stoke further portfolio buildout

Catalyst Pharma is highly profitable with a strong balance sheet (~$280m net cash) which arms the company to execute its license/acquisition strategy (deals have included Firdapse, Fycompa, and Agamree thus far). CPRX offers investors growth, favorable product mix (rare/orphan drugs) & three commercial products) and minimal R&D risk.

Estimates (Dec) (US$)	2022A	2023A	2024E	2025E	2026E
EPS	1.02	1.96	2.10	2.75	2.45
GAAP EPS	0.75	0.63	1.24	1.73	1.51
EPS Change (YoY)	85.5%	92.2%	7.1%	31.0%	-10.9%
Consensus EPS (Bloomberg)			1.50	2.02	2.20
DPS	0	0	0	0	0
Valuation (Dec)					
P/E	15.5x	8.1x	7.6x	5.8x	6.5x
GAAP P/E	21.1x	25.2x	12.8x	9.2x	10.5x
EV / EBITDA*	15.9x	18.6x	8.8x	6.1x	6.9x
Free Cash Flow Yield*	6.2%	7.7%	6.3%	9.9%	9.5%

* For full definitions of IQmethod℠ measures, see page 23.

07 March 2024

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Stock Data

Price	15.86 USD
Price Objective	23.00 USD
Date Established	7-Mar-2024
Investment Opinion	C-1-9
52-Week Range	11.09 USD - 18.22 USD
Mrkt Val (mn) / Shares Out (mn)	1,869 USD / 117.9
Free Float	93.6%
Average Daily Value (mn)	21.30 USD
BofA Ticker / Exchange	CPRX / NAS
Bloomberg / Reuters	CPRX US / CPRX.OQ
ROE (2024E)	67.3%
Net Dbt to Eqty (Dec-2023A)	-35.5%

*iQ*profile℠ Catalyst Pharma

iQmethod℠ **– Bus Performance***

(US$ Millions)	2022A	2023A	2024E	2025E	2026E
Return on Capital Employed	30.6%	18.4%	40.2%	48.7%	31.5%
Return on Equity	44.9%	64.8%	67.3%	74.7%	47.2%
Operating Margin	47.5%	21.8%	38.6%	46.4%	42.9%
Free Cash Flow	116	143	118	185	178

iQmethod℠ **– Quality of Earnings***

(US$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash Realization Ratio	1.0x	0.6x	0.5x	0.6x	0.6x
Asset Replacement Ratio	0.2x	0x	0x	0x	0x
Tax Rate	20.7%	24.4%	24.4%	24.4%	24.4%
Net Debt-to-Equity Ratio	-99.3%	-35.5%	-77.3%	-83.5%	-88.1%
Interest Cover	NA	NA	NA	NA	NA

Income Statement Data (Dec)

(US$ Millions)	2022A	2023A	2024E	2025E	2026E
Sales	214	398	478	569	544
% Change	52.1%	85.9%	20.0%	19.1%	-4.4%
Gross Profit	180	346	401	481	452
% Change	51.2%	92.6%	15.8%	20.0%	-6.2%
EBITDA	102	87	185	264	234
% Change	94.0%	-14.6%	112.1%	43.0%	-11.5%
Net Interest & Other Income	3	8	15	23	32
Net Income (Adjusted)	**114**	**223**	**242**	**322**	**292**
% Change	**93.2%**	**96.0%**	**8.6%**	**33.0%**	**-9.3%**

Free Cash Flow Data (Dec)

(US$ Millions)	2022A	2023A	2024E	2025E	2026E
Net Income from Cont Operations (GAAP)	83	71	143	203	180
Depreciation & Amortization	0	0	0	0	0
Change in Working Capital	14	(37)	(19)	(12)	4
Deferred Taxation Charge	NA	NA	NA	NA	NA
Other Adjustments, Net	19	109	(6)	(6)	(6)
Capital Expenditure	0	0	0	0	0
Free Cash Flow	**116**	**143**	**118**	**185**	**178**
% Change	**135.1%**	**23.6%**	**-17.8%**	**56.9%**	**-3.9%**
Share / Issue Repurchase	3	3	3	3	3
Cost of Dividends Paid	0	0	0	0	0
Change in Debt	0	0	0	0	0

Balance Sheet Data (Dec)

(US$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash & Equivalents	298	138	257	444	623
Trade Receivables	10	54	64	77	73
Other Current Assets	12	28	33	37	38
Property, Plant & Equipment	1	1	1	1	1
Other Non-Current Assets	54	250	56	56	56
Total Assets	**376**	**470**	**411**	**614**	**791**
Short-Term Debt	0	0	0	0	0
Other Current Liabilities	58	76	73	76	78
Long-Term Debt	0	0	0	0	0
Other Non-Current Liabilities	18	6	6	6	6
Total Liabilities	**75**	**82**	**79**	**83**	**84**
Total Equity	**300**	**388**	**332**	**531**	**707**
Total Equity & Liabilities	**376**	**470**	**411**	**614**	**791**

* For full definitions of ***iQ***method℠ measures, see page 23.

Company Sector

Pharmaceuticals

Company Description

Catalyst Pharma is a commercial-stage biopharmaceutical company focused on rare orphan diseases. The company's portfolio includes Firdapse (Lambert-Eaton Syndrome), Fycompa (epilepsy-related seizures), and Agamree (Duchenne Muscular Dystrophy). Currently, the company has no debt on the balance sheet and $280m cash with plans to be active in business development to continue portfolio buildout towards diversified revenue streams. In the future, the company may develop R&D pipeline capabilities.

Investment Rationale

We rate CPRX a Buy as we believe the company can continue to grow organically through continued patient uptake with Firdapse in Lambert-Eaton Syndrome and recent Agamree launch for treatment of Duchenne Muscular Dystrophy, as well as external business development opportunities. On a P/E basis, the stock trades at a discount relative to comparable small- to mid-cap biopharma cos. We believe that current valuation implies a conservative outcome of Firdapse patent litigation.

Stock Data

Average Daily Volume	1,342,690

Quarterly Earnings Estimates

	2023	2024
Q1	0.41A	0.52E
Q2	0.53A	0.67E
Q3	0.49A	0.67E
Q4	0.53A	0.24E

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Executive summary

Catalyst Pharmaceuticals is a commercial stage biotech founded in 2002 with an initial public offering (IPO) in 2006. The company currently has a portfolio comprised of 3 commercial products: Firdapse, Fycompa, and Agamree. CPRX's therapeutic focus is in neurological and neuromuscular disorders including Lambert-Eaton Syndrome (LEMS) disease, epilepsy-related seizures, and Duchenne Muscular Dystrophy (DMD) respectively. Each of these assets has been obtained through license or acquisition at various stages of the target drug's development process. Management has indicated it plans to continue building out its product portfolio through its license/acquisition model.

Catalyst's largest revenue-generating product is Firdapse, which currently derives all its revenue from the US market. Launched in 2019 for the treatment of LEMS, Firdapse has achieved ~36% penetration into the diagnosed/treated LEMS population and as the only FDA approved treatment we model continued increases in diagnosis/treatment rates and Firdapse share of the market. In aggregate, CPRX owes a 15-19% Firdapse net sales royalty. Firdapse enjoys orphan drug exclusivity ending Nov 2025 and we model a 2033 LOE (with upside to 2037 if terminal patent survives patent litigation). CPRX's key new product launch is Agamree (vamorolone) for the treatment of DMD. As the third approved steroid option for DMD, Agamree's clinical differentiation is around product safety. The market for steroids is very well defined with ~8.5K US patients on steroids annually and we believe Agamree's profile supports a 30% peak share of the steroid market, which translates to $290m peak (2.8k pts).

CPRX's products are manufactured through third-party contract manufacturers. CPRX has ~167 full-time employees, of which 105 work in dedicated commercial functions and 30 in R&D roles. The company does not have any drug discovery capability and is reliant on third party license or acquisitions for any future drug development candidates. CPRX is a profitable company and has $278m in cash and no debt on its balance sheet.

Valuation: undervalued historically + relative to peer comp

We initiate coverage with a Buy rating and a $23/sh price objective (PO) based on a sum-of-the-part NPV model which is heavily skewed to Firdapse and Agamree. Our DCF-based SOTP runs through 2040 using a 9% discount rate and no terminal value after product LOE's. On a P/E basis, Catalyst Pharma is trading at a discount relative to comparable small- to mid-cap biopharmaceutical companies; CPRX trades at 2-3x multiple turns below the peer mean and medians ('25). On an EV/EBITDA based valuation method, CPRX shares trade at 6.5x EV/EBITDA, also a discount to peer average and in-line peer median. Based on these various valuation methodologies, we believe CPRX shares are undervalued and positioned to re-rate.

In terms of stock trading patterns, we have observed the stock is most sensitive to product-related patent dispute updates, license & acquisition activity and quarterly updates. Importantly (see catalyst section), CPRX products do not track well by third-party which increases the importance of quarterly updates.

Exhibit 1: CPRX SOTP DCF model – we initiate coverage on CPRX with a Buy rating and $23/sh PO
Our SOTP DCF suggests that the stock is undervalued on DCF-based valuation and historical P/E multiple

Ticker	CPRX										
Output (USD $m)				Assumptions:			Dilutive			**SOTP**	
DCF	23			Discount Rate	9%	Options	12	Firdapse	$	12
Equity Value	2,620					Avg ex.	5	Fycompa	$	3
Net Cash	278			Dil. Shr outstanding	124	Proceeds	61	Agamree	$	7
				Shrs outstanding	117	Avg price	17	Net cash	$	2
				Dilutive	9	Net	9	SOTP valuation	$	23
NPV by asset (USD $m):		**POS**	**Per shr**	Tax rate	15%					
Firdapse	1,444	100%	$ 12							
Fycompa	342	100%	$ 3							
Agamree	834	100%	$ 7	Stock price	17.01					
EV	2,620			+/- stk price	35%					

Source: BofA Global Research estimate

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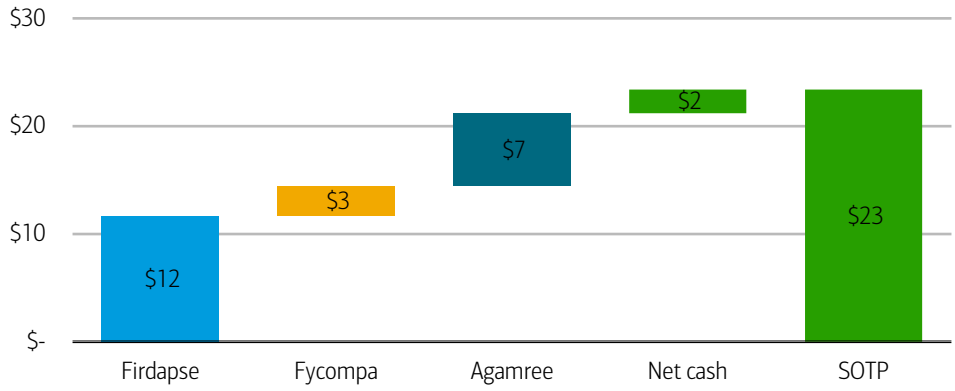
Exhibit 2: Our SOTP valuation of CPRX ($/share)
Firdapse and newly acquired Agamree represent the largest contributors to SOTP valuation



Source: BofA Global Research estimate

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Exhibit 3: CPRX valuation comps
Commercial biopharma companies with one or more commercial products with somewhat limited IP duration

	EV / sales				P/E				EV/EBITDA			
Comps	**2023**	**2024**	**2025**	**2026**	**2023**	**2024**	**2025**	**2026**	**2023**	**2024**	**2025**	**2026**
Catalyst Pharma	4.7x	4.1x	3.3x	3.0x	9.0x	9.6x	7.9x	7.0x	9.3x	6.5x	6.3x	6.0x
Jazz	3.0x	2.8x	2.7x	2.5x	5.7x	5.6x	5.0x	4.8x	9.5x	6.5x	5.9x	5.8x
ALKS	2.8x	3.0x	3.0x	2.9x	20.7x	10.8x	11.8x	11.2x	9.6x	9.4x	9.9x	9.1x
Supernus	2.4x	2.4x	2.4x	2.1x	*	33.8x	22.7x	22.6x	19.0x	8.2x	10.6x	7.6x
Collegium	2.7x	2.7x	2.6x	2.8x	5.3x	4.8x	4.4x	4.6x	4.2x	4.0x	3.9x	4.1x
Harmony	2.9x	2.3x	2.0x	1.7x	9.7x	8.7x	6.4x	5.1x	7.7x	6.1x	4.8x	4.1x
Avadel	39.8x	7.3x	3.8x	3.0x	na	na	15.5x	8.6x	na	na	7.6x	5.9x
Exelixis	3.3x	3.1x	2.9x	2.6x	23.3x	15.5x	13.1x	10.2x	30.3x	14.1x	10.9x	8.9x
Corcept	4.3x	3.4x	4.0x	2.6x	23.6x	21.9x	15.4x	10.5x	19.2x	14.9x	10.5x	7.1x
United Therapeutics	2.9x	2.5x	2.4x	2.2x	11.1x	8.8x	8.6x	8.0x	4.0x	4.7x	4.5x	4.1x
Pacira	2.5x	2.4x	2.2x	2.0x	9.4x	8.3x	6.7x	5.7x	7.9x	7.0x	5.7x	4.7x
Mean	6.7x	3.2x	2.8x	2.4x	13.6x	13.1x	10.9x	9.1x	12.4x	8.3x	7.4x	6.1x
Median	2.9x	2.7x	2.6x	2.6x	10.4x	8.8x	10.2x	8.3x	9.5x	7.0x	6.7x	5.8x

Source: BofA Global Research, Bloomberg, Visible Alpha

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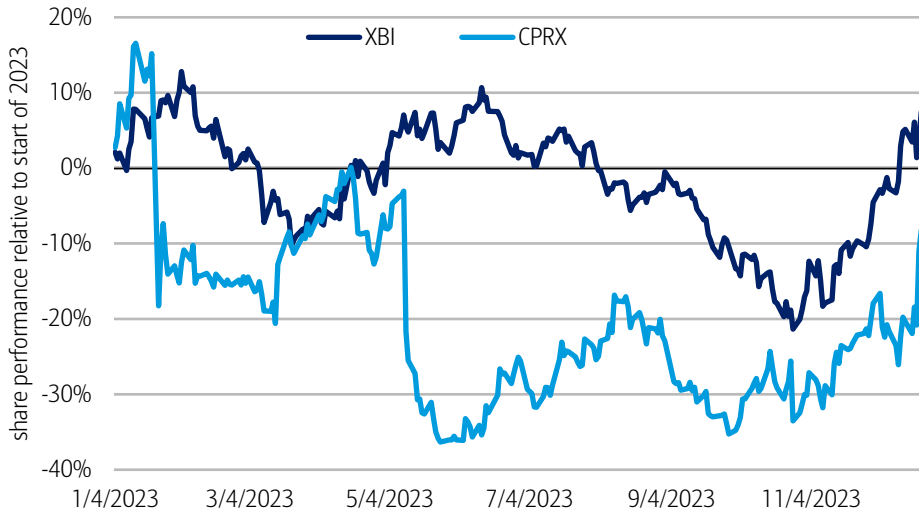
Exhibit 4: CPRX shares underperformed vs. XBI since 2023 start
Share performance measured as % change from baseline



Source: BofA Global Research, Bloomberg

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Catalysts: Firdapse IP defense, Agamree launch key in '24

We believe CPRX stock catalysts fall into 3 buckets: 1) key product launch performance – evaluable through quarterly updates since products do not track broadly with third party prescription tracking services; 2) key product patent litigation events – with a focus on Firdapse Markman in late 2024/early 2025 and a possible trial in 1H25; 3) life cycle management – given CPRX has no ongoing proof-of-concept or registration-enabling trials, the main label add-on update near-term pertains to Firdapse dose increase sNDA (not a major catalyst). We believe CPRX share prices factors in risk of adverse litigation outcomes heading into Firdapse patent (see on our sensitivity analysis). Furthermore, physician feedback has been favorable around the Agamree DMD launch, thus we are positively inclined towards favorable quarterly launch updates.

Exhibit 5: We expect Catalyst Pharma to play both strong offense (Agamree new product launch) as well as IP defense (Firdapse IP litigation)
Agamree offers a rare orphan disease treatment option for DMD, while Firdapse IP extension could offer upside to current NPV

Category: Regulatory			
Drug	Event	Timing	Comment
Firdapse	100mg PDUFA	6/4/2024	
Firdapse	Est. IP markman hearing	late Spring/early summer '24	
Fycompa	patent LOE	May 2025	30-mo stay ends Aug 2025
Firdapse	expiry of patent stay litigation	May 2026	Firdapse patent expires by patent class
Category: Legal, Corporate			
Drug	Event	Timing	Comment
Agamree	DMD US launch	1Q24	DMD: duchenne muscular dystrophy
na	Potential M&A - severe epilepsy or neuroscience targets	Est. 2024	

Source: BofA Global Research, company reports

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Investment positives: Strong BD/commercial track record

Business development track record demonstrates good IRR

Over the past 10 years, Catalyst Pharma has developed a strong track record for doing business development transactions and has built out a high growth rare/orphan drug portfolio. Notably, CPRX's 2012 Firdapse license has delivered a favorable return on investment. Specifically, CPRX acquired Firdapse for zero upfront cost and most of the investment came in the form of development, commercialization and litigation costs (enforcing IP + reg exclusivity). Other acquisitions—which are still early in the deal evaluation period are the acquisition of Fycompa (epilepsy) which was a late lifecycle asset but appears poised to deliver a favorable return + provide short duration CF to

help absorb the license of Agamree for DMD. CPRX's deals (so far) have not involved debt, thus leaving balance sheet flexibility.

Commercial execution (both Firdapse + Fycompa)

Since the launch of Firdapse, CPRX has achieved favorable adoption taking share from competitive alternatives and growing the market. There remains room for Firdapse to grow by increasing the treatment rate in idiopathic and paraneoplastic (SCLC) patient segments. We forecast Firdapse sales doubling by 2032 with growth contributors a ~ equal mix of price and volume. Our 2028 Firdapse forecast of $430m compares to Visible Alpha cons of $400m (n=3). Since acquiring Fycompa, CPRX has grown '23 product revenue >20% to $136m vs. $112m in the year prior to the acquisition. We forecast Fycompa exclusivity through 2024-25 which should help CPRX bridge to more sustainable growth driven by Agamree which has 7-yrs of orphan exclusivity plus several longer dated patents. We view CPRX's closest comp as Horizon Therapeutics, which was acquired by Amgen (AMGN) in December 2022 (transaction completed Oct 2023).

Exhibit 6: BofA Firdapse sales forecast implies low- to mid-SD upside relative to VA cons 2025-28
Key driver of our above cons sales forecast is growth in revenue per patient

	2024E	2025E	2026E	2027E	2028E
BofA sales forecast ($m)	296	332	365	398	423
Visible Alpha cons ($m)	301	328	349	376	400
Variance - BofA vs. VA consensus	-2%	1%	5%	6%	6%
# of consensus contributors	4	4	3	3	3

Source: BofA Global Research estimate, Visible Alpha consensus

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Risk/reward, valuation here prices in highly cautious outcomes on IP runway

In our view, the biggest CPRX valuation sensitivity relates to assumed patent term (or LOE). Currently, CPRX trades at a meaningful discount to peers (7.4x PE vs. average 11x PE) likely owing to various ongoing Firdapse patent litigation. Based on our scenario analyses, an earlier than expected Firdapse LOE (2027) would lower our estimate company DCF by -26% while a ruling upholding the terminal 2037 expiring patent would add +13%. We see possible IP-related catalysts as late 2024/early 2025 Firdapse Markman hearing and a subsequent patent trial sometime in 1H25.

Investment negatives: Litigation overhangs + niche market

Future Fridapse growth may rely on more challenging SCLC segment

Based on physician and company feedback, Firdapse usage heavily skews to the idiopathic LEMS segment and it is not entirely clear which segment of patient will drive future Firdapse sales growth. CPRX is flagging SCLC-LEMS as a attractive incremental source of new patients vs. est. 25-30 of currently treated patients having SCLC-LEMS. Some of the potential challenges with driving growth in SCLC include: 1) small incidence-based population, e.g. non-recurring; 2) pts who are successfully treated (e.g. tumor reduction) no longer have LEMS, and 3) pts who fail to see SCLC tumor reduction are likely to have a poor prognosis, thus issues around motivation to treat LEMS becomes an issue. CPRX has described SCLC patients as ~1000 per year incidence. The good news for CPRX is that there are multiple sources of potential future growth including ~800 diagnosed/untreated LEMS and ~3K yet to be diagnosed patients that may come into the treatment pool.

Firdapse IP litigation, possible Markman in '24 headline risk

In general, patent litigation can be difficult to diligence and investors tend to discount profits at-risk to IP litigation. For Firdapse, CPRX estimates a Markman hearing (patent claim construction) could occur by 2H24, which could represent an important IP

milestone and possible catalyst for settlement. To date, there are 3 ANDA filers (e.g. generic challengers). Firdapse is CPRX's highest net sales product and has patents pertaining to method of use (pertaining to dosing) and product purity patents. In particular, we assume a 2033 Firdapse LOE which is the mid-point for expiry of method of dosing patents which outline methods for optimizing dose to improve therapeutic outcomes (aligns with product labeling). We do not assign any credit for the terminal patent covering methods of producing Firdapse devoid of impurities.

Agamree being 3rd DMD steroid suggests some commercial risks to adoption
Agamree is the 3rd approved corticosteroid approved for the treatment of DMD. While the drug appears to demonstrate a differentiated safety/efficacy benefit, the value propositions is somewhat more nuanced as 1) the primary efficacy endpoint is not the same as that used by closest competitor Emflaza, though key opinion leaders (KOLs) view efficacy as comparable; 2) safety/tolerability – around bone health and stature are intriguing to KOL physicians though neither data point made it into the product label. One potential risk is genericization of PTC's Emflaza and whether that alters the reimbursement landscape for Agamree, though most coverage policies only require a single generic step-edit (currently). We note that DMD is an orphan rare disease which tends to be less tightly managed by payers.

Firdapse: orphan drug with room to grow

Firdapse (amifampridine or 3,4-diaminopyridine phosphate) was approved in 2018 for the treatment of Lambert-Eaton myasthenic syndrome (LEMS) in adults. The asset was initially acquired from BioMarin through a licensing agreement (2012). CPRX filed the NDA for Firdapse in 2015 but the drug was not approved until 2018 with the delay due to an FDA "refusal to file" which required completion of a second Ph3. Importantly, after a legal dispute regarding enforceability of Firdapse's orphan drug exclusivity, CPRX was able to establish exclusivity to sell the API and later reached a license deal with Jacobus for commercial rights to its product ('Ruzurgi; also amifampridine) in exchange for a royalty on net Firdapse revenue. CPRX owes a combined 15-19% royalty stack on Firdapse net sales. Aided by the commercial exit of Ruzurgi, Firdapse has grown ~52% and >80% in 2022 and 2023, respectively. To continue growing, CPRX needs to increase diagnosis and treatment rates in the ultra-orphan LEMS market. The key risk to Firdapse is generic patent challengers who are stayed from market entry until 2026 vs. litigated patents expiring 2032-37E.

LEMS is an ultra-rare, serious neuromuscular condition

LEMS is a severe neuromuscular disease that is characterized by debilitating proximal muscle weakness resulting from inadequate neuromuscular junction transmission (Exhibit 7). Most patients struggle with debilitating symptoms, including episodic respiratory crisis requiring hospitalization, which can occur for years before the condition is diagnosed. There are two categories of LEMS: (1) autoimmune idiopathic; and (2) paraneoplastic – associated with SCLC (small cell lung cancer). CPRX estimates a roughly 50/50 split between the idiopathic/paraneoplastic, while other estimates suggest 75/25. The distinction matters as SCLC patients whose tumors successfully shrink due to cancer treatment no longer experience symptoms (per KOL's) while SCLC patients non-responsive to cancer treatment tend to have very unfavorable prognosis (short life expectancy). Anecdotally, KOL's indicate the use of compounded 3,4-DAP is highly restricted (payers typically won't cover), limiting the risk of therapeutic substitution. Firdapse is dosed 3-4 times per day and (per CPRX) 90% of treated patients are compliant (take medication as directed).

Firdapse hypothesized to facilitate neurochem release, improve LEMS function
LEMS affects voltage-gated calcium channels on the pre-synaptic membrane of the nerve-muscle (neuromuscular) junction (NMJ). The inhibition of the voltage-gated

calcium channels prevents acetylcholine from being released from the presynaptic terminal. Consequently, the subsequent stimulation of the post-synaptic terminal which leads to muscle contraction is hindered. LEMS is usually associated with auto-immune self-antibodies against the pre-synaptic voltage gated calcium channels, which leads to neuromuscular block. Firdapse is a broad-spectrum potassium channel blocker and the hypothesis on the drug's mode of action is that blocking voltage-gated potassium on presynaptic neurons prevents the efflux of potassium ions, thus prolonging depolarization and allowing calcium influx which enables acetylcholine release (improving neuromuscular function).

In Ph3 Firdapse showed meaningful benefit + good safety/tolerability

Firdapse was approved based on two positive Phase 3 studies that were double-blind, placebo-controlled trials in adults with LEMS. The Firdapse trial results were published in Muscle & Nerve (Oh et al. 2016) and Journal of Clinical Neuromuscular Disease (Shieh et al. 2019), respectively. The primary endpoints for these studies were QMG (Quantitative Myasthenia Gravis) and SGI (Subject Global Impression). The SGI, a patient-reported outcome (PRO), is a 7-point scale on which patients rate their global impression of the effects of the study treatment on their physical well-being, with score range of 0 (least perceived benefit) to 7 (most perceived benefit). The QMG is a 13-item, physician-rated categorical scale assessing muscle weakness, with each item rated 0 (no weakness) to 3 (severe weakness) for a total score range of 0 (no impairment) to 39 (worst impairment). Firdapse achieved statistical significance benefit on both primary endpoints: 1) study 1: QMG [lower score is better] 6.7 vs. 7.9, p=0.045 and SGI [higher score better] 4.9 vs. 3.2, p=0.03; 2) study 2: QMG (8.5 vs 15.0, P = 0.0004) and SGI scores (5.8 vs 2.4, P = 0.0003); (Exhibit 8; Exhibit 9). Based on KOL feedback, Firdapse clinical data and real-world benefit are clinically meaningful with low dropout rates.

Exhibit 7: Primary endpoints (QMG, SGI) achieved stat sig benefit
Study 1 sample size n = 38 of which 16 were in treatment arm (Day 1 to 14)

Assessment Primary endpoints	Firdapse (n=16)	Placebo (n=21)
QMG score		
Baseline (mean)	6.4	5.6
Change from baseline (least square mean)	0.4	2.2
Firdapse-placebo treatment difference (least square mean [95% CI])	-1.7 (-3.4, -0.0)	
p-value	0.045	
SGI score		
Baseline (mean)	5.6	5.9
Change from baseline (LSM)	-0.8	-2.6
Firdapse-placebo treatment difference (least square mean [95% CI])	1.8 (0.7, 3.0)	
p-value	0.003	

Source: FDA.gov, Oh et al 2016 (NCT01377922)

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Exhibit 8: Primary endpoints (QMG, SGI) achieved stat sig benefit
Study 2 sample size n = 26 of which 13 were in treatment arm (Day 1 to 4)

Assessment Primary endpoints	Firdapse (n=13)	Placebo (n=13)
QMG score		
Baseline (mean)	7.8	8.5
Change from baseline (least square mean)	0	6.54
Firdapse-placebo treatment difference (least square mean [95% CI])	-6.54 (-9.78, -3.29)	
p-value	0.0004	
SGI score		
Baseline (mean)	6.1	5.8
Change from baseline (LSM)	-0.64	-3.59
Firdapse-placebo treatment difference (least square mean [95% CI])	2.95 (1.53,4.38)	
p-value	0.0003	

Source: FDA.gov, Shieh et al 2019 (NCT02970162)

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Firdapse safety and tolerability generally look clean

Based on our review of Firdapse clinical trial data, the drug has demonstrated a favorable side effect profile with serious AE's are limited to only a 2% incidence of seizures observed (managed through dosing adjustments). In trials and real-world experience, Firdapse has ~10% AE-related discontinuation rate (20% pooled all-cause), a real-world annual discontinuation rate trending below 20% (per CPRX) and physician feedback around drug tolerability has been generally favorable (Exhibit 10). Some of the more commonly reported AE's like paresthesia do not impact patient quality of life and rarely result in discontinuation of drug while cases upper respiratory tract infection were not severe. In long-term safety follow-up of 40 patients for up to two years, there were no serious AE's observed. Amifampridine has been associated with an increased risk of

seizures in patients receiving more than 90mg/daily which is managed through a labeled contraindication for patients with a history of seizures.

Exhibit 9: Paresthesia is the most common adverse event (AE)
Per our KOL check, severity of AEs does not warrant therapy discontinuation

Adverse reaction	% of patients
Paresthesia	62
Upper respiratory tract infection	33
Abdominal pain	14
Nausea	14
Diarrhea	14

Source: FDA.gov

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Exhibit 10: Low AE-related discontinuation rate mirrors real-world experience
~10% AE-related discontinuation vs. 20% pooled all-cause discon rate

	Study 1	Study 2
adverse event	5	--
withdrawal by subject	3	--
lack of efficacy	2	--
physician decision	1	--
other	3	--
rescue treatment required	2	--
Completed study	38	26
Discontinuation rate	30%	0%
Pooled Discontinuation rate		20%

Source: company reports

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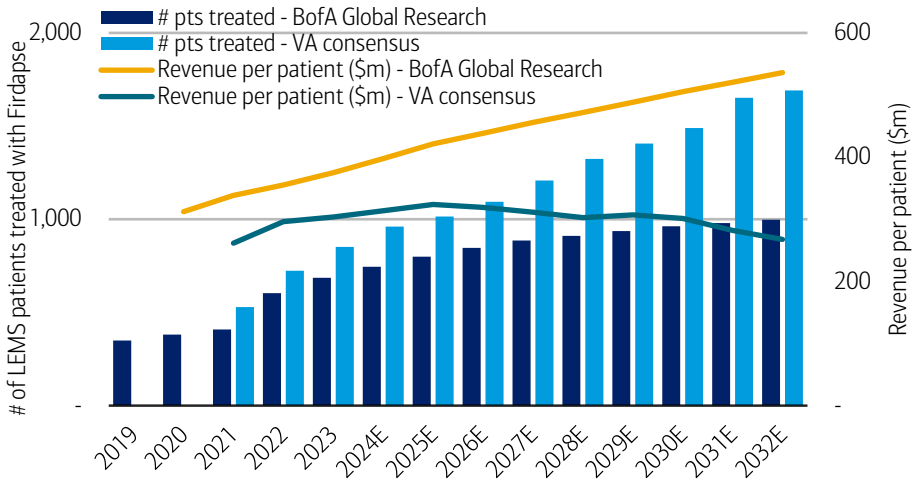
Growth levers: penetrate SCLC-LEMS + greater diagnosis

Firdapse launched in the US market in 2019 with a 20-person sales force experienced in payer reimbursement. CPRX's sales force initially targeted ~1,250 physicians who are either neuromuscular specialists or general neurologists with a known adult LEMS patient or specific training in neuromuscular diseases. Since the initial launch, CPRX has doubled the size of its field force to ~40 people and now targets 9,000 neuromuscular specialists or general neurologists. CPRX also engages in non-personal promotion to reach the 20,000 neurologists who are potential LEMS treaters and 16,000 oncologists who might treat LEMS associated with SCLC. For Firdapse to continue its strong sales growth trajectory, there are 3 growth levers:

- **Net price increases in-line with historical trend:** We assume that Catalyst Pharma is likely to increase net price at +4-5% Y/Y through loss of exclusivity. We believe that this is a reasonable assumption given that payers are unlikely to aggressively manage a rare orphan category such as LEMS.

Exhibit 11: Our Firdapse sales forecast assumes continued growth in net pricing, though slower rate of patient adds
In our view, management is poised to continue taking price hikes through LOE



Source: BofA Global Research estimate, Visible Alpha consensus

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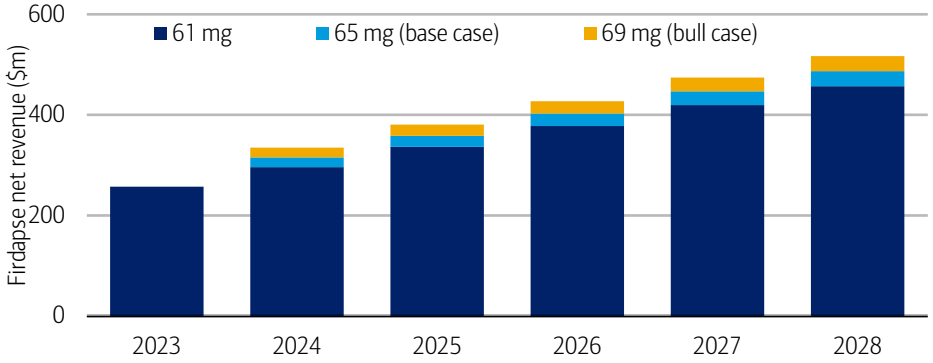
- **Increasing the diagnosis and treatment rates**: There are currently an estimated 800 diagnosed patients not treated with Firdapse and another 2900 patients who are undiagnosed. CPRX believes increased use of antibody diagnostic testing could

help improve the overall LEMS diagnosis rate. Per CPRX, patients with SCLC represent the largest source of incremental new patients. While CPRX does not offer a breakdown of autoimmune vs SCLC LEMS patients, it is believed that most patients currently treated with Firdapse are autoimmune/idiopathic;

- **FDA approval for higher dose strength**: Firdapse is approved to treat the mainly adult LEMS patient with 15-30 mg in divided doses (3-4 times daily). The company has filed an sNDA for a 100mg daily dose which could improve average annual selling cost per patient per year (the current average dose is 61 mg/day). We estimate a small ~$30m net sales benefit from the 100mg approval, which assumes half the 40% of patients on 80mg transition to the higher dose.

Exhibit 12: Firdapse maximum dose increase offers base case ~$30m revenue opportunity
We expect 40% of LEMS patients ~80mg dose to be candidates for higher dose



Note: 2023 revenue assumes 61mg avg daily dose per company disclosure. 65mg and 69mg scenarios assume 40% of pts currently on ~80mg increase to avg 90mg and 100mg doses, respectively. Analysis assumes 6% price growth regardless of increase in avg daily dose (mg)

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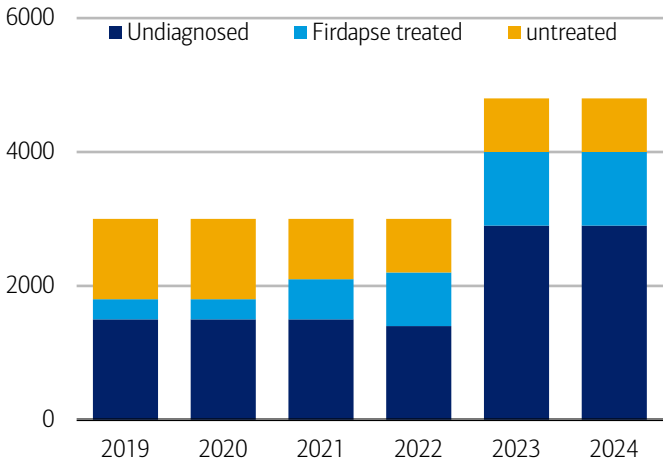
Exhibit 13: Firdapse patient adds from (1) off-label 3,4-DAP, (2) Ruzurgi, (3) untreated patients
Per CPRX, there is greater # of undiagnosed patients in SCLC population



Source: company reports

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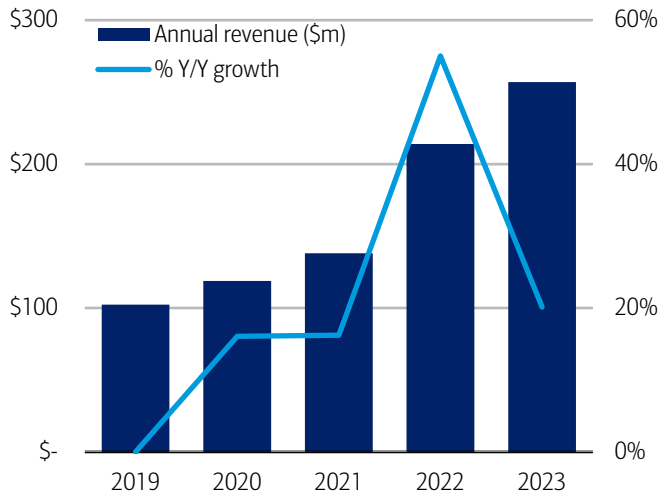
Exhibit 14: Firdapse achieved DD % Y/Y growth since 2019 launch
Rate of growth ~17% Y/Y except for 2022 driven by Ruzurgi licensing deal



Source: BofA Global Research, company reports

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Compounded alternatives to Firdapse are now used sparingly

In a review of compounded 3,4-DAP products conducted by Green et al. 2012 published in *Journal of Clinical Pharmacy and Therapeutics*, investigators found that these products were variable in quantity of active drug substance (22.2% - 125.2%) and non-compliant

with the good manufacturing practice (GMP) standard (95-105% range limit of declared label content). CPRX's amifampridine provides an alternative to compounded product that has been subject to FDA review both a) through clinical testing, and b) FDA review of GMP compliant product manufacturing and improve stability; the salt form of amifampridine has been associated with improved product stability. Based on our KOL checks, compounded amifampridine has limited availability (limited insurance coverage).

We forecast ~$530m Firdapse peak sales thru 2033 LOE

In 2023 (year 5), Firdapse generated $258m (+21% Y/Y) in revenue. Firdapse has grown every year since launching and we estimate there are ~685 patient on drug at an average net selling price of $375K (assumes 23% GTN discount-compliance adjusted). We estimate net price has provided a mid-SD tailwind to yearly growth while patient volumes have benefited from a one-time transition of patients from the Jacobus drug. Looking ahead, we expect high to mid-SD volume growth near-term (2024-27) followed by low-SD growth thereafter. While Firdapse is subject to a patent dispute, we model a 2033 LOE and a product-specific $11/shr valuation contribution. Our sensitivity analysis around patent LOE indicates a valuation up/down of +13% (+$3/shr) on LOE to 2037 to -26% (-$6/shr) if the LOE occurs in 2027 (post 30-mo stay for NCE) (Exhibit 25).

Firdapse model assumptions

- **Market size – US prevalence of 3.6-5.6K target patients**: We assume slightly higher than midpoint of 4800 LEMS patients based on epidemiology data presented at the 2023 World Conference on Lung Cancer. In 2023, CPRX had estimated the prevalence to be closer to 3K US patients with the upward revision attributable to under-capture of both patient segments (but more skewed to SCLC-LEMS).

- **Product profile benefits drive 12% incremental share gains**: Firdapse is the only approved treatment for LEMS and offers patients improvement on key clinical outcomes related to symptom improvement. As such, we conservatively expect the % share of patients treated to increase from 36% in 2023 to 48% peak in 2030+, though the company can alternatively get to our forecasted patient number through market educational efforts to expand diagnosis rates.

- **Average US price/patient/year $375K est. to grow low-SD**: Firdapse annual revenue per patient is based on an assumed daily dose of 61mg, gross-to-net deductions and patient compliance (represented as an average of entire population); the ANRP does not consider patient discontinuation. In 2023-24, Firdapse list-price increased +6% Y/Y vs. +5% annual list price increases in prior years. As an orphan drug, Firdapse GTN deductions are modest at ~23%. Firdapse is mainly reimbursed by commercial and Medicare plans. We model another +6% list-price increase in '25E, followed by <5% list-price increases thereafter.

Gross margins factor meaningful royalties

Per CPRX's license from BioMarin, the company owes a tiered royalty based on the Firdapse net sales on $0-100m net sales (14%) and $100m+ net sales (17%). Catalyst owes an additional royalty to Jacobus of 1.5% (through 2025) to 2.5% (through patent expiry). Based on disclosed royalties and forecasted gross margins related to the API (ex-royalty), we estimate Firdapse GM's of 79-82% through 2033 LOE.

Agamree: DMD steroid differentiated on safety profile

Agamree (vamorolone) is a corticosteroid that was recently approved (2023) for the treatment of Duchenne Muscular Dystrophy (DMD). DMD is a rare, inherited muscular disorder in which patients experience progressive muscle degeneration and weakness. While there are two commonly prescribed steroids for DMD pre-dating the Agamree

approval, we believe the drug's safety profile will be the key differentiator driving uptake. Despite advances in DMD genetic medicines, steroids remain a backbone of treatment as they help decrease inflammation and prolong time to until the DMD patient becomes non-ambulatory (unable to walk). DMD primarily affects boys with an age of onset around 3-5 years old and is the result of mutation in the chromosome gene that regulates dystrophin, a protein associated with maintaining the integrity of muscle fiber through connecting the cytoskeleton of a muscle fiber to the surrounding extracellular matrix through the cell membrane. DMD is a progressive disease and most boys lose the ability to walk in their teenage years and may require a respirator to breathe by age 20.

DMD is a rare autoimmune disorder; steroids are a backbone of therapy

There is no cure for DMD and current treatments help manage symptoms and improve quality of life. While Sarepta's gene therapy (GT) for boys age 4-5 was approved on the basis of a surrogate endpoint, the clinical benefit has yet to be established and all KOL's we've spoken with don't expect the GT approval to have any impact on steroid consumption, noting: (1) GT is suitable only for patients with specific mutations and (2) even those patients who undergo GT will require corticosteroid treatment during and potentially after treatment per our discussion with KOLs. For instance, BofA Global Research forecast implies ~1.2k peak number of patients on Sarepta's gene therapy treatment. Corticosteroids are a widely accepted therapy for treatment of DMD, with 90% of patients having tried corticosteroids and 70% on steroids at any given time. The duration of corticosteroid therapy for patients with DMD is typically long-term, beginning at ages 4-6 and extending until the late teens or beyond, coinciding with the progression to loss of ambulation and use of upper extremities.

Exhibit 15: Catalyst Pharma's Agamree mostly directly competes with PTCT's Emflaza (corticosteroid)
DMD space has recent advances in gene therapy and exon skipping

Molecule	brand name	Originator	Initial US approval	Gx comp	Pharmacologic class
Casimersen	Amondys 45	Sarepta Therapeutics	2021		
Viltolarsen	Viltepso	Ns Pharma Inc	2020		
Golodirsen	Vyondys 53	Sarepta Therapeutics	2019	no	Novel gene therapy
Eteplirsen	Exondys 51	Sarepta Therapeutics	2016		
Delandistrogene Moxeparvovec-Rokl	Elevidys	Sarepta Therapeutics	2023		
Vamorolone	**Agamree**	**Purna Pharma (acq'd by Catalyst)**	**2023**	**no**	**Corticosteroid**
Deflazacort	Emflaza	Ptc Therapeutics	2017		
Succinylcholine	Succinylcholine	Dr Reddy Laboratories	1952	no	Muscle blocker
Succinylcholine Chloride	Succinylcholine Chloride	Hikma	1952	yes	
Sevoflurane	Ultane	Abbvie	1995		
Desflurane	Suprane	Baxter Healthcare Corp.	1992	yes	General Anesthetic
Isoflurane	Forane	Baxter Healthcare Corp.	1979		
Tadalafil	Cialis	Eli Lilly	2003	yes	Phosphodiesterase 5 Inhibitor

Source: BofA Global Research, FDA.gov

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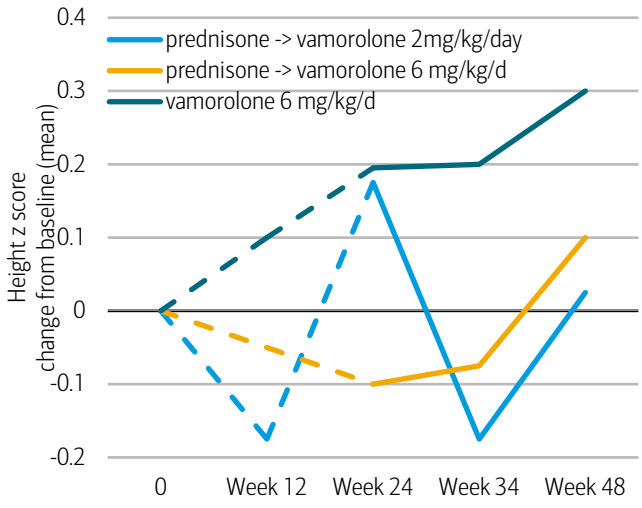
Agamree differentiation: bone biomarkers & stature key with KOL's

Comparing the relative safety and efficacy of Agamree to the two mainstay steroid options (Emflaza and prednisone) is difficult given the lack of head-to-head studies and study differences limit cross-trial comparison. All approved DMD steroids carry similar safety class labeling and differences in safety/tolerability are nuanced. What KOL physicians conveyed (to us) is that Agamree appears to offer comparable efficacy to the two alternative steroids even though its pivotal studies employed a different endpoint to measure muscle strength. In our KOL calls, the two aspects of the Agamree registration-studies that stood out: 1) favorable impact on bone health biomarkers – relevant for scoliosis and fracture risk. Steroids as a class are known to decrease bone formation and

increase bone resorption through their effect on calcium regulation, though the extent to which one causes a smaller magnitude of decrease in bone density is not clearly elucidated at this point; and 2) data on height stature. All-else-equal, some physicians appear to gravitate to steroid options that can minimize the impact on patient stature even if the percentile change improvement in height (as demonstrated in clinical trials) is relatively small. In Agamree's Ph3 that included a prednisone comparator arm, Agamree patients demonstrated an improvement in both height ("not huge difference" but still beneficial per KOLs) and BMI (body mass index).

Exhibit 16: In Ph3, Agamree showed small improvement in height
Patients on prednisone -> vamorolone 6mg/kg/day saw height benefit



Source: Dang et al. 2024 (Neurology)

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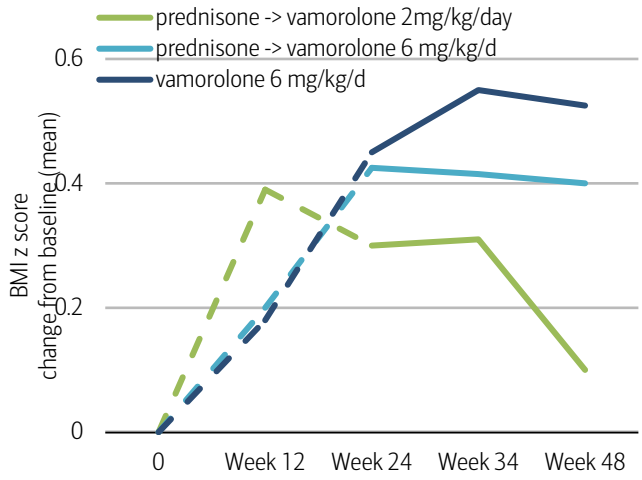
Exhibit 17: Agamree offers directional BMI benefit among crossover groups
Patients on prednisone --> vamorolone 6mg/kg/day saw BMI benefit



Source: Dang et al. 2024 (Neurology)

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Exhibit 18: We highlight differences in placebo-adj weight gain and benefit on clinical endpoints
Agamree approved on basis of more objective efficacy measurement vs Emflaza

	Agamree			Emflaza	
	LD	HD	Pbo-adj	single dose	Pbo-adj
Weight increase	0%	11%	-3% to +8%	20%	14%
Bone density		steroid class label		steroid class label	
Stature		steroid class label		steroid class label	
Key efficacy measure					
TTSTAND (24w)			LD: 0.045 HD: 0.06		
Avg. muscle strength (12w)					+0.15 vs. pbo -0.1

Source: BofA Global Research, FDA.gov

BofA GLOBAL RESEARCH

Agamree muscle improvement vs pbo demonstrated on TTSTAND velocity test

Part of the Agamree clinical program was a Ph3, 24-week treatment study that randomized 121 male DMD pts (4-7 years age) who were steroid naïve and ambulatory into four treatment arms: (1) Agamree 6 mg/kg/day (n=30), (2) Agamree 2 mg/kg/day, (3) prednisone 0.75 mg/kg/day (n=31), or (4) placebo (n=30). After 24 weeks, patients on prednisone and placebo received either Agamree 6mg/kg/day (n=29) or Agamree 2mg/kg/day (n=20) for an additional 20 weeks. The primary endpoint was the change from baseline to week 24 in the Time to Stand Test (TTSTAND) velocity for Agamree 6mg/kg/day compared to placebo. TTSTAND velocity is a measure of muscle function that measures the time required for the pt to stand to an erect position from a supine position (floor). Secondary endpoints include 6MWT (6 minute walk test) and TTRW (time to run/walk 10 meters). Relative to placebo, Agamree met both primary endpoint and key secondary endpoints in the 6mg/kg/day treatment group.

Exhibit 19: Agamree 6mg/kg/day achieved stat sig benefit on key clinical endpoints
Registrational endpoints, though different from Emflaza, demonstrate muscle benefit

Parameter	Placebo	Agamree 2mg/kg/day	Agamree 6mg/kg/day
TTSTAND VELOCITY (rises/sec)			
Difference from placebo	na	0.045	0.06
p-value	na	0.017	0.002*
6MWT distance (meters)			
Difference from placebo	na	40	42
p-value	na	0.004	0.002
TTRW velocity (meters/sec)			
Difference from placebo	na	0.127	0.244
p-value	na	0.103	0.002

Source: BofA Global Research, FDA.gov

BofA GLOBAL RESEARCH

Safety comparisons of steroids across trials is challenging

Below, we provide the placebo-adjusted rates of adverse events for Agamree and Emflaza. Overall, the differences in AE rates are small and inconclusive (in our view). A few AE's that directionally standout to us/some KOL's is Agamree studies reported slightly lower rates of weight gain and increased appetite. Conversely, as shown in Exhibit 20, Agamree showed a slightly higher rate of Cushingoid Features. Confounding cross-trial comparisons is the fact that Agamree study was 24-week treatment duration while Emflaza was only 12-week duration.

Exhibit 20: Agamree placebo-adjusted benefit on weight gain, appetite despite longer duration of treatment in study
While higher placebo-adjusted rate of Cushingoid Features, expected given longer 24wk duration

Placebo-adjusted	24 week treatment period		12 wk treatment
Adverse Reaction	**Agamree 2mg/kg/d**	**Agamree 6mg/kg/d (recommended dose)**	**Deflazacort 0.9mg/kg/d (recommended dose)**
Cushingoid Features	7%	29%	21%
Vitamin D deficiency	7%	11%	--
Weight increased	-3%	8%	14%
Vomiting	10%	7%	--
Psychiatric disorders	-7%	7%	--
Diarrhea	0%	4%	--
Increased appetite	0%	4%	12%
Rhinitis / nasopharyngitis (reaction that causes nasal congestion, runny nose, etc.)	0%	4%	4%
Headache	4%	4%	--
Cough	7%	4%	6%
Upper respiratory tract infection	--	--	2%
Pollakiuria (frequent, abnormal urination)	--	--	10%
Nasopharyngitis (inflammation of nasal passages + pharynx)	--	--	--
Hirsutism (excess hair around mouth/chin)	--	--	8%
Central obesity	--	--	6%
Erythema (skin redness)	--	--	2%
Irritability	--	--	4%
Rhinorrhea (mucus "running" out of nose)	--	--	8%
Abdominal discomfort	--	--	4%

Source: FDA.gov, BofA Global Research

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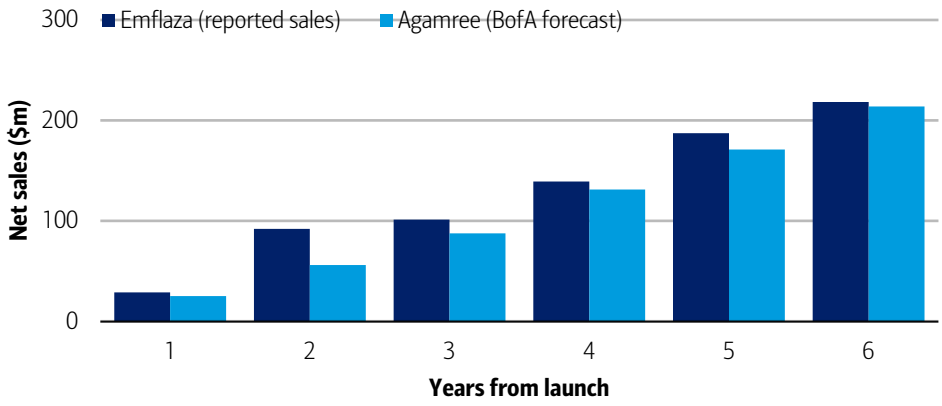
We forecast ~$290m peak sales through 2033 LOE

The US DMD market is well defined with ~12k patients of which ~70% get steroids. We forecast Agamree US peak sales of $290m based on the following key assumptions:

- **Treatment rate 30% at peak:** we estimate Agamree achieving a 30% peak share of the steroid market based on the strength of its clinical profile, which translates to 2.9k patients treated on drug. Our market model assumes <1% % Y/Y population growth.

- **Ramp to peak:** Our revenue forecast assumes ~400 annual patient adds through 2030 after which the pace of patient adds is expected to slow ahead of expected 2033 LOE (loss of exclusivity).
- **We model low discontinuation rates:** CPRX expects ~15% annual discontinuation rate which may be due to factors such as mortality or loss of ambulation.
- **We model lower GTN deductions relative to Emflaza:** Per CPRX, we expect Agamree gross-to-net deductions as a % to be less than the competitor Emflaza deductions, translating to higher net revenue per patient treated ($65k vs. Emflaza pre-generics $64k). While an Emflaza generic could be imminent, we expect payers to continue to only require a single generic step-edit. As such, we see this as unlikely to hinder Agamree uptake.
- **Agamree contributes $7/shr to our valuation:** Based on a 2033 Agamree LOE, we estimate a product-specific $7/shr valuation contribution. Our sensitivity analysis around patent LOE indicates a valuation up/down of +15% (+$4/shr) on LOE to 2040 to -4% (-$1/shr) if the LOE occurs in late 2030 (following ODE).

Exhibit 21: Agamree appears on growth trajectory to Emflaza
Emflaza is another corticosteriod treatment for DMD treatment approaching LOE



Source: BofA Global Research, company reports

BofA GLOBAL RESEARCH

Exhibit 22: Our Agamree forecast is up to 30% below VA consensus
We view DMD opportunity as material though forecast roughly in-line with Emflaza sales

	2024E	2025E	2026E	2027E	2028E
BofA sales forecast ($m)	25	56	88	131	171
Visible Alpha cons ($m)	27	59	117	187	240
Variance - BofA vs. VA consensus	-8%	-4%	-25%	-30%	-29%
# of consensus contributors	4	4	3	3	3

Source: BofA Global Research estimate, Visible Alpha consensus

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Fycompa: short IP duration for treatment of epilepsy-related seizure asset

Fycompa (perampanel) is a non-competitive AMPA glutamate receptor antagonist indicated for the treatment of partial-onset seizures and tonic-clonic seizures in patients with epilepsy. Catalyst Pharma acquired US rights from Eisai in January 2023 for $160m upfront. The Eisai deal was structured to include tiered royalties based on net product sales ranging from 12-22% (which are reduced to 6-11% upon generic Fycompa market entry). Fycompa is Schedule III controlled, which means that it is a drug with moderate to low potential for physical and psychological dependence; there is no REMS (risk evaluation and mitigation strategies) associated with onboarding patients onto therapy. The drug is administered by oral suspension and recommended maintenance dose varies

from 8-12 mg in partial-onset seizures (with or without secondary generalization) and 8mg in primary generalized tonic-clonic seizures. With regards to IP runway, Catalyst Pharma has patent exclusivity on Fycompa through at least May 2025, with the second OB-listed patent which is subject to a paragraph 4 ANDA filing expiring in July 2026. Thus, we model IP runway through YE'25 with possible Fycompa entrants in '26. We forecast ~$180m peak sales in 2025 and $342m NPV ($3/share) which suggests that the recent Eisai deal is likely to be NPV positive despite short IP duration remaining.

Exhibit 23: Fycompa has patent runway through 2026
30-mo stay in place leaves earliest possible generic entry following Aug 20, 2025

Patent	Expiration	Description
6949571	5/23/2025	1,2-dihydropyridine compounds, process for preparation of the same and use thereof
8772497	7/1/2026	Method for producing 1, 2-dihydropyridine-2-one compound

Source: FDA.gov

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Intellectual property

A key CPRX valuation swing factor is the length of market exclusivity for the company's two key drugs, Agamree and Firdapse. The range of market exclusivities for Firdapse and Agamree are 4-14 yrs and 7-17 yrs, respectively. Given both brands are or have the potential to be high margin contributors, we estimate the DCF difference between using the most conservative vs. most aggressive LOE assumptions can have a cumulative +28% /-30% impact on our DCF. From an investor standpoint, Firdapse is advancing through patent litigation with generic challengers and the legal matter could shed light on the strength of the drug's patents. However, for Agamree, the drug is an NCE (new chemical entity) with orphan drug exclusivity, meaning the earliest a generic can even commence the patent challenge process is early 2028. In this section of the report, we provide our LOE sensitivity analysis and outline our LOE assumptions for each product.

Firdapse markman + trial key for viability of dosing patents

Firdapse's API is an older molecule whose compound patent is already expired. Key Firdapse patents include method of use pertaining to dosing and product purity patents. The method patents (Garovoy et al.; expire 2032-34) were issued around claimed methods of determining a patients NAT (N-acetyl-transferase) phenotype status which allows for dose optimization that can improve therapeutic outcomes (which are outlined in the drug's product label). The second key Firdapse patent known as the Schiehser patent ('088; expires 2037) covers methods of determining purity of a sample of 3,4-DAP drug sample and methods for detecting drug degradation. On the latter patent, it is not clear to us a) whether theoretical generics would need to infringe the '088 patent to produce a bioequivalent generic; and b) whether there might be alternative methods to producing drug lacking impurity.

Exhibit 24: Firdapse has patent runway through 2037 and ODE through Nov 2025
30-mo stay in place leaves May 2026 earliest possible generic entry (worst case)

Patent No.	Expiration	Description
10626088	2/25/2037	Determining degradation of 3,4-diaminopyridine
10793893	5/26/2034	Methods of administering 3,4-diaminopyridine
11060128	6/29/2032	Methods of administering 3,4-diaminopyridine
11268128	6/29/2032	Methods of administering 3,4-diaminopyridine
11274331	6/29/2032	Methods of administering 3,4-diaminopyridine
11274332	6/29/2032	Methods of administering 3,4-diaminopyridine
Exclusivity	**Expiration**	**Description**
NCE	11/28/2023	New Chemical Entity
NPP	9/29/2025	New Patient Population
ODE	11/28/2025	Orphan Drug Exclusivity

Source: FDA.gov

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Per CPRX, the Firdapse patent dispute could advance to a Markman hearing (claim construction) sometime in late 2024/early 2025 which could be important in determining the scope of claims that could be enforced by CPRX. We outline our base case, bear case and bull case assumptions for Firdapse LOE:

Exhibit 25: We see +13%/-26% DCF upside/downside vs base case Firdapse 2032 LOE
Firdapse earlier than expected (by consensus) LOE could represent 26% DCF downside

	Base case	Bear case	Bull case
LOE year	2032	2027	2037
Base case DCF impact	--	-$6/shr	+$3/shr
% base case DCF impact	--	-26%	13%
Rationale	Method claims commonly applicable + outlined in label	Risk Judge interprets claim scope more narrowly on method of dosing patents	Assumes patents deemed valid or infringed in litigation

Source: BofA Global Research

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Agamree: ODE offers anchor; patents may offer longer-term IP

Agamree was approved as a new chemical entity with orphan drug exclusivity, the latter offering regulatory exclusivity until Oct. 26, 2030. The terminal patent protecting Agamree ('922; expires 2040) covers polymorphic Form I which is claimed to be important in extending shelf-life stability and limited impurities. Other relevant patents extend beyond the expiry of the ODE include: 1) polymorph Form I patent with method of preparation – expires 2040; and 2) a compound with method of treating DMD patent ('853; expires 2033).

Exhibit 26: Agamree has patent runway through 2040 and ODE through 2030
Agamree will launch in 1Q24 following Oct 26, 2023 approval

Patent No.	Expiration	Description
8334279	5/28/2029	Non-hormonal steroid modulators of NF-κB for treatment of disease
10857161	5/28/2029	Non-hormonal steroid modulators of NF-kB for treatment of disease
11382922	7/16/2040	Aqueous oral pharmaceutical suspension compositions
11471471	3/17/2040	Aqueous oral pharmaceutical suspension compositions
11690853	6/29/2036	Non-hormonal steroid modulators of NF-κβ for treatment of disease
11833159	5/28/2029	Non-hormonal steroid modulators of NF-kB for treatment of disease
Exclusivity	**Expiration**	**Description**
NCE	10/26/2028	New Chemical Entity
ODE	10/26/2030	Orphan Drug Exclusivity

Source: FDA.gov

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For our base case, we assume an Agamree LOE in 2033 as we assume future generics will need to overcome both method of treatment patent expiring in 2036 and composition of matter patents expiring in 2040.

Exhibit 27: Agamree - Examining bear vs bull case scenarios
We see +15%/-4% upside (2040 LOE) and downside (late 2030 LOE) vs base case Agamree 2033 LOE

	Base case	Bear case	Bull case
LOE year	2033	late 2030	2040
Base case DCF impact	--	-$1/shr	+$4/shr
% base case DCF impact	--	-4%	15%
Rationale	Compound for only approved indication	ODE represents earliest entry	Assumes polymorph patent upheld when generics challenge IP

Source: BofA Global Research

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Management

Generally, we view Catalyst Pharma's management team favorably, given relevant experience and track record. Importantly, the Chief Science Officer (CSO) and Chief Commercial Officer (CCO) will play important roles in future BD and commercialization activities, respectively. We've had an opportunity to interact with the new CEO, Richard Daly, who brings relevant experience in senior roles at several biopharma companies.

Exhibit 28: Catalyst Pharma's new CEO began in January 2024
Certain key management including Steven Miller and Jeff del Carmen offer steady hand during transition period

Name	Title	Background
Richard Daly	President and Chief Executive Officer	Mr. Daly has been a member of the Catalyst board of directors since 2015. He most recently served as President of CARsgen Therapeutics, focused on CAR T-cell therapies for the treatment of hematologic malignancies and solid tumors. Prior to this, he served as COO of BeyondSpring during 2018-2022. From 2016 until mid-2018, Mr. Daly served as Chairman and CEO of Neuralstem. Until October 2014, Mr. Daly served as President of AstraZeneca US Diabetes. He received his BS from the University of Notre Dame and his MBA from the Kellogg School of Management, Northwestern University.
Steven R. Miller	Executive Vice President, Chief Operating Officer and Chief Scientific Officer	Steven R. Miller, PhD, joined Catalyst in 2007. He has managed Catalyst's in-licensing of CPP-115 and Catalyst's newest drug, Firdapse, and taken these products through various preclinical and clinical development studies. Dr. Miller previously served as Executive Director for R&D Operations at Watson Pharmaceuticals and as Vice President of Research and Product Development at Royce Laboratories; he has also managed medical device development groups at Baxter Diagnostics and worked as an analytical chemist for the U.S. Food and Drug Administration. Dr. Miller received his doctorate in physical organic chemistry at the University of Miami.
Michael W. Kalb	Executive Vice President & CFO	Michael W. Kalb, CPA joined Catalyst in January 2024. From May-Dec 2023, he served as the CFO of Impel Pharmaceuticals. a commercial stage biopharmaceutical company. Prior to that Mr. Kalb served as the Executive Vice President & CFO of CinCor Pharma, Inc. from November 2022 through March 2023. Previously, Mr. Kalb served as SVP & CFO of Amarin Corporation plc from June 2016 through June 2022. Prior to joining Amarin, he was CFO of Taro Pharmaceutical. Before beginning his tenure in the pharmaceutical sector. He received a B.S. in Business Administration from the State University of New York, University at Albany, School of Business. Mr. Kalb is a Certified Public Accountant.
Gary Ingenito	Chief Medical and Regulatory Officer	Gary Ingenito, MD, PhD, joined Catalyst in July 2015 as Chief Medical Officer. Prior roles include head of medical affairs at Sandoz, and an 8-year tenure at Otsuka. Dr. Ingenito has held positions at Corning-Besselaar, Angiotech Pharmaceuticals, Biotest Pharmaceuticals, and Boehringer-Ingelheim Pharmaceuticals. After obtaining his BA degree from Johns Hopkins University, Dr. Ingenito earned his medical degree at Jefferson Medical College, and Ph.D. from Thomas Jefferson University. He completed his residency in neurology at the University of Miami, Jackson Memorial Hospital.
Brian Elsbernd	Chief Legal and Compliance Officer	Brian Elsbernd joined Catalyst in February 2016. Prior to joining Catalyst, Mr. Elsbernd was Senior Director of US Healthcare Compliance at Mallinckrodt. Previously, Mr. Elsbernd was an associate at Proskauer Rose LLP, within its Health Care practice group, representing healthcare providers nationwide in matters pertaining to regulatory and administrative law, transactional matters, litigation, and reimbursement issues. Mr. Elsbernd earned his law degree from Saint Louis University School of Law and his undergraduate degree at the University of Illinois.
Jeff Del Carmen	Executive Vice President, Chief Commercial Officer	Jeff Del Carmen joined Catalyst in August 2018 as SVP of Sales and Marketing and was promoted to Chief Commercial Officer in June 2020. Prior roles include Senior Director-Rare Disease Marketing at Marathon Pharmaceuticals (2016-2017), VP of Sales at Insys Therapeutics from January-July 2016, Lundbeck (2011-2016), and Abbott Laboratories (1999-2011). Mr. Del Carmen holds a B.A. in Economics from the University of Dayton and an Executive MBA from the University of Wisconsin-Madison.
Preethi Sundaram	Chief Strategy Officer	Preethi Sundaram, PhD, who joined Catalyst in July 2021. Since 2005, Dr. Sundaram was employed in various positions at Sanofi spanning R&D and Medical Affairs, including as Global Clinical Research Director, International Development, Global Project Head, Multiple Therapeutic Area Programs, and more recently as Global Head Medical Operations, General Medicines Business Unit. Prior to joining Sanofi, Dr. Sundaram held leadership positions at Abbott Labs and Covance. Dr. Sundaram is an Optometrist by training with an Optometry degree from the Elite School of Optometry & Birla Institute of Technology & Science (India), and a Doctor of Philosophy in Optometry from Anglia Ruskin University (UK). In addition, Dr. Sundaram holds a BA in Psychology from the University of Madras (India) and an Executive Business Masters from the London Business School.
Stanley Iyadurai	Senior Vice President of Medical Affairs and Discovery	Stanley Iyadurai, M.D., Ph.D. has been SVP at Catalyst since March 2023. Prior to joining Catalyst, Dr. Iyadurai served as Global Clinical Program Director, Clinical Research and Development at CSL Behring, where he was responsible for managing/directing global neurology/immunology late-phase, POC, pre-clinical studies and evaluating companies/novel compounds for acquisition/drug discovery. Previously, Dr. Iyadurai was a full-time faculty member at the Ohio State University Division of Neuromuscular Medicine, Departments of Neurology and Pediatric Neurology at Nationwide Children's Hospital and at Saint Louis University in the Departments of Neurology, Pediatrics and Pathology, where he focused on neuromuscular disorders. Dr. Iyadurai received M.D. and Ph.D. degrees from the University of Minnesota.

Source: company reports

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BofA CPRX model

Exhibit 29: CPRX Income Statement
CPRX continues to grow revenue and EBITDA organically and via business development

CPRX P&L, $m, except EPS	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Firdapse (LEMS)	-	102	119	138	214	257	296	332	365	398	423	450	479	502	527	200	121	55	17	15	14	13	11
Fycompa (seizures)	-	-	-	-	-	136	157	182	61	34	22	21	20	20	20	20	20	20	20	21	21	21	21
Agamree (DMD)	-	-	-	-	-	-	25	56	88	131	171	214	248	268	289	40	42	44	46	47	50	52	54
License and other revenue	1	-	0	3	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Revenues	1	102	119	141	214	394	478	569	514	563	616	685	746	790	836	260	183	119	83	83	84	85	86
COGS	-	15	17	22	34	63	77	91	83	90	99	110	120	127	134	42	29	19	13	13	13	14	14
Gross Profit	1	88	102	119	180	330	401	478	431	473	517	575	627	663	702	218	154	100	69	70	71	71	72
SG&A	16	37	44	50	58	115	120	130	135	150	160	165	175	150	135	75	50	50	8	8	5	3	2
R&D	20	19	16	17	20	128	16	16	17	17	17	18	18	18	19	19	20	10	10	10	11	11	11
Amortization of intangibles					-	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
GAAP operating income	(35)	32	41	52	102	56	233	300	248	274	308	360	402	463	516	92	52	8	20	20	23	26	28
Net interest income	1	2	1	0	3	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Pre-tax income	(34)	33	42	53	105	61	238	305	253	279	313	365	407	468	521	97	57	13	25	25	28	31	33
Taxes	-	2	(33)	13	22	9	36	46	38	42	47	55	61	70	78	15	9	2	4	4	4	5	5
GAAP net income	(34)	32	75	39	83	52	202	259	215	237	266	310	346	398	443	82	49	11	21	21	24	26	28
GAAP EPS (diluted)	$(0.33)	$0.30	$0.71	$0.37	$0.75	$0.46	$1.71	$2.16	$1.76	$1.91	$2.11	$2.42	$2.66	$3.01	$3.30	$0.61	$0.35	$0.08	$0.15	$0.15	$0.16	$0.18	$0.19
Weighted Avg Diluted Shares	103	106	106	108	111	113	118	120	122	124	126	128	130	132	134	136	138	140	142	144	146	148	150
non-GAAP net income	(30)	36	81	59	114	225	290	357	306	332	367	420	461	523	577	153	114	70	82	83	87	90	93
non-GAAP EPS	$(0.30)	$0.34	$0.76	$0.55	$1.02	$1.93	$2.46	$2.98	$2.50	$2.68	$2.91	$3.28	$3.55	$3.96	$4.30	$1.13	$0.82	$0.50	$0.58	$0.58	$0.59	$0.61	$0.62
Weighted Avg Diluted Shr	100	105	106	108	111	116	118	120	122	124	126	128	130	132	134	136	138	140	142	144	146	148	150

Source: BofA Global Research estimate

Exhibit 30: CPRX Income Statement Analysis
We evaluate CPRX on various operating profit metrics

Op profit metrics	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
EBIT	(35)	32	41	52	102	56	233	300	248	274	308	360	402	463	516	92	52	8	20	20	23	26	28
Plus: Depreciation & Amortization	-	-	0	0	1	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
EBITDA	(35)	32	41	53	103	88	265	332	280	306	340	393	434	495	548	124	84	40	52	52	55	58	60
EBITDA margin		31%	35%	37%	48%	22%	56%	58%	54%	54%	55%	57%	58%	63%	66%	48%	46%	34%	63%	63%	66%	68%	70%
EBITDA % Y/Y change			30%	27%	96%	-15%	201%	25%	-16%	9%	11%	15%	11%	14%	11%	-77%	-32%	-52%	29%	1%	6%	5%	4%
Margin analysis (% of sales)	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
COGS	0%	14%	14%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%
Gross margins	100%	86%	86%	84%	84%	84%	84%	84%	84%	84%	84%	84%	84%	84%	84%	84%	84%	84%	84%	84%	84%	84%	84%
SG&A	*	36%	37%	35%	27%	29%	25%	23%	26%	27%	26%	24%	23%	19%	16%	29%	27%	42%	9%	9%	6%	4%	2%
R&D	*	18%	14%	12%	9%	3%	3%	3%	3%	3%	3%	3%	2%	2%	2%	7%	11%	8%	12%	13%	13%	13%	13%
Operating margin	*	31%	35%	37%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%
Pre-tax margin	*	33%	35%	37%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%
Tax rate (% of pre-tax income)	0%	5%	-79%	25%	21%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Non-GAAP net margin	*	35%	68%	42%	53%	53%	53%	53%	53%	53%	53%	53%	53%	53%	53%	53%	53%	53%	53%	53%	53%	53%	53%
Y/Y growth rates	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
		20361																					
Revenue		%	16%	18%	52%	84%	21%	19%	-10%	10%	9%	11%	9%	6%	6%	-69%	-30%	-35%	-31%	1%	1%	1%	1%
COGS		na	15%	28%	57%	84%	21%	19%	-10%	10%	9%	11%	9%	6%	6%	-69%	-30%	-35%	-31%	1%	1%	1%	1%
		17409																					
Gross profits		%	17%	17%	51%	84%	21%	19%	-10%	10%	9%	11%	9%	6%	6%	-69%	-30%	-35%	-31%	1%	1%	1%	1%
SG&A		132%	20%	12%	17%	98%	4%	8%	4%	11%	7%	3%	6%	-14%	-10%	-44%	-33%	0%	-85%	0%	-33%	-40%	-50%
R&D		-5%	-12%	3%	17%	544%	-87%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	-49%	2%	2%	2%	2%	2%
Operating profits		-190%	30%	27%	94%	-45%	318%	28%	-17%	10%	12%	17%	11%	15%	11%	-82%	-43%	-85%	150%	1%	15%	11%	9%
Pre-tax income		-198%	25%	26%	99%	-42%	292%	28%	-17%	10%	12%	17%	11%	15%	11%	-81%	-41%	-77%	92%	1%	12%	9%	8%
GAAP net income		-194%	135%	-47%	110%	-38%	292%	28%	-17%	10%	12%	17%	11%	15%	11%	-81%	-41%	-77%	92%	1%	12%	9%	8%
GAAP EPS		-191%	135%	-48%	104%	-39%	274%	26%	-18%	8%	10%	15%	10%	13%	10%	-82%	-42%	-78%	89%	0%	10%	8%	6%
non-GAAP net income		-217%	127%	-27%	93%	97%	29%	23%	-14%	9%	10%	14%	10%	13%	10%	-73%	-26%	-38%	18%	1%	4%	4%	3%
Non-GAAP EPS		-212%	124%	-28%	87%	89%	27%	21%	-16%	7%	9%	13%	8%	12%	9%	-74%	-27%	-39%	16%	0%	3%	2%	2%

Source: BofA Global Research estimate

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Price objective basis & risk

Catalyst Pharma (CPRX)
Our $23 price objective is based on a sum-of-the-parts (SOTP) analysis. Key assumptions are that we forecast cash flow for each commercial and near-term pipeline asset through 2040E and a discount rate of 9%.

Downside risks are (1) slower-than-expected commercial uptake of Agamree or Firdapse and (2) IP litigation or settlement with Firdapse

Upside risks are (1) stronger-than-expected commercial update of Agamree or Firdapse and (2) favorable IP ruling on Firdapse

Analyst Certification

I, Jason M. Gerberry, 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.

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
	Catalyst Pharma	CPRX	CPRX US	Jason M. Gerberry
	Exelixis	EXEL	EXEL US	Jason M. Gerberry
	Fractyl Health	GUTS	GUTS 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
	Oculis 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
	Viatris Inc.	VTRS	VTRS US	Jason M. Gerberry

iQmethod℠ Measures Definitions

Business Performance	Numerator	Denominator
Return On Capital Employed	NOPAT = (EBIT + Interest Income) × (1 – Tax Rate) + Goodwill Amortization	Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill Amortization
Return On Equity	Net Income	Shareholders' Equity
Operating Margin	Operating Profit	Sales
Earnings Growth	Expected 5 Year CAGR From Latest Actual	N/A
Free Cash Flow	Cash Flow From Operations – Total Capex	N/A

Quality of Earnings	Numerator	Denominator
Cash Realization Ratio	Cash Flow From Operations	Net Income
Asset Replacement Ratio	Capex	Depreciation
Tax Rate	Tax Charge	Pre-Tax Income
Net Debt-To-Equity Ratio	Net Debt = Total Debt – Cash & Equivalents	Total Equity
Interest Cover	EBIT	Interest Expense

Valuation Toolkit	Numerator	Denominator
Price / Earnings Ratio	Current Share Price	Diluted Earnings Per Share (Basis As Specified)
Price / Book Value	Current Share Price	Shareholders' Equity / Current Basic Shares
Dividend Yield	Annualised Declared Cash Dividend	Current Share Price
Free Cash Flow Yield	Cash Flow From Operations – Total Capex	Market Cap = Current Share Price × Current Basic Shares
Enterprise Value / Sales	EV = Current Share Price × Current Shares + Minority Equity + Net Debt + Other LT Liabilities	Sales
EV / EBITDA	Enterprise Value	Basic EBIT + Depreciation + Amortization

iQmethod℠ is the set of BofA Global Research standard measures that serve to maintain global consistency under three broad headings: Business Performance, Quality of Earnings, and validations. The key features of iQmethod are: A consistently structured, detailed, and transparent methodology. Guidelines to maximize the effectiveness of the comparative valuation process, and to identify some common pitfalls.

iQdatabase® is our real-time global research database that is sourced directly from our equity analysts' earnings models and includes forecasted as well as historical data for income statements, balance sheets, and cash flow statements for companies covered by BofA Global Research.

Disclosures

Important Disclosures

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]
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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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