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Janney CAPITAL MARKETS

Biotechnology

May 27, 2015

Aldeyra Therapeutics, Inc (ALDX) - BUY

Initiate at Buy: Fighting Inflammation by Capturing Toxic Aldehydes

Price:	$6.87
Fair Value Estimate:	$13.00
52-Week Range:	$3.00 - $13.50
Market Cap (MM):	$66
Shr.O/S-Diluted (mm):	9.6
Average Daily Volume:	21,172
Yield:	0.0%
Cash/Share:	$(1.25)
FCF Yield:	(578.5)%
Debt/Cap:	17%

FYE: Dec	2014A	2015E	2016E
EPS:	(2.51)A	(1.00)E	(1.00)E
Prior EPS:		NC	NC
Consensus	NM	-1.44	-1.47

Quarterly EPS:			
Q1	--	(0.32)A	--
Q2	--	(0.28)E	--
Q3	--	(0.23)E	--
Q4	--	(0.23)E	--

1 Year Price History for ALDX

PORTFOLIO MANAGER BRIEF

Aldeyra Therapeutics is an emerging biotechnology company developing "aldehyde traps" to alleviate aldehyde-associated inflammatory disease. The company's lead product is NS2 is in Phase II trials for the treatment of Sjogren-Larsson Syndrome and non-infectious anterior uveitis, with data expected by YE:2015. With a unique technology demonstrating a favorable safety profile and versatility to target a whole host of inflammatory indications, we are initiating coverage of the company with a BUY rating and a fair value estimate of $13 per share.

ANALYST NOTES

- Positive Preclinical Data, Favorable Safety Profile, and Broad Application in Inflammatory Indications. Aldeyra has developed an "aldehyde trap" NS2, with several others traps in the pipeline. NS2 has demonstrated efficacy in several pre-clinical inflammatory models in different tissues, indicating a broad anti-inflammatory effect. The ocular formulation of the drug has demonstrated a favorable safety and tolerability profile in a Phase I study in 48 healthy volunteers.
- Lead Compound Targets Orphan Diseases. The company is developing NS2 for the treatment of the ultra-orphan Sjögren-Larsson Syndrome (~1,000 patients in the US), and for the treatment of uveitis, a severe ocular inflammation that is responsible for 10-15% of blindness in the US. Uveitis predominantly affects people between the ages of 20 and 60, during their most productive years. While the annual incidence of the disease is estimated to be ~30,000, prevalence is much higher due to the chronic nature of the disease, offering a significant opportunity to the company.
- Novel and Proprietary Aldehyde Trap Platform. Aldeyra has pioneered a unique and simple aldehyde trap platform to capture toxic fatty aldehydes which have been implicated in several inflammatory indications. These novel traps are designed to capture toxic aldehydes within cells, transport them to the lysosome, and metabolize the chemical species for disposal. The technology is based on the idea that scavenging the toxic culprit will restore oxidative balance, cellular health, and help alleviate symptoms of the inflammatory disease.
- Strong Balance Sheet. After a recent equity financing in which the company raised $19.9 million, the company has pro forma cash of $35.6 million, placing them on solid ground to fund future clinical development.

RESEARCH ANALYST CERTIFICATIONS AND IMPORTANT DISCLOSURES ARE ON PAGES 17 - 18 OF THIS REPORT

FIGHTING INFLAMMATION BY CAPTURING TOXIC ALDEHYDES

We are initiating coverage of Aldeyra Therapeutics with a BUY rating and a fair value estimate of $13 per share. Aldeyra is built on a simple and elegant idea – capture disease-causing toxic chemicals known as aldehydes using chemical traps designed and developed by the company. High levels of toxic aldehydes are thought to promote inflammation and have been associated with a variety of diseases, including autoimmune, inflammatory, neurological, cardiovascular, and endocrinologic indications. Aldeyra is developing a novel therapeutic platform designed to trap aldehydes, dispose them from the cell, and reduce the deleterious effects associated with them. The company's lead product is NS2 for the treatment of diseases such as Sjögren-Larsson Syndrome, noninfectious anterior uveitis, as well as other dermal and ocular inflammatory diseases. The company completed Phase I safety studies in 48 healthy patients for the ophthalmic formulation and recently initiated Phase II studies for both the indications, with data expected from both trials before YE: 2015. The versatility and unique mechanism of action (MOA) of the platform allows for development of candidates targeting a broad range of inflammatory indications.

Novel and Proprietary Aldehyde Trap Platform. While it has been long known that oxidative stress leads to increased production of toxic fatty aldehydes which have been implicated in several pathological indications, Aldeyra has pioneered a unique & simple aldehyde trap platform that could potentially target a variety of inflammatory diseases. These novel traps are designed to capture toxic aldehydes within cells, transport them to the lysosome, and metabolize the chemical species for disposal. The technology is based on the idea that scavenging the toxic culprit will restore oxidative balance, cellular health, and help alleviate symptoms of the disease.

Robust Pre-clinical Results & Favorable Safety Data. Based on the trap technology, Aldeyra has developed one candidate currently in clinical phase development, with several others in the design and development pipeline. The lead candidate NS2 has demonstrated efficacy in several pre-clinical inflammatory models in different tissues, indicating a broad anti-inflammatory effect. Furthermore, the ophthalmic formulation of the drug has demonstrated a favorable safety and tolerability profile in a Phase I study in 48 healthy volunteers. This has led the company to initiate two Phase II studies: one in Sjögren-Larsson Syndrome and the other in noninfectious anterior uveitis. The company is also developing injectable and oral formulations of the drug to target a wide variety of diseases.

Lead Compound Targets Orphan Diseases. The company is developing NS2 for the treatment of the ultra-orphan Sjögren-Larsson Syndrome (~1,000 patients in the US), with no approved therapy. Patients with Sjögren-Larsson's suffer from severe dermal symptoms with poorly effective treatments. This presents an intriguing market for the company. The drug is also being developed for the treatment of uveitis, a severe ocular inflammation that is responsible for 10-15% of blindness in the US. The disease predominantly affects people between the ages of 20 and 60, during their most productive years. While the annual incidence of the disease is estimated to be ~30,000, prevalence is much higher due to the chronic nature of the disease and offers a significant opportunity to the company.

Strong Balance Sheet. After a recent equity financing in which the company raised $19.9 million, the company has pro forma cash of $36 million, placing them on solid ground to fund future clinical development.

Valuation. We are initiating coverage on Aldeyra with a BUY rating and a YE:2015 fair value (FV) of $13 per share. We establish this FV applying a P/E ratio of 20x to our non-GAAP 2019E EPS estimate of $2.33 and discounting to the end of 2015 by 30%.

As a validation of our relative value based FV, we conducted a discounted cash flow analysis (DCF). In the analysis, we forecast free cash flow to the firm through 2025, adding 2026 as the terminal growth year. Then we discounted this to the end of 2015 by 30% annually. The DCF brings us to an equity value of $124 million. Applying our end of 2015 share count estimate of 9.8 million, we come to a YE: 2015 price of $13 per share (Figure 1).

Figure 1. Aldeyra DCF Sensitivity Analysis

Discounted Cash Flow Sensitivity Analysis

Value of Equity

		Terminal Gowth				
		4.0%	4.5%	5.0%	5.5%	6.0%
WACC	25.0%	211,392	215,118	219,031	223,144	227,474
	27.5%	159,036	161,470	164,013	166,672	169,454
	30.0%	120,687	122,321	**124,021**	125,790	127,633
	32.5%	92,014	93,136	94,300	95,506	96,758
	35.0%	70,206	70,992	71,804	72,643	73,512

Price Per Share

		Terminal Gowth				
		4.0%	4.5%	5.0%	5.5%	6.0%
WACC	25.0%	$21.61	$21.99	$22.39	$22.81	$23.26
	27.5%	$16.26	$16.51	$16.77	$17.04	$17.32
	30.0%	$12.34	$12.51	**$12.68**	$12.86	$13.05
	32.5%	$9.41	$9.52	$9.64	$9.76	$9.89
	35.0%	$7.18	$7.26	$7.34	$7.43	$7.52

Source: Janney Montgomery Scott

Investment Risks. Downside risks to our fair value include risks that are typical of development stage biotechnology companies. This includes the potential for weak clinical data from any clinical program that Aldeyra is involved in, as well as any delays or unexpected challenges in the regulatory/clinical process. Also, biotechnology companies are highly dependent upon sufficient financing in order to conduct research & development activities and weak clinical data could have a negative impact on securing funding either through partnerships or other means.

INFLAMMATION AND TOXIC ALDEHYDES

Aldeyra Therapeutics is an emerging biopharmaceutical company focused primarily on the development of products to treat immune-mediated, inflammatory, orphan, and other diseases that are thought to be associated with a naturally occurring toxic chemical species known as free aldehydes.

Oxidative Stress, ROS, and Aldehydes. Oxidative metabolism is the cellular process involving the efficient use of intracellular oxygen to improve energy generation from carbohydrates and fats. When the oxidative process is not properly regulated, it leads to uncontrolled oxidation of cellular targets and production of reactive oxygen species (ROS). High levels of ROS result in a state of oxidative stress in the cell, which can cause severe damage. While accumulation of ROS in itself is damaging to the cells, it sets off a domino effect by oxidizing proteins, nucleic acids, and lipids leading to the generation of more deleterious by-products including toxic aldehydes. These toxic chemicals are produced when ROS induces peroxidation of polyunsaturated fatty acids (PUFAs) in the lipid membranes, are much more stable than the parent ROS, and therefore can diffuse from their site of generation to inflict damage at remote locations. Furthermore, these free aldehydes induce further production of ROS, leading to a vicious cycle of ROS, aldehyde production and uncontrolled oxidative stress (Figure 2).

Due to the inherent toxicity of aldehydes, living organisms have developed enzymatic systems to detoxify aldehydes; enzymes known as aldehyde dehydrogenases function to eliminate free aldehydes. However, excessive accumulation of free aldehydes can be seen in cases of either uncontrolled oxidative metabolism in which the enzymatic system is overwhelmed or reduced enzyme activity in certain sub-populations, leading to toxic effects of the products. Of the toxic aldehyde products, extensive research has focused on malondialdehyde (MDA) and 4-hydroxy-2-nonenal (HNE) and demonstrated a strong causative effect of the compounds in several biological pathways as opposed to just being markers of oxidative damage. These studies have shown that toxic aldehydes exhibit high cytotoxic and mutagenic potential and are capable of mediating oxidative insults and propagating tissue injury. Various mechanistic studies have shown that aldehydes propagate their deleterious effects through multiple mechanisms:

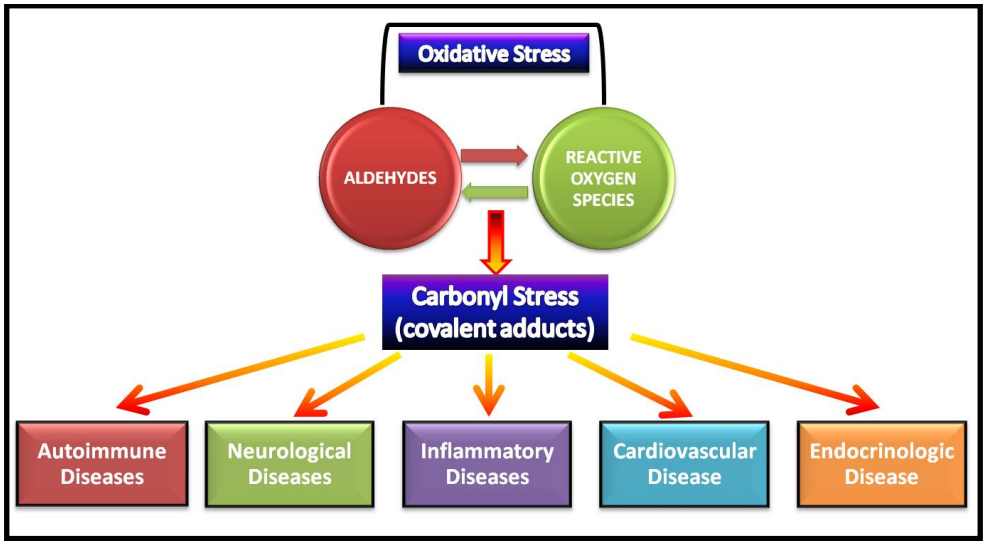
1. Modification of function by chemical adduction of biomolecules such as antioxidant enzymes and kinases

2. Regulation of transcriptional pathways either by ligand activation (PPAR) or chemical adduction (NF-κB)

Through these mechanisms, toxic aldehydes have been shown to activate stress signaling pathways in cells, apoptosis, inflammatory pathways, ROS production, etc.

Toxic Aldehydes and Disease. Recent studies have implicated free aldehydes as toxic mediators of numerous diseases. Reduced aldehyde dehydrogenase activity which leads to increased aldehyde levels has been associated with loss of cognitive function, cancer, and cardiovascular disease (Figure 2). High levels of free aldehydes have been implicated in autoimmune, neurodegenerative, cardiovascular, and endocrinologic diseases and provides a strong link between free aldehyde levels and inflammation, an underlying characteristic of all the aforementioned indications.

FIGURE 2. Free Aldehydes and Disease



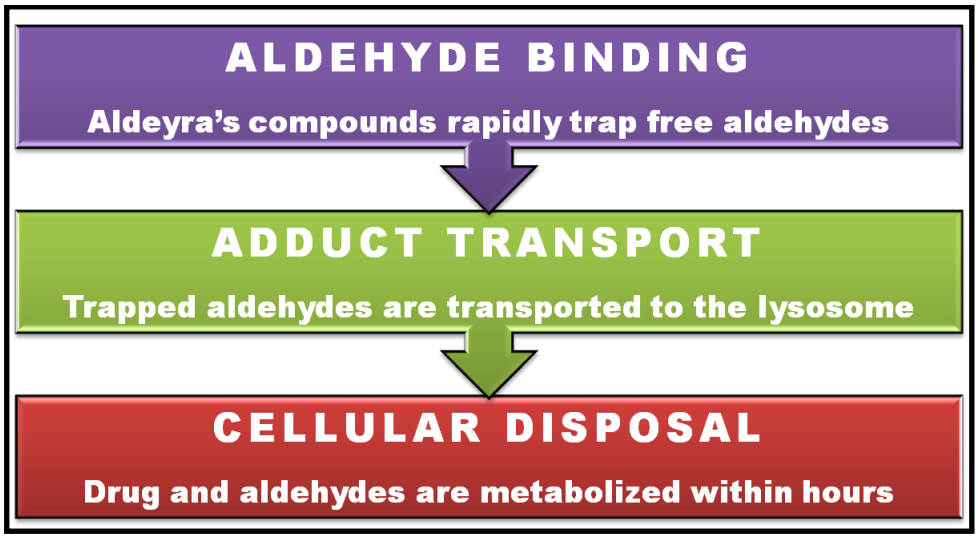
Source: Janney Montgomery Scott

ALDEYRA'S ALDEHYDE TRAP PLATFORM

Research over the past several years has indicated that increased formation of ROS and lipid peroxidation products such as aldehydes has been observed in ischemia-reperfusion, atherosclerosis, heart failure, Alzheimer's disease, cancer, rheumatoid arthritis, and other immunological disorders. Therefore, decreasing the levels of toxic aldehydes or scavenging them chemically could reduce the deleterious effects of oxidative stress in pathological conditions and reduce inflammation. Recent studies have also indicated that agents that can interfere with the oxidative stress mediated cell signaling pathways could act as potential therapeutic drugs across a broad range of immune-mediated, inflammatory, orphan and other diseases.

Based on the idea of reducing aldehyde levels by scavenging them chemically to alleviate their deleterious effects, Aldeyra has developed a proprietary platform of aldehyde traps. These traps are novel chemical entities that capture toxic aldehydes, transport them to the lysosome, metabolize and dispose them within hours (Figure 3). Thus, administration of aldehyde traps has the potential to treat active disease, prevent disease, and slow progression of chronic disease.

FIGURE 3. Trapping Free Aldehydes

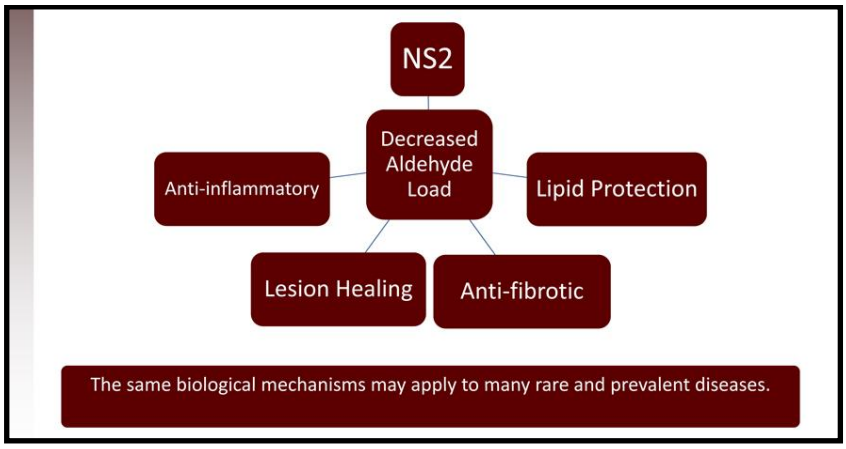


Source: Janney Montgomery Scott

Aldeyra's lead aldehyde trap NS2, has been shown to have minimum pharmacology and does not appear to affect receptors or proteins. NS2 treatment demonstrated a strong and broad anti-inflammatory effect in several pre-clinical models. Treatment of a mouse model characterized by high levels of inflammation with NS2 significantly reduced levels of a broad array of pro-inflammatory cytokines, generating a significant anti-inflammatory response. In two different mouse models of dermatitis, a single dose of NS2 showed early and potent anti-inflammatory effect characterized by reduced swelling. In yet another model of oral mucositis with scarred lesions, NS2 treatment increased the rate of lesion healing and reduced scarring. NS2 prevents aldehyde mediated damage of lipid that is critical to dermal moisture barrier and ocular tear integrity.

The pre-clinical data observed to date demonstrates both broad anti-inflammatory effects of NS2 treatment as well as multiple mechanisms of action (MOA) (Figure 4). By decreasing aldehyde load, the drug showed anti-inflammatory, lipid protective, lesion healing, and anti-fibrotic benefits. The ability of NS2 to produce a multitude of therapeutic effects presents a broad spectrum of therapeutic opportunities for NS2.

FIGURE 4: NS2 Multiple Mechanisms of Action



Source: Aldeyra SEC documents

ALDEYRA'S CLINICAL PIPELINE

Aldeyra is using its aldehyde trap proprietary technology to address unmet medical needs in inflammatory and immune-mediated diseases, orphan diseases, and other disorders with limited treatment options. Aldeyra's lead product NS2 is being developed for the treatment of diseases such as Sjörgren-Larsson Syndrome (SLS), noninfectious anterior uveitis, and other ocular inflammatory diseases. The lead therapy is also being developed in different formulations (topical, injectable, oral) for the treatment of various other inflammatory and immune-mediated diseases (Figure 5).

Figure 5. Aldeyra Clinical Pipeline

DRUG	INDICATION	NOTES	PIPELINE PROGRESS
NS2	Sjorgen-Larsson Syndrome	Phase II initiated March 2015	PRECLINICAL PHASE I PHASE II
	Acute Anterior Uveitis	Phase II initiated March 2015	PRECLINICAL PHASE I PHASE II
	Discoid Lupus		PRECLINICAL PHASE I
	Ocular Rosacea with Meibomian Gland Dysfunction		PRECLINICAL Phase I

Source: Janney Montgomery Scott

NS2 AS A TREATMENT FOR SJÖGREN-LARSSON SYNDROME (SLS)

Sjörgren-Larsson Syndrome (SLS). Sjögren-Larsson Syndrome (SLS) is a rare autosomal, recessive, neurocutaneous disease characterized by scaly and dry skin (ichthyosis), leg spasms (spastic paraplegia), mental retardation, and retinal disorders in some patients. This disease is caused by a variety of mutations in the ALDH3A2 gene, which encodes for an enzyme called Fatty Aldehyde Dehydrogenase (FALDH). The FALDH enzyme is part of a multistep process called fatty acid oxidation in which fats are broken

down and converted into energy. Specifically, the FALDH enzyme breaks down molecules called fatty aldehydes to fatty acids, thereby ensuring the catabolism of toxic aldehydes.

Mutations in the ALDH3A2 gene lead to disruption of the normal process of fatty acid oxidation. Mutations result in the production of a faulty FALDH enzyme, which is unable to break down fatty aldehyde molecules leading to excess accumulation of fat and toxic fatty aldehydes in the cells. In the skin, the abundance of fat interferes with the formation of protective barriers to control water loss, leading to dry, scaly skin. Abundance of fat in the brain appears to disrupt the formation of myelin, which is the protective barrier for neurons, leading to neurological problems.

Disease can occur in patients either through hereditary means or through sporadic mutations. Most of the patients are generally diagnosed as infants given the severity of the dermal indication at birth. The disease persists throughout life and often leads to a shortened lifespan, with patients expiring in the sixth decade of their life.

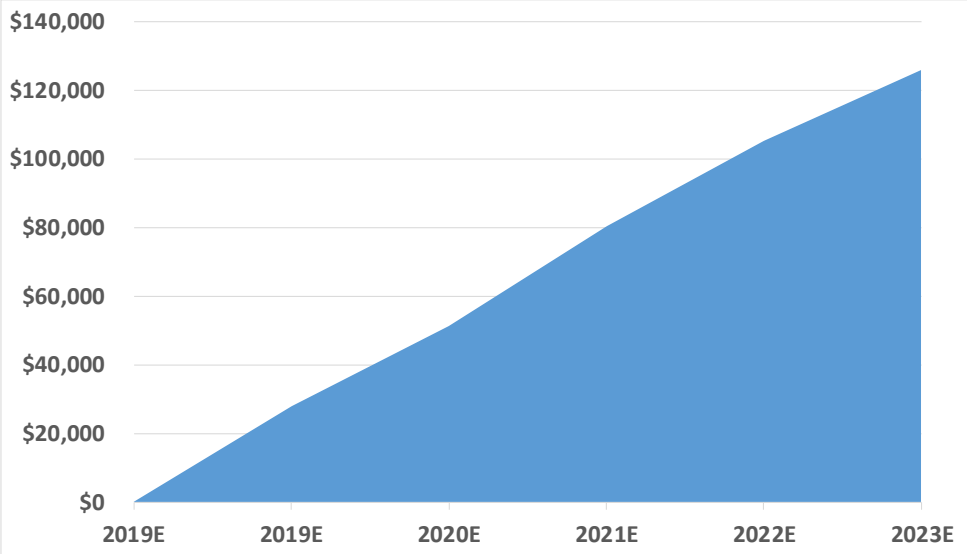
Current Treatments for SLS. Sjögren-Larsson syndrome is a systemic disease and affects multiple tissues in the body; however, cutaneous symptoms of the indication need constant attention and are the most time-consuming in terms of the therapy. The mainstay of therapy for ichthyosis consists of applying topical moisturizing creams and keratolytic agents, such as alpha-hydroxyacid, salicylic acid, and urea. In order to keep the skin hydrated, patients often take long, frequent baths. Systemic retinoids also provide symptomatic relief for ichthyosis but are not typically used in children due to potential adverse developmental effects. Patients with severe pruritis may benefit from treatment with zileuton, which blocks leukotriene B4 synthesis. 40% of SLS patients also suffer from seizures and respond to standard anticonvulsant medications; however, treating spasticity among these patients has been a challenge. Therapies such as baclofen and botlinum toxin have not yielded favorable responses.

Indeed, currently available therapies for SLS patients are mostly useful for alleviating symptoms, with non-specific therapies being poorly effective. This presents a significant unmet medical need and necessitates the development of targeted, efficacious, and safe therapy. Given that inflammation is the primary driver of most of the SLS symptoms, in theory, any existing or new treatment that is being developed for the treatment of inflammatory diseases could be a potential treatment for SLS. However, there are currently no drugs in development specifically targeting SLS, locally or systemically.

Clinical Trials Investigating NS2 as a Treatment for SLS. Pre-clinical data in human skin cells has demonstrated that NS2 traps fatty aldehydes generated by dry conditions and indicate the potential of the drug in reducing aldehyde-mediated damage in diseases characterized by dry tissue. The drug has also been shown to prevent fatty aldehyde-mediated modification of lipids in vitro, in human skin cells and in cells that have been genetically modified to lack FALDH. These data strongly suggest that NS2 may be partially or wholly effective in preventing and treating ichthyosis or other dermal symptoms, signs or pathologies in SLS. In 2014, the company filed an IND application for Phase II clinical trials in SLS. Following approval of the IND, a phase II study was initiated in SLS patients in March 2015; it is important to note that prior to the initiation of this trial, where the drug administration will be topical, the safety and tolerability of NS2 have been investigated in humans only for the ophthalmic formulation (eye drops) in a Phase I study. In the SLS Phase II trial, 12 SLS patients will be treated either with placebo or with a dermal topical formulation of NS2 for 8 weeks and observed visually for changes in the dermal pathology of the skin. Data from the trial is currently expected to be available in 2H:2015.

Market Potential. The disease occurs worldwide. Sweden is currently the only country to have estimated the prevalence of the disease, at 1 per 250,000 people; this puts the estimated SLS patients population in Sweden at ~400 patients. Extrapolating from the Swedish estimate, it is generally assumed that there are approximately 1,000 or fewer SLS patients in the United States. It is thought that many older SLS patients may be undiagnosed, potentially due to the lack of available dermatologic and genetic medicine expertise available when those patients were younger.

Figure 6. NS2 – Sjörgren-Larsson Syndrome Revenue Model ($000s)



NS2 Sjögren Larsson Syndrome					
United States	**2019E**	**2020E**	**2021E**	**2022E**	**2023E**
Sjögren-Larsson Syndrome Patients in the US	1,000	1,011	1,022	1,033	1,045
% Growth	*1.1%*	*1.1%*	*1.1%*	*1.1%*	*1.1%*
Patients on NS2	100	202	307	393	460
% Penetration	*10.0%*	*20.0%*	*30.0%*	*38.0%*	*44.0%*
Cost Per Patient Year	$200,000	$200,000	$200,000	$200,000	$200,000
NS2 SLS Sales, U.S. ($000s)	**$20,000**	**$40,440**	**$61,327**	**$78,536**	**$91,936**
% Growth		*102.2%*	*51.7%*	*28.1%*	*17.1%*
Europe					
Sjögren-Larsson Syndrome Patients in the US	400	404	409	413	418
% Growth	*1.1%*	*1.1%*	*1.1%*	*1.1%*	*1.1%*
Patients on NS2	20	40	61	79	92
% Penetration	*5.0%*	*10.0%*	*15.0%*	*19.0%*	*22.0%*
Cost Per Patient Year	$150,000	$150,000	$150,000	$150,000	$150,000
NS2 SLS Sales, EU ($000s)	**$3,000**	**$6,066**	**$9,199**	**$11,780**	**$13,790**
% Growth		*102.2%*	*51.6%*	*28.1%*	*17.1%*
Overall NS2 Revenues for SLS, Worlwide ($000s)	**$27,844**	**$51,350**	**$80,350**	**$105,258**	**$125,928**
% Growth		*84.4%*	*56.5%*	*31.0%*	*19.6%*

Source: Janney Montgomery Scott

RESEARCH ANALYST CERTIFICATIONS AND IMPORTANT DISCLOSURES ARE ON PAGES 17 - 18 OF THIS REPORT

NS2 AS A TREATMENT FOR NONINFECTIOUS ANTERIOR UVEITIS

Noninfectious Anterior Uveitis. Noninfectious anterior uveitis is a condition of the eye caused by inflammation of the anterior chamber of the uvea, the pigmented layer that lies between the inner retina and the outer fibrous layer. This is the most common form of uveitis and can either occur as a single isolated episode which subsides with proper treatment or can take on a recurrent or chronic nature. Uveitis is commonly the ocular manifestation of autoimmune disease, such as ankolysing spondylitis, juvenile idiopathic arthritis, reactive arthritis, psoriatic arthritis, or inflammatory bowel disease. Anterior uveitis is characterized by rapid-onset pain, sensitivity to light, blurred vision, irregular pupil, floaters, and headaches. The symptoms are caused by high levels of inflammation, fibrotic changes, and lipid destruction leading to dryness and surface irritation. Patients with recurrent episodes often develop cataracts, and severe cases may lead to glaucoma and retinal dysfunction. In some cases, chronic uveitis might lead to complete loss of vision. In fact, it is estimated that uveitis is responsible for 10% of the blindness in the United States.

Current Therapies for Noninfectious Anterior Uveitis. The standard of care for noninfectious anterior uveitis is local, topical and oral corticosteroids. These are the only drugs currently approved by the FDA to treat the disease. The primary goal of therapy is to suppress inflammation and achieve remission when the disease exacerbates. Although corticosteroids are effective in achieving this objective, prolonged use of the drugs leads to adverse events ranging from local effects such as glaucoma (increased intraocular pressure that can, in some cases, lead to blindness) and cataract (ocular lens opacities resulting in vision impairment), to systemic issues such as diabetes, congestive heart failure, osteoporosis and Cushing's syndrome. The morbidities caused by long term use of corticosteroids led to new treatment guidelines which recommend the addition of Immunomodulatory therapeutic (IMT) agents if inflammation cannot be controlled by prednisone alone within three months. It is important to note that long-term treatment with IMTs, which is commonly required, may be complicated by a variety of untoward side effects, which can include renal insufficiency, hypertension, leucopaenia, thrombocytopenia, and hepatic toxicity. Given the inherent risk of unregulated and precise use of IMT agents, the recommendations include a range of IMT agents (antimetabolites, calcineurin inhibitors, alkylating agents, and biologic response modifiers) to be selected judiciously following careful assessment of the patient's health and the severity and nature of the condition. Of particular interest are the anti-TNF drugs, several of which are established anti-inflammatory drugs for autoimmune diseases and are being currently investigated as potential therapies for the treatment of uveitis.

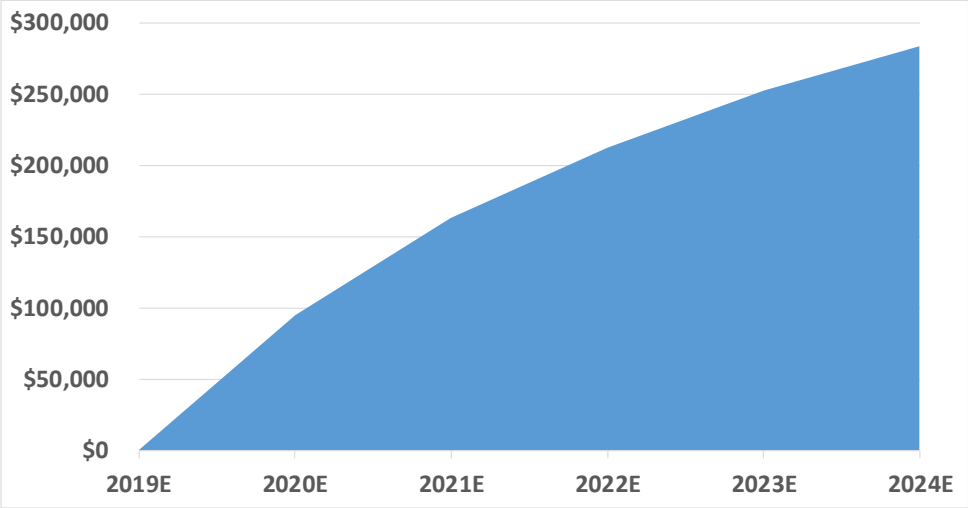
Despite this seemingly wide range of therapies for uveitis, as well as ongoing clinical trials to develop a drug for uveitis (Novartis and EyeGate Pharmaceuticals), there is currently no safe, tolerable, targeted and efficacious drug for uveitis that can be administered for a prolonged period of time. Furthermore, a significant percentage of uveitis patients are refractory to these therapeutic options. Given the high rate of blindness caused due to uncontrolled disease, novel medications are needed to improve symptoms, deter disease progression, and also reduce dependence on topical corticosteroids.

NS2 as a Treatment for Noninfectious Anterior Uveitis. There is a strong association between inflammation in uveitis and the levels of pro-inflammatory aldehydes in the affected eye. This correlation raises the possibility of using NS2 as a potential therapeutic to treat uveitis. Indeed, this possibility is supported by pre-clinical data demonstrating that NS2 traps aldehydes generated by dry conditions in human ocular tissue.

Clinical Trial Investigating NS2 as a treatment for Noninfectious Anterior Uveitis. Aldeyra is evaluating NS2 as a potential therapy for noninfectious anterior uveitis. The company first completed an ophthalmic formulation of NS2 (eye drops) and investigated the safety of NS2 in a Phase I study in healthy volunteers. In the Phase I double-blinded place controlled study, 48 volunteers were treated with two drug concentrations in two different treatment stages. Data from the study showed that the eye drops were well-tolerated in all treatment groups, and no plasma exposure was detected by LC-MS/MS which has a sensitivity of less than 5 ng/ml. The company submitted an IND to investigate NS2 as a potential treatment for uveitis. Following approval of the IND, the company initiated Phase II clinical trials in 40-45 uveitis patients. These patients will be treated with placebo controlled NS2 eye drops for 8 weeks, at the end of which disease progression will be evaluated by cell counts and disease symptoms. Data from the trial is expected in 2H: 2015.

Market Potential. The annual incidence of noninfectious uveitis is about 30,000 patients in the US and 46,000 in the EU, and approximately a third of these patients have one or more episodes per year.

Figure 7. NS2 - Noninfectious Anterior Uveitis Revenue Model ($000s)



NS2 Noninfectious Anterior Uveitis Drug Model					
United States	**2020E**	**2021E**	**2022E**	**2023E**	**2024E**
Noninfectious Anterior Uveitis Patients in the US	30,120	30,451	30,786	31,125	31,467
% Growth	*1.1%*	*1.1%*	*1.1%*	*1.1%*	*1.1%*
Noninfectious Anterior Uveitis Patients on NS2	3,012	5,177	6,773	8,092	9,125
% Penetration	*10.0%*	*17.0%*	*22.0%*	*26.0%*	*29.0%*
Cost Per Patient Year	$20,000	$20,000	$20,000	$20,000	$20,000
NS2 Sales for Noninfectious Anterior Uveitis US ($000s)	**$60,239**	**$103,533**	**$135,458**	**$161,848**	**$182,509**
% Growth		*71.9%*	*30.8%*	*19.5%*	*12.8%*
Europe					
Noninfectious Anterior Uveitis Patients in the EU	46,550	46,550	46,550	46,550	46,550
% Growth	*1.1%*	*1.1%*	*1.1%*	*1.1%*	*1.1%*
Noninfectious Anterior Uveitis Patients on NS2	2,328	3,957	5,121	6,052	6,750
% Penetration		*8.5%*	*11.0%*	*13.0%*	*14.5%*
		0			
Cost Per Patient Year	$15,000	$15,000	$15,000	$15,000	$15,000
NS2 Sales for Noninfectious Anterior Uveitis EU ($000s)	**$34,913**	**$59,351**	**$76,808**	**$90,773**	**$101,246**
% Growth		*70.0%*	*29.4%*	*18.2%*	*11.5%*
Overall NS2 Noninfectious Anterior Uveitis Revenues, Worlwide ($000s)	**$95,152**	**$162,885**	**$212,266**	**$252,621**	**$283,755**
% Growth		*71.2%*	*30.3%*	*19.0%*	*12.3%*

Source: Janney Montgomery Scott

FUTURE PIPELINE AND BUSINESS STRATEGY.

With pre-clinical data supporting the potential of NS2 as an aldehyde trapping therapy for a wide variety of immune-mediated inflammatory disorders, Aldeyra intends to evaluate NS2 as a therapy in other inflammatory diseases mediated in part by free aldehydes. With the existing formulations, Aldeyra plans to investigate the ophthalmic formulation for the treatment of other inflammatory eye diseases such as ocular rosacea and the dermal topical formulation for the treatment of inflammatory diseases such as discoid lupus. The company is also currently investing in developing injectable and oral formulations of the drug and testing the safety and tolerability of the injectable formulations. In particular, the injectable formulation is being developed in preparation for potential Phase II clinical trials for the systemic treatment of SLS, discoid lupus, other autoimmune diseases that lead to severe inflammatory crises, and genetic diseases such as succinic semi-aldehyde dehydrogenase deficiency leading to high aldehyde-mediated neurological disease.

Aldeyra is also investing in the synthesis and formulation of novel aldehyde traps other than NS2 and continues to patent novel drug compositions, formulations, and methods that relate to aldehyde trapping. The company intends to develop NS2 and other novel aldehyde traps for the dermal and ocular inflammatory conditions previously described as well as other diseases where aldehydes may mediate pathology.

While the company is focused on developing NS2 until and beyond regulatory approval, it is open to partnering with larger companies to develop and commercialize products for other diseases where aldehyde toxicity is implicated, particularly diseases that afflict large populations worldwide.

ALDEYRA'S INTELLECTUAL PROPERTY PORTFOLIO

Aldeyra's patent portfolio currently includes patents and patent applications covering the composition, formulation, and uses of NS2, and the
compositions and uses of other novel aldehyde trapping compounds. As of December 31, 2014, Aldeyra has three approved United States patents, three pending United States non-provisional patent applications, three PCT applications at the international-stage as well as numerous foreign counterparts to these patents and patent applications. The NS composition of matter of patent in the US is expected to expire in 2028, while the foreign one is expected to expire in 2026. The company also anticipates that the composition of matter patent may be extended up to five additional years. NS2 composition of matter patents have been issued in Australia, Canada, China, Europe (validated in about 14 member countries), Hong Kong,
Indonesia, Japan, Mexico, Russia and South Korea, while applications are pending in Brazil and India.

MANAGEMENT

Todd C. Brady, M.D., Ph.D.,*Chief Executive Officer, President, & Director.* Dr. Brady has more than 18 years of pharmaceutical clinical and business development experience. Prior to joining Aldeyra as president and CEO in 2011, Dr. Brady was an entrepreneur-in-residence and principal at Domain Associates, where he led institutional financing in numerous biotechnology companies from 2004 to 2013. Prior to joining Domain, Dr. Brady held several industry positions including co-founder and CEO of Phenome Sciences, executive vice president of Strategic Development and Planning at Xanthus Pharmaceuticals, head of business development and medical director at Aderis Pharmaceuticals, and also worked as a medical consultant on the Neupro clinical program, a drug now marketed for Parkinson's Disease. Dr. Brady holds an M.D. from Duke University Medical School, a Ph.D. from Duke University Graduate School, and an A.B. from Dartmouth College.

Stephen Tulipano, CPA, ***Chief Financial Officer***. Mr. Tulipano has more than 27 years of accounting and financial experience, with 12 years in the pharmaceutical industry. Prior to joining Aldeyra as CFO in June 2014, Mr. Tulipano held positions at Three Tulips Inc., an accounting and management advisory services firm, at Javelin Pharmaceuticals as CFO, at Biogen Idec as Director of Corporate Accounting, and at several other companies and accounting firms in accounting roles. Mr. Tulipano holds a B.S. in Business Administration and Accounting from Salem State College and an M.B.A. in Finance from Suffolk University. He is also a Certified Public Accountant.

Scott L. Young, ***Chief Operating Officer***. Mr. Young has more than 25 years of pharmaceutical pre-clinical and clinical development experience. Prior to joining Aldeyra Therapeutics in December 2011 as COO, he was COO at Link Medicine, Inc., where he helped raise more than $40 million in financing and also the COO for OXiGENE Inc., where he helped advance a candidate from discovery to Phase III trials. Mr. Young has also held positions in clinical and regulatory affairs, GMP manufacturing operations and R&D and process development at Genzyme Corporation, RepliGen Corporation and Genetics Institute (now Pfizer). He holds a B.S. in biochemistry from the University of Massachusetts, Amherst.

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PROFIT & LOSS STATEMENT ***(in thousands, except share data)***

	F2014A	F1Q:15A	F2Q:15E	F3Q:15E	F4Q:15E	F2015E	F2016E	F2017E
Total Revenue	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Research & Development	3,708	1,136	1,250	1,250	1,250	4,886	5,400	6,500
Selling, General & Administrative	3,563	972	1,000	1,000	1,000	3,972	4,400	5,500
Other	0	0	0	0	0	0	0	0
Operating Expenses	7,271	2,109	2,250	2,250	2,250	8,859	9,800	12,000
Operating Profit	**($7,271)**	**($2,109)**	**($2,250)**	**($2,250)**	**($2,250)**	**($8,859)**	**($9,800)**	**($12,000)**
Operating Margin								
Other Income (Expense)	2,328	0	0	0	0	0	0	0
Pretax Profit	**($5,187)**	**($2,137)**	**($2,250)**	**($2,250)**	**($2,250)**	**($8,887)**	**($9,800)**	**($12,000)**
Net Income (net loss)	**($5,187)**	**($2,137)**	**($2,250)**	**($2,250)**	**($2,250)**	**($8,887)**	**($9,800)**	**($12,000)**
Earnings Per Share	**($2.51)**	**($0.32)**	**($0.28)**	**($0.23)**	**($0.23)**	**($1.00)**	**($1.00)**	**($1.22)**
Shares Outstanting (Basic)	3,818	6,668	8,134	9,600	9,648	8,879	9,781	9,855

Source: Company reports & Janney Montgomery Scott Estimates

RESEARCH ANALYST CERTIFICATIONS AND IMPORTANT DISCLOSURES ARE ON PAGES 17 - 18 OF THIS REPORT

IMPORTANT DISCLOSURES

Research Analyst Certification

I, David Lebowitz, the Primarily Responsible Analyst for this research report, hereby certify that all of the views expressed in this research report accurately reflect my personal views about any and all of the subject securities or issuers. No part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views I expressed in this research report.

Janney Montgomery Scott LLC ("Janney") Equity Research Disclosure Legend

Aldeyra Therapeutics, Inc currently is, or during the past 12 months was, a Janney Montgomery Scott LLC client. Janney Montgomery Scott LLC, provided investment banking related services.

Janney Montgomery Scott LLC managed or co-managed a public offering of securities for Aldeyra Therapeutics, Inc in the past 12 months.

Janney Montgomery Scott LLC received compensation for investment banking services from Aldeyra Therapeutics, Inc in the past 12 months.

Janney Montgomery Scott LLC intends to seek or expects to receive compensation for investment banking services from Aldeyra Therapeutics, Inc in the next three months.

The research analyst is compensated based on, in part, Janney Montgomery Scott's profitability, which includes its investment banking revenues.

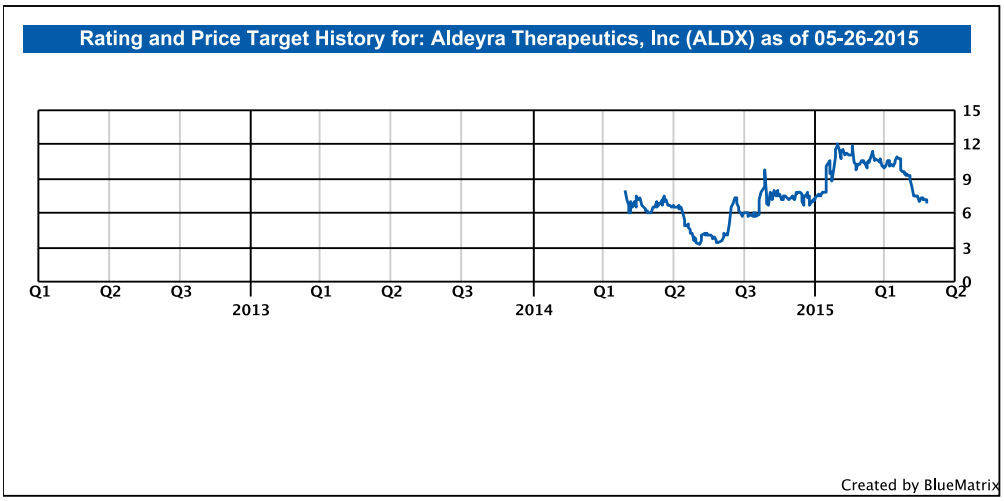
Definition of Ratings

BUY: Janney expects that the subject company will appreciate in value. Additionally, we expect that the subject company will outperform comparable companies within its sector.

NEUTRAL: Janney believes that the subject company is fairly valued and will perform in line with comparable companies within its sector. Investors may add to current positions on short-term weakness and sell on strength as the valuations or fundamentals become more or less attractive.

SELL: Janney expects that the subject company will likely decline in value and will underperform comparable companies within its sector.

Price Charts



Janney Montgomery Scott Ratings Distribution as of 3/31/15

			IB Serv./Past 12 Mos.	
Rating	**Count**	**Percent**	**Count**	**Percent**
BUY [B]	140	50.36	21	15.00
NEUTRAL [N]	137	49.28	14	10.22
SELL [S]	1	0.36	0	0.00

*Percentages of each rating category where Janney has performed Investment Banking services over the past 12 months.

Other Disclosures

Janney Montgomery Scott LLC, is a U.S. broker-dealer registered with the U.S. Securities and Exchange Commission and a member of the New York Stock Exchange, the Financial Industry Regulatory Authority and the Securities Investor Protection Corp.

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Investment opinions are based on each stock's 6-12 month return potential. Our ratings are not based on formal price targets, however, our analysts will discuss fair value and/or target price ranges in research reports. Decisions to buy or sell a stock should be based on the investor's investment objectives and risk tolerance and should not rely solely on the rating. Investors should read carefully the entire research report, which provides a more complete discussion of the analyst's views. Supporting information related to the recommendation, if any, made in the research report is available upon request.