

## Mateon Therapeutics, Inc. (MATN)

Company Update Healthcare

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## '4503 on Right Path; CA4P First FOCUS Interim Next Month; Reiterate Buy

Stock Data		,	03/15/2017			
Rating			Buy			
Price			\$0.68			
Exchange			NASDAQ			
Price Target			\$2.00			
52-Week High			\$0.85			
52-Week Low			\$0.30			
Enterprise Valu	ıe (M)		\$1.7			
Market Cap (M	, ,		\$18			
Public Market I			23.7			
Shares Outstar			26.5			
3 Month Avg V	0 ( )		80,310			
Short Interest (			0.66			
Balance Shee						
Cash (M)		\$16.28				
Total Debt (M)		\$0.00				
Total Cash/Sha		\$0.61				
Book Value/Sh	are		\$0.71			
EPS Diluted						
Full Year - Dec	2015A	2016E	2017E			
1Q	(0.13)	(0.13)A	(0.13)			
2Q	(0.13)	(0.14)A	(0.13)			
3Q	(0.14)	(0.12)A	(0.11)			
4Q	(0.15)	(0.12)	(0.11)			
FY	(0.54)	(0.51)	(0.42)			
Revenue (\$M)						
Full Year - Dec	2015A	2016E	2017E			
1Q	0.0	0.0A 0.0				
2Q	0.0	0.0A 0.0				
3Q	0.0	0.0A 0.0				
4Q	0.0	0.0 0.0				
FY	0.0	0.0	0.0			

Quarterly EPS may not add to full year due to increases in share count and rounding.



AML study continuing on right path in very difficult to treat patient population. Yesterday, Mateon announced preliminary data from the third cohort of the Phase 1b study with its next generation VDA, OXi4503, in patients with relapsed/refractory AML or MDS. The study is a dose escalation study of OXi4503 in combination with cytarabine. The third cohort enrolled four patients receiving a dose of 6.25 mg/m² of OXi4503 in combination cytarabine. One patient from this dose cohort had a complete remission. An additional patient had a reduction of AML blasts after one cycle, and is receiving additional therapy. The third patient had a reduction in AML blasts after a cycle of dosing but subsequently progressed. The fourth patient did not respond and experienced progressive disease. No dose-limiting toxicities were experienced and no treatment related significant adverse events were reported. Importantly, the safety review committee recommended that the study proceed to the next dose level.

**Encouraging.** We remain encouraged, as 23% (3/13) of the subjects enrolled in the Phase 1b study have experienced complete remission in addition to one of 19 patients experiencing a CR as a monotherapy in a previous study. We are further encouraged as the combination therapy has yet to hit dose-limiting toxicities and an increase in the rate of patients experiencing complete remission is greater than monotherapy alone. We believe that the preliminary data of combination therapy lends weight to the proposed mechanism of action of targeting the endothelial cells for the release of AML blasts from the bone marrow to the periphery where cell division is initiated making them susceptible to cytarabine. Two additional dosing levels will be tested (7.81 and 9.76 mg/m²).

FOCUS interim data granularity provided. It's next month. An update was provided on the randomized Phase 2/3 FOCUS and data are expected in April (n=~20) for the first interim analysis. We believe this is not a typical interim analysis, but rather the company should provide early response rates. Mateon is expected to conduct regular interim analyses to detect efficacy and test powering assumptions. We believe that FOCUS is well designed based on the post-hoc analysis (including prospective analyses) of a Phase 2 study that showed a 52% improvement in progression free survival (PFS) in the intent-to-treat (ITT) population. When the company has data supporting the safety and efficacy of the drug it plans to move to registrational study of ~300 patients.

Visibility. We expect visibility on MATN shares to continue to increase as more patients are enrolled in the FOCUS study with continued interim updates throughout 2H17. In addition, cohorts three and four of the OXi4503 study are expected to be completed in 1H17 and the 5th cohort, which is expected to receive the highest scheduled dose of OXi4503, may be complete in 2H17.

(continued on next page)

**CA4P looks like it could finally be ready for prime time with recurrent ovarian cancer.** With several studies under the company's belt in several indications with encouraging hints of activity, CA4P has reached the pivotal stage of development in recurrent ovarian cancer. The randomized, Phase 2/3 FOCUS study is based on positive Phase 2 data which showed a 52% improvement in progression free survival (PFS) in the intent-to-treat (ITT) population. Importantly, however, both prospective and post-hoc analyses have driven what we believe to be a well designed FOCUS study. These data, while counter intuitive, are based on increased PFS in patients who have larger tumors as well as being platinum-refractory vs. platinum-sensitive (more severe disease). From a commercialization standpoint, ovarian cancer has not seen a drug with a survival benefit in over 20 years.

**Mechanism points to powerful "one-two punch" with Avastin-like drugs.** Mateon's vascular disrupting agents (VDAs), CA4P and OXi4503, are based on targeting the established blood vessels withing a tumor. Anti-angiogenic approaches, such as Avastin, are based on targeting newly formed blood vessels within the tumor. As stated above, the increased efficacy in ovarian cancer patients with more severe disease appears counter intuitive. However, it makes mechanistic sense to us as a more established, and larger tumor, provides more of a "target" for CA4P action and potential synergy with anti-angiogenesis approaches.

**OXi4503** a potential new option as **AML** field starts to gain momentum again. Mateons' next-generation VDA, OXi4503, is based on a dual mechanism of action: 1) VDA action; and 2) an active metabolite with cytotoxic activity. The drug is currently in the dose escalation portion of a Phase 1/2 study in treatment refractory AML, representing an ongoing medical need. Early data point to activity in later stage AML patients, and we expect progression to the Phase 2 portion of the study. Importantly, OXi4503 appears to exert the ability to "move" blasts from the bone marrow to the periphery, making them available to the killing action of other drugs such as cytarabine.

Valuation and risks to price target achievement. Our \$2 price target is based on our clinical net present value (NPV) model, which is currently driven by the company's lead asset, CA4P. This model allows us to flex multiple assumptions affecting a drug's potential commercial profile. Factors which could impede reaching our price target include failed or inconclusive clinical trials or inability of the company to secure adequate funding to progress its drugs through the development pathway.

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(\$ in millions except per share data)

Profit & Loss	2013A	2014A	2015A	2016E	2017E	2018E	2019E	2020E
Licensing and R&D revenue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Milestone revenue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Product and Royalties	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.8
Other revenues	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Revenues	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.8
CoGS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Gross Profit	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.4
Gross margin	100%	0%	0%	0%	0%	0%	0%	85%
G&A	4.7	5.2	4.6	5.1	5.2	5.7	6.6	7.6
R&D	3.6	7.4	9.1	8.5	9.7	12.1	13.9	16.6
Other op ex	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBIT	(8.3)	(12.7)	(13.7)	(13.6)	(14.9)	(17.8)	(20.5)	(21.8)
EBIT margin	nm							
Depreciation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amortization Intangibles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBITDA	(8.3)	(12.7)	(13.7)	(13.6)	(14.9)	(17.8)	(20.5)	(21.8)
EBITDA margin	nm							
Non operating expenses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Interest Income/Other	(4.8)	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Interest expense	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBT	(13.1)	(12.6)	(13.7)	(13.5)	(14.8)	(17.7)	(20.4)	(21.7)
EBT margin	nm							
Provision for taxes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	(13.1)	(12.6)	(13.7)	(13.5)	(14.8)	(17.7)	(20.4)	(21.7)
Participation of preferred stock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income to common	(13.1)	(12.6)	(13.7)	(13.5)	(14.8)	(17.7)	(20.4)	(21.7)
net margin	nm							
NoSH	2.8	17.0	25.2	26.6	35.0	35.5	40.0	41.0
EPS - basic	(4.67)	(0.75)	(0.54)	(0.51)	(0.42)	(0.50)	(0.51)	(0.53)
EPS - diluted	(4.67)	(0.75)	(0.54)	(0.51)	(0.42)	(0.50)	(0.51)	(0.53)
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Source: SEC filings and Rodman & Renshaw estimates

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Quarterly P&L														
	Q1'16A	Q2'16A	H1'16A	Q3'16A	9M'16A	Q4'16E	FY'16E	Q1'17E	Q2'17E	H1'17E	Q3'17E	9M'17E	Q4'17E	FY'17E
Licensing and R&D revenue	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Milestone revenue	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Product and Royalties	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Other revenues	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Revenues	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0
CoGS	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Gross Profit	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Gross margin	nm	nm	nm	nm	nm	nm	0%	nm	nm	nm	nm	nm	nm	0%
G&A	1.37	1.30	2.67	1.19	3.86	1.20	5.1	1.23	1.28	2.51	1.33	3.84	1.37	5.2
R&D	1.98	2.37	4.35	2.08	6.43	2.11	8.5	2.21	2.36	4.57	2.41	6.98	2.67	9.7
Other op ex	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0
EBITDA	(3.4)	(3.7)	(7.0)	(3.3)	(10.3)	(3.3)	(13.6)	(3.4)	(3.6)	(7.1)	(3.7)	(10.8)	(4.0)	(14.9)
EBITDA margin							nm							nm
Non operating expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Net Interest Income/Other	0.03	0.03	0.06	0.03	0.08	0.03	0.1	0.03	0.03	0.05	0.03	0.08	0.03	0.1
Interest expense	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0
EBT	(3.3)	(3.6)	(7.0)	(3.2)	(10.2)	(3.3)	(13.5)	(3.4)	(3.6)	(7.0)	(3.7)	(10.7)	(4.0)	(14.8)
EBT margin							nm							nm
Provision for taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Participation of preferred stock														
Net Income to common	(3.3)	(3.6)	(7.0)	(3.2)	(10.2)	(3.3)	(13.5)	(3.4)	(3.6)	(7.0)	(3.7)	(10.7)	(4.0)	(14.8)
net margin							nm							nm
NoSH	26.5	26.5	26.55	26.55	26.55	26.60	26.60	27.0	27.0	27.00	35.00	29.67	35.00	35.00
EPS - basic	(0.13)	(0.14)	(0.26)	(0.12)	(0.38)	(0.12)	(0.51)	(0.13)	(0.13)	(0.26)	(0.11)	(0.36)	(0.11)	(0.42)

Source: SEC filings and Rodman & Renshaw estimates

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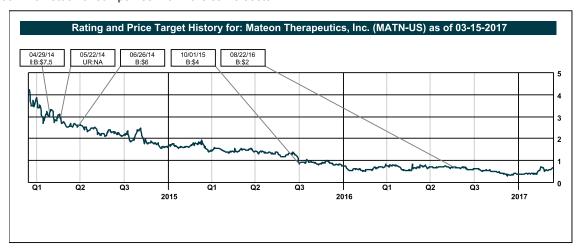
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**Market Outperform (Buy):** The common stock of the company is expected to outperform a passive index comprised of all the common stock of companies within the same sector.

**Market Perform (Neutral):** The common stock of the company is expected to mimic the performance of a passive index comprised of all the common stock of companies within the same sector.

**Market Underperform (Sell):** The common stock of the company is expected to underperform a passive index comprised of all the common stock of companies within the same sector.



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Distribution of Ratings Table as of March 15, 2017								
		IB Service/Past 12 Months						
Ratings	Count	Percent	Count	Percent				
Buy	211	93.36%	65	30.81%				
Neutral	14	6.19%	3	21.43%				
Sell	0	0.00%	0	0.00%				
Under Review	1	0.44%	1	100.00%				
Total	226	100%	69	30.53%				

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