#### **OUTPERFORM**

Joseph P. Schwartz (617) 918-4575 Joseph.Schwartz@Leerink.com

**Paul Matteis** 

Reason for report:

**COMPANY UPDATE** 

(617) 918-4585 Paul.Matteis@Leerink.com



## ALDER BIOPHARMACEUTICALS, INC.

Regains Clazakizumab Rights; Two Late Stage Assets Now Fully Unencumbered

- Bottom Line: This morning ALDR announced it has regained the rights to Clazakizumab (Rheumatoid Arthritis [RA] and other autoimmune/ inflammatory conditions) from Bristol-Myers Squibb. BMY's (OP) decision to relinquish its rights to Claza was due to strategic reasons and was not a result of any new data. We continue to believe that ALDR deserves and can generate value from the Clazakizumab program over time; however, next steps, and whether or not ALDR will find a new partner to pursue RA are unclear. Accordingly, we are lowering our probability of success for Claza to 30% from 50%. Reiterate OP on ALDR, decreasing PT to \$24 from \$26 in 12 months.
- ALD403 (migraine prophylaxis) remains on track to generate phase **Ilb data in 2H15.** ALD403 is entering a Phase IIb for chronic migraine in 2H14 and a Phase IIb for frequent episodic migraine in 1H15. Based on extremely strong clinical data generated to date, ALD403 has the potential to transform the migraine prevention treatment paradigm, in our view. In any given month during the '403 Ph. Ila study, ~75-77%, 45-53% and 27-40% of ALD403-treated patients showed a 50%, 75% and 100% reduction in migraine days, respectively, vs. baseline. 6-month results presented at the American Headache Society on June 26 showed that the efficacy of a single '403 dose was remarkably maintained through 6 months of follow up.
- ALDR's financial guidance remains intact. Importantly, ALDR's previous view for cash on hand being sufficient to support operating requirements through at least 2015 was not contingent on the receipt of any milestones from BMY. While ALDR and BMY are still working out particulars and the transfer of technology and drug supply, management does not expect to have to pay BMY anything upfront or downstream in the form or milestones or royalties. Additionally, while over \$300MM in potential precommercial milestones could have clearly bolstered the balance sheet, we believe that ALDR could be a better acquisition target now that both of its clinical candidates are unpartnered.
- We are lowering our 2015 R&D projections slightly and have removed cash milestones from 2015, but still assume that ALDR finds a new partner for Clazakizumab in RA. We now only model a 30% probability of Claza approval, and assume that ALDR finds a new partner who pays a 20% royalty on sales, given that a new partner would be licensing the asset at a relatively late stage. However, it's possible that ALDR may move away from RA and decide to pursue smaller indications for Claza in the autoimmune or oncology space on its own.

**Key Stats:** (NASDAQ:ALDR) S&P 600 Health Care Index: 1,326.92

Price: \$17.04 Price Target: \$24.00 from \$26.00 Methodology: Sum-of-the-parts DCF analysis, 12%

discount rate, 2.5% terminal growth 52 Week High: \$22.95 52 Week Low: \$9.50 Shares Outstanding (mil): 34.3 Market Capitalization (mil): \$584.5 Cash Per Share: \$2.34 Dividend (ann): \$0.00 Dividend Yield: 0.0% Est LT EPS Growth: NA

General: Fully Diluted Shares Oustanding



Dec Yr	1Q	2Q	3Q	4Q	FY Rev	1Q	2Q	3Q	4Q	FY EPS	P/E
2013A					18.8					( 3.84)	NM
2014E - New	4.8A	4.7A	4.8	4.8	19.0	( 5.38)A	( 0.40)A	( 0.23)	( 0.25)	( 1.36)	NM
2014E - Old	4.8A	4.7A	4.8	4.8	19.0	( 5.38)A	( 0.40)A	(0.23)	(0.29)	( 1.41)	NM
2015E - New	3.0	3.0	0.0	0.0	6.0	( 0.32)	( 0.34)	( 0.45)	( 0.47)	( 1.58)	NM
2015E - Old	3.0	3.0	5.0	5.0	16.0	( 0.46)	( 0.54)	( 0.52)	( 0.57)	( 2.09)	NM

Source: Company Information and Leerink Partners LLC Research

Revenues in \$MM; GAAP EPS presented; EPS estimates reflect the ALDR 5.7.14 IPO.



### **INVESTMENT THESIS**

We Rate ALDR Share Outperform. Alder Biopharmaceuticals is developing two proprietary monoclonal antibodies ALD403 and Clazakizumab with affinity to validated targets for migraine prophylaxis (anti-Calcitonin Gene Related Peptide [CGRP]) and rheumatoid arthritis (anti-Interleukin-6 [IL-6]). ALDR's discovery platform is differentiated by its unique yeast-based manufacturing technology MabXpress, which we believe could enable a more efficient generation of monoclonal antibody therapeutics, potentially leading to higher yields, economies of scale and therefore pricing flexibility and/or a lower COGS margin. Lead product ALD403 recently produced "Breakthrough Therapy-like" Phase IIa data in high frequency migraine patients, where just a single dose of '403 precipitated a 75% reduction in migraine days in 32% of patients and an 100% reduction in migraine days in 16% of patients over the course of a 12-week study. ALD403 is now moving into a dose-ranging Phase IIb trial which we expect will support the advancement into two pivotal Phase IIIs. Clazakizumab data is anticipated at the American College of Rheumatology (11/14-19) and then in 1H15, while a first Phase IIb dose ranging study showed comparable efficacy to blockbuster anti-TNF Humira on the ACR20/50/70 and a numerical trend toward superiority on the das28 remission score, which MEDACorp KOLs, with whom we spoke, view as most clinically significant. We expect ALDR shares to appreciate as both clinical and regulatory catalysts are realized for Clazakizumab and '403, and expect ALDR to move at least 1 new monoclonal antibody into the clinic in 2015, which currently presents upside to our valuation.

### **VALUATION**

We derive a \$24 price target for ALDR shares in 12 months, which assigns ~\$17.50/share to ALD403, ~\$4/share to Clazakizumab, ~\$1/share to the pipeline and the rest to net cash. We model peak gross ALD403 US revenues of \$1.25bn (~\$750MM risk adjusted, using a 60% probability of approval) in 2025. We assume peak ex-US risk-adjusted sales of ~\$340MM (2025), on which ALDR gets ~\$50MM in royalties. We model peak gross WW Clazakizumab revenues of ~\$550MM (~\$265MM risk adjusted, using a 30% probability of approval) in 2023, translating into \$33MM in royalties to ALDR. Based on a 60% approval probability for ALD403 and 30% for Clazakizumab and using a discount rate of 12% and a terminal growth rate of 2.5%, both of which we believe our conservative relative to ALDR's biotechnology peers, we derive an ALDR NPV of ~\$824M for ALDR.

### RISKS TO VALUATION

Risks to our valuation include delays in the clinical trial and approval process for either ALD403 or Clazakizumab. Delays in the approval process could generate increased competition from agents which benefit from the first mover advantage. We also anticipate the need for outside financing in the future which could present a risk to our price target.

Alder P&L (\$MM except EPS)	2012	2013	1Q14	2Q14	3Q14E	4Q14E	2014E	1Q15E	2Q15E	3Q15E	4Q15E	2015E	2016E	2017E
AL D 400 LID O .														
ALD403 US Sales	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALD403 Ex-US Royalties/Miles	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Clazakizumab Royalties	20.1	- 18.8	-	-	-	-	19.0	3.0	-	-	-	0.0	45.0	45.0
Clazakizumab Milestones Other Collaborations	1		4.8	4.7	4.8	4.8	19.0	3.0	3.0	-	-	6.0	15.0	15.0
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pipeline	-	- 18.8	-	-	-	-	40.0	3.0	-	-	-	-	-	45.0
Revenues	20.1	18.8	4.8	4.7	4.8	4.8	19.0	3.0	3.0	-	-	6.0	15.0	15.0
Cost of Goods	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross Profit	20.1	18.8	4.8	4.7	4.8	4.8	19.0	3.0	3.0	-	-	6.0	15.0	15.0
R&D	30.7	31.9	7.0	9.4	9.5	10.0	35.9	10.5	11.0	11.5	12.0	45.0	49.5	56.9
SG&A	7.2	7.7	3.2	2.7	2.8	2.9	11.6	3.0	3.1	3.1	3.2	12.4	25.0	45.0
Operating Expenses	37.9	39.6	10.2	12.1	12.3	12.9	47.5	13.5	14.1	14.6	15.2	57.4	74.5	101.9
Operating Income	(17.8)	(20.8)	(5.5)	(7.4)	(7.6)	(8.2)	(28.6)	(10.5)	(11.1)	(14.6)	(15.2)	(51.4)	(59.5)	(86.9)
Interest income (expense)	0.0	0.1	0.0	_	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.4)	0.6
Other Income (expense)	-	0.1	-	0.0	-	-	0.0	-	-	-	-	-	- /	-
ЕВТ	(17.8)	(20.6)	(5.4)	(7.4)	(7.5)	(8.1)	(28.5)	(10.5)	(11.1)	(14.6)	(15.2)	(51.4)	(59.9)	(86.3)
Тах	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Income	(17.8)	(20.6)	(5.4)	(7.4)	(7.5)	(8.1)	(28.5)	(10.5)	(11.1)	(14.6)	(15.2)	(51.4)	(59.9)	(86.3)
Basic EPS	\$ (3.55)	\$ (3.84)	\$ (5.38) \$	(0.40) \$	(0.23) \$	(0.25) \$	(1.36)	\$ (0.32) \$	(0.34) \$	(0.45) \$	(0.47)	\$ (1.58)	\$ (1.60)	\$ (2.18)
Diluted EPS	\$ (3.55)			(0.40) \$	(0.23) \$	(0.25) \$			(0.34) \$	(0.45) \$	(0.47)			\$ (2.18)
Basic Shares Outstanding	5.0	5.4	1.0	18.6	32.2	32.3	21.0	32.4	32.5	32.6	32.7	32.5	37.5	39.5
Diluted Shares Outstanding	5.0	5.4	1.0	20.7	34.3	34.4	22.6	34.5	34.6	34.7	34.8	34.6	39.6	41.6
Alder BS and CES (\$MM)	2012	2013	1014	2014	301/E	4014E	2014E	1015E	2015E	3015E	4015E	2015E	2016E	2017E

Alder BS and CFS (\$MM)	2012	2013	1Q14	2Q14	3Q14E	4Q14E	2014E	1Q15E	2Q15E	3Q15E	4Q15E	2015E	2016E	2017E
Change in Cash	6.4	(30.5)	(10.3)	67.3	(12.1)	(12.6)	32.4	(12.4)	(12.9)	(13.4)	(13.9)	(52.5)	65.1	56.9
Net Cash	59.4	23.2	12.9	80.3	68.2	55.6	55.6	43.2	30.3	17.0	3.1	3.1	68.2	125.0
Cash & Cash Equivalents	59.4	23.2	12.9	80.3	68.2	55.6	55.6	43.2	30.3	17.0	3.1	3.1	68.2	125.0
Debt		-	-	-	-	-	-	-	-	-	-	-	-	-
Operating Cash Flow	(29.9)	(36.1)	(9.8)	(11.4)	(11.6)	(12.1)	(44.8)	(11.4)	(11.9)	(12.4)	(12.9)	(48.5)	(48.0)	(73.1)
Net Income	(17.8)	(20.6)	(5.4)	(7.4)	(7.5)	(8.1)	(28.5)	` '	(11.1)	(14.6)	(15.2)	(51.4)	(59.9)	(86.3)
SOE	0.5	0.6	0.6	0.7	0.7	0.8	2.9	1.4	1.4	1.5	1.5	5.7	7.5	10.2
Milestone Cash/Amort Adj	0.5	0.0	(4.8)	(4.7)	(4.8)	(4.8)	(19.0)		(3.0)	-	1.5	(6.0)	(4.5)	(15.0)
Other	(12.8)	(16.3)	(0.2)	` '	(4.0)	(4.0)	(0.2)	(3.0)	(3.0)			(0.0)	(4.5)	(13.0)
D&A	0.2	0.2	0.2)	0.4	0.4	0.4	1.6	0.8	0.8	0.8	0.8	3.2	9.0	18.0
D&A	0.2	0.2	0.4	0.4	0.4	0.4	1.0	0.8	0.8	0.8	0.8	3.2	9.0	18.0
Investing Cash Flow	(1.6)	5.5	(0.5)	(0.5)	(0.5)	(0.5)	(2.0)	(1.0)	(1.0)	(1.0)	(1.0)	(4.0)	(12.0)	(20.0)
CapEx	(1.2)	(1.2)	(0.5)	(0.5)	(0.5)	(0.5)	(2.0)	(1.0)	(1.0)	(1.0)	(1.0)	(4.0)	(12.0)	(20.0)
Other	(0.4)	6.7	`-	`- ´	-	`- '	`- ′	- '	`- '	- 1	`-	`-	-	` ′
Financing Cash Flow	37.9	0.0	_	79.2	_	_	79.2	_	_	_	_	_	125.0	150.0
Equity Raise (Buyback)	37.9	0.0	-	79.2	-	_	79.2	_	_	_	_	_	125.0	150.0
Debt Issue (Retirement)	-	-	-	-	-	_		_	_	_	_	_	-	-
Other	_	_	_	_	-	_	_	_	_	_	_	_	_	_

Source: SEC Filings and Leerink Partners Research

Discounted Cash Flow								
Diluted Shares Outstanding	34.3		ALDR Valuation	Per	/Share	Val	(\$MM)	%Total
Discount Rate	12%	ľ	Total	\$	24.02	\$	824	100%
Terminal Growth Rate	2.5%	Ī	ALD403	\$	17.50	\$	600	73%
		ľ	Clazakizumab	\$	3.51	\$	120	15%
ALD403 Approval Probability	60%	1	Pipeline	\$	0.67	\$	23	3%
Clazakizumab Approval Probability	30%	Į.	Net Cash 2Q14	\$	2.34	\$	80	10%
		·						

ALD403	2013	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	TV
US Sales (\$MM)	_	_	_	-		-	73.3	176.0	323.1	498.1	670.1	716.7	750.4	638.8	500.1	403.6	271.5	102.7	
Ex US Royalties/Milestones (\$MM)	-	-	-	-	-	-	-	2.6	12.1	26.1	45.2	48.4	50.7	43.1	33.8	27.2	18.3	6.9	
cogs			-	-	-		11.0	26.4	48.5	74.7	100.5	97.9	96.0	75.6	52.2	36.0	19.3	3.6	
R&D	27.1	30.5	36.0	39.6	45.5	43.8	34.4	30.3	25.0	18.3	20.2	22.2	18.3	20.1	22.1	24.4	26.8	29.5	ļ
SG&A	7.1	10.8	11.5	23.8	42.8	59.9	83.8	117.3	98.1	114.6	154.1	182.1	204.3	180.5	155.9	130.7	62.9	21.3	
Other Income (Expense)						-	0.7	0.8	1.5	2.6	4.0	5.2	6.6	7.5	7.6	7.3	6.4	3.4	
ЕВТ	(34.2)	(41.3)	(47.5)	(63.4)	(88.3)	(103.7)	(55.2)	5.5	165.1	319.2	444.5	468.1	489.0	413.0	311.2	247.2	187.3	58.7	
Tax	-	-				-	-	-	12.5	65.1	110.3	122.8	130.4	108.2	81.4	63.6	38.8	11.5	
Net Income	(34.2)	(41.3)	(47.5)	(63.4)	(88.3)	(103.7)	(55.2)	5.5	152.7	254.1	334.2	345.2	358.6	304.9	229.8	183.6	148.5	47.2	
SOE+CapEx+Non Cash Adj.	-	-	-				0.9	4.2	4.0	7.7	9.5	11.1	13.6	11.5	11.5	12.6	11.7	8.0	
Free Cash Flow	(34.2)	(41.3)	(47.5)	(63.4)	(88.3)	(103.7)	(54.3)	9.6	156.7	261.8	343.7	356.4	372.1	316.3	241.4	196.2	160.2	55.2	
Discount Periods	-	-	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5	11.5	12.5	13.5	14.5	15.5	
NPV FCF	-	(20.7)	(44.9)	(53.4)	(66.5)	(69.7)	(32.6)	5.2	75.0	111.9	131.2	121.4	113.2	85.9	58.5	42.5	31.0	9.5	102.8
ALD403 Valuation	\$ 600																		

Clazakizumab	2013	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	TV
Milestones from BMS (\$MM)				10.5		21.0	15.0	3.0	7.5	3.0	7.5	_							
Royalties from BMS (\$MM)	-		-	-		8.4	18.6	29.2	30.4	31.6	32.8	32.1	31.3	28.4	25.4	22.5	17.8	6.7	
cogs	-	-	-	-	-		-	-		-	-	-	-	-	-	-	-		
R&D		-	-	-			-	-	-					-		-		-	
SG&A	0.5	8.0	0.9	1.3	2.3	3.2	4.4	6.2	5.3	6.2	8.4	9.9	11.1	10.3	9.2	8.7	7.4	5.7	
Other Income (Expense)	-	0.0	0.0	(0.4)	0.6	0.2	0.3	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.2	
EBT	(0.5)	(0.0)	(0.8)	8.9	(4.0)	26.5	29.5	26.1	32.7	28.5	32.2	22.5	20.5	18.4	16.6	14.1	10.8	1.2	
EBI	(0.5)	(8.0)	(0.8)	8.9	(1.6)	20.5	29.5	20.1	32.7	28.5	32.2	22.5	20.5	18.4	10.0	14.1	10.8	1.2	
Tax									1.4	4.3	6.2	5.2	5.1	4.5	3.9	3.3	2.4	0.7	
Net Income	(0.5)	(0.8)	(0.8)	8.9	(1.6)	26.5	29.5	26.1	31.3	24.2	25.9	17.3	15.4	13.9	12.7	10.8	8.4	0.5	
SOE+CapEx+Non Cash Adj.	-	(0.4)	2.5	1.2	1.2	1.3	0.4	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.7	0.7	0.5	
Free Cash Flow	(0.5)	(1.2)	1.6	10.0	(0.4)	27.7	29.9	26.9	31.8	24.7	26.5	17.8	15.9	14.4	13.3	11.5	9.1	1.0	
Discount Periods			0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5	11.5	12.5	13.5	14.5	15.5	
DISCOURT PERIOUS		•	0.5	1.5	2.5	3.5	4.5	5.5	0.5	7.5	6.5	9.5	10.5	11.5	12.5	13.5	14.5	10.0	
NPV FCF		(0.6)	1.5	8.4	(0.3)	18.6	18.0	14.4	15.2	10.6	10.1	6.1	4.8	3.9	3.2	2.5	1.8	0.2	1.9
		(3.0)		3.4	(3.0)		10.0		. 3.2	. 3.0		3		0.0	0.2	2.0		0.2	

Clazakizumab Valuation	\$ 120																		
Pipeline/Platform	2013	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	TV
Sales	-		-			-		-	-	-	-	75.1	137.8	181.8	233.4	293.4	322.7	355.0	
R&D Multiple	-	-	-	-	-	-	-	-	-	-	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
cogs		-	-	-	-	-						9.6	16.5	20.2	22.8	24.5	21.5	11.8	
R&D	4.8	5.4	9.0	9.9	11.4	18.8	34.4	45.5	58.3	73.3	80.7	88.7	103.7	114.1	125.5	138.1	151.9	167.0	
SG&A		-	-	-	-	-		-	3.2	3.7	5.0	5.9	6.7	14.4	18.3	34.9	78.3	87.4	
Other Income (Expense)				-	-						-	0.5	1.1	2.0	3.3	5.0	7.1	11.0	
EBT	(4.8)	(5.4)	(9.0)	(9.9)	(11.4)	(18.8)	(34.4)	(45.5)	(61.5)	(77.1)	(85.7)	(28.6)	12.0	35.2	70.0	100.9	78.2	99.7	
Tax				-									22.4	28.8	35.6	43.3	43.2	37.2	
Net Income	(4.8)	(5.4)	(9.0)	(9.9)	(11.4)	(18.8)	(34.4)	(45.5)	(61.5)	(77.1)	(85.7)	(28.6)	(10.4)	6.4	34.5	57.7	35.0	62.5	
SOE+CapEx+Non Cash Adj.				-								1.1	2.3	3.1	5.0	8.6	13.0	25.9	
Free Cash Flow	(4.8)	(5.4)	(9.0)	(9.9)	(11.4)	(18.8)	(34.4)	(45.5)	(61.5)	(77.1)	(85.7)	(27.5)	(8.1)	9.4	39.5	66.2	48.0	88.4	
Discount Periods			0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5	11.5	12.5	13.5	14.5	15.5	
NPV FCF	-	(2.7)	(8.5)	(8.4)	(8.6)	(12.6)	(20.7)	(24.4)	(29.5)	(32.9)	(32.7)	(9.4)	(2.5)	2.6	9.6	14.3	9.3	15.3	164.7

Pipeline/Platform Valuation \$ 23

Source: Leerink Partners Research; values in (\$MM) except per/share numbers

ALD403 US Revenue Model (\$MM)	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
ALD403 OS Revenue Model (\$MM)	2014E	2013E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Patients Suffering from Migraine (MM)	36.0	36.3	36.7	37.0	37.3	37.6	38.0	38.3	38.7	39.0	39.4	39.7	40.1	40.4	40.8	41.2	41.5
% diagnosed	62%	62%	62%	62%	62%	62%	62%	62%	62%	62%	62%	62%	62%	62%	62%	62%	62%
Diagnosed Migraine Patients (MM)	22.3	22.5	22.7	22.9	23.1	23.3	23.5	23.7	24.0	24.2	24.4	24.6	24.8	25.1	25.3	25.5	25.7
% candidates for prophylaxis	56%	56%	56%	56%	56%	56%	56%	56%	56%	56%	56%	56%	56%	56%	56%	56%	56%
Diagnosed Migraine Patients - Prophy Candidates	12.5	12.6	12.7	12.8	12.9	13.1	13.2	13.3	13.4	13.5	13.7	13.8	13.9	14.0	14.2	14.3	14.4
% receiving prophylaxis	50%	50%	50%	50%	50%	52%	53%	54%	55%	55%	55%	55%	55%	55%	55%	55%	55%
Diagnosed Migraine Patients Receiving Prophylaxis	6.2	6.3	6.4	6.4	6.5	6.8	7.0	7.2	7.4	7.4	7.5	7.6	7.6	7.7	7.8	7.9	7.9
% treated with anti-CGRP therapy	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	1.0%	2.5%	3.8%	5.0%	5.3%	5.5%	5.8%	6.0%	6.0%	6.0%	6.0%
Migraine Patients Receiving anti-CGRP	-	-	-	-	-	20,374	69,842	179,500	276,704	372,260	398,147	416,890	443,586	463,012	467,179	471,383	475,626
ALD403 Market Share	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	35.0%	25.0%	25.0%	25.0%	25.0%	25.0%	20.0%	15.0%	12.0%	8.0%	3.0%
Patients Receiving ALD403	-	-	-	-	-	10,187	24,445	44,875	69,176	93,065	99,537	104,222	88,717	69,452	56,061	37,711	14,269
Annual Cost	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000
Gross Revenue (\$MM)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 122	\$ 293	\$ 539	\$ 830	\$ 1,117	\$ 1,194 \$	1,251	\$ 1,065	\$ 833	\$ 673	\$ 453	\$ 171
Approval Probability	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	609
Risk-Adjusted Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 73	\$ 176	\$ 323	\$ 498	\$ 670	\$ 717 \$	750	\$ 639	\$ 500	\$ 404	\$ 272	\$ 103
Approval Probability	60%	1															
Cost of Therapy	\$12,000																
ROW Sales (probability-weighted)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 18	\$ 81	\$ 174	\$ 302	\$ 322 \$	338	\$ 287	\$ 225	\$ 182	\$ 122	\$ 46
% of US	0%	0%	0%	0%	0%	0%	10%	25%	35%	45%	45%	45%	45%	45%	45%	45%	6 459
ALDR Royalty Rate	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	6 159
Royalties to ALDR (probability-weighted)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3	\$ 12	\$ 26	\$ 45	\$ 48 5	51	\$ 43	\$ 34	\$ 27	\$ 18	\$ 7

Source: SEC Filings and Leerink Partners Research

WW Rheumatoid Arthritis Market Model (\$MM)	2013A	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
WW RA Therapy Revenues (MM)	\$12,300	\$13,200	\$14,100	\$15,000	\$15,750	\$16,500	\$17,250	\$18,000	\$18,750	\$19,500	\$20,250	\$21,000	\$21,750	\$22,500	\$23,250	\$24,000	\$24,750	\$25,500
yoy growth	<b>Ç12,300</b>	7%	7%	6%	5%	5%	5%	4%	4%	4%	4%	4%	4%	3%	3%	3%	3%	3%
Branded TNF Inhibitors																		
Sales (MM)	\$9,000	\$9,372	\$9,870	\$10,200	\$10,395	\$9,900	\$10,005	\$10,080	\$10,125	\$10,335	\$10,530	\$10,710	\$10,875	\$11,250	\$11,625	\$12,000	\$12,375	\$12,750
Market Share	73%	71%	70%	68%	66%	60%	58%	56%	54%	53%	52%	51%	50%	50%	50%	50%	50%	50%
anti-IL6/IL6-R																		
Sales (MM)	\$1,115	\$1,452	\$1,692	\$1,950	\$2,205	\$2,805	\$3,105	\$3,240	\$3,375	\$3,510	\$3,645	\$3,570	\$3,480	\$3,375	\$3,255	\$3,120	\$2,970	\$2,805
Market Share	9%	11%	12%	13%	14%	17%	18%	18%	18%	18%	18%	17%	16%	15%	14%	13%	12%	11%
Clazakizumab Share of IL-6						5%	10%	15%	15%	15%	15%	15%	15%	14%	13%	12%	10%	4%
Clazakizumab Gross Revenues						\$140	\$311	\$486	\$506	\$527	\$547	\$536	\$522	\$473	\$423	\$374	\$297	\$112
Approval Probability		30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
P(w) Revenues						\$42	\$93	\$146	\$152	\$158	\$164	\$161	\$157	\$142	\$127	\$112	\$89	\$34
Royalty Rate						20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
P(w) Royalties to ALDR						\$8	\$19	\$29	\$30	\$32	\$33	\$32	\$31	\$28	\$25	\$22	\$18	\$7
Gross Milestones		\$0	\$0	\$35	\$0	\$70	\$50	\$10	\$25	\$10	\$25	\$0	\$0	\$0	\$0	\$0	\$0	\$0
P(w) Milestones to ALDR		\$0	\$0	\$11	\$0	\$21	\$15	\$3	\$8	\$3	\$8	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Biologics/Biosimilars																		
Sales (MM)	\$2,185	\$2,376	\$2,538	\$2,850	\$3,150	\$3,795	\$4,140	\$4,680	\$5,250	\$5,655	\$6,075	\$6,720	\$7,395	\$7,875	\$8,370	\$8,880	\$9,405	\$9,945
Market Share	18%	18%	18%	19%	20%	23%	24%	26%	28%	29%	30%	32%	34%	35%	36%	37%	38%	39%

Clazikizumab Approval Probability 30%

Source: Company Filings and Leerink Partners Research

# Alder Biopharma Milestones

Product	Catalyst	Timing
Clazakizumab	Phase II Psoriatic Arthritis Data	2H14 - ACR
ALD403	Phase IIb Initiation	2H14
Clazakizumab	Phase IIb Rheumatoid Arthritis Data	1H15
New Product	First in Man Study Initiation	1H15
ALD403	Phase IIb Data	2H15
ALD403	Phase III Initiation	1H16
ALD403	FDA/EMA Approval	2019

Source: SEC Filings and Leerink Partners Research



# Disclosures Appendix Analyst Certification

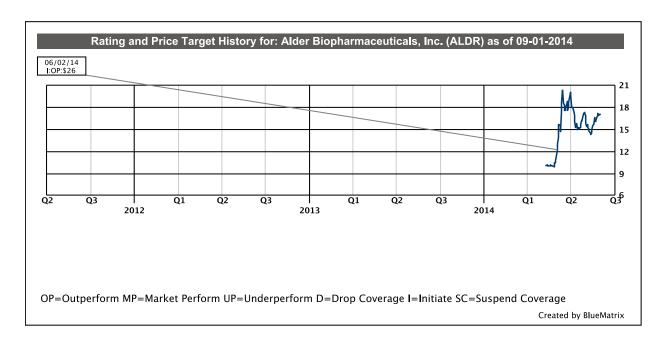
I, Joseph P. Schwartz, certify that the views expressed in this report accurately reflect my views and that no part of my compensation was, is, or will be directly related to the specific recommendation or views contained in this report.

### **Valuation**

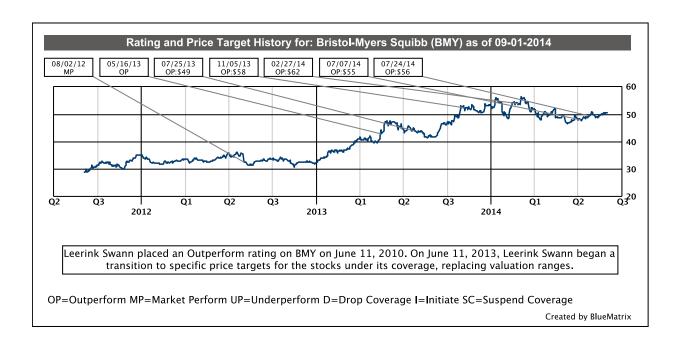
We derive a \$24 price target for ALDR shares in 12 months, which assigns ~\$17.50/share to ALD403, ~\$4/share to Clazakizumab, ~\$1/share to the pipeline and the rest to net cash. We model peak gross ALD403 US revenues of \$1.25bn (~\$750MM risk adjusted, using a 60% probability of approval) in 2025. We assume peak ex-US risk-adjusted sales of ~\$340MM (2025), on which ALDR gets ~\$50MM in royalties. We model peak gross WW Clazakizumab revenues of ~\$550MM (~\$265MM risk adjusted, using a 30% probability of approval) in 2023, translating into \$33MM in royalties to ALDR. Based on a 60% approval probability for ALD403 and 30% for Clazakizumab and using a discount rate of 12% and a terminal growth rate of 2.5%, both of which we believe our conservative relative to ALDR's biotechnology peers, we derive an ALDR NPV of ~\$824M for ALDR.

### **Risks to Valuation**

Risks to our valuation include delays in the clinical trial and approval process for either ALD403 or Clazakizumab. Delays in the approval process could generate increased competition from agents which benefit from the first mover advantage. We also anticipate the need for outside financing in the future which could present a risk to our price target.









	Distribution of Ratings/Investment Bank	ring Services (IE		rv./Past 12 Mos.
Rating	Count	Percent	Count	Percent
BUY [OP]	138	69.00	50	36.20
HOLD [MP]	62	31.00	2	3.20
SELL [UP]	0	0.00	0	0.00

## **Explanation of Ratings**

Outperform (Buy): We expect this stock to outperform its benchmark over the next 12 months.

<u>Market Perform (Hold/Neutral)</u>: We expect this stock to perform in line with its benchmark over the next 12 months.

<u>Underperform (Sell):</u> We expect this stock to underperform its benchmark over the next 12 months. The degree of outperformance or underperformance required to warrant an Outperform or an Underperform rating should be commensurate with the risk profile of the company.

For the purposes of these definitions the relevant benchmark will be the S&P 600® Health Care Index for issuers with a market capitalization of less than \$2 billion and the S&P 500® Health Care Index for issuers with a market capitalization over \$2 billion.

## **Important Disclosures**

This information (including, but not limited to, prices, quotes and statistics) has been obtained from sources that we believe reliable, but we do not represent that it is accurate or complete and it should not be relied upon as such. All information is subject to change without notice. This is provided for information purposes only and should not be regarded as an offer to sell or as a solicitation of an offer to buy any product to which this information relates. The Firm, its officers, directors, employees, proprietary accounts and affiliates may have a position, long or short, in the securities referred to in this report, and/or other related securities, and from time to time may increase or decrease the position or express a view that is contrary to that contained in this report. The Firm's salespeople, traders and other professionals may provide oral or written market commentary or trading strategies that are contrary to opinions expressed in this report. The Firm's proprietary accounts may make investment decisions that are inconsistent with the opinions expressed in this report. The past performance of securities does not guarantee or predict future performance. Transaction strategies described herein may not be suitable for all investors. Additional information is available upon request by contacting the Editorial Department at One Federal Street, 37th Floor, Boston, MA 02110.

Like all Firm employees, analysts receive compensation that is impacted by, among other factors, overall firm profitability, which includes revenues from, among other business units, Institutional Equities, and Investment Banking. Analysts, however, are not compensated for a specific investment banking services transaction.

MEDACorp is a network of healthcare professionals, attorneys, physicians, key opinion leaders and other specialists accessed by Leerink and it provides information used by its analysts in preparing research.



In the past 12 months, the Firm has received compensation for providing investment banking services to Alder Biopharmaceuticals, Inc. .

Leerink Partners LLC makes a market in Alder Biopharmaceuticals, Inc.

Leerink Partners LLC is willing to sell to, or buy from, clients the common stock of Bristol-Myers Squibb on a principal basis.

Leerink Partners LLC has acted as the manager for a public offering of Alder Biopharmaceuticals, Inc. in the past 12 months.

©2014 Leerink Partners LLC. All rights reserved. This document may not be reproduced or circulated without our written authority.

		105 45	
	Leerink Partners L	LC Equity Researc	ch
Director of English Decree 1	Jahra J. Ossillisson OFA	(047) 040 4077	
Director of Equity Research	John L. Sullivan, CFA	(617) 918-4875	john.sullivan@leerink.com
Associate Director of Research	Alice C. Avanian, CFA	(617) 918-4544	alice.avanian@leerink.com
Healthcare Strategy	John L. Sullivan, CFA	(617) 918-4875	john.sullivan@leerink.com
	Alice C. Avanian, CFA	(617) 918-4544	alice.avanian@leerink.com
Biotechnology	Howard Liang, Ph.D.	(617) 918-4857	howard.liang@leerink.com
	Joseph P. Schwartz	(617) 918-4575	joseph.schwartz@leerink.com
	Michael Schmidt, Ph.D.	(617) 918-4588	michael.schmidt@leerink.com
	Gena Wang, Ph.D., CFA	(212) 277-6073	gena.wang@leerink.com
	Jonathan Chang, Ph.D.	(617) 918-4015	jonathan.chang@leerink.com
	Paul Matteis	(617) 918-4585	paul.matteis@leerink.com
	Richard Goss	(617) 918-4059	richard.goss@leerink.com
Life Science Tools	Day Laaward	(242) 277 6446	dan.leonard@leerink.com
	Dan Leonard	(212) 277-6116	· · · · · · · · · · · · · · · · · · ·
and Diagnostics	Justin Bowers, CFA	(212) 277-6066	justin.bowers@leerink.com
Pharmaceuticals/Major	Seamus Fernandez	(617) 918-4011	seamus.fernandez@leerink.com
	Ario Arabi	(617) 918-4568	ario.arabi@leerink.com
	Aneesh Kapur	(617) 918-4576	aneesh.kapur@leerink.com
Specialty Pharmaceuticals	Jason M. Gerberry, JD	(617) 918-4549	jason.gerberry@leerink.com
Medical Devices, Cardiology	Danielle Antalffy	(212) 277-6044	danielle.antalffy@leerink.com
	Puneet Souda	(212) 277-6091	puneet.souda@leerink.com
& Orthopedics	Richard Newitter	(212) 277-6088	richard.newitter@leerink.com
	Ravi Misra	(212) 277-6049	ravi.misra@leerink.com
		(= .= ) =	
Healthcare Services	Ana Gupte, Ph.D.	(212) 277-6040	ana.gupte@leerink.com
	D 054	(0.17) 0.10 1500	
Healthcare Technology & Distribution	David Larsen, CFA	(617) 918-4502	david.larsen@leerink.com
& Distribution	Christopher Abbott	(617) 918-4010	chris.abbott@leerink.com
Sr. Editor/Supervisory Analyst	Mary Ellen Eagan, CFA	(617) 918-4837	maryellen.eagan@leerink.com
Supervisory Analysts	Robert Egan		bob.egan@leerink.com
	Amy N. Sonne		amy.sonne@leerink.com
Editorial	Cristina Diaz-Dickson	(617) 918-4548	cristina.diaz-dickson@leerink.com
	23	(5) 5.15 15.16	
Research Assistant	Carmen Augustine	(212) 277-6012	carmen.augustine@leerink.com
	-	, ,	<u>-</u>

**New York** 299 Park Avenue, 21<sup>st</sup> floor New York, NY 10171 (888) 778-1653 Boston One Federal Street, 37<sup>th</sup> Floor Boston, MA 02110 (800) 808-7525

San Francisco 201 Spear Street, 16<sup>th</sup> Floor San Francisco, CA 94105 (800) 778-1164