July 23, 2012

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Reason for report:

INITIATION

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HEALTHCARE EQUITY RESEARCH

TESARO, INC.

A Solid Lead Asset Well Matched Management Expertise -- Initiating with OP

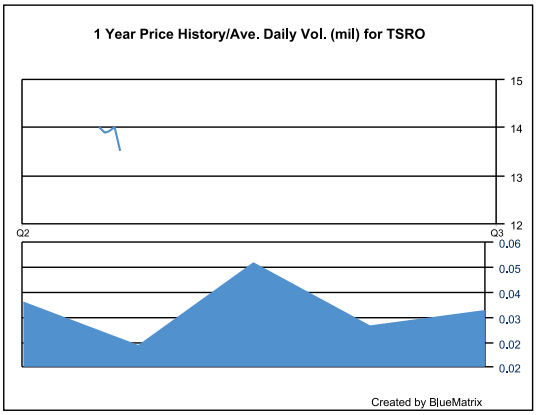
• **Bottom Line:** We are initiating coverage on TSRO with an Outperform rating and $20 valuation based on DCF. We see lead agent rolapitant as a late-stage candidate with modest clinical risk due to proof of principle in the class and a large Phase II trial, and only limited competition relative to many other therapeutic classes. This is matched well with an experienced management team with deep knowledge and a successful track record in the cancer supportive care field.

• **NK-1 market has room to grow.** Although the current market of NK-1 antagonist, MRK's (OP) Emend, is relatively small ($420M in 2011), we believe the market potential of the class is significantly larger based on recent strong growth following the approval of intravenous formulations. In addition, due to the pricing and dosing of Emend, sales potential of the class may have been understated.

• **A potentially differentiable candidate.** To us the signal of nausea benefit with rolapitant seen in Phase II is believable due to observed dose response, a smaller effect seen with Emend, and superior pharmacokinetics of rolapitant. We believe rolapitant could be differentiable based on this efficacy advantage together with better a drug-drug interaction profile. Based on our review of approval history of IV Emend, we believe IV rolapitant has a good chance of success. Lastly, prior case of Aloxi provided an example of a branded drug in cancer supportive care successfully defending the franchise in a generic environment.

• **Value of early pipeline may grow over time.** For the recently in-licensed PARP inhibitor niraparib, although the failures of the lead agents in the class leave the field without a clear direction, based on MEDACorp key opinion leader feedback we believe this remains an interesting class, and niraparib is among the front runners of this class due to good potency, pharmacokinetic profile, and clear clinical single agent activity. We believe thoughtful patient selection and development strategies could identify a path forward, resulting in the recognition of value for this program which we believe is not currently in the stock.

Key Stats:	**(NASDAQ:TSRO)**
S&P 600 Health Care Index:	**837.16**
Price:	**$13.50**
52 Week High:	$14.18
52 Week Low:	$12.82
Shares Outstanding (mil):	27.6
Market Capitalization (mil):	$372.6
Book Value/Share:	$0.00
Cash Per Share:	$6.00
Dividend (ann):	$0.00
Dividend Yield:	0.0%
Valuation:	$20 on DCF



Dec Yr	1Q	2Q	3Q	4Q	FY Rev	1Q	2Q	3Q	4Q	FY EPS	
2011A	--	--	--	--	0.0	--	--	--	--	($1.72)	NM
2012E	0.0A	0.0	0.0	0.0	0.0	($0.70)A	($0.40)	($0.36)	($0.38)	($1.71)	NM
2013E	--	--	--	--	0.0	--	--	--	--	($1.74)	NM

Source: Company Information and Leerink Swann LLC Research

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The Healthcare Investment Bank™

TESARO: Initiating Coverage With Outperform

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TESARO Overview

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- **Initiating coverage on TSRO with an Outperform rating and $20 valuation.**
- **TSRO is a cancer-focused biotech company with an in-licensing model.**
- **Experienced management team with established track record.**
  - **Key founders and management team ran MGI Pharma, which successfully launched a similar product (Aloxi) in cancer supportive care and was sold to Eisai for $3.9 B in cash.**
- **Lead asset is rolapitant, an NK-1 antagonist currently in Phase III development for chemotherapy-induced nausea and vomiting.**
  - **Compound originated from Schering-Plough and had to be divested by Merck following the merger due to overlap with Merck's marketed product Emend.**
  - **Successful randomized Phase II trial involving over 450 patients**
- **Key financials: 27.57M shares outstanding, ~$164M cash ($6 / share.**

Investment Thesis

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- **Although the current market of NK-1 antagonist, MRK's Emend, is relatively small ($420M in 2011), we believe the market potential of the class is significantly larger based on recent strong growth following the approval of intravenous formulations. In addition, due to the pricing and dosing of Emend, sales potential of the class may have been understated.**
- **We see rolapitant as a late-stage candidate with modest clinical risk due to proof of principle in the class and a large Phase II trial, and only limited competition relative to many other therapeutic classes. This is matched well with an experienced management team with deep knowledge and a successful track record in the cancer supportive care field.**
- **To us the signal of nausea benefit with rolapitant seen in Phase II is believable due to observed dose response, a smaller effect seen with Emend, and superior pharmacokinetics of rolapitant. We believe rolapitant could be differentiable based on this efficacy advantage together with a better drug-drug interaction profile. Prior case of Aloxi provided an example of a branded drug in cancer supportive care successfully defending the franchise in a generic environment.**

Investment Thesis, continued

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- **For the recently in-licensed PARP inhibitor niraparib, although the failures of the lead agents in the class leave the field without a clear direction, based on MEDACorp key opinion leader feedback we believe this remains an interesting class and niraparib is among the front runners of this class due to good potency, pharmacokinetic profile, and clear single agent activity demonstrated clinically. We believe thoughtful patient selection and development strategies could identify a path forward, resulting in valuation associated with this program which we believe is not currently in the stock.**

Valuation

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- Our $20 valuation is derived from a scenario DCF analysis (with 60% probability of rolapitant showing a nausea benefit, 30% probability of rolapitant showing no nausea benefit, and 10% probability that rolapitant fails), with estimated U.S. sales from 2014 to 2028, the expected patent expiry for rolapitant. We use a discount rate of 10% per year as rolapitant is in a known class of agents and has positive data from a large Phase II trial.

Risks to Valuation

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- Emend IV and oral generics may impact the rolapitant growth more than we have modeled
- The NK-1 market growth may not continue at the same rates as it has in the recent past
- The nausea benefit that we saw in Phase II of rolapitant may not be replicated in Phase III development, or may not be sufficiently large to hit statistical significance
- The FDA may determine that IV rolapitant may require large Phase III efficacy studies for approval

Pipeline and Upcoming Catalysts

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Candidate	Mechanism of Action	Indication	Pre-clinical Phase 1 Phase 2 Phase 3	Upcoming Catalyst
Rolapitant	Oral NK-1 receptor antagonist	CINV in HEC treated patients		Ph3 oral data in 2H:13 IV formulation dose study to initiate in 4Q:12
		CINV in MEC treated patients		
Niraparib	PARP inhibitor	Monotherapy in solid tumors		Discussion with the FDA in 2H:12, and Ph2 initiation anticipated in 2013
		Combination therapy in solid tumors		
TSR-011	ALK inhibitor	NSCLC		IND submission and Ph1 study in 2H:12

Source: Company reports and Leerink Swann

Key Expected Events - Data News Flow

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- Potentially report **niraparib combination therapy data** in advanced cancer in 1H:13
  - Niraparib/temozolomide in dose escalating (Part A), melanoma (Part B), and glioblastoma (Part B) cohorts
  - 54 patients
  - Primary endpoint – number of patients with dose-limiting toxicities (DLTs)
  - Final data collection date – Mar 2013
- Report **oral rolapitant data** in CINV from three Phase 3 trials in 2H:13
  - Rolapitant/granisetron/dexamethasone
  - 530 + 530 patients in HEC and 1,350 patients in MEC
  - Primary endpoint – no emetic episodes and no rescue medication in the delayed phase (24-120 hours)
  - Final data collection date – Dec 2012

Source: Company reports ; ClinicalTrial.gov; HEC – highly emetogenic chemo; MEC – moderately emetogenic chemo

Key Expected Events: Trial Starts/Operations

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- TSR-011 IND submission and Phase 1 initiation in NSCLC in 2H:12
- Initiation of rolapitant bioequivalence study for IV formulation in 4Q:12
- Niraparib Phase 2 trial design discussion with the FDA and KOLs in 2H:12
- Niraparib Phase 2 initiation in 2013

Source: Company reports and Leerink Swann

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KEY INVESTMENT CONSIDERATIONS

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WHAT IS THE MARKET OPPORTUNITY FOR NK1 ANTAGONISTS? WHY HASN'T THERE BEEN MORE USE OF EMEND?

Emend is underpenetrated in the market

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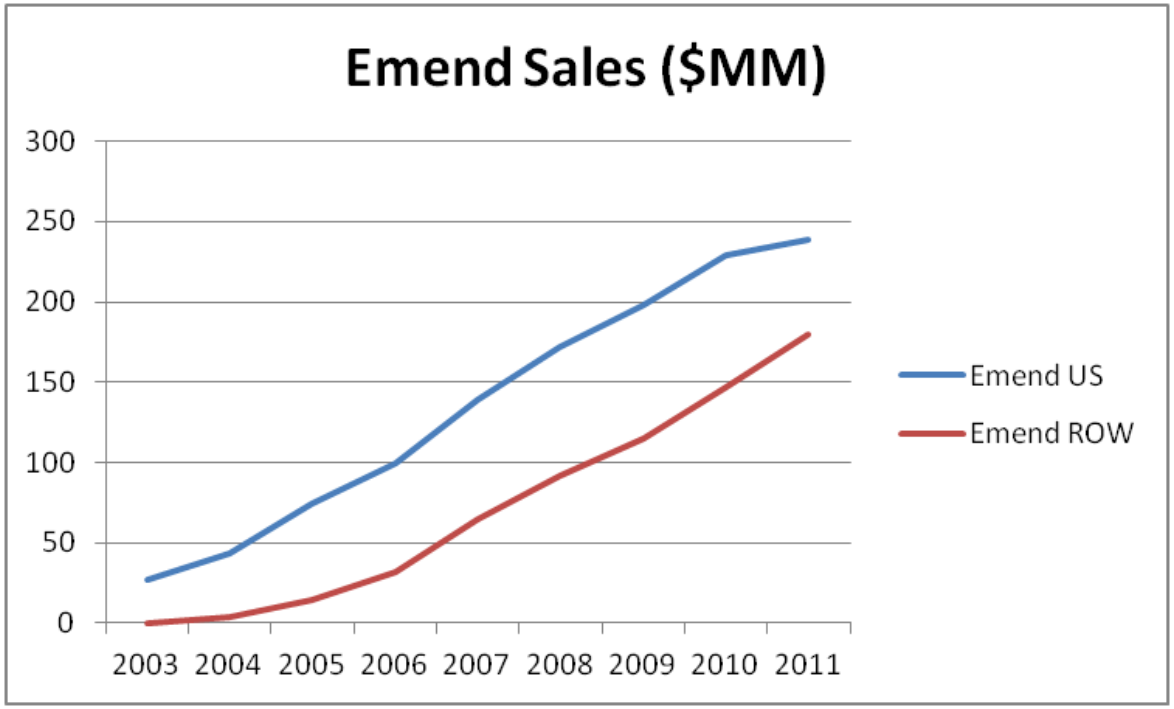
- Emend is only ~17% penetrated in its eligible market (following National Comprehensive Cancer Network guidelines),
  - ~890k courses of Emend in 2011 vs. ~5MM eligible
    - 70% of use is in Highly Emetogenic Chemotherapy
    - 30% of use in Moderately Emetogenic Chemotherapy
- 6.6M dosing days for 5-HT3 antagonists
  - 70-80% of those should be with an NK-1 antagonists as per National Comprehensive Cancer Network guidelines
  - Thus ~4.6M to ~5.3M courses for NK-1 antagonists

Source: Company reports, National Comprehensive Cancer Network guidelines, Wolters Kluwer Health, Bloomberg and Leerink Swann analysis

Emend sales have continued to grow, suggesting the market for NK-1 antagonists is not saturated

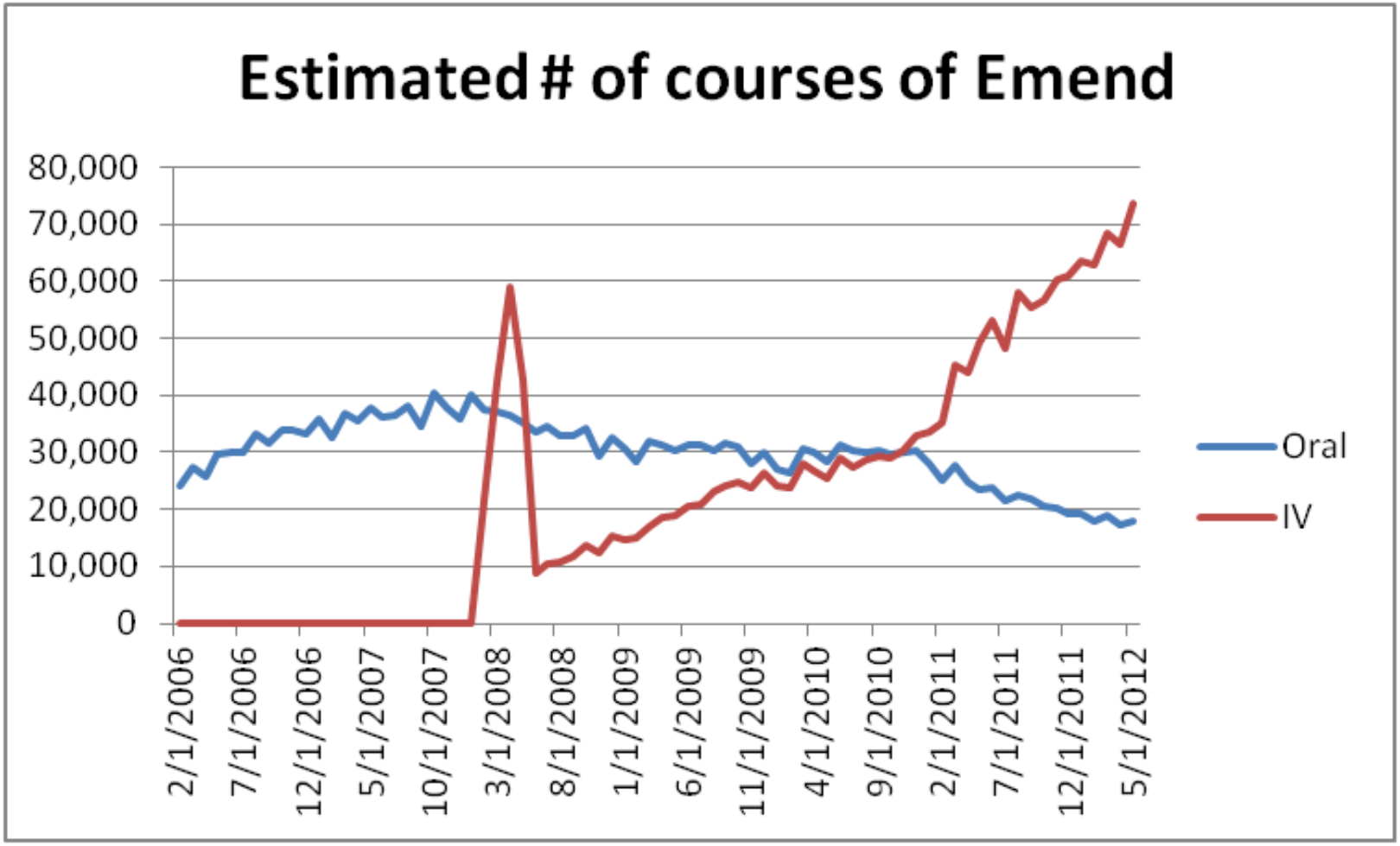


Emend Sales ($MM)	2003	2004	2005	2006	2007	2008	2009	2010	2011
Emend US	27	43	74	99	139	172	198	229	239
growth rate		*59%*	*72%*	*34%*	*40%*	*24%*	*15%*	*16%*	*4%*
Emend ROW	0	4	14	32	65	92	115	147	180
growth rate			*250%*	*129%*	*103%*	*42%*	*25%*	*28%*	*22%*

Slower U.S. sales growth in 2011 may be due to switch to IV formulation which is priced lower (see discussion later in this report)

Source: Merck reports and Leerink Swann analysis

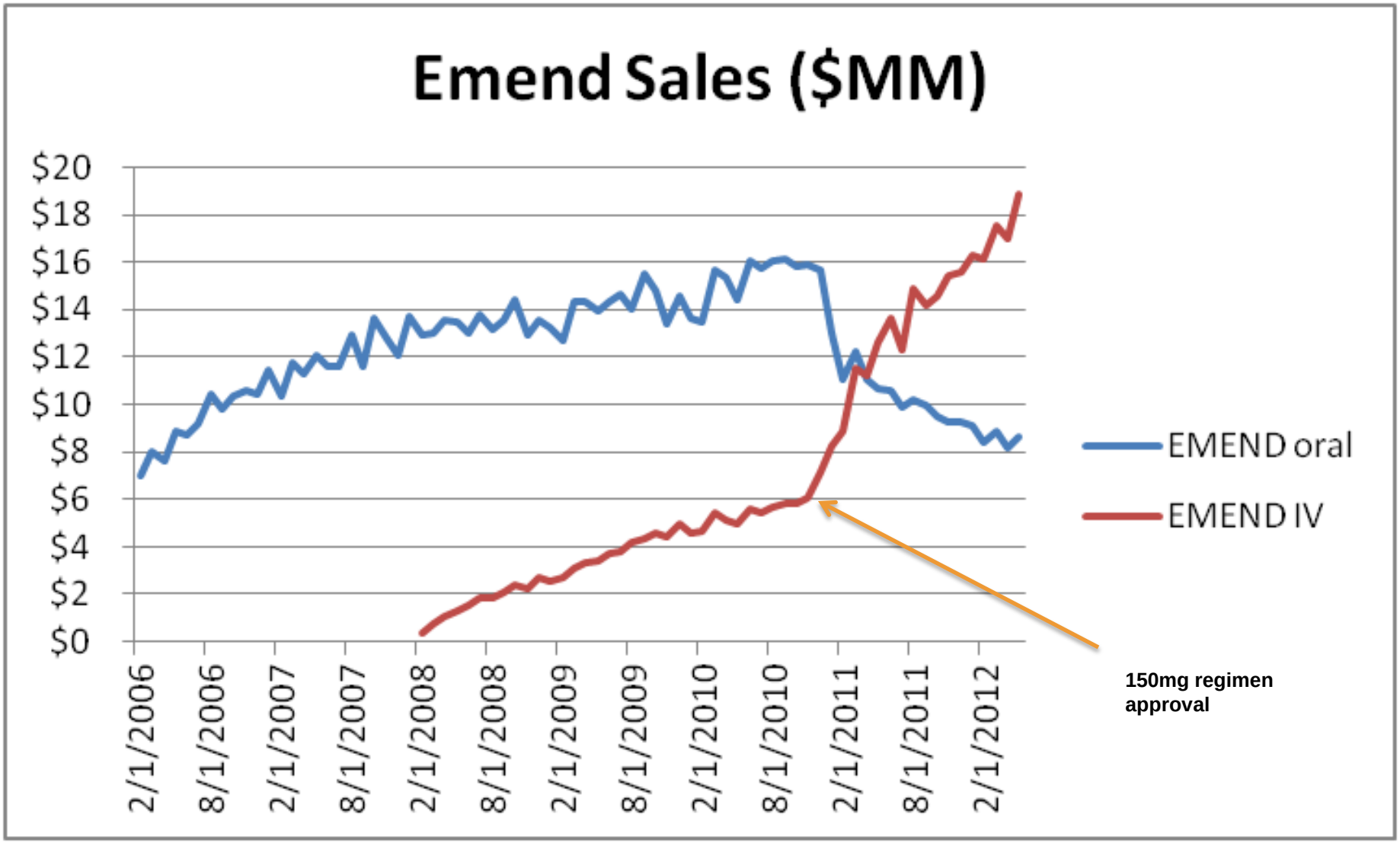
Growing use of the IV formulation has been driving the growth of Emend



- The reason behind the spike in 2008 is not clear but could be due to data irregularities (see next slide on sales data).

Source: Bloomberg, Wolters Kluwer Health and Leerink Swann

Emend sales growth is driven by the availability of IV 150mg regimen



Source: Bloomberg, Wolters Kluwer Health and Leerink Swann

Emend was launched with suboptimal regimens for oncology market

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- U.S. doctors prefer IV dosing
- However, Emend launched in 2003 with only oral dosing and it is given over a 3-day period: 125mg day 1 and 80mg days 2 and 3
- IV Emend (115mg dose) was approved in Jan 2008, to replace the first day dose (the 125mg)
- In Jan 2010 prices were:
  - 125mg pill: $139
  - 80mg pill: $90
    - Total oral course: $319
  - 115mg IV dose: $180
    - Total course with the 115mg dose: $360

Source: FDA label, company reports, Price Rx and Leerink Swann analysis

Emend pricing understates market potential

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- In Nov 2010, the FDA approved a single 150mg IV Emend dose.
  - 150 mg IV dose pricing: $253 – this may be driven in part by the pricing of the existing 115 mg IV dose which would translate to $235 for 150 mg
    - Both 115 mg and 150 mg doses are available as lyophilized solid in single dose vials
    - Total course with 150mg IV dose: $253
    - Total course with 3 pills: $333
    - Total course with 115mg IV dose, with 80mg on days 2 and 3: $382

Thus the 150mg IV dose was priced at a discount (24-33%) to the other regimens.

Source: FDA label, company reports, Price Rx and Leerink Swann analysis

Emend sales dropped after the introduction of the 150mg IV dose

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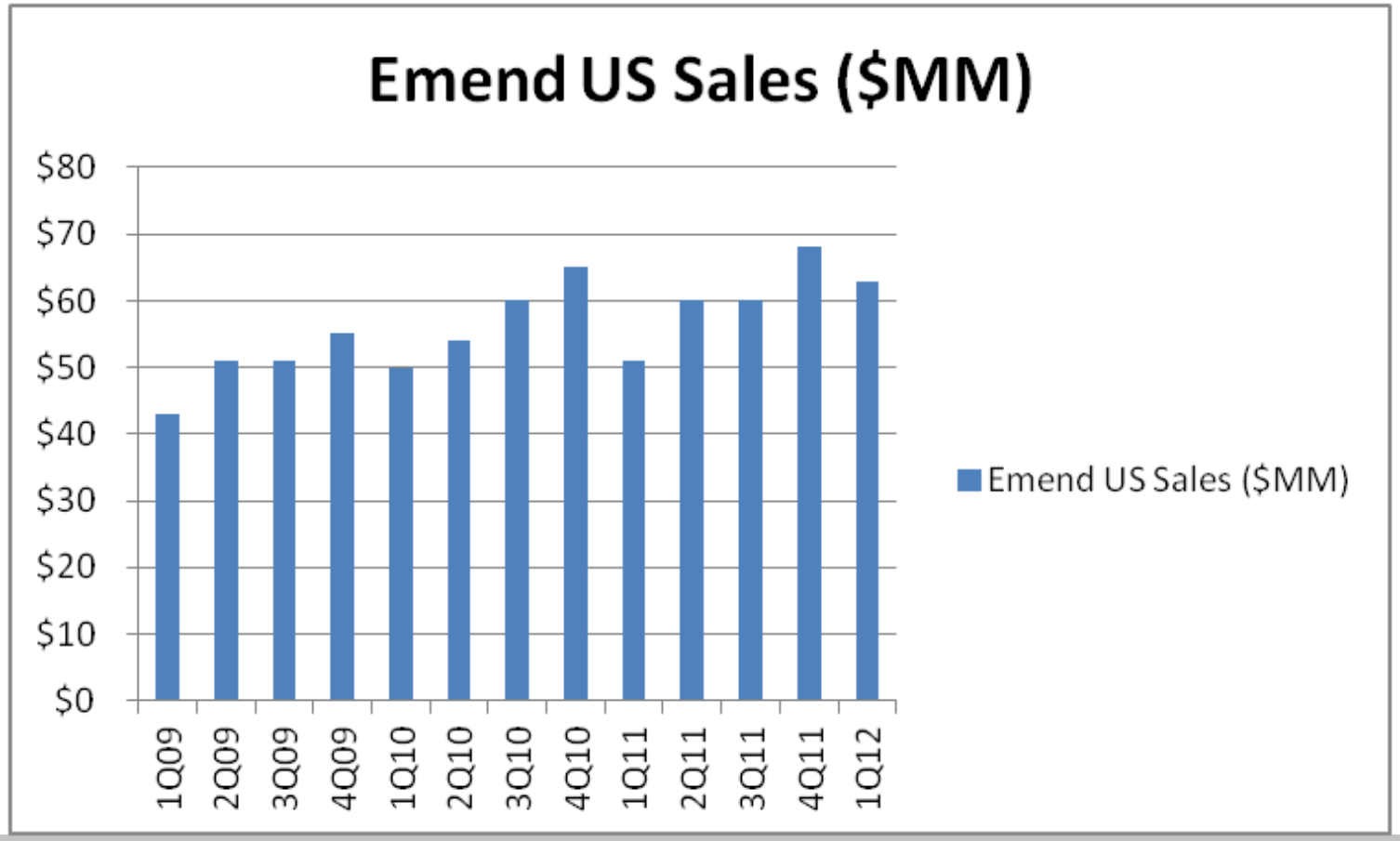
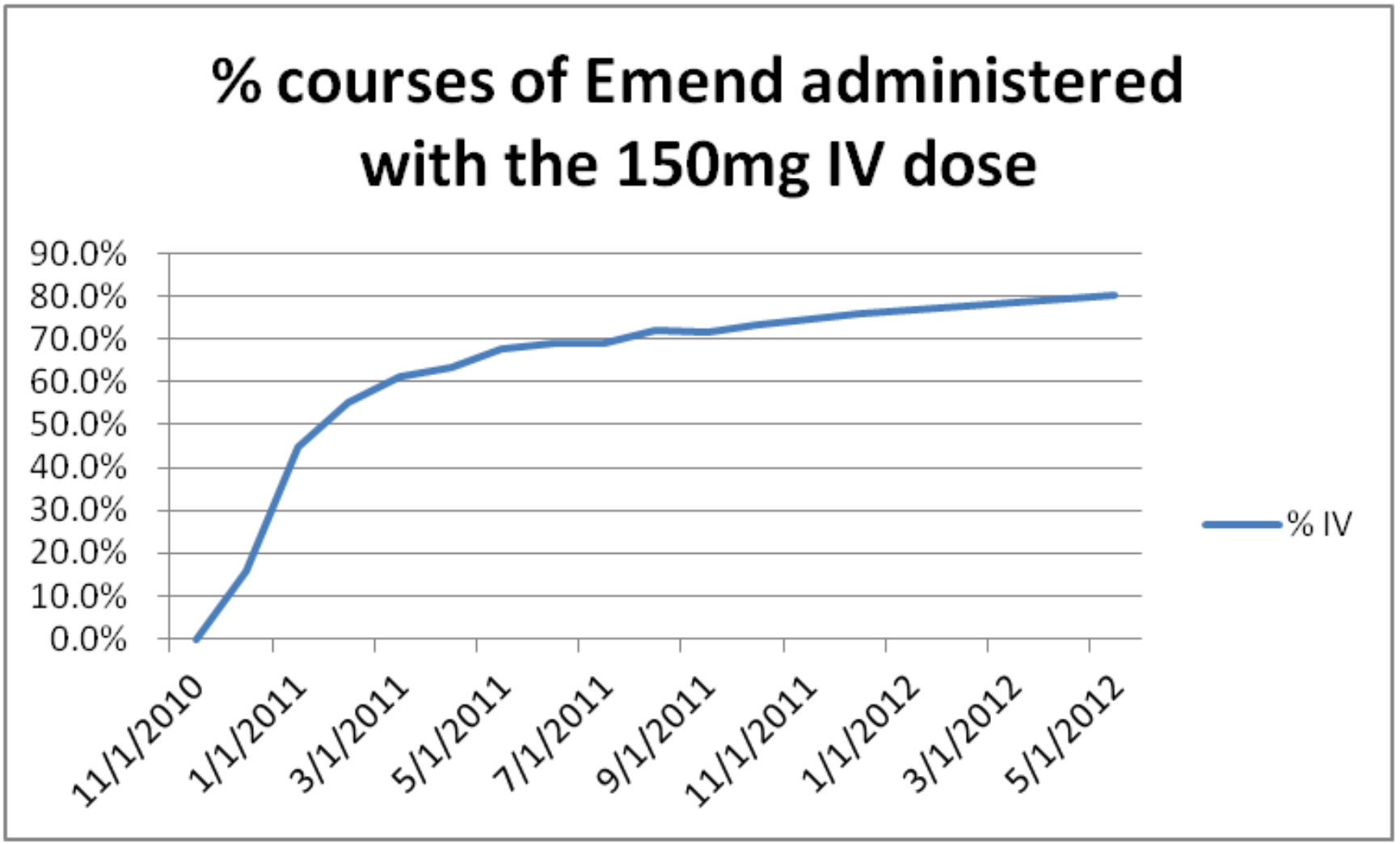
- In 1Q:11, Emend U.S. sales dropped 20% due to the lower price of the 150mg IV dose, introduced in late 2010.



Source: Merck company reports and Leerink Swann

The 150mg IV formulation quickly became the preferred way to administer Emend



Source: Bloomberg, WKH and Leerink Swann

Lower dosing of Emend in patients receiving MEC than HEC also understates sales potential

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- Approximately 30% of Emend use is in patients receiving MEC vs. 70% in patients receiving HEC
- Emend has lower dosing for MEC than HEC.
  - HEC:
    - 150mg IV *or*
    - 115mg IV day 1, 80mg PO day 2, 80mg PO day 3 *or*
    - 125mg PO day 1, 80mg PO day 2, 80mg PO day 3
  - MEC:
    - 115mg IV day 1
    - 125mg PO day 1
- Rolapitant
  - HEC and MEC
    - 200mg PO

Thus rolapitant pricing will likely be flat as well, in our view allowing TSRO to capture additional economics that MRK is missing with Emend

HEC: highly emetogenic chemotherapy; MEC: moderately emetogenic chemotherapy

Source: Emend FDA label, company reports and Leerink Swann analysis

Courses of treatment with Emend have grown rapidly in the last three years since availability of the IV form

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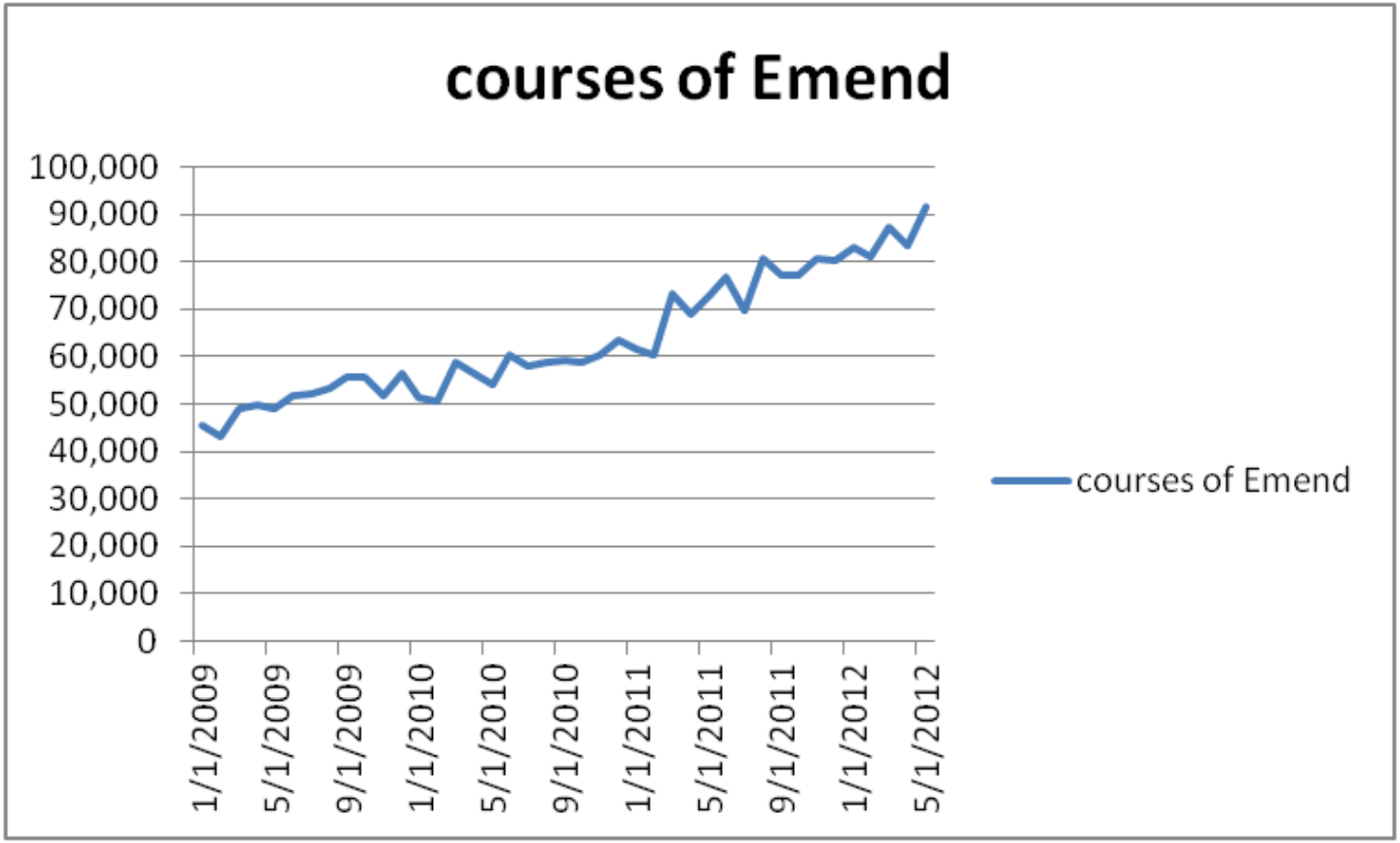
The number of estimated courses administered has doubled since early 2009.



Source: Bloomberg, Wolters Kluwer Health, and Leerink Swann

There has not been heavy promotional efforts behind Emend by Merck

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- MRK has less than 50 sales representatives total selling Emend, which is less than 20 rep equivalent
- Aloxi was launched by MGI Pharma with more sales support than that for Emend
- Tesaro expects to launch with an ~100 person sales organization dedicated to rolapitant

In an underpenetrated market, we expect new entrants to increase the growth of the overall market

Source: Company reports and Leerink Swann analysis

Tools such as contracting not used by MRK

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- Contracts, on price discount for volume or market share, are common in oncology drug sales.
- Volume discounts improve the economics to the provider and could yield a greater margin through Medicare reimbursement because the purchase price is lower while the reimbursement price is the same.
- Community oncologists and hospitals expect their drugs to be contracted. Our understanding is that MRK has not done that.
- TSRO management team has extensive experience with the CINV indication and contracting.

Source: Company reports and Leerink Swann analysis

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WHAT WILL BE THE IMPACT OF GENERIC EMEND?

Rolapitant will have time to gain traction

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- Sandoz is expected to enter the market with a generic oral Emend in 4Q:15 with first-to-file exclusivity for six months, followed by other generics later in 2016.
- The Emend IV formulation (80% of current use) is not scheduled to go generic until 2019, and so far there have not been any paragraph IV filers.
- We expect oral and IV rolapitant to enter the market in 2014 and 2015, respectively; thus it could have four years to gain market share before generic versions of IV Emend become available.

Source: Company reports and Leerink Swann analysis

Case of Aloxi provides an example that a differentiated branded product can succeed in a generic environment

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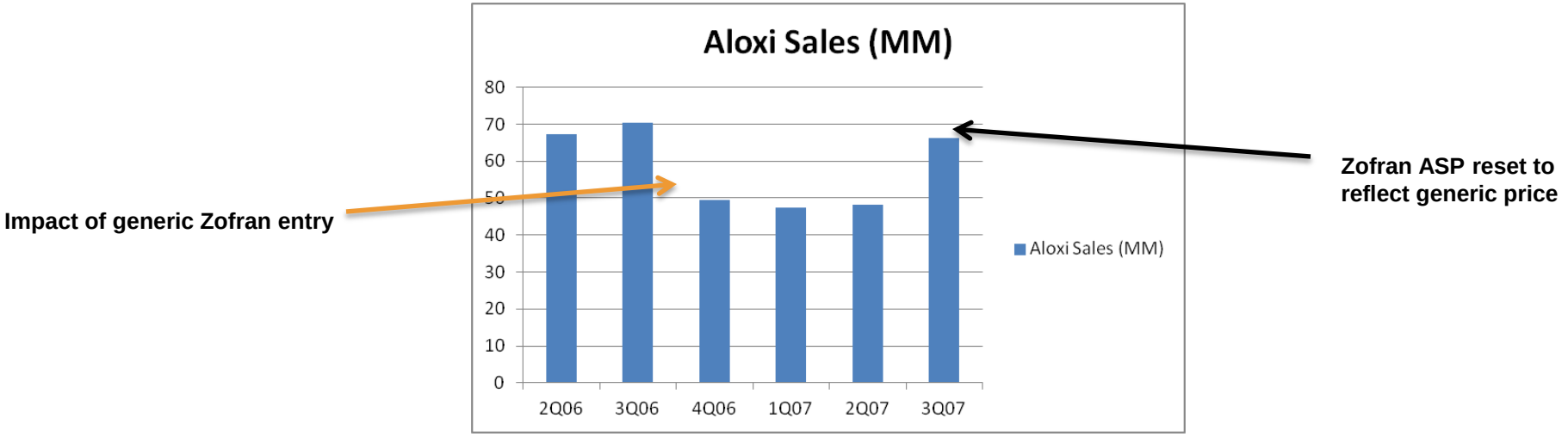
- Average Selling Price (ASP) reflects the actual prices paid two quarters previously. Thus when generic Zofran entered the market in November 2006, doctors were buying drug at generic prices, but still getting paid branded prices.

- However, by 3Q:07, the price of Zofran had come to accurately reflect the generic price, and so on an ASP+6% basis it was actually more profitable to use a branded drug, and thus Aloxi sales rebounded in the 3Q:07. MGI Pharma was then bought by Eisai in early 2008.



Source: MGI Pharma SEC filings and Leerink Swann

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CAN ROLAPITANT DIFFERENTIATE ON NAUSEA BENEFIT?

Can rolapitant differentiate on nausea benefit?

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- The NCCN antiemesis guideline noted that although vomiting can often be prevented or substantially decreased by using prophylactic antiemetic regimens, nausea is much harder to control
- Aprepitant showed no statistical significant decrease in significant nausea in its Phase III HEC trials
- Despite having only ~90 patients per arm in the rolapitant Phase II study, statistical significance was shown on nausea endpoint

	Aprepitant HEC Study 1			Aprepitant HEC Study 1			Rolapitant 200mg		
No Significant Nausea	Aprepitant	SOC	p-value	Aprepitant	SOC	p-value	Rolapitant	SOC	p-value
N	260	261		261	263		90	91	
Overall	73%	66%	NS	49%	39%	NS	63%	42%	0.005
Acute phase	91%	87%	NS	n/p	n/p	NS	87%	73%	0.029
Delayed phase	75%	69%	NS	73%	65%	NS	64%	48%	0.026

NCCN: National Comprehensive Cancer Network; HEC: highly emetogenic chemotherapy

Source: FDA label, Tesaro S-1, Rolapitant ASCO poster and Leerink Swann

Emend reduces emesis, but nausea benefit was not statistically significant

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Table 12
Percent of Patients Receiving Highly Emetogenic Chemotherapy Responding by Treatment Group and Phase for Study 1 — Cycle 1

ENDPOINTS	Aprepitant Regimen (N = 260)† %	Standard Therapy (N = 261)† %	p-Value
PRIMARY ENDPOINT			
Complete Response			
Overall‡	73	52	<0.001
OTHER PRESPECIFIED ENDPOINTS			
Complete Response			
Acute phase§	89	78	<0.001
Delayed phase‖	75	56	<0.001
Complete Protection			
Overall	63	49	0.001
Acute phase	85	75	NS*
Delayed phase	66	52	<0.001
No Emesis			
Overall	78	55	<0.001
Acute phase	90	79	0.001
Delayed phase	81	59	<0.001
No Nausea			
Overall	48	44	NS**
Delayed phase	51	48	NS**
No Significant Nausea			
Overall	73	66	NS**
Delayed phase	75	69	NS**

†N: Number of patients (older than 18 years of age) who received cisplatin, study drug, and had at least one post-treatment efficacy evaluation.
‡Overall: 0 to 120 hours post-cisplatin treatment.
§Acute phase: 0 to 24 hours post-cisplatin treatment.
‖Delayed phase: 25 to 120 hours post-cisplatin treatment.
*Not statistically significant when adjusted for multiple comparisons.
**Not statistically significant.
Visual analogue scale (VAS) score range: 0 mm = no nausea; 100 mm = nausea as bad as it could be.

Table 13
Percent of Patients Receiving Highly Emetogenic Chemotherapy Responding by Treatment Group and Phase for Study 2 — Cycle 1

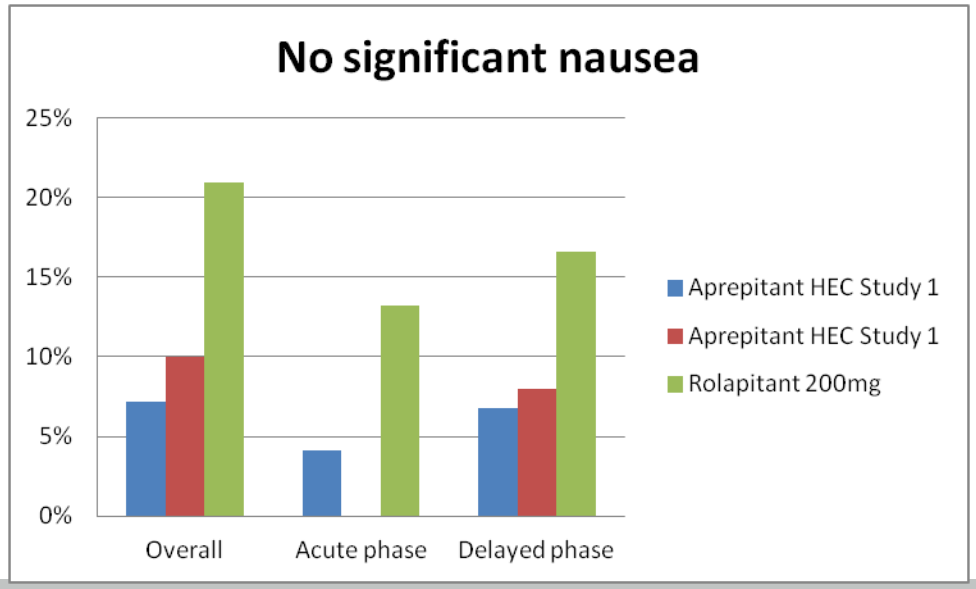
ENDPOINTS	Aprepitant Regimen (N = 261)† %	Standard Therapy (N = 263)† %	p-Value
PRIMARY ENDPOINT			
Complete Response			
Overall‡	63	43	<0.001
OTHER PRESPECIFIED ENDPOINTS			
Complete Response			
Acute phase§	83	68	<0.001
Delayed phase‖	68	47	<0.001
Complete Protection			
Overall	56	41	<0.001
Acute phase	80	65	<0.001
Delayed phase	61	44	<0.001
No Emesis			
Overall	66	44	<0.001
Acute phase	84	69	<0.001
Delayed phase	72	48	<0.001
No Nausea			
Overall	49	39	NS*
Delayed phase	53	40	NS*
No Significant Nausea			
Overall	71	64	NS**
Delayed phase	73	65	NS**

†N: Number of patients (older than 18 years of age) who received cisplatin, study drug, and had at least one post-treatment efficacy evaluation.
‡Overall: 0 to 120 hours post-cisplatin treatment.
§Acute phase: 0 to 24 hours post-cisplatin treatment.
‖Delayed phase: 25 to 120 hours post-cisplatin treatment.
*Not statistically significant when adjusted for multiple comparisons.
**Not statistically significant.
Visual analogue scale (VAS) score range: 0 mm = no nausea; 100 mm = nausea as bad as it could be.

Source: FDA label and Leerink Swann

Rolapitant's signal in nausea benefit from Phase II looks believable to us

- The placebo adjusted difference for the endpoint of no significant nausea are significantly higher for rolapitant than aprepitant (~2x the effect size)
- The nausea benefit seen in rolapitant Phase II showed a dose response, suggesting that it is due to rolapitant
- Phase III trials are powered to show nausea benefit



Source: FDA label, Tesaro S-1, Rolapitant ASCO poster and Leerink Swann

Mechanism of nausea benefit is not entirely clearly but could result from better pharmacokinetics

- A small nausea benefit is seen with Emend, in patients on cisplatin
- Rolapitant has shown a larger effect, that could result in statistical significance on this endpoint in a Phase III trial
- Given the short half life of Emend of 9-12 hours, and the fact that the nausea endpoint was only looked at in the oral studies, it is possible that rolapitant could show a nausea benefit simply because of its substantially longer half life (approximately 7 days), more consistent blood levels, and greater receptor occupancy

Source: Company reports and Leerink Swann analysis

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HOW BIG A DIFFERENTIATION IS THE LACK OF DRUG-DRUG INTERACTIONS?

Emend has multiple drug interactions

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- Aprepitant is simultaneously a substrate, moderate inducer and moderate inhibitor of CYP3A4. Aprepitant also induces CYP2C9.
- Chemotherapeutic agents metabolized by CYP3A4 include docetaxel, paclitaxel, etoposide, irinotecan, ifosfamide, imatinib, vinorelbine, vinblastine, and vincristine.
  - Ifosfamide and irinotecan are considered high emetic risk and moderate emetic risk respectively.
- Aprepitant also interacts with warfarin, dexamethasone, methylprednisolone, and oral contraceptives. This can require additional INR monitoring or use of additional methods of birth control

Source: Emend FDA label, NCCN AE Guidelines, company reports and Leerink Swann analysis

Emend drug-drug interactions table

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Table 10 Pharmacokinetic Interaction Data for Fosaprepitant/Aprepitant and Coadministered Midazolam		
Dose of fosaprepitant/ aprepitant	**Dose of Midazolam**	**Observed Drug Interactions**
fosaprepitant 150 mg on Day 1	oral 2 mg on Days 1 and 4	AUC ↑ 1.8-fold on Day 1 and AUC ↔ on Day 4
fosaprepitant 100 mg on Day 1	oral 2 mg	oral midazolam AUC ↑ 1.6-fold
oral aprepitant 125 mg on Day 1 and 80 mg on Days 2 to 5	oral 2 mg SD on Days 1 and 5	oral midazolam AUC ↑ 2.3-fold on Day 1 and ↑ 3.3-fold on Day 5
oral aprepitant 125 mg on Day 1 and 80 mg on Days 2 and 3	intravenous 2 mg prior to 3-day regimen of aprepitant and on Days 4, 8 and 15	intravenous midazolam AUC ↑ 25% on Day 4, AUC ↓ 19% on Day 8 and AUC ↓ 4% on Day 15
oral aprepitant 125 mg	intravenous 2 mg given 1 hour after aprepitant	intravenous midazolam AUC ↑ 1.5-fold

Source: FDA label for Emend

Rolapitant is not metabolized by the CYPA4 pathway

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- A MEDACorp cancer supportive care key opinion leader noted that interaction with dexamethasone can increase exposure of dexamethasone by fivefold and cause febrile neutropenia
- NCCN guideline highlighted drug interactions with Emend
- Doctors currently may not care about the drug-drug interactions for Emend since it is the only NK-1 available
- Although not necessarily a deciding factor, less drug-drug interaction could be a marketable point of differentiation

Source: Company reports and Leerink Swann

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GIVEN THE IMPORTANCE OF THE IV FORMULATION, HOW LIKELY IS IT TO SUCCEED?

Having an IV formulation is very important

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- Gives doctors dosing flexibility between oral and IV formulations
- No compliance issue associated with oral drugs
- Easier for patients since they will likely already be on an IV Aloxi drip. Can easily add another IV drip to the patient
- Co-pay for an oral drug is an issue for patients while patients generally have supplemental insurance for IV drugs
- ASP +6% reimbursement means IV drugs are more profitable for oncologists in the U.S.
- A MEDACorp European oncologist indicated that the IV form is also strongly preferred in Europe

Source: Company reports and Leerink Swann

Emend was able get approval for the IV 115mg dose based on bioequivalence

- NK1 antagonists were originally developed as anti-depressants and oral formulation was of highest interest
- Aprepitant (Emend) is not water soluble and could not be formulated as an intravenous solution. Initial approval in 2003 was for oral only
  - A water-soluble prodrug, fosaprepitant, was developed as the IV formulation of Emend

Source: IV Emend FDA label, IV Emend FDA review, company reports and Leerink Swann analysis

Emend was able get approval for the IV 115mg dose based on bioequivalence (continued)

- There are two IV dosing regimens for Emend
  - 115mg IV Emend on Day 1, and then 80mg oral Emend on Days 2 and 3
    - Merck was able to get FDA approval in 2008 for this regimen depending mostly on bioequivalence studies.
    - As the FDA stated in its review of the application:
      - *"Since fosaprepitant is rapidly converted to aprepitant following intravenous administration, this clinical reviewer believed that the efficacy and safety data obtained from orally administered aprepitant is applicable to I.V. administer fosaprepitant"*
        - *http://www.accessdata.fda.gov/drugsatfda_docs/NDA/2008/022023s000_MedR.pdf*
    - *And under efficacy:*
      - *"As mentioned in the Clinical Pharmacology review, this is an intravenous formulation of the oral EMEND. As is expected the CMAX is higher, but AUC are similar when comparing IV to oral preparations. As this is the first dose of a 3 day regimen, there were no efficacy studies conducted, however a study using this regimen was conducted for safety.*

Source: IV Emend FDA label, IV Emend FDA review, company reports and Leerink Swann analysis

Emend was able get approval for the IV 115mg dose based on bioequivalence (continued)

- *A total of 696 subjects were evaluated with the four types of IV fosaprepitant (though four were evaluated, only one was considered acceptable for clinical use.)*
  - 149 subjects were from the CINV setting
  - 56 subjects with migraine
  - 10 subjects from hypertension
  - 167 subjects with post operative nausea and vomiting
  - 314 healthy adult subjects
- There were two studies cited as showing the efficacy of fosaprepitant
  - Study 004L1 was a 53 patient multi-center, randomized active controlled (ondansetron) trial in CINV
  - Study 007L1 was a 177 patient multi-center double-blind, randomized, active controlled (ondansetron plus dexamethasone) study

Source: IV Emend FDA label, IV Emend FDA review, company reports and Leerink Swann analysis

FDA review of IV Emend (continued)

LEERINK SWANN

- Neither efficacy study was run for statistics, and both were P2 studies.

- IV Emend also had received an approvable letter (similar to a CRL) the first time they submitted because of CMC deficiencies. There were also issues raised by the clinical pharmacology group due to potential drug interactions of IV fosaprepitant with diltiazem.

- We believe IV rolapitant may get approval on similarly small exposure database.

  - We believe IV rolapitant will likely have a lower bar because it will not be a prodrug of oral rolapitant, the way fosaprepitant is to aprepitant

  - We believe IV rolapitant will not have drug interaction issues the way IV fosaprepitant did

Source: IV Emend FDA label, IV Emend FDA review, company reports and Leerink Swann analysis

Approval of the 150mg IV Emend

- 150mg IV Emend on Day 1 only (no oral Emend on Days 2 and 3)
  - Had to run a Phase III non-inferiority study because of the difficulty in matching the exposure of 3 oral doses over 3 days to a single IV dose.
  - Phase III study was a 2,240 patient non-inferiority study comparing fosaprepitant to aprepitant with a pre-specified non-inferiority margin for complete response in the overall phase of 7%

Source: IV Emend FDA label, company reports and Leerink Swann analysis

IV Rolapitant has a good chance of success

LEERINK SWANN

- Rolapitant is sufficiently water-soluble for IV formulation
- The oral is nearly 100% bio-available. TSRO only needs to match the AUC for the IV to the oral – similar to the way that Emend 115mg IV dose was approved to substitute for the 125mg oral dose
- Since the half life of the oral dose is >120 hours, and the bioavailability is so high, TSRO should be able to match the AUC reasonably well
- TSRO already has manufactured the parenteral grade API that can be used to make the IV formulation

Source: Company reports and Leerink Swann analysis

IV rolapitant development

LEERINK SWANN

- Expected to enter the clinic with the IV formulation by YE:12
- While the Phase III for the oral is ongoing, TSRO plans to run iterative bioequivalence studies to match the AUC for oral dosing
- A “pivotal” bioequivalence study of ~60 patients is planned for FDA filing together with safety data on ~200 patients
- TSRO plans to file IV rolapitant once the oral formulation is approved; therefore the IV dosing should be available approximately 1 year after approval of oral rolapitant
- This approach should also work in the EU where IV Emend achieved approval without confirmatory efficacy studies.

Source: Company reports and Leerink Swann analysis

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WHAT HAPPENED TO GSK'S CASOPITANT? IS THAT AN ISSUE FOR THE CLASS?

Casopitant's application was withdrawn due to the requirement for additional safety data

LEERINK SWANN

- Casopitant (Rezonic) was filed with the FDA by GSK (MP) on May 29, 2008, for CINV and PONV.
- On June 29, 2009, GSK announced that it received a complete response letter
- Casopitant (Zunrisa) was filed with the EMA by GSK on July 2, 2008, for CINV and PONV
- On October 13, 2009, the EMA announced that GSK had withdrawn its application
  - The EMA press release noted: *"In its official letter, the company stated that the withdrawal of the application was based on the company's assessment that further safety data would be required to support the registration of casopitant on a worldwide basis and that it would take considerable time to produce these data. The company further stated that consequently all ongoing applications for authorisation are being withdrawn."*

CINV: chemotherapy-induced nausea and vomiting; PONV: post-operative nausea and vomiting

Source: Company reports; EMA press release

Published reports indicate that casopitant may be associated with cardiac toxicity

LEERINK SWANN

- *During long-term repeat dose toxicity studies in rats (6 months) and dogs (9 months), evidence of cardiomyopathy (namely myocardial necrosis, degeneration, and inflammation) and increased heart weight, with no significant sex differences, were recorded; these had never been detected in the previous shorter toxicity studies. These changes were accompanied by increases in plasma levels of cardiac troponin I and creatine kinase MB-mass isoenzyme concentrations, biomarkers for cardiac damage. In addition, transmission electron microscopy showed ultrastructural changes in the hearts of both preclinical species, considered suggestive of phospholipid accumulation.*

- *Based on the authors' experience of NK-1 receptor antagonists (unpublished data) and on published preclinical data of this class of drugs it is unlikely that all of the above findings could be explained by NK-1 receptor antagonist mechanism of action.*

Pagliarusco, Drug Metabolism and Disposition 39:283-293, 2011

Source: cited reference

LEERINK SWANN

WHY ARE PARP INHIBITORS INTERESTING? DIDN'T THE LEAD CANDIDATES IN THE CLASS FAIL?

Is the failure of iniparib an indictment of the class?

LEERINK SWANN

- In contrast to the initial promising Phase II data, Sanofi-Aventis' (OP) iniparib Phase III failed to meet endpoints in chemo-combo therapy in metastatic triple-negative breast cancer (Jan 2011)
  - Phase 3 data – 519 patients
    - Median OS – 11.1mon for GC* (n=258) vs. 11.8mon for iniparib+GC (n=261)
    - Median PFS – 4.1mon for GC vs. 5.1mon for iniparib+GC
  - Phase 2 data – 123 patients
    - Median OS – 7.7mon for GC* vs. 12.3mon for iniparib+GC
    - Median PFS – 3.6mon for GC vs. 5.9mon for iniparib+GC
- However, iniparib was shown **NOT** to be a bona fide PARP inhibitor
  - Paper 1** – True PARP (NAD+ competitive inhibitors, i.e., veliparib) inhibited BRCA2 deficient tumor growth both in cell culture and in animal model, but iniparib and its metabolite did not → **Conclusion:** Iniparib modifies cysteine-containing proteins non-selectively in tumor cells, and it unlikely functions through PARP inhibition.
  - Paper 2*** – Olaparib and veliparib selectively induced apoptosis and inhibited colony formation in HR**** incompetent cells (lacking BRCA2 or ATM), and inhibited pADPr formation in normal cells, while iniparib did not. Iniparib also failed to sensitize cells to cisplatin, gemcitabine or paclitaxel → **Conclusion:** Although iniparib kills normal and neoplastic cells, it unlikely functions via PARP inhibition.

Source: *GC – gemcitabine/carboplatin ; **Clin Cancer Res (2011) 18:1; ***Clin Cancer Res (2012) 18:1655; ****HR – homologous recombinant

Olaparib program in serous ovarian cancer had to be terminated

LEERINK SWANN

- AstraZeneca (MP) discontinued the development of olaparib (AZD2281) for serous ovarian cancer and (Dec 2011) and took a $285M charge
  - Interim PFS unlikely to translate into OS benefit
  - Failed to identify a suitable tablet dose for Phase III (current formulation requires 16 pills a day)
- Trial Outcomes
  - *Randomized, double-blind, controlled Ph2 **monotherapy** for maintenance treatment
    - PFS – 8.4mon vs. 4.8mon (136 pts vs. 129 pts, HR 0.35, p<0.01)
    - OS – 29.7mon vs. 29.9mon (136 pts vs. 129 pts, HR 0.94, p=0.75)
  - **Randomized, open-label Ph2 **chemo-combo therapy** (OPC) followed by olaparib maintenance therapy vs. PC with no maintenance therapy
    - PFS – 12.2mon vs. 9.6mon (66 pts vs. 55 pts, HR 0.51, P=0.0012,)
    - ORR – 64% vs. 58% (not significant); OS – immature

PFS	Progression free survival
OS	Overall survival
ORR	Overall response rate
PR	Partial response
HR	Hazard ratio

Source: *N Eng J Med (2012) 366:1382; **2012 ASCO, #5001; OPC – olaparib+paclitaxel+carboplatin

How can niraparib be differentiated and what are the open questions?

LEERINK SWANN

- How can niraparib be differentiated
  - High potency – IC50 of 3.8nM and 2.1nM for PARP1 & 2
  - Long half life – 40 hours in plasma
  - High concentration – unlikely to have formulation issue
  - PR of 37% in BRCA mutant positive patients
  - MTD 300mg, but clinical activity shown at 80mg
- Open questions for PARP inhibitors
  - What will be the best approach?
    - Monotherapy in HA deficient tumors, i.e., BRCA 1&2, or ATM mutant positive patients?
    - In combination with chemotherapy?
    - Maintenance therapy?
  - What will be the best indication?
    - BRCA like tumors, i.e., serous carcinoma, breast cancer, ovarian cancer?
    - Mantel cell lymphoma – but a crowded space?
    - ATM mutations – head & neck cancer, gastric cancer?

Source: Company reports and Leerink Swann

What can be learned from olaparib?

LEERINK SWANN

- What can be learned
  - Better study design – study was not powered to detect OS
  - More suitable indication – gastric cancer, head and neck cancer, mantel cells lymphoma
  - Maximize synthetic lethality – patients with BRCA or ATM mutations
- Key takeaways from our KOL discussion
  - IC50 at nM level is considered as “very potent”
  - Synthetic lethality is the key to achieve clinical benefit
  - PARP in combination with BRCA and ATM mutations is a preferred approach
  - Cancers with features of “BRCA-like” deficiencies are good targets for PARP inhibitors
  - Given potential PARP resistance mechanism, the colorectal cancer setting could be challenging for PARP inhibitors

Source: *N Eng J Med (2012) 366:1382; **2012 ASCO, #5001; OPC – olaparib+paclitaxel+carboplatin; ATM – ataxia telangiectasia mutated

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ROLAPITANT AND CHEMOTHERAPY-INDUCED NAUSEA AND VOMITING MARKET OVERVIEW

Chemotherapy Induced Nausea and Vomiting (CINV) remains a problem despite available treatments

LEERINK SWANN

- Nausea and vomiting cause significant concern among patients receiving cancer treatment
- CINV is dependent on a number of factors, including the chemotherapy dose, emetogenicity, as well as the patient sex and age.
  - Female patients and younger patients are at greater risk
- With the development of a number of agents, notably the 5-HT3 receptor antagonists, vomiting has been dramatically reduced
  - However nausea and delayed vomiting (post 24 hours) are still problems for patients

Source: Company reports and Leerink Swann analysis

CINV is among the most undesirable side effects of chemotherapy

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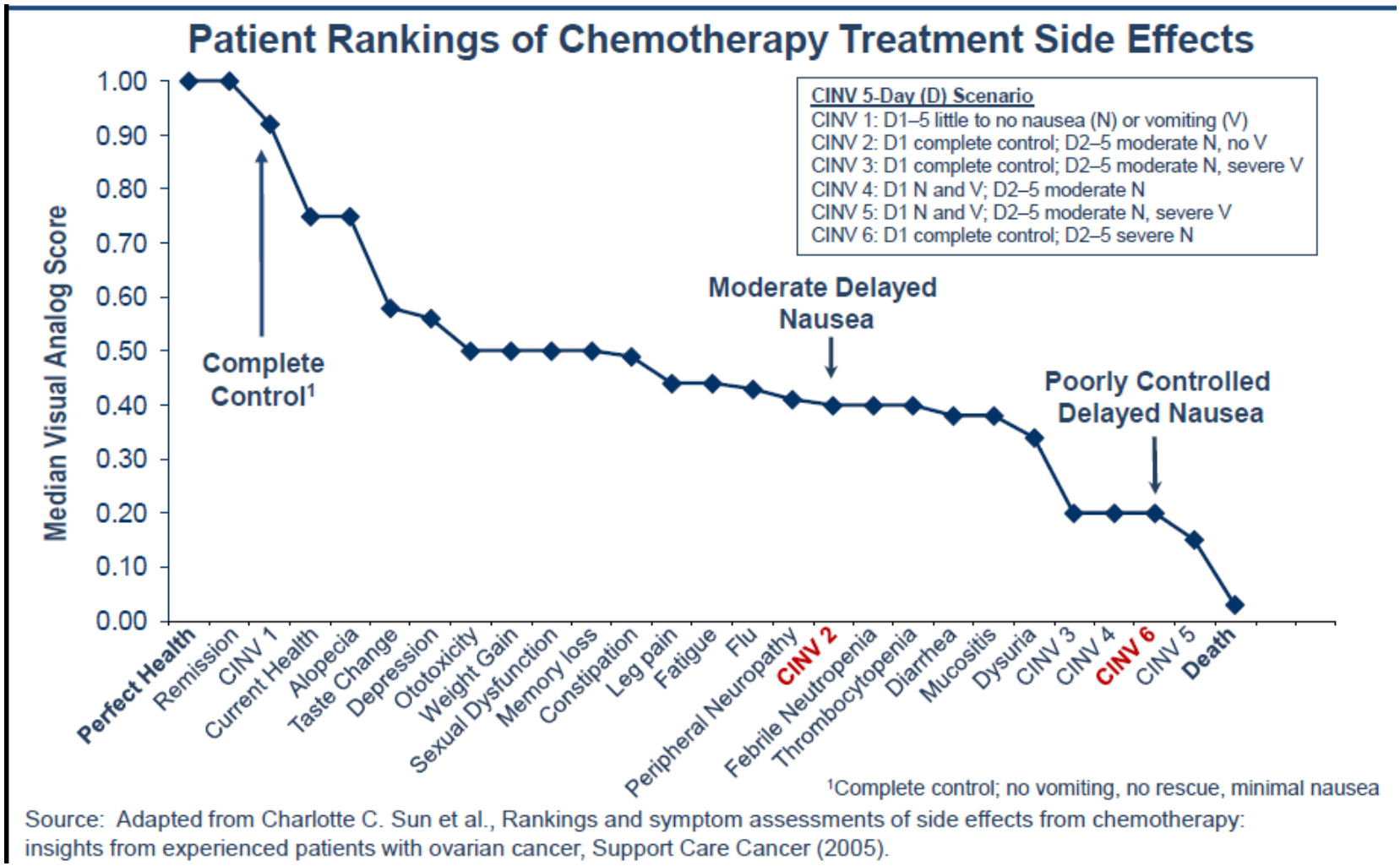

Source: Adapted from Charlotte C. Sun et al., Rankings and symptom assessments of side effects from chemotherapy: insights from experienced patients with ovarian cancer, Support Care Cancer (2005).

Source: Company reports

Drugs with high or moderate emetic risk (NCCN)

LEERINK SWANN

EMETOGENIC POTENTIAL OF INTRAVENOUS ANTINEOPLASTIC AGENTS[t]

LEVEL	AGENT	
High emetic risk (>90 % frequency of emesis)[q,r]	• AC combination defined as either doxorubicin or epirubicin with cyclophosphamide[q] • Carmustine >250 mg/m^2 • Cisplatin ≥50 mg/m^2 • Cyclophosphamide >1,500 mg/m^2 • Dacarbazine	• Doxorubicin >60 mg/m^2 • Epirubicin >90 mg/m^2 • Ifosfamide ≥10 g/m^2 • Mechlorethamine • Streptozocin
Moderate emetic risk (30% - 90% frequency of emesis)[q,s]	• Aldesleukin > 12-15 million international units/m^2 • Amifostine > 300 mg/m^2 • Arsenic trioxide • Azacitidine • Bendamustine • Busulfan • Carboplatin[s] • Carmustine[s] ≤250 mg/m^2 • Cisplatin[s] <50 mg/m^2 • Clofarabine • Cyclophosphamide ≤1500 mg/m^2 • Cytarabine >200 mg/m^2 • Dactinomycin[s] • Daunorubicin[s] • Doxorubicin[s] ≤60 mg/m^2	• Epirubicin[s] ≤90 mg/m^2 • Idarubicin • Ifosfamide[s] <10 g/m^2 • Interferon alfa ≥10 million international units/m^2 • Irinotecan[s] • Melphalan • Methotrexate[s] ≥ 250 mg/m^2 • Oxaliplatin • Temozolomide

Low Emetic Risk (See AE-8)

Minimal Emetic Risk (See AE-8)

Oral Chemotherapy (See AE-9)

Source: NCCN AE Guidelines

Types of CINV

- Acute CINV is 0-24 hours after chemotherapy dose
  - Driven by serotonin, thus 5-HT3 receptor antagonists are very effective in this setting
- Delayed CINV is 24+ post chemotherapy dose
  - Driven by neurokinin substance P, which binds to NK-1 receptors, thus the efficacy of NK-1 receptor antagonists in this setting
- The risk of nausea/vomiting for patients receiving high or moderately emetic chemotherapy lasts for 3 and 2 days respectively
  - NK-1 receptors antagonists are complementary to 5-HT3 receptor antagonists

Source: Company reports and Leerink Swann analysis

Main drugs to treat CINV – complementary mechanisms of action

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- 5-HT3 receptor antagonists; effective against acute emesis
  - Anzemet (Dolasetron)
  - Kytril (Granisetron)
  - Zofran (Ondansetron)
  - Aloxi (Palonosetron)
- Steroids
  - Dexamethasone
- Neurokinin (NK)-1 antagonist; effective against delayed emesis
  - Emend oral (Aprepitant)
  - Emend IV (Fosaprepitant)

Source: Company reports and Leerink Swann analysis

Where should NK-1 receptor antagonists be used?

LEERINK SWANN

- All HEC regimens
- Certain MEC regimens (i.e., those with carboplatin, cisplatin, doxorubicin, epirubicin, ifosfamide, irinotecan, or methotrexate)

Source: Company reports and Leerink Swann analysis

Rolapitant 200mg & Emend efficacy is similar on complete response and no emesis

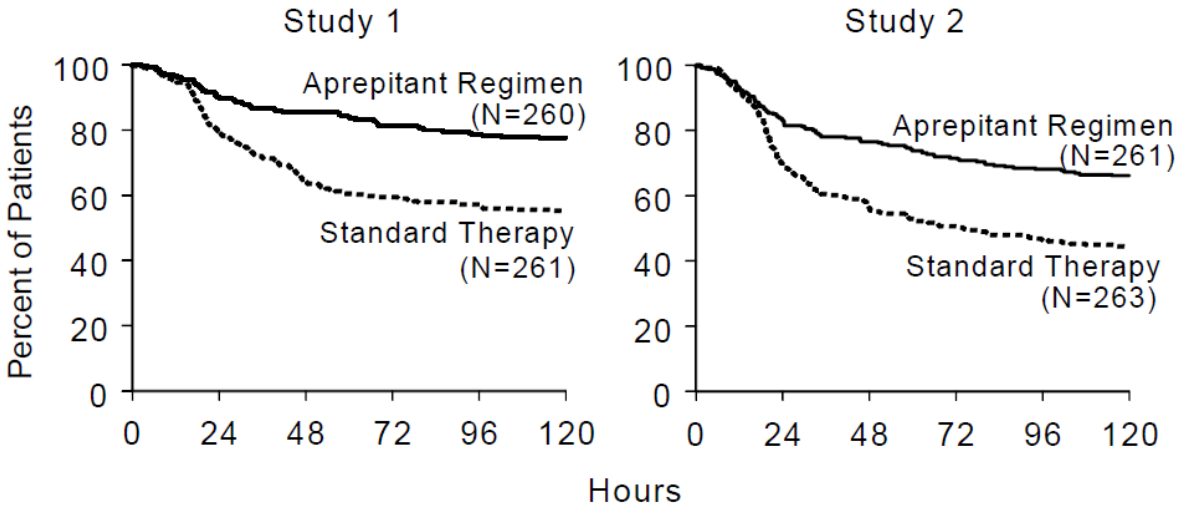
	Study 1			Study 2			Rolapitant P2		
	Aprepitant	SOC	p-value	Aprepitant	SOC	p-value	Rolapitant	SOC	p-value
N	260	261		261	263		90	91	
Complete Response									
Acute phase	89%	78%	<0.001	83%	68%	<0.001	88%	67%	0.001
Delayed phase	75%	56%	<0.001	68%	47%	<0.001	64%	49%	0.045
No Emesis									
Overall	78%	55%	<0.001	66%	44%	<0.001	67%	47%	0.006
Acute phase	90%	79%	0.001	84%	69%	<0.001	91%	68%	<0.001
Delayed phase	81%	59%	<0.001	72%	48%	<0.001	68%	49%	0.008

Source: Rolapitant ASCO poster, FDA label, Leerink Swann analysis

Emend does not separate from standard of care until 16 hours post-cisplatin administration

LEERINK SWANN

Figure 2: Percent of Patients Receiving Highly Emetogenic Chemotherapy Who Remain Emesis Free Over Time — Cycle 1



p-Value <0.001 based on a log rank test for Study 1 and Study 2; nominal p-values not adjusted for multiplicity.

Source: FDA label and Leerink Swann analysis

Rolapitant Phase II trial (conducted by Schering-Plough)

LEERINK SWANN

- 5 arm study, evaluating 4 doses of rolapitant vs. control
- Tested doses of 10mg, 25mg, 100mg and 200mg, or placebo on top of SOC
- Standard of care consisted of a 5-HT3 receptor antagonist (ondansetron) + a corticosteroid (dexamethasone)
- Primary endpoint
  - Complete response (CR) for the “overall phase” (0-120 hours) of CINV
    - CR is defined as no vomiting and no use of rescue medication
  - Safety and tolerability.

Source: Company reports and Leerink Swann analysis

Rolapitant Phase II – baseline characteristics

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Table 1 Summary of Demographic and Other Baseline Characteristics: Cycle 1

	Control (n=91)	Rolapitant 10 mg (n=91)	Rolapitant 25 mg (n=91)	Rolapitant 100 mg (n=91)	Rolapitant 200 mg (n=90)	Total (n=454)
Sex (n, % subjects)						
Female	42 (46)	42 (46)	42 (46)	42 (46)	42 (47)	210 (46)
Male	49 (54)	49 (54)	49 (54)	49 (54)	48 (53)	244 (54)
Race (n, % subjects)						
White	54 (59)	48 (53)	50 (55)	52 (57)	52 (58)	256 (56)
Non-white	37 (41)	43 (47)	41 (45)	39 (43)	38 (42)	198 (44)
Multiracial	35 (38)	33 (36)	35 (38)	32 (35)	32 (36)	167 (37)
Age (yr)						
Mean (SD)	53.0 (13.4)	54.9 (12.4)	52.4 (11.4)	55.6 (11.2)	52.3 (12.6)	53.7 (12.3)
Median	54.0	55.0	53.0	57.0	56.0	55.0
Range	18–77	22–86	26–76	19–79	20–75	18–86
Age (n, % subjects)						
18–<50	36 (40)	26 (29)	37 (41)	22 (24)	30 (33)	151 (33)
50–<65	33 (36)	43 (47)	41 (45)	47 (52)	47 (52)	211 (46)
≥65	22 (24)	22 (24)	13 (14)	22 (24)	13 (14)	92 (20)
Weight (kg)						
Mean (SD)	67.4 (13.9)	65.9 (16.5)	70.9 (15.5)	70.5 (15.1)	67.8 (13.7)	68.5 (15.0)
Median	66.0	62.5	69.0	68.2	65.6	66.3
Range	39.0–116.0	40.0–114.3	44.5–127.5	46.0–107.0	40.0–106.0	39.0–127.5
BSA (m^2)						
Mean (SD)	1.71 (0.19)	1.70 (0.22)	1.77 (0.22)	1.76 (0.21)	1.74 (0.21)	1.74 (0.21)
Median	1.70	1.66	1.74	1.75	1.71	1.72
Range	1.25–2.30	1.25–2.28	1.40–2.34	1.37–2.25	1.34–2.35	1.25–2.35
CEC (n, % subjects)						
No	12 (13)	15 (16)	14 (15)	14 (15)	10 (11)	65 (14)
Yes	79 (87)	76 (84)	77 (85)	77 (85)	80 (89)	389 (86)
KPS (n, % subjects)						
60	2 (2)	0	0	1 (1)	1 (1)	4 (1)
70	4 (4)	7 (8)	2 (2)	4 (4)	2 (2)	19 (4)
80	20 (22)	18 (20)	19 (21)	15 (16)	15 (17)	87 (19)
90	31 (34)	33 (36)	37 (41)	36 (40)	36 (40)	173 (38)
100	34 (37)	33 (36)	33 (36)	35 (38)	36 (40)	171 (38)

BSA = body surface area; CEC = concomitant emetogenic chemotherapy; KPS = Karnofsky Performance Status

Source: Rolapitant ASCO poster

Rolapitant was well tolerated (Safety results from the Phase II study)

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Table 2 Summary of Most Common Treatment-Related Treatment-Emergent Adverse Events (≥2% Incidence): All Cycles

Adverse Event[b]	No. (%) of Subjects[a]					
	Control (n=91)	Rolapitant 10 mg (n=91)	Rolapitant 25 mg (n=91)	Rolapitant 100 mg (n=91)	Rolapitant 200 mg (n=90)	Total (n=454)
Subjects Reporting Any AE	**8 (9)**	**15 (16)**	**14 (15)**	**22 (24)**	**12 (13)**	**71 (16)**
Constipation	0	2 (2)	4 (4)	6 (7)	1 (1)	13 (3)
Headache	2 (2)	4 (4)	3 (3)	2 (2)	0	11 (2)
Fatigue	2 (2)	1 (1)	0	3 (3)	4 (4)	10 (2)
Dizziness	0	3 (3)	1 (1)	4 (4)	1 (1)	9 (2)
Disturbance in attention	2 (2)	1 (1)	2 (2)	2 (2)	1 (1)	8 (2)
Nausea	0	3 (3)	2 (2)	2 (2)	1 (1)	8 (2)
Anorexia	0	2 (2)	0	1 (1)	2 (2)	5 (1)
Vomiting	1 (1)	1 (1)	3 (3)	0	0	5 (1)
Hiccups	1 (1)	0	0	2 (2)	1 (1)	4 (1)
Abdominal pain	0	0	0	3 (3)	0	3 (1)
Asthenia	0	0	0	2 (2)	1 (1)	3 (1)
Balance disorder	0	0	0	0	2 (2)	2 (<1)
Somnolence	0	0	0	0	2 (2)	2 (<1)

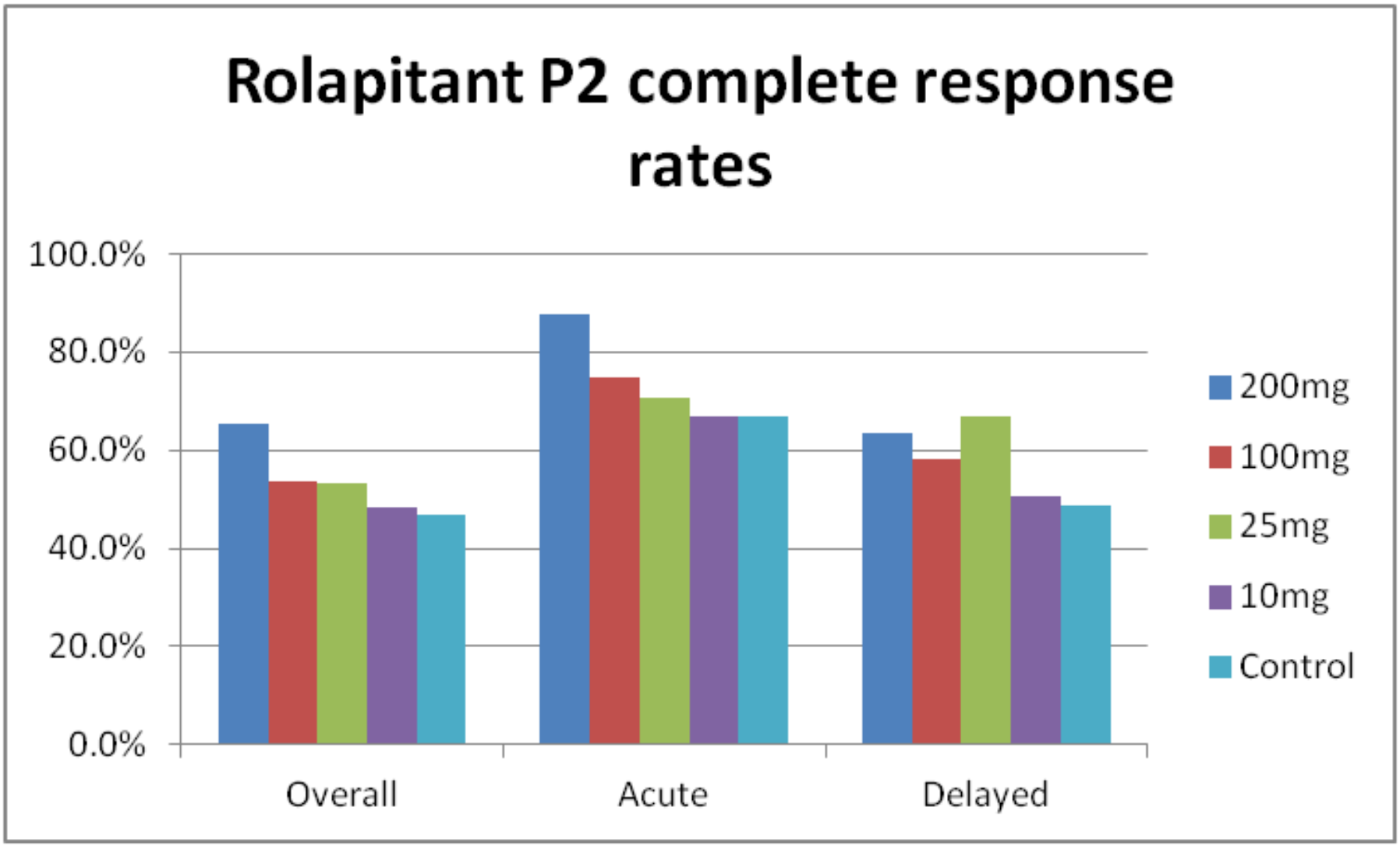
AE = adverse event.

a: ≥2% incidence in any treatment group.

b: AEs presented in decreasing order of frequency based on totals for all treatment groups combined.

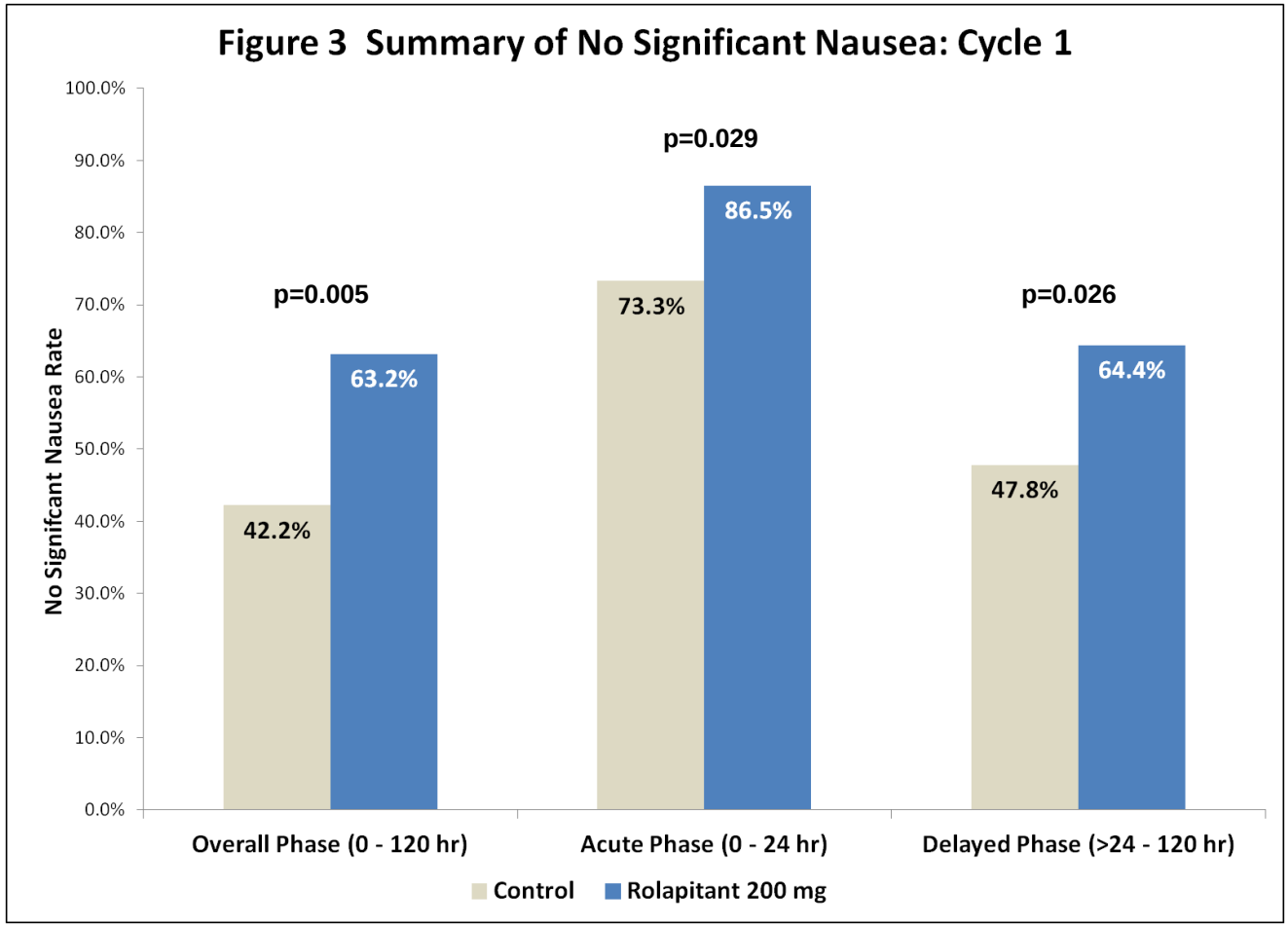
Source: Rolapitant ASCO poster

Rolapitant showed dose response in the Phase II study



Source: Rolapitant ASCO poster, Tesaro S-1, Leerink Swann analysis

Rolapitant had statistically significant reduction in nausea

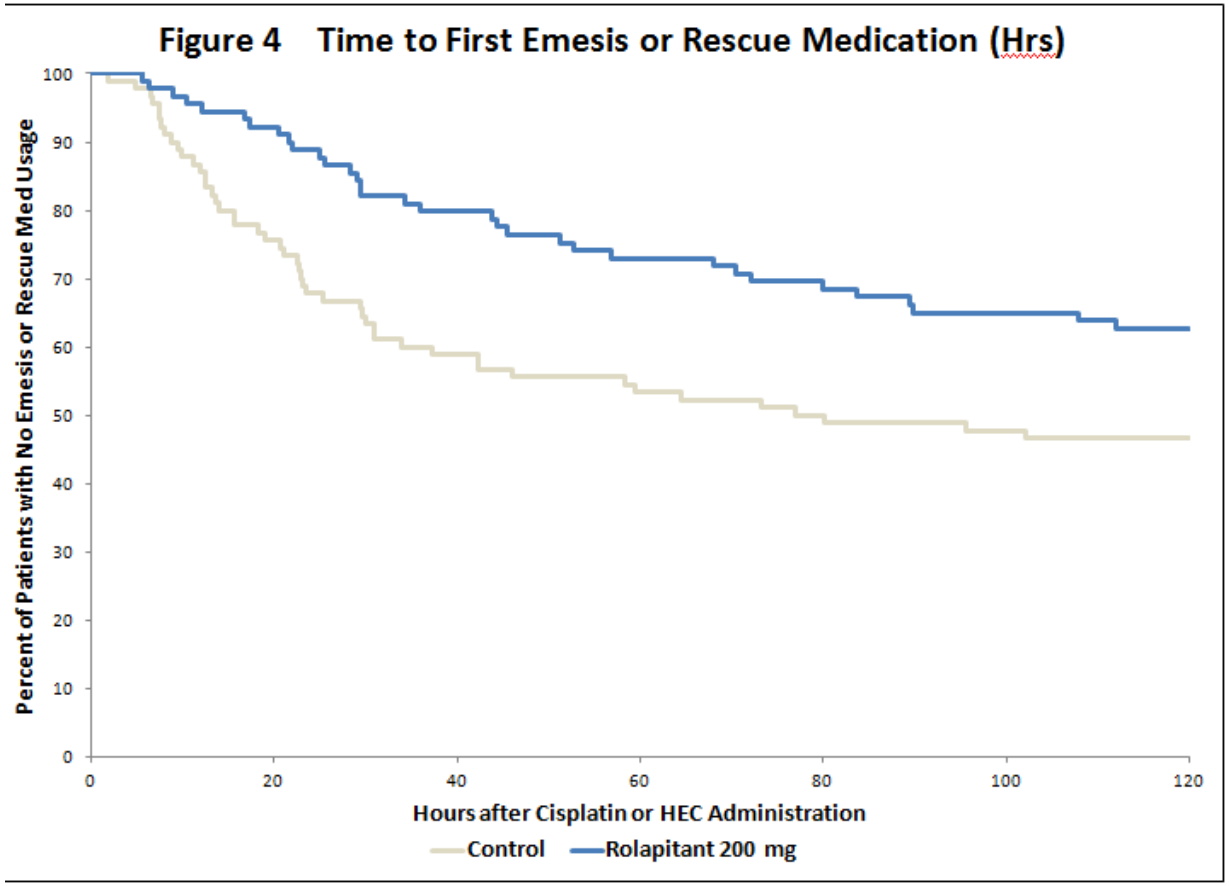


n= 91(Control), n=90 (Rolapitant 200mg)

Source: Rolapitant ASCO poster

Rolapitant is effective within three hours

- In a Phase II clinical trial, time to first emesis or use of rescue medication for rolapitant versus the control group showed rapid onset of activity within approximately three hours of completing chemotherapy treatment



Source: Rolapitant ASCO poster

Overview of Phase III program for oral rolapitant

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- Two Highly Emetogenic Chemotherapy (HEC) studies
  - 530 patients in each study
  - Day 1: Placebo or rolapitant (200mg) + granisetron + dexamethasone
  - Day 2-4: dexamethasone orally BID
  - Primary endpoint: no emetic episodes and no rescue medication (time 24-120 hours). Powered for 15-20% delta in the drug vs. placebo group.
  - Secondary endpoints: acute phase response (time 0-24 hours), overall response rate (time 0-120 hours), and safety and tolerability

Source: Company reports and Leerink Swann analysis

Overview of Phase III program for oral rolapitant

LEERINK SWANN

- 1 Moderately Emetogenic Chemotherapy (MEC) study
  - 1,350 patients
  - Day 1: Placebo or rolapitant (200mg) + granisetron + dexamethasone
  - Days 2-3: granisetron
  - Primary endpoint: no emetic episodes and no rescue medication (time 24-120 hours). Powered for ~10% delta in the drug vs. placebo group.
  - Secondary endpoints: acute phase response (time 0-24 hours), overall response rate (time 0-120 hours), and safety and tolerability
- The Phase 3 development program will report out in the 2H: 13

Source: Company reports and Leerink Swann analysis

Competitive landscape of NK-1 antagonists

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- Emend (MRK)
  - Marketed since 2003
  - Anticipated to generic in 2015 for the oral form, and in 2019 for the IV form
- Netupitant (Helsinn Group & Eisai)
  - In Phase III
  - Being studied in a fixed-dose combination (FDC) with Aloxi (palonosetron)
  - Data readout in 1Q:13

Source: Company reports and Leerink Swann analysis

Netupitant data readout in 1Q:13

Helsinn's 3 phase III projects in 2012

Product development in phase III with NETUPITANT FDC, ANAMORELIN and PALONOSETRON Paediatric

End of clinical Phase III (Final Reports)

NETUPITANT FDC — 1Q 2013

NETUPITANT CONTROLLING AND REDUCING EMESIS

Source: Company reports

Netupitant is a CYP3A4 Inhibitor

LEERINK SWANN

Conclusions: The results of these studies suggest that the coadministration of NETU with drugs that are substrates, inhibitors, or inducers of the CYP3A4 enzymes may require dose adjustments.

- *J Clin Oncol 30, 2012 (suppl; abstr e19533)*

Source: reference cited

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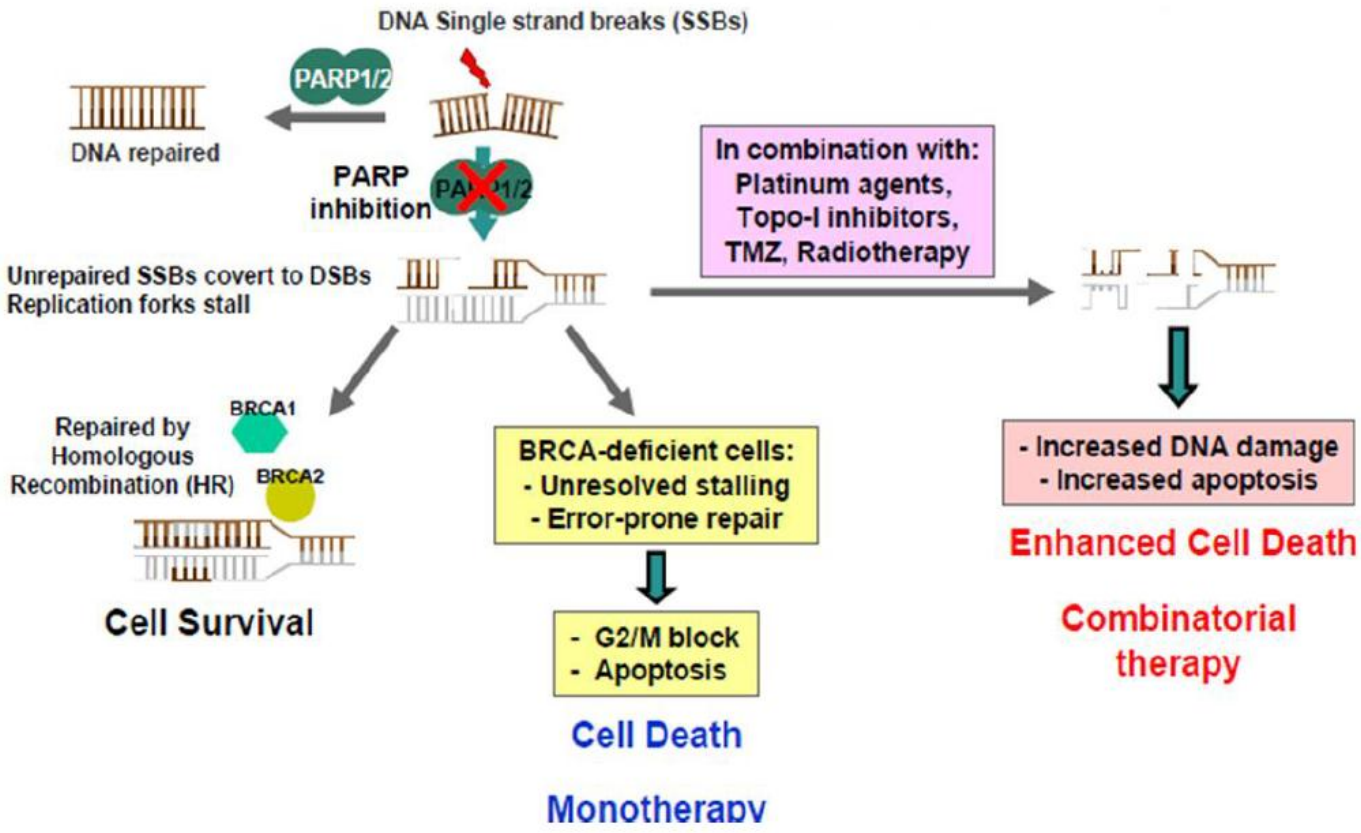
NIRAPARIB AND PARP INHIBITORS

PARP Mechanism – Synthetic Lethality

- Synthetic lethality – a combination of two or more genes lead to cell death
- PARP is critical for single-strand DNA repair (base excision repair)
- Inhibition of PARP and another gene involved in DNA repair can lead to cell death



Source: Company reports and Leerink Swann

PARP Inhibitors in development

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Drug	Company	Development Stage	Upcoming Catalyst	Data	Indication
Iniparib (BSI201)	Sanofi-Aventis	Phase 3	Failed	OS - 11.1mon (GC, 258pts) vs. 11.8mon (IGC, 261pts), PFS - 4.1mon (GC) vs. 5.1mon (IGC)	
Niraparib (MK-4827)	Tesaro/Merck	Phase 1	Phase 2 in 2013	Ph1 (80pts) - 37% RR in BRCA+ pts, bone-marrow toxicity	Solid tumor
Rucaparib (PF01367338)	Clovis/Pfizer	Phase 1	Data in 1H14		
Olaparib (AZD2281)	AstraZeneca	Phase 2	Data in mid-12	Study 1 monotherapy (136 & 129pts) - PFS 8.4 vs. 4.8mon, OS 29.7 vs. 29.9mon; Study 2 chemo-combo therapy (66 & 55pts) - PFS 12.2 (OPC) vs. 9.6mon (PC), OS NA	maintenance therapy in serous ovarian cancer
Veliparib (ABT888)	Abbott	Phase 2	Data in 2H13	Partial RR 20%	Advanced colon cancer and other solid tumors
CEP-9722	Cephalon/Teva	Phase 2	Data in mid-13		
BMN673 (LT-673)	Biomarin	Phase 1	Data in 2H13 and 1Q13	No significant toxicity, high potent (100ug activity dose)	BRCA1/2+ ovarian cancer
E-7016	Eisai	Phase 1	Data in 3Q12 and 1H14		
BSI401	BiPar Science				

Source: Company reports, ClinicalTrial.gov, and Leerink Swann

Niraparib Phase 1 Data Summary

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- Efficacy
  - Overall activity (60pts in advanced solid tumors, 20pts in platinum resistant ovarian cancers)
    - PR – 15% (12/80), 10 ovarian and 2 breast
    - SD – 30% (24/80), ovarian, breast, lung
    - Clinical activity shown at 80mg
  - Clinical activity in platinum resistant ovarian cancer
    - PR – 26% (10/39); SD – 33% (13/39)
    - PR – 37% (7/19), SD – 26% (5/19) in BRCA mutant positive patients
- Safety
  - Main adverse events were nausea, fatigue and constipation
  - Drug related SAE – 11.3% (9/80)
  - Dropout due to drug related AE – 7.5% (6/80)
  - Dose limiting toxicity – thrombocytopenia, resolved when drug was discontinued
  - MTD – 300mg once daily

Source: Company reports and Leerink Swann

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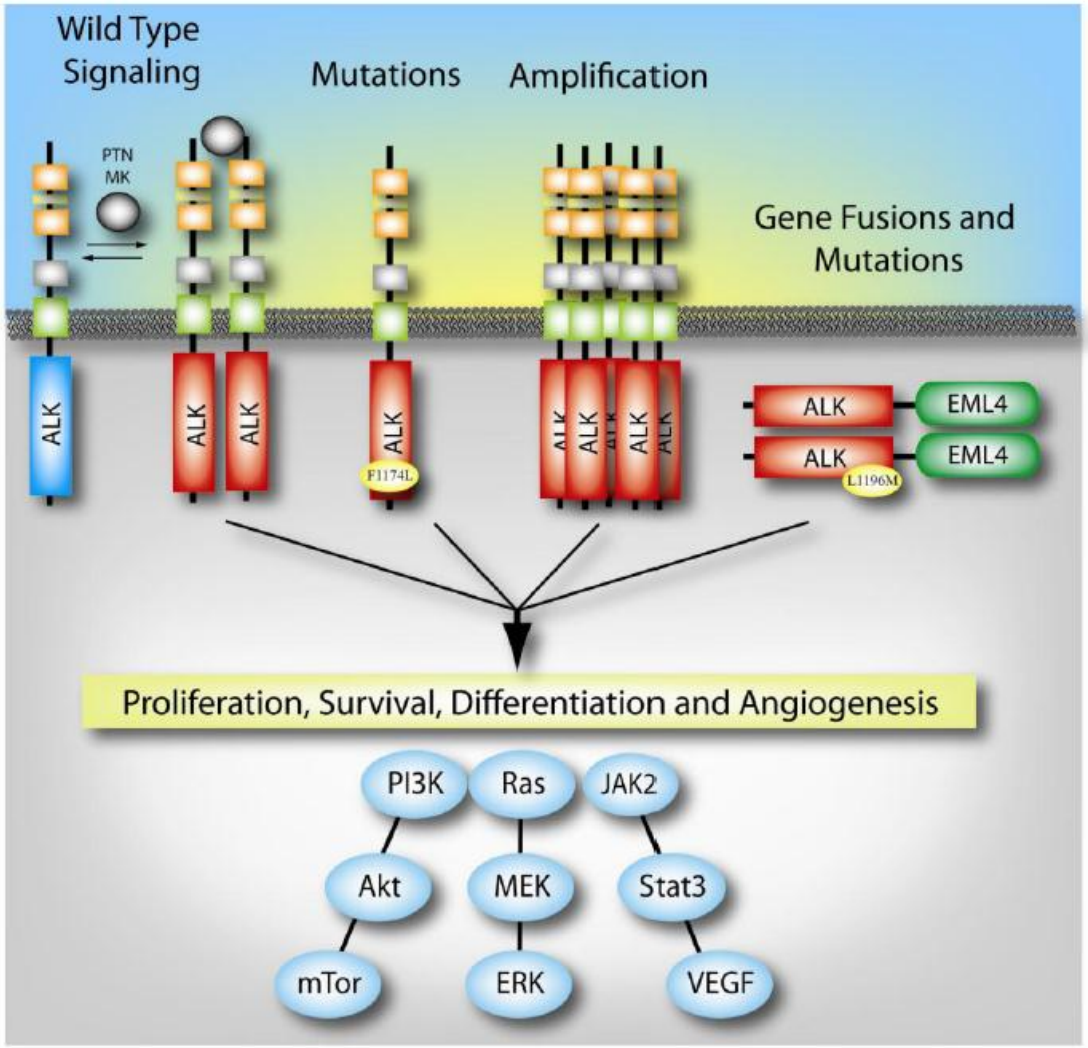
TSR-011 AND ALK INHIBITORS

ALK Inhibitor – Mechanism



- ALK Malfunction
  - Wild type signaling dysfunction
  - Point mutations
  - Amplifications
  - Translocations and inversions – fusion ALK

Cancer Type	ALK Expression	% ALK Positive
Lymphoma (ALCL, DLBCL, IMT)	Fusion NPM-ALK	60%
Neuroblastoma	Point mutation	40%
NSCLC	Fusion EML4-ALK	5%
Colorectal Cancer	Fusion EML4-ALK	2.4%
Breast Cancer	Fusion EML4-ALK	2.4%

Source: Company reports and Leerink Swann

Marketed ALK Inhibitor – Xalkori (crizotinib)

LEERINK SWANN

Drug	Xalkori (crizotinib)
Structure	Amynopyridine
Mechanism of Action	Dual MET/ALK inhibitor
Indication	Locally advanced or metastatic ALK positive NSCLC with a companion diagnostic from ABT
Companion Diagnostic	Vysis ALK Break Apart FISH Probe Kit from Abbott - to detect chromosomal rearrangement of ALK
Note	EML4-ALK fusion occurs in 3-5% NSCLC pts, i.e. ~10k pts
Approval base on	2 single-arm studies
	1) PROFILE (136 pts) - a Phase 2 study
	2) Study 1001 (119 pts) - a part 2 expansion cohort of a Phase 1 study
Primary Endpoint	ORR based on investigators' assessment
Data	1) PROFILE - 50% with 41.9 wk median duration
	2) Study 1001 - 61% with 48.1 wk median duration
Dosing	Oral 250mg twice daily
Pricing	$115K
Future Development	Confirmatory, randomized, open-label Phase 3 trials
	1) PROFILE 1007 - compare with SOC (P or D) in previously treated ALK positive NSCLC pts
	2) PROFILE 1014 - compare with SOC (P/Cis or Carb) in previously untreated ALK positive NSCLC

Source: Company reports; ClinicalTrial.gov; PD – pemetrexel, docetaxel; Cis – cisplatin; Carb - carboplatin

ALK – Is there a role for more potent ALK inhibitors in crizotinib-resistant patients?

LEERINK SWANN

- Underlying mechanisms* for crizotinib resistance – YES
  - ALK – dependent: secondary mutations in ALK genes → suitable for more potent ALK
  - ALK – independent: activation in alternative signaling pathways (EGFR, c-Met, KIT, K-Ras, or HSP90) → requires a combination therapy
- Pre-clinical and clinical evidence
  - Evidence 1** – ORR of 81% in 26 ALK-positive NSCLC patients who received LDK378 and prior crizotinib treatment
  - Evidence 2*** – 22-36% of 18 crizotinib-resistant NSCLC patients (EML4-ALK positive) developed multiple mutations in ALK gene. However, the rest of the mutations were associated with other signaling pathways. A combination with EGFR or KIT inhibitor could overcome crizotinib resistance.
  - Evidence 3**** – In an EML4-ALK positive NSCLC cell model, a gatekeeper mutation (L1196M) was developed after high-dose crizotinib. Structurally different ALK inhibitors (NVP-TAE684 and AP26133) were highly active against such crizotinib-resistant cells.

Source: *Front Oncol (2012) 2:17; **2012 ASCO #3007; ***Sci Trans Med (2012) 4:120; ****PNAS (2011) 108:7535

ALK – Competitive Landscape

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Drug	Company	Structure	Development Stage	Indication	Data
TSR-011	Tesaro		Preclinical	NSCLC	~200 fold potency in gatekeeper mutation NSCLC patients
Xalkori (crizotinib)	Pfizer	Amynopyridine	Marketed	Locally advanced or metastatic ALK positive NSCLC with a companion diagnostic from ABT	1st endpoint ORR - PROFILE (136 pts) - 50% with 41.9 wk median duration; Study 1001 (119 pts) - 61% with 48.1 wk median duration
AF802	Chugai Pharmaceutical		Phase 1/2		
AP-26113	Ariad	Structure undisclosed	Phase 1	Advanced malignancy resistant to current treatment	
ASP-3026	Astellas		Phase 1	Advanced malignancy (solid tumors and B-cell lymphoma)	
LDK378	Novartis		Phase 1	ALK positive NSCLC pts with prior crizotinib treatment	MTD 750mg, ORR 81% among 26 pts receive 400mg LDK378
GSK2141795	GSK		Phase 1	Solid tumors or lymphomas	
CEP-28122		Diaminopyrimidine	Preclinical, IND expected		
X-276	Xcovery	Structure undisclosed	Preclinical		
F91873 and F91874		Pyridoisoquinoline	Preclinical		
PHA-E429		Pyrrolopyrazole	Preclinical		

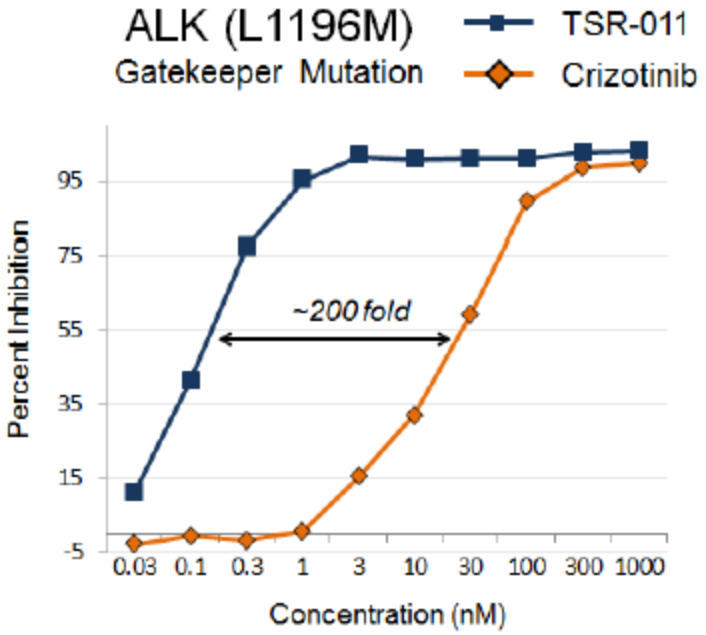
Source: Company reports, ClinicalTrial.gov, Leerink Swann

Is there a hope for TSR-011?

LEERINK SWANN

- Pros – promising preclinical data
  - Higher potency vs. crizotinib – lower IC50
  - Differentiated activation against clinically resistant gatekeeper mutation
- Cons – complexity of the underlying mechanism for drug resistance
  - Difficult to identify suitable targets - complexity of the secondary ALK mutations
  - May have to be in a combination therapy in order to see clinical benefit

ALK Type	Cell Type	Assay	TSR-011 IC50 (nM)	Crizotinib IC50 (nM)
NPM-ALK	Karpas299 (ALCL)	pY-ALK	2	69
		Proliferation	1	16
EML4-ALK	H3122 (NSCLC)	pY-ALK	1	108
		Proliferation	1	25
ALK negative	HT	Proliferation	>1,000	>1,000



*Source: *Front Oncol (2012) 2:17; **2012 ASCO #3007; ***Sci Trans Med (2012) 4:120; ****PNAS (2011) 108:7535*

TSR-011 Clinical Development

- Target tumors with mutated ALK proteins and expression patterns
- IND submission in 2H12
- Phase 1 objectives:
  - MTD
  - Optimal dosing schedule
  - Target patient population
    - NSCLC with prior treatment with ALK inhibitors
    - NSCLC patients progressed while being treated with ALK inhibitors
    - Patients with other cancers who have ALK amplification, activating mutations, or other fusions

Source: Company reports

LEERINK SWANN

PATENTS AND LICENSE TERMS

Rolapitant IP

- Oral rolapitant has a composition of matter patent that expires in 2023
  - The company believes that based on regulatory and legal feedback that it will be eligible for a five year Hatch-Waxman patent term extension on this patent
- IV rolapitant also has formulation patents which have yet to issue
  - If these patents issue, they would expire in 2030

Source: Company reports

Rolapitant license

- Exclusive worldwide license obtained from OPKO Health, Inc. in December 2010
  - OPKO had acquired certain NK-1 receptor related assets in 2010, including rolapitant from Schering-Plough Corporation (SGP), as part of a U.S. FTC requirement to divest certain assets in connection with the SGP combination with Merck.
  - Paid $6M upfront and issued 1.5M shares of Series O preferred stock.
  - Up to $30M in payments for regulatory and initial commercial sales milestones
  - Up to an aggregate of $85M if specified levels of annual net sales are achieved
  - Will pay OPKO tiered royalties on the amount of annual net sales in the U.S. and EU at percentage rates from the low teens to low twenties, which Tesaro believes will result in an effective royalty rate in the low teens

Source: Company reports

Rolapitant license (continued)

LEERINK SWANN

- Will pay royalties on annual net sales outside of the U.S. and Europe slightly above the single digit percent range
- Will pay royalties until the later of the date that all patent rights licensed from OPKO that cover rolapitant expire and twelve years from the first commercial sale of the product, in each case, on a country-by-country and product-by-product basis.
- In Japan if they out-license to a third party they will share equally with OPKO all amounts received from the license.

Source: Company reports

Niraparib – Licensing deal with Merck

LEERINK SWANN

- $7MM upfront payment to Merck
- Up to $57MM in milestones for the 1st indication
- Up to $29.5MM in milestones for each successive indication
- Up to $87.5MM in one-time sales milestones
- Tiered royalties to Merck in low teens
- Effective until the later of
  - Expiration of the last patent licensed
  - The 10th year after the first commercial sale
- Deal in June 2012

Source: Company reports

Niraparib – Three patent families

LEERINK SWANN

- U.S. Patent 8,071,623
  - Claims both a genus and a specific compound of niraparib
  - Actual expiration date – April 2, 2027
  - Patent term adjustment 804 days – March 22, 2030
- Pending U.S. Application No. 13/091,427
  - Claims a broad genus of compounds that encompasses niraparib
  - Pending in six jurisdictions, one patent issued in Japan
  - Expire on April 2, 2027
- Pending application
  - Claims particular salts of niraparib
  - Pending in 13 jurisdictions and one patent issued in South Africa
  - Expire on January 8, 2029

Source: Company reports

TSR-011 – Licensing Deal with Amgen

LEERINK SWANN

- Exclusive W/W rights
- $0.5MM upfront to Amgen
- Up to $138MM in milestones to Amgen
- Tiered royalties to Amgen (mid-single digits to slightly above single digits)
- Effective until the later of
  - Last patent licensed from Amgen
  - Loss of regulatory exclusivity
  - 10th anniversary of the first commercial sale
- Deal in March 2011

Source: Company Reports

TSR-011 – Patent pending

- Three patent families
- On both composition of matter and methods of treating certain cancer sub-populations whose tumors express mutant ALK protein
- Four U.S. patent applications (two pending, two expired)
- Two Patent Cooperation Treaty applications
- If issued, would expire in 2031 and 2032

Source: Company reports

LEERINK SWANN

FINANCIALS

Income statement

	2011A	2012A	2012E	2012E	2012E	2012E	2013E	2014E	2015E	2016E
	-	1Q	2Q	3Q	4Q					
Revenue:	-									
Rolapitant sales	-							$1.1	$37.4	$147.7
	-									
Expenses:										
R&D	11.8	8.2	8.0	8.0	8.5	32.7	38.8	32.0	32.0	28.0
G&A	3.2	1.2	1.5	2.0	2.0	6.7	10.0	10.0	10.0	10.0
S&M								50.0	56.3	87.5
Acquired IPRD	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total expenses	15.4	9.3	9.5	10.0	10.5	39.3	48.8	92.0	98.3	125.5
Operating income	(15.4)	(9.3)	(9.5)	(10.0)	(10.5)	(39.3)	(48.8)	(90.9)	(60.9)	22.2
Interest income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other loss	(1.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBIT	(16.4)	(9.3)	(9.5)	(10.0)	(10.5)	(39.3)	(48.8)	(90.8)	(60.9)	22.2
Tax rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Taxes	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Net income	(16.4)	(9.3)	(9.5)	(10.0)	(10.5)	(39.3)	(48.8)	(90.8)	(60.9)	22.2
EPS	($1.72)	($0.70)	($0.40)	($0.36)	($0.38)	($1.71)	($1.74)	($2.97)	($1.83)	$0.65
Shares	9.5	13.3	23.7	27.6	27.7	23.1	28.1	30.6	33.3	33.9

Source: Company reports and Leerink Swann estimates

NK-1 market model

- With nausea benefit

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Nausea benefit										
# of CINV trx (MM)	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
% eligible	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
# eligible	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000
% NK-1	12.3%	13.8%	17.6%	21.5%	25.2%	28.9%	32.9%	36.9%	40.7%	44.0%
# NK-1	613,587	689,571	878,698	1,074,784	1,260,000	1,445,000	1,645,000	1,845,000	2,032,500	2,200,000
market growth		12.4%	27.4%	22.3%	17.2%	14.7%	13.8%	12.2%	10.2%	8.2%
% Emend				100%	100%	100%	89%	77%	61%	47%
% Netupitant						3%	7%	7%	9%	11%
% Rolapitant				0%	0%	0%	5%	16%	30%	42%
# Rolapitant courses						3,800	79,075	297,700	611,100	914,500
Rolapitant cost						$300	$315	$331	$347	$365
price increases										
US rolapitant Sales ($MM)						**$1**	**$25**	**$98**	**$212**	**$333**
OUS rolapitant Sales ($MM)							**$12**	**$49**	**$106**	**$167**
WW rolapitant Sales ($MM)						**$1**	**$37**	**$148**	**$318**	**$500**

Source: Leerink Swann estimates

NK-1 market model

- No nausea benefit

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
No nausea benefit										
# of CINV trx (MM)	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
% eligible	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
# eligible	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000
% NK-1	12.3%	13.8%	17.6%	21.5%	25.2%	28.9%	32.9%	36.9%	40.7%	44.0%
# NK-1	613,587	689,571	878,698	1,074,784	1,260,000	1,445,000	1,645,000	1,845,000	2,032,500	2,200,000
market growth		12.4%	27.4%	22.3%	17.2%	14.7%	13.8%	12.2%	10.2%	8.2%
% Emend				100%	100%	100%	97%	84%	73%	64%
% Netupitant						0%	0%	7%	9%	11%
% Rolapitant				0%	0%	0%	3%	10%	18%	25%
# Rolapitant						1,900	49,975	176,525	356,813	542,575
Rolapitant cost				$350.00		$300	$315	$331	$347	$365
price increases										
US rolapitant Sales ($MM)						**$1**	**$16**	**$58**	**$124**	**$198**
OUS rolapitant Sales ($MM)							**$8**	**$29**	**$62**	**$99**
WW rolapitant Sales ($MM)						**$1**	**$24**	**$88**	**$186**	**$297**

Source: Leerink Swann estimates

DCF model – with nausea benefit

LEERINK SWANN

Nausea benefit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Rolapitant Sales	$0.00	$0.00	$1.14	$37.36	$147.70	$318.3	$500.2	$520.2	$541.0	$562.7	$585.2	$608.6	$632.9	$658.2	$684.6
				3177%	*295%*	*116%*	*57%*	*4%*	*4%*	*4%*	*4%*	*4%*	*4%*	*4%*	*4%*
GM	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%
GP	$0.0	$0.0	$1.0	$34.4	$135.9	$292.9	$460.2	$478.6	$497.7	$517.7	$538.4	$559.9	$582.3	$605.6	$629.8
Royalty rate	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%
Royalty	$0.00	$0.00	$0.15	$4.86	$19.20	$41.38	$65.03	$67.63	$70.33	$73.15	$76.07	$79.12	$82.28	$85.57	$88.99
Sales Force															
Sales people	0	0	100	125	150	150	150	150	150	150	150	150	150	150	150
Cost/rep	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000
Sales and marketing ($MM)	$0.0	$0.0	$50.0	$56.3	$87.5	$137.5	$162.5	$162.5	$162.5	$162.5	$162.5	$162.5	$162.5	$162.5	$162.5
G&A	$10.0	$10.0	$10.0	$10.0	$10.0	$10.0	$10.0	$10.0	$10.0	$10.0	$10.0	$10.0	$10.0	$10.0	$10.0
Rolapitant R&D	$23.9	$21.0	$12.0	$12.0	$8.0										
Operating profit	($33.93)	($31.00)	($71.10)	($48.73)	$11.18	$103.99	$222.67	$238.47	$254.91	$272.01	$289.79	$308.28	$327.51	$347.51	$368.31
Operating margin					7.6%	32.7%	44.5%	45.8%	47.1%	48.3%	49.5%	50.7%	51.7%	52.8%	53.8%
NOLS															
Beginning of period	$16.5	$50.4	$81.4	$152.5	$201.3	$190.1	$86.1	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
End of period	$50.4	$81.4	$152.5	$201.3	$190.1	$86.1	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Taxable income	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$136.6	$238.5	$254.9	$272.0	$289.8	$308.3	$327.5	$347.5	$368.3
Tax rate	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
taxes paid	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$47.8	$83.5	$89.2	$95.2	$101.4	$107.9	$114.6	$121.6	$128.9
Net income	($33.93)	($31.00)	($71.10)	($48.73)	$11.18	$103.99	$174.86	$155.01	$165.69	$176.81	$188.36	$200.38	$212.88	$225.88	$239.40
Discount rate	10%														
NPV	$639														
Cash	$167														
Total value	$806														
Shares	28.1														
PT	$28.7														

Source: Leerink Swann estimates

DCF model – no nausea benefit

LEERINK SWANN

No nausea benefit	2014	2014	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Rolapitant Sales	$0.00	$0.00	$0.57	$23.61	$87.58	$185.9	$296.8	$308.6	$321.0	$333.8	$347.2	$361.1	$375.5	$390.5	$406.2
				4043%	*271%*	*112%*	*60%*	*4%*	*4%*	*4%*	*4%*	*4%*	*4%*	*4%*	*4%*
GM	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%
GP	$0.0	$0.0	$0.5	$21.7	$80.6	$171.0	$273.0	$284.0	$295.3	$307.1	$319.4	$332.2	$345.5	$359.3	$373.7
Royalty rate	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%
Royalty	$0.00	$0.00	$0.07	$3.07	$11.39	$24.16	$38.58	$40.12	$41.73	$43.40	$45.13	$46.94	$48.82	$50.77	$52.80
Sales and marketing ($MM)	$0.0	$0.0	$50.0	$56.3	$87.5	$137.5	$162.5	$162.5	$162.5	$162.5	$162.5	$162.5	$162.5	$162.5	$162.5
G&A	$10.0	$10.0	$10.0	$10.0	$10.0	$10.0	$10.0	$10.0	$10.0	$10.0	$10.0	$10.0	$10.0	$10.0	$10.0
R&D	$23.9	$21.0	$12.0	$12.0	$8.0										
Operating profit	($33.93)	($31.00)	($71.55)	($59.60)	($36.31)	($0.66)	$61.95	$71.33	$81.08	$91.23	$101.78	$112.75	$124.16	$136.02	$148.37
Operating margin					(41.5%)	(0.4%)	20.9%	23.1%	25.3%	27.3%	29.3%	31.2%	33.1%	34.8%	36.5%
NOLS															
Beginning of period	$16.5	$50.4	$81.4	$153.0	$212.6	$248.9	$249.5	$187.6	$116.3	$35.2	$0.0	$0.0	$0.0	$0.0	$0.0
End of period	$50.4	$81.4	$153.0	$212.6	$248.9	$249.5	$187.6	$116.3	$35.2	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Taxable income	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$56.1	$101.8	$112.7	$124.2	$136.0	$148.4
Tax rate	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
taxes paid	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$19.6	$35.6	$39.5	$43.5	$47.6	$51.9
Net income	($33.93)	($31.00)	($71.55)	($59.60)	($36.31)	($0.66)	$61.95	$71.33	$81.08	$71.61	$66.16	$73.29	$80.70	$88.42	$96.44
Discount rate	10%														
NPV	$95														
Cash	$167														
Total value	$262														
Shares	28.1														
PT	$9.3														

Source: Leerink Swann estimates

MANAGEMENT

Management

Name/Title	Previous Experience
Lonnie Moulder, BPharm, MBA Co-founder and CEO	Abraxis BioScience - President and CEO Eisai Corp of North America - Executive VP MGI Pharma - President and CEO Eligix - VP, Business Development and Commercial Affairs Hoechst Marion Roussel - Group Director, Oncology and Anti-Infectives
Mary Lynne Hedley, PhD Co-founder, President and CSO	Abraxis BioScience - CSO and Executive VP of Operation Eisai Corp of North America - Executive VP MGI Pharma - Executive VP and CSO ZYCOS - CEO and Co-founder
Rick Rodgers, MBA Co-founder, EVP and CFO	Abraxis BioScience - CFO and Senior VP MGI Pharma - Senior VP, Controller and CAO Medsource Technologies - Corporate Controller ADC - Assistant Corporate Controller

Source: Company reports

	2011A	2012A 1Q	2012E 2Q	2012E 3Q	2012E 4Q	2012E	2013E	2014E	2015E	2016E
Revenue:										
Rolapitant sales								$1.1	$37.4	$147.7
Expenses:										
R&D	11.8	8.2	8.0	8.0	8.5	32.7	38.8	32.0	32.0	28.0
G&A	3.2	1.2	1.5	2.0	2.0	6.7	10.0	10.0	10.0	10.0
S&M								50.0	56.3	87.5
Acquired IPRD	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total expenses	15.4	9.3	9.5	10.0	10.5	39.3	48.8	92.0	98.3	125.5
Operating income	(15.4)	(9.3)	(9.5)	(10.0)	(10.5)	(39.3)	(48.8)	(90.9)	(60.9)	22.2
Interest income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other loss	(1.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBIT	(16.4)	(9.3)	(9.5)	(10.0)	(10.5)	(39.3)	(48.8)	(90.8)	(60.9)	22.2
Tax rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Taxes	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Net income	(16.4)	(9.3)	(9.5)	(10.0)	(10.5)	(39.3)	(48.8)	(90.8)	(60.9)	22.2
EPS	($1.72)	($0.70)	($0.40)	($0.36)	($0.38)	($1.71)	($1.74)	($2.97)	($1.83)	$0.65
Shares	9.5	13.3	23.7	27.6	27.7	23.1	28.1	30.6	33.3	33.9

Source: Company reports and Leerink Swann estimates

Disclosures Appendix

Analyst Certification

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

Distribution of Ratings/Investment Banking Services (IB) as of 06/30/12				
			IB Serv./Past 12 Mos.	
Rating	Count	Percent	Count	Percent
BUY [OP]	92	57.1	23	25.0
HOLD [MP]	69	42.9	4	5.8
SELL [UP]	0	0.0	0	0.0

Explanation of Ratings

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

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

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

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

From October 1, 2006 through January 8, 2009, the relevant benchmarks for the above definitions were the Russell 2000® Health Care Index for issuers with a market capitalization of less than $2 billion and the S&P 500® Health Care Index for issuers with a market capitalization over $2 billion.

Definitions of Leerink Swann Ratings prior to October 1, 2006 are shown below:

Outperform (Buy): We expect this stock to outperform its benchmark by more than 10 percentage points over the next 12 months.

Market Perform (Hold/Neutral): We expect this stock to perform within a range of plus or minus 10 percentage points of its benchmark over the next 12 months.

Underperform (Sell): We expect this stock to underperform its benchmark by more than 10 percentage points over the next 12 months.

For the purposes of these definitions, the relevant benchmark were the Russell 2000® Health Care Index for issuers with a market capitalization of less than $2 billion and the S&P 500® Index for issuers with a market capitalization over $2 billion.

Important Disclosures

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