

## Cara Therapeutics (CARA - \$8.38)

### 3Q16 In-Line, 1H17 Packed with Key Catalysts

CARA recently reported 3Q16 in line with expectations with an update on their clinical trial timeline as the company remains a development story at this point. On the 3Q conference call management announced that all IV and oral CR845 programs are enrolling on track. We anticipate that 1H17 should be loaded with multiple important catalysts (see Clinical Trial Timelines table later in this report for more details). CARA still expects the interim assessment for the IV CR845 Phase 3 trial for post-operative pain in 1H17, with the full data readout in 2H17. Additionally, their Phase 2b oral CR845 for osteoarthritis (OA) pain started on-track in 3Q16 and should read out 1H17. CARA's IV CR845 Phase 2/3 for uremic pruritus (UP) part A is expected to readout 1Q17 and finally, their potential blockbuster oral CR845 for UP has important PK data expected to come out as early as 1Q17. With many late stage read-outs expected in 1H17 for both IV and oral CR845, we view 1H17 as a pivotal period for CARA and maintain our Buy rating and \$17 price target.

- **Three late-stage programs on track, all eyes on 2017 data.** With multiple data read outs over the next 12 months, 2017 will be a pivotal year for CARA. We see the IV Phase 3 pain trial as being a good read-through for the potential for success of the oral version Phase 2b in mid-2017. These will set CARA up for the IV pruritus data in 2H17.
- **Balance sheet stocked-up through 2017 data.** With \$71.4M in cash as of 3Q16, CARA believes this should be sufficient to get the company into 1Q18, well past the data read-outs in 2017. We model in an additional ~\$50M fund raise in 2017, assuming the data looks positive.
- **No additional IV safety concerns to date.** Following the clinical hold of 1Q16 for IV CR845 for post-operative pain due to hypernatremia, CARA has been evaluating safety on a weekly basis and has seen no issues in any trials with hypernatremia or other potentially trial-stopping safety issues.
- **Maintain Buy rating, \$17 price target.** We value CARA on a sum-of-the-parts basis with IV CR845 for post-op pain: \$7/share, pruritus: \$5/share, OA pain: \$2.5/share, and cash (end '17) and tech value at \$2.5/share.

#### Earnings Estimates: (per share)

(Dec)	1Q	2Q	3Q	4Q	FY	P/E
<b>FY-17E</b>	(0.44)	(0.44)	(0.39)	(0.39)	(1.65)	NA
<b>FY-16E</b>	(0.39)A	(0.48)A	(0.42)A	(0.41)	(1.70)	NA
<b>FY-15A</b>	(0.21)	(0.25)	(0.23)	(0.35)	(1.05)	NA
<b>FY-14A</b>	(0.22)	(0.16)	(0.28)	(0.18)	(0.85)	NA

Source: Company data and Laidlaw & Company estimates

### Healthcare/Biotechnology

Ticker:	<b>CARA</b>
Rating:	<b>Buy</b>
Price Target:	<b>\$17</b>

#### Trading Data:

Last Price (05/06/2016)	\$8.38
52-Week High (11/10/2015)	\$18.12
52-Week Low (02/26/2016)	\$4.26
Market Cap. (MM)	\$228.6
Shares Out. (MM)	27.28

#### Analyst

Jim Molloy/Spec Pharma & Biotech  
(857)317-5061  
jmolloy@laidlawltd.com

Francois Brisebois, MSc/Associate  
(857)317-5362  
fbrisebois@laidlawltd.com

FOR ANALYST CERTIFICATION AND DISCLOSURES, PLEASE SEE DISCLOSURES SECTION AT THE END OF THIS REPORT. This report has been prepared by Laidlaw & Co (UK), Ltd. Investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. All prices are those current at the end of the previous trading session unless otherwise indicated. Prices and consensus estimates are sourced from a reliable market source

Figure 1: Variance analysis

<b>CARA Therapeutics</b>					
<b>Quarterly variance analysis</b>					
(000's except per share)	<b>3Q15A</b>	<b>3Q16A</b>	<b>3Q16E</b>	<b>Variance</b>	<b>% Y/Y</b>
License & milestones	\$1,710	\$0	\$1,000	(\$1,000)	NA
Collaborative revenues	730	0	750	(750)	-100%
<b>Total Revenue</b>	<b>\$2,440</b>	<b>\$0</b>	<b>\$1,750</b>	<b>(\$1,750)</b>	<b>-100%</b>
COGS	0	0	0	0	NA
<b>Gross Profit</b>	<b>2,440</b>	<b>0</b>	<b>1,750</b>	<b>(1,750)</b>	<b>-100%</b>
SG&A Expense	1,865	2,102	3,700	(1,598)	13%
R&D Expense	5,584	9,671	8,500	1,171	73%
<b>Operating Income</b>	<b>(5,009)</b>	<b>(11,773)</b>	<b>(10,450)</b>	<b>(1,323)</b>	<b>135%</b>
Int inc (exp), net	22	176	25	151	700%
Other (exp) gain, net	0	0	0	0	NA
<b>Pretax Income</b>	<b>(4,987)</b>	<b>(11,597)</b>	<b>(10,425)</b>	<b>(1,172)</b>	<b>133%</b>
Income Tax exp (benefit)	(200)	(55)	0	(55)	-73%
<b>Net income (loss)</b>	<b>(4,787)</b>	<b>(11,542)</b>	<b>(10,425)</b>	<b>(1,117)</b>	<b>141%</b>
Weighted avg. shares (000)	25,545	27,283	27,383	(100)	7%
Fully diluted shares (000)	27,087	29,283	29,383	(100)	8%
<b>Earning per Share (EPS)</b>	<b>(\$0.19)</b>	<b>(\$0.42)</b>	<b>(\$0.38)</b>	<b>(\$0.04)</b>	<b>126%</b>
<b>Adj EPS ex-1x &amp; non-cash items</b>		<b>(\$0.42)</b>	<b>(\$0.41)</b>	<b>(\$0.02)</b>	

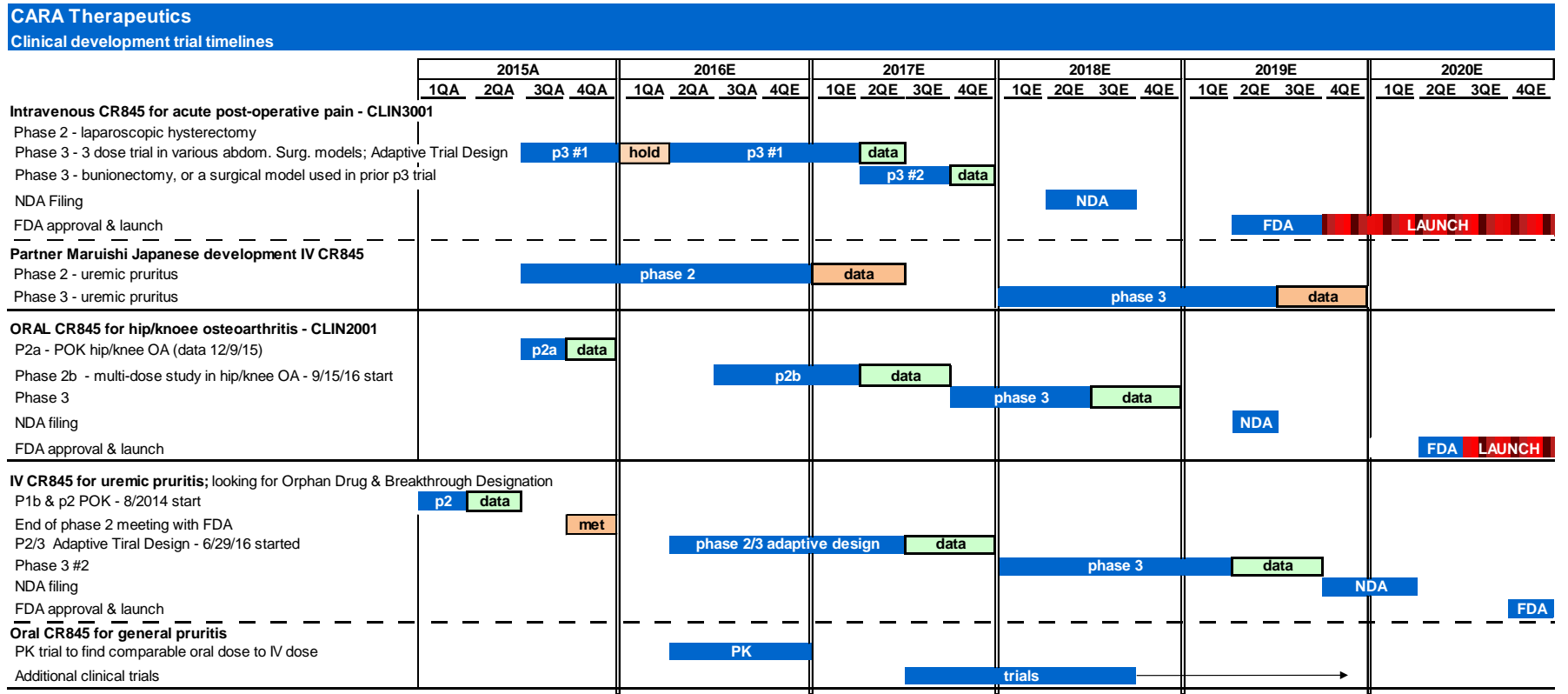
Source: Company reports; Laidlaw &amp; Company estimates

Figure 2: Valuation

<b>Sum-of-the-parts value: CARA</b>		
Segment	Valuation (000's)	Per share value
CR845 - IV post-op pain	\$236,346	\$7.0
CR845 - oral OA pain	\$83,447	\$2.5
CR845 - IV uremic pruritus	\$126,056	\$3.5
CR845 - oral general pruritus	\$56,788	\$1.5
Cash (end '17) & tech value	\$56,425	\$2.5
<b>SUM</b>	<b>\$559,061</b>	<b>\$17</b>
Shares out '17E (000)		32,233

Source: Laidlaw Estimates

Figure 3: Clinical trials timeline



Source: Company reports; Laidlaw & Company estimates.

Figure 4: Quarterly Income Statement

CARA Therapeutics										
Quarterly income statement										
(\$000 except per share)	2015A				2015A Year	2016E				2016E Year
	1QA	2QA	3QA	4QA		1QA	2QA	3QA	4QE	
<b>Revenues</b>										
License & milestones			\$1,710		\$1,710					\$0
Collaborative revenues	\$489	\$874	730	\$750	2,843	\$7	\$79		\$750	836
<b>Total Revenue</b>	<b>\$489</b>	<b>\$874</b>	<b>\$2,440</b>		<b>\$3,803</b>	<b>\$7</b>	<b>\$79</b>	<b>\$0</b>	<b>\$750</b>	<b>\$836</b>
<b>Expenses:</b>										
Cost of Revenue (COGS)	-	-	-	-	-	-	-	-	-	-
<b>Gross Margin</b>	<b>489</b>	<b>874</b>	<b>2,440</b>	<b>-</b>	<b>3,803</b>	<b>7</b>	<b>79</b>	<b>-</b>	<b>750</b>	<b>836</b>
Research and development	3,385	4,684	5,584	7,568	21,221	8,546	10,760	9,671	9,500	38,477
General and administrative	1,822	1,922	1,865	2,161	7,770	2,447	2,645	2,102	2,500	9,694
Total operating expenses	5,207	6,606	7,449	9,729	28,991	10,993	13,405	11,773	12,000	48,171
<b>Income (loss) from Operations</b>	<b>(4,718)</b>	<b>(5,732)</b>	<b>(5,009)</b>	<b>(9,729)</b>	<b>(25,188)</b>	<b>(10,986)</b>	<b>(13,326)</b>	<b>(11,773)</b>	<b>(11,250)</b>	<b>(47,335)</b>
Interest income (expense), net	14	13	22	52	101	149	172	176	25	522
Other (exp) gain, net										
<b>Income (loss) before taxes</b>	<b>(4,704)</b>	<b>(5,719)</b>	<b>(4,987)</b>	<b>(9,677)</b>	<b>(25,087)</b>	<b>(10,837)</b>	<b>(13,154)</b>	<b>(11,597)</b>	<b>(11,225)</b>	<b>(46,813)</b>
Income tax exp (benefit)	(15)	(35)	(200)	(147)	(397)	(145)	(79)	(55)		
<b>Net income (Loss)</b>	<b>(4,689)</b>	<b>(5,684)</b>	<b>(4,787)</b>	<b>(9,530)</b>	<b>(24,690)</b>	<b>(10,692)</b>	<b>(13,075)</b>	<b>(11,542)</b>	<b>(11,225)</b>	<b>(46,534)</b>
<b>Net income to common</b>										
<b>Earning per Share (EPS)</b>	<b>(\$0.21)</b>	<b>(\$0.25)</b>	<b>(\$0.19)</b>	<b>(\$0.35)</b>	<b>(\$1.00)</b>	<b>(\$0.39)</b>	<b>(\$0.48)</b>	<b>(\$0.42)</b>	<b>(\$0.41)</b>	<b>(\$1.70)</b>
<b>Adj EPS ex-1x &amp; non-cash</b>			<b>(\$0.23)</b>		<b>(\$1.05)</b>			<b>(\$0.42)</b>		<b>(\$1.70)</b>
Weighted avg. shares (000)	22,808	22,828	25,545	27,240	24,620	27,260	27,283	27,283	27,383	27,302
Fully diluted shares (000)	24,103	24,411	27,087	29,515	26,279	29,474	29,540	29,283	29,383	29,420

Source: Bloomberg LP; Company reports; Laidlaw &amp; Company estimates.

Figure 5: Annual Income Statement

<b>CARA Therapeutics</b>							
<b>Annual income statement</b>							
(\$000 except per share)	<b>2015A</b>	<b>2016E</b>	<b>2017E</b>	<b>2018E</b>	<b>2019E</b>	<b>2020E</b>	<b>Comments</b>
<b>Revenues</b>							
CR845 - IV post-op pain					\$53,329	\$151,475	
CR845 - IV Uremic pruritus				-	-	17,938	phase 3 starting 2H16
CR845 - oral hip/knee OA pain				-	-	12,500	phase 2b starting 2H16
License & milestones	\$1,710	\$0		-	-	-	
Collaborative revenues	2,843	836	\$3,000	\$3,000	3,000	3,000	
<b>Total Revenue</b>	<b>\$3,803</b>	<b>\$836</b>	<b>\$3,000</b>	<b>\$3,000</b>	<b>\$56,329</b>	<b>\$184,913</b>	
<b>Expenses:</b>							
Cost of Revenue (COGS)	-	-	-	-	7,999	22,721	
<b>Gross Margin</b>	<b>3,803</b>	<b>836</b>	<b>3,000</b>	<b>3,000</b>	<b>48,330</b>	<b>162,191</b>	
R&D	21,221	38,477	39,000	40,250	43,000	46,000	
SG&A	7,770	9,694	14,000	15,250	25,250	57,000	125 reps in 2020
Total op exp	28,991	48,171	53,000	55,500	68,250	103,000	
<b>Inc/(loss) from Ops</b>	<b>(25,188)</b>	<b>(47,335)</b>	<b>(50,000)</b>	<b>(52,500)</b>	<b>(19,920)</b>	<b>59,191</b>	
Int income (exp), net	101	522	100	100	100	100	
Other expenses, net	-	-	-	-	-	-	
<b>Inc/(loss) before taxes</b>	<b>(25,087)</b>	<b>(46,813)</b>	<b>(49,900)</b>	<b>(52,400)</b>	<b>(19,820)</b>	<b>59,291</b>	
Income tax exp (benefit)	(397)	-	-	-	-	2,965	sig. tax loss carryforwards
<b>Net income (Loss)</b>	<b>(\$24,690)</b>	<b>(\$46,534)</b>	<b>(\$49,900)</b>	<b>(\$52,400)</b>	<b>(\$19,820)</b>	<b>\$56,327</b>	
<b>Net income to common</b>							
<b>Earning per Share</b>	<b>(\$1.00)</b>	<b>(\$1.70)</b>	<b>(\$1.65)</b>	<b>(\$1.65)</b>	<b>(\$0.60)</b>	<b>\$1.50</b>	
<b>Adj EPS ex-1x &amp; non-cash</b>	<b>(\$1.05)</b>	<b>(\$1.70)</b>					
Weighted avg. shares (000)	24,620	27,302	30,233	31,733	33,233	34,733	
Fully diluted shares (000)	26,279	29,420	32,233	34,233	35,983	37,483	Raise in 2H17

Source: Bloomberg LP; Company reports; Laidlaw &amp; Company estimates.

## Major Risks

---

Exogenous events could impact our outlook. We believe pharmaceutical companies have the least control over competitive, political, and regulatory risks. Although we have incorporated competitive assumptions into our forecasts, there may be other risks beyond the scope of our analysis. Changes in the drug reimbursement system, as well as any political or regulatory amendments, may significantly influence the earnings power of these companies.

Actual clinical results and the FDA's conclusions may deviate from expectations. Many of our assumptions are based on a review of incomplete clinical trial data available in the public domain. Often our conclusions are drawn from early stage data, which may not be reflected by pivotal studies. Furthermore, the FDA's conclusions may not coincide with our own, materially changing our revenue and earnings assumptions.

Compliance issues, product recalls, and other mandates by regulatory authorities could materially change our expectations. Regulatory compliance issues, ranging from accounting irregularities to defective manufacturing practices, could materially change our assumptions and earnings outlook. Unanticipated product recalls and labeling changes could also have adverse consequences on our earnings assumptions.

Legal risks could lead to additional liabilities and revenue loss. In addition to the expenses incurred by patent challenges, product liability and other legal suits could occur and lead to additional liabilities and revenue loss, which could substantially change our financial assumptions.

## DISCLOSURES:

### ANALYST CERTIFICATION

The analyst responsible for the content of this report hereby certifies that the views expressed regarding the company or companies and their securities accurately represent his personal views and that no direct or indirect compensation is to be received by the analyst for any specific recommendation or views contained in this report. Neither the author of this report nor any member of his immediate family or household maintains a position in the securities mentioned in this report.

### EQUITY DISCLOSURES

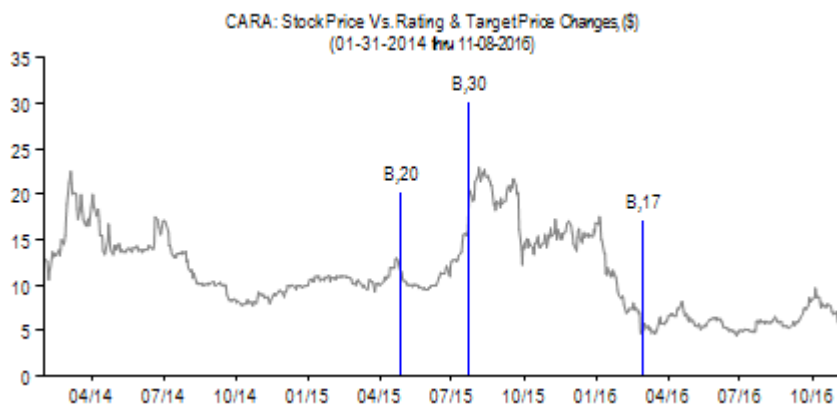
For the purpose of ratings distributions, regulatory rules require the firm to assign ratings to one of three rating categories (i.e. Strong Buy/Buy-Overweight, Hold, or Underweight/Sell) regardless of a firm's own rating categories. Although the firm's ratings of Buy/Overweight, Hold, or Underweight/Sell most closely correspond to Buy, Hold and Sell, respectively, the meanings are not the same because our ratings are determined on a relative basis against the analyst sector universe of stocks. An analyst's coverage sector is comprised of companies that are engaged in similar business or share similar operating characteristics as the subject company. The analysis sector universe is a sub-sector to the analyst's coverage sector, and is compiled to assist the analyst in determining relative valuations of subject companies. The composition of an analyst's sector universe is subject to change over time as various factors, including changing market conditions occur. Accordingly, the rating assigned to a particular stock represents solely the analyst's view of how that stock will perform over the next 12-months relative to the analyst's sector universe.

*Additional information available upon request.*

# Laidlaw & Co (UK) Ltd. has not provided any investment banking services for the company (ies) mentioned in this report over the last 12 months.

### RATINGS INFORMATION

#### Rating and Price Target Change History



#### 3 Year Rating Change History

Date	Rating	Closing Price (\$)
04/28/2015	Buy (B)	11.59

#### 3 Year Price Change History

Date	Target Price (\$)	Closing Price, (\$)
04/28/2015	20.00	11.59
07/24/2015	30.00	20.43
02/29/2016	17.00	4.92

Source: Laidlaw & Company

Created by: Blue-Compass.net

Laidlaw & Company Rating System*		% of Companies Under Coverage With This Rating	% of Companies for which Laidlaw & Company has performed services for in the last 12 months	
			Investment Banking	Brokerage
<b>Strong Buy (SB)</b>	Expected to significantly outperform the sector over 12 months.	2.56%	2.56%	0.00%
<b>Buy (B)</b>	Expected to outperform the sector average over 12 months.	58.97%	28.21%	2.56%
<b>Hold (H)</b>	Expected returns to be in line with the sector average over 12 months.	5.13%	0.00%	0.00%
<b>Sell (S)</b>	Returns expected to significantly underperform the sector average over 12 months.	2.56%	0.00%	0.00%

### ADDITIONAL COMPANIES MENTIONED

### ADDITIONAL DISCLOSURES

As of the date of this report, neither the author of this report nor any member of his immediate family or household maintains an ownership position in the securities of the company (ies) mentioned in this report.

This report does not provide individually tailored investment advice and has been prepared without regard to the individual financial circumstances and objectives of persons who receive it. Laidlaw & Co (UK), Ltd. recommends that investors independently evaluate particular investments and strategies, and encourages investors to seek the advice of a financial adviser. The appropriateness of a particular investment or strategy will depend on an investor's individual circumstances and objectives. The securities, instruments, or strategies discussed in this report may not be suitable for all investors, and certain

investors may not be eligible to purchase or participate in some or all of them. This report is not an offer to buy or sell or the solicitation of an offer to buy or sell any security/instrument or to participate in any particular trading strategy.

Associated persons of Laidlaw & Co (UK), Ltd not involved in the preparation of this report may have investments in securities/instruments or derivatives of securities/instruments of companies mentioned herein and may trade them in ways different from those discussed in this report. While Laidlaw & Co (UK), Ltd., prohibits analysts from receiving any compensation. Bonus or incentive based on specific recommendations for, or view of, a particular company, investors should be aware that any or all of the foregoing, among other things, may give rise to real or potential conflicts of interest.

With the exception of information regarding Laidlaw & Co (UK), Ltd. this report is based on public information. Laidlaw & Co (UK), Ltd makes every effort to use reliable, comprehensive information, but we make no representation that it is accurate or complete and it should not be relied upon as such. Any opinions expressed are subject to change and Laidlaw & Co (UK), Ltd disclaims any obligation to advise you of changes in opinions or information or any discontinuation of coverage of a subject company. Facts and views presented in this report have not been reviewed by, and may not reflect information known to, professionals in other Laidlaw & Co (UK), Ltd business areas. Laidlaw & Co (UK), Ltd associated persons conduct site visits from time to time but are prohibited from accepting payment or reimbursement by the company of travel expenses for such visits. The value of and income from your investments may vary because of changes in interest rates, foreign exchange rates, default rates, prepayment rates, securities/instruments prices. market indexes, operational or financial conditions of companies or other factors. There may be time limitations on the exercise of options or other rights in securities/instruments transactions. Past performance is not necessarily a guide to future performance. Estimates of future performance are based on assumptions that may not be realized. If provided, and unless otherwise stated, the closing price on the cover page is that of the primary exchange for the subject company's securities/instruments.

Any trademarks and service marks contained in this report are the property of their respective owners. Third-party data providers make no warranties or representations of any kind relating to the accuracy, completeness, or timeliness of the data they provide and shall not have liability for any damages of any kind relating to such data. This report or any portion thereof may not be reprinted, sold or redistributed without the written consent of Laidlaw & Co (UK), Ltd. This report is disseminated and available primarily electronically, and, in some cases, in printed form.

The information and opinions in this report were prepared by Laidlaw & Co (UK), Ltd. For important disclosures, please see Laidlaw & Co (UK), Ltd.'s disclosure website at [www.Laidlawltd.com](http://www.Laidlawltd.com), or contact your investment representative or Laidlaw & Co (UK), Ltd at 546 Fifth Ave, 5th Floor, New York, NY 10036 USA.

© 2016 Laidlaw & Co. (UK), Ltd.



**NOTES:**