

November 12, 2015

## FibroGen, Inc.

### FibroGen Continues to Make Clinical Progress Toward Key Catalysts in 2016

After the markets closed on Thursday, November 12, FibroGen reported its third-quarter earnings. The company reported a loss per share of \$0.74, compared with our estimate of a loss per share of \$0.53 and the Street's estimate of a loss per share of \$0.59. The increased loss per share was primarily driven by a lower-than-estimated noncontingent license payment from partner AstraZeneca (AZN \$30.85). A variance analysis between our estimates and the company's actual results for the quarter are summarized in exhibit 1.

- Roxadustat development remains on track, with regulatory filings planned for 2016 in China and 2018 in the United States, pending positive trial results.** Roxadustat is involved in seven continuing global Phase III clinical trials, partnered with AstraZeneca and Astellas. In the three trials being run by FibroGen, ANDES (in nondialysis patients), HIMALAYAS (in incident dialysis patients), and SIERRAS (in stable dialysis patients), more than 80% of the target enrollment has been reached, and we anticipate target enrollment will be met between March and April of 2016. In October, the data safety monitoring board completed its scheduled review of the Phase III trials and recommended that the studies proceed without protocol changes. Management also disclosed the potential to test roxadustat in two additional anemia indications in China, myelodysplastic syndrome and chemotherapy-induced anemia, due to the lack of blood transfusion infrastructure in the country. Roxadustat has the potential to capture significant market share of patients with anemia, which we estimate to be roughly \$8.6 billion globally. In addition, the compound may be able to expand the current market due to its superior safety profile compared with the current standard of care (such as Epogen).
- Management disclosed early signs of clinical activity with FG-3019, FibroGen's wholly owned connective tissue growth factor (CTGF) inhibitor, in patients with unresectable pancreatic cancer.** In a continuing Phase II trial comparing gemcitabine plus nab-paclitaxel with or without FG-3019 in patients with unresectable pancreatic cancer, three of the four patients given FG-3019 were re-evaluated and determined to be eligible for resection, with the fourth patient discontinuing treatment due to an unrelated adverse event. All three patients who were randomized to receive gemcitabine plus nab-paclitaxel alone did not become eligible for surgical resection after treatment. Although this is a very small sample size, we believe it shows additional signs of clinical activity for FG-3019 across multiple diseases with fibrotic components. In addition to pancreatic cancer, a continuing Phase II trial in patients with idiopathic pulmonary fibrosis and the initiation of a Phase II trial in nonambulatory Duchenne muscular dystrophy patients has the potential to provide near-term upside on FibroGen's stock performance. FibroGen's time-and-events calendar is presented in exhibit 3.

FibroGen is a San Francisco-based biopharmaceutical company focused on the discovery, development, and commercialization of novel therapeutics to treat serious unmet medical needs. The lead product candidate, roxadustat, is in Phase III clinical study with pivotal data expected in the second half of 2016.

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Stock Rating: **Outperform**  
Company Profile: **Aggressive Growth**

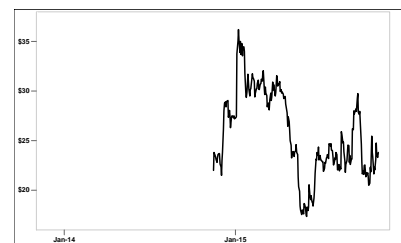
Symbol: FGEN (NASDAQ)  
Price: \$25.26 (52-Wk.: \$17-\$41)  
Market Value (mil.): \$1,532  
Long-Term EPS Growth Rate:  
Dividend/Yield: None  
Fiscal Year End: December

	2014A	2015E	2016E
<b>Estimates</b>			
EPS Q1	\$-0.46	A\$-0.79	\$-0.42
Q2	\$0.86	A\$0.83	\$0.28
Q3	\$-0.60	A\$-0.74	\$-0.42
Q4	\$-0.86	\$-0.37	\$-0.47
FY	\$-1.05	\$-1.07	\$-1.03
CY		\$-1.07	\$-1.03
Sales (mil.)	137,601	205,762	184,585
<b>Valuation</b>			
FY P/E	NM	NM	NM
CY P/E		NM	NM

<b>Trading Data (FactSet)</b>	
Shares Outstanding (mil.)	61
Float (mil.)	45
Average Daily Volume	447,679

<b>Financial Data (FactSet)</b>	
Book Value Per Share (MRQ)	4.2
Return on Equity (TTM)	-39.5

#### Two-Year Price Performance Chart



Sources: FactSet, William Blair & Company estimates

- FibroGen ended the quarter with \$365.6 million in cash, and we believe current cash levels will sustain the company for at least two years, based on the current burn rate.** FibroGen is involved in an economically rich, global collaborative framework with Astellas and AstraZeneca, which decreases the capital and development risk while helping the company build a healthy balance sheet. On the call with investors, management guided that FibroGen's cash balance at the end of 2015 would be in the range of \$330 million to \$340 million, and its preliminary cash guidance at the end of 2016 was estimated to be in the range of \$295 million to \$300 million. In addition, FibroGen's funding obligation outside of China for lead compound roxadustat will likely be fulfilled before December (\$11.8 million out of \$116.5 million remains as of the end of the third quarter). Accordingly, we have adjusted our financial model to come more in line with operating trends and management guidance (exhibit 2). Given its strong financial position and multiple clinical assets' potential, we maintain our Outperform rating on FibroGen shares.

**Exhibit 1**  
**FibroGen, Inc.**  
**Third Quarter 2015 Variance Analysis**  
 (dollars in millions except EPS)

	FGEN Q3 2015A	WB Q3 2015E
Total Revenues	\$20	\$33
R&D	\$52	\$53
SG&A	\$11	\$15
Net Income	(\$45)	(\$36)
EPS	(\$0.74)	(\$0.53)

Sources: FibroGen reports and William Blair & Company, L.L.C. estimates.

**Exhibit 2**  
**FibroGen, Inc.**  
**Guidance and Estimates**  
 (dollars in millions except EPS)

	WB Previous 2015E	WB Revised 2015E	WB Previous 2016E	WB Revised 2016E	WB Previous 2017E	WB Revised 2017E	WB Previous 2018E	WB Revised 2018E
Total Revenues	\$219	\$206	\$185	\$185	\$152	\$152	\$306	\$306
R&D	\$208	\$207	\$166	\$166	\$177	\$177	\$185	\$185
SG&A	\$52	\$48	\$94	\$75	\$138	\$93	\$165	\$101
Net Income	(\$49)	(\$58)	(\$84)	(\$65)	(\$179)	(\$134)	(\$108)	(\$44)
EPS	(\$0.81)	(\$1.07)	(\$1.16)	(\$1.03)	(\$2.39)	(\$2.04)	(\$1.40)	(\$0.66)

Sources: FibroGen reports and William Blair & Company, L.L.C. estimates.

**Exhibit 3**  
**FibroGen, Inc.**  
**Timeline**

Date	Drug	Event
2015	FG-3019	Phase I/II trial initiation in non-ambulatory Duchenne muscular dystrophy (Q4).
	FG-3019	Phase II trial interim results in stage III pancreatic cancer (January).
2016	Roxadustat	Phase III trial results in anemia associated with CKD in China (2H).
	Roxadustat	Potential regulatory submission in anemia associated with CKD in China (2H).
2017	Roxadustat	Potential regulatory approval in anemia associated with CKD in China (1H).
	Roxadustat	Phase III global trial results in anemia associated with chronic kidney disease that is nondialysis dependent (1H).
2018	Roxadustat	Potential regulatory submission in anemia associated with CKD in the United States.
	Roxadustat	Potential regulatory submission in anemia associated with CKD in Europe.

Sources: FibroGen reports

## Valuation

FibroGen is currently trading at \$25.26, with a market cap of \$1.53 billion. We believe that FibroGen's three advanced, wholly owned clinical compounds offer the potential for significant shareholder value creation due to the robust efficacy and safety observed to date and the significant commercial opportunity in markets with a high unmet medical need.

### **Risks**

We believe the most important risks for FibroGen are clinical, regulatory, and financial. As with all biotechnology companies engaged in clinical development, the risk of clinical trial failure is significant, and FibroGen is engaging in late-stage trials with its two most-advanced assets. We believe failures with either of these compounds will weigh on the company's shares. In addition, FibroGen has no prior experience bringing a compound to market, so we acknowledge that there is regulatory risk as the company navigates through the process. Lastly, FibroGen continues to spend more money than it generates, so there is the risk that the company will need to access the capital markets to fund its continuing operations.

Our financial model is presented in exhibit 4 on the following page.

**Exhibit 4**  
**FibroGen, Inc.**  
**Income Statement**  
(dollars in thousands except EPS and share in thousands)

	2014A	Q1A	Q2A	Q3A	Q4E	2015E	2016E	2017E	2018E	2019E
License and milestone revenue	117,191	11,506	106,879	13,045	6,976	138,406	75,025	35,345	175,345	923,500
Collaboration services and other revenue	20,410	4,792	13,671	6,493	42,400	67,356	109,560	116,820	122,100	0
Roxadustat royalty	0	0	0	0	0	0	0	310	8,301	39,633
FG-3019 sales	0	0	0	0	0	0	0	0	0	0
<b>Total revenues</b>	<b>\$137,601</b>	<b>\$16,298</b>	<b>\$120,550</b>	<b>\$19,538</b>	<b>\$49,376</b>	<b>\$205,762</b>	<b>\$184,585</b>	<b>\$152,475</b>	<b>\$305,746</b>	<b>\$963,133</b>
Cost of revenue	0	0	0	0	0	0	0	7,769	55,800	140,966
Gross profit	137,601	16,298	120,550	19,538	49,376	205,762	184,585	144,706	249,945	822,167
R&D	150,794	50,539	51,555	52,071	53,000	207,165	166,000	177,000	185,000	193,000
SG&A	36,909	10,482	9,680	11,237	17,000	48,399	75,000	93,000	101,000	109,000
Total operating expenses	187,703	61,021	61,235	63,308	70,000	255,564	241,000	270,000	286,000	302,000
<b>Income from operations</b>	<b>(\$50,102)</b>	<b>(\$44,723)</b>	<b>\$59,315</b>	<b>(\$43,770)</b>	<b>(\$20,624)</b>	<b>(\$49,802)</b>	<b>(\$56,415)</b>	<b>(\$125,294)</b>	<b>(\$36,055)</b>	<b>\$520,167</b>
Total interest and other, net	(9,402)	(1,915)	(2,055)	(1,300)	(2,210)	(7,480)	(8,740)	(8,580)	(8,420)	(8,260)
Net income before income taxes	(59,504)	(\$46,638)	\$57,260	(\$45,070)	(\$22,834)	(57,282)	(65,155)	(133,874)	(44,475)	511,907
Income tax benefit	0	0	(205)	(28)	0	(233)	0	0	0	(100,780)
<b>Net income</b>	<b>(\$59,504)</b>	<b>(\$46,638)</b>	<b>\$57,055</b>	<b>(\$45,098)</b>	<b>(\$22,834)</b>	<b>(\$57,515)</b>	<b>(\$65,155)</b>	<b>(\$133,874)</b>	<b>(\$44,475)</b>	<b>\$411,127</b>
Non-GAAP net income per common share basic	(\$1.05)	(\$0.79)	\$0.95	(\$0.74)	(\$0.37)	(\$0.95)	(\$1.03)	(\$2.04)	(\$0.66)	\$5.84
<b>Non-GAAP net income per common share diluted</b>	<b>(\$1.05)</b>	<b>(\$0.79)</b>	<b>\$0.83</b>	<b>(\$0.74)</b>	<b>(\$0.37)</b>	<b>(\$1.07)</b>	<b>(\$1.03)</b>	<b>(\$2.04)</b>	<b>(\$0.66)</b>	<b>\$5.84</b>
Non-GAAP weighted-average common shares basic	50,206	59,197	59,798	60,767	61,366	60,282	62,892	65,406	68,022	70,742
Non-GAAP weighted-average common shares diluted	50,206	59,197	68,752	60,767	61,366	62,520	62,892	65,406	68,022	70,742

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Sources: FibroGen reports.

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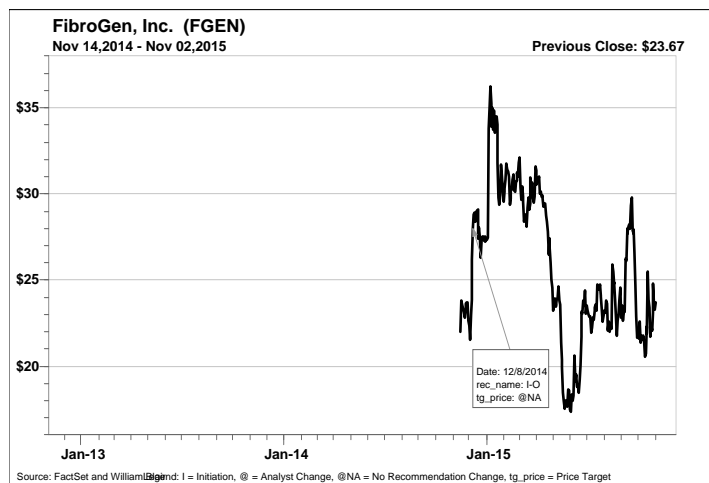
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DOW JONES: 17,702.22

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Coverage Universe	Percent	Inv. Banking Relationships*	Percent
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Market Perform (Hold)	31	Market Perform (Hold)	3
Underperform (Sell)	2	Underperform (Sell)	0

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