June 2, 2014

OUTPERFORM

Reason for report:

INITIATION

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ALDER BIOPHARMACEUTICALS, INC.

Two Proprietary MAbs and a Platform to Drive Value; Initiating at Outperform

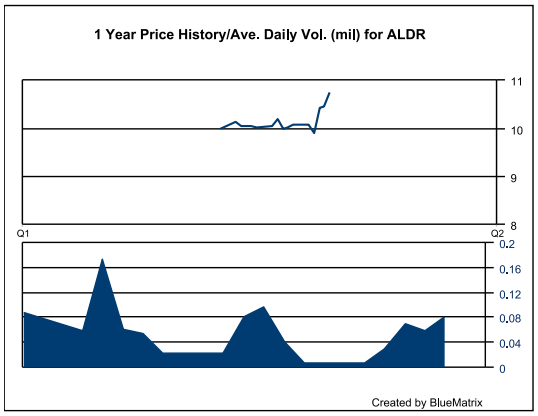
• **Bottom Line:** We are initiating coverage on ALDR with an Outperform rating and a $26 PT in 12 Mo. ALDR's lead product ALD403 recently produced "Breakthrough Therapy-like" efficacy in migraine prophylaxis, where just a single IV dose of '403 was able to render 16% of treated patients free of migraines for the entire 12-week Phase IIa study. ALDR discovers and manufactures monoclonal antibodies (MAb) via its "Antibody Selection" and "MabXpress" technologies, the commercial potential of which are validated by a favorable partnership with BMY (OP) who is funding the development of ALDR's Clazakizumab (anti-IL6) for Rheumatoid Arthritis (RA) and other disorders. We ascribe ~$14/shr to '403, ~$8/shr to Claza, ~$1/shr to the platform and ~$3/shr to net cash.

• **ALD403 has the potential to transform the migraine prevention treatment paradigm, in our view.** ALD403 is a MAb with specificity to Calcitonin-Gene-Related Peptide (CGRP), a validated target involved in migraine pathogenesis. Currently available abortive and prophylactic migraine treatments are poorly tolerated in some and fall short of controlling headaches in most chronic/episodic migraine patients, according to MEDACorp KOLs. In any given month during the ALD403 Ph. IIa, ~75-77%, 45-53% and 27-40% of treated-patients showed a 50%, 75% and 100% reduction in migraine days respectively, when compared to the untreated baseline period. No safety differences were observed between '403 and placebo. Three other companies are also developing anti-CGRP therapies, but thus far only LLY (OP) has presented positive proof-of-concept data for its agent LY2951742, which showed similar efficacy to '403 but is dosed subcutaneously 6x as often.

• **In Phase IIb, ALDR/BMY's Clazakizumab demonstrated comparable efficacy to ABBV's Humira on the ACR20 and numerical superiority on the das28 remission scale,** the latter of which physicians believe is a more clinically relevant measure of RA disease control. This trial compared Clazakizumab every 4 weeks versus Humira every 2 weeks, showing that Claza administered half as often is on par with the RA standard-of-care. Clazakizumab Phase II studies have yet to show a linear dose response relationship however, so BMY is currently running an additional low dose ranging Phase IIb which is expected to readout by YE14. In our model we assume that a Phase III begins in 2015 and that Clazakizumab hits the market in late 2018. With many competitors developing IL-6 agents, we conservatively assume a lack of differentiation and project ~15% share of the IL-6 market for Claza, which implies ~ $275MM in peak WW sales in 2023, after risk-adjusting our estimates at a 50% probability of success.

• **ALDR plans to enter another proprietary monoclonal antibody into the clinic in 2015**. ALDR's manufacturing platform "MabXpress" utilizes yeast instead of traditional mammalian cell cultures which may be more cost efficient, leading to a higher GM and pricing flexibility.

Key Stats:	**(NASDAQ:ALDR)**
S&P 600 Health Care Index:	**1,266.01**
Price:	**$10.74**
Price Target:	$26.00
Methodology:	Sum-of-the-parts DCF analysis, 12% discount rate, 2.5% terminal growth
52 Week High:	$11.00
52 Week Low:	$9.50
Shares Outstanding (mil):	34.2
Market Capitalization (mil):	$367.3
Cash Per Share:	$2.51
Dividend (ann):	$0.00
Dividend Yield:	0.0%
Est LT EPS Growth:	NA



Dec Yr	1Q	2Q	3Q	4Q	FY Rev	1Q	2Q	3Q	4Q	FY EPS	P/E
2013A	--	--	--	--	18.8	--	--	--	--	(3.84)	NM
2014E	4.8	4.8	4.8	4.8	19.0	(0.25)	(0.22)	(0.23)	(0.29)	(0.99)	NM
2015E	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.

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Initiating on ALDR at Outperform: Two Proprietary MAb Programs and a Platform to Drive Value

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Alder Biopharmaceuticals 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. The commercial potential of ALDR's approach has been validated by Bristol-Myers Squibb, who has agreed to financially support the development of Clazakizumab and pay ALDR up to ~$1.3B in milestones and royalties up to 20% on product sales. 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. Data from a second Clazakizumab Phase IIb study is anticipated at the American College of Rheumatology (11/14-19), and a first Phase IIb dose ranging study showed comparable efficacy to blockbuster anti-TNF Humira on the ACR20/50/70 and a numerical trend towards 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.

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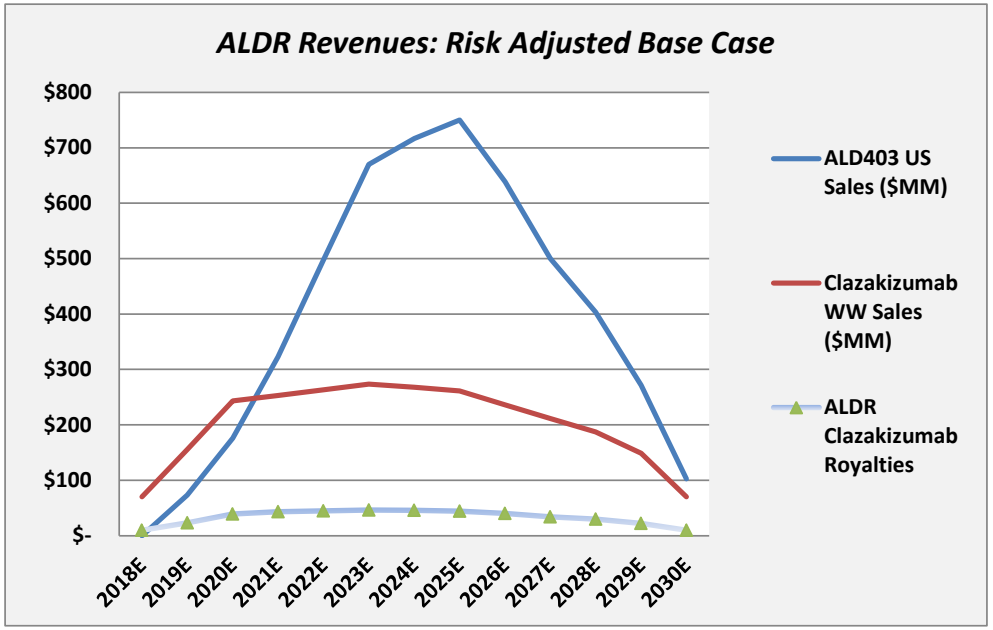
SOTP DCF Analysis: Conservative Assumptions Lead to Upside for ALDR Shares

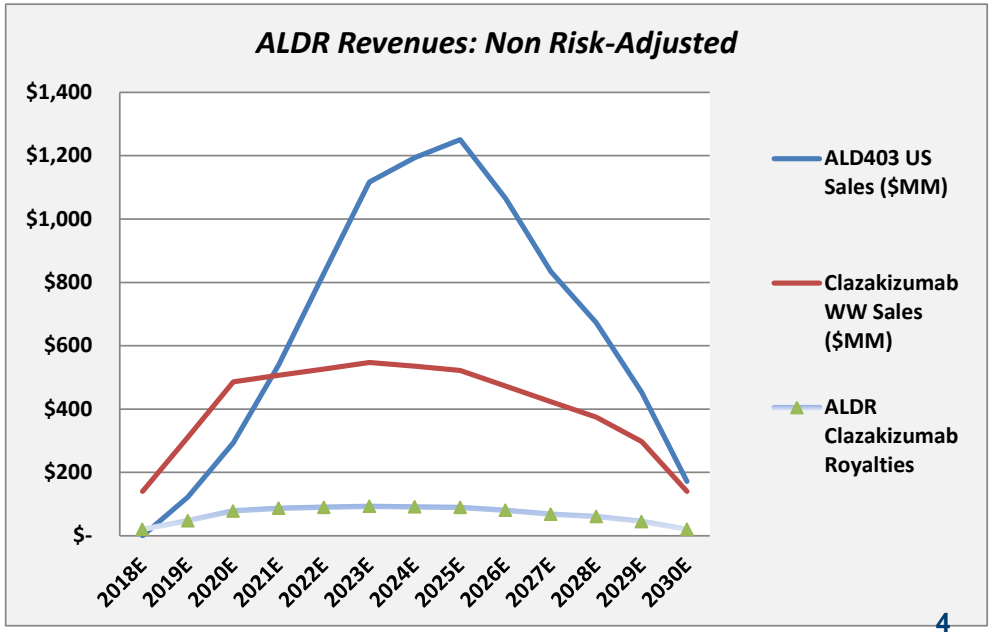
- We model peak gross ALD403 US revenues of $1.25bn (~$750MM risk adjusted) in 2025. We assume peak ex-US risk-adjusted sales of ~$340MM (2025), on which ALDR gets ~$50MM in royalties
- We model peak gross WW Clazakizumab revenues of ~$550MM (~$275MM risk adjusted) in 2023, translating into ~$46MM in royalties to ALDR
- At 100% approval probability for both ALD403 and Clazakizumab, we derive an ALDR NPV of ~$1.8B

ALDR Valuation	Per/Share	Val ($MM)	% Total
Total	**$ 25.76**	**$ 881**	100%
ALD403	$ 13.94	$ 477	54%
Clazakizumab	$ 7.96	$ 272	31%
Pipeline	$ 1.33	$ 45	5%
Net Cash 2Q14E	$ 2.53	$ 86	10%

Diluted Shares Outstanding	34.2
Discount Rate	12%
Terminal Growth Rate	2.5%

ALD403 Approval Probability	60%
Clazakizumab Approval Probability	50%



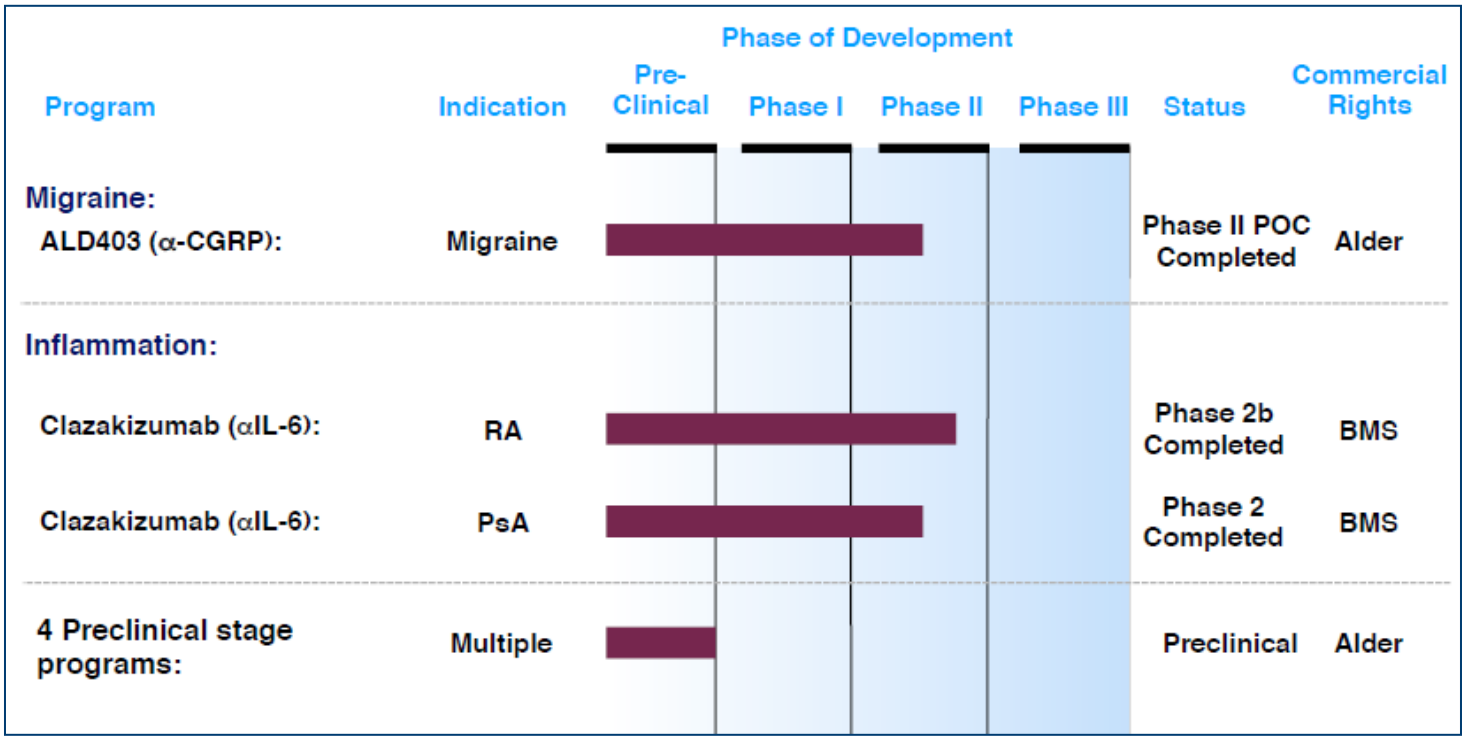


Source: Leerink Partners Research

ALDR Is Developing Two Lead Products, Each with Blockbuster Potential

- ALD403 is ALDR's lead product for migraine prophylaxis, and is a monoclonal antibody with high affinity to CGRP – a validated target that is believed to be integral to migraine pathogenesis
- ALD403 recently produced "Breakthrough Therapy-like" data in a 12-week Phase IIa study
- Clazakizumab is ALDR's monoclonal antibody for rheumatoid arthritis, and is specific to IL-6, a target validated by the approval of Roche's Actemra (also an IL-6 antibody)
- In Phase IIb, Clazakizumab demonstrated similar efficacy to Humira (~$9B in 2013 sales, ~$4.3B in RA) on the ACR20/50/70, and numerical trends towards superiority on the das28 remission scale

Alder Biopharmaceuticals Product Pipeline



Source: SEC Filings

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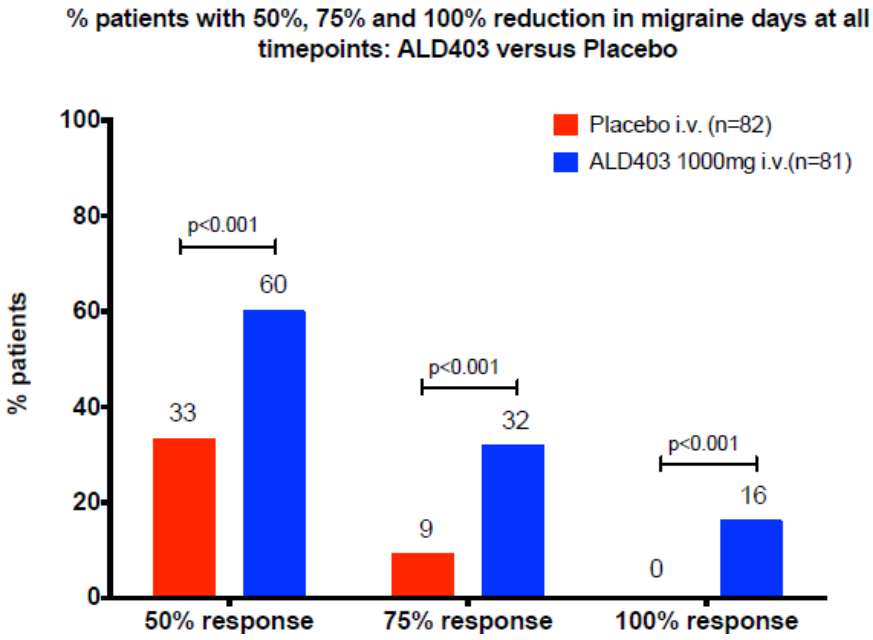
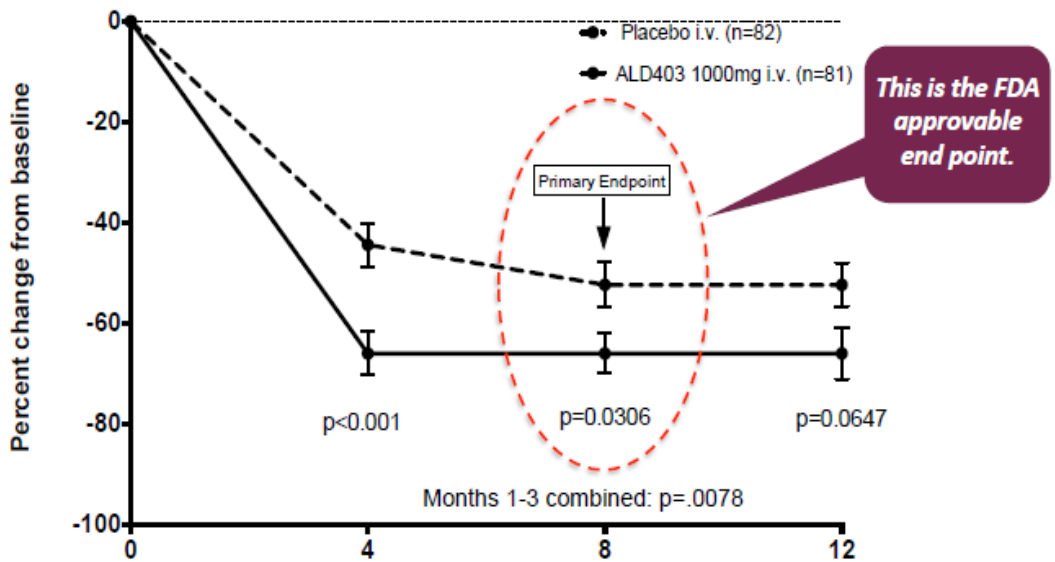
ALD403: A Potential Game-Changer for Migraine Prevention

- In Phase IIa (shown in the chart below on the left), *a single dose of ALD403* precipitated a 50% reduction in migraine days in 60% of patients, a 75% reduction in 32% of patients, and an 100% reduction in 16% of patients
- The study met its primary endpoint (which enabled the registration of Botox/Topomax) of the change in mean migraine days per month from weeks 5-8 when compared to baseline
- Next up: ALDR plans to initiate a Phase IIb dose ranging study in 2H14 in a similar migraine patient population. ALDR will then select an appropriate IV dose to advance to Phase III, and will also select an ALD403 dose to advance into a subcutaneous trial
- ALDR plans to run Phase III studies in both high frequency (5-14 migraine days/month) and chronic migraine (>15 migraine days/month)





Source: SEC Filings

ALDR and LLY are Competing to Get the First anti-CGRP on the Market

- **At the American Academy of Neurology, LLY also presented positive proof-of-concept data from its anti-CGRP MAb** in frequent episodic migraine. LLY2951742 is given subcutaneously 2x per week, vs 1x every 3 mos. IV for ALD403. The primary endpoint of the LLY study was the mean number of migraine headache days per 28-day period, assessed at 12 weeks. LLY2951742 showed a mean decrease of 62.5% in migraine headache drug vs. 42.3% for placebo (p<.003).
- **At this stage, we believe the efficacy for the 2 products looks relatively comparable,** considering that cross study comparisons present limitations**.** LLY295 showed greater separation on the 50% responder analysis at week 12, while ALD403 was able to generate more 100% responses. In addition, ALD403 was able to eliminate migraines in 16% of patients during the entire 12 week study, but these data were not presented for '295.
- **ALD403 may have better safety/tolerability.** There were no significant differences between ALD403 and placebo, while LLY2951742-treated patients experienced more injection site reactions (ISRs), upper respiratory tract infections and abdominal pain. Although it is difficult to compare ISRs, since ALD403 has only been given IV, so far its SQ antibody may have formulation advantages to LLY2951742 since it shares a similar immunoglobulin G (IGG) framework to Clazakizumab, which has been well tolerated via SQ.

Comparison of ALD403 and LY2951742 - Data Presented at the American Academy of Neurology		
	ALDR's ALD403	**LLY's LY2951742**
Patient Population	High Frequency, 8 migraine days/mo, mean age=39, 83% females	High Frequency, 7 migraine days/mo, mean age=40, 82% females
Dosing	IV, once every 3 months	every other week subcutaneous
Study size	163 patients	217 patients
50% Responder Analysis: 28 Days at Wk 12	***75% on ALD403 vs 67% placebo***	***70% on LY295 vs. 45% placebo***
Complete Responder Analysis: 28 Days at Wk 12	***41% on ALD403 vs. 17% placebo***	***33% on LY295 vs. 17% placebo***
Complete Responder Analysis: All 12 Weeks	***16% on ALD403 vs. 0% placebo***	***not presented***
Safety	No significant differences in Adverse events between ALD403 and placebo; complete lack of LFT signal, no diff. in blood pressure/heart rate	Adverse events seen more frequently in LY295 dosing arm included injection site pain, upper respiratory tract infections and abdominal pain

Discussed in more detail within, Labrys and AMGN (MP) are also developing anti-CGRP products for migraine, though data from their drugs has not yet been announced

Source: SEC Filings, American Academy of Neurology Abstracts, note LFT=liver function test

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Clazakizumab for Rheumatoid Arthritis: Strong Potential, Favorable Partnership with Bristol

- Clazakizumab is a humanized monoclonal antibody that binds to and inhibits IL-6, an important driver of the inflammatory response implicated in rheumatoid arthritis (RA)
- After a successful Phase IIa trial, ALDR partnered Clazakizumab with Bristol-Myers Squibb, and received an upfront milestone payment of $85MM. ALDR is eligible to receive ~$1.3B total in milestones in the future, which includes $40MM when BMS initiates a Phase III trial which we project will occur in 2015. The agreement also stipulates that ALDR will receive tiered royalties starting in the mid-teens up to 20% on Clazakizumab sales.
- In two Phase II studies, Clazakizumab ("C" in the table below) showed 1) superiority to placebo + methotrexate (MTX) on the ACR20, a validated registrational endpoint and 2) comparable efficacy to Humira (ADA), which along with Enbrel is the most prescribed TNF-inhibitor (tumor necrosis factor inhibitor) for RA.
- BMS is currently funding fully two ongoing Phase IIb Clazakizumab trials in Rheumatoid Arthritis and Psoriatic Arthritis (PsA). Data for the former is expected by YE14, while data in the PsA trial is expected in 2H14

Patients, % (95% CI)	PBO+MTX n=61	C25+MTX n=59	C100+MTX n=60	C200+MTX n=60	C100 n=60	C200 n=59	ADA+MTX n=59
Primary endpoint: ACR 20 response rate	39.3 (27.1, 51.6)	78.0 (67.4, 88.5) p<0.001	71.7 (60.3, 83.1) p=0.001	60.0 (47.6, 72.4) p=0.015	55.0 (42.4, 67.6) p=0.042	61.0 (48.6, 73.5) p=0.015	76.3 (65.4, 87.1)
ACR 50 response rate	21.3 (11.0, 31.6)	49.2 (36.4, 61.9)	43.3 (30.8, 55.9)	26.7 (15.5, 37.9)	26.7 (15.5, 37.9)	28.8 (17.3, 40.4)	30.5 (18.8, 42.3)
ACR 70 response rate	8.2 (1.3, 15.1)	20.3 (10.1, 30.6)	26.7 (15.5, 37.9)	13.3 (4.7, 21.9)	13.3 (4.7, 21.9)	10.2 (2.5, 17.9)	11.9 (3.6, 20.1)

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Source: SEC Filings and Company Slides

Actemra Uptake, Many Players Validate the Opportunity for IL-6 Agents

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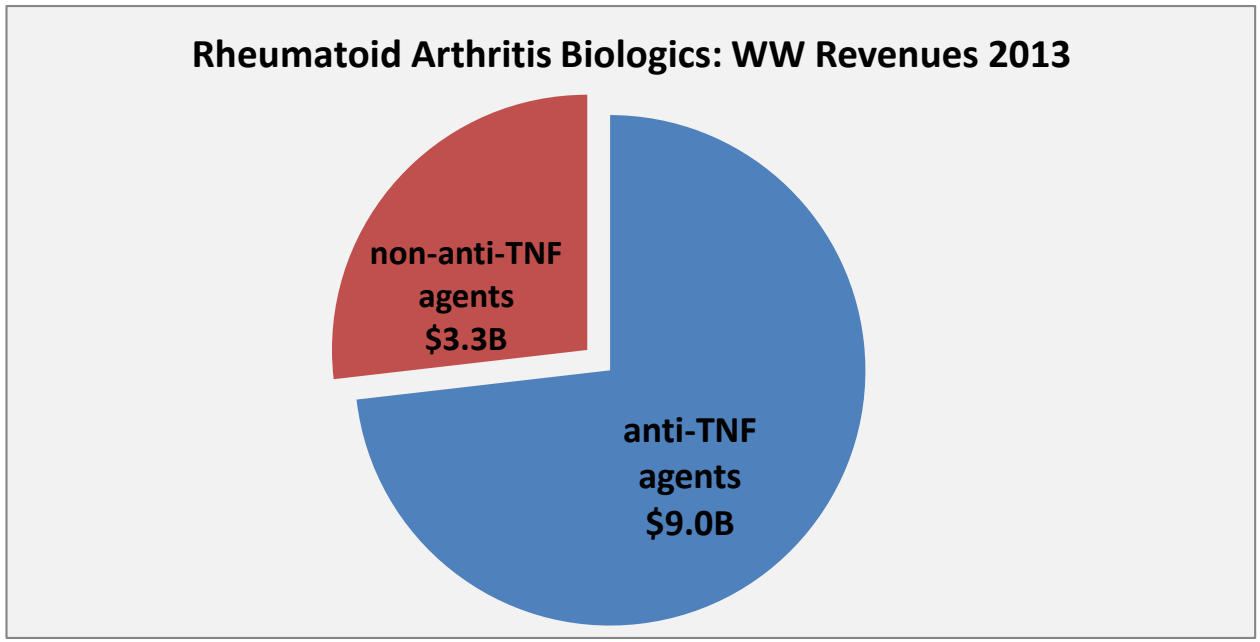
- In 2013, Actemra generated ~$1.1B in sales in its 4th year on the market
- However, Actemra was only available via IV delivery until October 2013; 2014 will be its first launch year for Actemra SQ, putting it on an even playing field with Humira/Enbrel which each offer SQ dosing
- In total, 6 companies (including Roche) are developing antibodies to either IL-6 ligand or receptor
- Competition in the IL-6 space render us bullish on the IL-6 treatment strategy, but also cautious as there will be multiple formidable players vying for the same RA patients; thus, we model just ~$275MM in peak risk-adjusted Clazakizumab sales in 2023, which could be conservative

Anti-IL6 Drugs In Development			
Company	**Drug (Brand)**	**Stage**	**Target**
Roche	Actemra	approved	Receptor
REGN/SNY	Sarilumab	Phase III	Receptor
BMS/ALDR	Clazakizumab	Phase IIb	Ligand
JNJ/GSK	Sirukumab	Phase III	Ligand
UCB	Olokizumab	Phase IIb	Ligand
Ablynx	ALX-0061	Phase IIa	Receptor

Source: SEC Filings, Clinicaltrials.gov, company presentations

RA Market: Significant Opportunity Presented by Patients Refractory to anti-TNFs

- ALDR market research estimates that biologics for RA generated ~$12B in sales in 2013, which will increase to ~$15B by 2016
- MEDACorp KOLs note that ~25% of their RA patients receiving a biologic are “TNF-refractory”, and are thus candidates for agents that operate via alternative mechanisms
- This creates a significant market opportunity for other agents: Roche’s Actemra and BMY’s Orencia generated >$1B and $900MM in sales in 2013, respectively
- We and the MEDACorp specialists, with whom we spoke, expect that physicians will switch more of their patients over to biologics with a non-TNF mediated mechanism of action over the next 5 years as they gain comfort with the safety profile of new agents
- The recent approval of SQ Actemra could catalyze this transition



Source: SEC Filings

Antibody Selection (ABS) Technology & MabXpress Manufacturing Platform

- ALDR's proprietary monoclonal antibody discovery platform leverages three technologies for the selection, humanization and manufacturing of monoclonal antibodies
- ALDR focuses on validated protein targets and ligands over receptors and to date has discovered all of its product candidates in house. ALDR has pioneered a process that humanizes rabbit antibodies to produce MAbs that are greater than 95% human. In addition, ALDR specifically designs its antibodies to lack certain sugars which can be immunogenic in order to minimize recognition of such antibodies as foreign
- This discovery platform is coupled with ALDR's proprietary yeast-based manufacturing technology "MabXpress", which offers distinct advantages over traditional mammalian cell culture approaches. ALDR believes this will enable it to efficiently manufacture large quantities of antibodies and bring new products into the clinic more rapidly
- Such a strategy could lead to pricing flexibility and/or a superior COGS margin, which could be a key advantage in both RA and Migraine where we expect ALDR to compete with multiple players also marketing drugs specific to IL-6 and CGRP

Source: SEC Filings

Experienced Management Team Well Suited to Create Value for Shareholders

- **Dr. Randy Schatzman is ALDR's Chief Executive Officer and co-founder**. From 1999-2004 Dr. Schatzman served as Senior Vice President of Discovery Research at Celltech R&D, Inc., a wholly owned subsidiary of Celltech Group plc, a biopharmaceutical company, where he led a group of scientists responsible for much of the therapeutic antibody pipeline for Celltech. From 1995 to 1999, Dr. Schatzman served as Director of Gene Discovery at Mercator Genetics Inc., a genomics company. From 1987 to 1995, Dr. Schatzman served as Section Leader at Roche Bioscience, previously Syntex Corp., a subsidiary of Roche Holdings Ltd., a biotechnology company, where he helped found the Cancer and Developmental Biology Institute
- **Dr. John Latham is ALDR's Chief Scientific Officer and co-founder.** From 1998 to 2004, Dr. Latham served as a director, senior director, and most recently as Vice President of Gene Function and Target Validation for Celltech Group plc. In 1994, Dr. Latham joined Darwin Molecular Corporation, a first-generation gene-to-drug biotechnology company, as a founding director, where he served from 1994 to 1998. Dr. Latham was one of the early scientists hired by Gilead Sciences, Inc., a biopharmaceutical company, and, from 1989 to 1994, he was a member of a core group established to exploit novel oligonucleotide-based technologies.
- **Dr. Mark Litton is ALDR's Chief Business Officer, Treasurer and Secretary and co-founder.** From 1999 to 2004, Dr. Litton served as Vice President of Business Development for Celltech Group, where he was responsible for securing, commercializing and partnering numerous novel discoveries and therapeutic opportunities. In 1999, Dr. Litton joined Celltech Group as an employee of Chiroscience Group plc and was later promoted to Vice President Business Development after Chiroscience's merger with Celltech Group in 1999. From 1997 to 1999, Dr. Litton served as the Manager of Business Development for Ribozyme Pharmaceuticals Inc., currently Sirna Therapeutics, Inc., a biopharmaceutical company, where he helped form relationships with Eli Lilly and Company, Roche Bioscience and GlaxoWellcome plc, currently GlaxoSmithKline plc, a biopharmaceutical company.

2014 and 2015 Present Multiple Value Driving Catalysts for ALDR Shares

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	By YE14
New Product	First in Man Study Initiation	1H15
ALD403	Phase IIb Data	2H15
Clazakizumab	Phase III Initiation	2H15
ALD403	Phase III Initiation	1H16
Clazakizumab	FDA/EMA Approval	2018
ALD403	FDA/EMA Approval	2019

Source: SEC Filings and Leerink Partners Estimates

ALD403: A Potential Game-Changer for Migraine Prophylaxis

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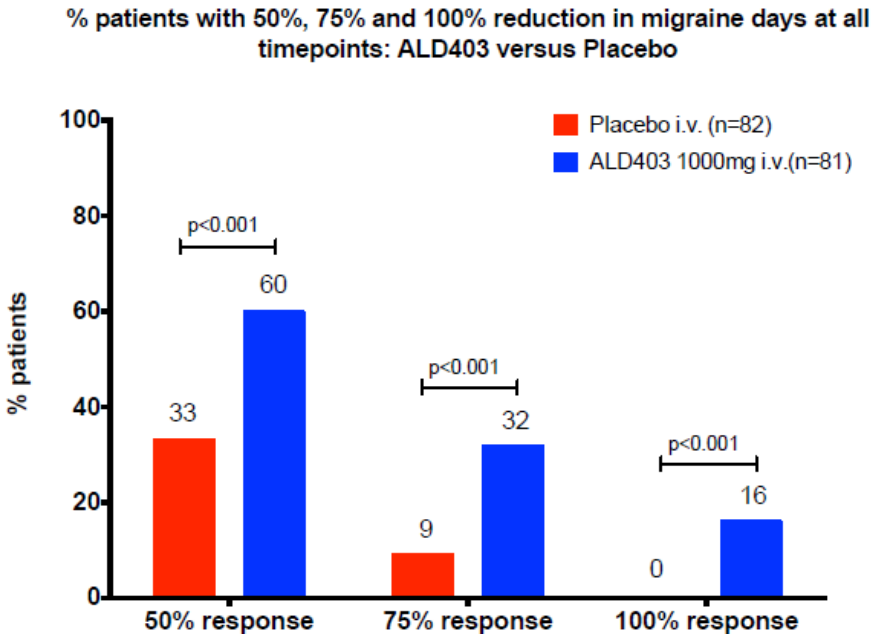
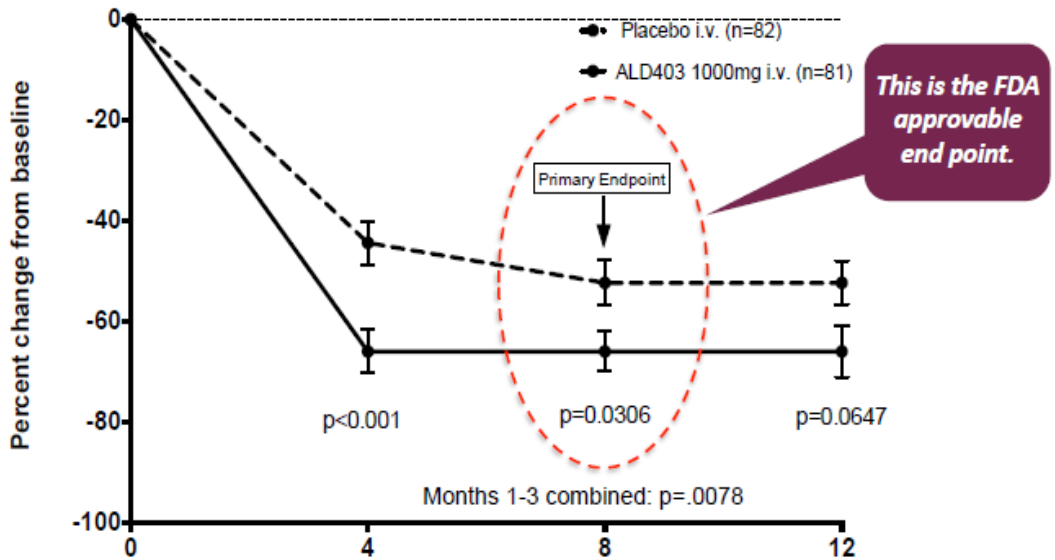
ALD403 May Be Able to Alter the Migraine Treatment Paradigm

- **ALD403 met its primary endpoint in Phase IIa of change in mean migraine days per month from weeks 5-8 when compared to baseline.** Differences in the change in mean migraine days per month was the approvable endpoint for pivotal trials of Botox and Topirimate.
- **Various other analyses validate this effect and further augment our confidence in the clinical and commercial potential of ALD403**
  - 60%, 32% and 16% of treated patients experienced at least a 50%, 75% and an 100% reduction in migraine days at all time points in the 12-week study; these results were highly statistically significant, with a p-value less than .001 for each analysis





Source: SEC Filings

ALD403 Data Compares Nicely to that Generated by Botox, Topirimate

- While cross study comparisons present intrinsic limitations because of differences in the patient populations recruited into each trial, we believe that the recent ALD403 data supports our view that it is likely to present a vast improvement over the current migraine prophylaxis standard-of-care
- Notably, ALDR has generated efficacy data in only 163 patients to date (versus >~1400 for Botox and >900 for Topomax, so early effects need to be confirmed in larger studies'
- In addition to its potential efficacy advantages, we believe that ALD403 could also prove superior to current treatments via a better safety profile (especially over topirimate) and a more attractive dosing profile when compared to Botox which requires ~32 subcutaneous injections administered by a physician

	ALDR's ALD403	AGN's Botox	JNJ's Topirimate (g-Topomax avail.)
Patient Population	High Frequency/Chronic; Data only in 4-15 migraines/mo (HF)	Chronic; >15 migraines/mo	High Frequency; patients w/ 3-12 migraines/mo
Key Studies	Phase IIa, 163 patients	PREEMPT 1 and 2; 2 double blind placebo controlled trials, total of ~1400 patients	2 double blind placebo controlled trials in US and Canada (ITT analysis), 937 patients
% Patients with 50% Reduction	***60%***	***51%***	***40-50%***
% Patients with 75% Reduction	***32%***	***25%***	***20-25%***
% Patients with 100% Reduction	***16% vs 0% placebo***	***0%***	***5.7% vs. 2.2% in placebo***
Safety Concerns	No significant differences in Adverse events between ALD403 and placebo; complete lack of LFT signal, no diff. in blood pressure/heart rate	muscle weakness, neck pain, injection site pain, "spread of toxin" effect is rare but can incur adverse events in other areas of body, such as respiratory or urinary tract	Acute myopia/glaucoma, hyperthermia, suicidal behavior, metabolic complications, cognitive/mood disturbance, fatigue

Source: Journal of American Osteopathic Association, FDA Labels, SEC Filings

Anti-CGRP Competitive Landscape: ALDR and LLY in the lead

- Other than ALDR, LLY, Labrys and AMGN are also developing migraine prophylaxis products with an affinity to CGRP
- **Thus far, only ALDR and LLY have presented positive proof-of-concept data**
- In our model we assume a lack-of-differentiation between anti-CGRP products, and project that ALDR obtains 25% share of the class at peak
- This could be conservative, however, if ALDR benefits from a first or second-mover advantage, or if other anti-CGRP products (such as AMG334, which targets CGRP receptor) for various reasons do not replicate the efficacy of '403 or '295. Of note, AMGN has recently started a second migraine program to develop a product to CGRP ligand.
- Clinicaltrials.gov suggests data from the AMGN and Labrys programs could emerge in 2H14 or 1H15

Company	Product	Status	Dosing	Migraine Type	Proof-of Concept Data	Target
ALDR	**ALD403**	**Phase IIb to begin 2H14**	**Quarterly IV, Monthly SQ**	**High Frequency/ Chronic**	**Yes; Positive**	**CGRP ligand**
Labrys	LBR101	2 Phase II Studies Ongoing	Monthly SQ	High Frequency/ Chronic	No; Primary completion dates Jan-2015 and Feb-2015	CGRP ligand
LLY	LY-2951742	Phase IIa complete, Next Studies TBA	SQ every other week	High Frequency	Yes; Positive	CGRP ligand
AMGN	AMG334	Phase I and Phase II ongoing	Monthly SQ	High Frequency/ Chronic	No; Primary completion date Aug-2014 for Phase II	CGRP receptor

Source: SEC Filings and Clinicaltrials.gov

ALDR/LLY anti-CGRP Comparison Shows Mostly Similarities Thus Far

- Though at this juncture, the safety data for '403 looks clean while the safety profile of LLY295 is more equivocal. Efficacy analyses do not clearly favor one agent over the other.

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Study size	163 patients	217 patients
50% Responder Analysis: 28 Days at Wk 12	***75% on ALD403 vs 67% placebo***	***70% on LY295 vs. 45% placebo***
Complete Responder Analysis: 28 Days at Wk 12	***41% on ALD403 vs. 17% placebo***	***33% on LY295 vs. 17% placebo***
Complete Responder Analysis: All 12 Weeks	***16% on ALD403 vs. 0% placebo***	***not presented***
Safety	No significant differences in Adverse events between ALD403 and placebo; complete lack of LFT signal, no diff. in blood pressure/heart rate	Adverse events seen more frequently in LY295 dosing arm included injection site pain, upper respiratory tract infections and abdominal pain

Source: SEC Filings and Company Presentations

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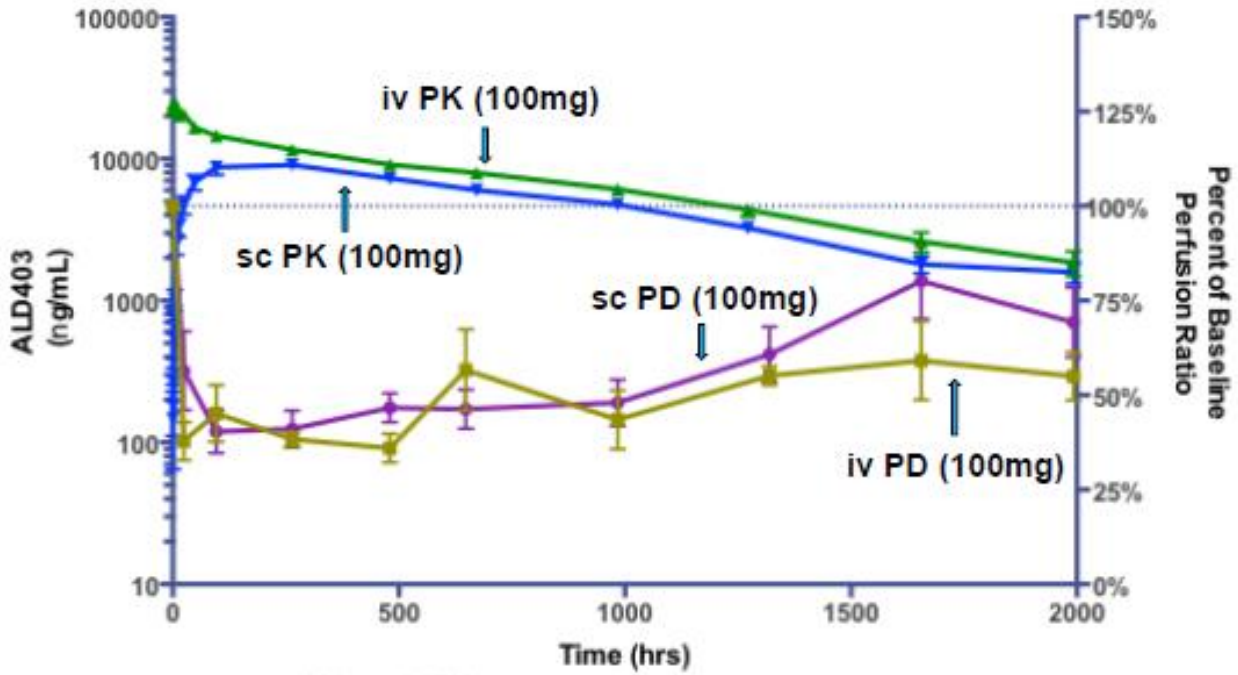
ALDR also Has Plans to Develop a SQ '403 Product with 1x/monthly dosing

- Using data from its soon to be commenced Phase IIb trial, ALDR plans to select an appropriate dose-level for evaluating a subcutaneous ALD403 formulation in a dose ranging study
- The main efficacy endpoints in such a study will be the responder analysis (patients achieving 50%, 75% and 100% reduction in migraine days per month) and the mean difference in migraine days per month
- In its SQ '403 program, ALDR plans to examine a 1x/month dose which we believe is supported by the below PK analysis which showed that 100mg of '403 administered subcutaneously was 70% as bioavailable as 100mg administered intravenously.
- If successful, this could differentiate ALD403 vs. LLY295, the latter of which is dosed biweekly

100mg of ALD403 SQ v. IV: Pharmacokinetic (PK) and Pharmacodynamic (PD) Comparison



Source: SEC Filings, American Academy of Neurology Abstracts

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CGRP In Migraine Has a History: MRK's Telcagepant Showed Efficacy but Drug (not target) Specific Safety Concerns

- Telcagepant (formerly MK-0974) was an investigational drug for the acute treatment and prevention of migraine, developed by MRK (MP)
- Telcagepant was found to be non-inferior and numerically superior to zolmitriptan in an acute migraine study (*Ho. Et al*, 2008)
- However, MRK decided to discontinue the clinical development program for Telcagepant in 2011, after it was found that a number of participants taking the drug showed elevated alanine transaminase (AST) levels. Telcagepant was a small molecule with very different properties than a monoclonal antibody such as ALD403.
- **Importantly, in its Phase I and Phase IIa studies, ALDR has not found any difference in the safety profile between ALD403 and placebo.** LY295 also showed no signs of liver toxicity.

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148 patients of ALD403 Data Show Clean Safety

- In ALDR's Phase IIa ALD403 single-dose study, there were no injection site reactions and no differences in type or frequency of AEs when comparing drug to placebo

- In addition, ALD403 showed no effect on liver function tests (LFTs), suggesting that the signal observed with MRK's Telcagepant was drug, not mechanism (CGRP-inhibition) specific

- While LY2951742 reported differences in adverse effects (AE) between drug and placebo, LLY also did observe any hepatotoxicity or Hy's Law Cases in the '295 arm

- **Next up**: patients in the ALD403 Phase IIa are being observed out to 6 months, and a Phase IIb trial will examine two doses of ALD403 administered quarterly

Source: SEC Filings and Clinicaltrials.gov

Migraine Background

- Migraine is a neurovascular disorder associated with dysfunction of the cerebral nerves and blood vessels
- Migraine pain is rooted in brainstem centers that are integral to the regulation of vascular tone and pain sensation
- Migraine specific triggers (which are believed to vary slightly patient-by-patient) cause primary brain dysfunction, which precipitates dilation of cranial blood vessels that are innervated by sensory nerve fibers, causing inflammation and a pain response to be conveyed to the brainstem
- During migraines, vasoactive peptides such as substance P and CGRP are released from trigeminal fibers, creating a positive feedback loop that redoubles pain impulses in the brain
- Approximately ~36MM patients are believed to be afflicted by migraine in the US, 21.2MM of which are diagnosed
- Only approximately half of diagnosed of episodic and chronic migraine patients have received prophylactic treatment in the past year, in large part due to efficacy and tolerability limitations presented by the standard-of-care, in our view

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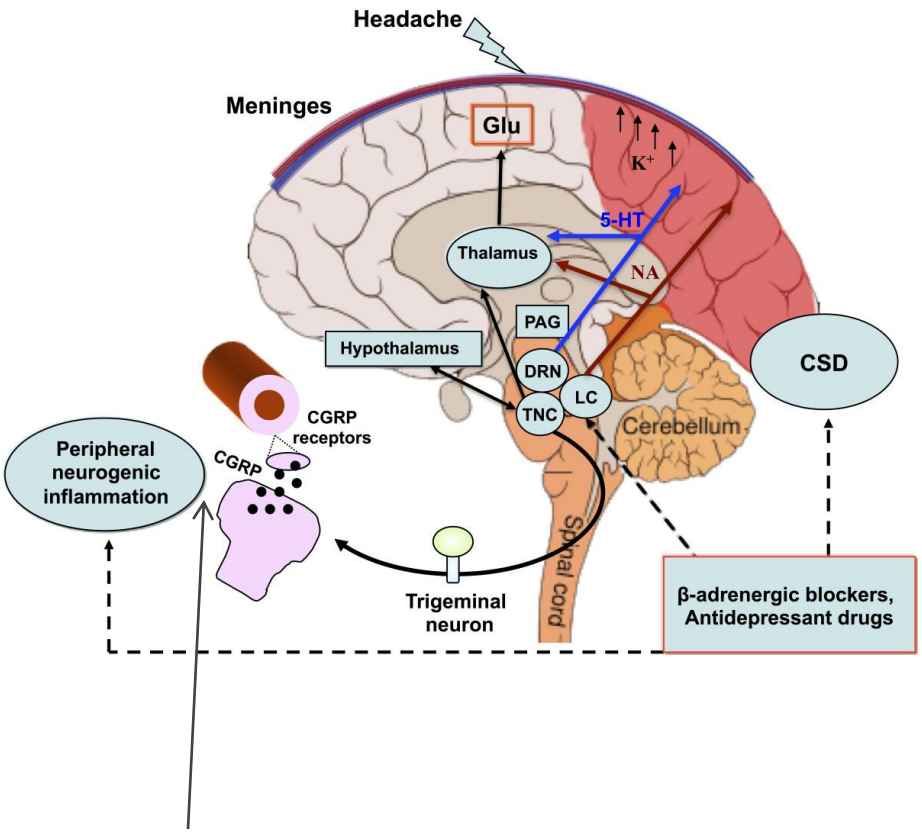
CGRP is Integral to Migraine Pathogenesis

- The neuropeptide calcitonin gene-related peptide (CGRP) has long been postulated to play an integral role in the pathophysiology of migraine
- Studies in cultured trigeminal neurons demonstrate that CGRP is released from is released from trigeminal ganglia cells and that CGRP transcription is increased under conditions mimicking neurogenic inflammation
- CGRP release is believed to augment the dilation of cerebral and dural blood cells, to lead to the release of inflammatory mediators from mast cells, and to help transmit information from intracranial blood vessels to the CNS
- Support for the importance of CGRP comes from findings showing elevated serum concentrations of CGRP during migraine attacks, as well as studies that have shown the that relief of migraine pain by triptans coincides with reduction in or normalization of CGRP concentrations in the blood



CGRP Release Incurs Vasodilation and Inflammation, Redoubling the Activity of the Migraine Feedback Loop in the CNS

Source: National Institute of Health Manuscripts, Journal of Headache, and Leerink Partners Research

Migraine Standard of Care: Acute Drugs Present Significant Limitations

- Numerous abortive medications are used for migraines, and the choice for an individual patient depends on the severity of the attacks and associated symptoms, such as the severity of pain and the incidence of nausea and/or vomiting
- Patients most commonly use a non-steroidal anti-inflammatory drug (NSAID [i.e., Advil]) or a 5-hydroxytryptamine-1 agonist (triptans)
- Triptans are most effective when taken early during a migraine, but have only a 30-50% success rate and present various other limitations
- Triptans may be repeated in two hours after a first dose, but can only be taken twice daily
- Additionally, triptans are not recommended for use more than three days a week because overuse can lead to *increased* frequency of migraines. Triptans are also limited to no more than 10 doses in any one month, which may be insufficient to treat patients with high frequency (5-14 migraine days/month) or chronic migraines(>15 migraine days/month)
- Triptans are also contraindicated in patients with existing, or at risk of, coronary artery disease

Migraine Standard of Care: Preventative Drugs Present Significant Limitations

- Currently, preventative medications approved for migraine include beta blockers (propranolol, topirimate, sodium valproate) and AGN's (MP) Botox
- In patients first seeking prophylactic treatment, beta blockers, topirimate and sodium valproate are commonly used, and failure of multiple of these agents is usually required to garner reimbursement approval for Botox
- On efficacy, all of these agents lag behind what was demonstrated by ALD403 in its Phase IIa study: in clinical trials, a 100% reduction in migraine days or episodes with topirimate occurred in less than 6% of patients. In Phase III trials, Botox did not report any complete responses.
- Tolerability also presents a significant limitation for existing agents: the Topamax label includes a long list of adverse events, acute myopia/glaucoma, hyperthermia, suicidal behavior, metabolic complications, cognitive/mood disturbance, and fatigue. Additionally, the Botox label warns against the possibility of muscle weakness, neck pain, injection site pain, and the "spread of toxin" effect which is rare but can incur adverse events in other areas of body such as the respiratory and urinary tracts.

ALD403 Assumptions: Pricing and Probability of Success

- For ALD403, we assume a 60% probability of approval and an annual cost of $12,000/year
- We believe our likelihood of success assumption could be conservative (given ALD403's strong efficacy and favorable safety profile in Phase IIa), though our 60% approval probability assumption reflects the fact that ALDR will likely need ~1000 patients exposed (like Botox and Topirimate) in order to garner FDA/EMA approval
- Our cost assumption of ~$12K/year would render ALD403 cheaper than antibodies/biologics for RA, and priced comparably to Lucentis/Eylea for macular degeneration
- While ~$12K/year represents a premium to Botox, which costs somewhere between ~$3K to ~$6K per year depending on the number of treatments a patient receives, we believe that Botox is priced more conservatively due to its first presence in the cosmetics market, where payor reimbursement is minimal. Botox efficacy is also less impressive than ALD403, the latter of which has a very low number needed to treat of 6 in order to generate a 100% complete responder.
- We believe that ALDR can make strong pharmacoeconomic arguments to payors who may appreciate that migraine-related disability is a leading factor for ER visits, time with physicians, employee absenteeism and productivity.

Migraine Pharmacoeconomics Supportive of Premium Pricing for '403

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- In addition to its clinical benefits to patients, we believe that ALD403 could also present a compelling value proposition to payors

- According to a 2012 report by the US Agency for Healthcare Research and Quality, **headaches accounted for 2.1MM visits to the ER in 2012**

- In addition, the Migraine Research Foundation estimates that **US employers lose more than $13B each year as a result of 113 million lost work days due to migraine**

- Thus, if ALD403 is able to reduce migraines by at least 50% in most treated patients, we believe that health plans are likely to cover anti-CGRP prophylaxis therapy in serious migraine patients. Our revenue model assumes that anti-CGRP MAbs are utilized in just 5.5% of diagnosed chronic/episodic migraine patients in 2025 (our ALD403 peak sales year)

Migraine Market Dynamics are Well Suited to an ALDR Supported Launch in the US

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- In the US, most patients with high frequency or chronic migraine seek preventative treatment from neurologists and pain specialists
- By the time a high frequency or chronic migraine patient begins prevention therapy, the patient is likely to have experienced non-response to abortive therapy
- Neurologists disproportionately prescribe prophylactic treatments: despite representing only 9% of anti-migraine prescribers, neurologists are responsible for ~50% of topirimate TRx
- Thus, if ALD403 is approved, ALDR plan to build a 75-100 person sales force targeting the high-prescribing neurologists and headache centers in the US
- Additionally, we believe that ALDR could benefit from the detailing and marketing efforts of well-resourced competitors such as AMGN and LLY, also in Phase II development for their anti-CGRP therapeutics

ALDR Revenue Model: We Only Assume Peak ALD403 anti-CGRP Market Share of 25%.....

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- …..which for a variety of reasons we believe holds the potential to prove conservative

- At this stage, ALD403 and LLY295 are the only companies that have announced positive proof-of-concept data for their anti-CGRPs. However, we acknowledge that with most classes of antibodies to the same target (i.e., Lucentis and Eylea or the burgeoning PCSK9 class), efficacy and safety profiles usually prove relatively undifferentiated.

- However, our model assumes that all of Alder, LLY, AMGN and Labrys get their products to market, and does not provide ALDR with a potential first or second-mover advantage.

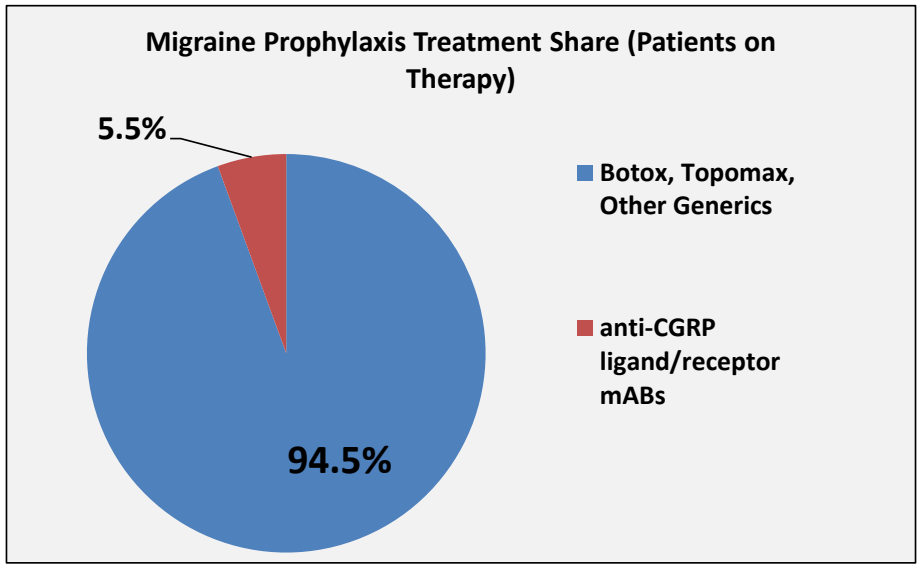
- ALDR could also benefit from having both IV and SQ offerings, the former of which has shown efficacy with quarterly dosing and the latter of which is planned to offer a dosing frequency that is ½ as often as LLY295.

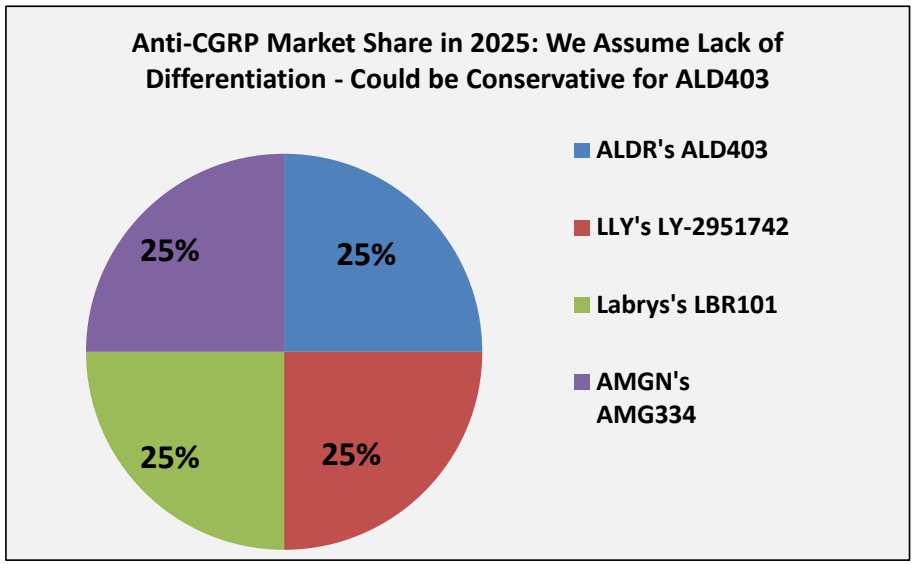
ALD403 Revenue Model Assumptions

- We assume 36MM migraine patients in the US, 62% of which (22MM) are diagnosed
- Based on the patient populations ALDR is pursuing in clinical trials (patients with >5 migraine days/month), we assume that 56% of these individuals are candidates for prophylaxis
- Based on our conversations with MEDACorp KOLs and Leerink survey research on AGN's Botox, we assume that approximately half of these diagnosed candidates for prophylaxis are receiving or have received preventative treatment for their migraines in the past year; we assume this treatment rate increases to 55% ~3 years after the first anti-CGRP product is approved
- We then penetrate the CGRP class into this patient population – we assume that 5.5% of these patients treated with prophylaxis are receiving a CGRP by 2025
- **For ALD403: we assume that it enters the market with 50% share of CGRP prescriptions (split with LLY who is also in the lead), which decreases to 25% in 2021 with the emergence of AMGN and Labrys**

ALD403 as a Proportion of the Migraine Prevention Market, 2025E

- **We assume 7.6MM of our estimated 24.6MM diagnosed migraine patients seek prophylactic treatment in 2025 and that 5.5% of these patients are receiving an anti-CGRP**





Source: Leerink Partners Research

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We Project $750MM in risk-adjusted US ALD403 Sales in 2025

Figures in $MM

ALD403 US Revenue Model	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Patients Suffering from Migrane (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
% diagnosed	62%	62%	62%	62%	62%	62%	62%	62%	62%	62%	62%	62%
Diagnosed Migrane 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
% candidates for prophylaxis	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
% receiving prophylaxis	50%	50%	50%	50%	50%	52%	53%	54%	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
% 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%
Migrane Patients Receiving anti-CGRP	-	-	-	-	-	20,374	69,842	179,500	276,704	372,260	398,147	416,890
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%
Patients Receiving ALD403	-	-	-	-	-	10,187	24,445	44,875	69,176	93,065	99,537	104,222
Annual Cost	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000
Gross Revenue ($MM)	$ -	$ -	$ -	$ -	$ -	$ 122	$ 293	$ 539	$ 830	$ 1,117	$ 1,194	$ 1,251
Approval Probability	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
Risk-Adjusted Revenue	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 73**	**$ 176**	**$ 323**	**$ 498**	**$ 670**	**$ 717**	**$ 750**

Source: SEC Filings and Leerink Partners Research

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We Assume ALDR Partners ALD403 in Ex-US Markets

- We expect ALDR to launch ALD403 in the US using a 75-100 rep specialty salesforce that targets high prescribing neurologists
- Ex-US, we assume that ALDR partners '403 and generates a 15% royalty on sales – we model peak ALD403 ex-US sales of ~$350MM in 2025

ALD403 ROW Revenue Model	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
ROW Sales (probability-weighted)	$ -	$ -	$ -	$ -	$ -	$ -	$ 18	$ 81	$ 174	$ 302	$ 322	$ 338
% of US	0%	0%	0%	0%	0%	0%	10%	25%	35%	45%	45%	45%
ALDR Royalty Rate	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Royalties to ALDR (probability-weighted)	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 3**	**$ 12**	**$ 26**	**$ 45**	**$ 48**	**$ 51**

Figures in $MM

Source: SEC Filings and Leerink Partners Research

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ALD403: Assumed Development/Approval Timeline

ALD403 Milestones

Product	Catalyst	Timing
ALD403	Full Proof-of-Concept Data	2Q14 - AAN
ALD403	Phase IIb Initiation	2H14
ALD403	Phase IIb Data	2H15
ALD403	Phase III Initiation	1H16
ALD403	FDA/EMA Approval	2019

Source: Leerink Partners Estimates, company information

Clazakizumab: IL-6 Antibody for Rheumatoid Arthritis

Clazakizumab for Rheumatoid Arthritis: Compelling Economics for ALDR

- Clazakizumab is currently in a second Phase IIb trial, which is funded fully by Bristol-Myers Squibb
- In the agreement, ALDR is eligible to receive ~$1.3B total in clinical/regulatory/commercial milestones, and ~$40MM when BMS initiates a Phase III trial, which is expected in 2015.
- ALDR also stands to receive tiered royalties starting in the mid-teens up to 20% on WW Clazakizumab sales.
- Data from the second RA Claza Phase IIb (which is looking to demonstrate a linear dose response) is expected by YE14. In addition, BMY is also running a Clazakizumab trial in Psoriatic Arthritis, from which data will be presented at the American College of Rheumatology to be held in Boston from November 14-19.
- Clazakizumab's potential in PsA currently presents upside to our valuation

Source: SEC Filings

IL-6 is a Validated Target, Supporting the Emergence of a New Drug Class for RA

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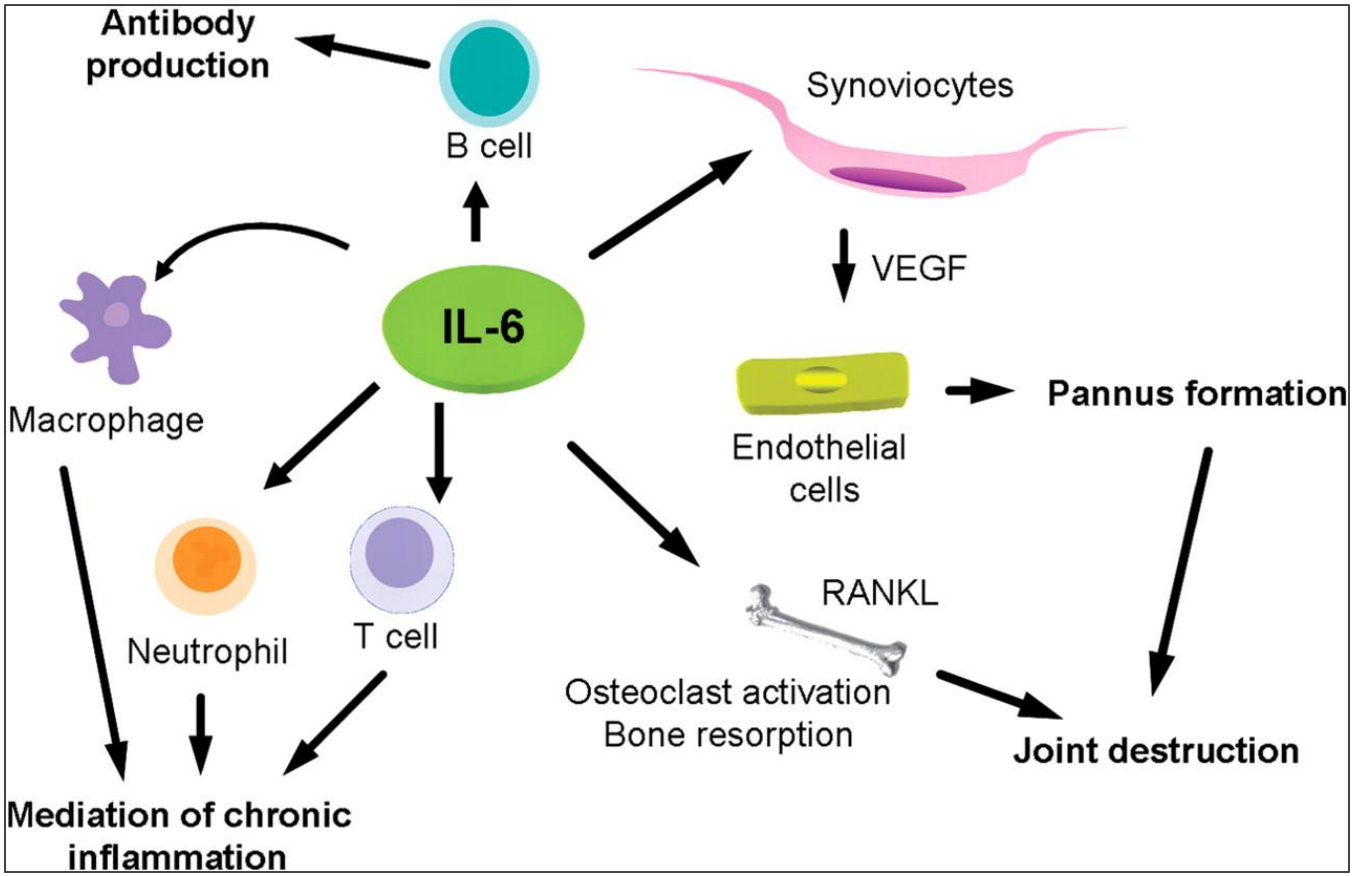
- **Extensive RA research has detailed Interleukin-6 as a target that plays a critical communicative role in the immune cascade, which can lead to joint destruction in RA**
- This, along with strong clinical data from Clazakizumab, the approval of Roche's Actemra in 2010 and compelling efficacy from other IL-6 products de-risks the treatment strategy and the development of Clazakizumab, we believe



Source: Journal of Rheumatology, Company Filings

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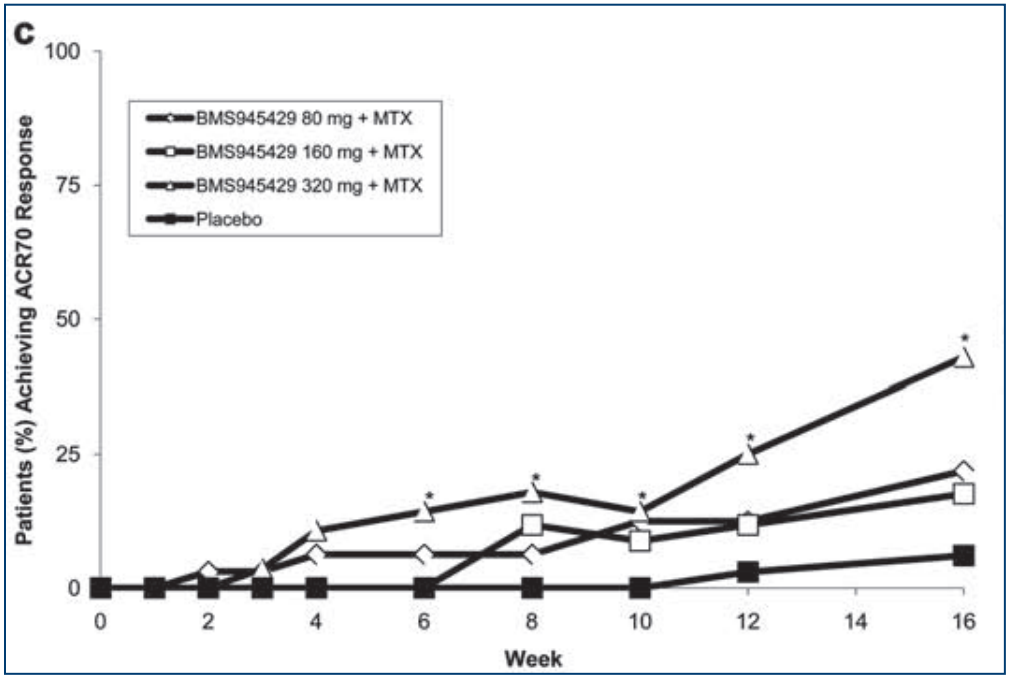
Clazakizumab Phase IIa: Superiority to Methotrexate (MTX)

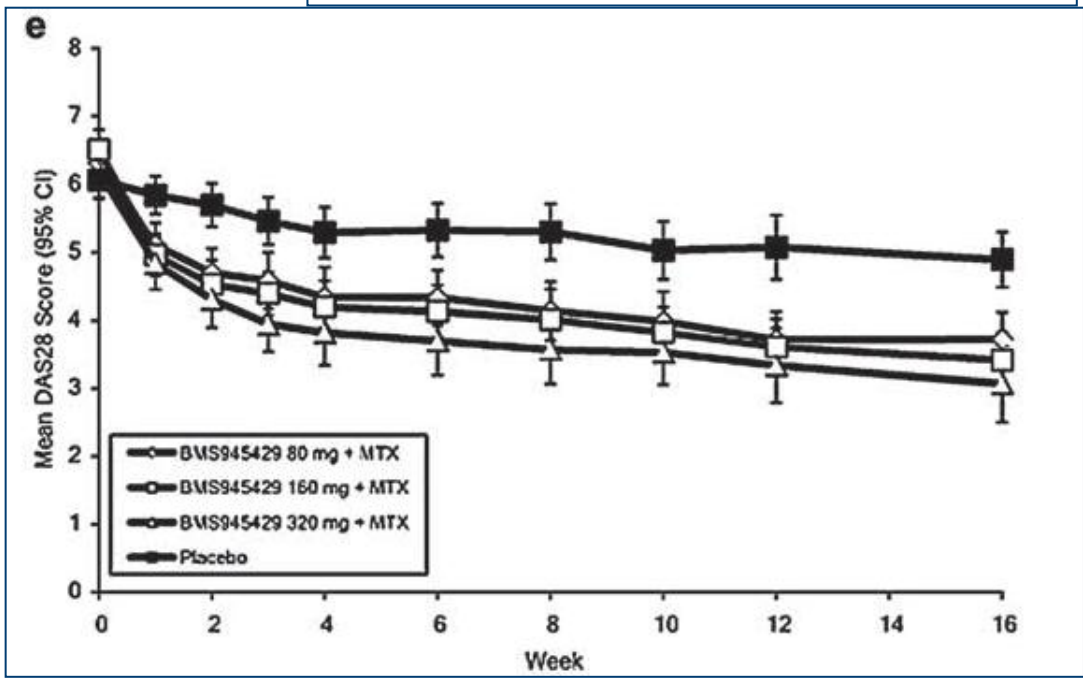
- In the claza, 16-week, double-blind Phase IIa, patients were randomized 1:1:1:1 to either 80, 160 or 320mg of Clazakizumab or placebo plus MTX
- The primary efficacy endpoint was the proportion of patients with a 20% improvement in American College of Rheumatology responses (ACR20) at week 12. ALDR also examined ACR50, ACR70 and the 28-joint Disease Activity Score (DAS28). Claza showed superiority to MTX on all measures examined in the trial.
- Shown in the graph below, the clinical significance of such results were corroborated by compelling efficacy on the ACR70 and DAS28, which MEDACorp KOLs view as a more important measure than the ACR20

Phase IIa results[2]	ACR 20 response at Week 12, %
Clazakizumab 80 mg IV q8w (n=32)	81
Clazakizumab 160 mg IV q8w (n=34)	71
Clazakizumab 320 mg IV q8w (n=28)	82
Placebo (n=33)	27

Source: BMS Slides

Note: While the ACR20 is less relevant to specialists with whom we spoke, it is a validated registrational endpoint





Note: at this stage of development, Clazakizumab was known as BMS9495429

Source: Annals of Rheumatic Diseases, BMS Slides

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Clazakizumab Phase IIb – a replication of strong Phase IIa results

- In a Phase IIb double-blind, 24 week placebo-controlled trial, 5 Clazakizumab doses were examined (subcutaneous Q4W) – 3 in combination with MTX and 2 as a monotherapy
- Shown in the chart below, like in the Phase IIa, all Clazakizumab doses were superior to placebo+MTX on the ACR20
- **Most importantly, however, Clazakizumab+MTX showed comparable efficacy to Adalimumab (Humira) +MTX, the latter of which is currently the first-line TNF-inhibitor for RA patients requiring biologic therapy**

Patients, % (95% CI)	PBO+MTX n=61	C25+MTX n=59	C100+MTX n=60	C200+MTX n=60	C100 n=60	C200 n=59	ADA+MTX n=59
Primary endpoint: ACR 20 response rate	39.3 (27.1, 51.6)	78.0 (67.4, 88.5) p<0.001	71.7 (60.3, 83.1) p=0.001	60.0 (47.6, 72.4) p=0.015	55.0 (42.4, 67.6) p=0.042	61.0 (48.6, 73.5) p=0.015	76.3 (65.4, 87.1)
ACR 50 response rate	21.3 (11.0, 31.6)	49.2 (36.4, 61.9)	43.3 (30.8, 55.9)	26.7 (15.5, 37.9)	26.7 (15.5, 37.9)	28.8 (17.3, 40.4)	30.5 (18.8, 42.3)
ACR 70 response rate	8.2 (1.3, 15.1)	20.3 (10.1, 30.6)	26.7 (15.5, 37.9)	13.3 (4.7, 21.9)	13.3 (4.7, 21.9)	10.2 (2.5, 17.9)	11.9 (3.6, 20.1)

Source: BMS Company Presentations and Leerink Partners Research

Clazakizumab Phase IIb – numerical superiority to Humira on Various Measures of Remission

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- While there was significant variability between treated patients (producing overlapping confidence intervals) **all doses of Clazakizumab +MTX showed numerical superiority to Humira+MTX on the ACR70 and the DAS remission scale** (defined by proportion of patients with a CDAI less than or equal to 2.8, as guided by the ACR)
- **Such results are more compelling than those produced by Actemra we believe**; Actemra also showed better efficacy than Humira in a Phase IV study, but this trial solely looked at the drugs in a monotherapy setting, and compared the strongest dose of Actemra to the a Humira "optimized" dosing regimen which is not often used in practice. By comparison, ALDR's Phase IIb compared Claza+MTX to Humira+MTX, w/ Humira being dosed Q2W (as it is in the clinic) versus SQ Clazakizumab Q4W

Patients, % (95% CI)	PBO+MTX n=61	C25+MTX n=59	C100+MTX n=60	C200+MTX n=60	C100 n=60	C200 n=59	ADA+MTX n=59
ACR 20 response rate	39.3 (27.1, 51.6)	83.1 (73.5, 92.6)	63.3 (51.1, 75.5)	66.7 (54.7, 78.6)	58.3 (45.9, 70.8)	57.6 (45.0, 70.2)	67.8 (55.9, 79.7)
ACR 50 response rate	18.0 (8.4, 27.7)	47.5 (34.7, 60.2)	45.0 (32.4, 57.6)	43.3 (30.8, 55.9)	36.7 (24.5, 48.9)	33.9 (21.8, 46.0)	49.2 (36.4, 61.9)
ACR 70 response rate	6.6 (1.8, 15.9)	27.1 (15.8, 38.5)	38.3 (26.0, 50.6)	30.0 (18.4, 41.6)	16.7 (7.2, 26.1)	25.4 (14.3, 36.5)	18.6 (8.7, 28.6)
CDAI ≤2.8	1.6 (0.0, 8.8)	15.3 (6.1, 24.4)	20.0 (9.9, 30.1)	20.0 (9.9, 30.1)	6.7 (1.8, 16.2)	6.8 (1.9, 16.5)	8.5 (1.4, 15.6)
Boolean remission definition	1.6 (0.0, 8.8)	10.2 (2.5, 17.9)	13.3 (4.7, 21.9)	18.3 (8.5, 28.1)	5.0 (1.0, 13.9)	5.1 (1.1, 14.1)	10.2 (2.5, 17.9)

Source: BMS Company Presentations and Leerink Partners Research

Clazakizumab Safety Comparable to Actemra

- In both Phase II trials, Clazakizumab showed almost identical safety to already approved IL-6 biologic Actemra; common issues associated with inhibiting IL-6 include a higher rate of infections, increases in LDL cholesterol and lab abnormalities (elevated liver enzymes) in a small number of patients
- **MEDACorp KOLs view IL-6 agents as slightly less safe than anti-TNFs, the latter of which they are more comfortable with given their extensive experience.**
- Shown in the chart below, in the Phase IIb, there was a slightly higher proportion of adverse events and serious adverse events in the Clazakizumab treatment arms, though only a very small percentage of these led to discontinuations

Number (%)	PBO+MTX n=61	C25+MTX n=59	C100+MTX n=60	C200+MTX n=60	C100 n=60	C200 n=59	ADA+MTX n=59
SAEs	2 (3.3)	5 (8.5)	5 (8.3)	5 (8.3)	5 (8.3)	8 (13.6)	3 (5.1)
Discontinuations due to SAEs	0	0	3 (5.0)	0	1 (1.7)	2 (3.4)	0
AEs	36 (59.0)	49 (83.1)	58 (96.7)	54 (90.0)	53 (88.3)	51 (86.4)	44 (74.6)
Infections*	0	2 (3.4)	3 (5.0)	3 (5.0)	1 (1.7)	3 (5.1)	2 (3.4)
Malignancies	0	0	0	0	0	0	0
Laboratory abnormalities	0	0	1 (1.7)†	0	1 (1.7)‡	0	0

: *Infections in the Clazakizumab groups included appendicitis, cellulitis, pneumonia, atypical pneumonia, bursitis, tenosynovitis, influenza, sepsis and urinary tract infection, 2 pulmonary tuberculosis (C100 + MTX arm, C200 mono therapy arm), *Pneumocystisjirovecii* (C200 + MTX), †Single case of alanine aminotransferase increase and aspartate aminotransferase increase; ‡Neutropenia

Source: BMS Company Presentations

Additional Phase IIb Ongoing to Characterize Claza Dose Response – Data by YE14

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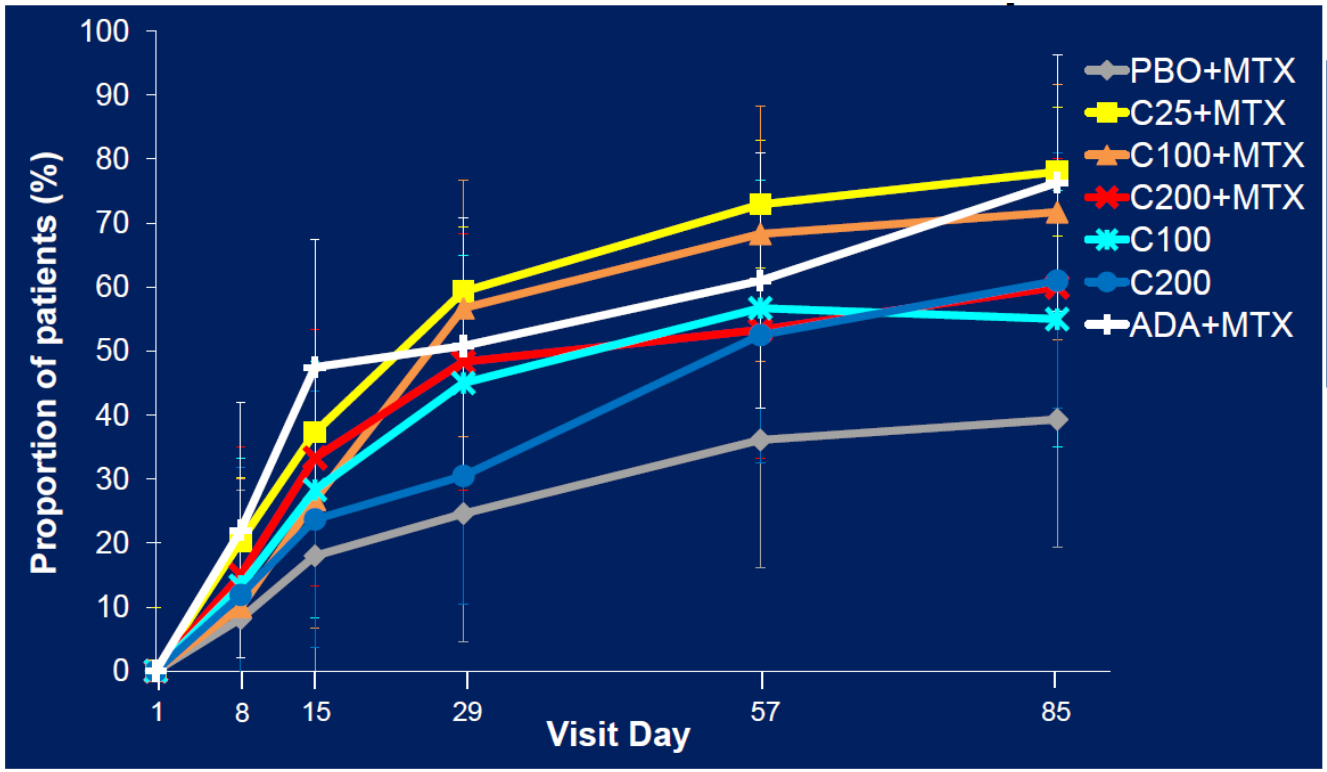
- Thus far, Clazakizumab has not showed a clear dose-response, which has led BMS to run an additional Phase IIb dose ranging study to examine lower concentrations.
- **While doses of 80mg, 160mg and 320mg were examined in the first Phase IIb, BMS is looking at doses of 1mg, 5mg and 25mg in the second Phase IIb**
- We expect such data to precipitate an advancement to Phase III, and could result in the progression of a finalized Clazakizumab dose that is equally efficacious to previously studied concentrations but offers a better safety profile. Importantly, higher doses examined in the first Phase II have not shown a safety signal that would prohibit approval, we believe



ACR20 improvement kinetics show compelling Clazakizumab efficacy but lack of dose response relationship

Source: BMS Company Presentations

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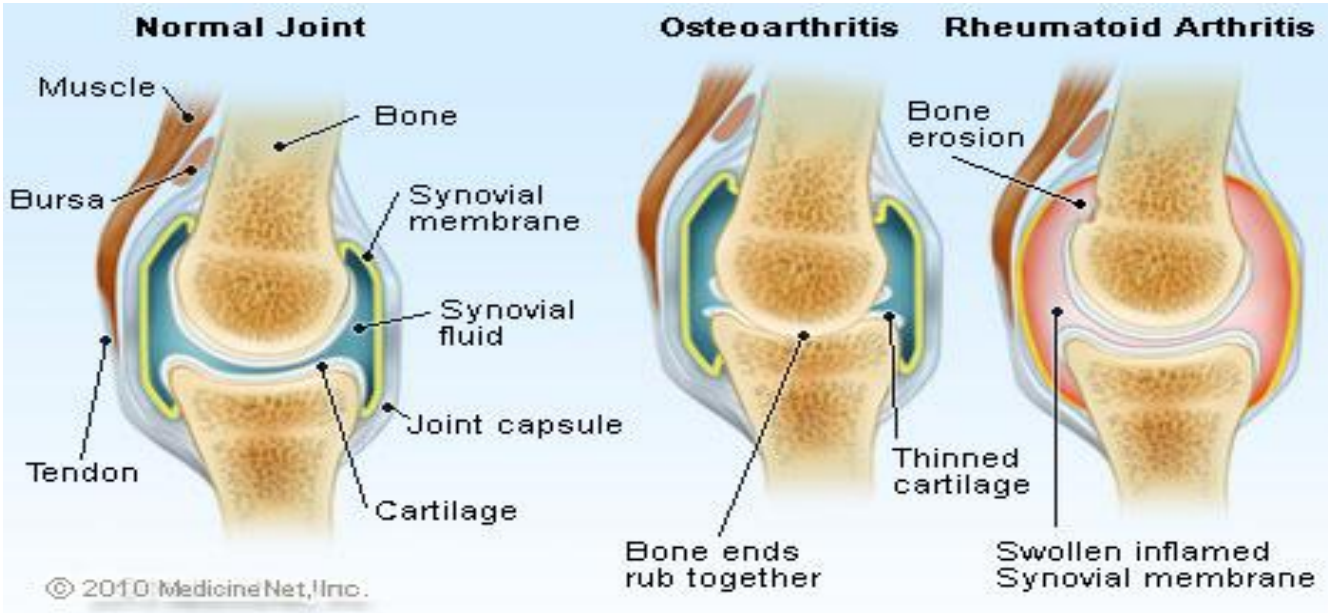
Rheumatoid Arthritis Background: ~25MM-30MM Patients in the US

- In Rheumatoid Arthritis (RA), the immune system attacks the synovial lining of joints, tendons and periaticular structures, causing chronic pain and inflammation
- The exact etiology of RA is unknown, but genetics are believed to play a role in RA development and onset. Smoking, the presence of autoantibodies, hormonal imbalances, and environmental triggers may all play a synergistic role in triggering RA disease.
- The small joints of the hands and feet are usually affected first, and over time this can lead to permanent damage, as well as the emergence of inflammation in other joints in the body
- **RA affects an estimated 1.0% of the US population, with a female to male ratio of 2:1**



Normal and Arthritic Joints

Source: Medicine.net, NIH.gov, SEC Filings

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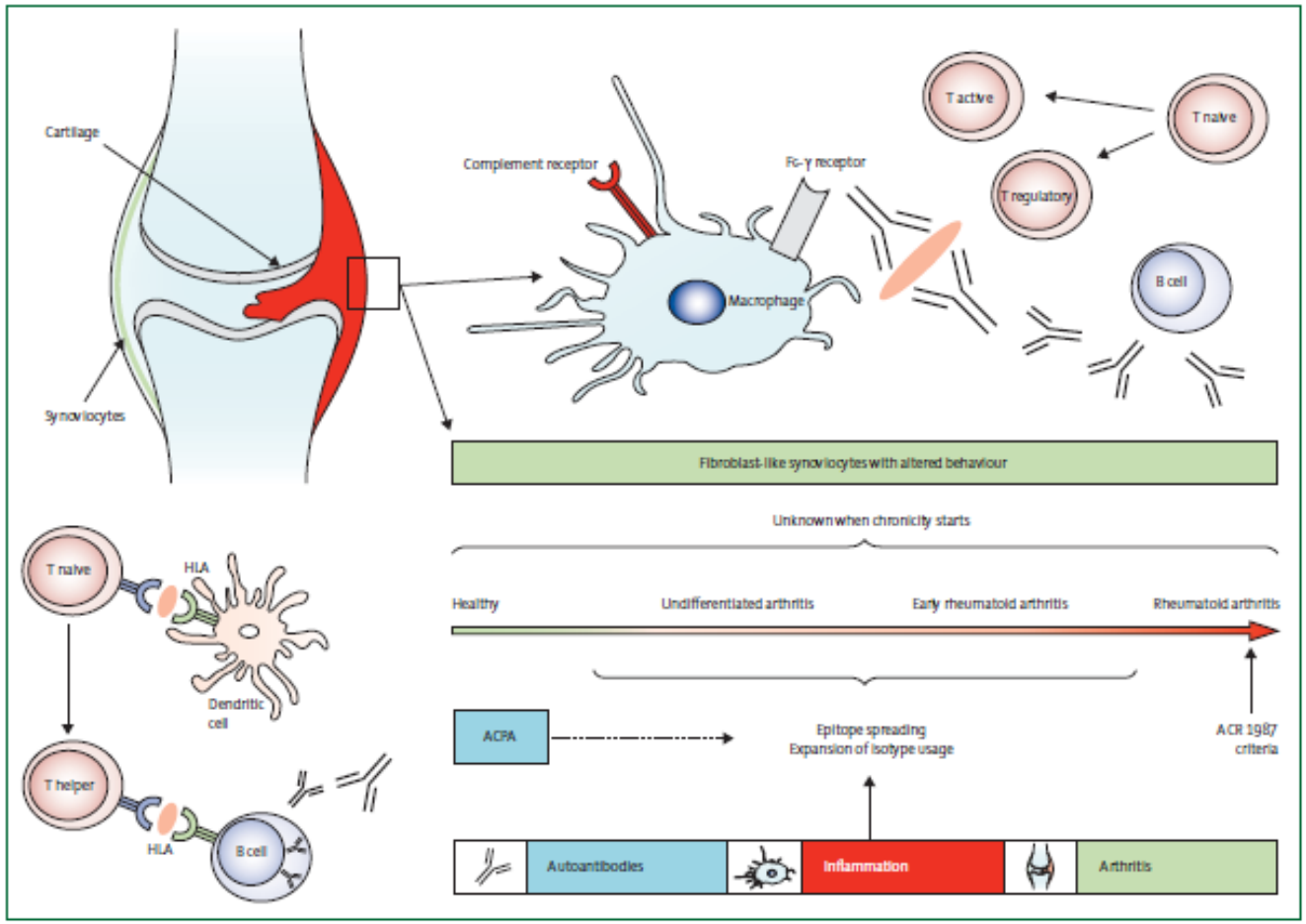
Diversity in Immune Cells, Pathways that Drive RA Pathogenesis

- RA is a complex process in which T-cells, T-regulatory cells, T-helper cells, B-cells, Macrophages and the Complement Cascade are all believed to play a role
- Macrophages specifically produce pro-inflammatory products, including TNF and IL-6, which then recruit other immune cells and re-activate positive immune system feedback loops
- It is believed that different patients may have RA that is more or less TNF/IL-6 related, but at this stage biologic treatment selection is not driven by patient-specific biochemistry

A Depiction of the Different Immune System Mechanisms Involved in RA Inflammation



Source: Lancet

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Rheumatoid Arthritis Treatment Paradigm

- Treatment options for RA, in order of first-line to last-line include:
  - Non steroidal anti-inflammatory drugs (NSAIDs) and glutocorticoids
  - Traditional "DMARDs" (disease –modifying anti-rheumatic drugs) which include methotrexate (MTX), sulfasalazine, hydroxychloroquine, lefunomide, and cyclosporine
  - Biologic DMARDs, including the anti-TNF class, anti-CD28 therapy, anti-IL1 therapy, anti-B-cell therapy, JAK-inhibitors, and anti-IL6 drugs.

Biologics Drugs Approved for Rheumatoid Arthritis

Company	Drug (Gx Name)	Drug (Brand)	Approach	Year Approved
JNJ	inflixumab	Remicade	anti-TNF	1998
AMGN/PFE	etanercept	Enbrel	anti-TNF	1998
SOBI	anakinra	Kineret	anti-IL1	2001
ABBV	adalimumab	Humira	anti-TNF	2002
BMY	abatacept	Orencia	anti-CD28	2005
BIIB/Genentech	rituxumab	Rituxan	anti-B-cell	2006
UCB	certolizumab	Cimzia	anti-TNF	2009
JNJ/MRK	golimumab	Simponi	anti-TNF	2009
Roche	tocilizumab	Actemra	anti-IL6	2010
PFE	tofacitinib	Xeljanz	JAK inhibtor	2012

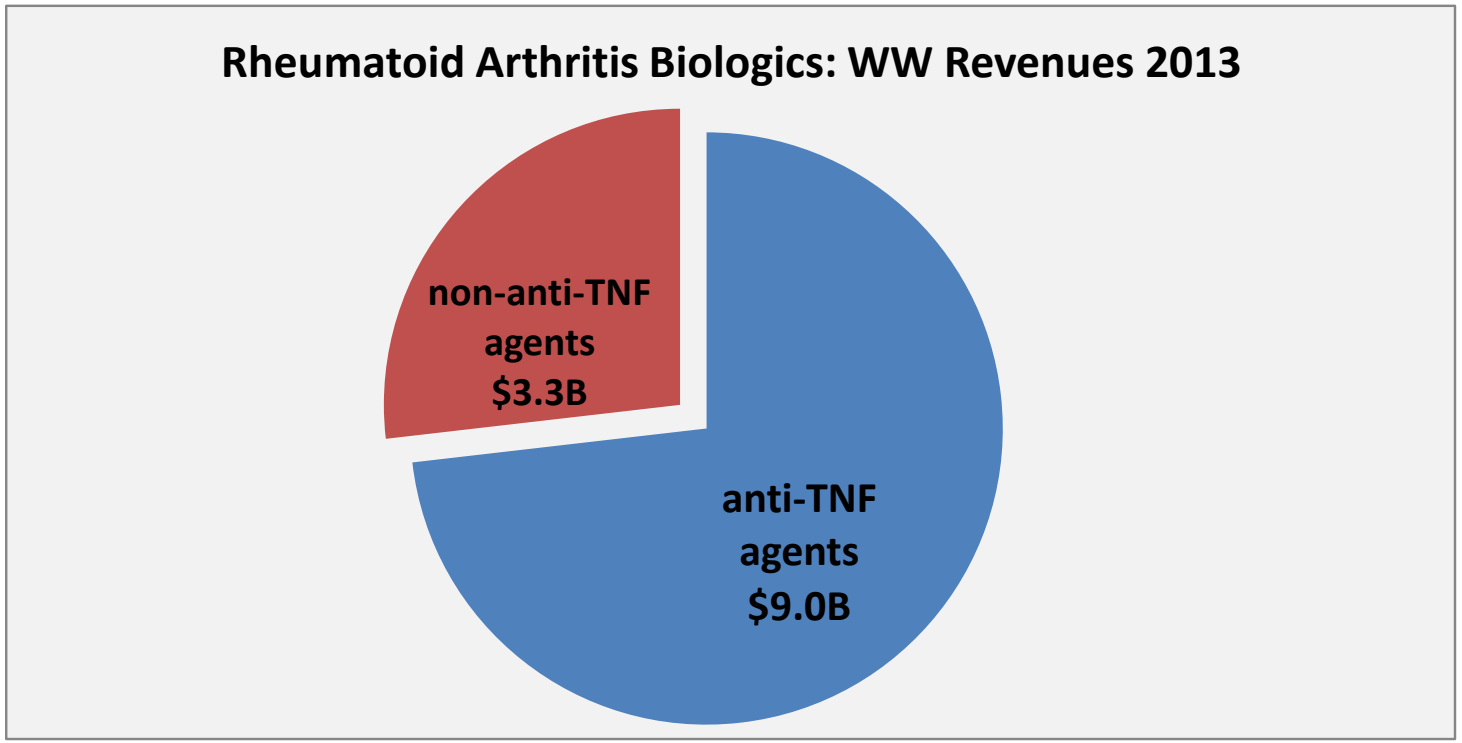
Source: Lancet, Leerink Partners Research, clinicaltrials.gov

MEDACorp KOLs View TNFs as the Entrenched, Go-To Biologic Agents

- **If after 2-3 months a patient's RA remains uncontrolled by NSAIDs, gluticocorticoids or traditional DMARDs, the vast majority of physicians start a patient on a TNF inhibitor, usually Humira or Enbrel**
  - Specialists note considerable comfort ability with these agents within the rheumatology community, and thus do not expect Humira/Enbrel to cede their market leadership in the near future, despite the recent emergence of various new seemingly non-inferior therapies
  - Humira is dosed Q2W versus QW for Enbrel, and is thus most preferred by patients, according to KOLs
- Once on an anti-TNF, if a patient still has breakthrough disease activity, he/she is often switched to either 1) a second anti-TNF, such as Enbrel, Remicade, Cimzia or Simponi or 2) an agent with a different mechanism of action, such as Actemra, Orencia or Rituxan
- PFE's JAK (janus kinase) inhibitor is the newest type of DMARD to be approved for RA; however MEDACorp KOLs note that its use thus far has been limited to mostly 2nd or 3rd line anti-TNF failure setting, largely due to hesitancy stemming from the drug's safety profile

Yet, the TNF-Refractory Market is Significant, and is Expected to Expand

- Non TNF inhibitor biologics Actemra and Orencia generated ~$1.1B and ~$900MM in sales in 2013. Other non-TNF-inhibitors generated ~$1.3B in sales
- MEDACorp KOLs estimate that ~25% of their patients treated with a TNF ultimately become "TNF refractory". Currently, patients who fail a TNF such as Humira are often switched to another TNF. However, specialists with whom we spoke expect this dynamic to evolve over time, and anticipate that rheumatologists will begin to switch more TNF failures to anti-IL-6 agents as they gain more comfort with the safety profile of these products.
- **In our RA revenue model we project that with the recent approval of SQ Actemra and the emergence of various other IL-6 agents, the IL-6 class will generate ~$3.6B in sales at peak in 2023.**



Source: Leerink Partners Research and SEC Filings

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IL-6 Strategy Validated by Multiple Players, but This Means Heavy Competition

- Clazakizumab is one of six anti-IL-6 agents in development, and thus will have to compete with various other agents that operate via the same mechanism-of-action that have largely similar efficacy/safety profiles
- However, we believe that ALDR stands to benefit from a strong partner in BMS, who already has a Rheumatology salesforce established with Orencia
- In addition, ALDR could also differentiate its product via pricing, as its MabXpress technology could enable it to produce Claza more cost efficiently. Specialists with whom we spoke cite cost as a large concern in RA, and thus we believe that discounting Claza slightly relative to other RA biologics (all of which are >$20K per year) could render it more attractive than the competition

Anti-IL6 Drugs In Development

Company	Drug (Brand)	Stage	Target
Roche	Actemra	approved	Receptor
REGN/SNY	Sarilumab	Phase III	Receptor
BMS/ALDR	Clazakizumab	Phase IIb	Ligand
JNJ/GSK	Sirukumab	Phase III	Ligand
UCB	Olokizumab	Phase IIb	Ligand
Ablynx	ALX-0061	Phase IIa	Receptor

Source: Company Reports and clinicaltrials.gov

RA Revenue Model Assumptions

- In 2013 the worldwide market for RA biologics was $12.3B; we estimate that this was comprised of 73% branded TNF inhibitors, 9% IL-6 (Actemra) and 18% other products
- At peak in 2023, we anticipate that the IL-6 market will comprise 18% of the RA biologics market ($3.6B of $20.2B), of which we model 15% share to Clazakizumab.
- We believe that our projections for Claza could be conservative: this number accounts for the fact that Claza is likely to be the 3rd or 4th IL-6 on the market (depending on how quickly Sarilumab and Sirkumab advance through development), but does not account for the possibility that 1) ALDR benefits from a faster launch due to BMS's established Rheumatology infrastructure or 2) any pricing flexibility/margin advantages from ALDR's MabXpress platform
- Ultimately we believe that biosimilars could emerge in the late teens early 2020s, but we expect these to still be priced in the $10k-$18k range, and therefore do not expect these products to be a drag on Claza sales for some time

Source: Leerink Partners Estimates

We Project ~$275MM in WW Risk-Adjusted Clazakizumab Sales in 2023

Figures in $MM

WW Rheumatoid Arthritis Market Model	2013A	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
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
yoy growth		7%	7%	6%	5%	5%	5%	4%	4%	4%	4%	4%	4%
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
Market Share	73%	71%	70%	68%	66%	60%	58%	56%	54%	53%	52%	51%	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
Market Share	9%	11%	12%	13%	14%	17%	18%	18%	18%	18%	18%	17%	16%
Clazakizumab Share of IL-6						5%	10%	15%	15%	15%	15%	15%	15%
Clazakizumab Gross Revenues						**$140**	**$311**	**$486**	**$506**	**$527**	**$547**	**$536**	**$522**
Approval Probability		50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
P(w) Revenues						**$70**	**$155**	**$243**	**$253**	**$263**	**$273**	**$268**	**$261**
Royalty Rate						14%	15%	16%	17%	17%	17%	17%	17%
P(w) Royalties to ALDR						**$10**	**$23**	**$39**	**$43**	**$45**	**$46**	**$46**	**$44**
Gross Milestones		$0	$40	$50	$0	$200	$50	$10	$25	$10	$25	$0	$0
P(w) Milestones to ALDR		**$0**	**$40**	**$25**	**$0**	**$100**	**$25**	**$5**	**$13**	**$5**	**$13**	**$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
Market Share	18%	18%	18%	19%	20%	23%	24%	26%	28%	29%	30%	32%	34%

Clazikizumab Approval Probability	50%

Source: Company Filings and Leerink Partners Research

Financial Model Assumptions, and Projections for the Platform

We Project that ALDR has Sufficient Cash to Fund Operations into 2016

- **We project increases in R&D spending from $32MM in 2013 to $37MM, $65MM and $75MM in 2014, 2015 and 2016**, driven primarily by the advancement of ALD403 into Phase IIb and Phase III

- **In addition, we expect SG&A to increase from $8MM in 2013 to $12MM and $19MM in 2014 and 2015, and ultimately to $63MM in 2018** when ALDR is on the cusp of launching ALD403 in migraine and hires its US salesforce

- **In the meantime, we believe that ALDR's cash position could benefit from milestones from Bristol-Myers Squibb.** We model a $40MM milestone in the cash flow statement in 3Q15 when BMS starts a Phase III trial for Clazakizumab. In addition, we model a $25MM in milestones in 2016 based on recruitment and the initiation of a PsA trial, and $100MM in 2018 coming from regulatory filings. Our milestones beyond 2015 are risk-adjusted at our 50% probability of Clazakizumab success

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We Attribute ~$1/share to the Pipeline, which could be Conservative

- We value ALDR's platform as a 3.5x multiple on its lagging 7-year R&D spend; however, we model the first pipeline revenues in 2024. Such a multiple is comparable or less than what we use for other companies with a biologics platform: we use a 6.3x multiple for BMRN's (OP) R&D spend and a 4% terminal growth rate for the long-term value of REGN's (OP) antibody franchise
- As ALD403 and Clazakizumab sales begin to decline in the mid-2020s, we model an increasing share of SG&A and other expenses to ALDR's follow on products

Pipeline/Platform	2013	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	TV
Sales	-	-	-	-	-	-	-	-	-	-	-	**99.3**	**182.0**	**240.3**	**294.3**	**353.2**	**370.9**	**389.4**	
R&D Multiple	-	-	-	-	-	-	-	-	-	-	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
COGS	-	-	-	-	-	-	-	-	-	-	-	12.3	20.8	25.0	26.7	27.3	22.9	12.0	
R&D	4.8	5.6	13.0	15.0	17.2	28.4	52.0	68.6	84.1	100.9	106.0	111.3	124.1	130.3	136.8	143.7	150.9	153.0	
SG&A	-	-	-	-	-	-	-	-	3.2	3.7	5.0	6.1	7.0	15.4	19.9	37.8	90.1	96.0	
Other Income (Expense)	-	-	-	-	-	-	-	-	-	-	-	0.6	1.4	2.4	3.9	5.6	7.7	11.5	
EBT	(4.8)	(5.6)	(13.0)	(15.0)	(17.2)	(28.4)	(52.0)	(68.6)	(87.3)	(104.7)	(111.0)	(29.8)	31.4	72.0	114.8	150.0	114.7	139.9	
Tax	-	-	-	-	-	-	-	-	-	-	-	-	29.1	38.1	45.5	53.8	52.7	48.3	
Net Income	(4.8)	(5.6)	(13.0)	(15.0)	(17.2)	(28.4)	(52.0)	(68.6)	(87.3)	(104.7)	(111.0)	(29.8)	2.3	33.9	69.4	96.2	62.0	91.6	
SOE+CapEx+Non Cash Adj.	-	-	-	-	-	-	-	-	-	-	-	1.8	3.6	4.7	7.0	10.8	15.6	29.0	
Free Cash Flow	(4.8)	(5.6)	(13.0)	(15.0)	(17.2)	(28.4)	(52.0)	(68.6)	(87.3)	(104.7)	(111.0)	(28.1)	5.9	38.6	76.4	107.1	77.7	120.6	
Discount Periods	-	-	0.8	1.8	2.8	3.8	4.8	5.8	6.8	7.8	8.8	9.8	10.8	11.8	12.8	13.8	14.8	15.8	
NPV FCF	-	**(4.2)**	**(11.9)**	**(12.3)**	**(12.6)**	**(18.5)**	**(30.4)**	**(35.8)**	**(40.6)**	**(43.5)**	**(41.2)**	**(9.3)**	**1.7**	**10.2**	**18.0**	**22.5**	**14.6**	**20.2**	**218.3**

Pipeline/Platform Valuation	$	45

Figures in $MM, except per share data

Source: Leerink Partners Estimates

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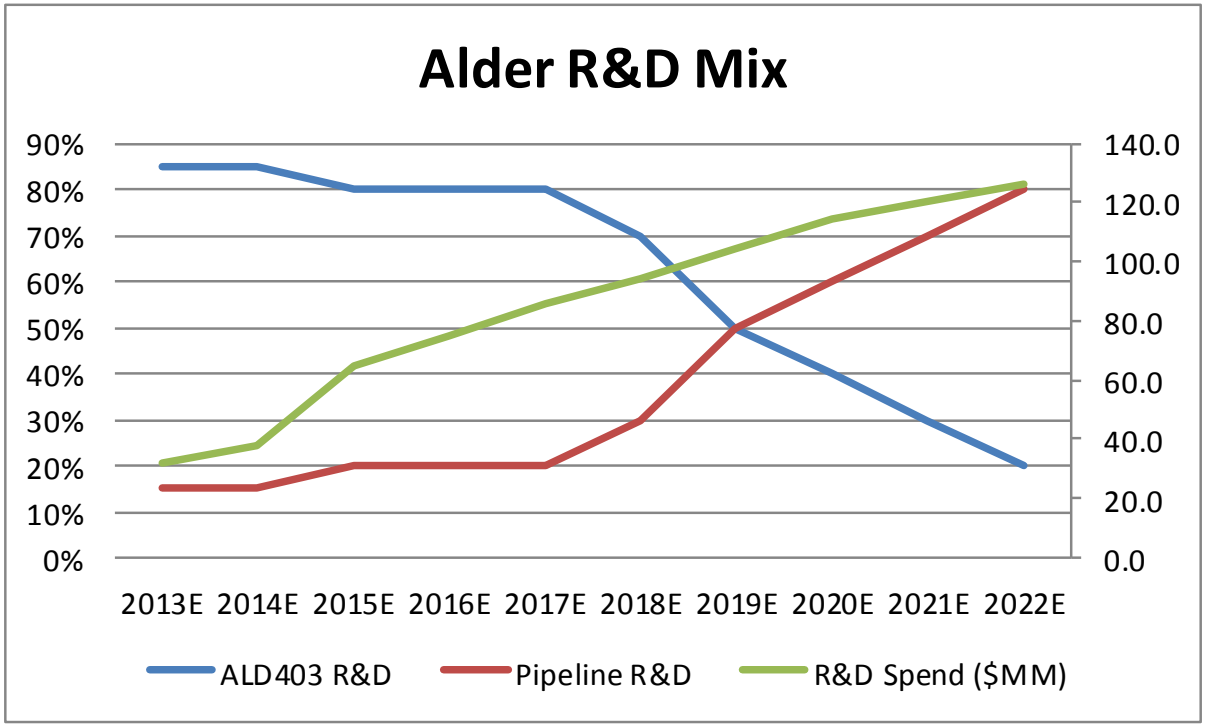
We Forecast a Shift in R&D Efforts to Follow-on Products

- Over time, we model a shift in ALDR's R&D efforts from ALD403 to follow on products, the first of which we expect will be unveiled in 2015



Source: Leerink Partners Estimates

Valuation and Risks to Valuation

Valuation

- We derive a $26 price target for ALDR shares in 12 months, which assigns $14/share to ALD403, $8/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 (~$275MM risk adjusted, using a 50% probability of approval) in 2023, translating into ~$46MM in royalties to ALDR.
- Based on a 60% approval probability for ALD403 and 50% 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 ~$880M 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. ALDR is eligible to receive milestone payments of $1.3B in the future of which we project $40MM will be received in 2015. We, however, 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	1Q14E	2Q14E	3Q14E	4Q14E	2014E	1Q15E	2Q15E	3Q15E	4Q15E	2015E	2016E	2017E
ALD403 US Sales	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALD403 Ex-US Royalties/Miles	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Clazakizumab Royalties	-	-	-	-	-	-	-	-	-	-	-			-
Clazakizumab Milestones	20.1	18.8	4.8	4.8	4.8	4.8	19.0	3.0	3.0	5.0	5.0	16.0	30.0	20.0
Other Collaborations	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pipeline	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Revenues	**20.1**	**18.8**	**4.8**	**4.8**	**4.8**	**4.8**	**19.0**	**3.0**	**3.0**	**5.0**	**5.0**	**16.0**	**30.0**	**20.0**
Cost of Goods	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross Profit	20.1	18.8	4.8	4.8	4.8	4.8	19.0	3.0	3.0	5.0	5.0	16.0	30.0	20.0
R&D	30.7	31.9	7.2	9.0	9.5	11.0	36.7	14.0	16.0	17.0	18.0	65.0	74.8	86.0
SG&A	7.2	7.7	3.0	2.8	2.8	3.0	11.6	4.0	4.5	5.0	5.5	19.0	25.0	45.0
Operating Expenses	37.9	39.6	10.2	11.8	12.3	14.0	48.3	18.0	20.5	22.0	23.5	84.0	99.8	131.0
Operating Income	(17.8)	(20.8)	(5.5)	(7.1)	(7.6)	(9.3)	(29.3)	(15.0)	(17.5)	(17.0)	(18.5)	(68.0)	(69.8)	(111.0)
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	0.0	(0.4)	0.3
Other Income (expense)	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-
EBT	(17.8)	(20.6)	(5.4)	(7.0)	(7.5)	(9.2)	(29.3)	(15.0)	(17.5)	(17.0)	(18.5)	(68.0)	(70.2)	(110.7)
Tax	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Income	**(17.8)**	**(20.6)**	**(5.4)**	**(7.0)**	**(7.5)**	**(9.2)**	**(29.3)**	**(15.0)**	**(17.5)**	**(17.0)**	**(18.5)**	**(68.0)**	**(70.2)**	**(110.7)**
Basic EPS	(3.55)	(3.84)	(0.25)	(0.22)	(0.23)	(0.29)	(0.99)	(0.46)	(0.54)	(0.52)	(0.57)	(2.09)	(1.87)	(2.80)
Diluted EPS	(3.55)	(3.84)	(0.25)	(0.22)	(0.23)	(0.29)	(0.99)	(0.46)	(0.54)	(0.52)	(0.57)	(2.09)	(1.87)	(2.80)
Basic Shares Outstanding	5.0	5.4	21.9	32.1	32.2	32.3	29.6	32.4	32.5	32.6	32.7	32.5	37.5	39.5
Diluted Shares Outstanding	5.0	5.4	21.9	34.2	34.3	34.4	31.2	34.5	34.6	34.7	34.8	34.6	39.6	41.6

Alder BS and CFS ($MM)	2012	2013	1Q14E	2Q14E	3Q14E	4Q14E	2014E	1Q15E	2Q15E	3Q15E	4Q15E	2015E	2016E	2017E
Change in Cash	**6.4**	**(30.5)**	**(10.3)**	**73.4**	**(12.1)**	**(13.7)**	**37.4**	**(16.4)**	**(18.7)**	**20.0**	**(21.4)**	**(36.4)**	**56.8**	**(19.6)**
Net Cash	**59.4**	**23.2**	**12.9**	**86.4**	**74.3**	**60.7**	**60.7**	**44.3**	**25.6**	**45.6**	**24.2**	**24.2**	**81.1**	**61.5**
Cash & Cash Equivalents	59.4	23.2	12.9	86.4	74.3	60.7	60.7	44.3	25.6	45.6	24.2	24.2	81.1	61.5
Debt		-	-	-	-	-	-	-	-	-	-	-	-	-
Operating Cash Flow	**(29.9)**	**(36.1)**	**(9.8)**	**(11.1)**	**(11.6)**	**(13.2)**	**(45.6)**	**(15.4)**	**(17.7)**	**21.0**	**(20.4)**	**(32.4)**	**(56.2)**	**(99.6)**
Net Income	(17.8)	(20.6)	(5.4)	(7.0)	(7.5)	(9.2)	(29.3)	(15.0)	(17.5)	(17.0)	(18.5)	(68.0)	(70.2)	(110.7)
SOE	0.5	0.6	0.6	0.7	0.7	0.8	2.9	1.8	2.1	2.2	2.4	8.4	10.0	13.1
Milestone Cash/Amort Adj	-	-	(4.8)	(4.8)	(4.8)	(4.8)	(19.0)	(3.0)	(3.0)	35.0	(5.0)	24.0	(5.0)	(20.0)
Other	(12.8)	(16.3)	(0.2)	-	-	-	(0.2)	-	-	-	-	-	-	-
D&A	0.2	0.2	0.4	0.4	0.4	0.4	1.6	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	-	-	-	-	-	-	-	-	-	-	-	
Financing Cash Flow	**37.9**	**0.0**	**-**	**85.0**	**-**	**-**	**85.0**	**-**	**-**	**-**	**-**	**-**	**125.0**	**100.0**
Equity Raise (Buyback)	37.9	0.0	-	85.0	-	-	85.0	-	-	-	-	-	125.0	100.0
Debt Issue (Retirement)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Source: SEC Filings and Leerink Partners Research

Discounted Cash Flow

Diluted Shares Outstanding	34.2
Discount Rate	12%
Terminal Growth Rate	2.5%
ALD403 Approval Probability	60%
Clazakizumab Approval Probability	50%

ALDR Valuation	Per/Share	Val ($MM)	% Total
Total	**$ 25.76**	**$ 881**	100%
ALD403	$ 13.94	$ 477	54%
Clazakizumab	$ 7.96	$ 272	31%
Pipeline	$ 1.33	$ 45	5%
Net Cash 2Q14E	$ 2.53	$ 86	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	95.2	91.7	70.8	48.3	33.3	17.9	3.4	
R&D	27.1	31.2	52.0	59.8	68.8	66.2	52.0	45.8	36.0	25.2	26.5	27.8	21.9	23.0	24.1	25.4	26.6	27.0	
SG&A	7.1	10.8	17.7	23.8	42.8	59.9	83.8	117.3	98.1	114.6	154.1	187.7	214.5	193.4	168.8	141.9	62.4	20.9	
Other Income (Expense)	-	-	-	-	-	-	0.5	0.6	1.1	2.2	3.5	4.7	6.0	6.8	7.0	6.8	6.0	3.2	
EBT	(34.2)	(42.0)	(69.7)	(83.6)	(111.5)	(126.0)	(73.0)	(10.3)	153.8	311.9	437.7	459.1	479.0	401.5	299.5	237.2	189.0	61.6	
Tax	-	-	-	-	-	-	-	-	10.7	58.4	102.6	118.5	128.3	108.0	82.4	65.6	41.2	13.6	
Net Income	(34.2)	(42.0)	(69.7)	(83.6)	(111.5)	(126.0)	(73.0)	(10.3)	143.1	253.4	335.1	340.6	350.7	293.5	217.1	171.6	147.8	48.0	
SOE+CapEx+Non Cash Adj.	-	-	-	-	-	-	1.3	6.1	6.0	10.1	12.2	13.6	15.8	13.2	12.7	13.2	12.2	8.2	
Free Cash Flow	(34.2)	(42.0)	(69.7)	(83.6)	(111.5)	(126.0)	(71.7)	(4.2)	149.1	263.6	347.4	354.2	366.5	306.7	229.8	184.8	160.0	56.2	
Discount Periods	-	-	0.8	1.8	2.8	3.8	4.8	5.8	6.8	7.8	8.8	9.8	10.8	11.8	12.8	13.8	14.8	15.8	
NPV FCF	**-**	**(31.5)**	**(64.0)**	**(68.5)**	**(81.7)**	**(82.4)**	**(41.8)**	**(2.2)**	**69.4**	**109.5**	**128.9**	**117.3**	**108.4**	**81.0**	**54.2**	**38.9**	**30.1**	**9.4**	**101.8**

ALD403 Valuation	$ 477

Clazakizumab	2013	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	TV
Milestones from BMS ($MM)	**-**	**-**	**40.0**	**25.0**	**-**	**100.0**	**25.0**	**5.0**	**12.5**	**5.0**	**12.5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	
Royalties from BMS ($MM)	**-**	**-**	**-**	**-**	**-**	**9.8**	**23.3**	**38.9**	**43.0**	**44.8**	**46.5**	**45.5**	**44.4**	**40.2**	**33.9**	**30.0**	**22.3**	**9.8**	
COGS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R&D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SG&A	0.5	0.8	1.3	1.3	2.3	3.2	4.4	6.2	5.3	6.2	8.4	10.2	11.7	11.0	9.9	9.5	8.0	6.2	
Other Income (Expense)	-	0.0	0.0	(0.4)	0.3	0.1	0.3	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.3	
EBT	(0.5)	(0.8)	38.7	23.4	(1.9)	106.8	44.2	37.8	50.4	43.7	50.9	35.6	33.0	29.6	24.4	21.0	14.7	4.0	
Tax	-	-	-	-	-	-	-	-	1.8	5.5	8.5	7.1	7.1	6.4	5.2	4.6	3.2	1.2	
Net Income	(0.5)	(0.8)	38.7	23.4	(1.9)	106.8	44.2	37.8	48.6	38.2	42.4	28.5	25.9	23.2	19.1	16.4	11.5	2.7	
SOE+CapEx+Non Cash Adj.	-	(0.4)	2.5	1.6	1.9	2.0	0.9	1.5	1.0	1.0	1.0	0.8	0.9	0.8	0.8	0.9	0.9	0.7	
Free Cash Flow	(0.5)	(1.2)	41.2	25.0	(0.1)	108.8	45.1	39.3	49.6	39.1	43.4	29.4	26.8	24.0	19.9	17.3	12.5	3.5	
Discount Periods	-	-	0.8	1.8	2.8	3.8	4.8	5.8	6.8	7.8	8.8	9.8	10.8	11.8	12.8	13.8	14.8	15.8	
NPV FCF	**-**	**(0.9)**	**37.9**	**20.5**	**(0.1)**	**71.1**	**26.3**	**20.5**	**23.1**	**16.3**	**16.1**	**9.7**	**7.9**	**6.3**	**4.7**	**3.6**	**2.3**	**0.6**	**6.3**

Clazakizumab Valuation	$ 272

Pipeline/Platform	2013	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	TV
Sales	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**99.3**	**182.0**	**240.3**	**294.3**	**353.2**	**370.9**	**389.4**	
R&D Multiple	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
COGS	-	-	-	-	-	-	-	-	-	-	-	12.3	20.8	25.0	26.7	27.3	22.9	12.0	
R&D	4.8	5.5	13.0	15.0	17.2	28.4	52.0	68.6	84.1	100.9	106.0	111.3	124.1	130.3	136.8	143.7	150.9	153.0	
SG&A	-	-	-	-	-	-	-	-	3.2	3.7	5.0	6.1	7.0	15.4	19.9	37.8	90.1	96.0	
Other Income (Expense)	-	-	-	-	-	-	-	-	-	-	-	0.6	1.4	2.4	3.9	5.6	7.7	11.5	
EBT	(4.8)	(5.5)	(13.0)	(15.0)	(17.2)	(28.4)	(52.0)	(68.6)	(87.3)	(104.7)	(111.0)	(29.8)	31.4	72.0	114.8	150.0	114.7	139.9	
Tax	-	-	-	-	-	-	-	-	-	-	-	-	29.1	38.1	45.5	53.8	52.7	48.3	
Net Income	(4.8)	(5.5)	(13.0)	(15.0)	(17.2)	(28.4)	(52.0)	(68.6)	(87.3)	(104.7)	(111.0)	(29.8)	2.3	33.9	69.4	96.2	62.0	91.6	
SOE+CapEx+Non Cash Adj.	-	-	-	-	-	-	-	-	-	-	-	1.8	3.6	4.7	7.0	10.8	15.6	29.0	
Free Cash Flow	(4.8)	(5.5)	(13.0)	(15.0)	(17.2)	(28.4)	(52.0)	(68.6)	(87.3)	(104.7)	(111.0)	(28.1)	5.9	38.6	76.4	107.1	77.7	120.6	
Discount Periods	-	-	0.8	1.8	2.8	3.8	4.8	5.8	6.8	7.8	8.8	9.8	10.8	11.8	12.8	13.8	14.8	15.8	
NPV FCF	**-**	**(4.1)**	**(11.9)**	**(12.3)**	**(12.6)**	**(18.5)**	**(30.4)**	**(35.8)**	**(40.6)**	**(43.5)**	**(41.2)**	**(9.3)**	**1.7**	**10.2**	**18.0**	**22.5**	**14.6**	**20.2**	**218.3**

Pipeline/Platform Valuation	$ 45

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
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%	60%
Risk-Adjusted Revenue	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 73**	**$ 176**	**$ 323**	**$ 498**	**$ 670**	**$ 717**	**$ 750**	**$ 639**	**$ 500**	**$ 404**	**$ 272**	**$ 103**
Approval Probability	60%																
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%	45%
ALDR Royalty Rate	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Royalties to ALDR (probability-weighted)	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 3**	**$ 12**	**$ 26**	**$ 45**	**$ 48**	**$ 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		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%	5%
Clazakizumab Gross Revenues						**$140**	**$311**	**$486**	**$506**	**$527**	**$547**	**$536**	**$522**	**$473**	**$423**	**$374**	**$297**	**$140**
Approval Probability		50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
P(w) Revenues						**$70**	**$155**	**$243**	**$253**	**$263**	**$273**	**$268**	**$261**	**$236**	**$212**	**$187**	**$149**	**$70**
Royalty Rate						14%	15%	16%	17%	17%	17%	17%	17%	17%	16%	16%	15%	14%
P(w) Royalties to ALDR						**$10**	**$23**	**$39**	**$43**	**$45**	**$46**	**$46**	**$44**	**$40**	**$34**	**$30**	**$22**	**$10**
Gross Milestones		$0	$40	$50	$0	$200	$50	$10	$25	$10	$25	$0	$0	$0	$0	$0	$0	$0
P(w) Milestones to ALDR		**$0**	**$40**	**$25**	**$0**	**$100**	**$25**	**$5**	**$13**	**$5**	**$13**	**$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	50%

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	By YE14
New Product	First in Man Study Initiation	1H15
ALD403	Phase IIb Data	2H15
Clazakizumab	Phase III Initiation	2H15
ALD403	Phase III Initiation	1H16
Clazakizumab	FDA/EMA Approval	2018
ALD403	FDA/EMA Approval	2019

Source: SEC Filings and Leerink Partners Research

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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.

Distribution of Ratings/Investment Banking Services (IB) as of 03/31/14				
			IB Serv./Past 12 Mos.	
Rating	Count	Percent	Count	Percent
BUY [OP]	131	68.23	46	35.11
HOLD [MP]	61	31.77	3	4.92
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.

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

Underperform (Sell): 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

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