

## Azur-Rx (NASDAQ/AZRX)

### BUY A Belts & Suspenders Approach

*AzurRx reported results from the Phase 2 "OPTION" study. The data showed that MS1819 was safe and at the two gram dose and worked well in ~half the patients. All the data suggests that at higher doses equivalency to the standard of care, PERT can be reached. Our thesis and fundamentally positive outlook is unchanged.*

### Investment Highlights

**OPTION Study Suggests a Path Forward.** Top-line data from the study released this morning reveals several important key parameters: 1. No Safety Signals. This is critically important as it paves the way to move to higher doses. 2. Results showed that the primary efficacy endpoint of coefficient of fat absorption (CFA) was comparable to the CFA in a prior phase 2 study in patients with chronic pancreatitis, (at the same dose of MS1819). 3. Even at the current (two) gram QD dose, efficacy was seen in approximately half the patients. 4. The coefficient of nitrogen absorption (CNA) was comparable between the MS1819 and PERT arms, 93% vs. 97%, respectively, in the OPTION trial. This important finding confirms that protease supplementation is not likely to be required with MS1819 treatment. This is a key finding of the study.

**So, What's Next?** As the Chief Medical Officer suggested on the call the company held this morning, "a belt & suspenders approach makes sense". That means, the company is likely to move to a higher dose and or make certain other adjustments (enteric coating to enable more drug to reach the gut) and confirm the efficacy signal and dose curve. This data then sets the stage for a de-risked pivotal trial. We also believe the agency, that is the FDA, is supportive of this approach. **That means, time invested in a small Phase 2 confirmatory study, saves time in the Phase 3 program.**

**MS1819 – It Just Makes Sense.** There are a significant number of unresolved issues with the current treatments for exocrine pancreatic insufficiency (EPI). They include product purity, (source is from pigs) and pill burden (25 ~ 40 pill a day). MS1819 is an orally administered, yeast-derived synthetic lipase. It acts in place of the enzymes normally produced by the pancreas which act to break down fat otherwise not broken down and digested.

**A Differentiated Solution.** Currently, there is no approved drug for Pancreatic Enzyme Replacement Therapy (PERT), on the market that provides patients with that duality of effectiveness and plant-based qualities. The current paradigm is dominated by undifferentiated porcine-derived extracts (PPEs), that show low stability in acidic conditions. This leaves patients taking relatively inactive, inconvenient, and ineffective pills, leaving room for a newcomer with differentiating properties.

**Acidic-Stability is the Key.** MS1819 has shown unique properties around its dissolution in an acidic environment which results in greater enzymatic activity (found at the low pH levels found within the stomach, usually 3-7 pH level). AzurRx's Phase 2 testing has shown MS1819 to be 133x more effective than the current standard of care at pH 6 and 224x more effective at pH 4.

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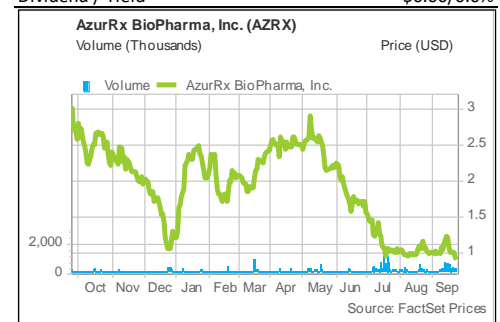
Current Price \$0.89  
Price Target \$7.00

Estimates	F2019E	F2020E	F2021E
Expenses (\$000s)	\$ 18,446	\$ 18,730	\$ 20,020
1Q March	\$ 4,604	\$ 4,308	\$ 4,605
2Q June	\$ 4,932	\$ 4,495	\$ 4,805
3Q September	\$ 4,500	\$ 4,870	\$ 5,205
4Q December	\$ 4,410	\$ 5,057	\$ 5,406

	F2019E	F2020E	F2021E
EPS (diluted)	\$ (0.80)	\$ (0.41)	\$ (0.38)
1Q March	\$ (0.26)	\$ (0.09)	\$ (0.09)
2Q June	\$ (0.25)	\$ (0.10)	\$ (0.09)
3Q September	\$ (0.15)	\$ (0.11)	\$ (0.10)
4Q December	\$ (0.15)	\$ (0.11)	\$ (0.10)

EBITDA/Share	(\$0.41)	(\$0.35)	(\$0.38)
EV/EBITDA (x)	0.0	0.0	0.0

Stock Data			
52-Week Range	\$0.64	-	\$3.10
Shares Outstanding (mil.)	26.1		
Market Capitalization (mil.)	\$23		
Enterprise Value (mil.)	\$23		
Debt to Capital	0%		
Book Value/Share	\$0.23		
Price/Book	4.8		
Average Three Months Trading Volume (K)	135		
Insider Ownership	20.6%		
Institutional Ownership	12.1%		
Short interest (mil.)	0.6%		
Dividend / Yield	\$0.00/0.0%		



**A Better Quality of Life.** The current standard of care for EPI involves consumption of ~25-40 pills per day. These pills are animal based, posing safety, cultural, religious, environmental, and tolerance concerns for patients. MS1819, in comparison, requires patients to take only ~5-8 pills per day (still likely true, as even a higher dose there is room in the capsule to change the ratio of active ingredients versus binder, and enteric coated formulation may also raise potency), and is plant-derived. Lowering the pill burden as well as common concerns about animal-derived drugs should make MS1819 an attractive option for patients' quality of life and physicians recognized concerns.

**Market Opportunity.** EPI results in the need for chronic treatment using PERT. The current PERT market is ~\$1.2 billion in the U.S. and ~\$1.5 billion worldwide. With a high growth rate of \$100M per year, there appears to be ample opportunity for AzurRx to acquire a piece of the market given the product attributes and specifically the QoL benefit to patients.

**New Patients Too.** Patients with cystic fibrosis, one of AzurRx's major target populations, is expected to double to 60,000 patients over the next few years. This suggests an opportunity to acquire share as first-time patients search for convenient means of treating EPI.

**Can MS1819 Succeed Where Others Have Failed?** Yes, We Think So. Other companies have recognized the unmet need in the marketplace for a non-porcine derived alternative, but none have succeeded. The most recent example is Anthera's (ANTH – Not Rated), Phase 3 candidate Sollpura. In their most recent trial, the drug failed to meet its non-inferiority endpoint, comparing changes in fat absorption between Sollpura and Standard of Care (SoC) therapies. Since then, Anthera has discontinued the development of Sollpura. MS1819, in comparison, has demonstrated a significant change in fat absorption in comparison to the SoC which could improve chances for approval.

**An Undifferentiated Marketplace for EPI.** The market for PERTs is dominated by Abbvie (ABBV-Not rated) and Allergan (AGN-Not Rated). Since Abbvie recently announced plans to acquire Allergan, it suggests the combined entity would have a monopoly (a market share of greater than 97%) in the PERT market (if the acquisition stands without a mandatory divestiture). What's interesting to note is that both products have the same active ingredient. Allergan's Zenpep was able to acquire ~20% of the market between 2014 and 2016. This leads us to the conclusion that a differentiated entrant (such as MS1819) could potentially capture substantial market share.

**Valuation:** We assume MS1819 can be commercialized by 2022 for EPI in chronic pancreatitis and in 2023 for EPI resulting from cystic fibrosis. We apply a risk cut in our therapeutic models of 30%, based on the fact that MS1819 is not yet an approved product. In addition, we use a risk rate of 15% in our Free Cash Flow to the Firm (FCFF), Discounted EPS (dEPS) and Sum-of-the-Parts (SOP) models to reflect the risk associated with an emerging biotechnology company with clinical stage products. This results in models which are equally weighted and rounded to the nearest whole number is an \$7.00 price target.

**Risk to our thesis, include the following:** (1) commercial; (2) regulatory; (3) clinical; (4) manufacturing; (5) financial; (6) liability; and (7) intellectual property. We review these and other risks in the risk section of this report.

## Modeling Assumptions

1. We assume MS1819 for EPI caused by chronic pancreatitis launches in 2022 and for EPI caused by cystic fibrosis in 2023.
2. We assume that MS1819 will see the greatest market share gains in new patients versus converting patients already on existing other therapies.
3. We assume that 60% of CP patients will go on to express EPI and that 80% of these patients will require PERT.
4. We assume that 90% of CF patients will develop EPI and that 80% of these patients will require PERT.
5. We assume faster adoption in CF as the pill burden of PPEs will have a greater QoL impact in children; we limit adoption to 50% of new patient starts in CP and 60% in CF
6. We assume an average pricing of \$10K and a y/y price increase of 2%.
7. A risk adjustment of 30% is applied to our therapeutic models based on the stage of development.
8. We model a royalty payment to Mayoly Spindler as prescribed by the license agreement, whereby AzurRx will pay 2.5% on net sales up to \$100M and 1.5% on any net sales exceeding \$100M.
9. We assume Research and Development costs will decrease by 2% each year starting after initial commercialization of MS1819
10. We assume Sales, General, and Administrative costs will increase by 5% each year starting after initial commercialization of MS1819

### Exhibit 1. MS1819 in Adults with EPI from CP (U.S.)

MS1819 Lipase in Adults with CP	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
US population	347,131,953	349,666,016	352,218,578	354,789,774	357,379,739	359,988,611	362,616,528	365,263,629	367,930,053	370,615,942	373,321,439	376,046,685	378,791,826
New Cases of Chronic Pancreatitis	13,885	13,987	14,089	14,192	14,295	14,400	14,505	14,611	14,717	14,825	14,933	15,042	15,152
Patients Displaying EPI (60%)	8,331	8,392	8,453	8,515	8,577	8,640	8,703	8,766	8,830	8,895	8,960	9,025	9,091
Patients taking PERT (80%)	6,665	6,714	6,763	6,812	6,862	6,912	6,962	7,013	7,064	7,116	7,168	7,220	7,273
<b>Market penetration (among new patients)</b>					<b>35%</b>	<b>40%</b>	<b>45%</b>	<b>48%</b>	<b>50%</b>	<b>52%</b>	<b>52%</b>	<b>52%</b>	<b>52%</b>
Overall Market Penetration				0%	3%	6%	9%	13%	17%	21%	25%	29%	33%
Patients Under Treatment				-	2,402	5,166	8,299	11,631	15,163	18,863	22,590	26,345	30,126
Cost of therapy per year				\$ 10,000	\$ 10,200	\$ 10,404	\$ 10,612	\$ 10,824	\$ 11,041	\$ 11,262	\$ 11,487	\$ 11,717	\$ 11,951
Change in price				2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
<b>Revenue (000')</b>				\$ -	\$ 24,496	\$ 53,750	\$ 88,073	\$ 125,892	\$ 167,408	\$ 212,427	\$ 259,489	\$ 308,669	\$ 360,039
Risk factor				30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
<b>Total Revenue (000')</b>				\$ -	\$ 17,147	\$ 37,625	\$ 61,651	\$ 88,125	\$ 117,185	\$ 148,699	\$ 181,643	\$ 216,068	\$ 252,027

Source: Dawson James

### Exhibit 2. MS1819 in Children and Young Adults with EPI from CF (U.S.)

MS1819 Lipase in Children/Young Adults with CF	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
US population	347,131,953	349,666,016	352,218,578	354,789,774	357,379,739	359,988,611	362,616,528	365,263,629	367,930,053	370,615,942	373,321,439	376,046,685	378,791,826
Birth Rate	4,512,715	4,545,658	4,578,842	4,612,267	4,645,937	4,679,852	4,714,015	4,748,427	4,783,091	4,818,007	4,853,179	4,888,607	4,924,294
New Cases Cystic Fibrosis (1/3400 live births)	1,327	1,337	1,347	1,357	1,366	1,376	1,386	1,397	1,407	1,417	1,427	1,438	1,448
Patients Developing EPI (90%)	1,195	1,203	1,212	1,221	1,230	1,239	1,248	1,257	1,266	1,275	1,285	1,294	1,303
Patients taking PERT (80%)	956	963	970	977	984	991	998	1,006	1,013	1,020	1,028	1,035	1,043
<b>Market penetration (among new patients)</b>						<b>50%</b>	<b>60%</b>	<b>60%</b>	<b>60%</b>	<b>60%</b>	<b>60%</b>	<b>60%</b>	<b>60%</b>
Overall Market Penetration					0%	2%	4%	6%	8%	10%	12%	14%	16%
Patients Under Treatment				-	496	1,094	1,698	2,306	2,918	3,534	4,155	4,781	5,411
Cost of therapy per year				\$ 10,000	\$ 10,200	\$ 10,404	\$ 10,612	\$ 10,824	\$ 11,041	\$ 11,262	\$ 11,487	\$ 11,717	\$ 11,951
Change of price				2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
<b>Revenue (000')</b>				\$ -	\$ 5,054	\$ 11,387	\$ 18,017	\$ 24,956	\$ 32,214	\$ 39,802	\$ 47,733	\$ 56,019	\$ 64,733
Risk factor				30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
<b>Total Revenue (000')</b>				\$ -	\$ 3,538	\$ 7,971	\$ 12,612	\$ 17,469	\$ 22,550	\$ 27,862	\$ 33,413	\$ 39,213	\$ 45,126

Source: Dawson James

### Exhibit 3. Royalty Payments to Mayoly Spindler and Total Revenue Generated by MS1819

Royalties Payable to Mayoly Spindler	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Combined Revenue (000')	\$ -	\$ -	\$ -	\$ 17,147	\$ 41,163	\$ 69,622	\$ 100,737	\$ 134,655	\$ 171,248	\$ 209,504	\$ 249,481	\$ 291,240	\$ 338,333
-Royalties Payable (2.5% under \$100M 1.5% over \$100M)	\$ -	\$ -	\$ -	\$ -	\$ (429)	\$ (1,029)	\$ (1,741)	\$ (4,011)	\$ (8,520)	\$ (16,069)	\$ (30,643)	\$ (56,242)	\$ (100,869)
<b>Total Revenue to AzurRx (000')</b>	\$ -	\$ -	\$ -	\$ 16,719	\$ 40,134	\$ 67,881	\$ 96,726	\$ 125,125	\$ 162,728	\$ 193,435	\$ 218,838	\$ 235,000	\$ 237,464

Source: Dawson James

**Valuation.** Our product (therapeutic models) apply a 30% risk cut, based on the fact that the company's lead product is not yet approved. In addition, we also apply a 15% risk rate in our therapeutic models. Typically for early stage, not profitable biotechnology companies we select a higher risk rate of 30% versus 15% for companies with approved products and revenues and lastly 10% for companies which are profitable with visible and a high degree of consistency associated with their earnings. In the case of AzurRx we see the combination of a risk cut in our model combined with a 15% discount rate as sufficient to reflect the early nature of the company. Our model is based on out-year estimates (to the year 2030) and we assume multiple raises and as such use a fully diluted share count. Our models include Free Cash Flow to the Firm (FCFF), Discounted EPS (dEPS) and Sum-of-the-Parts (SOP) models which are equally weighted and rounded to the nearest whole number to derive our \$7.00 price target.

#### Exhibit 4. Free Cash Flow Model

Average	7
Price Target	7
Year	2019

##### DCF Valuation Using FCF (mln):

units ('000)	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
EBIT	(18,242)	(18,321)	(19,656)	(8,332)	9,645	30,474	56,882	83,762	112,697	142,892	174,398	207,265
Tax Rate	0%	0%	0%	0%	0%	5%	8%	10%	12%	15%	30%	33%
EBIT (1-t)	(18,242)	(18,321)	(19,656)	(8,332)	9,645	28,960	52,331	75,386	99,173	121,459	122,079	138,868
CapEx	(53)	(54)	(56)	(57)	(58)	(59)	(60)	(61)	(63)	(64)	(65)	(66)
Depreciation	413	2,776	3,332	3,998	4,798	5,757	6,908	8,290	9,948	11,938	14,325	17,190
Change in NWC												
FCF	(17,883)	(15,599)	(16,380)	(4,391)	14,385	34,648	59,180	83,615	109,059	133,332	136,339	155,992
PV of FCF	(17,883)	(13,564)	(12,386)	(2,887)	8,225	17,226	25,585	31,434	35,651	37,901	33,701	33,529
Discount Rate	15%											
Long Term Growth Rate	1%											
Terminal Cash Flow	961,898											
Terminal Value YE2030	206,753											
NPV	383,287											
NPV-Debt												
Shares outstanding ('000)	51,891	2030E										
NPV Per Share	7											

Source: Dawson James

#### Exhibit 5. Discounted-EPS Model

Current Year	2019
Year of EPS	2030
Earnings Multiple	10
Discount Factor	15%
Selected Year EPS	2.68
NPV	6

Source: Dawson James estimates

		Discount Rate and Earnings Multiple Varies, Year is Constant						
		5.75	5%	10%	15%	20%	25%	30%
Earnings Multiple	1		1.56	0.94	0.58	0.36	0.23	0.15
	5		7.82	4.69	2.88	1.80	1.15	0.75
	10		15.65	9.38	5.75	3.60	2.30	1.49
	15		23.47	14.07	8.63	5.40	3.45	2.24
	20		31.29	18.76	11.50	7.20	4.60	2.99
	25		39.12	23.45	14.38	9.00	5.75	3.73
	30		46.94	28.14	17.26	10.81	6.90	4.48
	35		54.76	32.83	20.13	12.61	8.05	5.23

Source: Dawson James

#### Exhibit 6. Sum-of-the-Parts Model

	LT Gr	Discount Rate	Yrs to Mkt	% Success	Peak Sales (MMs)	Term Val)
<b>MS1819 Lipase in Adults with CP</b>	1%	15%	3	70%	\$252	\$1,800
NPV						\$7.98
<b>MS1819 Lipase in Children/Young Ad</b>	1%	15%	4	70%	\$39	\$280
NPV						\$1.08
Net Margin						50%
MM Shrs OS (2030E)						52
<b>Total</b>						<b>\$9</b>

Source: Dawson James

**Exhibit 7. Income Statement**

AZRX.: Income Statement (\$000)																										
YE December 31	2018A	1Q19A	2Q19A	3Q19E	4Q19E	2019E	1Q20E	2Q20E	3Q20E	4Q20E	2020E	2021E	2022E	1Q23E	2Q23E	3Q23E	4Q23E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	
<b>Revenue:</b>																										
MS1819 Lipase in CP (Adult)							-	-	-	-	-	-	17,147	8,654	9,030	9,783	10,159	37,625	61,651	88,125	117,185	148,699	181,643	216,068	252,027	
MS1819 Lipase in CF (Pediatric)							-	-	-	-	-	-	-		849	920	955	3,538	7,971	12,612	17,469	22,550	27,862	33,413	39,213	
Royalties receivable from H. Pylori																										
<b>Total Product Sales</b>	-	-	-	-	-	-	-	-	-	-	-	-	17,147	8,654	9,879	10,702	11,114	41,163	69,622	100,737	134,655	171,248	209,504	249,481	291,240	
Royalty Payable to Mayoly Spindler							-	-	-	-	-	-	(429)	(237)	(247)	(268)	(278)	(1,029)	(1,741)	(4,011)	(4,520)	(5,069)	(5,643)	(6,242)	(6,869)	
<b>Total royalties, collaborative revenue</b>	-	-	-	-	-	-	-	-	-	-	-	-	(429)	(237)	(247)	(268)	(278)	(1,029)	(1,741)	(4,011)	(4,520)	(5,069)	(5,643)	(6,242)	(6,869)	
<b>Total Revenue</b>	-	-	-	-	-	-	-	-	-	-	-	-	16,719	8,417	9,632	10,435	10,836	40,134	67,881	96,726	130,135	166,180	203,862	243,239	284,372	
<b>Expenses:</b>																										
Costs of Goods Sold							-	-	-	-	-	-	5,144	2,163	2,470	2,676	2,779	10,291	17,405	20,147	26,931	34,250	41,901	49,896	58,248	
<b>%COGS</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%	30%	25%	25%	25%	25%	25%	25%	20%	20%	20%	20%	20%	20%	20%
Research and Development	4,986	2,119	2,739	2,150	2,110	9,117	2,055	2,144	2,323	2,412	8,935	8,756	8,406	1,856	1,937	2,098	2,179	8,070	7,586	6,979	6,420	5,907	5,434	5,000	4,600	
<b>%R&amp;D</b>																										
General and Administrative	8,236	2,485	2,193	2,350	2,300	9,329	2,253	2,351	2,547	2,645	9,795	11,264	11,827	2,856	2,981	3,229	3,353	12,419	12,667	12,921	13,179	13,442	13,711	13,986	14,265	
<b>%SG&amp;A</b>																										
Fair value adjustment, contingent consideration	210																									
<b>Total Expenses</b>	13,432	4,604	4,932	4,500	4,410	18,446	4,308	4,495	4,870	5,057	18,730	20,020	25,378	6,876	7,387	8,003	8,310	30,779	37,658	40,047	46,530	53,599	61,046	68,881	77,113	
<b>Operating Income (Loss)</b>	(13,432)	(4,604)	(4,932)	(4,500)	(4,410)	(18,446)	(4,308)	(4,495)	(4,870)	(5,057)	(18,730)	(20,020)	(8,659)	1,541	2,245	2,432	2,526	9,355	30,223	56,679	83,604	112,581	142,815	174,358	207,259	
Interest expense	(102)	(57)	(111)	(57)	(57)	(282)																				
Fair value adjustment, warrants																										
<b>Total Other Income</b>	(102)	(57)	(111)	(57)	(57)	(282)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Pretax Income</b>	(13,534)	(4,661)	(5,043)	(4,557)	(4,467)	(18,728)	(4,308)	(4,495)	(4,870)	(5,057)	(18,730)	(20,020)	(8,659)	1,541	2,245	2,432	2,526	9,355	30,223	56,679	83,604	112,581	142,815	174,358	207,259	
Income taxes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,511	4,534	8,360	13,510	21,422	52,307	68,395	
<b>Tax Rate</b>																			5%	8%	10%	12%	15%	30%	33%	
<b>GAAP Net Income (Loss)</b>	(13,534)	(4,661)	(5,043)	(4,557)	(4,467)	(18,728)	(4,308)	(4,495)	(4,870)	(5,057)	(18,730)	(20,020)	(8,659)	1,541	2,245	2,432	2,526	9,355	28,712	52,145	75,244	99,071	121,393	122,050	138,863	
Foreign currency translation adjustment	(194)	(95)	26		(69)																					
<b>GAAP Total Comprehensive Income (Loss)</b>	(13,728)	(4,756)	(5,016)	(4,557)	(4,467)	(18,797)	(4,308)	(4,495)	(4,870)	(5,057)	(18,730)	(20,020)	(8,659)	1,541	2,245	2,432	2,526	9,355	28,712	52,145	75,244	99,071	121,393	122,050	138,863	
<b>GAAP-EPS</b>	(0.86)	(0.26)	(0.25)	(0.15)	(0.15)	(0.75)	(0.09)	(0.10)	(0.11)	(0.11)	(0.41)	(0.38)	(0.16)	0.03	0.04	0.05	0.05	0.18	0.54	0.97	1.40	1.83	2.23	2.24	2.54	
<b>GAAP-EPS (Dil)</b>	(0.86)	(0.26)	(0.25)	(0.15)	(0.15)	(0.75)	(0.09)	(0.10)	(0.11)	(0.11)	(0.41)	(0.38)	(0.16)	0.03	0.04	0.05	0.05	0.18	0.54	0.97	1.40	1.83	2.23	2.24	2.54	
Wght Avg Shrs (Bas) - '000s	15,696	17,720	20,480	30,500	30,531	24,808	45,561	45,607	45,653	45,698	45,630	52,823	53,035	53,167	53,221	53,274	53,327	53,247	53,460	53,675	53,890	54,106	54,322	54,540	54,758	
Wght Avg Shrs (Dil) - '000s	15,696	17,720	20,480	30,500	30,531	24,808	45,561	45,607	45,653	45,698	45,630	52,823	53,035	53,167	53,221	53,274	53,327	53,247	53,460	53,675	53,890	54,106	54,322	54,540	54,758	

Source: Dawson James

**Risk Analysis**

In addition to the typical risks associated with development stage specialty pharmaceutical companies, potential risks specific to Azur Rx are as follows:

**Financial risk.** The company may need to raise capital in the marketplace in order to successfully push their products into the next phase, and there can be no assurances that the company will be able to successfully raise capital and or do so, on favorable terms.

**Clinical and regulatory risk.** Lead products must start and complete clinical trials. Trials may not produce results sufficient for regulatory approval.

**Partnership risk.** AzurRx may seek partnerships for clinical development support and commercialization. We have no specific knowledge of any discussions with possible partners today, and there can be no assurances that the company will be able to secure a favorable partnership.

**Commercial risk.** There are no assurances that the company will be able to secure favorable pricing, commercially launch products, and achieve significant market share to become profitable.

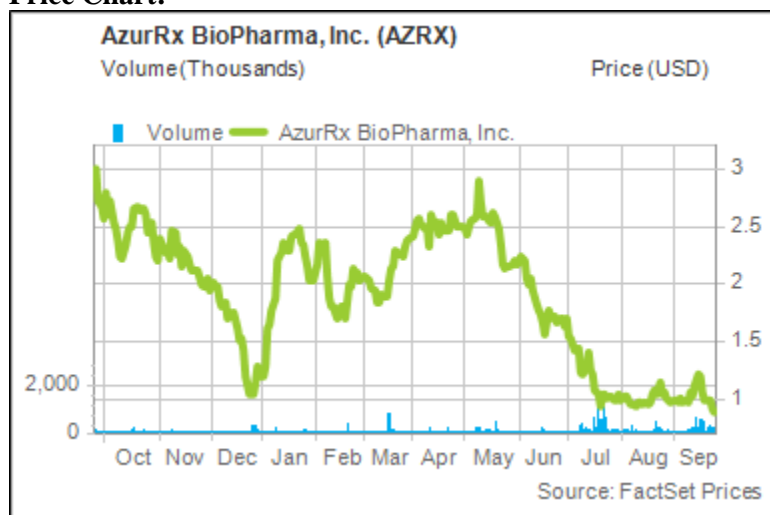
**Legal and intellectual property risk.** The company may have to defend its patents and technical know-how, and there can be no assurances that the patents will not be infringed or will be held as valid if challenged, and or that the company may infringe on third party's patents.

Companies mentioned in this report:

Anthera (Not Rated)  
AbbVie (Not Rated)  
Allergan (Not Rated)

**Important Disclosures:**

**Price Chart:**



Price target and rating changes over the past three years:

Initiated – Buy – July 11, 2019 – Price Target \$7.00

Update - Buy – August 15, 2019 – Price Target \$7.00

Update - Buy – September 25, 2019 – Price Target \$7.00

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**Rating Definitions:**

- 1) **Buy:** the analyst believes the price of the stock will appreciate and produce a total return of at least 20% over the next 12-18 months;
- 2) **Neutral:** the analyst believes the price of the stock is fairly valued for the next 12-18 months;
- 3) **Sell:** the analyst believes the price of the stock will decline by at least 20% over the next 12-18 months and should be sold.

The following chart reflects the range of current research report ratings for all companies followed by the analysts of the Firm. The chart also reflects the research report ratings relating to those companies for which the Firm has performed investment banking services.

Ratings Distribution	Company Coverage		Investment Banking	
	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	27	82%	5	19%
Market Perform (Neutral)	6	18%	0	0%
Market Underperform (Sell)	0	0%	0	0%
Total	33	100%	5	15%

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