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TO: WeFunder.com  
RE: PlantPharm Valuation Analysis Review

PlantPharm BioMed, Ltd. is part of a very unique industry where the barriers to commercial entry are significantly different from other industries and for that reason financial statements and company valuations are unique as well. The facts are these:

**Fact 1:** R&D for the Pharma industry takes 15 to 25 years before a product is approved for market. During this time all costs incurred appear as losses on company financial statements because no sales can legally be made. It is well-known that a newly introduced drug will cost more than \$1 Billion dollars by the time it is approved for sale and most new pharma companies will show a negative net worth and negative cash flows for years prior to introduction of its product.

**Fact 2:** No pharma product can be sold until a license is approved by the U.S. Food and Drug Administration (FDA). The FDA has a long and exhaustive process for approval of any drug, and requires human clinical trials after the initial R&D of that drug is completed. Then submission to the FDA's approval process for obtaining a license to market the drug is required before a company can begin to recoup its investment.

**Fact 3:** The valuation of pharma companies is much more complicated to establish than a valuation of other manufacturing companies because of sunk R&D costs over many years and the relationship to its introduction into the marketplace. The closer a company brings a new drug to the approval process, the more valuable that drug becomes by an exponential growth factor. Therefore, a straight-line valuation is not the norm for the pharmaceutical industry, rather, each stage of the development process requires a new evaluation of the product and of the company. A step-by-step valuation is required resulting in an ever increasing share value.

**Fact 4:** A proven proprietary Platform Technology provides yet another multiplication factor in the valuation process of a company. The ability to control the production method that creates an entirely new market segment is, by definition, disruptive and transformative to the industry as a whole. Entire industries are built upon the foundations of unique Platform Technologies, and because the proof-of-concept and physical trials that were required to bring the PlantPharm Platform Technology to the marketplace are fully complete, and have been further ratified through the U.S. National Institutes of Health, a dramatically higher level of company valuation has already been achieved by PlantPharm BioMed, Ltd.

**Summary:** The valuation of PlantPharm must be done utilizing the facts that are specific to its industry because of the uniqueness of the factors that have created value in the company already. None of the facts describing PlantPharm's accomplishments would ordinarily be included in a start-up company, this is because PlantPharm is a start-up that has completed over 20 years of R&D history in its background and that history carries forward for the benefit of its investors. The completed package of research and development has culminated in a corporation that is now making the full value of its historic development costs available in equity form to investors at costs much reduced from expected costs for the advanced development stage that the Company possesses today.

***PlantPharm has as its first example of the capabilities of its Platform Technology, an orally-deliverable, biopharmaceutical vaccine that has already been successful in a double-blind, human clinical trial and has been approved by the FDA for its next human trial.*** The Company has brought the vaccine to within two-years of FDA approval. If this one vaccine were the entire pipeline of the Company, the company valuation would still be exceptionally high if only because of the step-up process in the valuation of a single drug from the pharmaceutical company. However, that is not the entire story.

***More importantly, PlantPharm has developed a proprietary Platform Technology that uses organic plants as the living factory for producing biopharmaceuticals.*** The Platform Technology can convert 40 of the 42 approved vaccines in the United States which, are given only by hypodermic injections, and convert them into plant-grown, orally delivered, shelf-stable pills with the same efficacy of the needle-in-the-arm vaccine. Of significant value is the determination that more than 500 drugs and therapeutics are identified to be producible as biopharmaceuticals using the PlantPharm Platform Technology.

PlantPharm's proprietary Platform Technology allows for collaborations with other pharmaceutical companies enabling financially significant cash flows to be developed independently under contract for their owners. R&D conversions followed by contract production of other companies products using organic plants to grow biopharma products is planned in an industry where joint-venturing is common practice and valuable in 10's of Millions to Billions of dollars per drug annually.

Valuation of a company that has a drug close to certification by the FDA is just one very high level of valuation. But, when a company has created a Platform Technology that defines a new segment of manufacturing in a ***Trillion dollar industry***, AND has a vaccine, AND has pipeline targets of more than 500 pharmaceuticals...then we are talking a Billion dollar company valuation.

Herein, is submitted certain valuation criteria that verifies the uniqueness of the pharmaceuticals industry as well as the market position of PlantPharm. These company comparables and other Fair Market valuations, combine to form this verification and to provide evidence in support of the valuation for PlantPharm BioMed, Ltd. as it stands today.

These documents, when taken together in context, are the facts that Investment Bankers, Wealth Fund Managers and sophisticated Investors require to make an informed decision regarding the efficacy of their investments.

Documentation Attached:

**A) IRS Section 409A & FASB ASC 718 Common Stock Valuation:**

Calculation used for determination of Fair Market Value per share of Stock @ \$1.50/share.

**B) PlantPharm Analysis of Comparable Pharmaceutical Startups:**

Historic comparisons of Pharma Co.'s public valuation and growth over years.

Total Debt carried by various Companies.

Recent comparisons of Pharma Co.'s public market valuations.

Market Cap valuations for public companies as comparisons.

**C) Company Stock Comparison to PlantPharm BioMed:**

2011 public market comparison of Pharma Co.'s followed by PlantPharm.

Company comparisons of the per-share, as well as Market Cap values of companies within a similar industry and with similar, but varying, characteristics shows a very solid support of all PlantPharm valuations.

Very Sincerely,



Robert G. Britt  
Founder, Chairman and CEO

**SEE ATTACHMENTS:**

409A Stock Valuation Analysis

Analysis of Comparable Startup Companies w. Stock Valuations

2011 Company Stock Evaluations (Historic)

# Common Stock Valuation for PlantPharm BioMed, Ltd

Prepared by AUTUMNWOOD FINANCIAL  
CORPORATION



## **Overview**

AUTUMNWOOD FINANCIAL CORPORATION (the “Preparer”) has prepared this report for PlantPharm BioMed, Ltd. (the “Company”) to document the calculations used to determine the fair market value of the Company’s common stock as of November 23, 2018 (the “Valuation Date”).

Based on the analysis, the calculated value of common stock is \$1.50766 per share.

This report is intended to be used by the Board of Directors and Management of the Company for the exclusive purpose of compliance with IRC §409A – specifically, as the basis for establishing a strike price for the Company’s option grants for its common stock – and as an input for ASC 718 compliance. This report should not be considered, in whole or in part, as an investment advice by anyone.

## **Company Description & Stage**

PlantPharm BioMed, Ltd. is a biopharmaceutical company in a Trillion Dollar marketplace entering with a proprietary, proven and disruptive Platform Technology for producing biopharmaceuticals and vaccines using organic plants as the factories with the ability to transform the way pharma drugs are manufactured worldwide.

## **Purpose & Scope**

### **IRC SECTION 409A**

In October 2004 the IRS issued new regulations (Internal Revenue Code §409A) that suggest private companies should not issue stock options that are “in-the-money” or with an exercise price that is below “fair market value” as defined in IRS Revenue Ruling 59-60. To avoid an additional tax event and potential penalties, a formal valuation opinion is suggested every 12 months, or more often if there is a material change in either the business or the implied market value of the common stock.

### **FASB ASC 718**

Issued in December 2004 by the Financial Accounting Standards Board (FASB), ASC 718 (formerly SFAS 123R) addresses the accounting for stock-based compensation such as stock options. The statement supersedes APB Opinion No. 25, Accounting for Stock Issued to Employees and requires that such transactions be accounted for using the fair market value method. A key driver for that calculation is the fair value of the common stock (Convertible preferred stock herein is treated as common stock).

## Valuation Method

There are 3 kinds of generally accepted valuation approaches: the cost approach, the income approach, and the market approach. Valuing the assets in the cost approach is not suitable in this instance, and income is not achieved for evaluation at this time. This leaves the market approach as the most valid.

The market approach involves finding and using comparables of public companies that are similar in nature to the company being valued. Or, by creating a proprietary market analysis report by a reputable company for market evaluation purposes. In this analysis both public comparables and a market report by a reputable firm were used as inputs for the Valuation Approach.

## Valuation Approach Used

Given the Company's early stage of development and lack of significant assets, it was deemed inappropriate to apply robust valuations methodologies using the Asset, Market and Income valuation approaches.

Accordingly, a simple model was used to estimate three likely outcomes for the Company: a "Downside" scenario, a "Midcase" scenario, and an "Upside" scenario. Each of these scenarios was assigned a probability based upon the Preparer's knowledge and expectations of the business as of the Valuation Date. These scenarios represent possible valuations for various future events, including a dissolution, a financing round or sale of the company.

The resulting probability-weighted expected outcome was then discounted to the present using the standard present value formula:

$$PV = C / (1 + r)^n$$

Where  $C$  is the probability-weighted expected value,  $r$  is the cost of capital,  $n$  is the estimated years until the next liquidity/valuation/exit event, and the  $PV$  is the present value.

Next, debt is subtracted, cash is added, and the resulting amount is divided by the number of shares outstanding to arrive at the value per common share.

Finally, the common share value is adjusted for lack of marketability to account for the fact that there is no liquid market for the Company's shares.

The results of the calculation are presented in Exhibit A.

## EXHIBIT A: Calculation of <sup>1</sup>Common Stock Fair Market Value

Scenario	Downside	Midcase	Upside
<b>Estimated Value</b>	0	256,000,000	525,000,000
<b>Probability</b>	53%	29%	18%
<b>Weighted Value</b>	\$170,157,522		
<b>Years to Event</b>	3.0		
<b>Discount Rate</b>	60%		
<b>Marketability Discount</b>	20%		
<b>Non-Marketable, Probability-Weighted Present Value</b>	\$41,542,363		
<b>Less: Debt</b>	172,500		
<b>Plus: Cash</b>	500		
<b>Equity Value</b>	\$41,370,363		
<b>Common Shares Outstanding</b>	20,580,000		
<b>Fair Market Value per Common Share</b>	\$1.50766		

### NOTES:

<sup>1</sup> Common Shares and Convertible Preferred Shares are equivalent in this report.

<sup>2</sup> SPECIAL NOTE: Management plans a secondary offering providing a liquid market for institutional investors bringing its Market Cap to \$1.26 Billion. This is consistent with early stage companies in the pharmaceutical industry. See notes<sup>3,4,5</sup>.

<sup>3</sup> See: PlantPharm BioMed, Ltd. - Capitalization Table Summary.

<sup>4</sup> See: PlantPharm Analysis of Comparable Pharmaceutical Startups dated November 30, 2018.

<sup>5</sup> See: Company Stock Comparison to PlantPharm BioMed dated November 9, 2011.

## **Disclaimer**

This report was prepared using Capshare's free valuation calculation tool. In preparing this report, the Preparer agrees to take full responsibility for the assumptions, calculations, methodology and results of this report. Capshare assumes no liability for any consequence resulting from the content of the report or use of the report. Capshare has no obligation to defend or represent any part of this report for any purpose.

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## PlantPharm Analysis of Comparable Pharmaceutical Startups

30-Nov-18

NAME OF COMPANY	DATE	SYMBOL	Share Price @ CLOSE	DEBT/ EQUITY RATIO	TOTAL DEBT \$Millions	MARKET CAP
Vertex Pharmaceuticals	11/09/11	VRTX	30.45	2.27	-489.42	
	11/04/13	VRTX	54.83	3.67	-696.91	
	01/23/17	VRTX	81.40			
	11/28/18	VRTX	175.05			<b>45.58 B</b>
Pharmasset, Inc. <small>In November 2011 was acquired by Gilead for \$11.2 Billion</small>	11/09/11	VRUS	69.07	13.16	-4.40	
	11/11/11	VRUS	137.00			<b>11.20 B Sale</b>
Anylam Pharmaceuticals	11/09/11	ALNY	7.68	16.55	0.00	
	11/04/13	ALNY	23.15	2.60	0.00	
	01/23/17	ALNY	38.16			
	11/28/18	ALNY	78.02			<b>7.82 B</b>
Incyte Corporation	11/09/11	INCY	13.48	2.86	-231.28	
	01/23/17	INCY	117.42			
	11/28/18	INCY	67.36			<b>13.99 B</b>
Ziopharm Oncology	11/09/11	ZIOP	4.51	15.11	0.00	
	01/23/17	ZIOP	5.67			
	11/28/18	ZIOP	3.46			<b>511.19 M</b>
Arry Biopharma	11/09/11	ARRY	2.64	0.88	-93.14	
	01/23/17	ARRY	11.18			
	11/28/18	ARRY	15.77			<b>3.47 B</b>
Xoma Corporation	11/09/11	XOMA	1.62	3.23	-27.03	
	01/23/17	XOMA	33.25			
	11/28/18	XOMA	15.72			<b>132.05 M</b>
Exact Sciences	11/09/11	EXAS	7.91	1.55	0.00	
	11/04/13	EXAS	10.72	9.49	2.04	
	01/23/17	EXAS	17.50			
	11/28/18	EXAS	76.37			<b>9.386 B</b>
Enanta Pharmaceuticals	11/04/13	ENTA	21.12	16.16	0.00	
	01/23/17	ENTA	33.23			
	11/28/18	ENTA	84.52			<b>1.638 B</b>
Juno Therapeutics <small>On January 22, 2018 Juno Therapeutics was acquired by Celgene for \$9 billion.</small>	12/19/14	JUNO	24.00			
	01/22/18	JUNO	87.00			<b>9.0 B Sale</b>

OTHER COMPARISONS			Share Price	MARKET CAP
Alexion Pharmaceuticals	11/29/18	ALXN	117.89	<b>27.90 B</b>
Regeneron Pharmaceuticals	11/29/18	REGN	351.50	<b>41.12 B</b>
BioMarin Pharmaceuticals	11/29/18	BMRN	96.25	<b>17.02 B</b>
BioGen, Inc	11/29/18	BIIB	324.06	<b>65.62 B</b>
Voyager Therapeutics	11/29/18	VYGR	11.23	<b>363.98 M</b>
Audentes Therapeutics	11/29/18	BOLD	23.88	<b>1.02 B</b>
Spark Therapeutics	11/29/18	ONCE	41.15	<b>1.52 B</b>
uniQure N.V.	11/29/18	QURE	28.04	<b>1.11 B</b>
CytomX Therapeutics	11/29/18	CTMX	13.88	<b>633.70 M</b>
Blueprint Medicines	11/29/18	BPMC	54.99	<b>2.65 B</b>
Kura Oncology	11/29/18	KURA	11.65	<b>502.90 M</b>
Sarepta Therapeutics	11/29/18	SRPT	126.67	<b>8.92 B</b>
Exelixis Inc	11/29/18	EXEL	19.00	<b>6.35 B</b>
Clovis Oncology	11/29/18	CLVS	16.51	<b>1.05 B</b>
Acadia Pharmaceuticals	11/29/18	ACAD	19.79	<b>2.43 B</b>
Array Pharmaceuticals	11/29/18	ARRY	15.86	<b>3.40 B</b>
Bluebird Bio Inc	11/29/18	BLUE	122.89	<b>2.28 B</b>
Regenix Bio	11/30/18	RGNX	59.91	<b>2.09 B</b>

## Company Stock Comparison to PlantPharm Biomed

9-Nov-11

Name of Company	Symbol	Close	Date	52 Week Range		Book Value Per Share	Per Share Earnings	Debt/Equity Ratio	Total Debt	In Development
				Low	High					
*Pharmasset, Inc.	VRUS	69.07	09-Nov-11	19.63	88.52	2.34	-1.21	13.16	-4.40	Hepatitis C treatment
Vertex Pharmaceuticals Inc.	VRTX	30.45	09-Nov-11	29.24	58.87	2.78	-1.52	2.27	-489.42	Hepatitis C treatment
**Inhibitex, Inc.	INHX	9.65	09-Nov-11	1.89	10.60	0.69	-0.36	9.42	-0.39	Hepatitis C treatment
Affyman, Inc.	AFFY	4.76	09-Nov-11	3.93	8.50	3.12	-1.64	6.19	0.00	Drugs for treatment of serious and life-threatening conditions
Anlylam Pharmaceuticals, Inc.	ALNY	7.68	09-Nov-11	5.88	12.37	3.20	-1.19	16.55	0.00	Novel therapeutics based on RNA interference (RNAi)
Incyte Corporation	INCY	13.48	09-Nov-11	12.58	21.15	-1.08	-0.80	2.86	-310.28	Small molecule drugs for hematologic and oncology indications, and inflammatory and autoimmune diseases
ZIOPHARM Oncology, Inc.	ZIOP	4.51	09-Nov-11	3.55	7.85	1.24	-1.29	15.11	0.00	In-licensed cancer drugs in North America
Arry BioPharma Inc.	ARRY	2.64	09-Nov-11	1.70	3.48	-2.82	-0.87	0.88	-93.14	Small molecule drugs to treat patients afflicted with cancer and inflammatory diseases in North America, Europe, and the Asia Pacific
Ariad Pharmaceuticals Inc.	ARIA	10.67	09-Nov-11	3.51	13.50	0.06	-0.80	N/A	-13.40	Small-molecule drugs for the treatment of cancer
XOMA Ltd.	XOMA	1.62	09-Nov-11	1.38	7.71	0.75	-1.83	3.23	-27.03	Therapeutic antibodies to treat inflammatory, autoimmune, infectious, and oncological diseases
Complete Genomics, Inc.	GNOM	4.84	09-Nov-11	4.37	18.55	3.72	-3.40	6.61	-23.86	DNA sequencing platform for human genome sequencing and analysis
Human Genome Sciences Inc.	HGSI	9.71	09-Nov-11	9.25	30.15	2.13	-2.03	1.71	-524.55	Mapatumumab for the treatment of non-small cell lung cancer, multiple myeloma, and hepatocellular cancer
Medivation, Inc.	MDVN	42.26	09-Nov-11	10.96	44.93	0.08	-0.79	2.25	0.00	Treatment of castration-resistant prostate cancer, Alzheimer's disease, and Huntington disease
OXIGENE, Inc.	OXGN	1.16	09-Nov-11	0.82	6.38	0.62	-3.07	4.10	0.00	Novel therapeutics to treat cancer and eye diseases in the United States
Exact Sciences Corporation	EXAS	7.91	19-Dec-11	4.91	9.45	1.22	-0.44	1.55	-0.001	Developing a molecular diagnostic screening technology for the early detection and prevention of colorectal pre-cancer and cancer
Enanta Pharmaceuticals	Privately Held									Completed \$440 Million deal with Novartis to fund clinical trial of Hepatitis C Vaccine
<b>PlantPharm Biomed, Inc.</b>										<b>Platform Technology &amp; Hepatitis B Vaccine</b>

\*Pharmasset Inc. sold for \$11 Billion to Gilead Sciences Inc. 11/21/2011

\*\*Inhibitex Inc. sold for \$2.5 Billion to Bristol-Myers Squibb Co. 1/10/2012