

Squarex Valuation

The valuation model following gives a Net Present Valuation of Squarex of \$119 million using extremely conservative assumptions.

SquareX Pharmaceutical Corporation		Year-1	Year-2	Year-3	Year-4	Year-5	Year-6	Year-7	Year-8	Year-9	Year-10	Year-11	Year-12	Year-13	Year-14	Year-15	Year-16
		FDA Approval															
Market Penetration		15% 30% 50% 80% 100% 100% 100% 100% 100% 100% 90% 80% 70% 60%															
	Mkt (Ml)	Mkt Share (%)															
Patients	7.0	50%	-	-	-	0.525	1.050	1.750	2.800	3.500	3.500	3.500	3.500	3.150	2.800	2.450	2.100
Cost/dose			-	-	-	\$135	\$135	\$135	\$135	\$135	\$135	\$135	\$135	\$135	\$135	\$135	\$135
Avg number of doses/year			-	-	-	2	2	2	2	2	2	2	2	2	2	2	2
Total Revenue (\$M)			-	-	-	141.8	283.5	472.5	756.0	945.0	945.0	945.0	945.0	850.5	756.0	661.5	567.0
Operations (incl CRO)			(6.4)	(12.6)	(23.0)	(23.0)	(3.0)	(3.1)	(3.2)	(3.3)	(3.4)	(3.5)	(3.6)	(3.7)	(3.8)	(3.9)	(4.0)
Cost of Goods Sold	15%		-	-	-	(21.3)	(42.5)	(70.9)	(113.4)	(141.8)	(141.8)	(141.8)	(141.8)	(127.6)	(113.4)	(99.2)	(85.1)
BioVentures royalties (of net revenue)	5.5%		-	-	-	(6.6)	(13.3)	-	-	-	-	-	-	-	-	-	-
Sales & Marketing (of net revenue)	20%		-	-	-	(24.1)	(48.2)	(80.3)	(128.5)	(160.7)	(160.7)	(160.7)	(160.7)	(144.6)	(128.5)	(112.5)	(96.4)
Wholesalers (of net revenue)	15%		-	-	-	(18.1)	(36.1)	(60.2)	(96.4)	(120.5)	(120.5)	(120.5)	(120.5)	(108.4)	(96.4)	(84.3)	(72.3)
Total Expenses			(6.4)	(12.6)	(23.0)	(23.0)	(73.1)	(143.2)	(214.6)	(341.6)	(426.3)	(426.4)	(426.5)	(426.6)	(384.4)	(342.2)	(300.1)
Adjusted EBITDA			(6.4)	(12.6)	(23.0)	(23.0)	68.7	140.3	257.9	414.4	518.7	518.6	518.5	518.4	466.1	413.8	361.4
	Tax Rate	NOL															
Income Taxes (IRS & State)	29%	0.2	-	-	-	(1.3)	(40.7)	(74.8)	(120.2)	(150.4)	(150.4)	(150.4)	(150.3)	(135.2)	(120.0)	(104.8)	(89.6)
After Tax Cash Flow			(6.4)	(12.6)	(23.0)	(23.0)	67.4	99.6	183.1	294.2	368.3	368.2	368.1	330.9	293.8	256.6	219.5
Probability based on FDA Approval	59.4%		100.0%	100.0%	100.0%	100.0%	59.4%	59.4%	59.4%	59.4%	59.4%	59.4%	59.4%	59.4%	59.4%	59.4%	59.4%
Probability Adjusted AT Cash Flow			(6.4)	(12.6)	(23.0)	(23.0)	38.8	59.2	108.8	174.8	218.8	218.7	218.6	196.6	174.5	152.4	130.4
	Discount	NPV (\$M)															
NPV After Tax Cash Flow	30.0%	225															
NPV Probability Adj AT Cash Flow	30.0%	119															
NPV in year 4 upon FDA approval	15.0%	1380															

The key assumptions of the model are

- No sales outside U.S.
- No sales to persons with fewer than 6 cold sore episodes per year.
- Treating 50% of U.S. persons with 6 or more outbreaks.
- Sales of 2 doses per year on average to those persons instead of the recommended four doses.
- Four years to FDA approval. We think three years is feasible.
- 59.4% chance of FDA approval, which is the historical norm for drugs after Phase 2. In our case, the drug has been effective in 3 of 3 clinical trials with no serious adverse events, so we think the chance of FDA approval is actually higher than that.
- Discount rate of 30%. That is high. 25% would be more reasonable and would result in a higher valuation.

Those assumptions are all conservative. In particular, it is reasonable to assume that sales to people with 1-5 outbreaks per year will be approximately the same as to persons with 6+ outbreaks and that foreign sales and profits will be about the same in total as U.S. sales. Those two changes would quadruple the valuation.

The model also assumes no revenue from sales for other diseases, and we plan to seek FDA approval for other diseases.

Once we have FDA approval, nearly all the risk has been removed and the the sales from that point forward would be fairly certain. A fair valuation at that point, in three to four years, would be over \$1 billion just based on U.S. sales to persons with 6+ outbreaks per year only. Including foreign revenue and revenue from persons with 1-5 outbreaks would quadruple that valuation.

Thus, an increase of valuation from \$22 million at the share price of this offering to about \$5 billion after FDA approval in four years or less seems quite possible.