

Equity Research

Five Prime Therapeutics, Inc.

FPRX: Q3--Pipeline Moving Into Clinic On Track

• **Summary:** On 11/12, FPRX reported Q3 2013 earnings. The company's clinical programs remain on track, with the ph.Ib FP-1039 cancer study beginning to ramp up and FPA008 entering a ph.I trial in healthy volunteers, and we expect initial readouts from both programs in H2 2014. Though near-term catalysts are limited, we believe that as these programs mature further and additional platform-derived programs progress, there will be greater recognition of the value of FPRX's differentiated discovery technology and promising early-stage pipeline. We continue to like FPRX's long-term prospects, and believe that the recent pullback (current EV ~\$56M) provides an excellent buying opportunity. Adjusting 2013E EPS to -\$5.49 from -\$3.27 and 2014E to -\$1.78 from -\$1.68.

• **Financials:** FPRX reported Q3 2013 revenue of \$3.5MM and EPS of -\$2.74. The company ended the quarter with \$86.6MM in cash and equivalents, following their initial public offering, and expects to end the year with about \$73-75M.

• **FP-1039 ph.Ib study under way, with partner GSK activating sites.** The ph.Ib study of FPRX's lead program, FGF ligand trap FP-1039, is now under way, with FPRX reporting that 5 of the 20 sites are now active and dosing has begun in the two NSCLC arms. Although it is too early to gauge what the pace of enrollment might be (given the requirement for FGFR1 amplification), FPRX noted that they and their partners chose sites who see a large number of squamous NSCLC patients and/or who perform molecular characterization--which reaffirms their confidence that initial data will become available by end-2014. The design of the third arm, expected to involve FP-1039 monotherapy, is still being finalized. We continue to believe FP-1039 has solid scientific rationale, both in terms of its FGF target as well as its ligand trap approach, which should improve the potential therapeutic window.

• **On track with prior guidance, autoimmune/inflammatory antibody FPA008 has entered a ph.I healthy volunteer study.** Recall that the antibody, which targets the CSFR1 receptor found on monocytes/macrophages, had shown robust activity in preclinical models, and has potential in a number of inflammatory conditions such as RA and psoriasis--with potential bone advantages. While initial results end-2014 will be from healthy volunteers in the SAD/MAD portions of the study, we believe biomarker data from these portions, such as CD16+ monocyte depletion and markers of bone turnover, correlated to prior animal studies, could provide important information as to whether FPRX can achieve an effective and safe dose in RA, helping de-risk the program.

• (Continued on next page)

Valuation Range: \$17.00 to \$19.00

Our valuation range is based on applying a 30x multiple to our 2023 estimated EPS and discounting at 15%, blended with 2.5x multiple of 2023 estimated sales, and discounting 10-12%, plus \$4 for technology/pipeline value. Key risks, in our view, are clinical and regulatory failure of its programs, competition, and financing.

Investment Thesis:

We believe Five Prime's technology platform and biologics stemming from it will drive long-term value.

Please see page 4 for rating definitions, important disclosures and required analyst certifications

All estimates/forecasts are as of 11/13/13 unless otherwise stated.

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Outperform / V

Sector: Biotechnology

Market Weight

Earnings Estimate Revised Down

EPS	2012A	2013E		2014E	
		Curr.	Prior	Curr.	Prior
Q1 (Mar.)	NE	NE A		NE	
Q2 (June)	NE	NE A		NE	
Q3 (Sep.)	NE	(2.74) A	(0.43)	NE	
Q4 (Dec.)	NE	(0.51)	(0.47)	NE	
FY	(\$23.05)	(\$5.49)	(3.27)	(\$1.78)	(1.68)
CY	(\$23.05)	(\$5.49)		(\$1.78)	
FY P/E	NM	NM		NM	
Rev.(MM)	\$10	\$13		\$15	

Source: Company Data, Wells Fargo Securities, LLC estimates, and Reuters
NA = Not Available, NC = No Change, NE = No Estimate, NM = Not Meaningful
V = Volatile, * = Company is on the Priority Stock List

2013E EPS includes H1 EPS of -\$14.80.

Ticker	FPRX
Price (11/12/2013)	\$8.49
52-Week Range:	\$8-16
Shares Outstanding: (MM)	16.8
Market Cap.: (MM)	\$142.6
S&P 500:	1,767.69
Avg. Daily Vol.:	57,869
Dividend/Yield:	\$0.00/0.0%
LT Debt: (MM)	\$0.0
LT Debt/Total Cap.:	0.0%
ROE:	NM
3-5 Yr. Est. Growth Rate:	NE
CY 2013 Est. P/E-to-Growth:	NM
Last Reporting Date:	11/12/2013
	After Close

Source: Company Data, Wells Fargo Securities, LLC estimates, and Reuters

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Together we'll go far



Company Description:

Five Prime Therapeutics (FPRX), Inc., headquartered in South San Francisco, California, is a biotechnology company focused on discovering and developing protein therapeutic candidates based on its extensive library of 5,600+ extracellular proteins, including ligands and receptors. Its lead development candidate is FP-1039 [ph.I(b)], an FGFR1-targeted ligand trap in development for solid tumors and partnered with GlaxoSmithKline. Behind '1039, its unpartnered pipeline includes FPA008 (ph.I) a monoclonal antibody in development for inflammatory diseases (e.g., rheumatoid arthritis), and FPA144 (preclinical), an antibody for gastric cancer. Beyond its three lead programs, Five Prime has discovery collaborations with GSK for muscle diseases (sarcopenia and cachexia) and respiratory diseases (refractory asthma and COPD) and UCB Pharma for fibrotic-related immunologic and CNS diseases.

Continued from front page

- **Drug discovery collaborations continue.** FPRX noted that in October, GSK exercised their right to evaluate additional muscle disease targets, and last month FPRX also entered an agreement with ADC Therapeutics Sarl on antibody-drug conjugates. We see FPRX's differentiated biologics discovery platform as providing a strong foundation for a sustainable pipeline and long-term revenue growth.

Upcoming Milestones

Product	Event	Timeline
FP-1039	Top-line results from ph.Ib study	2H14
	Potential pre-ph.IIb study meeting with FDA	2H14/1H15
	Consider initiating ph.II/III randomized study of SOC +/- '1039 in NSCLC	2015
	Explore studies in other cancer indications (GIST, mesothelioma, GBM, RCC, HCC)	2014/2015
FPA008	Complete manufacture of drug substance for ph.I	End-2013
	Ph.I top-line PK and safety results	end-2014
	Expand ph.I study to include RA patients	2H14
	Introduce SC formulation	2H14/2015
	File IND, initiate ph.II study likely in biologics failures	2015
FPA144	Explore other inflammatory diseases (IPF, lupus nephritis, etc.)	2015
	File IND	2014
	Initiate ph.I study	end-2014
	Top-line ph.I results	2015

Source: Company reports and Wells Fargo Securities, LLC estimates

Product Pipeline

Product (partner)	Indication/mechanism	Status
FP-1039 (GSK)	Oncology (multiple solid tumors); FGF Ligand Trap	Phase Ib
FPA008	Autoimmune disease; CSF1R antibody	Entering phase I
FPA144	Gastric cancer; FGFR2b antibody	Pre-IND
GSK	Muscle wasting (sarcopenia and cachexia), respiratory (refractory asthma and COPD)	Discovery
UCB	Fibrosis, immunologic, and CNS diseases	Discovery
Multiple candidates	Antibodies and ligand traps vs. cancer, immunotherapy, steroid resistant asthma	Discovery

Source: Company reports and Wells Fargo Securities, LLC

Five Prime Therapeutics, Inc.

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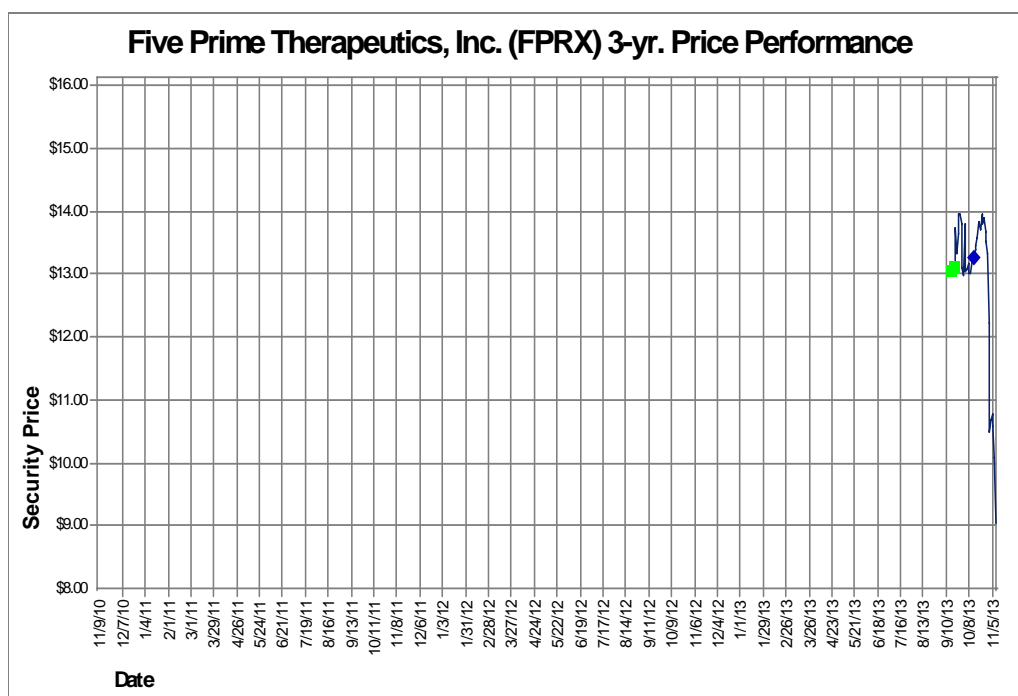
Five Prime Therapeutics (FPRX)
Statement of Operations (Income Statement)

(in thousands except per share amounts)

	2010A	2011A	2012A	1HA	3QA	4QE	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E
Revenues																	
Total Global FP-1039 sales (15-35% prob-weighted by tumor type)																	
Total Global FPA008 sales (20% prob-weighted)																	
Collaborative revenue	\$23,740	\$64,916	\$9,983	\$6,524	\$3,482	\$2,500	\$12,506	\$15,100	\$26,800	\$97,800	\$21,500	\$34,000	\$21,500	\$39,000	\$54,000	\$39,000	\$34,000
FP-1039 (royalties; probability weighted by tumor type)																	
FPA008 (royalties; probability weighted)																	
Total revenues, net	\$23,740	\$64,916	\$9,983	\$6,524	\$3,482	\$2,500	\$12,506	\$15,100	\$26,800	\$97,800	\$21,500	\$34,916	\$23,329	\$41,598	\$64,953	\$64,343	\$99,141
Expenses																	
Research and development	\$29,417	\$34,039	\$28,778	\$16,515	\$8,193	\$8,500	\$33,208	\$34,868	\$36,612	\$38,442	\$39,980	\$41,579	\$42,827	\$44,111	\$45,435	\$46,798	\$48,202
Selling, general and administrative	\$8,338	\$11,216	\$9,009	\$4,778	\$2,607	\$2,600	\$9,985	\$10,984	\$11,423	\$11,880	\$12,355	\$12,849	\$13,363	\$13,898	\$14,454	\$15,032	\$15,633
Total operating expenses	\$37,755	\$45,255	\$37,787	\$21,293	\$10,800	\$11,100	\$43,193	\$45,852	\$48,035	\$50,322	\$52,335	\$54,428	\$56,190	\$58,009	\$59,888	\$61,830	\$63,835
Operating income	(\$14,015)	\$19,661	(\$27,804)	(\$14,769)	(\$7,318)	(\$8,600)	(\$20,687)	(\$30,752)	(\$21,235)	\$47,478	(\$10,835)	(\$19,513)	(\$32,860)	(\$16,411)	\$5,065	\$2,514	\$35,306
Interest income	\$58	\$114	\$88	\$28	\$84	\$94	\$206	\$190	\$410	\$859	\$1,191	\$1,068	\$878	\$707	\$726	\$804	\$1,338
Other income (expense) net	\$491	(\$65)	\$121	\$420	\$0	\$0	\$420	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(Loss) income before benefit from income taxes	(\$13,466)	\$19,710	(\$27,595)	(\$14,321)	(\$7,234)	(\$8,506)	(\$30,061)	(\$30,562)	(\$20,825)	\$48,337	(\$29,644)	(\$18,445)	(\$31,983)	(\$15,704)	\$5,791	\$3,318	\$36,645
Benefit (expense) from income taxes	\$5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$366
Net (loss) income	(\$13,461)	\$19,710	(\$27,595)	(\$14,321)	(\$7,234)	(\$8,506)	(\$30,061)	(\$30,562)	(\$20,825)	\$48,337	(\$29,644)	(\$18,445)	(\$31,983)	(\$15,704)	\$5,791	\$3,318	\$37,011
Earnings Per Share (GAAP)	(\$12.22)	\$10.35	(\$23.05)	(\$11.55)	(\$2.74)	(\$0.51)	(\$5.49)	(\$1.76)	(\$1.09)	\$2.23	(\$1.49)	(\$0.91)	(\$1.47)	(\$0.71)	\$0.23	\$0.13	\$1.45
Shares Outstanding (Basic)	1,102	1,152	1,197	1,240	2,637	16,800	5,479	17,200	19,100	19,500	19,900	20,300	21,700	22,100	22,500	22,900	23,300
Shares Outstanding (Diluted)	1,102	1,904	1,197	1,240	4,837	19,000	6,579	19,400	21,300	21,700	22,100	22,500	23,900	24,300	24,700	25,100	25,500

Source: Company reports and Wells Fargo Securities, LLC estimates

Required Disclosures



	Date	Publication Price (\$)	Rating Code	Val. Rng. Low	Val. Rng. High	Close Price (\$)
□	9/18/2013		IPO at \$13.00			
	10/14/2013		Abrahams, M.D.			
◆	10/14/2013	13.19	1	17.00	19.00	13.25

Source: Wells Fargo Securities, LLC estimates and Reuters data

Symbol Key

- ▼ Rating Downgrade
- ▲ Rating Upgrade
- Valuation Range Change
- ◆ Initiation, Resumption, Drop or Suspend
- Analyst Change
- Split Adjustment

Rating Code Key

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- 3 Underperform/Sell
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- NR Not Rated
- NE No Estimate

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FPRX: Key risks, in our view, are clinical and regulatory failure of its programs, competition, and financing.

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