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Stock Rating
Overweight

Industry View
In-Line

Initiation

Relypsa, Inc.

Large Opportunity in K+ Control; Initiate OW, PT $57

Relypsa's drug patiromer has $1bn WW sales potential in the prevention/treatment of hyperK+.

Relypsa is developing patiromer, a K+ ion binding polymer, for the prevention/treatment of hyperK+ (a known cause of sudden cardiac death). We believe patiromer will be used to help CKD and HF pts optimize their baseline RAASi therapy – a key benefit given that RAASi drugs can improve outcomes in these pts. **We currently model 2022 WW sales of $1.1bn.**

Efficacy: In a single, two-part Ph 3 trial to which the FDA granted an SPA, patiromer showed strong activity. In Part A, patiromer lowered the avg K+ of pts with mild or mod/severe hyperK+ into the nl range. In part B, the majority of pts who were randomized to stop patiromer had recurrent hyperK+ vs. those staying on drug who did not. In Ph 2b, we saw similarly stable control of K+ levels maintained out to 1 yr with seemingly few excursions.

Safety: Patiromer has been well tolerated and safe. The main safety question has been the low incidence of hypoK+ and hypoMg. This is "on target", given the ion exchange mechanism, has been modest in terms of the decline, and has not caused any clinical problems (i.e. it is a lab abnormality). The main tolerability question is the mild GI upset, but has led to rare trial dropouts. We do not see safety as a limit to chronic dosing.

Commercial: CKD and HF pts can have problems regulating their K+ levels, with a tendency to "run high". RAASi therapy, which improves outcomes in both pt groups, can exacerbate this problem. We est. that ~1+mn pts in the US have one or both of these conditions and do not reach RAASi therapy goals because of hyperK+. Patiromer should help these pts a) reach RAASi therapy goal (and thus improve outcomes), and b) lower the risk of a disease driven hyperkalemic episode. We assume a ramp to <20% peak WW mkt penetration, leaving room for a) competition (discussed inside), b) the often slow adoption of new therapeutic approaches in medicine, and c) less regulatory clarity in the EU (we model a 2016 launch via a partner). While slow adoption is a key risk, we believe the science and medicine clearly support use here. This mkt penetration yields ~$1bn in 2022 sales with clear room for sig. upside if mkt adoption is more aggressive. The time of onset study (data in 2H14) is the next catalyst and could be a source of incremental upside to our model.

Key Ratios and Statistics

Reuters: RLYP.O Bloomberg: RLYP US
Biotechnology / United States of America

Price target	**$57.00**
Shr price, close (Dec 6, 2013)	$20.23
Mkt cap, curr (mm)	$602
52-Week Range	$21.34-11.55

Fiscal Year ending	**12/12**	**12/13e**	**12/14e**	**12/15e**
ModelWare EPS ($)#	**(8.36)**	**(3.71)**	**0.24**	**(2.31)**
P/E	**NM**	**NM**	**83.9**	**NM**
Consensus EPS ($)§	**-**	**-**	**-**	**-**
Div yld (%)	-	-	-	-

Unless otherwise noted, all metrics are based on Morgan Stanley ModelWare framework (please see explanation later in this note).
= Our pension accounting has changed in ModelWare, which will affect ModelWare EPS figures for some stocks under coverage. Visit www.ms.com/mw.pdf for details
§ = Consensus data is provided by Thomson Reuters Estimates.
e = Morgan Stanley Research estimates

K+	Potassium. A vital part of the human body's electrolyte pool.
HyperK+	Hyperkalemia. High serum potassium levels (>5 mEq/L).
HypoK+	Hypokalemia. Low serum potassium levels (<3.5 mEq/L).
HypoMg	Hypomagnesemia. Low serum magnesium levels (<1.8mg/dL).
CKD	Chronic Kidney Disease. A disease of gradual loss of kidney function over time.
HF	Heart Failure. A disease where the heart is unable to pump enough blood to the rest of the body.
RAASi	Renin-angiotensin-aldosterone system inhibitors. Drugs such as ACE inhibitors (ACE = angiotensin-converting enzyme), ARBs (angiotensin receptor blocker), and aldosterone antagonists (sprinolactone) that inhibit the RAAS hormone system.
SPA	Special Protocol Assessment. FDA sign-off that Ph 3 trial is acceptable for FDA approval.

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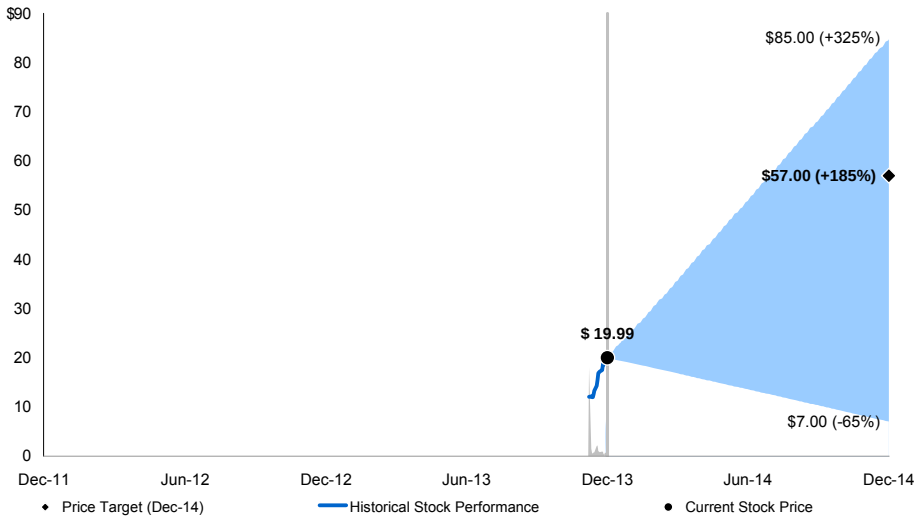
Risk-Reward Snapshot: Relypsa (RLYP, OW, PT $57)

Patiromer Drives Risk-Reward



Source: Morgan Stanley Research estimates, Thomson Reuters

Price Target $57	We derive our PT from a discounted cash flow analysis that uses a WACC of 10% and a 0% terminal growth rate. The main revenue driver in our model is the launch of patiromer in the US in 2015 and in the EU in 2016.	
Bull Case $85	**DCF** **US 2022 Sales:** **CKD:** ~$1.1bn **HF:** ~$150mn **WW 2022 Sales:** ~$1.8bn (~$1.4bn to Relypsa)	**Patiromer success in addressable CKD and heart failure patients with higher share of the addressable market. We assume (2022):** 1) ~27% share of addressable US chronic kidney disease market, 2) ~14% share of addressable US heart failure market, 3) The percentage of patients on RAASi grows by 2%/year, and 4) Relypsa partners patiromer in the EU with a low to mid-20% royalty.
Base Case $57	**DCF** **US 2022 Sales:** **CKD:** ~$700mn **HF:** ~$90mn **WW 2022 Sales:** ~$1.1bn (~$870mn to Relypsa)	**Patiromer success in addressable CKD and heart failure patients with solid share of the addressable market. We assume (2022):** 1) ~18% share of addressable US chronic kidney disease market, 2) ~9% share of addressable US heart failure market, 3) The percentage of patients on RAASi grows by 1%/year, and 4) Relypsa partners patiromer in the EU with a low to mid-20% royalty.
Bear Case $7	**DCF** **US 2022 Sales:** **CKD:** ~$210mn **HF:** ~$30mn **WW 2022 Sales:** ~$240mn (~$240mn to Relypsa))	**Patiromer fails to gain sig. share of the addressable CKD and heart failure market. We assume (2022):** 1) ~6% share of addressable US chronic kidney disease market, 2) ~3% share of addressable US heart failure market, 3) The percentage of patients on RAASi grows by 0.5%/year, 4) No EU sales or partnership, and 5) Relypsa is not able to sig. lower patiromer's COGS. **Ultra-bear case:** If the FDA does not approve patiromer, we see the stock trading down to the low single digits.

Investment Thesis

- We are OW Relypsa as we believe patiromer has $850+mn revenue potential in hyperK+.
- Patiromer has shown solid data reducing serum K+ levels in hyperkalemic patients out to 52 weeks.
- Patiromer's safety profile is clean, with manageable mild-to-moderate GI tolerability and low levels of hypokalemia and hypomagnesemia, which have not led to clinically meaningful issues.
- We expect patiromer to be approved in the US following a 3Q14 NDA filing; the EU path forward is less clear to us.
- Many HF and CKD patients must reduce or discontinue RAASi therapy, drugs which have been shown to improve long-term outcomes, given high K+ levels. We see a compelling opportunity for patiromer as the drug reduces K+ levels and may allow HF and CKD patients to remain on their RAASi therapy.
- We expect that limited long-term data and tolerability issues will moderate the impact of competitors such as ZS-9 and kayexalate.
- See **Ex. 4** for upcoming catalysts.

Risks to our price target

1) Patiromer may fail to receive FDA approval, 2) Relypsa may struggle to develop patiromer ex-US and/or find an ex-US partner, 3) Relypsa may have difficulty optimizing COGS, 4) Patiromer sales may disappoint, 5) the future lock-up expiry may weigh on the stock.

Investment Case

Summary & Conclusions

We are initiating coverage of RLYP with an Overweight rating and a $57 price target. We believe Relypsa's lead asset, patiromer (an ion binding polymer), has the potential to allow chronic kidney disease (CKD) and heart failure (HF) pts to both a) lower their risk of potentially fatal idiosyncratic hyperkalemia (hyperK+) events and b) maximize their renin-angiotensin-aldosterone system inhibitors (RAASi) – drugs which are known to both cause and/or exacerbate hyperK+.

Given that a) hyperK+ is a known cause of sudden cardiac death, b) maximized RAASi therapies have been shown to improve outcomes in both CKD and HF, and c) patiromer helps reduce hyperK+ risk, we see the link between patiromer and better outcomes as both a reasonable and important commercial driver of success.

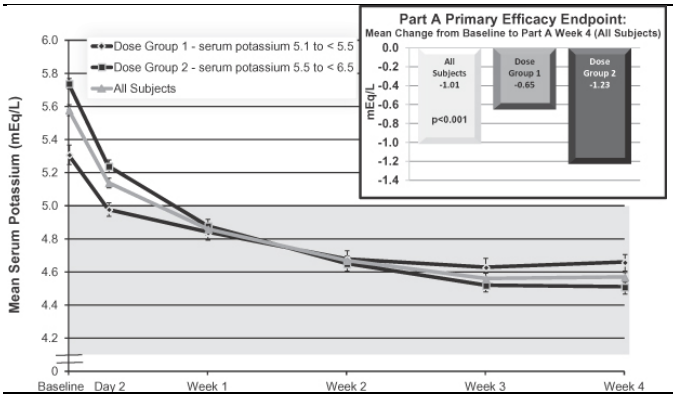
We are bullish on patiromer's opportunity given:
1) strong efficacy data,
2) limited safety/tolerability issues,
3) lower-risk US approval, and
4) a compelling, large commercial opportunity.

1) Strong Efficacy in CKD and CHF patients

Patiromer has shown robust K+ lowering in Ph 2 and Ph 3 in both CKD and HF patients. **In Ph 3 Part A** (see Ex. 7 for Ph 3 design), hyperK+ patients quickly became normokalemic on avg. (Ex. 1) regardless of the degree of baseline hyperK+.

Exhibit 1

Ph 3 Part A Showed Significant K+ Reductions

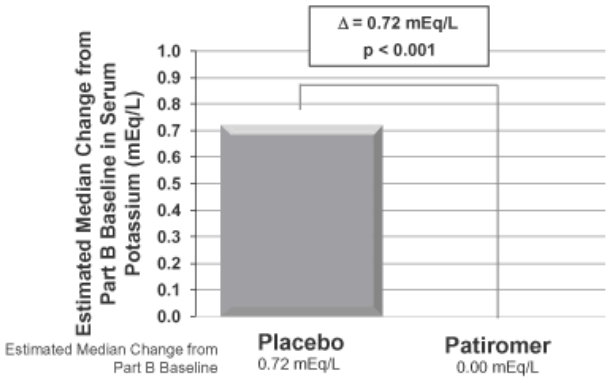


Source: Company Data, Morgan Stanley Research

In Phase 3 Part B, a randomized withdrawal, pts remaining on patiromer on avg stayed normokalemic vs. placebo pts who tended to rebound to the hyperK+ range (Ex. 2). In addition, hyperK+ excursions (Ex. 10) were rare in patiromer pts vs. placebo, with none of the patiromer excursions leading to clinical sequelae.

Exhibit 2

Ph 3 Part B – Patiromer Keeps K+ Under Control



Source: Company Data, Morgan Stanley Research

In Ph 2b (Ex.11), we saw that the K+ lowering benefit with patiromer was sustained in a group of ~200 CKD pts who were hyperK+ at baseline and treated for 52 wks. This proof of chronic K+ stability should help comfort physicians who may have some trepidation about the predictability and sustainability of drug benefit, given that the risk of recurrent, unexpected hyperK+ can be sudden death. In addition, from a competitive standpoint, we see long-term data as likely unique to patiromer (see below for full competitor discussion), and a key commercial benefit for the drug.

2) Safety Issues Manageable with Limited Clinical Impact

As noted above, patiromer works as a K+ ion binding polymer. It is almost completely non-absorbed and serves as a sink for K+ in the colon, using calcium (another positively charged ion) as its counter-ion. **Because the drug is basically not absorbed and only serves as an ion sink, we see the potential range of safety issues here as much more limited vs. other drugs.**

Ph 2 and 3 trials have shown that a small percentage of patients can acquire either hypokalemia and/or hypomagnesemia. In general, we have seen Mg levels drop by ~0.2 mg/dL on average, which is still within the normal range. Importantly, there have been essentially no patients that have

exhibited major ion concentration excursions or symptoms of either ion deficiency. The clinical risks of mildly lower K+/Mg levels are low. **We do not find these lab abnormalities as a major safety or commercial issue**, as a) physicians can titrate patiromer as needed, b) K+ and Mg levels are easily tracked, and c) K+ and Mg are easily and cheaply repleted if necessary.

From a tolerability standpoint, we are most focused on GI tolerability given a history of poor tolerability for other ion binding polymers. Fortunately, patiromer has caused only mild, sporadic GI tolerability issues. Overall, we view this as manageable, with rates that are only modestly higher vs. placebo.

3) US Regulatory Has Limited Risk; EU Less Clear

US: Before filing and at the request of the FDA, the company is running a small Ph 1 "time of onset" study to understand how quickly the drug acts. While we do not model acute use of the drug, we do understand the importance of understanding how quickly the drug acts in the event that a physician wants to use it acutely, as acute hyperK+ is a medical emergency. Kayexalate, or sodium polystyrene sulfonate (SPS), is the currently used acute ion binder (records ~30k TRx/month in IMS) and is thought to work in a matter of hours, although this old drug was grandfathered in by the FDA and so has not been as rigorously studied as patiromer is.

Relypsa plans to file for US approval in 3Q14, with an expected mid/2H15 approval with an indication for the treatment of hyperK+. We see limited regulatory risk here as Relypsa has an SPA for the Ph 3 program, the trial met the endpoints, there were no new or concerning safety issues, and there is a clear unmet need.

EU: MAA filing timelines in the EU are less clear as the company has not had formal discussions around the requirements for approval. We currently model an EU launch with a partner in 2016. The biggest question for us around EU filing is whether the EMEA will validate the link between the ability to control K+ in CKD/HF pts and the ability to stay safely on important RAASi therapy without the concomitant risk of sudden death. We are confident in ultimate EU approval given that a) the care of CKD and HF with RAASi is globally acknowledged, b) the link between hyperK+ and sudden death is documented, c) the drug is safe and efficacious, d) there were EU sites in the trial, and e) the EMEA is willing to approve drugs with one trial.

4) Compelling Commercial Opportunity

Market Description: K+ is a key electrolyte that helps control muscle and nerve activity, fluid balance, and the heart conduction system. Patients with CKD and HF are predisposed to have higher K+ levels as the kidney is the main regulator of K+.

Exhibit 3

Treatment Algorithm in CKD and Heart Failure

	CKD Treatment Algorithm	HF Treatment Algorithm	K+ Impact
Front Line – BP	ACE inhibitor or ARB	ACE inhibitor (or ARB) and Beta-Blocker	↑
Front Line – Diuretic	Thiazide or Loop Diuretic	Loop Diuretic	↓
Second Line – BP	Beta blocker or Ca Channel Blocker		n/a
Second Line – Diuretic	Aldosterone Antagonist (Spironolactone)	Aldosterone Antagonist (Spironolactone)	↑

Source: Company Data, Morgan Stanley Research

Standard of care in patients with CKD and HF (Ex. 3) includes RAASi such as ACEs, ARBs, and aldosterone antagonists (spironolactone). While these drugs have been shown to improve patient outcomes, they also act in the RAASi pathway and can increase K+ levels (Ex. 15). Many of these patients are therefore predisposed to higher levels of K+ due to 1) their underlying disease and 2) drugs used to treat their underlying disease.

HyperK+ is a medical emergency. The high end of normal for K+ is ~5 mEq/ml, with severe levels being ~6+ mEq/ml. Acutely, hyperK+ is treated with insulin, bicarbonate, and SPS (e.g. Kayexelate). For pts with chronic disease or drug related hyperK+, the treatment options include K+ controlled diets, stopping key drugs (e.g. RAASi drugs), and ultimately dialysis.

We expect patiromer to be used in hyperkalemic CKD and HF patients (patients with K+ levels >5mEq/L) who are either unable to reach RAASi therapy goals or who have periods of uncontrolled, disease related K+ but are not ready for dialysis. Our diligence suggests that ~10% of CKD and HF patients are not at their optimal doses of RAASi specifically due to high serum K+ levels. **We view this K+ driven RAASi failure pt group as the addressable mkt, with ~1mn pts in the US fitting this description. Our <20% penetration into this mkt yields ~$1bn in peak WW sales.** We do not currently model acute use, as it will depend on both the price and the Ph 1 time of onset data.

Competition: The main competitor in development is ZS-9, which is a zirconium based crystal powder/tablet being developed by ZS Pharma. While the drug worked well reducing K+ acutely (at 48 hours) in Ph 3, we see limited risk for competition for now as 1) it is unclear if short term dosing is sufficient for FDA approval for chronic use (Ph 3 is testing out to 12 days and a 4 week trial is set to begin early 2014), 2) the

potential need for longer dosing trials could create a significant time lag between patiromer and ZS-9, and 3) physicians may be hesitant adopting a metal-based binder given safety questions about long-term implications. Additionally, we do not aggressively penetrate the market, leaving room for some competitor share.

Kayexalate is currently on the market for hyperK+, but gets little use in the chronic setting due to safety concerns (severe GI toxicity, sodium reabsorption, and edema), poor drug properties (e.g. grittiness, lumpiness), and questions about efficacy (drug was grandfathered in prior to modern-day FDA drug approval process).

COGS: Finally, we note one other commercial question which is COGS for patiromer. We expect COGS to be high (>50%) at launch due to patiromer's gram-scale dosing and polymer composition. We expect that increased scale, stepwise process improvements, and multiple suppliers should enable Relypsa to achieve better COGS. Renagel (another marketed polymer-based drug) was able to achieve 10-15% COGS at peak. We anticipate COGS moving from 50+% at launch to 20% in 2022.

What's Changed Since IPO

- Relypsa raised a smaller amount of cash in the IPO than we originally assumed ($77.9mn vs. expected $100-125mn).

Exhibit 4

Catalyst Calendar

Drug	Type	Event	Expected Timing
Patiromer	Clinical Data	RLY5016-103 time to onset study	1H14
Patiromer	Regulatory	NDA filing	3Q14

Source: Company Data, Morgan Stanley Research

Valuation

Exhibit 5
DCF Drives Valuation

($ in mn)	2012	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Free Cash Flow	**(38)**	**(91)**	**1**	**(66)**	**(65)**	**(25)**	**42**	**137**	**265**	**271**	**385**	**466**	**515**	**542**	**557**	**564**	**568**	**570**	**57**
YoY growth	*60.9%*	138%	-101.4%	-5360%	-1%	-61%	-267%	229.6%	92.7%	2.4%	42.1%	21.1%	10.5%	5.3%	2.6%	1.3%	0.7%	0.3%	-90.0%
Net Cash Proxy for Dilution	$0.2	-$0.9	-$1.6	-$2.6	-$4.0	-$5.9	-$8.4	-$11.6	-$15.8	-$20.9	-$27.1	-$27.1	-$27.1	-$27.1	-$27.1	-$27.1	-$27.1	-$27.1	-$27.1
Free Cash Flow for DCF	**-$38.0**	**-$91.8**	**-$0.4**	**-$68.2**	**-$68.8**	**-$30.9**	**$33.3**	**$125.7**	**$248.9**	**$250.0**	**$358.0**	**$439.1**	**$488.2**	**$515.3**	**$529.6**	**$537.0**	**$540.7**	**$542.6**	**$29.8**
PV of Free Cash Flow			-0.4	-62.0	-56.8	-23.2	22.8	78.1	140.5	128.3	167.0	186.2	188.2	180.6	168.8	155.5	142.4	129.9	6.5

Source: Company data, Morgan Stanley Research estimates

Exhibit 6
DCF Valuation Suggests Significant Upside

Valuation Date	**2014.00**
Discount Rate	*10%*
Terminal Growth Rate	0%
Terminal Value Year	2030
Sum of Discounted FCF ($mn)	**$1,552.3**
Discounted Terminal Value ($mn)	**$64.9**
Net Cash ($mn)	**$80.7**
Equity Value ($mn)	**$1,698**
Equity Value/Sh	**$57**
Shares Outstanding	29.7

Source: Company Data, Morgan Stanley Research estimates

$57 PT includes patiromer in CKD and HF patients.
We derive our PT from a discounted cash flow (DCF) analysis that uses a WACC of 10% and a terminal growth rate of 0% post 2030. We incorporate the cash cost of stock options

Valuation Methodology: We use a DCF to value Relypsa as well as most other companies under coverage. We believe a DCF best captures the longer term nature of drug development and commercialization. We do not feel that a multiples analysis accomplishes the same goal, as it only evaluates a company during a snapshot in time.
Discount Rate: We typically use a discount rate of 10% for commercial stage companies or ones close to that level. We see this rate as reasonable for Relypsa as patiromer has little FDA approval risk given a clean Ph 3 program and an SPA.

Terminal Growth Rate: Our modeled cash flows extend to 2022. Beyond this, we grow free cash flow from 2023-2029 at 50% of the prior year's growth rate. We decline cash flows by 90% in 2030 due to the 2030 composition of matter patent expiry. Beyond 2030, we use a terminal growth rate of 0%.

Revenue: The revenue driver in our model is patiromer in hyperkalemic HF and CKD patients.

Economics: Relypsa currently has full rights to patiromer, but we model Relypsa partnering patiromer in the EU with a low to mid 20% royalty.

COGS: We model COGS of 70% of US sales at patiromer launch (2015) and improving to 20% by 2022.

Operating Expenses:
R&D: We model R&D decreasing through 2022 as Relypsa better matches costs with revenues.
SG&A: We model SG&A increasing significantly in 2015-16 as Relypsa begins building out a US sales force. Post 2016, SG&A increases modestly.

Financings: We model a ~$140mn raise in 2015 post-approval to support commercial development.

Key Risks To Our Price Target Include: 1) Patiromer may fail to receive FDA approval, 2) Relypsa may struggle to develop patiromer ex-US and/or find an ex-US partner, 3) Relypsa may have difficulty optimizing COGS, 4) Patiromer sales may disappoint.

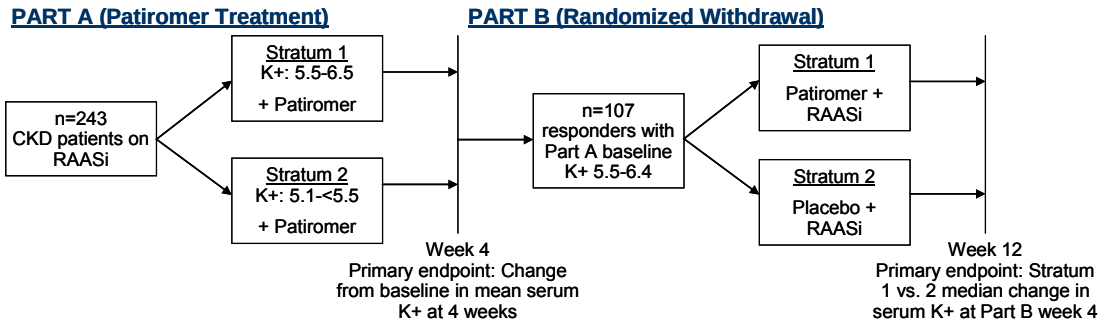
Patiromer – Strong Opportunity in HyperK+

This section addresses in more detail factors that we believe contribute to patiromer's strong opportunity in hyperK+:
1) robust **efficacy data**,
2) a good **safety profile**,
3) a likely clean **regulatory path** forward in the US, and
4**) key market dynamics** which support patiromer use.

1) Strong Efficacy Data

Patiromer has shown solid efficacy data in:
a) Pivotal Ph 3 treatment and randomized withdrawal study in CKD patients with high K+ levels,
b) Long-term, 52 week Ph 2b treatment study (AMETHYST-DN) in CKD patients with elevated K+ levels, and
c) a Ph 2 hyperK+ prevention study in HF pts (PEARL-HF).

Exhibit 7
Pivotal Phase 3 Trial Design – Treatment Phase Followed by Randomized Withdrawal Phase



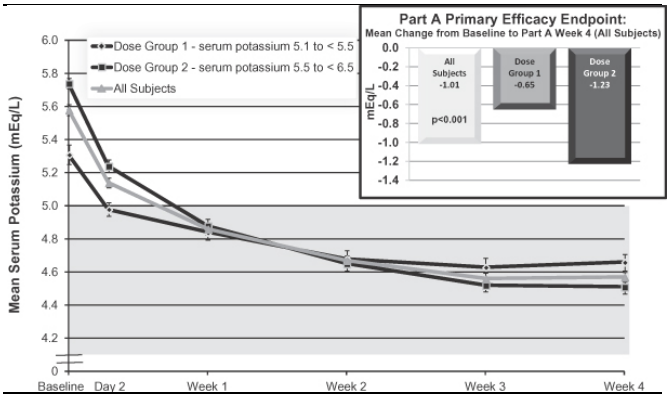
Source: Company Data, Morgan Stanley Research

a) Pivotal Ph 3 Trial: The Ph 3 trial showed robust efficacy in CKD patients on RAASi therapy. There were two phases of the trial – treatment (Part A), where all patients received patiromer, and randomized withdrawal (Part B), where patients were randomized to patiromer or placebo (Ex. 7). The pts that were enrolled in the trial were stratified at baseline based on the degree of hyperK+.

In the treatment phase (Part A), pts on avg quickly entered the normal K+ range (~4.6 mEq/L) (Ex. 8). This benefit was seemingly regardless of the degree of baseline K+ elevation.

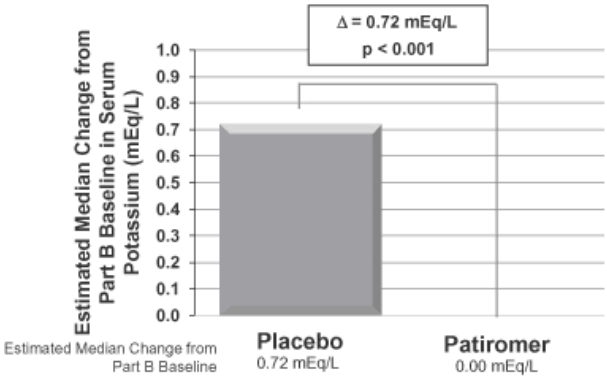
In the randomized withdrawal (Part B), pts that entered the trial in the higher K+ group (e.g. more severe pts) either stayed on patiromer or stopped it and became placebo pts. Patiromer treated patients had no change in the median K+ level, while placebo treated patients had their K+ level increase by 0.73 mEq/L (Ex. 9). Placebo patients in Part B also showed more hyperK+ excursions to both mild (>5.1 mEq/L) and moderate (>5.5 mEq/L) levels than patiromer treated patients (Ex. 10). We view these data as robust and supportive of patiromer use in these patients with hyperK+.

Exhibit 8
4 Week Ph 3 Part A (Treatment Phase) Data Showed Patiromer Lowered K+ Levels to the Normal Range



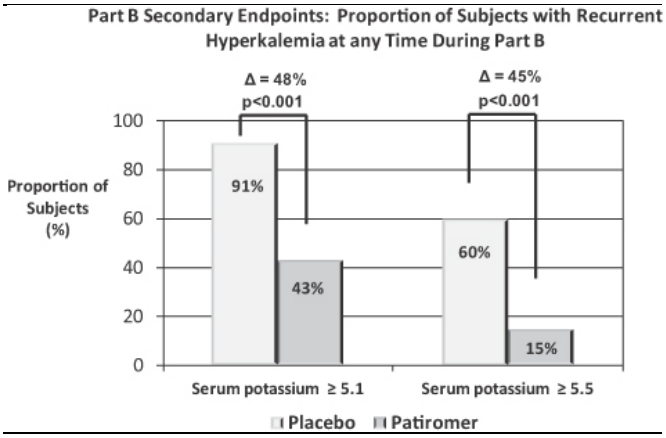
Source: Company Data, Morgan Stanley Research

Exhibit 9
Ph 3 Part B (Randomized Withdrawal Phase) Data Showed K+ Levels Incr. When Pts Stop Patiromer



Source: Company Data, Morgan Stanley Research

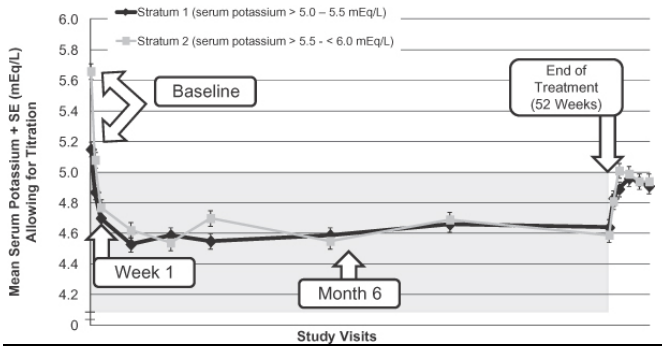
Exhibit 10
Ph 3 Part B (Randomized Withdrawal Phase) Data Showed More Patients with Recurrent HyperK+ in the Placebo Arm vs. Patiromer Arm



Source: Company Data, Morgan Stanley Research

b) AMETHYST-DN 52 Week Ph 2b Trial: Given the Ph 3 trial was relatively short (12 weeks) and we expect chronic drug use commercially, we look to the long-term Ph 2b study, which enrolled CKD pts with diabetes on RAASi therapy, for data supporting chronic benefits with no new safety issues. Recently presented data show sustained reductions in serum K+ out to 52 weeks (Ex. 11).

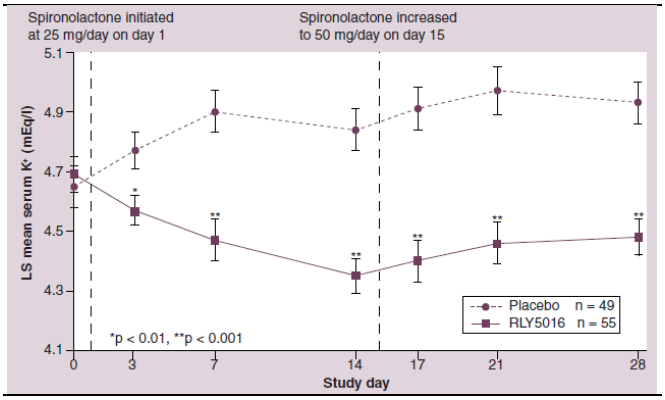
Exhibit 11
AMETHYST-DN Ph 2b Study Showed Good K+ Reductions Sustained Through 52 Weeks



Source: Company Data, Morgan Stanley Research

c) Heart Failure Ph 2 PEARL-HF Trial: Patiromer has shown solid reductions in K+ levels in HF patients as well as CKD patients - 42% of the patients enrolled in the Ph 3 program had NYHA Class I-III (mild to moderate) HF in addition to their CKD. The Ph 2 PEARL-HF study looked at the prevention of hyperK+ in HF patients indicated to initiate spirinolactone on top of existing therapy. Patiromer treated patients on average remained in the normokalemic range with lower K+ levels vs. baseline while placebo patients had increased K+ levels vs. baseline on average after spironolactone initiation/titration (Ex. 12). While we do not expect much preventative use, we do see these data as supportive of that approach.

Exhibit 12
Patiromer Reduced K+ Levels Despite Sprinolactone Initiation in PEARL-HF Ph 2b in HF



Source: Company Data, Morgan Stanley Research

2) Manageable Safety

Patiromer is a generally safe and well-tolerated drug. The main focus for us in Ph 2 and 3 trials are: a) hypokalemia (low serum K+ levels, <3.5 mEq/L), b) hypomagnesemia (low serum magnesium levels, <1.8 mg/dL), and c) GI tolerability. We believe these issues are manageable, and have not led to clinically meaningful issues in any Ph 2 or 3 studies.

a) Hypokalemia: Hypokalemia occurred in a small percentage of patients (<7%) in clinical trials, with no patients having any related clinical complications. In general, mild/moderately low K+ is much less medically concerning than mild/moderate high K+.

We do not expect that hypokalemia will be a significant issue for commercial adoption given the body's normal K+ homeostasis. Also, we believe that physician's normal monitoring of K+ levels will help spot low K+ levels early on as patients are dose titrated. If this became a clinical issue for a pt, we would expect patiromer titration could resolve it.

b) Hypomagnesemia: Patiromer can bind to Mg ions as well as K+ ions, given a similar positive charge. Patiromer treated patients in trials had reductions of Mg levels by ~0.2 mg/dL on average in the first two weeks of treatment, and Mg levels remained stable thereafter. This avg decline left pts well within the normal range overall, with mild/moderate hypomagnesemia occurring in <10% of patients in AMETHYST-DN and Ph 3. There was no severe hypomagnesemia and no clinical implications of this lab

abnormality. We expect patiromer dose titration or additional Mg intake could resolve any issues.

c) GI Tolerability: In Ph 2 and 3, patiromer treated pts had modest increases in the rates of diarrhea, constipation, nausea, and abdominal pain vs. placebo (Ex. 13). There were no severe GI events in patiromer treated patients in Ph 3. Overall, we view patiromer's mild GI tox as a manageable issue, and saw no other major tolerability red flags.

Exhibit 13

Safety Profile in Ph 3 Part B Looks Mostly Clean

	Patiromer		Placebo	
	All	Severe	All	Severe
n	55	55	52	52
Subjects Reporting ≥1 AE	47%	0%	46%	2%
Headache	4%	0%	8%	0%
Hepatic enzyme increased	2%	0%	4%	0%
Hyperkalemia	2%	0%	4%	0%
Influenza	2%	0%	4%	0%
Supraventricular extrasytoles	4%	0%	2%	0%
Abdonimal pain upper	2%	0%	2%	0%
Constipation	4%	0%	0%	0%
Diarrhea	4%	0%	0%	0%
Hypercholesterolemia	0%	0%	4%	0%
Hypertension	0%	0%	4%	0%
Hypomagnesaemia	2%	0%	2%	0%
Insomnia	2%	0%	2%	0%
Nausea	4%	0%	0%	0%
Pruritis	2%	0%	2%	0%
Renal failure chronic	2%	0%	2%	0%

Source: Company Data, Morgan Stanley Research

3) Path Forward – US Clear, EU in Process

US: Prior to an expected US filing in 3Q14, Relypsa needs to run a small Ph 1 onset-of action trial. We believe the FDA wants to see this trial to better understand how quickly patiromer works and if the drug can/should be used in the acute setting. A result suggesting the drug does not have acute benefits (e.g. does not work within a matter of hours to a day) will importantly not impact our valuation as we only model sales in the chronic setting. However, given that there are ~30k Kayexalate TRx per month per IMS which we assume to be almost entirely in the acute setting, this acute use is a potentially meaningful source of upside were the drug to show rapid onset of action.

Given that Relypsa has an SPA and the Ph 3 trial met its endpoints with a clean safety profile, we expect that patiromer will be approved mid-15 with a 2H15 US launch.

EU/ROW: The path forward in the EU/ROW is less clear to us at this time, as the company has not had formal discussions with ex-US regulators. We expect the drug to be partnered ex-US and ultimately commercially available by 2016. The EU is overall a much smaller part of our valuation as we assume lower sales vs. the US and a royalty.

The biggest risk we see is that the EMEA does not validate the links between a) RAASi driven hyperK+ in CKD and HF pts as a limitation of therapy, b) the significant mortality risks of hyperK+, and c) the better outcomes in CKD and HF if RAASi therapy is maximized.

Given that a) the care of CKD and HF with RAASi is globally acknowledged, b) the link between hyperK+ and sudden death is documented, c) the drug is safe and efficacious, d) there were EU sites in the trial, and e) the EMEA is willing to approve drugs with one trial, we are optimistic that no further studies will need to be run to gain ex-US approval.

4) Compelling Market Dynamics

We see $1bn+ WW peak sales potential for patiromer in hyperK+ in the CKD and HF. **We see significant benefit in patiromer's ability to allow patients to stay on RAASi drugs which improve outcomes in these populations.**
In this section, we will address:
a) the clinical picture of hyperK+,
b) the market opportunity for patiromer,
c) the cost of goods (COGS) for patiromer, and
d) the competitive landscape.

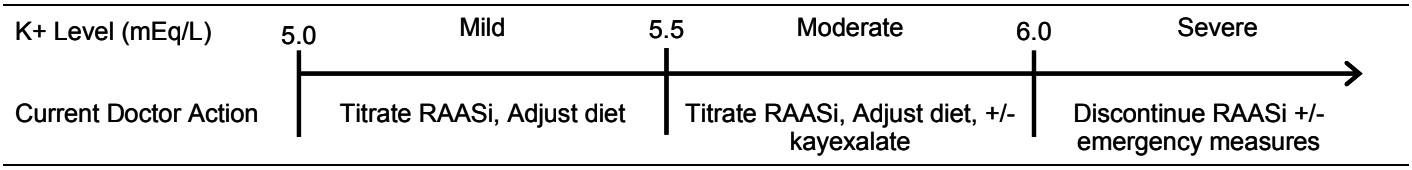
a) Clinical Picture of HyperK+

K+ is a vital part of the human body's electrolyte pool, and helps: 1) control muscle and nerve activity, 2) maintain fluid balance, and 3) regulate the heart conduction system. K+ levels are primarily regulated by the kidney and the GI tract. Patients with CKD and HF are predisposed to have higher K+ levels, due to kidney dysfunction and other issues.

Patients have hyperK+ when their serum (blood) K+ levels are >5 mEq/L (Ex. 14). **The biggest risk of hyperK+ is sudden death from a heart conduction problem.** While there is no definitive correlation between a specific K+ level and the risk of death in a single patient, it is generally accepted and documented that an abnormally high K+ level is a risk factor correlated with sudden death on a population level.

HyperK+ is a medical emergency. The high end of normal for K+ is ~5 mEq/ml, with severe levels being ~6+ mEq/ml. Acutely, hyperK+ is treated with insulin, bicarbonate, and SPS (e.g. Kayexelate). For pts with chronic disease or drug related hyperK+, the treatment options include K+ controlled diets, stopping key drugs (e.g. RAASi drugs), and ultimately dialysis.

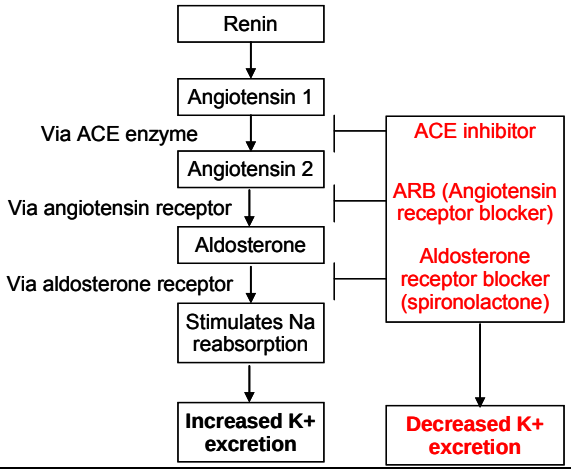
Exhibit 14
Current Treatment Algorithm for HyperK+



Source: Company Data, Morgan Stanley Research

b) Patiromer Mkt Opportunity – Staying on RAASi is Key

Exhibit 15
Renin Pathway Often Dysregulated in CKD/HF



Source: Company Data, Morgan Stanley Research

Most pts with CKD and/or HF have high blood pressure, with a common contributor being a poorly functioning renin system (Ex. 15). Renin system dysregulation, on top of worsening kidney function, can lead to hyperK+. The current standard of care for patients with CKD and HF includes RAASi drugs such as ACEs, ABRs, and aldosterone antagonists (Ex. 16). These drugs have been shown to lower blood pressure, reduce cardiovascular risk, and slow kidney disease progression in CKD/HF patients. However, they also can lead to hyperK+.

Exhibit 16
Treatment Algorithm in CKD and Heart Failure

	CKD Treatment Algorithm	HF Treatment Algorithm	K+ Impact
Front Line – BP	ACE inhibitor or ARB	ACE inhibitor (or ARB) and Beta-Blocker	↑
Front Line – Diuretic	Thiazide or Loop Diuretic	Loop Diuretic	↓
Second Line – BP	Beta blocker or Ca Channel Blocker		n/a
Second Line – Diuretic	Aldosterone Antagonist (Spironolactone)	Aldosterone Antagonist (Spironolactone)	↑

Source: Company Data, Morgan Stanley Research

When physicians prescribe RAASi therapy initially, they titrate the drugs while monitoring K+ levels every 1-2 weeks. Patients that develop hyperK+ from RAASi may have their dose reduced or be taken off RAASi entirely, both of which are not optimal options for their overall health outcome.

As patiromer lowers K+ levels, it can enable patients to remain on their RAASi therapy or go on higher/optimized doses of RAASi, thereby improving pt outcomes. Our physician diligence suggests that ~10% of patients cannot tolerate optimal doses of RAASi due to hyperK+. This equates to a US addressable mkt of ~1mn pts. **We see patiromer as an important medicine that can shift the way these patients are currently treated with RAASi drugs by mitigating the K+ limitations of RAASi.**

We model a small, targeted ~100 person sales force with incremental scale up to 125 sales representatives marketing the drug to a specialty physician segment of nephrologists and cardiologists that specialize in HF.

Our ~$800mn US 2022 revenue (Ex. 18) assumes:
a) a mid-15 US launch,
b) 15mn CKD stages 3-4 patients and ~5.7mn HF patients (~2mn already included in the CKD population),
c) ~50+% of CKD and HF patients are on RAASi, which grows over time,
d) 10% of addressable patients (CKD and HF patients on RAASi) are not at goal due to K+ levels,

e) 18% of CKD patients are treated with patiromer and 9% of HF patients are treated with patiromer (assumes cardiology segment is broader to target),
f) a $600/month gross price at launch with a 15% gross-to-net discount, increasing by 2%/year, and
g) a duration of therapy of 3 months at launch which increases to 7 months in 2022.

Our ~$70mn EU 2022 revenue assumes:
1) an EU launch that is 50% of the US launch in terms of mkt penetration and on a one year delay, and
2) Relypsa receives a low to mid-20s% royalty from a partner.

c) COGS – A Likely Work in Progress
Cost of Goods: Cost of goods for patiromer is likely to be significantly higher than other drugs at launch given that patiromer is a polymer and must be dosed on a gram basis vs. some small molecule drugs dosed on a mg or mcg basis. At launch, Relypsa expects COGS to be >50%. We model >50% COGS to start as well, but assume they track down to ~20% at peak (which in theory still leaves some room for improvement).

We believe that Relypsa will be able to improve their gross margin for the following reasons.
1) Renagel, which is also a similar polymer drug, had gross margins of 65% in the early 2000s around launch. Genzyme was able to improve Renagel's COGS to 10-15% over the subsequent ~5 yrs. We expect Relypsa will be able to similarly reduce COGS.
2) Relypsa is already working on the key steps to reduce COGS including a) working on mfg scale, b) sourcing multiple suppliers, and c) implementing stepwise process improvements.

Patiromer also has a shorter shelf life than normal drugs, but we do not expect this to be an issue for patients. Relypsa plans to control bulk storage and distribution at a set, cold temperature. Importantly, patients are likely to be able to store patiromer at room temperature for 3-6 months, mitigating any inconvenience at the pt end. At NDA filing, Relypsa will have 18 months of stability testing from a 36 month stability study, which will support the above temperature logistics.

d) Competitors:
As our market model does not have patiromer deeply penetrating the market, we expect that the market will be able to sustain multiple drugs if necessary. In addition, given that this will be a new market in many ways, we would expect additional drugs could help shift physician adoption of the concept positively.

Two competitors, ZS-9 and kayexalate/SPS based binders, are in development and on the market respectively. We expect that patiromer's solid, long-term safety and efficacy profile will limit much competitive impact.

ZS-9 (ZS Pharma)
ZS-9 is a zirconium based crystal powder/tablet, which has angstrom sized (1/10th of a nanometer) pockets that trap K+. ZS Pharma completed a Ph 3 acute (48 hrs) and subacute (12 days) trial of ZS-9. Preliminary pivotal Ph 3 data were presented at the ASN 2013 meeting showing mean reductions in serum K+ levels of 0.73 at the top dose in the acute phase (at 48 hours). We see this reduction as solid and in-line with patiromer's more long-term dosing. However, several factors limit our enthusiasm of this compound at this time:
a) Acute vs. Chronic Dosing: Most ZS-9 data is for acute (48 hour) dosing, which is not a setting that Relypsa is to target. ZS Pharma intends to begin a 4-week placebo controlled trial in early '14, which should help provide information on longer dosing. However, patiromer has dosing out to 52 weeks, and we expect that the FDA would like to see data out to one year as well to gain use in the chronic setting.
b) Time to Market: If the FDA requires a one-year data set prior to approval, it would likely create a significant time-lag between the launches of patiromer and ZS-9.
c) Safety: Using the phosphate binder market as a comparison, physicians have expressed significant caution for metal-based binders due to potential for metal absorption and tissue accumulation. While there are differences between this setting and phosphate binding, we suspect that the FDA would like to see long-term (52 week) safety data, although it is not clear how you prove that no metal is accumulating in tissues short of biopsies.

Kayexalate (SPS – sodium polystyrene sulfonate)
Kayexalate/SPS is a polymer-based drug approved for hyperK+. The drug lacks rigorous testing as it was grandfathered in prior to the modern drug approval process, and physicians have over time questioned the degree to which the drug is actually efficacious. In addition, it has much less refined polymer properties.

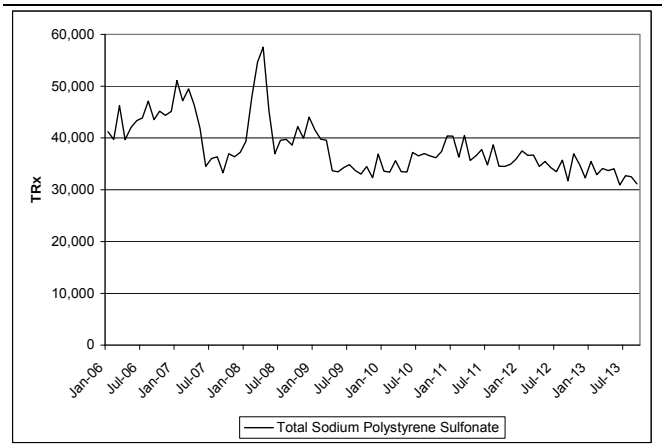
Nevertheless, the drug is widely used (30k+ TRx/month, Ex. 17) as it is the only treatment option for acute hyperK+. Our diligence suggests that most use is in the acute setting.

The drug tends not to be dosed chronically as patients cannot tolerate its gritty, lumpy consistency, which are thought to be related to its poor polymer construction. In addition, the drug has significant GI tox, which can be severe/fatal. Finally, the drug has the potential to cause Na+ reabsorption and edema – both of which are specifically detrimental in CKD and HF pts.

We do not view this as a competitor for patiromer. However, it could become one if patiromer shows fast onset in the Ph 1 study. This would be upside to our model, as we do not currently assume acute use. However, we do temper this upside to a degree with the fact that a few doses in a pt with acute hyperK+ does not contribute significant revenue. The current 30k/mo TRx run rate, at branded prices of ~$500+ net per TRx, would yield $15mn in monthly sales.

Exhibit 17

Kayexalate IMS TRx Imply Use, Even With Acute Dosing and Challenged Drug Properties



Source: Company Data, Morgan Stanley Research

Exhibit 18

HyperK+ Market Model

US Patiromer	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
US Population	313,900,000	317,039,000	320,209,390	323,411,484	326,645,599	329,912,055	333,211,175	336,543,287	339,908,720	343,307,807	346,740,885
Growth		1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
US Population >18	238,564,000	240,949,640	243,359,136	245,792,728	248,250,655	250,733,162	253,240,493	255,772,898	258,330,627	260,913,933	263,523,073
% >18	76%	76%	76%	76%	76%	76%	76%	76%	76%	76%	76%
CKD MARKET											
CKD Stages 3-4	15,029,532	15,179,827	15,331,626	15,484,942	15,639,791	15,796,189	15,954,151	16,113,693	16,274,830	16,437,578	16,601,954
% of Pop'n >18	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%
% on RAASi	52.5%	52.5%	52.5%	53.0%	53.6%	54.1%	54.6%	55.2%	55.7%	56.3%	56.8%
Growth	0.0%	0.0%	0.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Addressable CKD Patients	789,050	796,941	804,910	821,089	837,593	854,429	871,603	889,122	906,993	925,224	943,821
% of CKD Stages 3-4 pts not at goal due to K+ levels	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
HEART FAILURE (HF) MARKET											
HF Patients	5,700,000	5,757,000	5,814,570	5,872,716	5,931,443	5,990,757	6,050,665	6,111,172	6,172,283	6,234,006	6,296,346
% of US Pop'n	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%
HF Patients with Kidney Manifestations	1,995,000	2,014,950	2,035,100	2,055,450	2,076,005	2,096,765	2,117,733	2,138,910	2,160,299	2,181,902	2,203,721
% of HF pts included in CKD market	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
% on RAASi	57%	57%	57%	58%	58%	59%	59%	60%	61%	61%	62%
Growth	0.0%	0.0%	0.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Addressable HF Patients	211,185	213,297	215,430	219,760	224,177	228,683	233,280	237,969	242,752	247,631	252,608
% of HF pts not at goal due to K+ levels	10%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
PATIROMER PATIENTS											
CKD Patients				8,211	33,504	59,810	82,802	106,695	131,514	150,811	170,832
% of Addressable CKD Stages 3-4				1%	4%	7%	10%	12%	15%	16%	18%
HF Patients				1,099	4,484	8,004	11,081	14,278	17,599	20,182	22,861
% of Addressable HF Patients				1%	2%	4%	5%	6%	7%	8%	9%
Duration and Price											
Duration (months)				3	4	4.5	5	5.5	6	6.5	7
Gross Price/Month				600	612	624	637	649	662	676	689
Price Increase					2%	2%	2%	2%	2%	2%	2%
Gross to Net Discount				15%	15%	15%	15%	15%	15%	15%	15%
Net Price/Month				510	520	531	541	552	563	574	586
Revenue											
CKD Revenue				13	70	143	224	324	444	563	701
HF Revenue				2	9	19	30	43	59	75	94
Patiromer US Sales				**$14**	**$79**	**$162**	**$254**	**$367**	**$504**	**$638**	**$794**
Patiromer EU Sales					**$7**	**$40**	**$81**	**$127**	**$184**	**$252**	**$319**
% of US Revenue					50%	50%	50%	50%	50%	50%	50%
Patiromer EU Revenue to Relypsa					**$2**	**$9**	**$18**	**$28**	**$40**	**$55**	**$72**
Royalty					22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.4%
Patiromer WW Sales						**$201**	**$335**	**$494**	**$687**	**$890**	**$1,113**
Patiromer WW Revenue to Relypsa						**$171**	**$272**	**$395**	**$544**	**$694**	**$866**

Source: Company Data, Morgan Stanley Research estimates

Exhibit 19

Annual Income Statement

($ in millions except per-share data)	2010A	2011A	2012A	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
Sales													
US Patiromer Sales						14	79	162	254	367	504	638	794
EU Patiromer Sales						0	7	40	81	127	184	252	319
WW Patiromer Sales						14	86	201	335	494	687	890	1,113
Revenue to Relypsa													
US Patiromer Sales						14	79	162	254	367	504	638	794
EU Patiromer Royalty						0	2	9	18	28	40	55	72
WW Patiromer Revenue to Relypsa						14	81	171	272	395	544	694	866
Other			0	0	75	0	0	0	0	0	0	0	0
Total Revenues	**0.0**	**0.0**	**0.0**	**0.0**	**75.0**	**14.2**	**80.6**	**170.6**	**271.9**	**395.2**	**544.2**	**693.8**	**865.9**
YoY Revenue Growth								112%	59%	45%	38%	27%	25%
COGS				0	0	10	49	89	121	147	164	160	159
YoY Growth						-	395.5%	80.3%	35.5%	21.7%	11.4%	-2.5%	-0.5%
% of US Revenue						*70.0%*	*62.5%*	*55.0%*	*47.5%*	*40.0%*	*32.5%*	*25.0%*	*20.0%*
R&D	14	20	36	61	45	25	15	15	15	15	15	15	15
YoY Growth		40.7%	80.1%	71.1%	-26.1%	-44.4%	-40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% of Revenue					*60.0%*	*175.5%*	*18.6%*	*8.8%*	*5.5%*	*3.8%*	*2.8%*	*2.2%*	*1.7%*
SG&A	3	5	7	13	19	52	86	92	94	95	96	98	99
YoY Growth		38.4%	39.7%	97.3%	44.4%	176.7%	65.5%	7.3%	1.5%	1.4%	1.4%	1.3%	1.3%
% of Revenue					*25.0%*	*364.8%*	*106.7%*	*54.1%*	*34.5%*	*24.0%*	*17.7%*	*14.1%*	*11.4%*
Total Operating Expenses	**17.4**	**24.5**	**42.2**	**73.9**	**63.8**	**86.9**	**150.4**	**196.4**	**229.4**	**256.9**	**275.1**	**272.1**	**272.6**
Operating Income (Loss)	**(17.4)**	**(24.5)**	**(42.2)**	**(74)**	**11**	**(73)**	**(70)**	**(26)**	**43**	**138**	**269**	**422**	**593**
Operating Margin	-	-	-	-	*15.0%*	*(510.4%)*	*(86.6%)*	*(15.1%)*	*15.6%*	*35.0%*	*49.5%*	*60.8%*	*68.5%*
Other Income and Interest Income	0.5	0.1	(0.4)	(14.8)	0.8	1.1	1.1	0.6	0.7	1.7	3.7	6.5	9.8
Interest Expense	(1.46)	(0.42)	(0.01)	(1.35)	(1.63)	(0.98)	(1.52)	0.00	0.00	0.00	0.00	0.00	0.00
Pretax Income (Loss)	**($18.4)**	**($25)**	**($43)**	**($90)**	**$10**	**($73)**	**($70)**	**($25)**	**$43**	**$140**	**$273**	**$428**	**$603**
Provision For Income Taxes	0	0	0	0	0	0	0	0	0	0	3	150	211
Effective Tax Rate	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*1.1%*	*35.0%*	*35.0%*
Non-GAAP Net Income (Loss)	**($18)**	**($25)**	**($43)**	**($90)**	**$10**	**($73)**	**($70)**	**($25)**	**$43**	**$140**	**$270**	**$278**	**$392**
Stock Compensation Expense	$1	$1	$1	$2	$3	$5	$7	$9	$11	$13	$15	$17	$19
% of Operating Expenses	3.6%	4.3%	2.8%	2.2%	4.1%	5.3%	4.4%	4.4%	4.6%	4.9%	5.3%	6.1%	6.8%
Non-GAAP Net Income (incl. ESO)	**($19)**	**($26)**	**($44)**	**($92)**	**$8**	**($77)**	**($77)**	**($34)**	**$33**	**$127**	**$255**	**$262**	**$373**
GAAP Net Income (Loss)	**($19)**	**($26)**	**($44)**	**($92)**	**$8**	**($77)**	**($77)**	**($34)**	**$33**	**$127**	**$255**	**$262**	**$373**
EPS, Basic (Non-GAAP, Pre-ESO)	($5.60)	($5.82)	($8.14)	($3.64)	$0.35	($2.17)	($1.89)	($0.67)	$1.15	$3.68	$7.04	$7.19	$10.04
EPS, Diluted (Non-GAAP, Pre-ESO)	($5.60)	($5.82)	($8.14)	($3.64)	$0.32	($2.17)	($1.89)	($0.67)	$1.09	$3.50	$6.71	$6.88	$9.64
EPS - Diluted (GAAP, Post- ESO)	**($5.79)**	**($6.07)**	**($8.36)**	**($3.71)**	**$0.24**	**($2.31)**	**($2.07)**	**($0.90)**	**$0.82**	**$3.19**	**$6.35**	**$6.47**	**$9.18**
Shares Outstanding - Basic	3.29	4.26	5.23	24.70	29.82	33.49	37.20	37.45	37.72	38.03	38.35	38.68	39.03
Shares Outstanding - Diluted	3.29	4.26	5.23	24.70	31.91	33.49	37.20	37.45	39.74	39.97	40.21	40.44	40.67

Source: Company Data, Morgan Stanley Research estimates

Exhibit 20

Balance Sheet

($ in millions)	2010A	2011A	2012A	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
Assets													
Cash and Cash Equivalents	10.3	15.2	15.2	69.2	62.9	132.3	65.1	42.5	87.3	228.5	497.8	774.3	1,165.9
Short-term Investments	12.2	13.3	39.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
Other Receivables	-	-	3.0	-	-	-	-	-	-	-	-	-	-
Prepaid Expenses and Other Current Assets	0.6	1.0	1.0	1.8	1.5	2.1	3.6	4.8	5.5	6.2	6.7	6.6	6.6
Inventory	-	-	-	-	6.0	1.1	6.4	13.6	21.7	29.6	38.1	45.1	52.0
Total current assets	**23.0**	**29.6**	**58.4**	**80.1**	**79.5**	**144.7**	**84.3**	**70.0**	**123.7**	**273.5**	**551.7**	**835.1**	**1,233.6**
Property and Equipment, Net	1.2	0.6	5.4	8.0	9.4	11.1	10.9	11.2	10.1	9.5	9.3	9.2	9.3
Intangible Assets	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Assets	0.0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Total assets	**24.366**	**30.5**	**64.1**	**88.4**	**89.3**	**156.1**	**95.6**	**81.6**	**134.2**	**283.3**	**561.3**	**844.6**	**1,243.2**
Liabilities													
Accounts Payable	1.1	2.0	6.0	7.4	6.4	8.7	15.0	19.6	22.9	25.7	27.5	27.2	27.3
Accrued Payroll and Related Expenses	0.4	0.4	1.3	2.2	1.9	2.6	4.5	5.9	6.9	7.7	8.3	8.2	8.2
Accrued Liabilities	0.7	0.5	3.0	4.4	3.8	5.2	9.0	11.8	13.8	15.4	16.5	16.3	16.4
Deferred Rent	0.0	-	0.6	-	-	-	-	-	-	-	-	-	-
Convertible Preferred Stock Warrant Liability	-	0.3	19.5	-	-	-	-	-	-	-	-	-	-
Term Loan	-	-	-	20.0	12.0	4.0	-	-	-	-	-	-	-
Line of Credit	0.4	0.1	-	1.3	0.8	0.2	-	-	-	-	-	-	-
Capital Loan	4.8	0.7	-	-	-	-	-	-	-	-	-	-	-
Total current liabilities	**7.4**	**3.9**	**30.4**	**35.3**	**24.9**	**20.7**	**28.6**	**37.3**	**43.6**	**48.8**	**52.3**	**51.7**	**51.8**
Deferred Rent	-	-	3.6	-	-	-	-	-	-	-	-	-	-
Line of Credit - Non-Current Portion	0.1	-	-	-	-	-	-	-	-	-	-	-	-
Capital Loan - Non-Current Portion	0.6	-	-	-	-	-	-	-	-	-	-	-	-
Total Liabilities	**8.1**	**3.9**	**34.1**	**35.3**	**24.9**	**20.7**	**28.6**	**37.3**	**43.6**	**48.8**	**52.3**	**51.7**	**51.8**
Shareholder's Equity													
Convertible Preferred Stock	77.9	112.8	177.4	177.4	177.4	177.4	177.4	177.4	177.4	177.4	177.4	177.4	177.4
Common Stock (Plus APIC)	11.2	12.3	0.0	114.7	118.3	266.5	275.0	286.1	299.8	316.3	335.6	357.8	383.0
Accumulated Other Comprehensive Income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Accumulated Deficit	(72.8)	(98.6)	(147.4)	(239.0)	(231.3)	(308.6)	(385.5)	(419.3)	(386.7)	(259.3)	(4.0)	257.6	631.0
Total Shareholder's Equity	**16.3**	**26.6**	**30.057**	**53.1**	**64.4**	**135.4**	**67.0**	**44.3**	**90.6**	**234.5**	**509.1**	**792.9**	**1,191.4**
Total Liabilities and Shareholder's Equity	**24.4**	**30.5**	**64.132**	**88.4**	**89.3**	**156.1**	**95.6**	**81.6**	**134.2**	**283.3**	**561.3**	**844.6**	**1,243.2**

Source: Company Data, Morgan Stanley Research estimates

Exhibit 21

Cash Flow Statement

($ in millions)	2010A	2011A	2012A	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
CASH FLOWS FROM OPERATING ACTIVITIES													
Net Income (Loss)	(19.1)	(25.8)	(43.7)	(91.6)	7.7	(77.2)	(76.9)	(33.8)	32.6	127.4	255.3	261.6	373.3
Depreciation and Amortization	0.9	0.8	0.4	1.1	1.8	2.6	3.2	3.6	3.4	3.2	2.9	2.9	2.6
Loss on Disposal of Property and Equipment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acquired In-Process R&D	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stock Based Compensation for Non-Employee Stock Option Grants	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stock Based Compensation for Employee Stock Option Grants	0.4	0.7	1.2	1.6	2.6	4.6	6.6	8.6	10.6	12.6	14.6	16.6	18.6
Amortization of Noncash Debt Issuance Costs	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Conversion of bridge financing interest into Series B Preferred Stock	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(Loss)/gain on remeasurement of fair value of Series A Preferred Stock warrant liabilities	0.0	(0.0)	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(Loss)/gain on remeasurement of fair value of Series B Preferred Stock warrant liabilities	0.0	(0.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Change in assets and liabilities:													
Other Receivables	0.0	0.0	(3.0)	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prepaid Expenses and Other Current Assets	0.2	(0.5)	0.0	(0.8)	0.2	(0.6)	(1.5)	(1.1)	(0.8)	(0.7)	(0.4)	0.1	(0.0)
Other Assets	0.6	(0.2)	(0.1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Accounts Payable	(0.5)	0.9	1.5	1.4	(1.0)	2.3	6.3	4.6	3.3	2.8	1.8	(0.3)	0.1
Accrued and Other Liabilities	(0.2)	0.3	3.5	2.4	(0.9)	2.1	5.7	4.1	3.0	2.5	1.6	(0.3)	0.0
Deferred Rent	(0.0)	(0.0)	4.3	(4.3)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Inventories	0.0	0.0	0.0	0.0	(6.0)	4.9	(5.3)	(7.2)	(8.1)	(7.9)	(8.4)	(7.0)	(6.9)
Net cash provided by (used in) operating activities	**(17.215)**	**(23.561)**	**(35.510)**	**(87.2)**	**4.4**	**(61.3)**	**(61.8)**	**(21.1)**	**44.0**	**139.9**	**267.4**	**273.6**	**387.8**
CASH FLOWS FROM INVESTING ACTIVITIES													
Purchases of Short-Term Investments	(12.2)	(18.1)	(46.2)	0	0	0	0	0	0	0	0	0	0
Proceeds from Sales of Short-Term Investments	2.8	17.0	20.4	30	0	0	0	0	0	0	0	0	0
Purchases of Property and Equipment	(0.1)	(0.2)	(3)	(4)	(3)	(4)	(3)	(4)	(2)	(3)	(3)	(2.7)	(2.7)
Net cash used in investing activities	**(9.5)**	**(1)**	**(28.478)**	**26.3**	**(3.2)**	**(4.3)**	**(3.0)**	**(3.9)**	**(2.3)**	**(2.6)**	**(2.8)**	**(2.7)**	**(2.7)**
CASH FLOWS FROM FINANCING ACTIVITIES													
Proceeds from Issuance of Convertible Preferred Stock	28.6	34.9	65	0	0	0	0	0	0	0	0	0	0
Proceeds from Bridge Debt Financing	6.0	0.0	0	0	0	0	0	0	0	0	0	0	0
Proceeds from Exercise of Stock Options	0.1	0.1	0	1	1	1	2	2	3	4	5	6	7
Proceeds from Issuance of Stock	0.0	0.0	0	78	0	142	0	0	0	0	0	0	0
Proceeds from Series Investments	0.0	0.0	0	15	0	0	0	0	0	0	0	0	0
Proceeds from Term Loan	0.0	0.0	0	20	0	0	0	0	0	0	0	0	0
Repayment on Term Loan	0.0	0.0	0	0	(8)	(8)	(4)	0	0	0	0	0	0
Proceeds from Capital Loan	(2.4)	(4.8)	(1)	0	0	0	0	0	0	0	0	0	0
Proceeds from Line of Credit	0.0	0.0	0	2	0	0	0	0	0	0	0	0	0
Repayment on Line of Credit	(0.5)	(0.4)	(0)	(0)	(1)	(1)	(0)	0	0	0	0	0	0
Net cash provided by financing activities	**31.8**	**29.8**	**63.960**	**114.8**	**(7.6)**	**135.0**	**(2.4)**	**2.4**	**3.1**	**3.8**	**4.7**	**5.6**	**6.5**
Change in Cash and Cash Equivalents	5.050	4.972	(0.028)	54.0	(6.3)	69.4	(67.2)	(22.6)	44.8	141.2	269.3	276.5	391.6
Cash and Cash Equivalents at Beginning of Year	5.2	10.3	15.249	15.2	69.2	62.9	132.3	65.1	42.5	87.3	228.5	497.8	774.3
Cash and Cash Equivalents at End of Year	**10.28**	**15.249**	**15.221**	**69.2**	**62.9**	**132.3**	**65.1**	**42.5**	**87.3**	**228.5**	**497.8**	**774.3**	**1,165.9**
Marketable Securities	**12.16**	**13.29**	**39.1**	**9.1**	**9.1**	**9.1**	**9.1**	**9.1**	**9.1**	**9.1**	**9.1**	**9.1**	**9.1**
Cash and Marketable Securities at End of Year	**22.44**	**28.54**	**54.4**	**78.3**	**72.0**	**141.4**	**74.2**	**51.6**	**96.4**	**237.6**	**506.9**	**783.4**	**1,175.0**

Source: Company Data, Morgan Stanley Research estimates

Company Description

Relypsa is a pharmaceutical company focused on the development of polymeric drugs. Relypsa's lead drug is patiromer, which is a potassium exchange polymer. Patiromer is being developed for hyperkalemia, and Relypsa owns world-wide rights.

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Equal-weight/Hold	**1283**	**44%**	**388**	**47%**	**30%**
Not-Rated/Hold	**109**	**4%**	**26**	**3%**	**24%**
Underweight/Sell	**537**	**18%**	**99**	**12%**	**18%**
Total	**2,924**		**826**		

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Industry Coverage:Biotechnology

Company (Ticker)	Rating (as of)	Price* (12/09/2013)
David Friedman, M.D.		
Relypsa, Inc. (RLYP.O)	O (12/10/2013)	$19.99
AMAG Pharmaceuticals, Inc. (AMAG.O)	E (11/21/2011)	$25.07
Alexion Pharmaceuticals (ALXN.O)	O (09/07/2010)	$125.84
Alnylam Pharmaceuticals (ALNY.O)	O (06/11/2013)	$61.26
Auxilium Pharmaceuticals (AUXL.O)	E (05/03/2013)	$21.51
Chimerix Inc (CMRX.O)	O (05/06/2013)	$14.25
Cubist Pharmaceuticals Inc. (CBST.O)	O (11/13/2013)	$64.5
Elan Corporation PLC (ELN.N)	++	$17.99
Idenix Pharmaceuticals, Inc. (IDIX.O)	E (03/18/2011)	$5.12
Incyte Corporation (INCY.O)	U (01/23/2013)	$46.15
InterMune (ITMN.O)	E (09/07/2010)	$13.9
Ironwood Pharmaceuticals, Inc. (IRWD.O)	E (04/24/2013)	$11.45
Lexicon Pharmaceuticals, Inc. (LXRX.O)	U (06/11/2013)	$1.96
NPS Pharmaceuticals (NPSP.O)	O (10/03/2012)	$23.89
Neurocrine Biosciences Inc (NBIX.O)	O (10/03/2012)	$9.78
Ophthotech Corp (OPHT.O)	O- (10/21/2013)	$29.81
Portola Pharmaceuticals Inc (PTLA.O)	O (06/17/2013)	$24.18
Synageva Biopharma Corp (GEVA.O)	O (04/20/2012)	$62.31
Tesaro Inc. (TSRO.O)	O (07/23/2012)	$39.06
Theravance Inc (THRX.O)	U (07/22/2013)	$36.4
Vertex Pharmaceuticals (VRTX.O)	E (05/08/2012)	$66.75
XenoPort Inc (XNPT.O)	U (06/11/2013)	$5.21

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* Historical prices are not split adjusted.

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