

## Axovant Sciences (AXON - \$12.89)

### Lundbeck Idalopirdine Failures Highlights Intepirdine Risk

Yesterday before the open Lundbeck announced that their lead Alzheimer's disease (AD) compound idalopirdine failed the second and third Phase 3 programs STARBEAM and STARBRIGHT. This is the third failure in a row for idalopirdine including their first failed Phase 3 trial STARSHINE. All three trials failed to live up their promise after Lundbeck observed positive signs in the prior Phase 2 trial, demonstrating yet again the pernicious nature of this devastating disease state. Given the similarity of the mechanism of action for Lundbeck's idalopirdine and AXON's intepirdine (both 5HT6 antagonists) we continue to believe that the risk around the upcoming intepirdine MINDSET trial data (anticipated 2HCY17) remains significant, and at the least AXON may be obliged to run at least one additional Phase 3 trial, which would push an NDA filing (if the trial is successful) out to late CY20/early CY21. While there's an explanation for the Lundbeck failures—dosing changes from Phase 2 to Phase 3 trials—we believe that these new failures highlight the real level of risk to AXON's intepirdine. AXON's recent \$55M debt financing from Hercules also raises the stakes on the MINDSET data and the Dementia with Lewy Bodies (DLB) HEADWAY Phase 2b study expected to read out shortly thereafter. We continue to view AXON as an overvalued, high risk, binary story in the challenging AD field. We reiterate our Sell rating, \$7.50 price target.

- **Competitor Lundbeck's additional failures dismaying.** After using 30mg dose TID in its Phase 2 (LADDER) trial, Lundbeck opted for a 60mg QD dose in STARSHINE due to liver toxicity concerns. This in addition to idalopirdine's half-life being 10-12 hours vs. 30-40 hours for intepirdine could have limited total daily exposure. However, we view additional failures in a similar 5HT6 antagonist as highlighting the risk to AXON's lead 5HT6 asset too.
- **\$55M Debt Financing ups the stakes.** With the debt structured as interest-only for the first 18 months, much will depend on how the AD & DLB trials look in late 2017. AXON will need to repay ~\$61M over the next 4 years, and we don't model in any sales for the next 6 years, assuming the clinical trials work – a risky assumption in AD, as Lundbeck once again demonstrated.
- **Reiterate Sell rating, \$7.50 price target.** Our PT is based on a sum-of-the-parts with intepirdine: \$5/share; nelotanserin: \$1/share, cash (end-'18) and tech value (including RVT 103 & 104): \$1.50/share.

### Earnings Estimates: (per share)

(March FY)	1Q	2Q	3Q	4Q	FY	P/E
<b>FY-18E</b>	(0.33)	(0.35)	(0.37)	(0.40)	(1.45)	NA
<b>FY-17E</b>	(0.27)A	(0.35)A	(0.28)A	(0.30)	(1.20)	NA
<b>FY-16A</b>	(0.11)	(0.10)	(0.25)	(0.21)	(0.64)	NA
<b>FY-15A</b>	-	-	-	-	(0.80)	NA

Source: Company data and Laidlaw & Company estimates

Healthcare/Biotechnology

Ticker: **AXON**  
Rating: **Sell**  
Price Target: **\$7.50**

### Trading Data:

Last Price (02/08/2016)	\$12.89
52-Week High (08/24/2016)	\$17.66
52-Week Low (02/09/2016)	\$8.86
Market Cap. (MM)	\$1,278.2
Shares Out. (MM)	99.2

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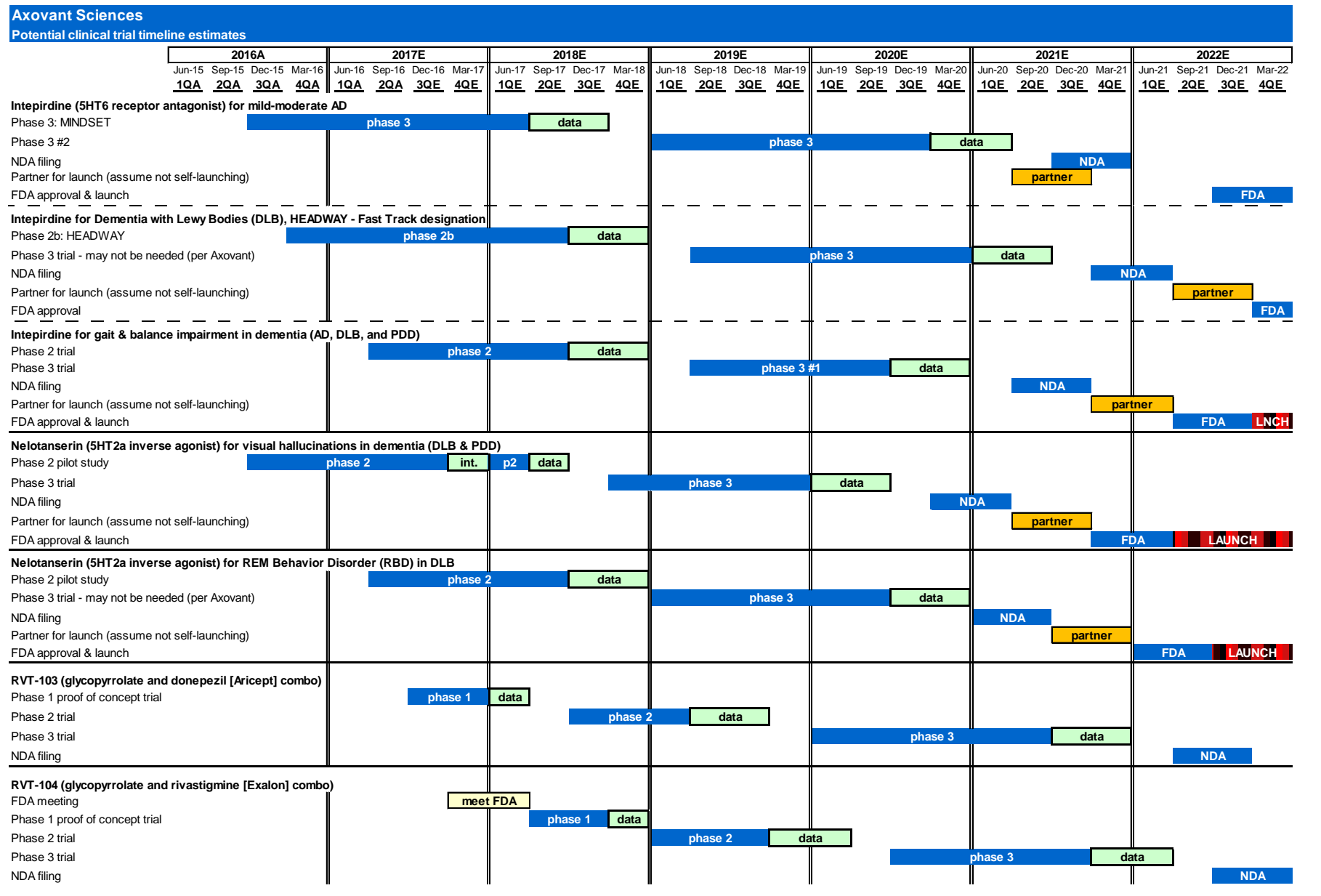
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Figure 1: Valuation

Sum-of-the-parts valuation		
Segment	Valuation (000's)	Per share value
Intepirdine US sales	\$440,442	\$4.00
Intepirdine EU royalties	\$92,927	\$1.00
Nelotanserin	\$126,017	\$1.00
RVT-103 & 104	\$41,735	\$0.25
Cash (end of '18E) and tech	\$197,161	\$1.25
<b>Total</b>	<b>\$898,284</b>	<b>\$7.50</b>
2018 fully diluted shares (000)		107,385

Source: Laidlaw Estimates

Figure 2: Clinical trials timeline



Source: Company reports; Laidlaw & Company estimates.

Figure 3: Quarterly Income Statement

<b>Axovant Sciences</b>										
<b>Quarterly income statement</b>										
	<b>2016A</b>				<b>2016A</b> Mar-16 <b>Year</b>	<b>2017E</b>				<b>2017E</b> Mar-17 <b>Year</b>
	Jun-15 <b>1QA</b>	Sep-15 <b>2QA</b>	Dec-15 <b>3QA</b>	Mar-16 <b>4QA</b>		Jun-16 <b>1QA</b>	Sep-16 <b>2QA</b>	Dec-16 <b>3QE</b>	Mar-17 <b>4QE</b>	
(\$000's except per share)										
R&D ex non-cash	\$3,707	\$6,478	\$19,725	\$17,234	\$46,022	\$20,312	\$27,601	\$22,000	\$23,000	\$92,913
SG&A ex non-cash	5,100	2,939	3,773	4,927	14,754	6,034	5,985	6,000	7,000	25,019
<b>Total Op Expenses</b>	<b>8,807</b>	<b>9,417</b>	<b>23,498</b>	<b>22,161</b>	<b>60,776</b>	<b>26,346</b>	<b>33,586</b>	<b>28,000</b>	<b>30,000</b>	<b>117,932</b>
<b>Operating inc/(loss)</b>	<b>(8,807)</b>	<b>(9,417)</b>	<b>(23,498)</b>	<b>(22,161)</b>	<b>(60,776)</b>	<b>(26,346)</b>	<b>(33,586)</b>	<b>(28,000)</b>	<b>(30,000)</b>	<b>(117,932)</b>
Interest inc/(exp)									(121)	(121)
<b>Pretax income (loss)</b>						<b>(26,346)</b>	<b>(33,586)</b>	<b>(28,000)</b>	<b>(30,121)</b>	<b>(118,053)</b>
Income Tax expense	(74)	(24)	(802)	918	17	(148)	(729)	(100)	(100)	(1,077)
<b>Adj-Net inc/(loss)</b>	<b>(8,881)</b>	<b>(9,441)</b>	<b>(24,300)</b>	<b>(21,243)</b>	<b>(60,759)</b>	<b>(26,494)</b>	<b>(34,315)</b>	<b>(28,100)</b>	<b>(30,221)</b>	<b>(119,130)</b>
Total non-cash expenses	(19,177)	(2,620)	(39,056)	(8,428)	(72,386)	(11,561)	(7,937)	(10,000)	(10,000)	(39,498)
<b>GAAP net inc/(loss)</b>	<b>(28,058)</b>	<b>(12,061)</b>	<b>(63,356)</b>	<b>(29,671)</b>	<b>(133,145)</b>	<b>(38,055)</b>	<b>(42,252)</b>	<b>(38,100)</b>	<b>(40,221)</b>	<b>(158,628)</b>
<b>Adj-EPS ex-non-cash</b>	<b>(\$0.11)</b>	<b>(\$0.10)</b>	<b>(\$0.25)</b>	<b>(\$0.21)</b>	<b>(\$0.64)</b>	<b>(\$0.27)</b>	<b>(\$0.35)</b>	<b>(\$0.28)</b>	<b>(\$0.30)</b>	<b>(\$1.20)</b>
<b>GAAP EPS as reported</b>	<b>(\$0.35)</b>	<b>(\$0.12)</b>	<b>(\$0.64)</b>	<b>(\$0.30)</b>	<b>(\$1.41)</b>	<b>(\$0.38)</b>	<b>(\$0.43)</b>	<b>(\$0.38)</b>	<b>(\$0.40)</b>	<b>(\$1.60)</b>
Shares out (000)	80,308	99,150	99,150	99,253	94,465	99,150	99,160	99,260	99,360	99,233
Fully diluted shares (000)	85,038	104,331	104,849	107,243	100,365	106,450	106,560	106,760	107,135	106,727

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

Figure 4: Annual Income Statement

Axovant Sciences									
Annual income statement									
	Mar-16	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	
(\$000's except per share)	2016A	2017E	2018E	2019E	2020E	2021E	2022E	2023E	Comments
<b>Revenues</b>									
US Intepirdine sales						-	-	\$195,000	Launch 2Q CY22
EU Intepirdine royalty						-	-	11,025	Launch 2Q CY22
<b>Total sales</b>						<b>\$0</b>	<b>\$0</b>	<b>\$206,025</b>	
COGS						0	0	60,255	
<b>Gross margin</b>						<b>0</b>	<b>0</b>	<b>145,770</b>	
R&D	\$46,022	\$92,913	\$109,000	\$94,000	\$81,000	\$73,000	\$68,000	72,250	
SG&A	14,754	25,019	34,000	35,000	46,000	64,250	98,000	117,000	
<b>Operating inc./(loss)</b>	<b>(60,776)</b>	<b>(117,932)</b>	<b>(143,000)</b>	<b>(129,000)</b>	<b>(127,000)</b>	<b>(137,250)</b>	<b>(166,000)</b>	<b>(43,480)</b>	
Interest inc/(exp)		(121)	(1,450)	(1,450)	(1,450)	(1,329)			\$55M, 4yr loan Feb. 2017
<b>Pretax income (loss)</b>		<b>(118,053)</b>	<b>(144,450)</b>	<b>(130,450)</b>	<b>(128,450)</b>	<b>(138,579)</b>			
Income tax expense	17	(1,077)	0	0	0	0	0	0	Sig. tax loss carryforwards
<b>Adj-Net inc/(loss)</b>	<b>(60,759)</b>	<b>(119,130)</b>	<b>(144,450)</b>	<b>(130,450)</b>	<b>(128,450)</b>	<b>(138,579)</b>	<b>(166,000)</b>	<b>(43,480)</b>	
Total non-cash exp	(72,386)	(39,498)							
<b>GAAP net inc/(loss)</b>	<b>(133,145)</b>	<b>(158,628)</b>							
<b>Adj-EPS ex-non-cash</b>	<b>(\$0.64)</b>	<b>(\$1.20)</b>	<b>(\$1.45)</b>	<b>(\$1.30)</b>	<b>(\$1.15)</b>	<b>(\$1.05)</b>	<b>(\$1.15)</b>	<b>(\$0.30)</b>	
<b>GAAP EPS as reported</b>	<b>(\$1.41)</b>	<b>(\$1.60)</b>							
Shares out (000)	94,465	99,233	99,610	100,285	111,285	132,485	144,285	146,735	
Fully diluted shares (000)	100,365	106,727	107,385	108,060	119,285	140,485	152,285	155,235	
Cash position	\$276,251	\$272,640	\$188,040	\$113,190	\$125,390	\$108,711	\$8,961	\$26,981	multiple raises

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

## Major Risks

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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.

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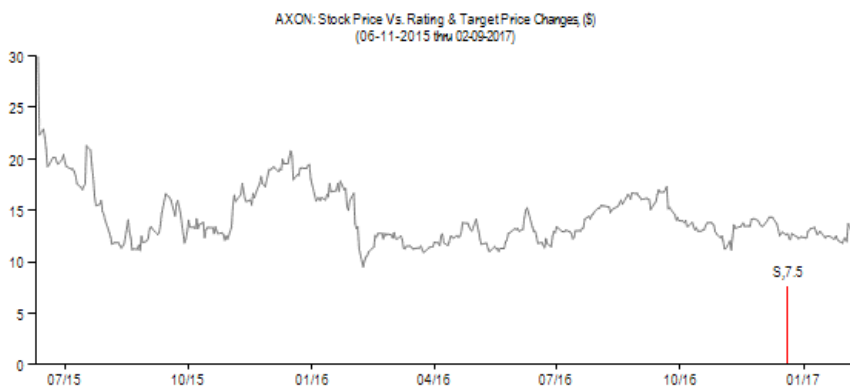
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#### Rating and Price Target Change History



#### 3 Year Rating Change History

Date	Rating	Closing Price (\$)
12/20/2016	Sell (S)	12.72

#### 3 Year Price Change History

Date	Target Price (\$)	Closing Price, (\$)
12/20/2016	7.50	12.72

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.	2.44%	2.44%	0.00%
<b>Buy (B)</b>	Expected to outperform the sector average over 12 months.	60.98%	26.83%	2.44%
<b>Hold (H)</b>	Expected returns to be in line with the sector average over 12 months.	2.44%	0.00%	0.00%
<b>Sell (S)</b>	Returns expected to significantly underperform the sector average over 12 months.	4.88%	0.00%	0.00%

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Lundbeck (LUN.CO – Not Rated)

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