Horizon Pharma, Inc. [1,3]

New Pain and Inflammation Drugs on the Near Term Horizon; Initiate at Outperform

MARKET OUTPERFORM HZNP $8.01

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Price	$8.01
Target Price	$16.00
52-Wk Range	$7.51 - $9.34
Shares Out. (M)	19.1
Market Cap. (M)	$153.4
Average Daily Vol. (000)	7
Float (M)	$6.7
LT Debt (M)	$10.4
Cash (M)	$51.8
Enterprise Value (M)	$112.0
Cash/Share	$2.71

FY Dec		2010A	2011E	2012E
Revenue (M)	1Q	--	$1.8A	$6.5
	2Q	--	$1.3A	$10.5
	3Q	--	$0.5	$14.8
	4Q	--	$1.1	$18.3
	FY	**$4.7**	**$4.7**	**$50.1**
		2010A	**2011E**	**2012E**
EPS	1Q	--	($5.13)A	($0.62)
	2Q	--	($7.78)A	($0.40)
	3Q	--	($0.63)	($0.23)
	4Q	--	($0.73)	($0.06)
	FY	**($8.91)**	**($4.40)**	**($1.25)**
	P/E	NM	NM	NM
	Previous FY	--	--	--
	CY	**($8.91)**	**($4.40)**	**($1.25)**
	PE	NM	NM	NM

NC indicates no change to previous estimate. NE indicates no previous estimate.
Source: Company reports and JMP Securities

INVESTMENT HIGHLIGHTS

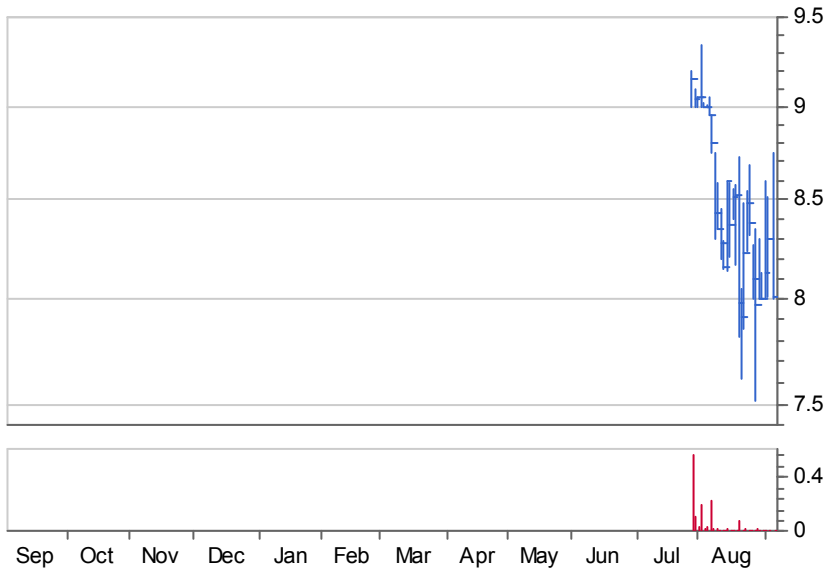
- **Commercial experience and two ways to win; we are initiating coverage on Horizon Pharma with a Market Outperform rating and a $16 price target.** Horizon is establishing a specialist sales force focused on high-prescribing rheumatologists to market its two novel drugs, Duexis and Lodotra, indicated for the treatment of pain and inflammatory conditions. In our view, due to management's extensive experience launching products into the space, Horizon is well positioned to deliver superior sales execution in the U.S. while maintaining (Lodotra) and attracting (Duexis) top European partners. Duexis's drug combination addresses an often overlooked safety issue arising from chronic NSAID use, and Lodotra is designed to treat a major symptom of arthritis that is poorly addressed by current drugs; together we believe these drugs could generate ~$1B in sales annually. Our $16 price target is derived from 4x our estimated U.S. revenues and 7x estimated EU royalties from Duexis and Lodotra in 2017, discounted 30% per year.
- **Clinical and most regulatory risk out of the way, now looking to sales execution.** Duexis is approved in the U.S. and Horizon is planning the U.S. launch of the drug in 4Q11 with ~75 NSAID-trained sales reps. Lodotra is currently sold in the EU by partners Mundipharma and Merck KGaA. We are looking for U.S. approval of Lodotra in 1H12 and launch mid-year that will drive efficiencies from marketing of these two products in the U.S. We view the remaining regulatory risk to be minimal for these products and believe most investors will focus on sales execution and intellectual property. In our view, most competition for Duexis and Lodotra will arise from generic NSAIDs and prednisone, respectively. However, we believe that Horizon has a savvy strategy, and it is hiring sales reps with market experience in NSAIDs and top management with extensive expertise in these markets to maximize the value to be derived from Duexis and Lodotra.
- **Marketing expertise backed up by clinical utility.** Despite being largely a commercial story, in our view Horizon is not simply a story of better marketing of drugs with incremental clinical value, but one of better marketing of category leading drugs. Both Duexis and Lodotra are supported by rigorous data showing that the drugs provide meaningful clinical benefits to patients, while keeping overall costs low through competitive pricing, a strategy that, in our view, may win significant market share.

- **Intellectual property likely to hold up.** In our view, the IP surrounding these products is robust and likely to be defensible based on the unique and non-obvious clinical value seen and formulations used. Our diligence with legal experts suggests that concerns over infringement or obviousness in Horizon's patents for Duexis are likely unwarranted. We believe that Horizon's current and pending patents should protect Duexis and Lodotra into 2026 and 2025, respectively. We model various IP scenarios for Duexis in the U.S. and EU to arrive at what we believe to be a compelling valuation for the company.

COMPANY DESCRIPTION

Horizon Pharma is a specialty pharmaceutical company focused on the development and commercialization of novel drug formulations for the treatment of pain and inflammatory indications, particularly arthritis. The company has two approved products, Duexis in the U.S. and Lodotra in Europe. The primary near/mid-term drivers for Horizon are successful execution on the launch of Duexis in the U.S. (planned for 4Q11) as well as U.S. approval of Lodotra (NDA filing expected in 3Q11). Horizon has partnered Lodotra in Europe and Asia, with Mundipharma and Merck/Serono, and intends to secure a partner for Duexis for ex-U.S. geographies.

FIGURE 1: Horizon Pharma Historical Stock Price Chart



Source: Factset

VALUATION

We value Horizon using an NPV methodology by discounting peak 2017 revenues for Duexis of ~$277MM in the U.S. and royalties to Horizon of ~$12MM in the EU5 (U.K., France, Germany, Spain, Italy) (assuming a 35% royalty rate) and revenues for Lodotra of ~$97MM in the U.S. and royalties of ~$8MM in the EU14 (the 14 largest countries). Based on our estimates, we use a 4x multiple for U.S. revenues and 7x for EU royalties, discounting at 30% through the end of 2011 (6 years) to arrive at an NPV of ~$339MM.

In order to value Horizon, we modeled what we anticipate to be the major markets for Duexis and Lodotra. For Duexis, we considered the prescription NSAID market in both the U.S. and EU. In the U.S., we assumed 97MM total NSAID prescriptions in 2011 and grow this number by 1.5% annually through at least 2017. We assume a maximum penetration rate for Duexis in this market of 2% starting in 2015. In the five major markets in the EU (U.K., France, Germany, Spain, Italy), we assume 45MM annual NSAID prescriptions in 2011 and increase this number by 2% annually through at least 2017. Our

model projects a 1.6% penetration rate for Duexis in the EU starting in 2016. We assume a U.S. price for Duexis of $1.32/pill wholesale, which includes all discounting assumptions such as a copay buy-down. Our U.S. model includes a 2% annual price increase beginning in 2013 through at least 2017. In the EU, our price assumption is for ~$0.48/pill (no future currency adjustments are modeled), and we assume no annual price increases for the EU. We assume monthly prescriptions of 3 pills/day, to give 90 pills per prescription in both the U.S. and EU

Our model for Lodotra is based on the rheumatoid arthritis (RA) patient population in the U.S. and EU We assume 1.3MM treated RA patients in the U.S. and ~1.2MM in the EU in 2011 with no projected growth in the patient populations. Of these patients, we assume 70% are prescribed glucocorticoids in the U.S. and 50% in the EU Of the glucocorticoid prescribed patients, we assume Lodotra achieves peak penetrations of 8.5% in the U.S. in 2016 and of 6.0% in the EU in 2015. We assume a U.S. price for Lodotra of $4/pill and in the EU of $1.50/pill, in line with currently available prednisone. We model a 1.0% annual price increase for the U.S. and no annual price increase in the EU. Our model assumes that patients spend ~150 days of the year "on" Lodotra and that patients take two Lodotra pills per day.

FIGURE 2: Absolute Valuation

	Revenues	Peak penetration	Sales year	Multiple	Discount rate	Years to discount	Value ($MM)	Value per share
Duexis								
US	276.7	2.0%	2017	4	30%	6	229.3	**$10.38**
EU	12.2	1.6%	2017	7	30%	6	17.7	
Lodotra								
US	96.6	8.5%	2017	4	30%	6	80.0	**$3.86**
EU	8.1	8.5%	2017	7	30%	6	11.8	
Cash							51.8	**$2.18**
Shares							23.8	
Valuation								**$16.41**

Source: JMP Securities, LLC

We corroborate our absolute valuation with a relative valuation methodology based on an analysis of comparable companies with late-stage or marketed assets in the pain and inflammation space. As shown in Figure 3, this analysis yields a price objective of approximately $15-16 per share at the group mean enterprise value, supporting our absolute valuation.

FIGURE 3: Relative Valuation

		Price	Mkt Cap ($MM)	EV ($MM)	FY Sales 2010A	FY Sales 2011E	FY Sales 2012E	Growth FY10-FY12	FY Price/Sales 2011E	FY Price/Sales 2012E	EV/Sales 2011E	EV/Sales 2012E
Avanir Pharmaceuticals Inc.	AVNR	$2.74	340	249	3	10	41	278.6%	35.7	8.2	26.1	6.0
Horizon Pharma Inc.	**HZNP**	**$8.01**	**156**	**124**	**2**	**5**	**50**	**359.0%**	**33.1**	**3.1**	**26.2**	**2.5**
Zalicus Inc.	ZLCS	$1.44	143	100	46	7	13	-47.5%	19.5	11.3	13.6	7.9
Cadence Pharmaceuticals Inc	CADX	$6.36	405	340	0	24	112	NA	17.0	3.6	14.3	3.0
Mean				**229**				**115.5%**	**24.1**	**7.7**	**18.0**	**5.6**
Median				**249**				**115.5%**	**19.5**	**8.2**	**14.3**	**6.0**

AVNR Share Price assuming Mean EV	**$14.86**
AVNR Share Price assuming Median EV	**$16.12**

Source: Factset and JMP Securities, LLC

To further examine the value of Horizon, we conducted an IP scenario analysis looking at the expected IP scenarios for Duexis and Lodotra in the U.S. (Figure 4). Our IP-based valuation assumes 10-year exclusivity in the EU for both drugs; through March 2019 for Lodotra and through the first half of 2022 for Duexis. Based on our assumed probabilities of occurrence for the various IP scenarios, we arrive at a weighted share price of ~$22, which includes the company's current cash balance. This represents a meaningful premium to our revenues based on a price target of $16/share as well as the current share price.

FIGURE 4: IP Scenario Analysis

Scenario	Duexis U.S. IP Protection To	Years	NPV	Lodotra U.S. IP Protection To	Years	NPV	Probability	Weighted Share Price
1	April 2014 (30 month exclusivity)	2.5	$3.18	YE 2015 (30 month exclusivity)	3	$0.94	10%	$0.71
2	April 2014 (30 month exclusivity)	2.5	$3.18	2025	14	$3.12	10%	$0.93
3	August 2026 ('282 patent)	15	$19.56	YE 2015 (30 month exclusivity)	3	$0.94	10%	$2.35
4	August 2026 ('282 patent)	15	$19.56	2025	14	$3.12	70%	$17.96
						Weighted Price Objective:		$21.94

Source: JMP Securities, LLC

KEY UPCOMING CATALYSTS

3Q11 - Lodotra NDA for RA submitted
4Q11 - Duexis launch in the U.S.
1H12 - EU approval of Duexis, partnering discussions for EU rights
Mid-2012 - Lodotra launch in U.S.
Mid-2012 - Total of 150 U.S. sales reps to support Duexis and Lodotra

KEY INVESTMENT POINTS

Two novel products that bring value to patients, providers, and payers. Horizon has completed clinical development and obtained regulatory approval for two novel drug formulations, Duexis and Lodotra. Duexis is a proprietary combination of a well-known NSAID (ibuprofen, aka Advil) and well-known acid blocker (famotidine, aka Pepcid) that is designed for increased safety and convenience and enhanced efficacy in protecting the gastrointestinal system from the negative impact of NSAID use. Lodotra is an advanced "modified release" formulation of prednisone that is also intended to address unmet need for arthritis patients through its efficacy and convenience. Both products are designed to address straight-forward issues such as reducing the number of pills patients take or allowing convenient dosing times while, most importantly, providing beneficial clinical outcomes of improved safety and efficacy.

Horizon is targeting large and important markets in pain and inflammation. An estimated greater than 60MM adults in the U.S. have been diagnosed with some form of arthritis, with an estimated annual economic cost in the hundreds of billions of dollars, and rheumatoid arthritis (RA) and osteoarthritis (OA) individually represent multibillion dollar prescription markets in the U.S. NSAIDs and glucocorticoids are common and effective treatments for pain and arthritis; however, they carry adverse side effects that limit usage despite their potential for reducing the need for expensive biologics in some settings. We believe that investors may be overlooking the beneficial clinical performance characteristics of Duexis and Lodotra, and we anticipate share price appreciation given further clinical validation and in-market experience with the drugs.

Addressing unmet clinical needs of patients. Duexis has demonstrated in clinical testing analgesic efficacy combined with a lower risk of adverse gastrointestinal events over ibuprofen alone, specifically a reduction in upper GI ulcers by ~30-50%. Physicians appear to under-prescribe GI-protecting acid blockers even in at-risk patients, and compounded with patient forgetfulness, this leads to an estimated greater than 75% of NSAID patients who do not receive GI protection. Lodotra addresses a key complaint of arthritic patients, namely morning joint stiffness, by releasing the drug at the correct time while the patient is sleeping. Current formulations of prednisone cannot conveniently allow mid-sleep dosing and Lodotra has clinical data demonstrating superior efficacy vs. the current formulations.

Horizon is focused on excellent commercial execution. Horizon is led by a management team with extensive experience developing and launching over a dozen products similar to Duexis and Lodotra. President and CEO Mr. Walbert, for example, led the launch of the combination NSAID/GI-protectant Arthrotec at Searle to an approximate 5% share of NSAID prescriptions in less than a year before the company shifted attention to Celebrex. Celebrex is currently prescribed ~10MM times annually in the U.S. We view Horizon as a story primarily focused on commercial execution and believe that a

significant portion of the company's success in the marketplace will come from marketing efforts directed at physicians. Our diligence suggests that both the prescription NSAID and corticosteroid markets suffer from lack of attention from sales representatives, likely due to a strong generic presence. However, we believe that market share is likely to benefit from intensive detailing with value-added products.

Market size allows for many seats at the table. Horizon is taking on companies with sales and marketing budgets much larger than its own. We view this as an opportunity for a focused, specialized sales force to convey the benefits of Duexis and Lodotra in markets with large numbers of prescriptions (~90MM annual NSAID and ~9MM annual prednisone prescriptions in the U.S.) but that may be a lower-priority market for larger companies. Horizon may enter into co-promotion agreements for Duexis in the U.S. with the appropriate partners. Horizon's pricing strategy for Duexis rests on minimizing the impact of a patient's co-pay while observing that payers are likely to reimburse for NSAIDs. We believe that Lodotra will be priced at a small premium to currently available prednisone formulations, providing a strong value argument considering the drug's superior clinical attributes. The combination of sales efforts and a competitive pricing strategy bodes well for potential sales, we believe.

Intellectual property looks to be secure. Duexis is likely to be protected to at least 2026 by the 779,207 patent approved in September 2011 as well as pending formulation patents; otherwise, market exclusivity lasts through April 2014. Patents that cover the controlled release of glucocorticoids have been filed in the U.S. for Lodotra that would provide protection to 2025. Our diligence on some of the major IP issues for Horizon that may concern investors leads us to believe that Horizon will likely be successful in protecting these products for the full terms of the patents.

INVESTMENT RISKS

Regulatory risk. The FDA, and/or other ex-U.S. regulatory agencies, could reject any of the firms', or its partners', future regulatory filings or require additional studies prior to granting approval.

Commercial risk. If successfully developed and approved, Horizon's products may face competition both from approved products and also potentially from new product candidates in development by biotechnology and pharmaceutical companies. The company may also face IP risk from competing brand or generic products or product candidates.

Balance sheet risk. The expenses associated with drug development and commercialization are high. Horizon may return to the capital markets to secure additional financing to fund current or future development programs or marketing efforts. Horizon had approximately $5.7MM in cash and equivalents at the end of 2Q11 and netted approximately $46MM from its July IPO that we believe will be sufficient to fund operations through 2011. We have projected a raise of ~56MM in 2Q12 at $15/share. However, the company may also complete one or multiple ex-U.S. partnerships for Duexis which would reduce the need for equity financing.

DUEXIS COMMERCIAL OPPORTUNITY

Duexis was approved by the FDA on April 23, 2011, under the 505(b)(2) process. Horizon plans to begin marketing the drug in the U.S. sometime in 4Q11 with a sales force of approximately 75 representatives who have prior experience selling NSAID products. Following the Lodotra launch, which Horizon expects in 3Q12, the company anticipates doubling the sales force to ~150 reps who will co-promote Duexis and Lodotra. Horizon will also consider co-promotion partners for the U.S. As of the time of this report, the company has hired the regional sales management team and district managers for the Duexis sales force. Horizon is targeting a Tier 3 formulary placement with pricing comparable to Celebrex or Mobic, at around $4.50-$5.20 wholesale cost per day, or ~$1.50-$1.75/day/pill. Horizon intends to "buy down" the patient co-pay to less than ~$30-35, which the company believes is a level at which patients are more likely (>80%) to fill their prescriptions, based on market research.

NSAIDs are used widely for the management of pain ranging from mild to severe (where it is likely used to reduce opioid usage). The majority of Horizon's targeted physicians are high prescribing primary care

doctors (~70% of the targeted doctors), followed by rheumatologists (~15% of targeted doctors). While we have modeled the relevant Duexis market based on total prescriptions, as Duexis may potentially be used anytime an NSAID is prescribed, we believe that rheumatoid arthritis (RA) and osteoarthritis (OA) will be major markets for Duexis and these are the indications on the drug's label. Rheumatoid arthritis is discussed in our section on Lodotra; briefly, we believe that the majority of the ~1.3MM U.S. RA and ~1.2MM European RA patients will take prescription NSAIDs, likely representing a large portion of the market for Duexis. Our estimates for OA (though not included in our valuation model) are for greater than ~20MM OA patients in the U.S., the majority (70-90%) taking NSAIDs. We believe these markets represent significant opportunities for an efficacious NSAID with clinically relevant benefits in safety and efficacy to capture a meaningful market share. Approximately 30 million prescriptions are written for ibuprofen in the U.S. annually, ~90% for 600mg and 800mg doses. In our view, Duexis may capture a significant portion of this market, leading to annual sales approaching our projection of ~$300MM.

Ex-U.S. opportunities

We anticipate European approval in 1H12 following the company's MAA submission in October 2010. Horizon has utilized the "Decentralized Procedure" for applications in Europe by applying to the U.K.'s Medicines and Healthcare Products Regulatory Agency as the Reference Member State. Horizon has received scientific advice from the EMA regarding the quality of the submission. As part of the approval process in the EU, Horizon has been asked to demonstrate the bioequivalence of the famotidine formulation currently used in Duexis vs. that used in the Phase III REDUCE studies. The company has completed these studies as part of the NDA approval process in the U.S.

DUEXIS MARKET EXCLUSIVITY PROTECTION

The first U.S. patent for Duexis, "Methods and Medicaments for Administration of Ibuprofen" (Application #11/779,204), was granted its U.S. Patent Allowance in September 2011. The patent has an expiration date of 2026. We view this patent as being key for Duexis' intellectual property protection as it establishes the “non-obviousness” of the Duexis innovation and will undoubtedly be the focus of challenges by would-be competitors. Duexis additionally has exclusivity protection from approval of a generic in the U.S. by the FDA until April 2014, as well as potentially more than 25 U.S. and ex-U.S. patents that are currently pending, which, according to the company, would provide protection to 2026 at the earliest in the U.S. and to 2031 ex-U.S. The company anticipates having an FDA Orange Book listed patent before the 4Q11 launch. The primary value-added innovation, in our view, of the Duexis patents revolves around methods to reduce ibuprofen-induced ulcers and the dosage form. Our diligence has indicated that investors are primarily concerned about the ability of the patents to hold up to a Paragraph IV challenge from a generic manufacturer. There had also been concern over the failure of a patent filing made on July 2006 (Tidmarsh, et al., "Methods and Medicaments for Administration of Ibuprofen") to gain acceptance from the U.S. PTO. The application was considered unpatentable primarily due to a patent authored by Plachetka, et al. that describes the formulation for Vimovo as well as Edge (New Zealand Medical Journal, 103: 150-152 (1990)) and Gimet (U.S. Patent #5,601,843). Plachetka, et al. describes a combination of acid-blocking drug and NSAID, primarily a proton pump inhibitor acid blocker and the NSAID naproxen, but also describes H2 histamine-receptor blockers and a wide array of NSAIDs. However, based on our diligence with legal experts, the Plachetka, et al. patent likely does not cover the claims of Tidmarsh, et al. Based on our understanding, Plachetka, et al. strictly requires the sequential release of the acid-blocking component followed by the NSAID (Vimovo utilizes enteric-coated naproxen to delay release in the stomach). Duexis is essentially a concurrent release formulation (i.e., no enteric coating) with the ibuprofen located on the outside of the pill and famotidine found on the interior. According to the company, a key component of the Duexis patents and pending patents is the formulation modifications that have been made to stabilize the combination of ibuprofen and famotidine to allow simultaneous dosing of the drugs. We believe that the “non-obvious” innovation in Duexis is that concurrent administration of the two components can result in a reduction in the risk of ulceration due to chronic NSAID use. This observation was required to be established empirically through the clinical trials for the product and that, until these studies were completed and the data became available, the FDA and clinical community did not believe was the case.

DUEXIS BACKGROUND AND CLINICAL DEVELOPMENT

Gastrointestinal adverse events and NSAIDs - brief overview

Non-steroidal anti-inflammatory drugs (NSAIDs) are effective, largely safe, and highly used for the treatment of pain and inflammation with no sedative or addictive properties. However, non-specific NSAIDs (nsNSAIDs, those inhibiting both the COX-1 and -2 enzymes) carry gastrointestinal (GI) risks, including dyspepsia, upper GI ulcers, hemorrhages, perforations, and pyloric obstructions, particularly for high risk patients such as those with prior ulcers or other GI insults (Salvo F, et al., *Clin Pharmacol Ther.* 2011 Jun; 89(6):855-66). Upper gastrointestinal events have an estimated occurrence rate of approximately 1.5-2% per therapy year in patients taking NSAIDs, a rate approximately four times the rate of events in patients not taking nsNSAIDs (Valkhoff VE, et al., *Alimentary Pharmacology & Therapeutics* Volume 31, Issue 11, pages 1218-1228, June 2010). Primary risk factors for developing upper GI events include old age and concomitant steroids or anticoagulant drugs. The major explanation for increased GI toxicity from nsNSAID consumption lies in the fact that COX-1 inhibition results in decreased levels of stomach prostaglandins, fatty acid byproducts that protect the stomach's mucus lining. A prostaglandin-deprived mucus lining is more susceptible to damage from the stomach's acid.

One strategy for reducing the GI toxicity of NSAIDs is to utilize COX-2-specific inhibitors. COX-2 is a specific form of cyclooxygenase that is primarily involved in inflammatory responses, with a lesser role in the maintenance of the stomach's mucosal membrane. Inhibition of COX-2 therefore mainly results in a reduction of pain and inflammation and carries a lower risk of GI-adverse events. However, an unintended side effect of the selective inhibition of COX-2 appears to be an increased risk of cardiovascular (CV) adverse events, at least with a subset of COX-2 inhibitors (COX-2is), which may include: thrombosis, myocardial infarction, or stroke. The best-selling COX-2i from Merck, Vioxx (rofecoxib), was withdrawn in September 2004 due to demonstrated increased CV risk. Celebrex (celecoxib), a leading COX-2i from Pfizer that is prescribed approximately ~10 million times annually in the U.S., carries strong CV risk warnings on its label. It is possible that a majority of NSAIDs, outside low-dose aspirin and possibly naproxen, carry a degree of increased CV risk, but the risk appears to be relatively higher in the COX-2i class. The underlying causal mechanism for increased CV risk is not known at this time. The withdrawal of Vioxx from the market in 2004 and another COX-2i, Bextra (valdecoxib), in April 2005, resulted in a contraction in U.S. prescriptions and sales efforts in the U.S. for not only the COX-2is but NSAIDs at large.

Acid-reducing agents and gastroprotection

Given the benefits of NSAIDs in treating pain and inflammation, it would benefit patients to have a method of lowering the gastrointestinal risk while not increasing CV risk. One method for achieving this treats patients with a drug to lower the acidity of the stomach, thus preventing its attack on the NSAID-weakened mucosal membrane. Effective, safe, and highly-utilized drugs exist that allow patients to lower their GI acidity. These agents are typically used to treat peptic ulcers or gastroesophageal reflux disease (GERD). The drugs are referred to as "acid blockers" or "acid reducers" and act through two mechanisms: inhibition of the stomach's proton pumps (proton-pump inhibitors or PPIs) or inhibition of H2-histamine receptors. Proton pump inhibition works in a straightforward manner, blocking the delivery of protons into the stomach from parietal cells (specialized acid-releasing cells) found in the stomach lining. H2-receptor blockers work by inhibition of the H2 subtype of the histamine receptor. Histamine released from cells in the stomach stimulates the release of gastric acid by activating receptors found on the parietal cells.

A way of achieving the desired reduction in stomach acidity is to co- or pre-administer acid-blocking drugs with the NSAID. However, this is frequently not done, either when the prescription is written or when the patient takes his/her medications, possibly due to a lack of appreciation of the GI risk on the part of physicians or patients, or reluctance from patients to take more pills (pill burden). In order to drive physician awareness and patient compliance, novel formulations that combine an acid-blocking drug with an NSAID in one pill have been developed. The first approved version of this type of combination drug is Vimovo, which consists of a core of 375 or 500mg of an enteric-coated formulation of the NSAID naproxen covered by a layer of 20mg of the proton-pump inhibitor Nexium (omeprazole). Duexis is a novel formulation that combines 800mg of the NSAID ibuprofen with 26.6mg of H2

histamine receptor inhibitor famotidine. Ibuprofen is a well known anti-inflammatory NSAID (Motrin, Advil) that was prescribed approximately 28 million times in the U.S. in 2010. Similarly, famotidine (Pepcid) is a well known histamine receptor antagonist that has been on the market in the U.S. since 1981. Through its inhibition of the H2 receptor, famotidine acts to reduce the acid produced in the stomach and is enhanced by histamine signaling on parietal cells. While both ibuprofen and famotidine are over the counter (OTC) drugs, the respective doses utilized in Duexis are prescription-only in the U.S.

Duexis clinical development

The Phase III REDUCE-1 and REDUCE-2 trials

To gain regulatory approval of Duexis in the U.S., and eventually the EU, Horizon completed two Phase III studies in over 1,500 patients with mild- to moderate pain and/or arthritis, the Registration Endoscopic Study to Determine Ulcer Formation of HZT-501 Compared to Ibuprofen: Efficacy and Safety Studies 1 and 2 (REDUCE-1 and REDUCE-2). The trials were randomized, double-blind, and controlled safety and efficacy studies conducted in the U.S. under an SPA agreement with the FDA. Patients were given either Duexis or 800mg of ibuprofen (randomized 2:1, Duexis:ibuprofen) three times daily for 24 weeks or until they developed an endoscopically-visible upper-GI or gastric ulcer or another toxicity that precluded continuation.

Both REDUCE trials met their primary endpoints of a significant reduction in gastric ulcers (for REDUCE-1) and upper-GI (UGI) ulcers (for REDUCE-2) when compared to ibuprofen alone, with p-values < 0.005 in both cases; the percentage of patients with endoscopic ulcers is shown in Figure 5. Also, the trials demonstrated a statistically significant lower rate of dyspepsia for Duexis (4.7% vs. 8.0% for ibuprofen, p=0.009), a clinically relevant secondary endpoint.

FIGURE 5: Endoscopic Ulcer Rates

Trial	Drug	N	Patients with Endoscopic Ulcers	p-value
REDUCE-1	Duexis (TID)	447	8.7%	0.0004
	Ibuprofen (800mg TID)	216	17.6%	
REDUCE-2	Duexis (TID)	380	10.5%	0.0020
	Ibuprofen (800mg TID)	190	20.0%	

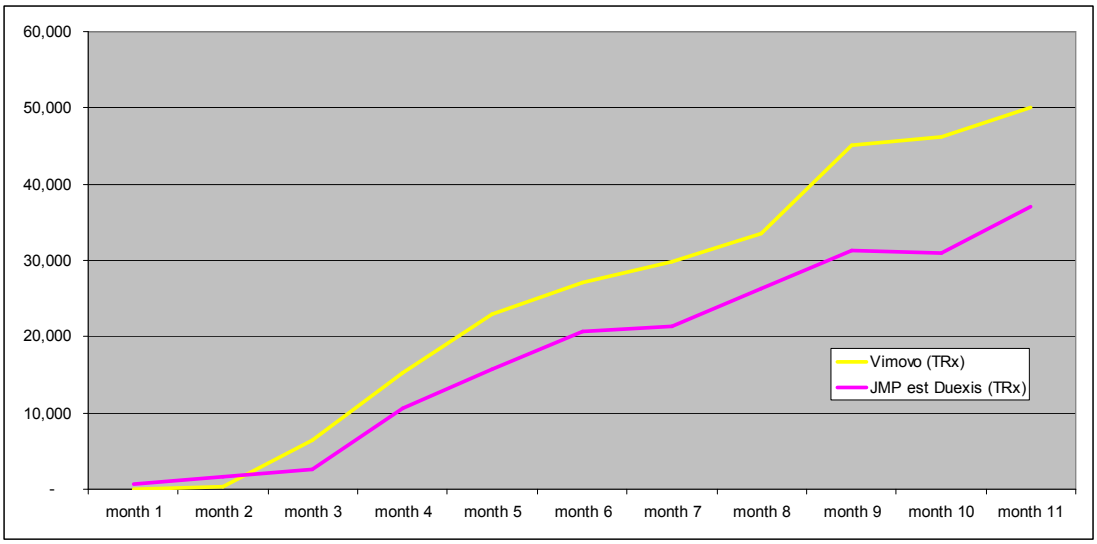
Source: Company reports

The primary adverse events potentially due to Duexis treatment, as observed at rates of 1% or greater and at a higher rate than was found with ibuprofen alone, were: nausea, diarrhea, constipation, upper abdominal pain, and headaches. While the discontinuation rate due to adverse events for both trials was similar whether patients were on Duexis or ibuprofen, note that the overall discontinuation rate for any reason was lower for Duexis vs. ibuprofen at 31.0% vs. 42.9%, respectively (p-value < 0.0001).

Major Competitors

The most relevant competitor in terms of similarity of product offering is Vimovo, in our view. Vimovo was developed by Pozen and is marketed by AstraZeneca. It was approved in April 2010 and launched early in 3Q10. Vimovo is a combination of the proton-pump inhibitor esomeprazole and the NSAID naproxen in a delayed release formulation that is designed to release the acid-blocking component followed by the NSAID. In this way, it is fundamentally different than Duexis as Duexis utilizes simultaneous release of the acid blocker and NSAID, which we believe should result in faster pain relief. Vimovo has had what we consider to be a modest launch to date (Figure 6). We believe this is largely due to AstraZeneca's lack of focus on this product as highlighted by the utilization of phone-centered detailing vs. in-person sales representative detailing, according to our diligence. We have projected a 12-month Duexis launch with TRx levels slightly below that of Vimovo (Figure 6), which we believe could prove conservative.

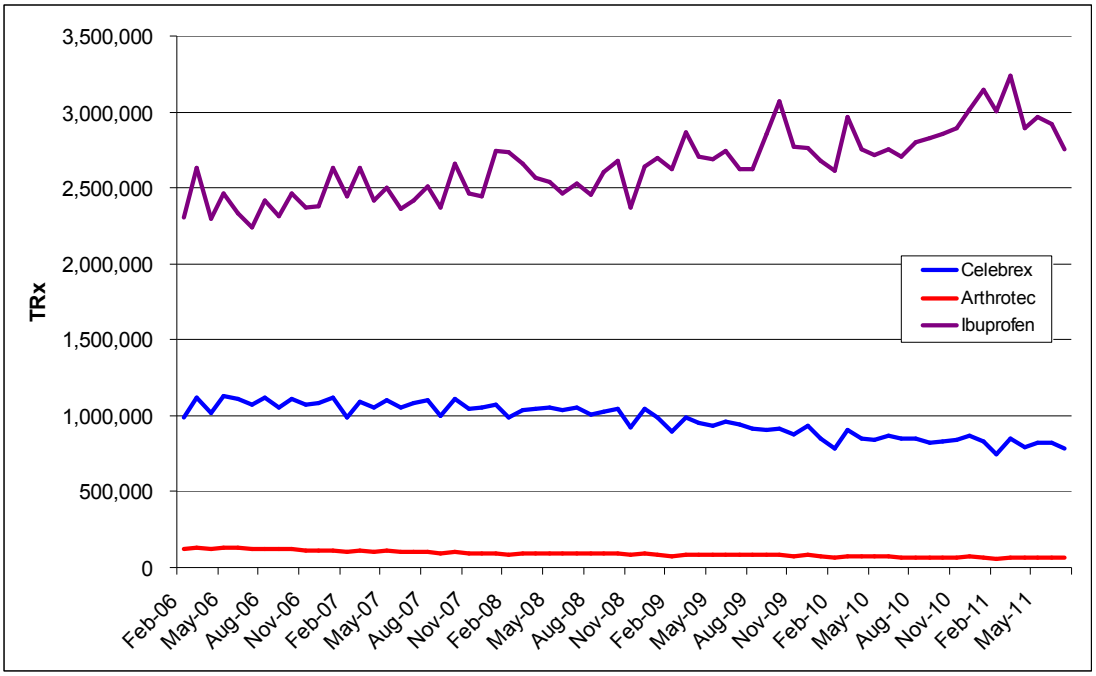
FIGURE 6: Projected Duexis Ramp vs. Vimovo



Source: Bloomberg and JMP Securities, LLC

Another source of competitive pressure is likely to be from COX-2-specific inhibitors that remain on the market such as Pfizer's Celebrex (celecoxib) and from Pharmacia's combination drug Arthrotec (diclofenac and misoprostol). Celebrex has demonstrated a lower incidence of upper-GI ulcers when compared to ibuprofen or the NSAID diclofenac ($p < 0.05$) in patients not taking aspirin; however, Celebrex carries strong label warnings that prohibit use in patients at risk for potentially fatal CV interactions. Sales of Celebrex have been declining since the market recall of Vioxx and Bextra due to CV events associated with those drugs while the prescriptions of ibuprofen have generally increased over the past five years (Figure 7). Currently, Celebrex is prescribed in the U.S. approximately 800,000 times each month and receives a relatively large share of the marketing efforts for prescription NSAIDs. A generic Celebrex has been approved by the FDA and may enter the U.S. market sometime in next several years upon expiration of Pfizer's patents for the compound. Arthrotec is a combination of NSAID (diclofenac) and a prostaglandin analogue (misoprostol) that acts to inhibit acid secretion in the stomach, thereby lowering the patient's risk of ulcers. Arthrotec's label contains contraindications against pregnancy and asthma and warnings about liver toxicity. Arthrotec garners approximately 70,000 monthly prescriptions in the U.S. but is not being strongly promoted today. While we believe that Celebrex and Arthrotec are viable competitors, we expect Duexis to be able to gain and maintain a meaningful market share on the basis of the history and level of knowledge of the drugs that make up Duexis. Ibuprofen is prescribed ~3 million times a month in the U.S. and famotidine ~0.5 million times monthly. We believe it is a simple argument to add a well known and highly used GI protectant to ibuprofen rather than prescribe a relatively COX-2 specific inhibitor that may be riskier, or perceived to be riskier, with no demonstrated benefit in efficacy (Ekman EF, et al., *Am J Orthop*, 2002 Aug; 31(8): 445-51).

FIGURE 7: Monthly Total Prescriptions (TRx) of NSAIDs



Source: Bloomberg and JMP Securities, LLC

Other competition is likely to arise from generic versions of ibuprofen and famotidine. One argument against the choice to prescribe multiple generics or use over-the-counter versions is that it increases the pill burden on patients who are likely already taking a number of prescriptions. Duexis is intended to be taken three times a day while the generic versions could increase the pills taken to as many as 16 pills a day. Cost, we believe, is not likely to be an issue as the cost to the patient for Duexis will likely be comparable to or below the cost of the individual generic prescriptions. Another argument against prescribing individual generics is simply patient forgetfulness. Published studies have shown that up to approximately one-third of patients are non-compliant with the GI-protective prescription, and by the third prescription this can increase to almost two-thirds of patients being non-compliant (Sturkenboom, et.al; *Aliment Pharmacol Ther*, 2003; 18:1137-1147). All of these issues, we believe, are likely to be highlighted by Horizon's marketing efforts and likely to be points of debate with physicians, patients, and investors.

LODOTRA COMMERICAL OPPORTUNITY

Rheumatoid arthritis market opportunity

Rheumatoid arthritis (RA) is a chronic and debilitating autoimmune disease that presents in various stages and severities and currently has no cure. RA afflicts ~1.3MM patients in the U.S., according to the Arthritis Foundation, and ~1.2MM patients in the EU14 according to a report from the European Federation of Pharmaceutical Industry Associations. We have estimated a U.S. RA drug market in excess of $5 billion annually. In terms of dollar amounts, the market is dominated by expensive biologics that are typically used in more severe cases. In terms of prescriptions, the market is led by oral disease-modifying antirheumatic drugs (DMARDs), primarily methotrexate, followed by roughly similar numbers of prescriptions for NSAIDs, oral steroids, narcotic analgesics, and biologics. RA patients who are first seen by a primary care physician are typically given an NSAID and/or a steroid before being referred to a rheumatologist. Rheumatologists typically prescribe a DMARD and possibly an NSAID or steroid; if that fails, the patient may move to a combination of DMARD plus a steroid or on to biologics. We believe that Duexis will be relevant for utilization wherever an NSAID is utilized in this regimen. Lodotra is a formulation of the steroid prednisone and has demonstrated advantages in

reducing one of the major complaints by RA patients, morning stiffness. We believe that Lodotra has a strong likelihood of taking a significant share of the steroid prescriptions for RA. Furthermore, a more effective steroid treatment may delay a patient's progression to DMARDs and subsequently to biologics, possibly lowering the overall treatment cost.

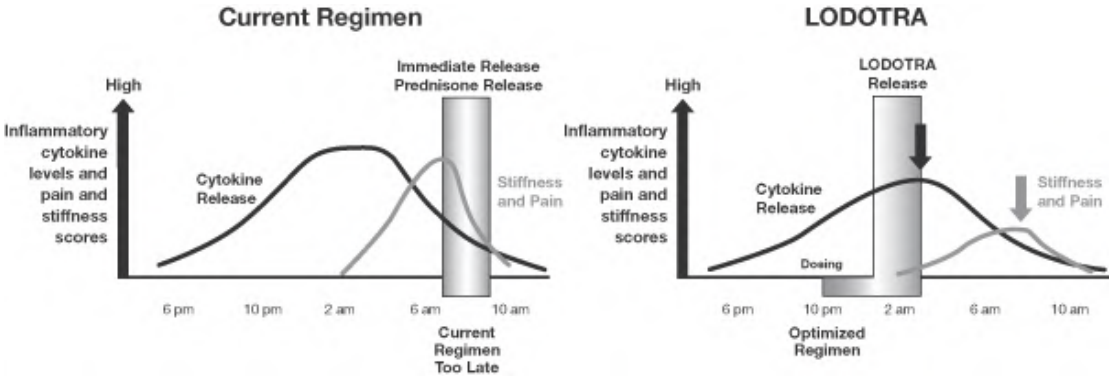
Lodotra's contribution to the treatment of RA

Lodotra is a novel "modified release" formulation of low-dose glucocorticoid prednisone (in 1, 2, or 5mg versions) intended to be taken once at bedtime. An image of a Lodotra pill illustrating the "shell", which breaks apart slowly in the GI tract and releases the prednisone core, is shown in Figure 8. The formulation is designed to deliver drug in the early morning hours, coinciding with a peak in the patient's blood concentration of inflammatory cytokines and counteracting the inflammatory signal when it is most active (general overview in Figure 9 and detailed results in Figure 10).

FIGURE 8: Lodotra's Formulation Exposed

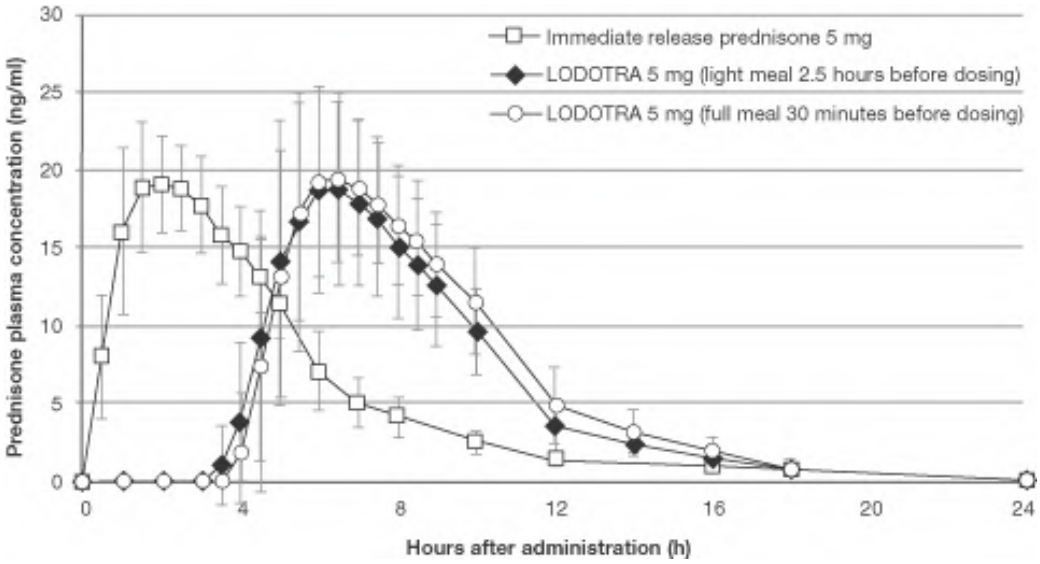
Source: Company reports

FIGURE 9: Cytokine, Symptom, and Drug Kinetics; Lodotra vs. Standard Prednisone



Source: Company reports

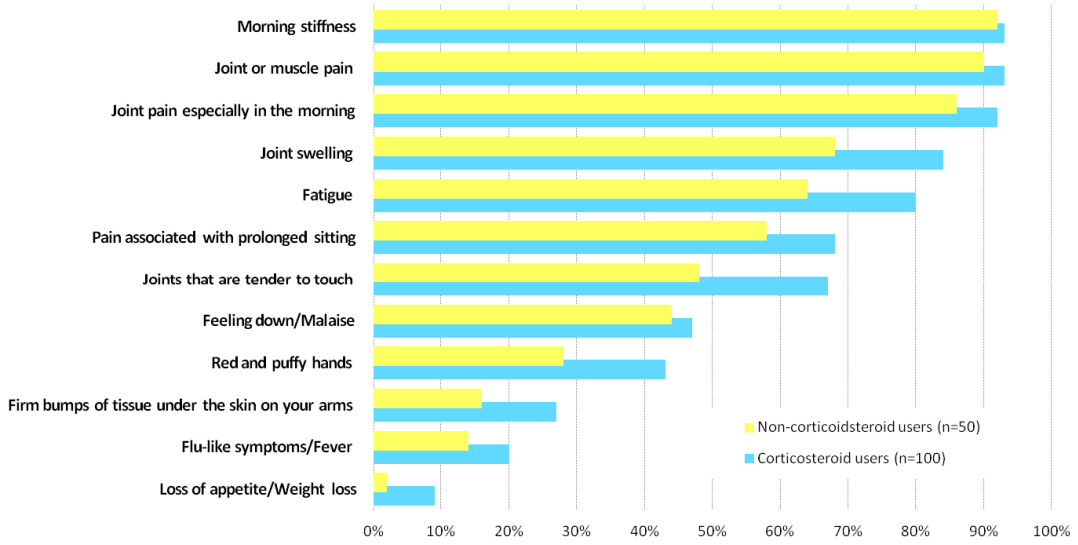
FIGURE 10: Plasma Prednisone, Lodotra vs. IR Prednisone



Source: Company reports

Horizon has shown in clinical testing vs. immediate release prednisone that Lodotra's modified release provides a greater relief of a primary complaint among rheumatoid arthritis patients: morning stiffness (Figure 11).

FIGURE 11: Common Complaints Among RA Patients



Source: Company reports

Lodotra was approved in Europe in March '09 and is marketed through partners Mundipharma (in Europe outside Austria) and Merck Serono (Austria). In November 2010, Horizon signed an agreement with Mundipharma for commercialization of Lodotra in most of Asia outside Japan including: Australia, New Zealand, China, Hong Kong, Singapore, Korea, Indonesia, Malaysia, Taiwan, Thailand, and Vietnam as well as South Africa. Horizon anticipates filing the NDA for Lodotra in the U.S. in 3Q11,

followed by an approval in 2Q12 and launch in 3Q12. Horizon intends to double its sales force to approximately 150 reps following Lodotra's launch; the reps will market both Duexis and Lodotra to a target population of ~33k high-prescribing physicians consisting mainly of rheumatologists and the top-prescribing ~30% of primary care doctors.

LODOTRA MARKET EXCLUSIVITY PROTECTION

Horizon obtained the license for Lodotra in its April 2010 merger with the former Nitec Pharma AG. Prednisone has long been available as a generic drug, but the technology (Geoclock™ and GeoMatix™) underlying the modified release of prednisone found in Lodotra is exclusively licensed from SkyePharma AG, which developed Lodotra specifically for Horizon for use with corticosteroids. SkyePharma has received a portion of the royalties for Lodotra's launch in Europe and receives a mid-single-digit royalty on net sales.

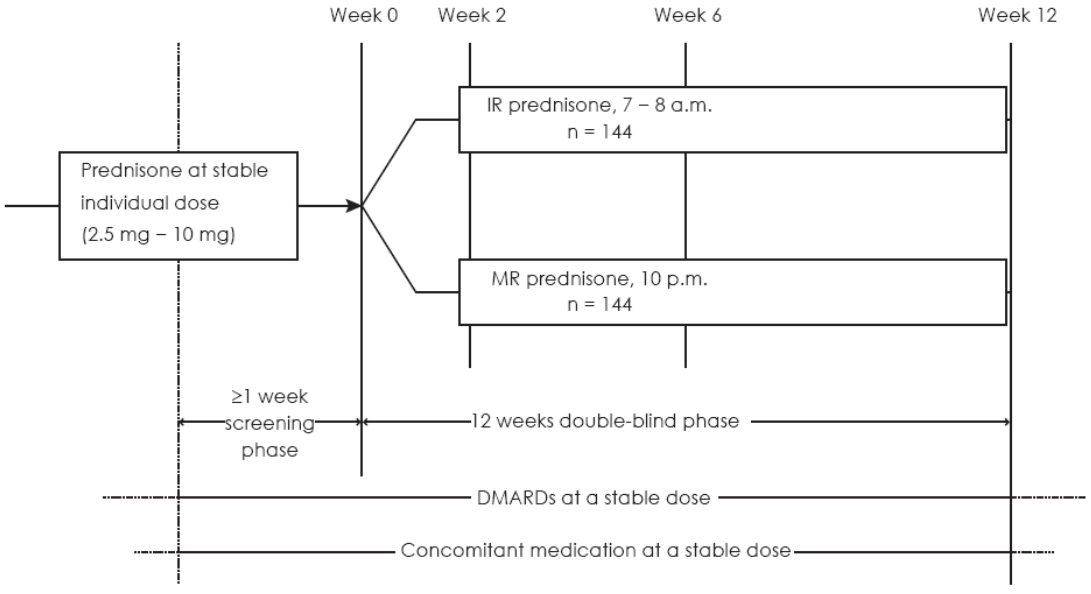
LODOTRA CLINICAL DEVELOPMENT

Lodotra is designed to release drug near the patient's natural pro-inflammatory-cytokine peak that occurs in the early morning hours (Figures 7 and 8). Lodotra was approved in March 2009 for use in treating the symptoms of rheumatoid arthritis (RA) in a number of European markets based on the results of one positive Phase III trial (Circadian Administration of Prednisone in Rheumatoid Arthritis-1, CAPRA-1). A second RA Phase III (CAPRA-2) was completed to support the U.S. NDA, bringing the total number of RA patients examined in Phase III trials to more than 600.

Phase III CAPRA-1 Trial

CAPRA-1 was a randomized, double-blind, placebo-controlled, Phase III trial that enrolled 288 RA patients at 29 centers in Germany and Poland from August 2004 to April 2006. Final data were reported in Lancet in 2008 (Buttgereit F, et al. Efficacy of modified-release versus standard prednisone to reduce duration of morning stiffness of the joints in rheumatoid arthritis (CAPRA-1): a double-blind, randomized controlled trial. *Lancet*, 2008; 371(9608):205-14).Patients were screened for 1-2 weeks before being randomized 1:1 between Lodotra and standard immediate release (IR) prednisone for 12 weeks of treatment (general study design shown in Figure 12).

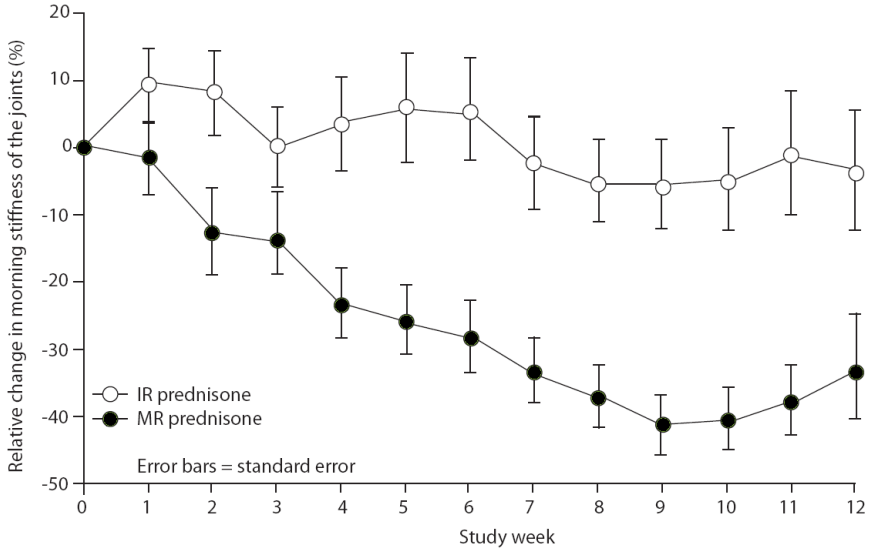
FIGURE 12: CAPRA-1 Study Design



Source: Company reports

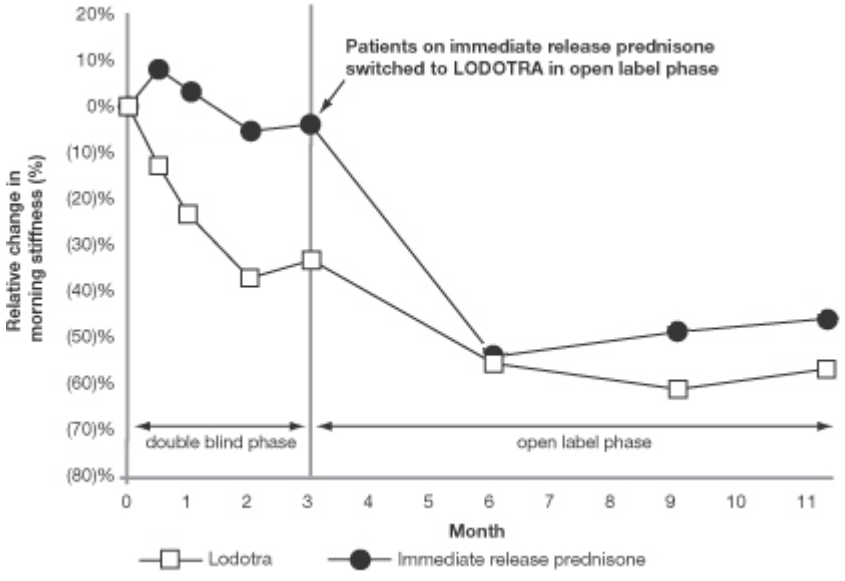
The trial compared similar total daily doses of prednisone delivered either with Lodotra's modified release once at bedtime (9:30-10:30 PM) or standard IR prednisone taken once upon waking (6-8 AM) and once at bedtime (9:30-10:30 PM). The target prednisone dose was 3-10mg/day, designed to match the patient's prior prednisone dose and the average dose in the trial was 6.7mg/day. The primary endpoint of the trial was a significant reduction in the duration of morning stiffness vs. placebo as reported by the patient; the endpoint was met with statistical significance at all time points, starting one week following treatment to the 12-week conclusion (p-value at week 12 = 0.045) (Figure 13). Following 12 weeks of treatment, patients on IR prednisone were switched to Lodotra and followed up over the course of a year for a reduction in morning stiffness (Figure 14).

FIGURE 13: CAPRA-1 Efficacy Results



Source: Company reports

FIGURE 14: Efficacy Results of CAPRA-1 Open Label Phase



Source: Company reports

Lodotra also produced a significant reduction in serum concentrations of the inflammation-modulating cytokine IL-6, which remained constant with IR prednisone (p value at week 12 = 0.0322). At the conclusion of the open label phase of the trial, patients presented a median IL-6 serum concentration reduction of approximately 50%. The adverse event profile was very similar between Lodotra and IR prednisone, with no clinically relevant differences between treatments noted (Figure 15).

FIGURE 15: CAPRA-1 Adverse Event Summary

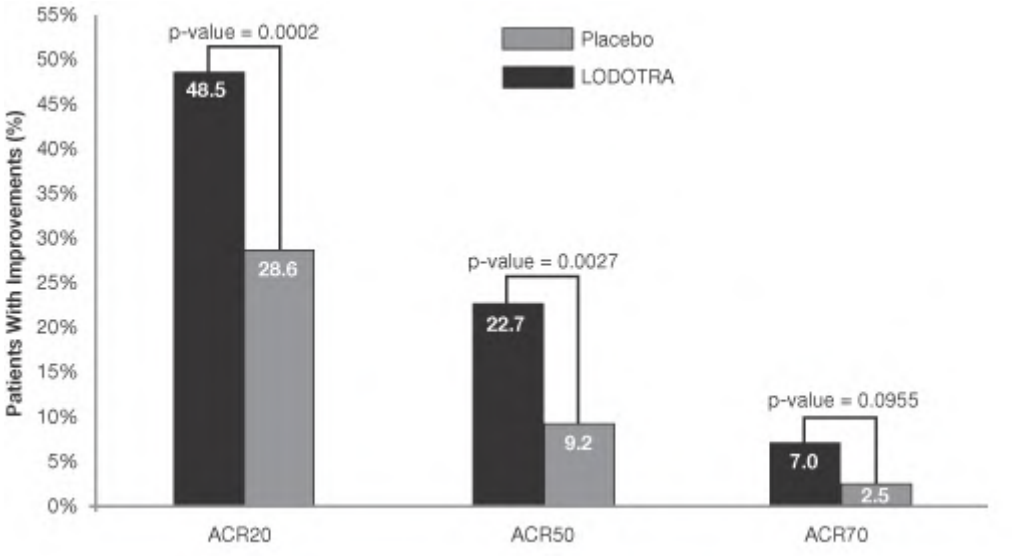
Summary	Lodotra (N = 144)	IR prednisone (N = 144)
All AEs	59 (41%)	59 (41%)
Drug-related	19 (13%)	16 (11%)
Discontinuation	12 (8%)	10 (7%)
SAE	4 (3%)	3 (2%)
Death	0 (0%)	1 (1%)
Common AEs		
Worsening RA	11 (8%)	13 (9%)
Headache	6 (4%)	4 (3%)
Upper abdominal pain	5 (4%)	8 (6%)
Nausea	5 (4%)	4 (3%)
Nasopharyngitis	4 (3%)	8 (6%)
Flushing	4 (3%)	6 (4%)
Bronchitis	1 (1%)	5 (4%)

Source: Company reports

Phase III CAPRA-2 Trial

CAPRA-2 was a Phase III, randomized, double-blind, placebo-controlled study that enrolled 350 RA patients at over 50 sites in the U.S., Canada, and Europe. Horizon (as Nitec) completed enrollment in the CAPRA-2 study in February 2009. The primary endpoint of the trial was an improvement in the ACR20 score (the American College of Rheumatology 20 score, a standard measure of improvement in joint pain and other measures in RA patients), which was met with statistical significance (p-value = 0.0002) (Figure 16). The study did not produce a statistically significant ACR70 response, however, the ACR70 is a more difficult measure and typically the ACR20 is used in determining the approvability of products intended to treat signs and symptoms of RA.

FIGURE 16: Efficacy in CAPRA-2



Source: Company reports

Potential additional indications for Lodotra

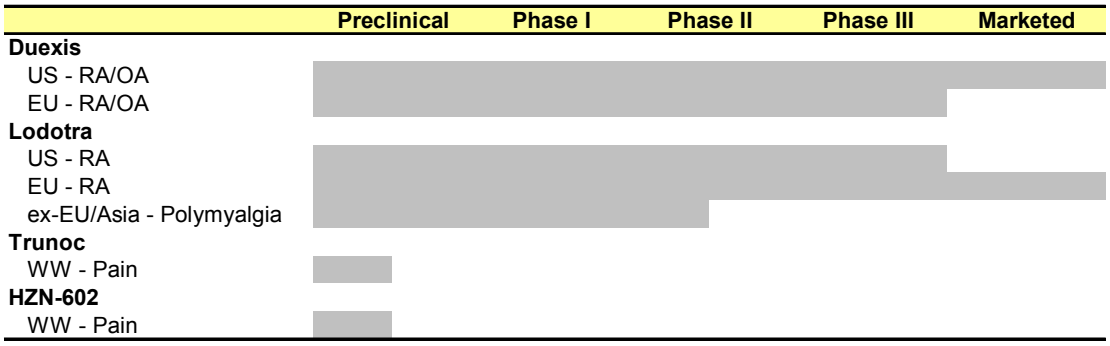
Lodotra is being investigated as a potential treatment for the inflammatory disease polymyalgia rheumatica (PMR). PMR typically presents with morning stiffness and is often treated with steroids such as prednisone that are considered the current standard of care. Lodotra is being studied in an investigator-sponsored Phase II trial for the treatment of PMR. Horizon anticipates that Mundipharma will conduct a Phase III trial for PMR beginning in 2H11.

Horizon has completed a Phase IIa study of Lodotra in the treatment of severe asthma. The study examined seven patients who had been taking 5mg to 45mg of IR prednisone daily. It was noted that patients on Lodotra experienced an improvement in night-time symptoms, control of asthma, and quality of life. The company is considering additional clinical trials to examine the treatment of severe asthma with Lodotra.

PIPELINE PROGRAMS

Horizon currently has two early-stage drug candidates, Trunoc (tarenflurbil) and HZN-602, both intended for use in the treatment of pain. Trunoc is a one of the stereo-isomers of flurbiprofen and it targets expression of pro-inflammatory genes while not inhibiting the COX-enzymes. Horizon is considering the filing of an IND for Trunoc to begin Phase I/II testing. HZN-602 is a combination of naproxen and famotidine. Horizon intends to supplement the existing IND for HZN-602 with a Phase I study to examine the reduction of upper-GI ulcers in patients with mild to moderate pain and arthritis. Further development of Horizon's pipeline depends upon operating income from Duexis and/or Lodotra.

FIGURE 17: Horizon's Pipeline



Source: Company reports

MANAGEMENT

Timothy P. Walbert - President and CEO
Mr. Walbert joined Horizon Pharma as President and CEO in June 2008 and sat on the board of directors as of July 2008. He was named Chairman of the Board in March 2010. Prior to joining Horizon, Mr. Walbert was President, CEO, and Director of IDM Pharma from May 2007 until June 2009. IDM Pharma was acquired by Takeda in June 2009. Mr. Walbert served as EVP of Commercial Operations of NeoPharm from January 2006 to May 2007. From June 2011 to August 2005, he was the division VP and GM of Immunology and divisional VP of Global Cardiovascular Strategy at Abbott Labs. Mr. Albert was Director for Celebrex in North America and arthritis Team Leader for Asia, Latin America, and Canada at G.D. Searle. Mr. Walbert has held various sales and marketing roles at Wyeth, G.D. Searle, and Merck. He earned his BA in Business from Muhlenberg College. Mr. Walbert serves on the boards of a number of organizations including: XOMA, Raptor Pharmaceuticals, the Biotechnology Industry Organization, the Illinois Biotechnology Industry Organization, and the Greater Chicago Arthritis Foundation.

Robert J. De Vaere - EVP and CFO
Robert De Vaere has been EVP and CFO for Horizon since the company's inception as Horizon Pharma in March 2010. He was the EVP and CFO of Horizon Pharma USA from October 2008 until the integration into Horizon Pharma in June 2009. Prior to joining Horizon, Mr. De Vaere was SVP of Finance and Administration and CFO at IDM Pharma from August 2005 to March 2006 and from May 2007 to June 2009. Mr. De Vaere was CFP of Nexa Orthopedics (acquired by Tornier) from August 2006 to April 2007. Mr. De Vaere was VP and CFO at Epimmune (merged with IDM in August 2005) from May 2000 to August 2005. Before 2000, Mr. De Vaere was VP of Finance and Administration and CFO at Vista Medical Technologies. Currently, he also serves as CFO and a Director of VisioMedtrics. Mr. De Vaere earned his BS from UCLA.

Jeffrey W. Sherman, M.D., FACP - EVP of Development and Regulatory Affairs
Dr. Sherman joined Horizon Pharma USA in June 2009 as EVP of Development and Regulatory Affairs and CMO. Dr. Sherman served as President and board member of the Drug Information Association from June 2009 to June 2010 and is currently a board member of the organization. Dr. Sherman is an adjunct assistant professor in the Department of Medicine at Northwestern University's Feinberg School of Medicine. He is a diplomat on the National Board of Medical Examiners as well as the American Board of Internal Medicine. Dr. Sherman was SVP of R&D and CMO at IDM Pharma from August 2007 to June 2009. Prior to that, he was VP of Clinical Science at Takeda from June 2007 to August 2007, CMO and EVP at NeoPharm from September 2000 to June 2007, and Director, Senor Director, and Executive Director of Clinical Research as well as head of Oncology Global Medical Operations at Searle. Before serving at Searle, Dr. Sherman held positions in clinical pharmacology and research at Bristol-Myers Squibb. He earned his MD degree from the Rosalind Franklin University/Chicago Medical School and completed internships and residencies (including chief resident) at Northwestern University and a fellowship at UCSF, where he was a research associate at the Howard Hughes Medical Institute.

FIGURE 18: Horizon Pharma Earnings Model ($000s, except per share data)

	2008	2009	2010	1Q11	2Q11	3Q11E	4Q11E	2011E	1Q12E	2Q12E	3Q12E	4Q12E	2012E	2013E	2014E	2015E	2016E
Revenue																	
Product sales/royalties (000 $)	0	0	2,376	1,763	1,294	477	1,113	4,648	6,451	10,515	14,760	18,332	50,058	140,405	241,029	343,068	381,287
Contract Revenue	0	0	0	30	41	0	0	71					0	0	0	0	0
Other revenue	0	0	0	0	0	0	0	0					0	0	0	0	0
Total Revenues	**0**	**0**	**2,376**	**1,793**	**1,335**	**477**	**1,113**	**4,719**	**6,451**	**10,515**	**14,760**	**18,332**	**50,058**	**140,405**	**241,029**	**343,068**	**381,287**
COGS	0	0	4,263	1,839	2,104	334	668	4,945	3,225	4,206	4,428	3,666	15,526	28,081	48,206	68,614	76,257
Gross Profit	**0**	**0**	**(1,887)**	**(46)**	**(769)**	**143**	**445**	**(226)**	**3,225**	**6,309**	**10,332**	**14,666**	**34,532**	**112,324**	**192,823**	**274,455**	**305,030**
Operating expenses																	
R&D	22,295	10,894	17,697	2,729	3,462	5,508	4,379	16,079	4,555	4,828	5,552	5,663	20,598	23,454	24,407	25,398	26,429
SG&A	4,572	7,895	24,170	4,215	4,517	6,776	10,841	26,348	11,058	11,279	11,504	11,734	45,575	49,332	52,741	55,977	59,412
Other																	
Total operating expenses	**26,867**	**18,789**	**41,867**	**6,944**	**7,979**	**12,284**	**15,220**	**42,427**	**15,612**	**16,107**	**17,056**	**17,398**	**66,173**	**72,786**	**77,148**	**81,375**	**85,841**
Operating income (loss)	**(26,867)**	**(18,789)**	**(43,754)**	**(6,990)**	**(8,748)**	**(12,140)**	**(14,775)**	**(42,653)**	**(12,387)**	**(9,798)**	**(6,724)**	**(2,732)**	**(31,641)**	**39,538**	**115,675**	**193,079**	**219,188**
Operating margin																	
Interest/other income (expense)	(1,032)	(1,711)	16,029	(863)	(3,185)	516	871	(2,660)	747	644	1,129	1,091	3,612	4,916	7,621	12,024	18,320
Pretax income (loss)	**(27,899)**	**(20,500)**	**(27,725)**	**(7,853)**	**(11,823)**	**(12,108)**	**(14,032)**	**(45,816)**	**(11,893)**	**(9,509)**	**(5,466)**	**(1,550)**	**(28,417)**	**45,371**	**126,917**	**213,127**	**251,828**
Income tax	0	0	(660)	(182)	(186)	0	0	(368)	0	0	0	0	0	0	44,421	74,594	88,140
Tax rate															*35%*	*35%*	*35%*
Net income (loss)	**(27,899)**	**(20,500)**	**(27,065)**	**(7,671)**	**(11,637)**	**(12,108)**	**(14,032)**	**(45,448)**	**(11,893)**	**(9,509)**	**(5,466)**	**(1,550)**	**(28,417)**	**45,371**	**82,496**	**138,532**	**163,688**
Capital contribution		3,489															
EPS																	
Basic	**($28.51)**	**($17.12)**	**($8.91)**	**($5.13)**	**($7.78)**	**($0.63)**	**($0.73)**	**($4.40)**	**($0.62)**	**($0.40)**	**($0.23)**	**($0.06)**	**($1.25)**	**$1.84**	**$3.22**	**$5.20**	**$5.90**
Diluted	**($28.51)**	**($17.12)**	**($8.91)**	**($5.13)**	**($7.78)**	**($0.63)**	**($0.73)**	**($4.40)**	**($0.62)**	**($0.40)**	**($0.23)**	**($0.06)**	**($1.25)**	**$1.84**	**$3.28**	**$5.43**	**$6.30**
Shares outstanding																	
Basic	978	994	3,037	1,496	1,496	19,146	19,146	10,321	19,337	23,531	23,766	24,004	22,660	24,610	25,609	26,649	27,731
Diluted	978	994	3,037	1,496	1,496	19,146	19,146	10,321	19,337	23,531	23,766	24,004	22,660	24,610	25,167	25,514	25,979

Source: Company reports and JMP Securities, LLC

JMP FACTS AND DISCLOSURES

Analyst Certification:
The research analyst(s) who prepared this report does/do hereby certify that the views presented in this report are in accordance with my/our personal views on the securities and issuers discussed in this report. As mandated by SEC Regulation AC no part of my/our compensation was, is or will be directly or indirectly related to the specific views or recommendations expressed herein. This certification is made under the obligations set forth in SEC Regulation AC. Any other person or entity may not use it for any other purpose. This certification is made based on my/our analysis on the date of this report's publication. I/We assume no obligation to update this certification to reflect any facts, circumstances or events that may subsequently come to my/our attention. Signed Charles C. Duncan, PhD, Jason N. Butler, PhD, Gena H. Wang, PhD

Publicly Traded Companies Mentioned in This Report (as of September 7, 2011):

Company	Disclosures
Horizon Pharma, Inc.	(1,3)

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Market Outperform (MO): JMP Securities expects the stock price to outperform relevant market indices over the next 12 months.
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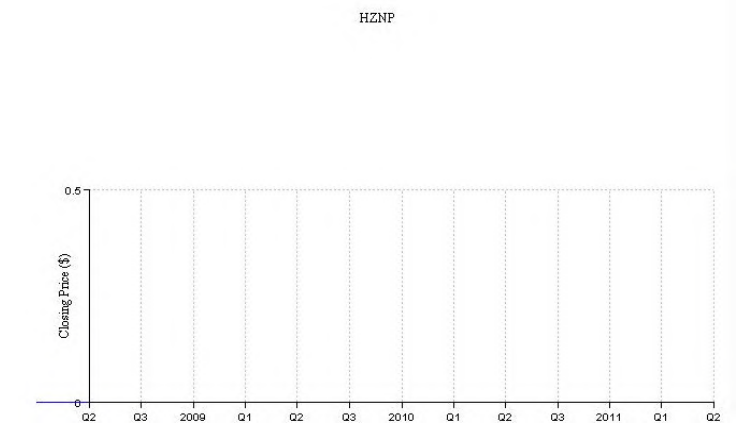
JMP Securities Research Ratings and Investment Banking Services: (as of July 7, 2011)

JMP Rating	Regulatory Equivalent	# Co's Under Coverage	% *of Total*	Regulatory Rating	# Co's Under Coverage	% *of Total*	# Co's Receiving IB Services in Past 12 Months	*% of Co's With This Rating*
Market Outperform	Buy	208	*66%*	Buy	208	*66%*	54	*26%*
Market Perform	Hold	106	*33%*	Hold	106	*33%*	16	*15%*
Market Underperform	Sell	3	*1%*	Sell	3	*1%*	0	*0%*
TOTAL:		317	*100%*		317	*100%*	70	*22%*

Stock Price Chart of Rating and Target Price Changes:
Note: First annotation denotes initiation of coverage or 3 years, whichever is shorter. If no target price is listed, then the target price is N/A. In accordance with NASD Rule 2711, the chart(s) below reflect(s) price range and any changes to the rating or price target as of the end of the most recent calendar quarter. The action reflected in this note is not annotated in the stock price chart. Source: Jovus and JMP Securities.



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