

# Alder Biopharmaceuticals (ALDR)

## SMALL & MID CAP RESEARCH



Rating	<b>OUTPERFORM*</b> [V]
Price (18 May 15, US\$)	40.02
Target price (US\$)	(from 34.00) 50.00 <sup>1</sup>
52-week price range	40.02 - 9.91
Market cap. (US\$ m)	1,519.01
Enterprise value (US\$ m)	1,330.92

<sup>\*</sup>Stock ratings are relative to the coverage universe in each analyst's or each team's respective sector.

<sup>1</sup>Target price is for 12 months.

[V] = Stock considered volatile (see Disclosure Appendix).

### Research Analysts

**Jeremiah Shepard, PhD**

415 249 7933

jeremiah.shepard@credit-suisse.com

**Anuj Shah**

212 325 6931

anuj.shah@credit-suisse.com

## Tight Race in CGRP Therapy Development Makes Product Profiles More Important

We think the product profiles will be the most distinguishing factor for CGRP directed therapies, and we believe ALDR has the best profile reported to date. ALDR's therapy is differentiated with: (1) fastest onset of therapeutic benefit, (2) potential quarterly dosing, (3) potential for IV or subcutaneous administration, and (4) durable responses over 6 months. We are increasing our TP to \$50 from \$34 based on the promising profile for ALD403 and the further de-risking of the drug class following positive data from two competitors. Our 2016 EPS estimate increases to (\$1.91) from (\$2.10) following model adjustments.

- **ALD403 profile due to antibody modifications:** The emerging product profile is largely attributable to the modifications that ALDR employs to generate ALD403, and we think the competitors will not be able to generate an antibody with similar characteristics using conventional methods.
- **ALDR catches up with the pack with new pivotal study:** ALDR recently announced plans for a pivotal Phase II study that can reduce the development time for the program and bring ALDR in-line with the competition. Data from this study is anticipated in H1:17. We note that the initial approval ALD403 will be for the IV formulation but we expect approval of the subcutaneous formulation shortly thereafter. Pivotal data from the competitive programs are expected to be on a similar timeline and we think BLAs for the four programs could be filed in 2017.
- **Increasing TP to \$50 from \$34:** We increased the probability of success for the ALD403 program to 65% from 60%, increased the market penetration in the migraine space for all CGRP therapies to 30% from 20%, and increased the market share for ALD403 in episodic migraine setting to 20% from 15%.

### Financial and valuation metrics

Year	12/14A	12/15E	12/16E	12/17E
EPS (CS adj.) (US\$)	0.30	-1.72	-1.91	-2.18
Prev. EPS (US\$)	—	—	-2.10	—
P/E (x)	132.2	-23.3	-20.9	-18.4
P/E rel. (%)	728.9	-130.2	-131.7	-129.7
Revenue (US\$ m)	54.7	2.1	15.5	15.5
EBITDA (US\$ m)	9.5	-64.9	-81.8	-97.8
OCFPS (US\$)	-1.62	-1.33	-0.46	-2.39
P/OCF (x)	-18.0	-30.2	-86.9	-16.8
EV/EBITDA (current)	136.1	-19.9	-15.8	-13.2
Net debt (US\$ m)	-47	-188	-405	-296
ROIC (%)	71.22	3,978.64	137.98	223.03
Number of shares (m)	37.96	IC (current, US\$ m)		12.36
BV/share (Next Qtr., US\$)	5.8	EV/IC (x)		-419.6
Net debt (Next Qtr., US\$ m)	-224.2	Dividend (current, US\$)		—
Net debt/tot eq (Next Qtr., %)	-101.4	Dividend yield (%)		—

Source: Company data, Credit Suisse estimates

**DISCLOSURE APPENDIX AT THE BACK OF THIS REPORT CONTAINS IMPORTANT DISCLOSURES, ANALYST CERTIFICATIONS, AND THE STATUS OF NON-US ANALYSTS.** US Disclosure: Credit Suisse does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

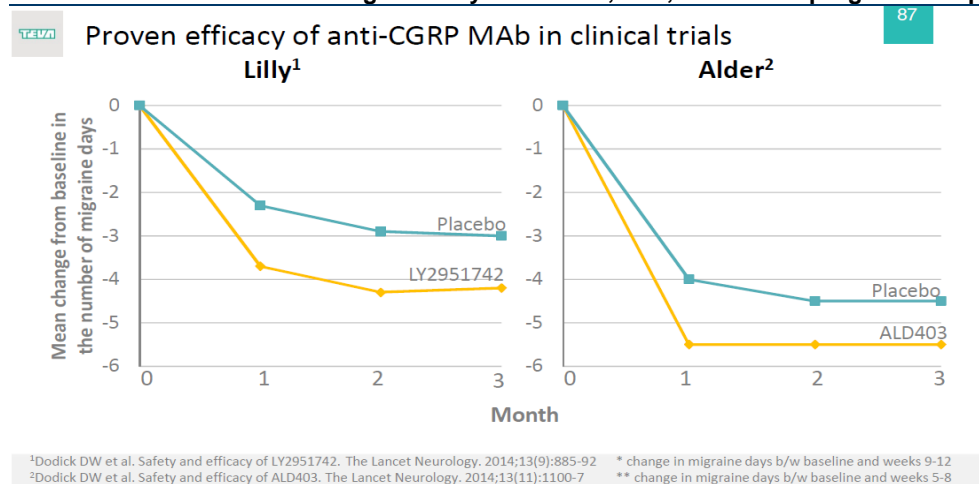
# ALD403 Emerging Profile Appears Differentiated

We believe that ALD403 is starting to develop the best-in-class product profile relative to the other agents in development. We believe the product profiles will become increasingly important since the four different programs have demonstrated statistically significant efficacy in past studies and are likely to repeat this success in future studies. We outline the profile for ALD403 below.

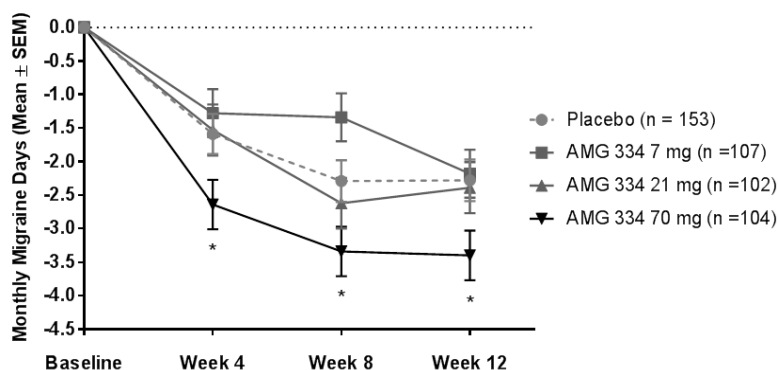
- (1) **Rapid onset of action:** It appears that ALD403 drives the maximum benefit within the first month of therapy and is able to maintain that benefit thereafter. ALD403's rapid activity within one month may prove to be even more of a competitive advantage if earlier time points are measured (less than 30 days).

In a side-by-side comparison of ALDR and LLY Phase II data previously presented by competitor TEVA (Exhibit 1 top graphs), the ALDR data shows more rapid and complete activity in the first month (Exhibit 1 top right graph). The profiles reported for LLY's (Exhibit 1 top left graph) and AMGN's (Exhibit 1 bottom graph) therapies in episodic migraines suggest that the peak efficacy is not reached until the second month for the therapies.

**Exhibit 1: Mean reduction is migraine days for ALDR, LLY, and AMGN programs in episodic migraines**



**Figure. Change From Baseline in Mean Monthly Migraine Days**

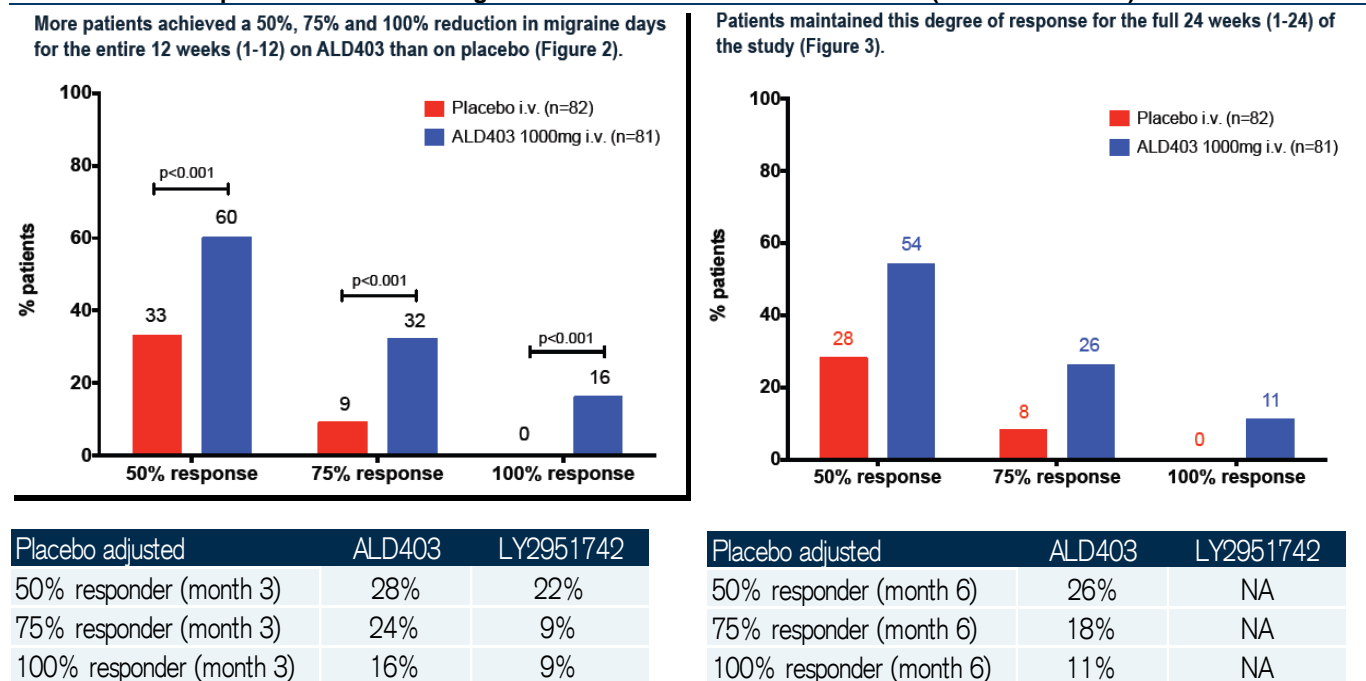


\*  $P < 0.05$ , n=number of subjects in analysis set

Source: Company data

- (2) **IV or subcutaneous administration:** ALDR believes there is a need for both IV and subcutaneous formulations, separately or by combining the two. It may be possible to use the IV formulation for induction for rapid onset of action followed by long-term chronic subcutaneous therapy. ALDR estimates that the subcutaneous formulation has approximately 72% absolute bioavailability (promising bioavailability for an antibody), suggesting that it will be an effective route of delivery. All three competitors are looking at the subcutaneous routes of administration in late stage studies.
- (3) **Quarterly dosing:** Ideally, ALDR would like to be able to achieve a quarterly infusion regimen using the IV and subcutaneous formulations. The durable responses reported for three months suggests that once quarterly dosing is possible (Exhibit 2 left figure). In contrast, the three competitive companies are examining once monthly dosing in its ongoing studies. Even if ALDR cannot achieve quarterly dosing, we believe it will be able to easily extend its dosing beyond once monthly dosing.
- (4) **Durability is promising:** The 12-week and 24-week data for ALD403 sets a high bar for the other programs, with fairly consistent responses at three months and six months. LLY reported its durability data for the first time at IHS. LLY's therapy provided a sustained  $\geq 50\%$ ,  $\geq 75\%$ , and 100% response of 47% vs. 25%, 22% vs. 13%, and 11% vs. 2%, respectively at three months. This is lower than what ALDR reported for both the 12-week and 24-week time points (Exhibit 2 both left and right figure; placebo correct scores in tables below). It is too early to determine how durable the AMGN and TEVA therapies are, but if this durability holds up for ALD403 relative to the other two therapies, this could be a key point for its marketing effort.

**Exhibit 2: ALD403 provides sustained migraine relief for 3 months and 6 months (Phase IIa results)**



Source: Company data, Credit Suisse estimates

# Snapshot of the competitive landscape

- **Target:** The drugs from ALDR, LLY, and TEVA are most similar, all targeting soluble CGRP. AMGN's program is different and targets the CGRP receptor. This could provide unexpected benefits relative to the therapies targeting the ligand, but it could also cause unexpected side effects by affecting the biology of the receptor.
- **Episodic vs Chronic migraines:** We have seen clinical efficacy results from all four programs, and all four drugs showed substantial reductions in key primary and secondary endpoints. Three programs have demonstrated significant results in the episodic migraine space (ALDR, AMGN, and LLY) and only TEVA has reported significant results for the chronic migraine space. We are encouraged that the TEVA program reported reversion of nearly 60% of the patients in the study to episodic phase from the chronic phase, and this suggests that ALDR may observe the same trend in its chronic migraine study.
- **Stage:** Both AMGN and TEVA moved aggressively ahead of the pack with large Phase II trials in high-frequency episodic and chronic migraine. However, the race has tightened, and ALDR has plans to start a pivotal study in H2:15 that includes both episodic and chronic migraine patients and LLY recently started Phase III studies in cluster headache patients. AMGN and TEVA have yet to announce detailed plans for pivotal studies but we expect the companies will start pivotal studies by YE:15.

**Exhibit 3: Competition in the CGRP inhibitor space**

Company	Drug	MOA	Stage
Amgen	AMG 334	Anti-CGRP receptor	Phase 2b
Alder	ALD403	Anti-CGRP	Pivotal Phase 2b to start H2:15
Eli Lilly	LY2951742	Anti-CGRP	Phase 3
Teva (Labrys)	TEV-48125 (LBR-101, RN-307)	Anti-CGRP	Phase 2b

Source: Company data, Credit Suisse estimates

## Available data from all the programs

Data released from AMGN and TEVA at the International Headache Society meeting late last week help de-risk the entire drug class and suggest that these agents will likely be used broadly in the treatment of episodic and chronic migraines. A thorough look at all the available data is below in Exhibit 4.

**Exhibit 4: Data available for the four different programs**

	ALD403	LY2951742	AMG 334	TEV-48125	TEV-48125
# of pts in study	163	208	483	261	
Dose and schedule	1,000 mg intravenous once	150mg subcutaneous every 2 weeks†	70 mg subcutaneous monthly	675mg loading dose then 225mg subcutaneous monthly	900 mg subcutaneous monthly
Setting	Episodic (5-14 days/month)	Episodic (4-14 days/month)	Episodic (4-14 days/month)	Chronic migraine	Chronic migraine
Baseline migraine days	8.5 days/month (ALD403) & 8.8 days/month for placebo	6.7 days/month (LY2951742) & 7.0 days/month for placebo	8.7 days/month (all patients)	17 days/month (all patients)	17 days/month (all patients)
Baseline headache days	9.2 days/month (ALD403) & 9.6 days/month for placebo	8.6 days/month (LY2951742) & 9.1 days/month for placebo	NA	21 days/month (all patients)	21 days/month (all patients)
Decrease in MMD	-5.6 (66%) vs. -4.6 (52%)	-4.2 (62.5%) vs. -3.0 (42%)	-3.4 (39%) vs -2.3 (26%)	NA	NA
50% responder (month 1)	75% vs. 50%	58% vs. 37%	NA	NA	NA
50% responder (month 2)	76% vs. 54%	66% vs. 44%	NA	NA	NA
50% responder (month 3)	75% vs. 67%	70% vs. 45%	47% vs 30%	53% vs 31%*	54% vs 31%*
75% responder (month 3)	53% vs 31%	NA	NA	28% vs 16%*	32% vs 16%*
100% responder (month 3)	41% vs. 16%	33% vs. 17%	NA	~15% for TEV-48125 (placebo no reported)	

Source: Company data; † LLY is now examining once monthly dosing in its Phase III studies; \*taken from graph presented at IHS

## Overview of the development outline for each program

- **ALDR's ALD403:** ALDR recently announced plans to start a pivotal study in the second half of this year. This moves the ALD403 program in line with the three other agents. Additionally, this study will include both chronic and episodic migraine patients, thereby reducing the capital required to conduct the pivotal program. While this is an aggressive strategy, we believe it is a reasonable approach given that the study will enroll between 800-1000 patients and likely to include at least 200 patients at the optimal dose.
- **LLY's LY2951742:** LLY is taking a different tack with its Phase III program than the other three companies. It is looking at patients with cluster headaches, which is a distinct subset of the overall migraine population. This may allow LLY to reach the market with smaller studies but this also could limit the scope of the label. LLY can also start pivotal studies soon in the general chronic and episodic migraine settings to supplement its pivotal program.
- **AMGN's AMG 334:** AMGN announced last December that it plans to start Phase III studies soon and the company may decide to run two separate Phase III studies (one in chronic migraines and another in episodic migraines) or combine the two groups into one pivotal study like ALDR.
- **TEVA's TEV-48125:** We expect TEVA will start pivotal clinical work shortly after reporting the data from its episodic migraine study due H2:15. It may run two studies or combine the two groups into a single study as well.

**Exhibit 5: Clinical Development Program for All Four Programs**

<b>ALDR - ALD403</b>				
	<b>ALD403-CLIN-002</b>	<b>ALD403-Clin-005</b>	<b>ALD403-Planned Pivotal Study</b>	<b>ALD403-Planned</b>
Stage	Phase Ib	Phase II	Phase II	Phase II
# of patients	163	600	800-1000	240
Indication	High frequency episodic migraine	Chronic migraine	Episodic & Chronic migraine	High frequency episodic migraine
Migraine days per month	5-14 migraine days / month	15-25 migraine days / month	≥5 migraine days / month	5-14 migraine days / month
Treatment arms	ALD403 (1g) vs. placebo	ALD403 (4 doses) vs. placebo	ALD403 (multiple doses) vs. placebo	ALD403 (multiple doses) vs. placebo
Dosing	IV infusion (1x)	IV infusion	IV infusion (quarterly)	SubQ (quarterly)
Duration	12 weeks	12 weeks	12 weeks	12 weeks
Primary endpoint	Safety	Change in migraine days from baseline	Change in migraine days from baseline	Change in migraine days from baseline
Secondary endpoints	PK, efficacy	Safety, PK	NA	NA
Start	Jan-13	Oct-14	H2:15	H2:15
Primary completion	Dec-13	Dec-15	NA	NA
Status	Data presented	Enrolling	Not yet on ClinicalTrials.gov	Not yet on ClinicalTrials.gov
Identifier	<a href="#">NCT01772524</a>	<a href="#">NCT02275117</a>	NA	NA
<b>Timing of data</b>	<b>Data presented at AAN 2014</b>	<b>Data H2:15</b>	<b>Data H1:17</b>	<b>Data H2:16</b>

<b>LLY - LY2951742</b>				
	<b>ART-01</b>	<b>15414</b>	<b>15781</b>	<b>15780</b>
Stage	Phase II	Phase IIb	Phase III	Phase III
# of patients	190	402	162	162
Indication	High frequency episodic migraine	Episodic migraine	Chronic cluster headache	Episodic cluster headache
Migraine days per month	4-14 migraine days / month	(# not defined)	---	---
Treatment arms	LY2951742 (150mg) vs. placebo	LY2951742 (4 doses) vs placebo	LY2951742 (12 doses) vs placebo	LY2951742 (12 doses) vs placebo
Dosing	subcutaneous every 2 weeks	subcutaneous every 4 weeks	subcutaneous every 4 weeks	subcutaneous every 4 wks for 8 wks total
Duration	12 weeks	12 weeks	12 months	8 weeks
Primary endpoint	Change from baseline in number of migraines in a 28d period	Change from baseline in number of migraine days in a 28d period	Change from baseline in weekly cluster headache attack frequency at week 4	Change from baseline in weekly cluster headache attack frequency at week 8
Start	Jun-12	Jul-14	Jun-15	May-15
Primary completion	Sep-13	Aug-15	Aug-16	May-16
Status	Data reported at AAN 2014	Completed enrollment	Enrolling	Enrolling
Identifier	<a href="#">NCT01625988</a>	<a href="#">NCT02163993</a>	<a href="#">NCT02438826</a>	<a href="#">NCT02397473</a>
<b>Timing of data</b>	<b>Data presented at AAN 2014</b>	<b>CS estimate: H2:15</b>	<b>CS estimate: H2:16</b>	<b>CS estimate: H2:16</b>

<b>AMGN - AMG 334</b>				
	<b>20120178</b>	<b>20120295</b>	<b>20130255</b>	<b>Pivotal Studies</b>
Stage	Phase II	Phase II	Phase II	Phase III
# of patients	483	490	490	
Indication	High frequency episodic migraine	Chronic migraine	Chronic migraine:	Likely chronic migraine and high frequency episodic migraine patients
Migraine days per month	4-14 migraine days / month (past 3 months)	≥15 migraine days / month	Long-term safety	episodic migraine patients
Treatment arms	AMG 334 (3 doses) vs. placebo	AMG 334 (SC, 2 doses) vs. placebo	Open label extension of study 20120295	TBD
Dosing	Not disclosed	Not disclosed	Open label AMG 334	AMG 334 vs placebo
Duration	12 weeks	12 weeks	Not disclosed	TBD
Primary endpoint	Change in monthly migraine days from baseline to last 4 wks of 12 wks dosing	Change in monthly migraine days from baseline to last 4 wks of 12 wks dosing	10 months (open label)	Likely 12 weeks
Secondary endpoints	50% responder analysis	50% responder analysis	Safety	Likely 12 week endpoint
Start	Aug-13	Feb-14	50% responder analysis	TBD
Primary completion	Aug-14	Feb-16	Jun-14	H2:15
Status	Completed enrollment Jul 2014	Enrolling	Sep-16	NA
Identifier	<a href="#">NCT01952574</a>	<a href="#">NCT02066415</a>	Enrolling	Not yet on ClinicalTrials.gov
<b>Timing of data</b>	<b>Data at IHS May 15, 2015</b>	<b>CS estimate: 2016</b>	<b>CS estimate: 2016</b>	<b>CS estimate: 2017</b>

<b>TEVA - TEV48125 (LBR101)</b>			
	<b>LBR-101-022</b>	<b>LBR-101-021</b>	<b>Pivotal Studies</b>
Stage	Phase II	Phase II	Phase III
# of patients	319	225	TBD
Indication	High frequency episodic migraine	Chronic migraine	Likely chronic migraine and high frequency episodic migraine patients
Migraine days per month	8-14 migraine days / month	≥15 migraine days / month	TBD
Treatment arms	TEVA48125 high and low dose vs. placebo	TEVA48125 high and low dose vs. placebo	TEVA48125 vs. placebo
Dosing	Monthly subcutaneous	Monthly subcutaneous	TBD
Duration	12 weeks	12 weeks	Likely 12 weeks
Primary endpoint	Change from baseline in number of migraine days in a 28d period	Mean change in headache hours	TBD
Start	Jan-14	Jan-14	H2:15
Primary completion	Jan-15	Feb-15	NA
Status	Completed	Completed	Not yet on ClinicalTrials.gov
Identifier	<a href="#">NCT02025556</a>	<a href="#">NCT02021773</a>	NA
<b>Timing of data</b>	<b>Topline data released May 15, 2015</b>	<b>Data at IHS May 15, 2015</b>	<b>CS estimate: 2017</b>

Source: Company data, Credit Suisse estimates, ClinicalTrials.gov

## New \$50 target price

We are raising our target price to \$50 from \$34. The primary changes to our model include: (1) increase in the market penetration by the CGRP antibodies in migraine to 30% from 20% for both episodic and chronic migraines, (2) an increase in the expected market share for ALD403 to 20% from 15% in episodic migraines (9-14 migraines), and (3) increase the probability of success for ALD403 to 65% from 60%.

We assume ALDR will raise money in mid:16. Our DCF gets us to \$50 assuming additional dilution (with no credit for the added cash).

**Exhibit 6: \$50 Target Price**

Program	NPV (\$M)	Sales (\$M)	POS	Per share (w raise)
ALD403	\$2,265	\$1,668	65%	\$48
Clazakizumab	\$84	\$510	25%	\$2
<b>Total</b>	<b>\$2,349</b>			<b>\$50</b>

Source: Company data, Credit Suisse estimates

**Exhibit 7: ALDR News Flow**

Product	Catalyst	Expected Date	Price Sensitivity
ALD403	Start Phase IIb dose ranging study in frequent episodic migraine patients (IV)	H2: 15	Low
ALD403	Start pivotal Phase IIb dose ranging study in episodic and chronic migraine patients (IV)	H2: 15	Low
ALD403	Phase IIb primary endpoint data in chronic migraine (IV)	H2: 15	High
ALD403	Phase I data for quarterly self administration	H2: 15	Medium
Clazakizumab	Potential development partner	H2: 15	High
ALD1613	Initiate Phase I for Cushing's disease program	2016	Low
ALD403	Data from study in frequent episodic migraine study	H2: 16	Low
ALD403	Data from pivotal study	H1: 17	High

Source: Company data, Credit Suisse

**Exhibit 8: ALDR Pipeline**

Drug	Target	Indication	Stage	Partner
ALD403	CGRP	Migraine	Phase II	Proprietary
Clazakizumab	IL-6	Rheumatoid Arthritis	Phase IIb	Proprietary
		Psoriatic Arthritis	Phase II	Proprietary
ALD1613	ACTH	Cushing's disease	Phase I in 2016	Proprietary
4 preclinical programs	TBA	TBA	Preclinical	Proprietary

Source: Company data, Credit Suisse



**Exhibit 9: ALDR Model**

	2013A	2014A	Q1:15A	Q2:15E	Q3:15E	Q4:15E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
<b>Revenues</b>														
US sales of ALD403											32.4	168.6	394.7	547.5
Ex-US royalties on ALD403											0.7	0.7	6.3	23.7
Royalties on Clazakizumab											1.4	3.1	6.5	10.4
Collaboration and license agreement	18.8	54.7		0.7	0.7	0.7	2.1	15.5	15.5	79.9	120.0	12.0	6.0	
<b>Total Revenues</b>	<b>18.8</b>	<b>54.7</b>		<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>2.1</b>	<b>15.5</b>	<b>15.5</b>	<b>79.9</b>	<b>153.8</b>	<b>184.4</b>	<b>413.5</b>	<b>581.6</b>
<b>Expenses</b>														
Cost of goods											3.2	16.9	39.5	54.8
Research and development	31.9	33.4	11.0	11.5	14.0	15.0	51.5	74.0	90.0	92.0	87.0	77.0	75.0	72.0
Sales, general, administrative	7.7	12.5	3.7	4.0	4.2	4.3	16.2	24.0	24.0	26.0	35.0	40.0	45.0	40.0
<b>Total Operating Expenses</b>	<b>39.6</b>	<b>45.9</b>	<b>14.7</b>	<b>15.5</b>	<b>18.2</b>	<b>19.3</b>	<b>67.7</b>	<b>98.0</b>	<b>114.0</b>	<b>118.0</b>	<b>122.0</b>	<b>117.0</b>	<b>120.0</b>	<b>112.0</b>
Operating income (loss)	(20.8)	8.8	(14.7)	(14.8)	(17.5)	(18.6)	(65.6)	(82.5)	(98.5)	(38.1)	31.8	67.4	293.5	469.6
Total Other Income (Expense)	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.2	0.2	0.2	0.2
Pre Tax Income	(20.6)	8.9	(14.7)	(14.8)	(17.5)	(18.6)	(65.5)	(82.4)	(98.4)	(37.9)	32.0	67.6	293.7	469.8
Income tax													102.8	164.4
<b>Net Income</b>	<b>(20.6)</b>	<b>8.9</b>	<b>(14.7)</b>	<b>(14.8)</b>	<b>(17.5)</b>	<b>(18.6)</b>	<b>(65.5)</b>	<b>(82.4)</b>	<b>(98.4)</b>	<b>(37.9)</b>	<b>32.0</b>	<b>67.6</b>	<b>190.9</b>	<b>305.4</b>
EPS - basic (proforma)	(\$3.84)	\$0.43	(\$0.40)	(\$0.38)	(\$0.45)	(\$0.48)	(\$1.72)	(\$2.10)	(\$2.18)	(\$0.82)	\$0.69	\$1.44	\$4.03	\$6.39
EPS - diluted (proforma)	(\$3.84)	\$0.30	(\$0.40)	(\$0.38)	(\$0.45)	(\$0.48)	(\$1.72)	(\$2.10)	(\$2.18)	(\$0.82)	\$0.65	\$1.35	\$3.76	\$5.94
Shares outstanding - basic (proforma)	21.89	20.51	36.90	38.44	38.64	38.83	38.20	39.32	45.15	45.94	46.40	46.86	47.33	47.81
Shares outstanding - diluted (proforma)	21.89	29.43	36.90	38.44	38.64	38.83	38.20	39.32	45.15	48.92	49.53	50.15	50.79	51.43

Source: Company data, Credit Suisse estimates



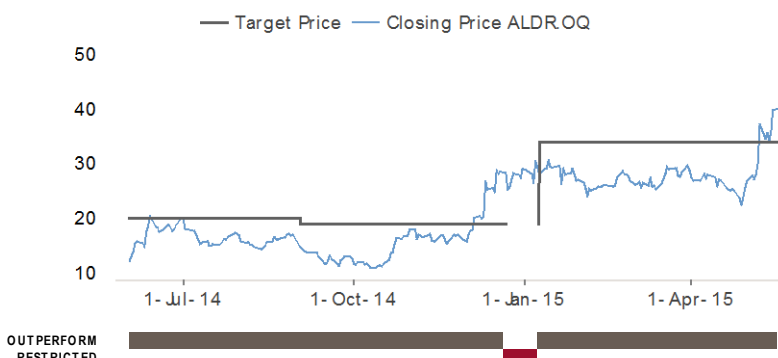
**Companies Mentioned** (Price as of 18-May-2015)**Alder Biopharmaceuticals** (ALDR.OQ, \$40.02, OUTPERFORM[V], TP \$50.0)**Disclosure Appendix****Important Global Disclosures**

I, Jeremiah Shepard, PhD, certify that (1) the views expressed in this report accurately reflect my personal views about all of the subject companies and securities and (2) no part of my compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this report.

**3-Year Price and Rating History for Alder Biopharmaceuticals (ALDR.OQ)**

ALDR.OQ	Closing Price	Target Price	
Date	(US\$)	(US\$)	Rating
02-Jun-14	12.26	20.00	O *
02-Sep-14	14.80	19.00	
22-Dec-14	28.33		R
09-Jan-15	29.39	34.00	O
05-May-15	27.16	34.00	*

\* Asterisk signifies initiation or assumption of coverage.



The analyst(s) responsible for preparing this research report received Compensation that is based upon various factors including Credit Suisse's total revenues, a portion of which are generated by Credit Suisse's investment banking activities

**As of December 10, 2012 Analysts' stock rating are defined as follows:**

**Outperform (O)** : The stock's total return is expected to outperform the relevant benchmark\* over the next 12 months.

**Neutral (N)** : The stock's total return is expected to be in line with the relevant benchmark\* over the next 12 months.

**Underperform (U)** : The stock's total return is expected to underperform the relevant benchmark\* over the next 12 months.

\*Relevant benchmark by region: As of 10th December 2012, Japanese ratings are based on a stock's total return relative to the analyst's coverage universe which consists of all companies covered by the analyst within the relevant sector, with Outperforms representing the most attractive, Neutrals the less attractive, and Underperforms the least attractive investment opportunities. As of 2nd October 2012, U.S. and Canadian as well as European ratings are based on a stock's total return relative to the analyst's coverage universe which consists of all companies covered by the analyst within the relevant sector, with Outperforms representing the most attractive, Neutrals the less attractive, and Underperforms the least attractive investment opportunities. For Latin American and non-Japan Asia stocks, ratings are based on a stock's total return relative to the average total return of the relevant country or regional benchmark; prior to 2nd October 2012 U.S. and Canadian ratings were based on (1) a stock's absolute total return potential to its current share price and (2) the relative attractiveness of a stock's total return potential within an analyst's coverage universe. For Australian and New Zealand stocks, the expected total return (ETR) calculation includes 12-month rolling dividend yield. An Outperform rating is assigned where an ETR is greater than or equal to 7.5%; Underperform where an ETR less than or equal to 5%. A Neutral may be assigned where the ETR is between -5% and 15%. The overlapping rating range allows analysts to assign a rating that puts ETR in the context of associated risks. Prior to 18 May 2015, ETR ranges for Outperform and Underperform ratings did not overlap with Neutral thresholds between 15% and 7.5%, which was in operation from 7 July 2011.

**Restricted (R)** : In certain circumstances, Credit Suisse policy and/or applicable law and regulations preclude certain types of communications, including an investment recommendation, during the course of Credit Suisse's engagement in an investment banking transaction and in certain other circumstances.

**Volatility Indicator [V]** : A stock is defined as volatile if the stock price has moved up or down by 20% or more in a month in at least 8 of the past 24 months or the analyst expects significant volatility going forward.

Analysts' sector weightings are distinct from analysts' stock ratings and are based on the analyst's expectations for the fundamentals and/or valuation of the sector\* relative to the group's historic fundamentals and/or valuation:

**Overweight** : The analyst's expectation for the sector's fundamentals and/or valuation is favorable over the next 12 months.

**Market Weight** : The analyst's expectation for the sector's fundamentals and/or valuation is neutral over the next 12 months.

**Underweight** : The analyst's expectation for the sector's fundamentals and/or valuation is cautious over the next 12 months.

\*An analyst's coverage sector consists of all companies covered by the analyst within the relevant sector. An analyst may cover multiple sectors.

Credit Suisse's distribution of stock ratings (and banking clients) is:

### Global Ratings Distribution

Rating	Versus universe (%)	Of which banking clients (%)
Outperform/Buy*	43%	(53% banking clients)
Neutral/Hold*	38%	(50% banking clients)
Underperform/Sell*	16%	(44% banking clients)
Restricted	3%	

*\*For purposes of the NYSE and NASD ratings distribution disclosure requirements, our stock ratings of Outperform, Neutral, and Underperform most closely correspond to Buy, Hold, and Sell, respectively; however, the meanings are not the same, as our stock ratings are determined on a relative basis. (Please refer to definitions above.) An investor's decision to buy or sell a security should be based on investment objectives, current holdings, and other individual factors.*

Credit Suisse's policy is to update research reports as it deems appropriate, based on developments with the subject company, the sector or the market that may have a material impact on the research views or opinions stated herein.

Credit Suisse's policy is only to publish investment research that is impartial, independent, clear, fair and not misleading. For more detail please refer to Credit Suisse's Policies for Managing Conflicts of Interest in connection with Investment Research: [http://www.csfb.com/research-and-analytics/disclaimer/managing\\_conflicts\\_disclaimer.html](http://www.csfb.com/research-and-analytics/disclaimer/managing_conflicts_disclaimer.html)

Credit Suisse does not provide any tax advice. Any statement herein regarding any US federal tax is not intended or written to be used, and cannot be used, by any taxpayer for the purposes of avoiding any penalties.

### Price Target: (12 months) for Alder Biopharmaceuticals (ALDR.OQ)

**Method:** Our \$50 valuation is justified by a fully-taxed, probability weighted, product level DCF for ALD403 and the estimated value for a partnership for clazakizumab. We assume an ex-US partner for ALD403 and significant dilution from future equity raises prior to profitability.

**Risk:** Risks to our \$50 TP include: 1) unexpected negative result for proprietary clinical programs, 2) financing risk from expected future equity raises, and 3) significant delay in one or more clinical programs that pushes potential approval timeline(s) out.

Please refer to the firm's disclosure website at <https://rave.credit-suisse.com/disclosures> for the definitions of abbreviations typically used in the target price method and risk sections.

See the *Companies Mentioned* section for full company names

The subject company (ALDR.OQ) currently is, or was during the 12-month period preceding the date of distribution of this report, a client of Credit Suisse.

Credit Suisse provided investment banking services to the subject company (ALDR.OQ) within the past 12 months.

Credit Suisse has managed or co-managed a public offering of securities for the subject company (ALDR.OQ) within the past 12 months.

Credit Suisse has received investment banking related compensation from the subject company (ALDR.OQ) within the past 12 months

Credit Suisse expects to receive or intends to seek investment banking related compensation from the subject company (ALDR.OQ) within the next 3 months.

### Important Regional Disclosures

Singapore recipients should contact Credit Suisse AG, Singapore Branch for any matters arising from this research report.

The analyst(s) involved in the preparation of this report have not visited the material operations of the subject company (ALDR.OQ) within the past 12 months

Restrictions on certain Canadian securities are indicated by the following abbreviations: NVS--Non-Voting shares; RVS--Restricted Voting Shares; SVS--Subordinate Voting Shares.

Individuals receiving this report from a Canadian investment dealer that is not affiliated with Credit Suisse should be advised that this report may not contain regulatory disclosures the non-affiliated Canadian investment dealer would be required to make if this were its own report.

For Credit Suisse Securities (Canada), Inc.'s policies and procedures regarding the dissemination of equity research, please visit <https://www.credit-suisse.com/sites/disclaimers-ib/en/canada-research-policy.html>.

Credit Suisse has acted as lead manager or syndicate member in a public offering of securities for the subject company (ALDR.OQ) within the past 3 years.

As of the date of this report, Credit Suisse acts as a market maker or liquidity provider in the equities securities that are the subject of this report.

Principal is not guaranteed in the case of equities because equity prices are variable.

Commission is the commission rate or the amount agreed with a customer when setting up an account or at any time after that.

---

For Credit Suisse disclosure information on other companies mentioned in this report, please visit the website at <https://rave.credit-suisse.com/disclosures> or call +1 (877) 291-2683.

---

References in this report to Credit Suisse include all of the subsidiaries and affiliates of Credit Suisse operating under its investment banking division. For more information on our structure, please use the following link: <https://www.credit-suisse.com/who-we-are/en>. This report may contain material that is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would subject Credit Suisse AG or its affiliates ("CS") to any registration or licensing requirement within such jurisdiction. All material presented in this report, unless specifically indicated otherwise, is under copyright to CS. None of the material, nor its content, nor any copy of it, may be altered in any way, transmitted to, copied or distributed to any other party, without the prior express written permission of CS. All trademarks, service marks and logos used in this report are trademarks or service marks or registered trademarks or service marks of CS or its affiliates. The information, tools and material presented in this report are provided to you for information purposes only and are not to be used or considered as an offer or the solicitation of an offer to sell or to buy or subscribe for securities or other financial instruments. CS may not have taken any steps to ensure that the securities referred to in this report are suitable for any particular investor. CS will not treat recipients of this report as its customers by virtue of their receiving this report. The investments and services contained or referred to in this report may not be suitable for you and it is recommended that you consult an independent investment advisor if you are in doubt about such investments or investment services. Nothing in this report constitutes investment, legal, accounting or tax advice, or a representation that any investment or strategy is suitable or appropriate to your individual circumstances, or otherwise constitutes a personal recommendation to you. CS does not advise on the tax consequences of investments and you are advised to contact an independent tax adviser. Please note in particular that the bases and levels of taxation may change. Information and opinions presented in this report have been obtained or derived from sources believed by CS to be reliable, but CS makes no representation as to their accuracy or completeness. CS accepts no liability for loss arising from the use of the material presented in this report, except that this exclusion of liability does not apply to the extent that such liability arises under specific statutes or regulations applicable to CS. This report is not to be relied upon in substitution for the exercise of independent judgment. CS may have issued, and may in the future issue, other communications that are inconsistent with, and reach different conclusions from, the information presented in this report. Those communications reflect the different assumptions, views and analytical methods of the analysts who prepared them and CS is under no obligation to ensure that such other communications are brought to the attention of any recipient of this report. Some investments referred to in this report will be offered solely by a single entity and in the case of some investments solely by CS, or an associate of CS or CS may be the only market maker in such investments. Past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, express or implied, is made regarding future performance. Information, opinions and estimates contained in this report reflect a judgment at its original date of publication by CS and are subject to change without notice. The price, value of and income from any of the securities or financial instruments mentioned in this report can fall as well as rise. The value of securities and financial instruments is subject to exchange rate fluctuation that may have a positive or adverse effect on the price or income of such securities or financial instruments. Investors in securities such as ADRs, the values of which are influenced by currency volatility, effectively assume this risk. Structured securities are complex instruments, typically involve a high degree of risk and are intended for sale only to sophisticated investors who are capable of understanding and assuming the risks involved. The market value of any structured security may be affected by changes in economic, financial and political factors (including, but not limited to, spot and forward interest and exchange rates), time to maturity, market conditions and volatility, and the credit quality of any issuer or reference issuer. Any investor interested in purchasing a structured product should conduct their own investigation and analysis of the product and consult with their own professional advisers as to the risks involved in making such a purchase. Some investments discussed in this report may have a high level of volatility. High volatility investments may experience sudden and large falls in their value causing losses when that investment is realised. Those losses may equal your original investment. Indeed, in the case of some investments the potential losses may exceed the amount of initial investment and, in such circumstances, you may be required to pay more money to support those losses. Income yields from investments may fluctuate and, in consequence, initial capital paid to make the investment may be used as part of that income yield. Some investments may not be readily realisable and it may be difficult to sell or realise those investments, similarly it may prove difficult for you to obtain reliable information about the value, or risks, to which such an investment is exposed. This report may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the report refers to website material of CS, CS has not reviewed any such site and takes no responsibility for the content contained therein. Such address or hyperlink (including addresses or hyperlinks to CS's own website material) is provided solely for your convenience and information and the content of any such website does not in any way form part of this document. Accessing such website or following such link through this report or CS's website shall be at your own risk. This report is issued and distributed in Europe (except Switzerland) by Credit Suisse Securities (Europe) Limited, One Cabot Square, London E14 4QJ, England, which is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. This report is being distributed in Germany by Credit Suisse Securities (Europe) Limited Niederlassung Frankfurt am Main regulated by the Bundesanstalt fuer Finanzdienstleistungsaufsicht ("BaFin"). This report is being distributed in the United States and Canada by Credit Suisse Securities (USA) LLC; in Switzerland by Credit Suisse AG; in Brazil by Banco de Investimentos Credit Suisse (Brasil) S.A. or its affiliates; in Mexico by Banco Credit Suisse (México), S.A. (transactions related to the securities mentioned in this report will only be effected in compliance with applicable regulation); in Japan by Credit Suisse Securities (Japan) Limited, Financial Instruments Firm, Director-General of Kanto Local Finance Bureau (Kinsho) No. 66, a member of Japan Securities Dealers Association, The Financial Futures Association of Japan, Japan Investment Advisers Association, Type II Financial Instruments Firms Association; elsewhere in Asia/ Pacific by whichever of the following is the appropriately authorised entity in the relevant jurisdiction: Credit Suisse (Hong Kong) Limited, Credit Suisse Equities (Australia) Limited, Credit Suisse Securities (Thailand) Limited, regulated by the Office of the Securities and Exchange Commission, Thailand, having registered address at 990 Abdulrahim Place, 27th Floor, Unit 2701, Rama IV Road, Silom, Bangkok, Bangkok 10500, Thailand, Tel. +66 2614 6000, Credit Suisse Securities (Malaysia) Sdn Bhd, Credit Suisse AG, Singapore Branch, Credit Suisse Securities (India) Private Limited (CIN no. U67120MH1996PTC104392) regulated by the Securities and Exchange Board of India (registration Nos. INB230970637; INF230970637; INB010970631; INF010970631), having registered address at 9th Floor, Ceejay House, Dr.A.B. Road, Worli, Mumbai - 18, India, T. +91-22 6777 3777, Credit Suisse Securities (Europe) Limited, Seoul Branch, Credit Suisse AG, Taipei Securities Branch, PT Credit Suisse Securities Indonesia, Credit Suisse Securities (Philippines) Inc., and elsewhere in the world by the relevant authorised affiliate of the above. Research on Taiwanese securities produced by Credit Suisse AG, Taipei Securities Branch has been prepared by a registered Senior Business Person. Research provided to residents of Malaysia is authorised by the Head of Research for Credit Suisse Securities (Malaysia) Sdn Bhd, to whom they should direct any queries on +603 2723 2020. This report has been prepared and issued for distribution in Singapore to institutional investors, accredited investors and expert investors (each as defined under the Financial Advisers Regulations) only, and is also distributed by Credit Suisse AG, Singapore branch to overseas investors (as defined under the Financial Advisers Regulations). By virtue of your status as an institutional investor, accredited investor, expert investor or overseas investor, Credit Suisse AG, Singapore branch is exempted from complying with certain compliance requirements under the Financial Advisers Act, Chapter 110 of Singapore (the "FAA"), the Financial Advisers Regulations and the relevant Notices and Guidelines issued thereunder, in respect of any financial advisory service which Credit Suisse AG, Singapore branch may provide to you. This information is being distributed by Credit Suisse AG, Dubai Branch, duly licensed and regulated by the Dubai Financial Services Authority (DFSA), and is directed at Professional Clients or Market Counterparties only, as defined by the DFSA. The financial products or financial services to which the information relates will only be made available to a client who meets the regulatory criteria to be a Professional Client or Market Counterparty only, as defined by the DFSA, and is not intended for any other person. This research may not conform to Canadian disclosure requirements. In jurisdictions where CS is not already registered or licensed to trade in securities, transactions will only be effected in accordance with applicable securities legislation, which will vary from jurisdiction to jurisdiction and may require that the trade be made in accordance with applicable exemptions from registration or licensing requirements. Non-U.S. customers wishing to effect a transaction should contact a CS entity in their local jurisdiction unless governing law permits otherwise. U.S. customers wishing to effect a transaction should do so only by contacting a representative at Credit Suisse Securities (USA) LLC in the U.S. Please note that this research was originally prepared and issued by CS for distribution to their market professional and institutional investor customers. Recipients who are not market professional or institutional investor customers of CS should seek the advice of their independent financial advisor prior to taking any investment decision based on this report or for any necessary explanation of its contents. This research may relate to investments or services of a person outside of the UK or to other matters which are not authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority or in respect of which the protections of the Prudential Regulation Authority and Financial Conduct Authority for private customers and/or the UK compensation scheme may not be available, and further details as to where this may be the case are available upon request in respect of this report. CS may provide various services to US municipal entities or obligated persons ("municipalities"), including suggesting individual transactions or trades and entering into such transactions. Any services CS provides to municipalities are not viewed as "advice" within the meaning of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act. CS is providing any such services and related information solely on an arm's length basis and not as an advisor or fiduciary to the municipality. In connection with the provision of the any such services, there is no agreement, direct or indirect, between any municipality (including the officials, management, employees or agents thereof) and CS for CS to provide advice to the municipality. Municipalities should consult with their financial, accounting and legal advisors regarding any such services provided by CS. In addition, CS is not acting for direct or indirect compensation to solicit the municipality on behalf of an unaffiliated broker, dealer, municipal securities dealer, municipal advisor, or investment adviser for the purpose of obtaining or retaining an engagement by the municipality for or in connection with Municipal Financial Products, the issuance of municipal securities, or of an investment adviser to provide investment advisory services to or on behalf of the municipality. If this report is being distributed by a financial institution other than Credit Suisse AG, or its affiliates, that financial institution is solely responsible for distribution. Clients of that institution should contact that institution to effect a transaction in the securities mentioned in this report or require further information. This report does not constitute investment advice by Credit Suisse to the clients of the distributing financial institution, and neither Credit Suisse AG, its affiliates, and their respective officers, directors and employees accept any liability whatsoever for any direct or consequential loss arising from their use of this report or its content. Principal is not guaranteed. Commission is the commission rate or the amount agreed with a customer when setting up an account or at any time after that.

Copyright © 2015 CREDIT SUISSE AG and/or its affiliates. All rights reserved.

Investment principal on bonds can be eroded depending on sale price or market price. In addition, there are bonds on which investment principal can be eroded due to changes in redemption amounts. Care is required when investing in such instruments.

When you purchase non-listed Japanese fixed income securities (Japanese government bonds, Japanese municipal bonds, Japanese government guaranteed bonds, Japanese corporate bonds) from CS as a seller, you will be requested to pay the purchase price only.