LAIDLAW & COMPANY
Est. 1842
London
New York
San Francisco
Boston

EQUITY RESEARCH
Company Report

March 4, 2019

Tiziana Life Sciences (TLSA - $5.00)

Healthcare / Biotechnology

NASH in the Limelight, Plenty of Room for Improvement

Ticker:	TSLA
Rating:	**Buy**
Price Target:	**$17.00**

We recently held a KOL event with both a leading hepatologist and an immunologist geared around TLSA's main value driver, Foralumab (fully human anti-CD3 oral mAb), as a potential treatment for large unmet medical needs such as NASH. As 2019 marks the first round of NASH pivotal readouts, these are exciting times for the field. After the recent unsuccessful GILD and positive ICPT's Phase 3 readouts, our KOL looks forward to GNFT's and AGN's upcoming readouts around YE19. He also emphasized the importance of the upcoming Phase 2b trial readouts from Cirius and Novo Nordisk in 2020. Although our KOL believes ICPT's OCA seems poised to be the first to cross the finish line with encouraging improvement in fibrosis data (most important endpoint, in his opinion); he concluded that there was plenty of room for improvement as pruritus appears to be a class effect of FXRs. He looks forward to additional data disclosed at EASL (April 10th-14th) in order to better understand NASH resolution flatness as well as AE control (LDLs and pruritus). As commercial viability is a point of interest, there seems to be clear heterogeneity within the disease depending on its stage of progression, which should ultimately lead to combination therapy. Our KOLs are particularly impressed with TLSA's targeted approach to inflammation. They compare it to using a scalpel vs. a hammer in order to rebalance the inflammatory process with lower chances of immunosuppression. As cellular debris accumulates, inflammation ensues, followed by a fibrogenic response. As opposed to steroids (giant mallet), Foralumab (oral mAb) could enable physiologic immunomodulation through Tregs in order to tone down the inflammatory response to the metabolic injury, potentially helping the fibrotic response. Foralumab's natural route (oral and nasal) remains the key to prevention of immunosuppression and we view TLSA's NASH trial as relatively de-risked since an oral fully murine OKT3 Phase 2 trial showed encouraging trends in NASH patients. We are reiterating our Buy rating and $17 price target.

- **Encouraging developments, plenty of room for improvement.** As ICPT's successful interim Phase 3 look provided significant progress in this highly competitive field, AEs and NASH resolution results leaves room for improvement.
- **Foralumab, a novel relatively de-risked option for combination therapy.** Although seemingly early, we continue to view Foralumab as relatively de-risked since fully murine oral OKT3 previously demonstrated encouraging immunological trends in a Phase 2 trial in NASH patients.
- **Reiterating Buy rating and $17 PT.** Our PT is based on Foralumab royalties at $12.5/share; Milciclib royalties at $3/share; cash (end'19) and tech value at $1.5/share.

Trading Data:

Last Price (03/01/2019)	$5.00
52–Week High (11/21/2018)	$1217
52–Week Low (03/01/2019)	$5.00
Market Cap. (MM)	$126.01
Shares Out. (MM)	68.0

Earnings Estimates: (per share)

(Dec)	1Q	2Q	3Q	4Q	FY	P/E
FY19E	(0.18)	(0.18)	(0.20)	(0.21)	(0.77)	NA
FY18E	(x.xx)	(x.xx)	(x.xx)	(0.07)E	(0.54)	NA
FY17A	(x.xx)	(x.xx)	(x.xx)	(x.xx)	(0.09)	NA
FY16A	(x.xx)	(x.xx)	(x.xx)	(x.xx)	(0.11)	NA

Source: Laidlaw & Company estimates

Analyst
Francois Brisebois / Specialty Pharma & Biotech
(857) 317-5362
fbrisebois@laidlawltd.com

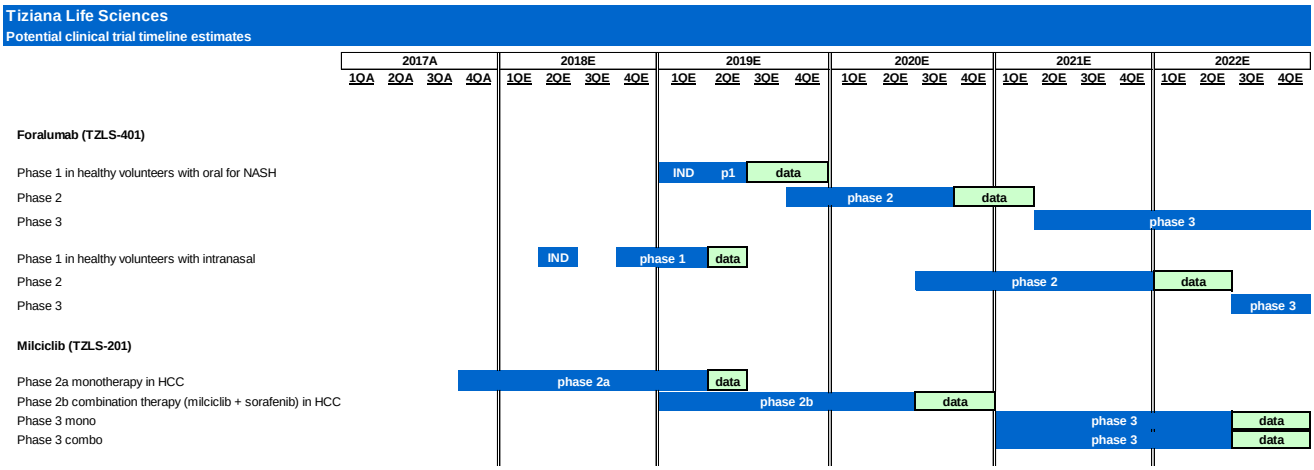
Figure 1: Sum-of-the-Parts Analysis

Sum-of-the-parts valuation		
Segment	Valuation (000's)	Per share value
Foralumab US royalties	$166,623	$11.00
Foralumab EY royalties	$20,585	$1.50
Milciclib WW royalties	$46,491	$3.00
Cash (end '19) & tech value	$22,738	$1.50
	$235,852	**$17.00**
2019 fully diluted shares out (000)		14,991

Source: Company Reports; Laidlaw and Company estimates

Francois Brisebois
fbrisebois@laidlawltd.com

Figure 2: Potential Clinical Trials Timeline



Source: Company Reports; Laidlaw & Company estimates

Francois Brisebois
fbrisebois@laidlawltd.com

Figure 3: Quarterly Income Statement

Tiziana Life Sciences
Quarterly income statement

($000 except per share)	2017A Year	2018E 1QA	2018E 2QE	2018E 3QE	2018E 4QE	2018E Year
Revenues						
Total Revenue						
Expenses:						
COGS (% of US Revenue)						
Gross Margin						
G&A	(4,601)	(1,083)	(1,083)	(500)	(500)	(3,166)
R&D	(6,015)	(1,569)	(1,569)	(500)	(500)	(4,138)
Total operating expenses	**(10,616)**	**(2,652)**	**(2,652)**	**(1,000)**	**(1,000)**	**(7,304)**
Operating income						
other income (expense)	(12)					
Loss before income tax	**(10,628)**	**(2,652)**	**(2,652)**	**(1,000)**	**(1,000)**	**(7,304)**
Interest expense						
Provision (benefit) for income tax	1,912					
Net loss	**(8,716)**	**(2,652)**	**(2,652)**	**(1,000)**	**(1,000)**	**(7,304)**
Foreign currency	70					
Adj. NI/(loss)	**(8,646)**	**(2,652)**	**(2,652)**	**(1,000)**	**(1,000)**	**(7,304)**
NI/(loss) as reported	**(8,646)**					
Earning per Share (EPS)	**($0.09)**					
Adj EPS ex-1x & non-cash	**($0.09)**				**($0.07)**	**($0.54)**
Weighted avg. shares (000)	96,067				13,641	13,641
Fully diluted shares (000)	96,067	-	-	-	13,641	13,641

Source: Company Reports; Laidlaw & Company estimates

Francois Brisebois
fbrisebois@laidlawltd.com

Figure 4: Annual Income Statement

Tiziana Life Sciences
Annual income statement

($000's except per share)	2016A	2017A	2018E	2019E	2020E
Revenues					
Total sales	**$0**	**$0**	**$0**	**$0**	**$0**
COGS	0	0	0	0	0
Gross margin	**0**	**0**	**0**	**0**	**0**
R&D	(4,007)	(6,015)	(4,138)	(6,500)	(9,500)
G&A	(5,872)	(4,601)	(3,166)	(5,000)	(7,000)
Adj. Net Income	**(9,120)**	**(8,646)**	**(7,304)**	**(11,500)**	**(16,500)**
NI/(loss) as reported	**(9,770)**				
Adj-EPS ex-non-cash	**($0.11)**	**($0.09)**	**($0.54)**	**($0.77)**	**($0.99)**
EPS as reported	**($0.11)**	**($0.09)**			
Shares out (000)	82,909	96,067	13,641	14,991	16,724
Fully diluted shares (000)	82,909	96,067	13,641	14,991	16,724

Source: Company Reports; Laidlaw & Company estimates

Francois Brisebois
fbrisebois@laidlawltd.com

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.

Francois Brisebois
fbrisebois@laidlawltd.com

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

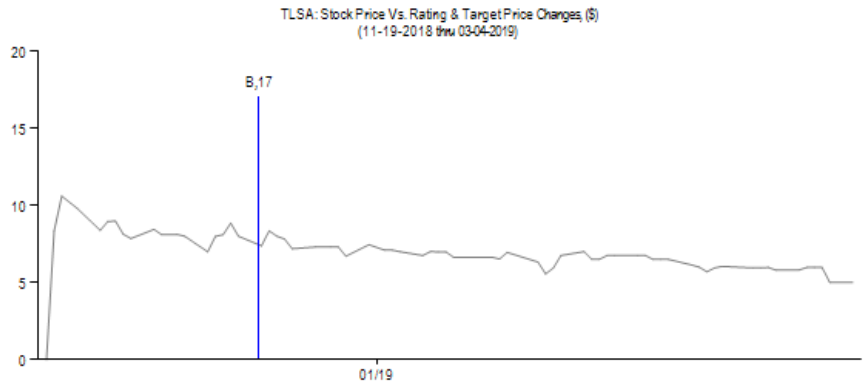
For the purpose of ratings distributions, regulatory rules require the firm to assign ratings to one of three rating categories (i.e. Strong Buy/Buy-Overweight, Hold, or Underweight/Sell) regardless of a firm's own rating categories. Although the firm's ratings of Buy/Overweight, Hold, or Underweight/Sell 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 & Company has received compensation from the subject company for investment banking services in the past 12 months and expects to receive or intends to seek compensation for investment banking services from the company in the next three months.

RATINGS INFORMATION

Rating and Price Target Change History



3 Year Rating Change History

Date	Rating	Closing Price ($)
12/17/2018	Buy (B)	7.38

3 Year Price Change History

Date	Target Price ($)	Closing Price, ($)
12/17/2018	17.00	7.38

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
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.	63.93%	24.59%	3.28%
Hold (H)	Expected returns to be in line with the sector average over 12 months.	4.92%	1.64%	0.00%
Sell (S)	Returns expected to significantly underperform the sector average over 12 months.	0.00%	0.00%	0.00%

ADDITIONAL COMPANIES MENTIONED

Gilead Sciences (GILD – Not Rated)
Genfit (GNFT – Not Rated)
ICPT (Intercept Pharmaceuticals – Buy, $135 PT)
Allergan (AGN – Not Rated)
Cirius Therapeutics (CSTX – Not Rated)
Novo Nordisk (NVO – Not Rated)

Francois Brisebois
fbrisebois@laidlawltd.com

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, or contact your investment representative or Laidlaw & Co (UK), Ltd at 521 Fifth Ave, 12th Floor, New York, NY 10175 USA.

NOTES:

Francois Brisebois
fbrisebois@laidlawltd.com