

Repros Therapeutics (RPRX - \$ 1.90)

Robust Endometriosis Phase II Results Likely Enhance Proellex's Potential for Treating Two Major Women's Disorders

RPRX yesterday after market close reported positive Proellex in endometriosis Phase II results with significant reduction of pain and use of pain medications.

- Details.** Based on the BBSS (Biberoglu and Behrman Symptom Score), Proellex (either 6 or 12 mg) demonstrated 85.4% menstrual pain reduction from the baseline vs. placebo (37.5% with $p=0.0008$). Median BBSS reduction of Proellex treatment from baseline was 85.4% ($p < 0.0001$). 56% of Proellex treated patients experienced total pill count reduction vs. 30% of placebo-treated patients ($p= 0.0521$). Reduction in non-prescription analgesics use was 74% (Proellex) vs. 11% (placebo) ($p = 0.0423$). Further, 70% Proellex treated patients became amenorrheic. Proellex treatment did result in non-menstrual pelvic pain reduction, but differences between treatment groups could not be detected. The Phase II study was a double-blind, 60-patient trial that evaluates oral Proellex in moderate to severe endometriosis (BBSS ≥ 7) with 1:1:1 randomization among 6, 12 mg Proellex and placebo. A treatment course was 18 weeks, followed by an off drug interval (one menstrual cycle). Patients used daily diaries to record pain assessments, menstrual bleeding and analgesic use. RPRX stopped patient enrollment in late 2015 after they reported very encouraging interim results.
- Implications.** The news is highly encouraging, in our opinion, especially since the study achieved statistically significant outcomes from rather small size studies. We believe Proellex has demonstrated potency as a potentially effective treatment for endometriosis and uterine fibroids (UF) – two major disorders of women's health. Next major catalysts are the reporting of Proellex in UF 2nd cycle treatment results in 3Q16 and 4Q16, respectively. Shortly thereafter, we expect RPRX to schedule two separate EOP2 meetings with the FDA to discuss the future path for advancing Proellex in the two indications. It would be interesting to gauge FDA's thought of primary endpoint for endometriosis trial since AbbVie and Neurocrine have chosen co-primary endpoints of reductions in non-menstrual pelvic pain (NMPP) and menstrual pain (dysmenorrhea) at 3- and 6-months for Elagolix's pivotal trials. We believe RPRX will potentially start Phase III studies in 2017.
- Action.** We are reiterating our Buy rating, and target price of \$5.00 to reflect the promising Proellex development and potential enclomiphene value in Europe. Our valuation is based on our probability-adjusted sum-of-the-parts analysis.

Earnings Estimates: (per share)

(Dec)	1Q	2Q	3Q	4Q	FY	P/E
FY-16E	-0.20A	-0.18A	-0.17	-0.16	-0.70	NM
FY-15A	-0.35	-0.32	-0.27	-0.26	-1.20	NM
FY-14A	-0.37	-0.38	-0.32	-0.31	-1.37	NM
FY-13A	-0.41	-0.38	-0.26	-0.31	-1.33	NM

Source: Laidlaw & Company estimates

Healthcare/Biotechnology

Ticker:	RPRX
Rating:	Buy
Price Target:	\$ 5.00

Trading Data:

Last Price (09/07/2016)	\$ 1.90
52-Week High (9/25/2015)	\$ 8.96
52-Week Low (2/11/2016)	\$ 0.80
Market Cap. (MM)	\$ 46
Shares Out. (MM)	24

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Anticipated milestones in 2016 and beyond

Program	Indication	Event	Timing	Importance
Enclomiphene	Secondary hypogonadism	MAA filing for Europe	3Q16	***
		Report interim (3 and 6 month) results of metabolic syndrome improvement Phase II study	2Q & 3Q16	****
		FDA AdCom meeting on secondary hypogonadism management	2H16	****
		Potential EU approval	4Q17	****
		Potential ex-U.S. partnership or other business development activities	2017	****
		Potential determine future clinical path in the U.S.	2016	****
Proellex	Uterine Fibroids	Potentially to report top-line results after two cycle treatment from oral low and vaginal Proellex Phase II study	3Q/4Q16	****
		Potentially to schedule a type C meeting with the FDA to discuss Proellex Phase III study	1Q17	****
		Potentially to determine low dose oral vs. vaginal Proellex as final format for Phase III trial	2H16	****
		Potentially to start a Phase III study	2017	*****
	Endometriosis	Possible EOP2 meeting with the FDA	4Q16/1H17	***

**** / ***** Major catalyst event that could impact share price very significantly while *** event is more informative

Source: Laidlaw & Company estimates and company presentation.

Major risks

Although promising, low dose Proellex and Proellex-V must still demonstrate proof-of-concept results. Although the current clinical data regarding efficacy and safety from the low-dose oral Proellex and newly-developed Proellex-V study are encouraging, it is still too early to fully project the product's future in endometriosis and in uterine fibroids. In addition, it is still uncertain as which format of Proellex would be used for UF development going forward. Further, low dose oral Proellex in endometriosis Phase II study is still ongoing and we believe a positive efficacy and satisfactory safety profile are needed from the study to potentially to fully lift the clinical hold by the FDA to advance the program. Any negative outcomes could also be a setback for the RPRX valuation as we view the Proellex program as RPRX's main value driver.

Clinical risks of trial study failure could have a significantly negative impact on RPRX share value. Given that the current study of enclomiphene in obese secondary hypogonadism is a novel approach to potentially demonstrate the drug's effects in a metabolic disease and that there are very limited precedence for these type of studies, we believe this is a high risk trial and the majority of RPRX share value (assessed by both us and the Street) resides in the potential clinical and regulatory success of this program. Another challenge is if under a scenario that the FDA might request significantly more difficult Phase III studies at the future meeting and should the company be unable to accomplish such a task; RPRX share value could also significantly reduce.

Potential financing could dilute shareholders. Although we estimate that the company's cash position could support operations, including R&D and M&S expenses, into 2016; the possibility exists that additional cash could be needed for other unexpected corporate development activities. If not from the non-dilutive sources, options could include a potentially-dilutive equity offering, of which could potentially affect current shareholders negatively due to dilution. However, we view such risk could be offset by the substantial value increase of the company's assets due to clinical advancement leading to commercialization.

Figure 1: Income Statement

Repros Therapeutics – Income Statement										
(\$ MM)	2013	2014	2015	1Q16	2Q16	3Q16E	4Q16E	2016E	2017E	2018E
Revenue										
Licensing fees	-	-	-	-	-	-	-	-	0.0	0.0
Product revenue	-	-	-	-	-	-	-	-	-	-
Research and development grants	-	-	-	-	-	-	-	-	-	-
Other Income	-	-	-	-	0.0	-	-	0.0	-	-
Total Revenue	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Research and development	22.9	26.7	24.1	3.8	3.2	3.0	2.9	12.9	14.2	15.5
General and administrative	4.8	5.4	5.1	1.1	1.1	1.1	1.1	4.3	4.7	4.8
Sales and marketing	-	0.0	0.0	-	-	-	-	0.0	0.0	0.0
Interest expense and amortization of intangibles	-	-	0.0	-	-	-	-	-	-	-
Total Operating Expenses	\$27.7	\$32.1	\$29.2	\$4.9	\$4.3	\$4.1	\$3.9	\$17.2	\$18.9	\$20.2
Operating Income (loss)	(\$27.7)	(\$32.1)	(\$29.2)	(\$4.8)	(\$4.3)	(\$4.1)	(\$3.9)	(\$17.2)	(\$18.9)	(\$20.2)
Loss from continuing operations	-	-	-	-	-	-	-	-	-	-
Gain on disposal of discontinued operation	-	-	-	-	-	-	-	-	-	-
Net loss before cumulative effect of change in accounting principle	(27.7)	(32.1)	(29.2)	(4.8)	(4.3)	(4.1)	(3.9)	(17.2)	(18.9)	(20.2)
Cumulative effect of change in accounting principle	-	-	-	-	-	-	-	-	-	-
Income (loss) before tax expense	(27.7)	(32.1)	(29.2)	(4.8)	(4.3)	(4.1)	(3.9)	(17.2)	(18.9)	(20.2)
Income tax expense	-	-	-	-	-	-	-	0.0	0.0	0.0
Net Incomes (Losses)	(\$27.7)	(\$32.1)	(\$29.2)	(\$4.8)	(\$4.3)	(\$4.1)	(\$3.9)	(\$17.2)	(\$18.9)	(\$20.2)
Net Earnings (Losses) Per Share—Basic	(\$1.33)	(\$1.37)	(\$1.20)	(\$0.20)	(\$0.18)	(\$0.17)	(\$0.16)	(\$0.70)	(\$0.76)	(\$0.80)
Net Earnings (Losses) Per Share—Diluted	(\$1.33)	(\$1.37)	(\$1.20)	(\$0.20)	(\$0.18)	(\$0.17)	(\$0.16)	(\$0.70)	(\$0.76)	(\$0.80)
Shares outstanding—basic	20.8	23.4	24.3	24.3	24.3	24.3	24.4	24.5	24.9	25.3
Shares outstanding—diluted	20.8	23.4	24.3	24.3	24.3	24.3	24.4	24.5	24.9	25.3
Margin Analysis (% of Revenue)										
COGS		N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
R&D	254578%	888433%	N.A.	22147%	324300%	301599%	286519%	64446%	N.A.	N.A.
SG&A	53533%	181233%	N.A.	6447%	105200%	106252%	107315%	21418%	N.A.	N.A.
Operating Income (loss)	-308011%	-1069567%	N.A.	-28494%	-429400%	-407751%	-393734%	-85764%	N.A.	N.A.
Net Income	-308011%	-1069567%	N.A.	-28494%	-429400%	-407751%	-393734%	-85764%	N.A.	N.A.
Financial Indicator Growth Analysis (Y/Y)										
Licensing fees	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Product royalties	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Total Revenue	200%	-67%	-100%	1600%	0%	-50%	-88%	N.A.	-100%	N.A.
Research and development	72%	16%	-10%	-49%	-50%	-45%	-41%	-47%	10%	9%
General and administrative	0%	13%	-6%	-9%	-22%	-3%	-25%	-16%	10%	1%
Sales and marketing		N.A.	N.A.					N.A.	0%	15%
Operating incomes	53%	16%	-9%	-43%	-45%	-38%	-37%	-41%	10%	7%
Total Other Income, net	53%	16%	-9%	-43%	-45%	-38%	-37%	-41%	10%	7%
Pretax Income	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Net Income	53%	16%	-9%	-43%	-45%	-38%	-37%	-41%	10%	7%
EPS - Basic	13%	3%	-12%	-43%	-45%	-38%	-37%	-42%	8%	5%
EPS - Diluted	13%	3%	-12%	-43%	-45%	-38%	-37%	-42%	8%	5%
Shares outstanding—basic	36%	13%	4%	0%	0%	0%	0%	1%	2%	2%
Shares outstanding—diluted	36%	13%	4%	0%	0%	0%	0%	1%	2%	2%
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Source: Bloomberg LP; Company reports; Laidlaw & Company estimates.

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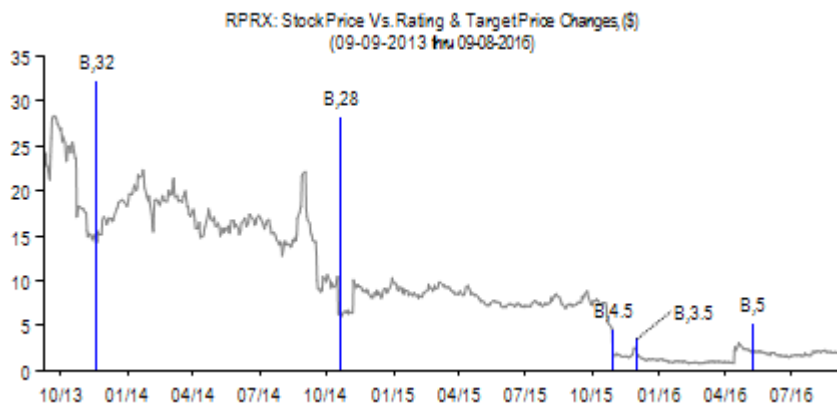
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Rating and Price Target Change History



3 Year Rating Change History

Date	Rating	Closing Price (\$)
11/19/2013	Buy (B)	14.59

3 Year Price Change History

Date	Target Price (\$)	Closing Price, (\$)
11/19/2013	32.00	14.59
10/20/2014	28.00	6.23
10/30/2015	4.50	1.71
12/01/2015	3.50	1.74
05/10/2016	5.00	2.16

Source: Laidlaw & Company

Created by: Blue-Compass.net

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			Investment Banking	Brokerage
Strong Buy (SB)	Expected to significantly outperform the sector over 12 months.	0.00%	0.00%	0.00%
Buy (B)	Expected to outperform the sector average over 12 months.	63.16%	28.95%	2.63%
Hold (H)	Expected returns to be in line with the sector average over 12 months.	2.63%	0.00%	0.00%
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