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Mateon Therapeutics, Inc. (MATN)

Company Update

Healthcare

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First Interim; First Smile; FOCUS Points in Right Direction; Reiterate Buy

Stock Data	04/17/2017
Rating	Buy
Price	$0.75
Exchange	NASDAQ
Price Target	$2.00
52-Week High	$1.02
52-Week Low	$0.27
Enterprise Value (M)	$3.7
Market Cap (M)	$20
Public Market Float (M)	23.7
Shares Outstanding (M)	26.5
3 Month Avg Volume	77,273
Balance Sheet Metrics	
Cash (M)	$16.28
Total Debt (M)	$0.00
Total Cash/Share	$0.61
Book Value/Share	$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.

First interim from FOCUS announced. As expected, the first interim analysis from the FOCUS study was announced this morning. Recall the FOCUS study is a randomized Phase 2/3 study in platinum resistant ovarian cancer patients (study details below). The primary endpoint of the study is progression free survival (PFS) with additional endpoints of overall response rate (ORR) and overall survival (OS). Data were provided from the first 20 patients enrolled into the study. Overall we are encouraged by the data and look forward to the next interim analyses later this year.

Early responses point in right direction. While the initial randomized data were too early to assess PFS, the responses observed are encouraging to us. The CA4P arm observed a 22% partial response rate (two of nine patients) and the control arm saw a 9% partial response rate (one of eleven patients). While anecdotal at this point, the magnitude of the tumor responses also favored the CA4P arm; The two CA4P arms responders saw tumor reductions of 76% and 64%, where the control arm responder saw a 46% reduction in tumor size.

No surprises on safety look. Thus far, no significant issues have been identified on the safety front and the common events seen remain in line with other CA4P studies. We attribute these to the class effects of vascular disrupting agents. Specifically, the most common event was acute increases in blood pressure (89% in CA4P arm and 20% in control arm), which peaked within one hour and normalized in the next two to three hour range (class effect). There were also no cardiovascular adverse events observed in either arm. An interesting and unexpected observation was that there were lower than expected hematological adverse events in the CA4P arm with none of those patients experiencing neutropenia or leukopenia (would have been expected with the chemotherapy in the arm).

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.

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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.

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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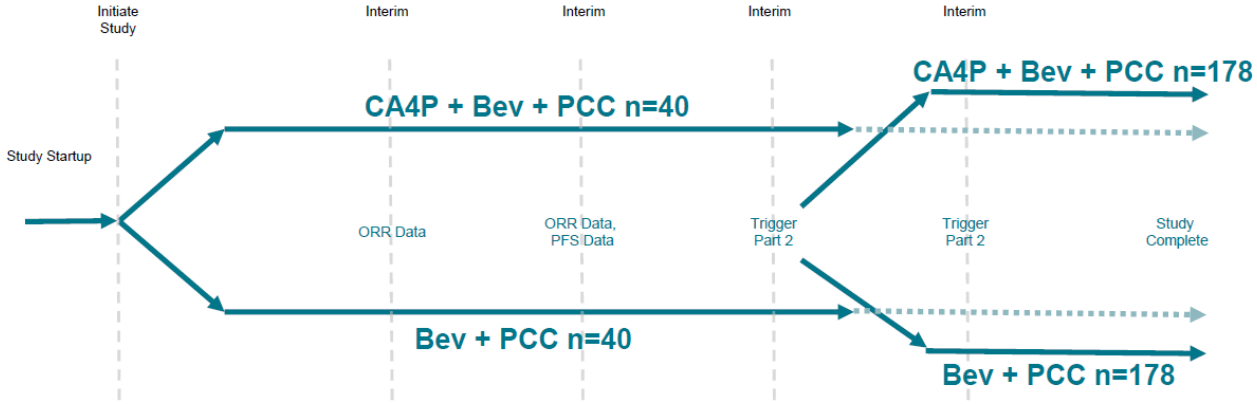
FOCUS study is an ongoing (initiated June 2016) Phase 2/3 in platinum-resistant ovarian cancer patients and interim data are expected to start reading out this year. An interesting factor to this study is that the interim analyses are designed to not just be typical "continue as planned" announcements, but rather the company provided guidance that it should announce data along the way including response data, which should represent meaningful announcements to investors. The expansion of the study will also be based on the interim analyses conducted.

This randomized study, based on the management's stated design, is based on comparing Avastin and PCC +/- CA4P. PCC (according to clinicaltrials.gov), will represent either paclitaxel of pegylated liposomal doxorubicin. Part 1 of the study is randomized ~80 patients (1:1) and is designed to test overall response rate (ORR) and initial PFS. In Part 2, ~350 patients will be randomized under the same regimens. The primary endpoint of the study is PFS and patients will also be stratified based on: 1) prior use of anti-angiogenic therapy; 2) PCC regimen received; and 3) which line of treatment during which resistance to platinum occurred.

In order to move from Part 1 to Part 2, management has broadly indicated the following gating factors:

- Apply Bayesian statistics to test certainty of objective response rate in the treatment arm (uses historical data from CA4P studies, the AURELIA study, and accumulated data from FOCUS at that time point). The certainty threshold has been pre-specified with the goal of not triggering study expansion on outlier or exceptional data in the study caused by variability.
- Treatment effect required using ORR, though magnitude of benefit has not been defined.
- Qualitative assessment of PFS including Hazard ratio, confidence intervals, differences in medians, and overall curve appearance.

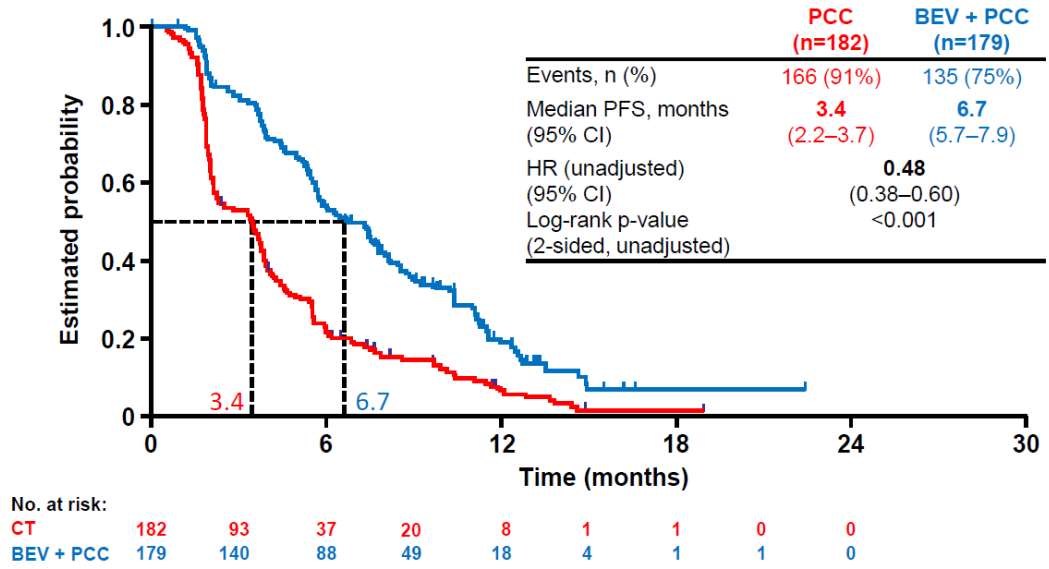
FOCUS Study Design



Source: MATN January 2017 investor presentation.

We believe a critical comparator to the GOG-0186I and upcoming FOCUS studies will be the AURELIA study, which was also conducted in platinum-resistant ovarian cancer patients. Recall that there are few meaningful comparator studies due to the ongoing medical need. AURELIA was a randomized Phase 3 conducted in 361 patients with platinum-resistant ovarian cancer. The study compared physician's choice chemotherapy (PCC) vs. PCC+Avastin. The combination arm yielded a statistically significant increased in PFS and the median PFS for that arm was 6.7 months. While there was a numerical improvement, this study also did not show a statistically significant improvement on OS.

AURELIA Progression Free Survival



No. at risk:

CT	182	93	37	20	8	1	1	0	0
BEV + PCC	179	140	88	49	18	4	1	1	0

Source: Pujade-Laurain E et al. J Clin Oncol. 2014;32(13):1302-8.

($ 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*	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*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*	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*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*	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*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*	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*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)**

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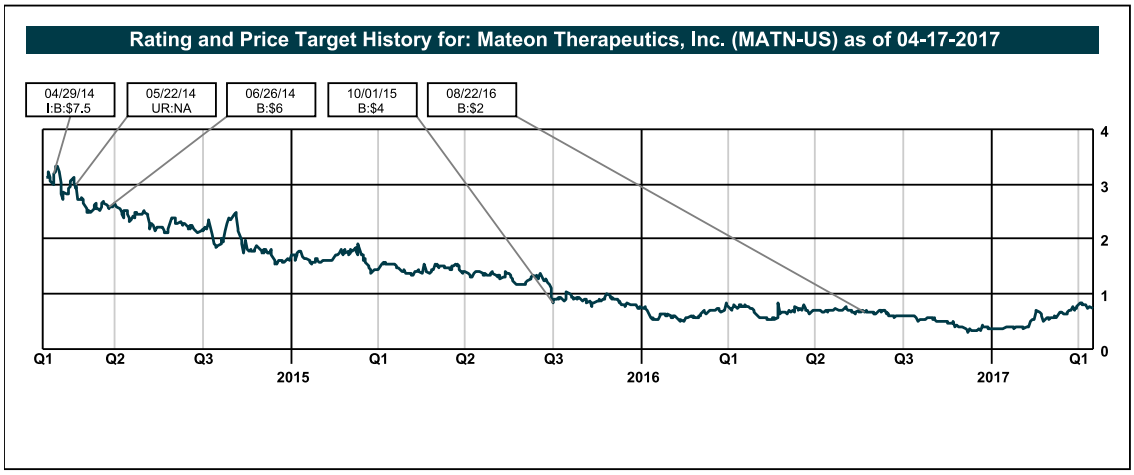
Market Outperform (Buy): The common stock of the company is expected to outperform a passive index comprised of all the common stock of companies within the same sector.

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 April 17, 2017

			IB Service/Past 12 Months	
Ratings	Count	Percent	Count	Percent
Buy	218	93.97%	74	33.94%
Neutral	13	5.60%	1	7.69%
Sell	0	0.00%	0	0.00%
Under Review	1	0.43%	1	100.00%
Total	232	100%	76	32.76%

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