

Otonomy

4Q Snapshot & Model Update

We are updating our model and reiterating our OW rating on OTIC following the 4Q report. Not much new came out of the call as the company largely reviewed the encouraging progress made last year and expected upcoming events. Of note, OTIC believes an AdCom will not be required for AuriPro based on pre-NDA discussions with the FDA. Bottom line, we continue to believe that OTIC is attractively positioned with one de-risked asset in AuriPro for the treatment of middle ear effusion in pediatric patients requiring TTP surgery (with the potential to expand into additional indications that could >2x the targeted patient population), important upcoming data for OTO-104 in Ménière's disease (Phase 2b results in 2Q15), and longer-term upside optionality with the potential blockbuster product OTO-311 for tinnitus.

- **Upcoming events.** The key upcoming catalysts include Phase 2b data from the ongoing Phase 2b trial of OTO-104 in Ménière's disease in 2Q15. Otonomy plans to initiate a clinical trial for AuriPro in one or more additional indications in 1H15; potential launch of AuriPro in middle ear effusion in peds patients undergoing TTP surgery could come in 1Q16. We also expect the company to file an IND and initiate clinical development of OTO-311 in tinnitus in 2015.
- **4Q results.** 4Q EPS was \$(0.46) vs. JPMe of \$(0.76). 4Q OpEx of \$9.9M was lower than JPMe of \$16.2M (due to lower than expected R&D of \$7.2M vs. JPMe of \$13.6M). That said, OTIC is not yet an earnings story.
- **Estimate changes.** We have updated our model for 4Q results. We are increasing our YE15 PT to \$42 (from \$32 previously) primarily due to a lower WACC that is now 10%, down from 13% previously (typically Bloomberg derived WACC is ~6%); probability adjustments for AuriPro and '104 remain 85% and 70%, respectively.
- **Balance sheet update.** OTIC ended 4Q with ~\$156M in cash (and no debt), which does not include ~\$80M raised in a secondary offering in January (J.P. Morgan acted as sole book-runner).

Otonomy, Inc. (OTIC;OTIC US)

FYE Dec	2012A	2013A	2014A	2015E (Prev)	2015E (Curr)	2016E (Prev)	2016E (Curr)
EPS Reported (\$)							
Q1 (Mar)	-	(1.04)	(3.65)	-	(0.61)	-	-
Q2 (Jun)	-	-	(3.40)	-	(0.74)	-	-
Q3 (Sep)	-	-	(1.23)	-	(0.79)	-	-
Q4 (Dec)	-	-	(0.46)	-	(0.83)	-	-
FY	(3.38)	(7.64)	(5.46)	(3.11)	(2.98)	(3.12)	(2.84)

Source: Company data, Bloomberg, J.P. Morgan estimates.

Overweight

OTIC, OTIC US

Price: \$38.50

▲ **Price Target: \$42.00**
Previous: \$32.00

Biotechnology

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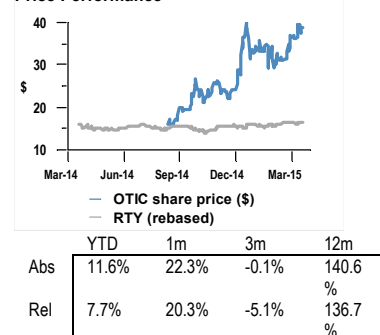
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Price Performance



Company Data

Price (\$)	38.50
Date Of Price	18 Mar 15
52-week Range (\$)	41.99-15.19
Market Cap (\$ mn)	928.89
Fiscal Year End	Dec
Shares O/S (mn)	24
Price Target (\$)	42.00
Price Target End Date	31-Dec-15

See page 6 for analyst certification and important disclosures.

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Pipeline

Figure 1: OTIC Pipeline

Product Pipeline Highlights

Program	P/C	Ph 1	Ph 2	Ph 3	FDA	Mkt.	Partner	Comments
AuriPro Middle ear effusion								ciprofloxacin
OTO-104 Ménière's disease								dexamethasone
OTO-311 Tinnitus								gacyclidine

Source: Company reports and J.P. Morgan estimates.

Upcoming Events

Figure 2: OTIC Upcoming Events

Anticipated Newsflow Highlights

Program	Event	Expected Timing	Significance
AuriPro	Initiate clinical trials in other indications	1H15	Low
	Potential US Launch	1Q16	High
OTO-104	Phase 2b results in Ménière's disease	2Q15	Medium
	Initiate second pivotal trial in Ménière's disease	2H15	Low
OTO-311	File IND	2015	Medium
	Initiate Phase 1 study	2015	Low

Source: Company reports and J.P. Morgan estimates

Figure 3: OTIC Income Statement

Otonomy Income Statement												
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	2012A	2013A	2014A	1Q15E	2Q15E	3Q15E	4Q15E	2015E	2016E	2017E	2018E	2019E
AuriPro Revenues				-	-	-	-	-	6.9	31.7	63.8	106.6
OTO-104 Revenues				-	-	-	-	-	-	-	10.7	68.2
Total Product Revenue			-	-	-	-	-	-	6.9	31.7	74.6	174.8
License & Milestone	-	-	-	-	-	-	-	-	-	-	-	-
Contract, Grant & Collaboration	-	-	-	-	-	-	-	-	-	-	-	-
Total Revenues	-	-	-	-	-	-	-	-	6.9	31.7	74.6	174.8
COGS		-	-	-	-	-	-	-	1.0	4.1	8.2	15.7
R&D	8.5	16.3	31.8	11.5	12.1	12.7	12.9	49.1	50.6	55.7	60.8	68.4
SG&A	2.4	3.5	7.8	2.4	6.1	6.8	7.5	22.8	35.3	49.0	54.2	55.7
Total Operating Expenses	10.9	19.9	39.6	13.9	18.1	19.5	20.4	71.9	87.0	108.8	123.2	139.8
Operating Income	(10.9)	(19.9)	(39.6)	(13.9)	(18.1)	(19.5)	(20.4)	(71.9)	(80.1)	(77.1)	(48.6)	35.1
Other income (expense)	(0.4)	(2.5)	(3.2)	0.1	0.1	0.1	0.1	0.5	0.4	0.4	0.4	0.6
Change in fair value of convertible pref. stock	3.8	2.8	-	-	-	-	-	-	-	-	-	-
Income Tax (benefit)		-	-	-	-	-	-	-	-	-	-	-
GAAP Net Income	(7.6)	(19.6)	(42.9)	(13.7)	(18.0)	(19.4)	(20.3)	(71.4)	(79.7)	(76.7)	(48.2)	35.6
Accretion to redemption value of convertible pref. stock	(0.8)	(0.5)	(0.0)									
GAAP Net Income attributable to common stockholders	(8.4)	(20.1)	(42.9)	(13.7)	(18.0)	(19.4)	(20.3)	(71.4)	(79.7)	(76.7)	(48.2)	35.6
Non-GAAP Net Income	(8.4)	(20.1)	(41.2)	(13.5)	(17.7)	(19.1)	(20.0)	(70.3)	(78.3)	(75.0)	(46.0)	38.2
GAAP Basic EPS	(3.38)	(7.64)	(5.46)	(0.61)	(0.74)	(0.79)	(0.83)	(2.98)	(2.84)	(2.43)	(1.40)	0.95
GAAP Diluted EPS	(3.38)	(7.64)	(5.46)	(0.61)	(0.74)	(0.79)	(0.83)	(2.98)	(2.84)	(2.43)	(1.40)	0.88
Non-GAAP Basic EPS			(5.25)	(0.59)	(0.73)	(0.78)	(0.82)	(2.93)	(2.79)	(2.38)	(1.33)	1.02
Non-GAAP Diluted EPS			(5.25)	(0.59)	(0.73)	(0.78)	(0.82)	(2.93)	(2.79)	(2.38)	(1.33)	0.95
Basic Shares Outstanding	2.5	2.6	7.9	22.7	24.3	24.4	24.5	24.0	28.1	31.6	34.6	37.6
Diluted Shares Outstanding	2.5	2.6	7.9	22.7	24.3	24.4	24.5	24.0	28.1	31.6	34.6	40.4
Margin Analysis:												
Gross margin	NM	NM	NM	NM	NM	NM	NM	NM	85%	87%	89%	91%
Operating margin	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	20.06%
Net margin	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	20.39%
Tax Rate	0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cost Analysis:												
COGS as % of tot. prod. sales	NM	NM	NM	0.00%	0.00%	0.00%	0.00%	0.00%	15.00%	13.00%	11.00%	9.00%
R&D as % of tot. revenue	NM	NM	NM	NM	NM	NM	NM	NM	734.75%	175.51%	81.52%	39.10%
SG&A as % of tot. revenue	NM	NM	NM	NM	NM	NM	NM	NM	512.28%	154.40%	72.72%	31.85%
Year-over-year growth:												
Total revenue		NM	NM	NM	NM	NM	NM	NM	NM	360.50%	134.89%	134.51%
R&D Expense		91.67%	94.68%	27.79%	45.95%	72.01%	79.10%	54.34%	3.18%	10.00%	9.10%	12.47%
SG&A Expense		45.93%	122.99%	51.76%	288.67%	234.93%	182.59%	191.26%	54.71%	38.80%	10.63%	2.70%
Total operating expenses		81.59%	99.69%	31.34%	84.58%	107.36%	107.11%	81.41%	20.97%	25.12%	13.19%	13.45%
Operating income		NM	99.69%	NM	NM	NM	NM	81.41%	11.38%	-3.74%	-36.91%	-172.08%
Net income		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
EPS		NM	-28.50%	NM	NM	NM	NM	-45.51%	-4.64%	-14.36%	-42.59%	-163.18%
Basic Shares		6.28%	198.64%	671.70%	677.69%	148.57%	16.00%	205.47%	16.95%	12.48%	9.51%	8.68%
Diluted Shares		NM	NM	NM	NM	72.91%	15.63%	51.74%	16.06%	26.20%	1.60%	17.29%

Source: J.P. Morgan estimates, Company data.

Investment Thesis, Valuation and Risks

Otonomy (Overweight; Price Target: \$42.00)

Investment Thesis

We have an OW rating on OTIC based on the potential of its two lead pipeline candidates: AuriPro (sustained exposure antibiotic) and OTO-104 (sustained exposure steroid). AuriPro has successfully completed Phase 3 trials in TTP surgery (ear tube placement); we expect a 1Q16 launch with peak sales of \$250M. OTO-104 is in a Phase 2b trial in Ménière's disease; data is expected in 2Q15 and we assume launch in 2018 with peak sales of ~\$500M.

Valuation

Our Dec 2015 price target of \$42 is based on a blended average of our proprietary probability-adjusted scenario analysis (50%) and a risk-adjusted NPV model (50%).

OTIC Valuation Summary

Otonomy Valuation Summary			
Discount rate	10%		
4Q15 Fully Diluted Shares (mm)	26.9		
Main value drivers	Prob of approval	Peak WW sales est (avg. scenario)	Avg peak yr
US AuriPro	85%	\$ 273	2022
US OTO-104	70%	\$ 497	2023
Valuation methodology	Value / share	Weighting	Adj. value/ share
Real options scenario analysis	\$ 45.38	50%	22.69
Risk adjusted NPV analysis	\$ 37.97	50%	18.98
Total			\$ 41.67
Catalyst/liquidity discount			0%
YE15 Price Target			\$ 42

Source: J.P. Morgan estimates.

Risks to Rating and Price Target

OTIC is susceptible to the standard risks that apply to the entire biotech industry, including development, regulatory, commercial, manufacturing, financing, and IP pitfalls. More specific risks to the downside include clinical setbacks for the key pipeline product OTO-104 and pre-clinical candidate OTO-311, regulatory hurdles, and commercial setbacks.

Otonomy: Summary of Financials

Income Statement - Annual	FY14A	FY15E	FY16E	FY17E	Income Statement - Quarterly	1Q15E	2Q15E	3Q15E	4Q15E
Revenues	0	0	7	-	Revenues	0	0	0	0
Cost of products sold	0	0	(1)	-	Cost of products sold	0	0	0	0
Gross profit	-	-	-	-	Gross profit	-	-	-	-
SG&A	(8)	(23)	(35)	-	SG&A	(2)	(6)	(7)	(8)
R&D	(32)	(49)	(51)	-	R&D	(11)	(12)	(13)	(13)
Operating income	(40)	(72)	(80)	-	Operating income	(14)	(18)	(19)	(20)
EBITDA	(40)	(72)	(80)	-	EBITDA	(14)	(18)	(19)	(20)
Net interest (income) / expense	-	-	-	-	Net interest (income) / expense	-	-	-	-
Other income / (expense)	(3)	0	0	-	Other income / (expense)	0	0	0	0
Income taxes	0	0	0	-	Income taxes	0	0	0	0
Net income - GAAP	(43)	(71)	(80)	-	Net income - GAAP	(14)	(18)	(19)	(20)
Net income - recurring	(43)	(71)	(80)	-	Net income - recurring	(14)	(18)	(19)	(20)
Diluted shares outstanding	8	24	28	-	Diluted shares outstanding	23	24	24	25
EPS - excluding non-recurring	(5.46)	(2.98)	(2.84)	-	EPS - excluding non-recurring	(0.61)	(0.74)	(0.79)	(0.83)
EPS - recurring	(5.46)	(2.98)	(2.84)	-	EPS - recurring	(0.61)	(0.74)	(0.79)	(0.83)
Balance Sheet and Cash Flow Data	FY14A	FY15E	FY16E	FY17E	Ratio Analysis	FY14A	FY15E	FY16E	FY17E
Cash and cash equivalents	149	158	179	-	Sales growth	-	-	-	-
Accounts receivable	-	-	-	-	EBIT growth	99.7%	81.4%	11.4%	-
Inventories	-	-	-	-	EPS growth - recurring	(28.5%)	(45.5%)	(4.6%)	-
Other current assets	2	2	2	-	-	-	-	-	-
Current assets	151	160	181	-	Gross margin	-	-	-	-
PP&E	1	1	1	-	EBIT margin	-	-	(1162.0%)	-
Total assets	152	161	182	-	EBITDA margin	-	-	(1162.0%)	-
-	-	-	-	-	Tax rate	0.0%	0.0%	0.0%	-
Total debt	0	0	0	-	Net margin	-	-	(1155.7%)	-
Total liabilities	3	3	4	-	-	-	-	-	-
Shareholders' equity	148	158	179	-	Net Debt / EBITDA	375.6%	219.8%	223.7%	-
-	-	-	-	-	Net Debt / Capital (book)	34066.3%	38588.5%	47243.5%	-
Net income (including charges)	(43)	(71)	(80)	-	-	-	-	-	-
D&A	0	0	0	-	Return on assets (ROA)	(44.9%)	(45.7%)	(46.4%)	-
Change in working capital	0	0	0	-	Return on equity (ROE)	(46.5%)	(46.7%)	(47.4%)	-
Other	1	1	1	-	-	-	-	-	-
Cash flow from operations	(41)	(70)	(78)	-	Enterprise value / sales	-	-	108.8	-
-	-	-	-	-	Enterprise value / EBITDA	NM	NM	NM	-
Capex	(0)	(0)	(0)	-	Free cash flow yield	(13.8%)	(7.7%)	(7.3%)	-
Free cash flow	(42)	(71)	(79)	-	-	-	-	-	-
Cash flow from investing activities	(0)	(0)	(0)	-	-	-	-	-	-
Cash flow from financing activities	153	80	100	-	-	-	-	-	-
Dividends	-	-	-	-	-	-	-	-	-
Dividend yield	-	-	-	-	-	-	-	-	-

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Dec

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Otonomy (OTIC, OTIC US) Price Chart



Date	Rating	Share Price (\$)	Price Target (\$)
08-Sep-14	OW	18.79	32.00

Source: Bloomberg and J.P. Morgan; price data adjusted for stock splits and dividends.
Initiated coverage Sep 08, 2014.

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