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

EQUITY RESEARCH
Company Report

January 27, 2016

Affimed N.V. (AFMD - $ 3.86)

Healthcare/Biotechnology

KOL Hodgkin's Lymphoma Day Takeaways

Ticker:	**AFMD**
Rating:	**Buy**
Price Target:	**$ 15.00**

AFMD hosted a KOL Hodgkin's Lymphoma (HL) Day yesterday highlighting HL treatment progressions and emerging treatment modalities. Major takeaways are:

- **Despite encouraging early PD-1 mono-therapy clinical results, AFM13 combination could add value if it improves CR rate.** Given AFMD just announced it will start an AFM13/Keytruda combination Phase Ib dose-finding trial, great investor interest has been placed on the potential of this regimen. Dr. Andrew Evens from Tufts Medical School summarized Phase I clinical results of two PD-1 inhibitors in r/r HL. Opdivo (nivolumab) (n=23) demonstrated 87% ORR and 22% CR (3mg/kg Q2 wk) and with PFS not reached. Keytruda (pembrolizumab) (n=31) demonstrated 65% ORR and 16% CR (10mg/kg Q2 wk) (Figure 1). Together, PD-1 exhibited a high ORR but low CR and could potentially be suited for a combination setting, possibly with another IO therapy. Although the PD-1 in HL clinical data are preliminary; two physicians (Drs. Evens and Andreas Engert) indicated that they would use AFM13/PD-1 combo therapy if CR rates are doubled and/or with increased duration of response over PD-1 alone. AFMD is scheduled to start the study in 1H16, and we estimate certain clinical results potentially could be available in late 2016 or 2017 – a critical catalyst for AFMD share value, in our opinion. An Opdivo in r/r HL registration trial (CheckMate 205) is underway with preliminary data possibly in 2H16.
- **Not all CD30 targeted therapies are the same.** Although AFM13 is not the first CD30 targeted biologics, and Adcetris is already approved for r/r HL treatment; AFM13, in our opinion, could potentially demonstrate a different treatment effect vs. Adcetris possibly due to a different cell killing mechanism. Adcetris delivers chemotherapy specifically into the cancer cell with certain chemotherapy associated pros and cons. AFM13 utilizes NK cells for cancer cell eradication. We find it encouraging that AFM13 has demonstrated efficacy in treating Adcetris failure HL patients (remain $CD30^{+}$) from a prior Phase I study. Given short PFS and relatively high neuropathy is part of the shortcomings of Adcetris, AFM13 could have potential to treat earlier r/r HL patients if the safety profile is satisfactory and ORR is increased.
- **Action.** We are reiterating our Buy rating and our $15 target price based on peer comparable, probability adjusted DCF and sum-of-the-parts analyses to reflect the continued execution of pipeline advancements.

Trading Data:

Last Price (01/26/2016)	$ 3.86
52–Week High (7/17/2015)	$ 24.20
52–Week Low (1/20/2016)	$ 2.95
Market Cap. (MM)	$ 128
Shares Out. (MM)	33

Earnings Estimates: (€ per share)

(Dec)	1Q	2Q	3Q	4Q	FY	P/E
FY-16E	-0.24	-0.24	-0.27	-0.27	-1.02	N.A.
FY-15E	-0.06A	-0.19A	-0.24A	-0.11	-0.60	N.A
FY-14A	-1.06	0.03	0.37	0.32	-0.01	N.A.
FY-13A	-57.58	-131.42	-40.36	-0.17	-1.76	N.A

Source: Laidlaw & Company estimates

Yale Jen, Ph.D.
Managing Director/Senior
Biotechnology Analyst
(212) 953-4978
yjen@laidlawltd.com

- **AFM13 could repair impaired NK cells of tumor patients.** AFMD pointed out that AFM13 could repair NK cells of tumor patients and enable them in eradicating cancer cells. The specific mechanisms have not been elucidated.

Figure 1: Efficacy of Opdivo (left) and Keytruda (right) from Phase I trials

	Opdivo (n=23)		Keytruda (n=31)					
					Transplant ineligible/refused		Transplant failure	
n=	23		31		9		22	
ORR (n,%)	20	87%	20	65%	4	44%	16	73%
CR (n,%)	5	22%	5	16%	2	22%	3	14%
PR (n,%)	15	65%	15	48%	2	22%	13	59%
SD (n,%)	3	13%	7	23%	3	33%	4	18%
PD (n,%)	0	0%	4	13%	2	22%	2	9%

Source: Laidlaw Equity Research and 2015 ASH presentations

Yale Jen, Ph.D.
yjen@laidlawltd.com

Anticipated milestones in 2016 and beyond

Product	Indication	Event	Timing	Importance
AFM13	Hodgkin's lymphoma (r/r)	Potentially report Phase IIa study interim results	**1H16**	**
		Potentially start a Phase I CPI combination Phase I study	**1H16**	****
		Potentially report Phase IIa study preliminlary top-line results	**2H16**	***
		Potentially report Phase I CPI combination Phase I study results	**Late 2016/2017**	****
	CD30+ lymphoma	Potentially report Phase IIa study results	**2017**	***
AFM11	Non-Hodgkin's lymphoma (NHL)	Potentially report Phase I study interium results	**2H16**	****
	Acute lymphoblastic leukemia (ALL)	Potentially start Phase I study	**1Q16**	***
AFM21/22	Solid tumors	Potentially select clinical candidate and IND enabling study	**1H16**	***
		Potentially start Phase I study	**2H17**	***

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

Source: Laidlaw & Company and company presentation

Yale Jen, Ph.D.
yjen@laidlawltd.com

Major Risks

Clinical study failure could have a major impact on AFMD share value. Despite promising pre-clinical and Phase I trial results of the company's lead products, AFM13 and AFM11, it remains too early to predict the longer term safety and efficacy from the current ongoing clinical studies. Given clinical validation for these programs has not been fully established, it would be critical for some or all of these studies to demonstrate positive outcomes in order to increase the assets and shareholder value. Negative results of either Phase II studies could have a materially negative impact on the asset and shareholder value; especially each study could fail to illustrate proof-of-concept for AFM13 and AFM11 as potential treatment of different disease indications. Further, it remains too early to predict any potential success of clinical trials in the future should these programs further advance into next clinical stage development.

Yet-to-be-validated NK cell platform and rapidly changing dynamic of IO platforms as cancer therapy could create more uncertainty. Although multiple prior pre-clinical and clinical data from many investigators suggest that NK cell based therapy could have significant potential for treating cancer; currently there is no NK-cell based therapy that is approved or in late clinical stage cancer treatment development. As such, clinical risks for NK-cell based cancer therapy are higher than other treatment modalities. In addition, multiple types of immune-oncology (IO) therapy platforms (i.e. CPI and CAR-T) are all in relatively early and active development, it remains too early to predict, especially for the one that has not yet received approval, which platform could be approved and gaining market shares in the future. Bi- and tri-specific antibodies can be categorized into the IO therapy group.

Product may not be approved or reach anticipated sales. Although AFMD's current pipeline products have exhibited the potential to generate positive clinical outcomes from current and future trials; it remains too early to project whether any of these products would be approved by regulatory agencies. Even if the products were to enter the market, sales could be significantly below projections due to the specific product label under approval, physician consensus for prescribing the drug, changes of treatment paradigms, entrance of competitors, and possibly the changes in pricing flexibility and payer reimbursement. A revenue outlook below expectations could also negatively affect AFMD shareholder value.

Additional financings could dilute shareholder value. Although the company currently has ~$83MM (pro forma) cash after recent financing, AFMD could need more financial resources going forward if they want to expand and further develop their pipeline. Should the future operational expenses, especially from R&D, increase significantly, products not receive FDA approval, or product revenue does not reach expectations; the company might need to issue new equity to raise additional cash. Under such a scenario, the share value of existing shareholders could be diluted.

Yale Jen, Ph.D.
yjen@laidlawltd.com

Figure 1: Income Statement

Affimed N.V. – Income Statement

(€'MM)	2014	1Q15	2Q15	3Q15	4Q15E	2015E	1Q16E	2Q16E	3Q16E	4Q16E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
Revenue																	
Product revenue	0.0	-	-	-	-	0.0					0.0	0.0	0.0	21.8	49.9	155.6	480.9
Research revenue	3.4	2.5	2.2	1.2	2.1	8.0	1.5	1.7	1.4	1.9	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Other revenue	0.4	0.2	0.1	0.3	0.2	0.8	0.2	0.2	0.2	0.2	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Total revenue	3.8	2.8	2.3	1.5	2.3	8.8	1.7	1.9	1.6	2.1	7.3	7.3	7.3	29.1	57.2	163	488
Costs of goods														3.3	7.5	23.3	72.1
Gross sales														18.5	42.4	132.3	408.7
Research and development	(9.6)	(2.9)	(5.6)	(6.4)	(6.9)	(21.9)	(7.2)	(7.5)	(8.0)	(8.6)	(31.4)	(35.5)	(38.7)	(42.1)	(45.5)	(48.7)	(52.1)
General and administrative	(2.3)	(1.8)	(1.7)	(2.1)	(2.2)	(7.7)	(2.2)	(2.2)	(2.3)	(2.4)	(9.2)	(10.5)	(11.0)	(11.6)	(12.1)	(12.7)	(13.4)
Marketing and sales														(21.0)	(26.3)	(30.2)	(31.7)
Total Operating Expenses	(11.9)	(4.8)	(7.3)	(8.5)	(9.1)	(29.6)	(9.5)	(9.8)	(10.3)	(11.0)	(40.6)	(46.0)	(49.7)	(74.7)	(83.9)	(91.6)	(97.2)
Operating Incomes (losses)	(8.2)	(2.0)	(5.0)	(7.1)	(6.8)	(20.8)	(7.8)	(7.9)	(8.7)	(8.9)	(33.3)	(38.7)	(42.4)	(48.9)	(34.2)	48.0	318.9
Finance income / (costs) - net	7.8	0.5	(0.2)	(0.2)	3.1	3.2	(0.5)	(0.5)	(0.5)	(0.5)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)
Loss before tax	(0.4)	(1.5)	(5.2)	(7.3)	(3.7)	(17.6)	(8.3)	(8.4)	(9.2)	(9.4)	(35.3)	(40.7)	(44.4)	(50.9)	(36.2)	46.0	316.9
Tax	0.2	-	-	(0.0)	0.0	0.0	-	-	-	-	0.0	0.0	0.0	0.0	0.0	(17.0)	(117.2)
Net Income (Loss)	(0.3)	(1.5)	(5.2)	(7.3)	(3.6)	(17.6)	(8.3)	(8.4)	(9.2)	(9.4)	(35.3)	(40.7)	(44.4)	(50.9)	(36.2)	29.0	199.6
Net Income (Loss) Applicable to Common Shareholders	(0.3)	(1.5)	(5.2)	(7.3)	(3.6)	(17.6)	(8.3)	(8.4)	(9.2)	(9.4)	(35.3)	(40.7)	(44.4)	(50.9)	(36.2)	29.0	199.6
Net Income (Loss) Applicable to Common Shareholders ($)	(0.3)	(1.6)	(5.6)	(7.9)	(3.8)	(19.0)	(8.8)	(8.9)	(9.8)	(10.0)	(37.5)	(43.2)	(47.2)	(54.1)	(38.5)	30.8	212.4
Net Earnings (Losses) Per Share—Basic	(€ 0.01)	(€ 0.06)	(€ 0.19)	(€ 0.24)	(€ 0.11)	(€ 0.60)	(€ 0.24)	(€ 0.24)	(€ 0.27)	(€ 0.27)	(€ 1.02)	(€ 1.14)	(€ 1.18)	(€ 1.07)	(€ 0.72)	€ 0.55	€ 3.73
Net Earnings (Losses) Per Share—Diluted	(€ 0.01)	(€ 0.06)	(€ 0.19)	(€ 0.24)	(€ 0.11)	(€ 0.60)	(€ 0.24)	(€ 0.24)	(€ 0.27)	(€ 0.27)	(€ 1.02)	(€ 1.14)	(€ 1.18)	(€ 1.07)	(€ 0.72)	€ 0.55	€ 3.73
Net Earnings (Losses) Per Share—Basic/diluted ($)	($0.01)	($0.07)	($0.20)	($0.26)	($0.12)	($0.64)	($0.26)	($0.26)	($0.28)	($0.29)	($1.09)	($1.22)	($1.26)	($1.14)	($0.76)	$0.59	$3.96
Shares outstanding—basic	22.0	24.0	27.8	30.8	34.1	29.1	34.3	34.5	34.7	34.9	34.6	35.6	37.6	47.6	50.6	52.6	53.6
Shares outstanding—diluted	22.0	24.0	27.8	30.8	34.1	29.1	34.3	34.5	34.7	34.9	34.6	35.6	37.6	47.6	50.6	52.6	53.6
Margin Analysis (% of Sales/Revenue)																	
Costs of goods														15%	15%	15%	15%
R&D	-255%	-106%	-242%	-444%	-300%	-248%	-426%	-397%	-499%	-411%	-430%	-486%	-530%	-145%	-80%	-30%	-11%
SG&A	-62%	-67%	-72%	-142%	-94%	-88%	-130%	-118%	-145%	-115%	-126%	-144%	-151%	-40%	-21%	-8%	-3%
Operating Income (loss)	-217%	-72%	-215%	-486%	-293%	-235%	-456%	-414%	-545%	-426%	-456%	-530%	-580%	-168%	-60%	29%	65%
Pretax	-11%	-54%	-224%	-499%	-159%	-199%	-486%	-441%	-576%	-450%	-483%	-557%	-608%	-175%	-63%	28%	65%
Tax Rate												0%	0%	0%	0%	37%	37%
Net Income	-7%	-54%	-224%	-502%	-157%	-199%	-486%	-441%	-576%	-450%	-483%	-557%	-608%	-175%	-63%	18%	41%
Financial Indicator Growth Analysis (YoY%)																	
Total Revenue	-34%	261%	206%	-27%	862%	135%	-39%	-18%	10%	-9%	-17%	0%	0%	299%	97%	185%	200%
R&D	-33%	-45%	172%	196%	76560%	128%	148%	34%	24%	25%	44%	13%	9%	9%	8%	7%	7%
SG&A	-67%	-61%	-62%	731%	-131%	230%	20%	33%	13%	13%	19%	14%	5%	5%	5%	5%	5%
Marketing and sales															25%	15%	5%
Operating Income (Losses)	-48%	-79%	-13%	1550%	-193%	154%	288%	58%	23%	33%	60%	16%	10%	15%	-30%	-240%	565%
Pretax Income	-98%	-91%	-1118%	-199%	-149%	4035%	457%	61%	27%	159%	101%	15%	9%	15%	-29%	-227%	589%
Net Income	-99%	-91%	-1208%	-199%	-148%	6684%	457%	61%	26%	162%	101%	15%	9%	15%	-29%	-180%	589%
EPS	-99%	-94%	-691%	-164%	-133%	5021%	290%	30%	12%	156%	69%	12%	3%	-9%	-33%	-177%	576%

Yale Jen, Ph.D. 212-953-4978

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

Yale Jen, Ph.D.
yjen@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

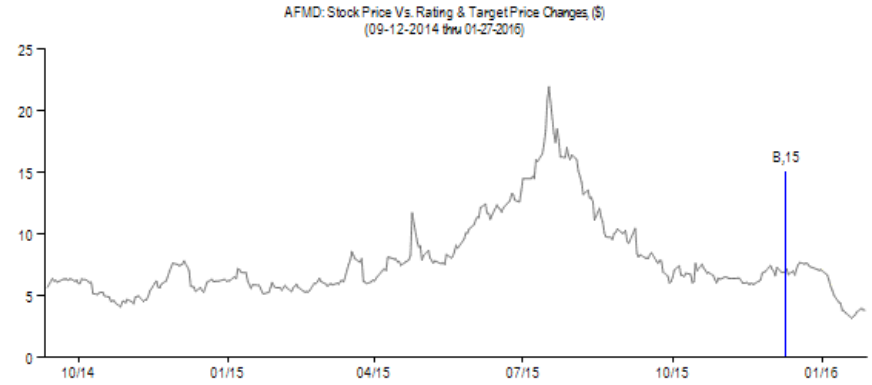
For the purpose of ratings distributions, regulatory rules require the firm to assign ratings to one of three rating categories (i.e. Strong Buy/Buy-Overweight, Hold, or Underweight/Sell) regardless of a firm's own rating categories. Although the firm's ratings of Buy/Overweight, Hold, or Underweight/Sell 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 & 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 ($)
12/10/2015	Buy (B)	7.19

3 Year Price Change History

Date	Target Price ($)	Closing Price, ($)
12/10/2015	15.00	7.19

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.	64.71%	26.47%	2.94%
Hold (H)	Expected returns to be in line with the sector average over 12 months.	0.00%	0.00%	0.00%
Sell (S)	Returns expected to significantly underperform the sector average over 12 months.	0.00%	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.

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 546 Fifth Ave, 5th Floor, New York, NY 10036 USA.

NOTES:

Yale Jen, Ph.D.
yjen@laidlawltd.com