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UPDATE REPORT

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Adma Biologics (NASDAQ/ADMA)

BUY FDA Approval For RI-002 (Product & Manufacturing) is Positive.

Adma gets approval for RI-002 , Both the product and the manufacturing facility, which are in Florida. This is a key positive event for the company as it transitions to a commercial entity. The approval also opens up an additional credit facility with access up to $27.5M in capital. We continue to believe there is upside to the story and reiterate our Buy Rating and $7.00 price target.

April 3, 2019

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Investment Highlights

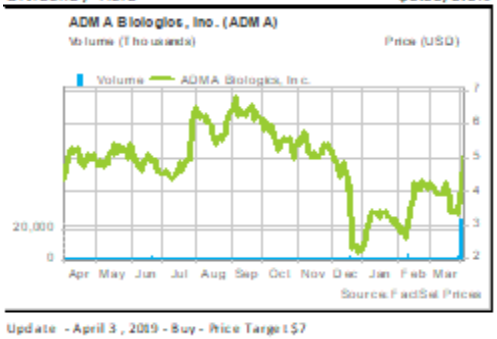
ASCENIV (RI-002) FDA Approved for PIDD's. On April 1st (No Fools) the FDA approved ASCENIV Immune Globulin Intravenous, Human – slra 10% Liquid, formerly referred to as RI-002. ASCENIV or RI-002 is an Intravenous Immune Globulin drug product for the treatment of Primary Humoral Immunodeficiency Disease ("PIDD") in adults and adolescents (12 to 17 years of age). The dept. of Health and Human Services issued U.S. license No. 2019 to ADMA in connection with the approval of ASCENIV. The license covers the Boca Raton, FL manufacturing facility which has demonstrated compliance with FDA requirements as well as authorizes ADMA to manufacture and enter into interstate commerce with ASCENIV. Adma anticipates having the product available for commercial launch during the second half of 2019. Also, worth noting is that the approval allows ADMA, at its sole option, can elect to access up to an additional $27.5M of available funding from Perceptive Advisors under ADMA's existing credit facility. This option remains available to the Company through June 2020, and such funds could be used to support the launch of ASCENIV, procure plasma raw material inventory, and begin construction on potential new plasma centers, as well as for general corporate activities.

Manufacturing Math. ADMA now owns and operates its manufacturing plant, located in Boca Raton, Fla. The facility can produce three products: (1) BIVIGAM; (2) Nabi-HB; and (3) RI-002. We have worked out the manufacturing math associated with the plant and conclude that the plant at full capacity can make $118M annually of BIVIGAM at 10% margins or $693M of RI-002 at 70% gross margin. The challenge for ADMA we see is to optimize sales of RI-002 and use the remaining capacity to manufacture the other products, BIVIGAM and higher margin Nabi-HB. NABI-HB addresses a smaller market with (by our estimates), peak sales of $10M but like RI-002 with margins at 70%. We estimate that by 2020, ADMA should be producing and selling $33M of RI-002, $43M of BIVIGAM, and $10M of Nabi-HB, which if realized means that ADMA is a cash flow positive company.

Current Price	**$5.06**
Price Target	**$7.00**

Estimates	F2017A	F2018A	F2019E
Revenues ($000s)	$ 22,761	$ 16,985	$ 45,161
1Q March	$ 2,629	$ 4,043	$ 5,063
2Q June	$ 3,399	$ 4,656	$ 9,532
3Q September	$ 4,729	$ 4,230	$ 13,261
4Q December	$ 12,003	$ 4,056	$ 17,305
	F2017A	F2018A	F2019E
EPS (diluted)	$ (2.00)	$ (1.45)	$ (0.24)
1Q March	$ (0.51)	$ (0.39)	$ (0.15)
2Q June	$ (0.55)	$ (0.35)	$ (0.09)
3Q September	$ (0.59)	$ (0.33)	$ (0.03)
4Q December	$ (0.36)	$ (0.39)	$ 0.02
EBITDA/Share			
EV/EBITDA (x)			

Stock Data			
52-Week Range	$2.08	-	$6.96
Shares Outstanding (mil.)			46.4
Market Capitalization (mil.)			$235
Enterprise Value (mil.)			$207
Debt to Capital			6%
Book Value/Share			$0.89
Price/Book			5.6
Average Three Months Trading Volume (K)			260
Insider Ownership			36.3%
Institutional Ownership			45.7%
Short interest (mil.)			6.2%
Dividend / Yield			$0.00/0.0%



Update - April 3, 2019 - Buy - Price Target $7

What is Adma? Adma is a company focused on bringing a high-value, potent intravenous immunoglobulin (IVIG) product, RI-002 to the five billion-dollar U.S. marketplace to patients that need a more potent IVIG product. The margins and profitability of this product are the real driver for the company to perform. Along the way towards getting this product approved Adma ran into manufacturing issues with their contract manufacturing company, Biotest (ETR: BIO; not rated). Adam Grossman, ADMA's CEO, spent his life in the IVIG marketplace and decided to take action and acquire Biotest's manufacturing plant, as the best way to control product quality and bring Adma's RI-002 to the marketplace. In doing so, Adma also acquired Biotest's IVIG products BIVIGAM and an HBV prophylaxis product (Nabi-HB). Today, Adma is an integrated manufacturer, developer and soon commercial supplier in the IVIG marketplace.

Was the Biotest acquisition a good deal for ADMA? In June of 2017 year, CSL Behring acquired 80% of plasma-derived therapies manufacturer Wuhan Zhong Yuan Rui De Biological Products Co. Ltd. (Ruide) from Humanwell Healthcare Group Co. Ltd. for U.S. $352M. The floor print of the facility, capacity, and even the annual revenues in the same 2016-time frame of $30M (Ruide) vs. $76M (Biotest) all suggest a good comparable to the Biotest plant. We provide a detailed review of the deal terms for this acquisition, and conclude it was very good deal for ADMA. For 4.3M shares of stock and two plasma collection facilities with a combined value approaching $28M, ADMA acquired the facility and provided Biotest an exit from a business it did not want to be in, allowing Biotest itself to be acquired by the Creat Group of China (private) without encumbrances. We believe the intrinsic value for just the manufacturing operation alone, especially once it's cleared by regulators, (both products, BIVIGAM and RI-002 are approved), is greater than the market capitalization of the company today, especially true with the pullback based on the delay (the CRL associated with BIVIGAM).

Recent financial results. As of YE2018 ADMA reported 46.3 million shares outstanding. Biotest requested the indemnification for any liability associated with the plant and product acquisition (Biotest had previously accepted $25 million in potential liability). Biotest agreed to give back 8.6 million of the original 12.9 million shares or approximately $45 million in equity for a release of the $25 million in potential liability. ADMA closed the year with just under $23M in cash (and $18.6M in product inventory). As noted above, FDA approval of RI-002 allows the company at their discretion to access up to $27.5M in additional capital (Perceptive Advisors).

Valuation. We assume that BIVIGAM is re-launched in early 2019, and we make the same assumption for RI-002. For new RI-002 indications such as the treatment of HSCT, SOT, and cancer-chemotherapy patients, we apply just a 30% probability of development, which in our opinion will be driven by the demand for RI-002 in PIDD patients. The higher the demand is, the lower the priority is, to expand the label in the near term to support new indications and drive market demand. This then factors into our model for our valuation. Our valuation is based on an equally weighted average of our free cash flow to the firm (FCFF), earnings per share (EPS), and sum-of-the-parts analysis discounted at a rate of 30% to account for the risks of development and commercialization. We typically use 30% for companies with only pipeline products and which have become cash flow positive, 15% for companies with revenues which are cash flow positive, and 10% for companies with approved products and positive, visible and consistent cash flow.

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

Product Modeling Assumptions

1. The approval of RI-002 is positive and welcome. We assume an addressable PIDD patient population of approximately 125,000 growing at an annual rate of 1%. Dosing for PIDD is typically set at 500 mg/kg of body weight every three to four weeks. We assume the average adult patient is 70 kg (and a pediatric patient is 20 kg). So, a 70 kg adult requires 35 grams per dose per month. For BIVIGAM at $85 per gram equals $2,975 monthly and we assume eight months dosing a year (typically winter months), so eight times $2,975 equals $23,800 annually. For RI-002 at $500 per gram equals $17,500 monthly, but we only assume four months of this high-value therapy, so four times $17,500 equals $70,000 annually. We do assume modest price increases over time. For BIVIGAM, we assume the acquisition and production costs are high, close to $75 per gram. For RI-002, it is produced through a virtually identical production process, but the manufacturing costs are slightly higher due to additional requirements for sample testing. The acquisition costs of the high titer donors are higher too, so we assume $150 per gram. We assume BIVIGAM returns to the market by mid. 2019. BIVIGAM has been previously marketed for PIDD, which we believe makes it easier to market compared to a newly launched drug.
2. Nabi-HB has been launched in the U.S. and is currently generating sales for ADMA. We model modest growth of just 1% for annual sales in the $10 million range. We note that several opportunities exist for Nabi-HB to grow. For example, victims of sexual assault are typically treated prophylactically for HIV exposure. However, the greater risk of viral transmission is actually HBV, and victims are typically not offered an HBV prophylactic product.
3. We assume that ADMA with a modest sales force including the CEO who himself has a background in IVIG sales, can represent the company and sell product on a contract basis to a handful of selected institutions, which should be able to sell out the capacity of the Boca Raton facility within a few years.
4. For new indications around RI-002 we assume just a 30% probability that ADMA is able to develop RI-002 for hematopoietic stem cell transplant (HSCT), solid organ transplant (SOT), and cancer-chemotherapy indications. We select a low probability for several reasons: (1) physicians have been treating patients off-label in these indications and in doing so, generated anecdotal evidence to suggest efficacy but the company has not yet run a clinical study; (2) resources are constrained and the focus today is on RI-002 in the PIDD market. If ADMA is successful in generating demand in PIDD the motivation to develop RI-002 in these indications, near term, is reduced. We anticipate, once the decision is made to develop these indications, that clinical development, regulatory approval, and launch, takes approximately two years for each indication. We see the opportunity to develop these indications simultaneously. The critical factor in our thinking is our assumption that these indications are only developed if RI-002 is not being sold out at capacity based on demand in the primary indication (PIDD). To the extent that ADMA is able to sell to capacity in the primary indication, the timing gets pushed out further into the future.
5. Sum-of-the-Parts Model assumptions. We apply the same discount rate we use in our FCFF and discounted-EPS models in our sum-of-the-parts model. We expect approval of BIVIGAM by mid. 2019. Since the manufacturing process for BIVIGAM is basically identical to RI-002, we also assume approval of RI-002 by mid. 2019, which assumes a six-month Type II response from the FDA. The RI-002 Complete Response Letter, like the BIVIGAM CRL is associated with manufacturing issues, and not with clinical data. While it is our opinion that the manufacturing issues are now mostly resolved we know there is some delay based on what we guess is the sheer volume of changes made to the process. For Nabi-HB the product is being manufactured and sold today, so that probability is now 100%. For contract manufacturing and other products, or shall we say, bi-products, we use 100% probability. We know that there are multiple bi-products created during the manufacturing process of RI-002, BIVIGAM, and Nabi-HB. These products have been sold in the past by Biotest and ADMA has stated that as plant operations develop around the primary objective, RI-002, followed by BIVIGAM and Nabi-HB, that ADMA is looking to maximize operating efficiency and monetize the bi-products too. Peak revenue from this business is nominal at $13 million. We also include plasma centers, recognizing that ADMA has transferred two of the current three centers to Biotest. The remaining center was FDA approved last month and should be on-line and operational now but there is likely to be some time required for the business to establish itself. Our expectation is that ADMA continues to build collection facilities, which supports the primary business, RI-002. Our revenue assumptions are based on the build out of these facilities. Given the fact that ADMA should have just one facility next year, we use a low probability of just 30%, and assume over the next 10 years ADMA builds out additional facilities.
6. Margin assumptions. Our margin assumptions are driven by our product forecast and the product mix, principally RI-002 and BIVIGAM. We assume very modest margins for BIVIGAM as our assumed cost of goods is quite high at $75 per gram versus a selling price of $85 per gram. The opposite is true for RI-002 where we assume a high cost of goods at $150 per gram but a substantially higher sales price at $500 per gram. Based on our projected development and mixture of the revenues, we can project a net margin for the company. We ultimately expect sustainable out-year net margins of 40% can be reached.
7. Discount rate. Based on the early nature of the company and the fact that ADMA is not yet profitable we user our maximum discount rate of 30%. We then apply this rate across all of our models, FCFF, discounted-EPS, and sum-of-the-parts models, which are then equal weighted and averaged, and rounded to the nearest whole number.

Exhibit 1. Market Models for BIVIGAM and RI-002

BIVIGAM - PIDD USA	2016A	2017A	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E
Prevalence	257,575	260,151	262,753	265,380	268,034	270,714	273,421	276,156	278,917	281,706	284,523	287,369	290,242
Growth	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
50% Treated with IVIG	128,788	130,076	131,376	132,690	134,017	135,357	136,711	138,078	139,459	140,853	142,262	143,684	145,121
% with Specific Immune Defficencies	15,455	15,609	15,765	15,923	16,082	16,243	16,405	16,569	16,735	16,902	17,071	17,242	17,415
% Market Share	0%	0%	0%	5%	11%	15%	16%	17%	17%	18%	17%	17%	17%
Total Patients	0	0	0	717	1769	2436	2625	2817	2845	3042	2902	2931	2960
Cost per year	$23,800	$23,800	$23,800	$24,038	$24,278	$24,521	$24,766	$25,014	$25,264	$25,517	$25,772	$26,030	$26,290
% Price Increase		1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Total sales ($millions)	**$0**	**$0**	**$0**	**$17,224**	**$42,949**	**$59,744**	**$65,008**	**$70,459**	**$71,875**	**$77,633**	**$74,794**	**$76,297**	**$77,831**

RI-002 - PIDD USA	2016A	2017A	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E
Prevalence	257,575	260,151	262,753	265,380	268,034	270,714	273,421	276,156	278,917	281,706	284,523	287,369	290,242
Growth	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
50% Treated with IVIG	128,788	130,076	131,376	132,690	134,017	135,357	136,711	138,078	139,459	140,853	142,262	143,684	145,121
% with Specific Immune Defficencies	15,455	15,609	15,765	15,923	16,082	16,243	16,405	16,569	16,735	16,902	17,071	17,242	17,415
% Market Share	0%	0%	0%	2%	3%	4%	8%	11%	14%	15%	16%	17%	17%
Total Patients	0	0	0	318	466	650	1312	1823	2343	2535	2646	2845	2960
Cost per year	$70,000	$70,000	$70,000	$70,700	$71,407	$72,121	$72,842	$73,571	$74,306	$75,049	$75,800	$76,558	$77,324
% Price Increase		1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Total sales ($millions)	**$0**	**$0**	**$0**	**$22,515**	**$33,303**	**$46,858**	**$95,600**	**$134,092**	**$174,093**	**$190,277**	**$200,572**	**$217,803**	**$228,914**

RI-002 Stem Cell Transplant	2016A	2017A	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E
Prevalence	25,758	26,015	26,275	26,538	26,803	27,071	27,342	27,616	27,892	28,171	28,452	28,737	29,024
Growth	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
30% Treated with IVIG @ risk RSV	7,727	7,805	7,883	7,961	8,041	8,121	8,203	8,285	8,368	8,451	8,536	8,621	8,707
% Market Share	0%	0%	0%	0%	0%	0%	4%	7%	11%	17%	19%	22%	25%
Total Patients	0	0	0	0	0	0	328	580	920	1437	1622	1897	2177
Cost per year			$70,000	$70,700	$71,407	$72,121	$72,842	$73,571	$74,306	$75,049	$75,800	$76,558	$77,324
% Price Increase		1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Probability of Success	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Total sales ($millions)	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$7,170**	**$12,800**	**$20,518**	**$32,347**	**$36,879**	**$43,561**	**$50,496**

RI-002 Solid Organ Transplants	2016A	2017A	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E
Prevalence	11,333	11,447	11,561	11,677	11,793	11,911	12,031	12,151	12,272	12,395	12,519	12,644	12,771
Growth	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
50% Treated with IVIG	5,667	5,723	5,781	5,838	5,897	5,956	6,015	6,075	6,136	6,198	6,260	6,322	6,385
% Market Share	0%	0%	0%	0%	0%	0%	1%	4%	9%	11%	12%	13%	15%
Total Patients	0	0	0	0	0	0	60	243	552	682	751	822	958
Cost per year				$70,700	$71,407	$72,121	$72,842	$73,571	$74,306	$75,049	$75,800	$76,558	$77,324
% Price Increase		1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Probability of Success	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Total sales ($millions)	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,314**	**$5,364**	**$12,311**	**$15,349**	**$17,081**	**$18,876**	**$22,218**

RI-002 Cancer (chemo) patients	2016A	2017A	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E
Prevalence	386,363	390,227	394,129	398,070	402,051	406,071	410,132	414,233	418,376	422,559	426,785	431,053	435,363
Growth	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
50% Treated with IVIG (5% RSV incidence)	19,318	19,511	19,706	19,904	20,103	20,304	20,507	20,712	20,919	21,128	21,339	21,553	21,768
% Market Share	0%	0%	0%	0%	0%	0.0%	1.0%	3.0%	7.0%	9.0%	11.0%	12.0%	15.0%
Total Patients	0	0	0	0	0	0	205	621	1464	1902	2347	2586	3265
Cost per year				$70,700	$71,407	$72,121	$72,842	$73,571	$74,306	$75,049	$75,800	$76,558	$77,324
% Price Increase		1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Probability of Success	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Total sales ($millions)	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$4,481**	**$13,714**	**$32,642**	**$42,812**	**$53,378**	**$59,401**	**$75,744**

Source: Dawson James.

Valuation. ADMA as a company has gone through a significant transition from a drug developer to a company that now will be manufacturing multiple products and soon, with the approval of RI-002 now in hand, ADMA expects to be commercializing this and other products soon. We see RI-002 as a unique high-value, high margin product. In our opinion RI-002 remains the key driver for the company. How successful can ADMA be in commercializing RI-002? We estimate the product could price at $500 per gram versus BIVIGAM at $85 per gram versus the cost to produce each, RI-002 at $150 per gram and BIVIGAM at $75 per gram. BIVIGAM is a low margin product, but ADMA should be able to sell as much as it can manufacture in the U.S. as the market size is large, and there are reports of supply shortages. As such, we see the combination of BIVIGAM and ADMA's other product Nabi-HB as creating an operational base for ADMA. RI-002 as a high margin product becomes the performance driver to turn the company cash flow positive. In addition to our models, which reflect how the product mix may develop, we must also be aware of the facility value or the value of ADMA's manufacturing operations. We should also factor into our thinking the fact that the Boca Raton facility is under-going a top to bottom FDA review, and we expect may soon be certified, by middle of 2019, as being in compliance. We know that acquisitions of similar facilities have been in the $300 million to $400 million range. For the purposes of our valuation, we do not include the facility value but recognize it could be a factor should one of the larger players decide to make an acquisition bid for ADMA.

Our models for BIVIGAM and RI-002 are patient based. These then feed into our income statement and allow us to apply valuation metrics based on our projected regulatory timelines, pricing and costs, expected cost of goods sold, and other factors. We assume that BIVIGAM is re-launched by the middle of 2019 and is RI-002. For new RI-002 indications in development, we apply a probability of success of just 30%. These indications include HSCT, SOT, and chemotherapy patients. The development of these indications is partially dependent on the demand for RI-002 in the primary indication, PIDD. If the demand is high, the need to develop RI-002 is lower in these other indications, as ADMA's capacity is limited. See our product modeling assumptions for more detail.

Our valuation conclusion is an equally weighted average of our free cash flow to the firm (FCFF), earnings per share (EPS), and sum-of-the-parts analysis discounted at a rate of 30% to account for the risks of development and commercialization and rounded to the nearest whole number. We typically use 30% for companies with only pipeline products that are not yet cash flow positive as is the case for ADMA. Based on the comparative analysis we assume a P/E multiple of just 15x, which is conservative versus the few comparisons, none of which are ideal, but suggest a higher multiple. The result of our analysis is a $7 price target.

Exhibit 2. Free Cash Flow Model

Average	$	7

Price Target	$	6
Year		2019

DCF Valuation Using FCFF :

units ('000)	2016A	2017A	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E
EBIT	(19,515)	(43,758)	(59,726)	(4,900)	5,538	19,799	64,160	108,771	162,571	193,271	213,410	236,284	263,550
Tax Rate	0%	0%	0%	0%	0%	5%	7%	9%	10%	12%	12%	15%	18%
EBIT(1-t)	(19,515)	(43,758)	(59,726)	(4,900)	5,538	18,809	59,669	98,981	146,314	170,078	187,801	200,841	216,111
CapEx	(500)	(2,676)	(1,400)	(300)	(330)	(363)	(399)	(439)	(483)	(531)	(585)	(643)	(707)
Depreciation	470	563	2,522	3,027	3,632	4,359	5,231	6,277	7,532	9,039	10,846	13,016	15,619
Change in NWC													
FCF	(19,546)	(45,871)	(58,603)	(2,173)	8,840	22,805	64,500	104,819	153,363	178,585	198,062	213,214	231,022
PV of FCF	(42,942)	(77,522)	(76,184)	(2,173)	6,800	13,494	29,358	36,700	41,305	36,999	31,564	26,138	21,785
Discount Rate	30%												
Long Term Growth Rate	1%												
Terminal Cash Flow	689,803												
Terminal Value YE2023	109,931												
NPV	351,902												
NPV-Debt	43,496												
Shares out (thousands)	48,217	2028E											
NPV Per Share	$ 6												

Source: Dawson James.

Our comparable companies selected for the table includes companies that are in plasma-sourced therapeutics areas. None of the companies represent, a perfect comparable company to ADMA, but the companies do provide a sense of what multiple we might use to value ADMA. The average forward P/E is close to 20x. As ADMA is not yet profitable and in an earlier development stage, we use a more modest P/E of 15x in our discounted-EPS model.

Exhibit 3. Comparable Companies

Company	Ticker	Price*	Sh. Out. (M)	Mkt Cap ($M)	Ent. Value ($M)	Revenues ($M) 2016	2017	2018	Y-O-Y Growth ('16-'18)	EV/Rev's ('18)	EV/ EBITDA ('18)	P/S (revs) ('18)	PE	PE '18	Rated	Analyst
CSL Behring	CSL	$124.29	57	$7,109	$6,894	$3,675	$3,751	$4,480	7%	1.9	11.8	0.0	19.6	16.7	NA	
Grifols	GRFS	$20.27	688	$17,509	$21,843	$4,470	$4,921	$4,921	3%	5.1	18.9	0.0	20.7	17.9	NA	
Emergent BioSolutions	EBS	$50.99	51	$2,611	$3,729	$489	$561	$782	18%	4.2	16.6	0.1	48.6	21.9	NA	
ProMetic Life Sciences	PLI-CA	$0.23	739	$170	$977	$16	$39	$39	46%	6.9	-3.2	0.0	-	-	NA	
Kamada Ltd.	KMDA	$5.65	40	$229	$153	$77	$103	$114	15%	1.6	7.6	0.0	9.0	9.9	NA	
Biotest Pharmaceuticals Corporation	BIO3-ETR	$22.45	40	$933	-	$408	$378	$400	0%	2.8	32.1	0.1	5.1	-	NA	
Shire Pharmaceuticals	SHPG	#N/A	#N/A	-	$66,186	$11,318	$15,323	$15,323	12%	-	-	-	10.9	-	NA	
Group Mean				$4,760	$16,630	$2,922	$3,582	$3,723	9%	4.5	14.0	0.0	19.0	16.6		
ADMA	ADMA	$5.06	46	$290	$278	$11	$23	$17	30%	16	-5.6	11.4	12.4	13.4		

Source: Dawson James and FactSet (as of April 2, 2019).

Exhibit 4. Discounted-EPS Model

Current Year		2019
Year of EPS		2028
Earnings Multiple		15
Discount Factor		30%
Selected Year EPS	$	4.48
NPV	$	6

	Discount Rate and Earnings Multiple Varies, Year is Constant 2028 EPS					
PE Multiple	5%	10%	15%	20%	25%	30%
1	$2.89	$1.90	$1.27	$0.87	$0.60	$ 0.42
5	$14.44	$9.50	$6.37	$4.34	$3.01	$ 2.11
10	$28.89	$19.01	$12.74	$8.69	$6.02	$ 4.23
15	$43.33	$28.51	$19.11	$13.03	$9.02	$ 6.34
20	$57.78	$38.01	$25.48	$17.37	$12.03	$ 8.45
25	$72.22	$47.52	$31.85	$21.71	$15.04	$ 10.57
30	$86.67	$57.02	$38.22	$26.06	$18.05	$ 12.68
35	$101.11	$66.52	$44.59	$30.40	$21.05	$ 14.79

Source: Dawson James.

Exhibit 5. Sum-of-the-Parts Model

ADMA Biologics Sum-of-the-Parts	LT Gr	Discount Rate	Yrs. to Mkt	% Success	Peak Sales MM's	NPV
RI-002 (PIDD)	1%	30%	1	100%	$229	$789
NPV						$5.04
Hematopoietic Stem Cell Transplant (HSCT)	1%	30%	4	30%	$50	$174
NPV						$0.15
Solid Organ Transplant (SOT)	1%	30%	4	30%	$22	$77
NPV						$0.07
Cancer patients (receiving chemotherapy)	1%	30%	4	30%	$76	$261
NPV						$0.23
Contract manufacturing and other products	1%	30%	1	100%	$13	$46
NPV						$0.29
BIVIGAM	1%	30%	1	100%	$78	$268
NPV						$1.71
Nabi-HB	1%	30%	0	100%	$11	$38
NPV						$0.32
Plasma Centers (Plasma Sold)- one left	1%	15%	10	30%	$13	$93
NPV						$0.06
Net Margin						40%
MM Shrs OS (2028E)						48
Total						$8

Source: Dawson James.

Intellectual property. ADMA's most significant product, RI-002, has four constraining composition and methods patents expiring in 2035, which relate to methods of treating respiratory infections caused by RSV and other pathogens. Adma also has a combination of trade practice "know-how", manufacturing capabilities including collection and processing of source materials, and proprietary diagnostics, which are used for donor selection, all represent high barriers to entry for typical competitors.

Risk Analysis

Clinical and regulatory risk. The products may not receive regulatory approval in the products' respective jurisdictions. For ADMA, this is approval in the U.S. by the FDA. There are no assurances ADMA's products will be approved and even if approved, will be reimbursed by insurance.

Manufacturing risk. Manufacturing, packaging, labeling, storage, and distribution procedures must all conform to good manufacturing practices. ADMA acquired its contract manufacturer's facility in an effort to ensure product compliance. There can be no assurances that the facility will be certified, and once certified will remain in compliance with regulators' standards. We note that while it rarely happens regulatory authorities may withdraw product approvals, request product recalls, or impose marketing restrictions through labeling changes or product removals if a company fails to comply with regulatory standards, if regulators encounter problems following initial marketing, or if previously unrecognized problems are subsequently discovered.

Commercial risk. There are no assurances that the company will be able to achieve a critical level of market share to become profitable. ADMA is working to drive a product mix towards its higher margin product RI-002 versus lower margin products such as BIVIGAM. There are no assurances that ADMA will be successful in achieving a product mix that can support the company to become cash flow positive.

Competition risk. The IVIG marketplace is oligopolistic with three well-capitalized large companies (Shire, CSL Behring, and Grifols) which control as much as 80% of the marketplace. Competing with these companies is likely to be a challenge for ADMA.

Financial risk. The company may need to raise capital in the marketplace, and there can be no assurances that the company will be able to successfully raise capital and do so on favorable terms.

Intellectual property risk. The company may have to defend its positions against possible infringement of others' patents and avoid infringing the proprietary rights of third parties.

Exhibit 6. Income Statement

ADMA Biologics Income Statement ($000)																	
ADMA Biologics	**2016A**	**2017A**	**1Q18A**	**2Q18A**	**3Q18A**	**4Q18A**	**2018A**	**2019E**	**2020E**	**2021E**	**2022E**	**2023E**	**2024E**	**2025E**	**2026E**	**2027E**	**2028E**
Revenue ($000)																	
RI-002 Indications																	
PIDD								22,515	33,303	46,858	95,600	134,092	174,093	190,277	200,572	217,803	228,914
Hematopoietic Stem Cell Transplant (HSCT)								-	-	-	7,170	12,800	20,518	32,347	36,879	43,561	50,496
Solid Organ Transplant (SOT)								-	-	-	1,314	5,364	12,311	15,349	17,081	18,876	22,218
Cancer patients (receiving chemotherapy)								-	-	-	4,481	13,714	32,642	42,812	53,378	59,401	75,744
Other immune compromised groups, elderly																	
Other Revenue																	
Plasma Centers (Plasma Sold)- one left	10,518	11,600	2,612	2,112	2,094	1,900	8,718	900	2,500	2,625	2,756	2,894	3,039	3,191	3,350	3,518	3,694
License Revenues	143	143	36	30	36	41	142	20	76	76	76	76	76	76	76	76	76
Nabi-HB		4,518	995	900	900	915	3,710	3,752	3,905	3,944	3,983	4,023	4,063	4,104	4,145	4,186	4,228
BIVIGAM								17,224	42,949	59,744	65,008	70,459	71,875	77,633	74,794	76,297	77,831
Contract and other products		6,500	400	1,614	1,200	1,200	4,414	750	788	4,000	5,000	7,000	7,350	9,000	11,000	12,000	13,200
				3,530													
Total Product Sales	**10,661**	**22,761**	**4,043**	**4,656**	**4,230**	**4,056**	**16,985**	**45,161**	**83,520**	**117,247**	**185,389**	**250,422**	**325,968**	**374,789**	**401,275**	**435,719**	**476,400**
Expenses																	
Cost of Goods Sold (BIVIGAM)	6,361	29,164	12,243	9,647	9,164	11,140	42,194	15,157	37,795	52,575	57,207	62,004	63,250	68,317	65,819	67,142	68,491
% COGS (high)								88%	88%	88%	88%	88%	88%	88%	88%	88%	88%
Cost of Goods Sold (RI-002)						-	-	6,754	9,991	14,057	32,570	49,791	71,869	84,236	92,373	101,892	113,211
% COGS (low)								30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Cost of Goods Sold (Nabi-HB)						-	-	1,126	1,171	1,183	1,195	1,207	1,219	1,231	1,244	1,256	1,268
% COGS (high)								30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Cost of Goods Sold (all other bus. Areas)						-	-	920	2,576	2,701	2,832	2,970	3,115	3,267	3,426	3,594	3,770
% COGS								75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
Total COGS						-	-	23,957	51,533	70,516	93,804	115,972	139,453	157,051	162,861	173,884	186,741
% COGS								47%	62%	60%	51%	46%	43%	42%	41%	40%	39%
General and Administrative	8,495	18,093	5,005	5,007	5,356	7,135	22,503	23,628	24,101	24,583	25,074	25,576	26,087	26,609	27,141	27,684	28,238
Research and Development	7,688	6,230	1,282	1,472	1,317	(145)	3,926	4,005	4,085	4,166	4,250	4,335	4,421	4,510	4,600	4,692	4,786
Plasma Center Cost to Operate					1,973	5,832	7,806										
Amortization of Intangibles					211	634	845										
Total expenses	**27,991**	**62,071**	**20,575**	**18,075**	**18,022**	**20,603**	**77,274**	**51,590**	**79,719**	**99,265**	**123,128**	**145,882**	**169,962**	**188,170**	**194,603**	**206,260**	**219,764**
Oper. Inc. (Loss)	(17,330)	(39,310)	(16,532)	(13,419)	(13,792)	(16,547)	(60,290)	(6,429)	3,801	17,982	62,261	104,539	156,005	186,620	206,673	229,459	256,636
Interest Income	50	57	27	33	76	60	195	-	-	-	-	-	-	-	-	-	-
Interest Expense Biotest	(2,240)	(3,286)	(1,323)	(1,359)	(1,402)	(1,438)	(5,523)	(900)	(900)	(900)	(900)	(450)	-	-	-	-	-
Interest Expense Marathon			7	(4)	(17)	(112)	(127)	(3,600)	(3,600)	(3,600)	(3,600)	(1,800)					
Change in Fair Value of Warrants												-	-	-	-	-	-
		(10)										-	-	-	-	-	-
Loss on extinguishment of debt		(1,210)															
Total Other Expenses	(2,185)	(4,449)	**(1,290)**	**(1,330)**	**(1,344)**	**(1,490)**	(5,455)	(4,500)	(4,500)	(4,500)	(4,500)	(2,250)	-	-	-	-	-
Pretax Income	**(19,515)**	**(43,758)**	**(17,822)**	**(14,749)**	**(15,136)**	**(18,037)**	**(65,744)**	**(10,929)**	**(699)**	**13,482**	**57,761**	**102,289**	**156,005**	**186,620**	**206,673**	**229,459**	**256,636**
Income Tax Benefit (Provision)	-	-	-	-	-	-	-	-	-	674	4,043	9,206	15,601	22,394	24,801	34,419	46,194
Tax Rate	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	7%	9%	10%	12%	12%	15%	18%
GAAP Net Income (loss)	**(19,515)**	**(43,758)**	**(17,822)**	**(14,749)**	**(15,136)**	**(18,037)**	**(65,744)**	**(10,929)**	**(699)**	**12,807**	**53,718**	**93,083**	**140,405**	**164,225**	**181,872**	**195,040**	**210,442**
GAAP-EPS	**(1.61)**	**(1.91)**	**(0.39)**	**(0.35)**	**(0.33)**	**(0.39)**	**(1.45)**	**(0.24)**	**(0.02)**	**0.27**	**1.14**	**1.97**	**2.96**	**3.45**	**3.80**	**4.06**	**4.36**
Non GAAP EPS (dil)	(1.61)	(2.00)	(0.39)	(0.35)	(0.33)	(0.39)	(1.45)	(0.24)	(0.02)	0.27	1.14	1.97	2.96	3.45	3.80	4.06	4.36
Wgtd Avg Shrs (Bas) - '000s	12,153	22,896	45,317	42,712	46,350	46,396	45,189	46,512	46,699	46,886	47,074	47,262	47,452	47,642	47,833	48,024	48,217
Wgtd Avg Shrs (Dil) - '000s	12,153	22,896	45,317	42,712	46,350	46,396	45,189	46,512	46,699	46,886	47,074	47,262	47,452	47,642	47,833	48,024	48,217

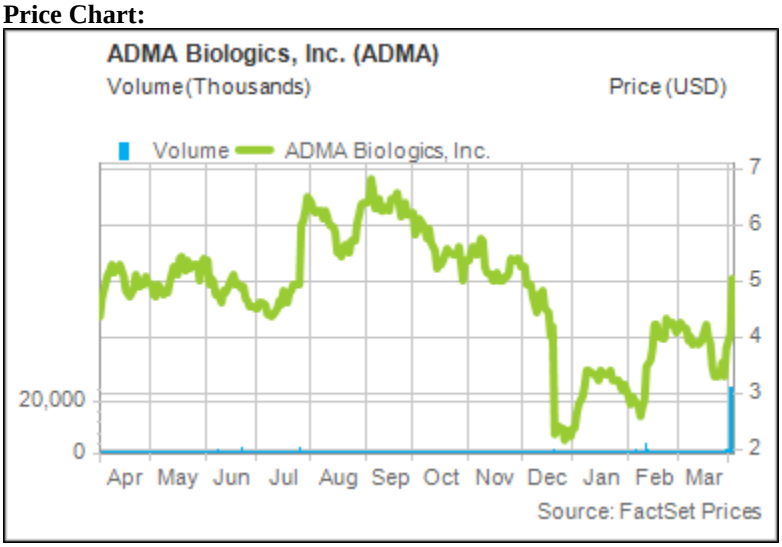
Source: Dawson James.

Companies mentioned in this report:

Biotest (BIO3: Not Rated)
CSL Behring, (CSL: Not Rated)
Creat Group of China (private)
Grifols Biologicals, (GRFS: Not Rated)
Wuhan Zhong Yuan Rui De Biological Products Co. Ltd. -Ruide (private)

Important Disclosures:

Price Chart:



Price target and ratings changes over the past 3 years:
Initiated – Buy – December 28, 2018 – Price Target $7.00
Update – Buy – April 3, 2019 – Price Target $7.00

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3) **Sel**l: the analyst believes the price of the stock will decline by at least 20% over the next 12-18 months and should be sold.

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	Company Coverage		Investment Banking	
Ratings Distribution	# of Companies	% of Total	# of Companies	# of Companies
Market Outperform (Buy)	36	88%	10	28%
Market Perform (Neutral)	5	12%	0	0%
Market Underperform (Sell)	0	0%	0	0%
Total	41	80%	10	24%

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