Zacks Small-Cap Research
Sponsored – Impartial - Comprehensive

March 5, 2018
Grant Zeng, CFA
Peter Sun
312-265-9466
gzeng@zacks.com

scr.zacks.com
10 S. Riverside Plaza, Chicago, IL 60606

Arrowhead Pharm (ARWR-NASDAQ)

ARWR: Strategic shift to subQ and extra-hepatic programs; Two Phase I programs to be initiated soon; Collaborations with Amgen announced; Balance sheet remains strong,

Relative valuation metrics indicates a fair value at $15/share.

Current Price (03/05/18)	$7.28
Valuation	**$15.00**

OUTLOOK

After discontinuation of three DPCiv programs, Arrowhead shifted its focus on subcutaneous and extra-hepatic therapeutics.

The company plans to dose patients in two Phase I clinical programs by the end of March.

New financing will extend its cash runway into 2019.

We remain optimistic about Arrowhead's prospect.

SUMMARY DATA

52-Week High	**$6.66**
52-Week Low	**$1.44**
One-Year Return (%)	**200.00**
Beta	**2.41**
Average Daily Volume (sh)	**1,264,712**
Shares Outstanding (mil)	**87**
Market Capitalization ($mil)	**$578**
Short Interest Ratio (days)	**N/A**
Institutional Ownership (%)	**N/A**
Insider Ownership (%)	**N/A**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**N/A**
Earnings Per Share (%)	**N/A**
Dividend (%)	**N/A**
P/E using TTM EPS	**N/A**
P/E using 2013 Estimate	**N/A**
P/E using 2014 Estimate	**N/A**
Zacks Rank	**N/A**

Risk Level	**High,**
Type of Stock	**Small-Growth**
Industry	**Biotechnology**
Zacks Rank in Industry	**N/A**

ZACKS ESTIMATES

Revenue
(in millions of $)

	Q1 (Dec)	Q2 (Mar)	Q3 (Jun)	Q4 (Sep)	Year (Sep)
2016	0.04 A	0.04 A	0.04 A	0.03 A	0.16 A
2017	4.37 A	8.99 A	9.34 A	8.71 A	31.4 A
2018	3.50 A	8.00 E	9.00 E	9.00 E	29.5 E
2019					35.0 E

Earnings per Share
(EPS is operating earnings before non-recurring items)

	Q1 (Dec)	Q2 (Mar)	Q3 (Jun)	Q4 (Sep)	Year (Sep)
2016	-$0.32 A	-$0.35 A	-$0.32 A	-$0.34 A	-$1.34 A
2017	-$0.21 A	-$0.08 A	-$0.08 A	-$0.14 A	-$0.50 A
2018	-$0.18 A	-$0.13 E	-$0.12 E	-$0.13 E	-$0.56 E
2019					-$0.74 E

Zacks Projected EPS Growth Rate - Next 5 Years % **N/A**

© Copyright 2018, Zacks Investment Research. All Rights Reserved.

WHAT'S NEW

Balance Sheet Boosted by Recent Financing

As of December 31, 2017, the Company had cash and investment of $50.7 million.

In January 2018, Arrowhead closed an underwritten public offering of 11,500,000 shares of its common stock, which included shares issued upon the exercise in full by the underwriters of their option to purchase 1,500,000 additional shares.

The offering was priced at $5.25 per share, and the company received gross proceeds of approximately $60.4 million.

Current financial resources are sufficient to fund its operations for next two years according to our financial model.

Arrowhead to Begin Phase I Study of ARO-AAT for Treatment of Alpha-1 Liver Disease

In February, Arrowhead received approval from the New Zealand Medicines and Medical Devices Safety Authority (MEDSAFE) and from the local Ethics Committee to proceed with a first-in-human **Phase I** study of **ARO-AAT** for the treatment of **alpha-1 antitrypsin deficiency (AATD)**.

The company plans **dosing** the patients around the **end of March**.

The study, which is designated as **AROAAT1001** (NCT03362242), is a Phase I single- and multiple-ascending dose study to evaluate the safety, tolerability, pharmacokinetics, and effect of ARO-AAT on serum alpha-1 antitrypsin levels in healthy adult volunteers. The study is designed to include up to 5 cohorts of 8 subjects per cohort who will receive placebo or ARO-AAT at doses of 35, 100, 200, 300, or 400 mg.

AATD is a rare genetic disorder associated with liver disease in children and adults and pulmonary disease in adults. AAT is primarily synthesized and secreted by liver hepatocytes. Its function is to inhibit enzymes that can break down normal connective tissue.

The most common disease variant, the Z mutant, has a single amino acid substitution that results in improper folding of the protein. The mutant protein cannot be effectively secreted and accumulates in globules inside the hepatocytes. This triggers continuous hepatocyte injury, leading to fibrosis, cirrhosis, and increased risk of hepatocellular carcinoma.

ARO-AAT is designed to knock down the hepatic production of the mutant alpha-1 antitrypsin (Z-AAT) protein. Reducing production of the inflammatory Z-AAT protein is expected to halt the progression of liver disease and potentially allow it to regenerate and repair.

The US FDA has granted **orphan drug designation** to ARO-AAT.

Phase I/II Study of ARO-HBV for Treatment of Hepatitis B to be Initiated

In February 2018, Arrowhead also received approval from the New Zealand Medicines and Medical Devices Safety Authority (MEDSAFE) and from the local Ethics Committee to proceed with a **Phase I/II** first-in-human study of **ARO-HBV** for the treatment of chronic hepatitis B virus **(HBV)** infection.

Dosing will also begin around the **end of March.**

The study, **AROHBV1001** (NCT03365947), is a Phase I/II study to evaluate the safety, tolerability, and pharmacokinetic effects of single-ascending doses (SAD) of ARO-HBV in healthy adult volunteers, and to evaluate the safety, tolerability, and pharmacodynamic effects of multiple-ascending doses (MAD) of ARO-HBV in patients with chronic HBV.

The SAD portion is designed to include up to 5 cohorts of 6 subjects per cohort. Each SAD subject will receive a single-dose administration of either placebo or ARO-HBV at up to 5 dose levels (35, 100, 200, 300, 400 mg). The MAD portion is designed to include up to 8 cohorts of 4 HBV patients per cohort. Each MAD patient will receive 3 doses of ARO-HBV at up to 4 dose levels (100, 200, 300, 400 mg).

Preclinical Data on ARO-HBV

At the HEP DART meeting held in December 2017, Arrowhead presented select **preclinical data** on **ARO-HBV**. Three doses of ARO-HBV in wild type pHBV mice led to reductions in HBV DNA of 3.44 log10 and both HBsAg and HBeAg dropped below the lower limit of quantitation (reductions of greater than 3.0 log10 and greater than 2.2 log10, respectively).

In addition, in a mutated pHBV mouse model that eliminates the HBx trigger site to simulate HBV patients with high levels of integrated HBV DNA relative to cccDNA, a single dose of ARO-HBV led to a reduction in HBsAg of 2.95 log10. The duration of effect was long, with a HBsAg reduction of approximately 2.0 log10 still observed 8 weeks after the dose.

Both clinical programs of ARO-AAT and ARO-HBV are based on the company's RNAi programs that utilize the company's new proprietary subcutaneous **(subQ**) delivery system.

New HBV Clinical Data of ARC-520 Presented at HEP DART Meeting

The Updated Data

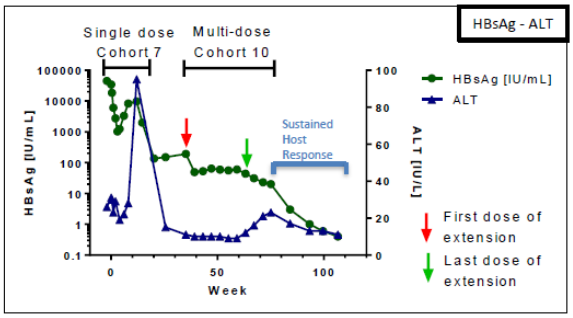
On December 6, 2017, Arrowhead presented new data of **ARC-520** from its **Phase II** clinical study in patients with chronic hepatitis B virus (HBV) infection at the 22nd biennial HEP DART meeting held in Kona, Hawaii, from Dec. 3-7. ARC-520 is the company's first-generation RNAi-based clinical candidate.

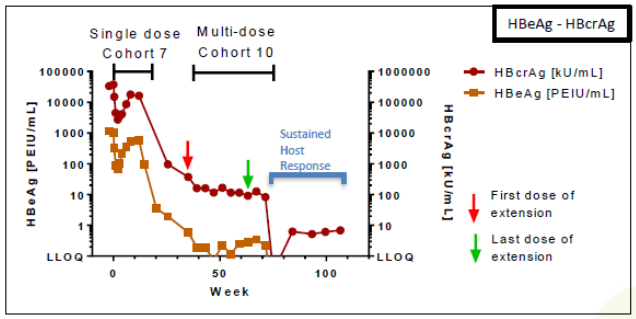
In the **ARC-520 2001 open** label extension study, 8 patients received between 4-9 monthly doses of 4 mg/kg ARC-520 in combination with entecavir.

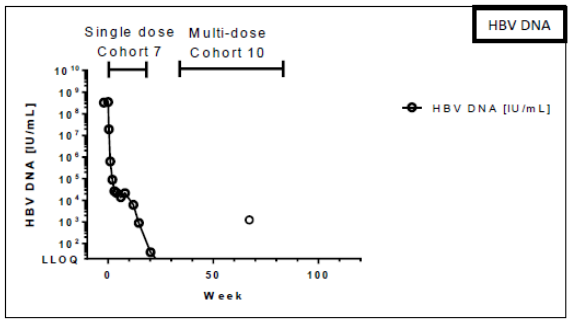
The new data demonstrated that 2 of 3 (66.7%) HBeAg positive patients and 2 of 5 (40%) HBeAg negative patients treated with ARC-520 had a sustained host response that persisted after therapy was removed. This host response was characterized by continued reduction of HBV biomarkers such as HBsAg, and was coincided with an uptick in liver enzyme alanine aminotransferase (ALT), which was indicative of host response.

In the **4 patients** that had a sustained host response, the company observed reductions in HBsAg of 5.0, 3.1, 2.4, and 0.6 log10 from baseline, respectively. Following charts show the detailed results for the 4 patients.

Patient 1: HBeAg Positive Patient at 0.36 IU/ml



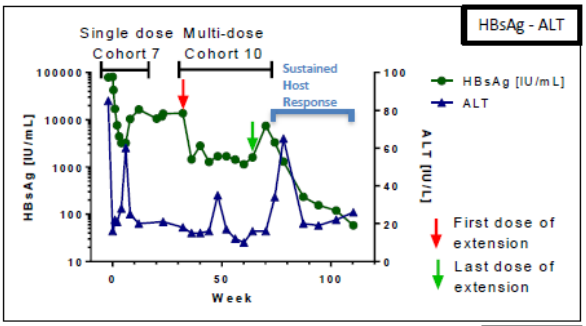


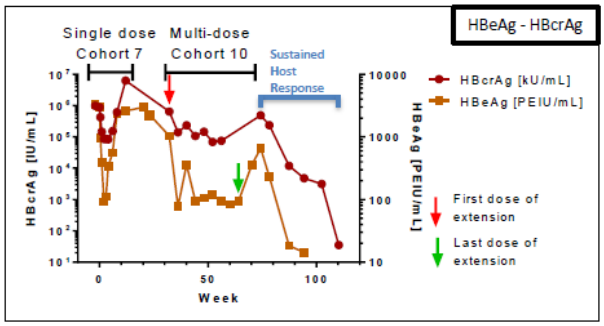


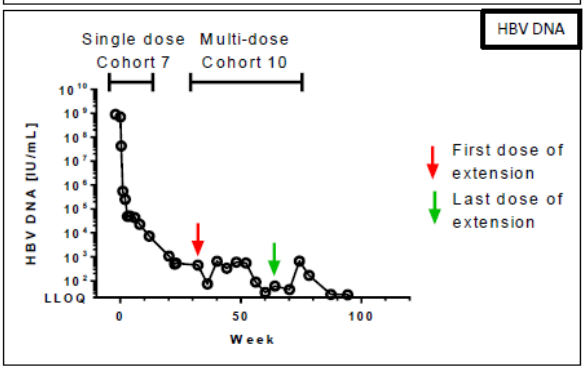
Patient 01-7985

- **5.0** Log10 HBsAg reduction from baseline
- 4.8 Log10 HBcrAg and >4.2 Log10 HBeAg reduction
- Rapid reduction of HBV DNA to BLOQ
- ALT elevation after initial antigen and DNA reductions and then after ARC-520 stopped
- Antigen decrease during ARC-520 treatment holiday consistent with increased host control of HBV virus

Patient 2: HBeAg Positive Patient Flared when ARC-520 Stopped



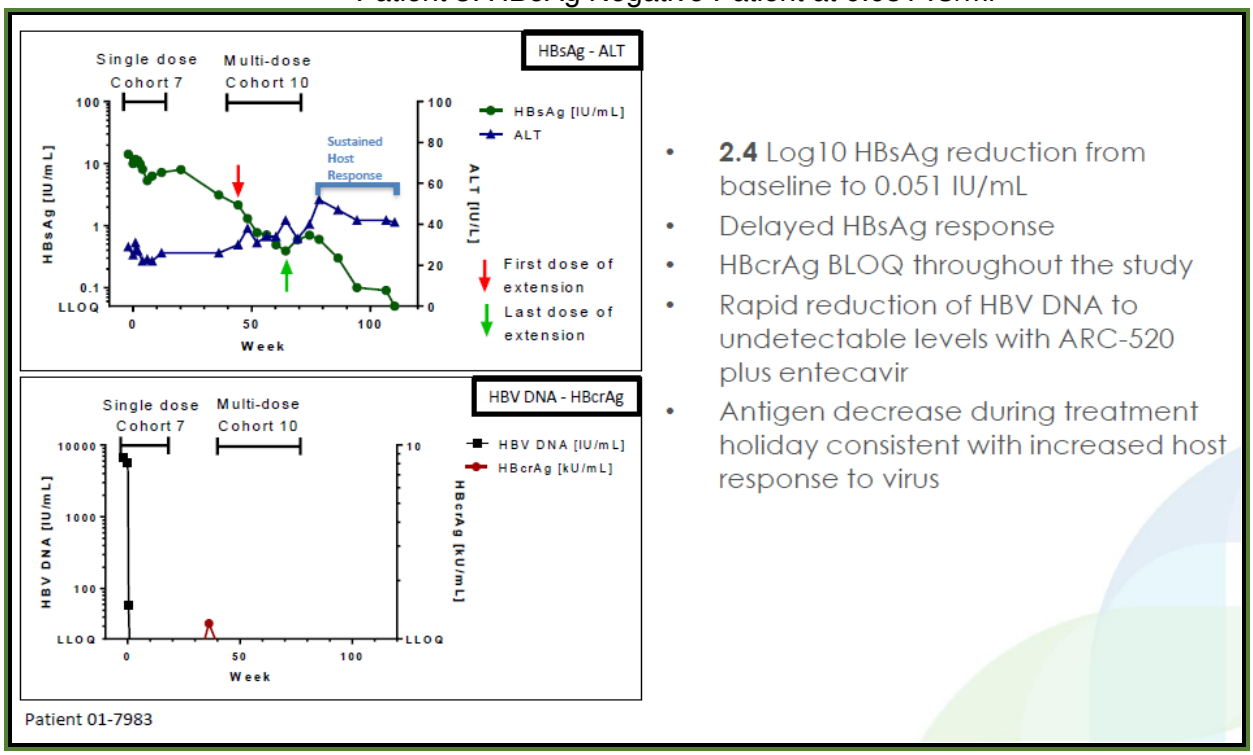




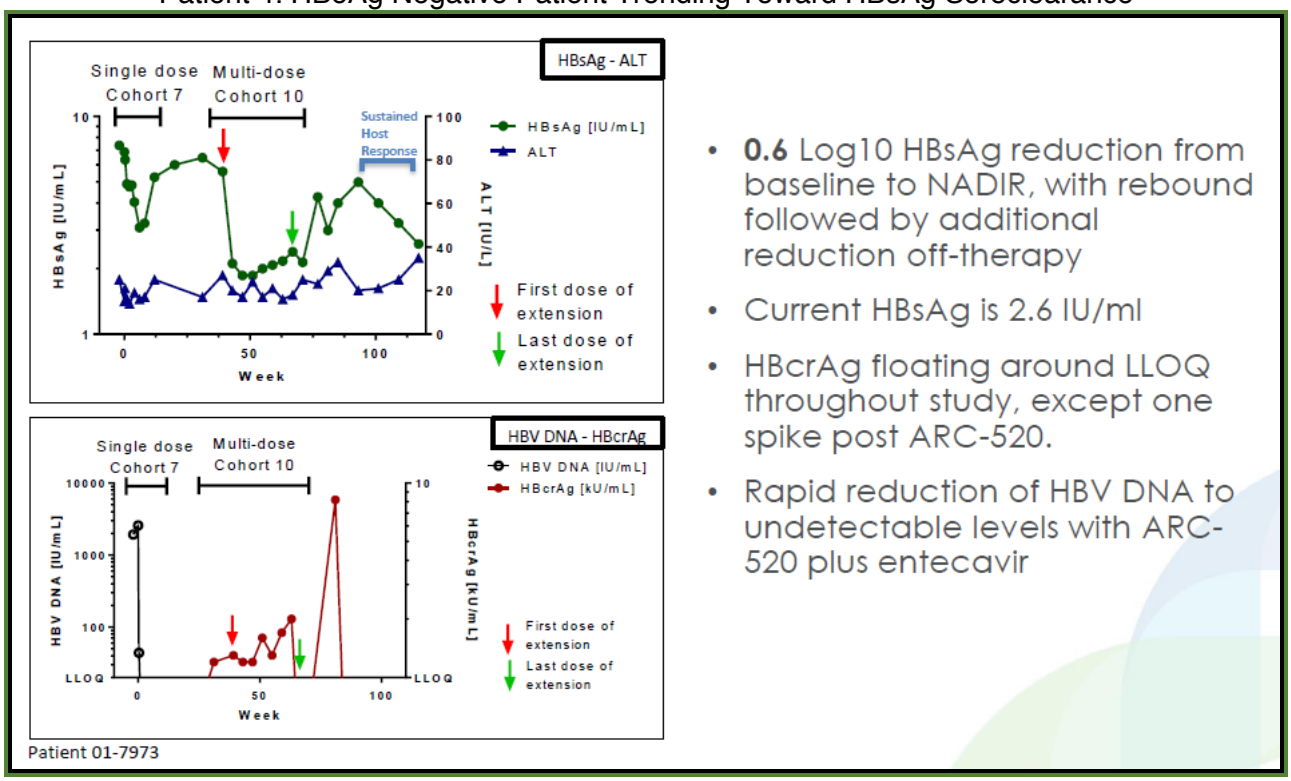
Patient 01-7982

- **3.1** Log10 HBsAg reduction from baseline
- 4.4 Log10 HBcrAg and 2.3 Log10 HBeAg reduction
- Biphasic reduction of HBV DNA by >7.5 Log10 to BLOQ
- Initial ALT elevations coinciding with antigen and DNA reductions
- HBsAg and HBeAg did not return to baseline after single dose ARC-520

Patient 3: HBeAg Negative Patient at 0.051 IU/ml



Patient 4: HBeAg Negative Patient Trending Toward HBsAg Seroclearance



Further, these four patients achieved absolute levels of HBsAg of 58, 2.6, 0.36, and 0.051 IU/ml, respectively. The lowest absolute level of HBsAg was 0.051 IU/ml, below which is considered

seroclearance. These patients also achieved reductions in HBV DNA to below the level of quantitation, and deep reductions in core-related antigen (HBcrAg), and HBeAg, with many at or below their respective lower limits of quantitation.

Our Immediate Takeaways

In this Phase II study of ARC-520, the company has observed in multiple patients continued reductions in key HBV markers long after ARC-520 treatment ceased. This is pretty encouraging in our view.

We can't say definitively that this is immune mediated, since we don't have biopsies or other direct evidence of that, but it's the first clinical evidence that indicates that an RNAi therapy initiated a favorable host response. This makes us more confident about the company's next generation RNAi-based candidate **ARO-HBV**, which may be even more active since it hits both transcripts from cccDNA and integrated DNA.

Pipeline Update

In addition to **HBV**, and **AAT,** Arrowhead has expanded its cardiometabolic pipeline, which now includes **ARO-APOC3**, targeting apolipoprotein C-III, and **ARO-ANG3**, targeting angiopoietin-like protein 3 (ANGPTL3); with CTA filings planned around the end of 2018.

Arrowhead has also achieved continued progress with the company's **extra-hepatic platform** and pipeline, including:

- ARO-Lung1, Arrowhead's first candidate against an undisclosed gene target in the lung, which achieved nearly 90% target knockdown following inhaled administration in rodents;
- ARO-HIF2, the Company's candidate targeting renal cell carcinoma, which achieved 85% target gene knockdown in a rodent tumor model.



Collaborations with Amgen for Two Cardiovascular Programs

On Sept. 29, 2016, Arrowhead announced two license and collaboration agreements with Amgen to develop and commercialize two cardiovascular programs based on Arrowhead's RNAi platform.

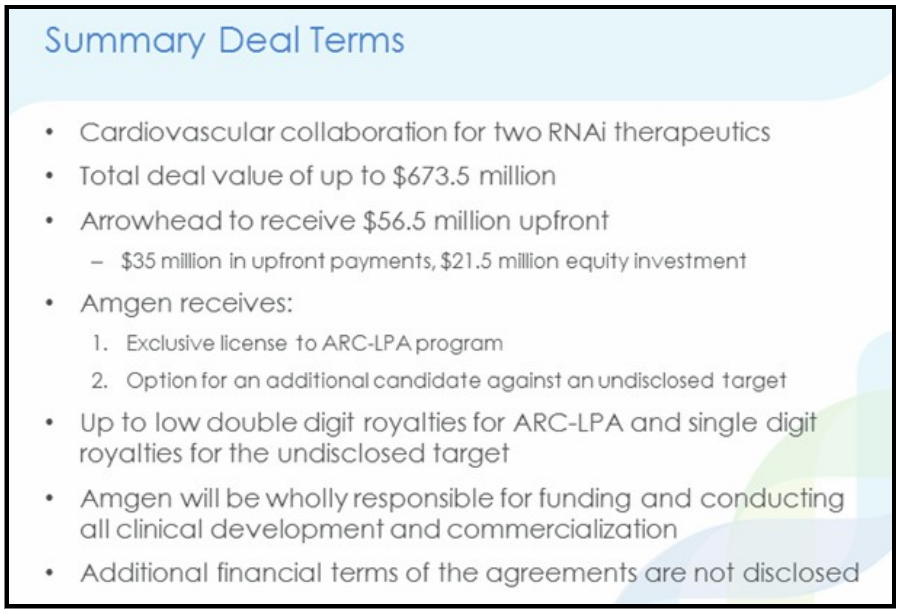
These programs will utilize Arrowhead's proprietary **subcutaneous RNAi delivery technology**.

Pursuant to one agreement, Amgen receives a worldwide, exclusive license to Arrowhead's novel, RNAi **ARC-LPA program**, which is designed to reduce production of apolipoprotein A, a key component of lipoprotein(a), which has been genetically linked with increased risk of cardiovascular diseases, independent of cholesterol and LDL levels. ARC-LPA is Arrowhead's first drug candidate to use a subcutaneously administered delivery construct. Elevated lipoprotein(a), or Lp(a), is widely viewed as a key risk factor for cardiovascular diseases, including coronary artery disease, atherosclerosis, thrombosis and stroke.

Under the second agreement, Amgen receives an option to a worldwide, exclusive license for a RNAi therapy for an **undisclosed genetically validated cardiovascular target**.

In both agreements, Amgen will be wholly responsible for clinical development and commercialization.

In connection with the two collaborations, Arrowhead will receive $35 million in upfront payments; $21.5 million in the form of an equity investment by Amgen in Arrowhead common stock (about 3 million shares); and up to $617 million in option payments, and development, regulatory and sales milestone payments. Arrowhead is further eligible to receive single digit royalties for sales of products against the undisclosed target and up to low double-digit royalties for sales of products under the ARC-LPA agreement.



Our Takeaways from the Deal

We welcome this deal and think it's positive to Arrowhead in the following aspects:

First, the collaborations immediately boost the company's balance sheet with the $56.5 million upfront payment. In the long run, milestone payment and royalty will further enhance the company's cash position in a non-dilutive way.

Second, the deal with Amgen further validates Arrowhead's RNAi technology and its clinical application.

Third, with a great partner Amgen, this deal could serve as a signal of renewed interest in RNAi technology and similar deal could be signed in the future for Arrowhead.

We will provide further updates on this deal for investors when they are available.

Update on ARO-HIF2 for Kidney Cancer

In September 2015, Arrowhead nominated **ARO-HIF2** as its first therapeutic candidate delivered using a new Dynamic Polyconjugate™ (DPC™) designed to target tissues outside of the liver. Arrowhead believes that ARO-HIF2, which uses RNA interference to silence transcription factor hypoxia-inducible factor 2α (HIF-2α), is a promising new candidate for the treatment of clear cell renal cell carcinoma **(ccRCC).**

ARO-HIF2 is designed to inhibit the production of HIF-2α, which has been linked to tumor progression and metastasis in ccRCC. Using ARC-HIF2 in a preclinical ccRCC tumor model, mice treated with weekly injections led to greater than 80% knockdown of HIF-2α mRNA in tumors. Furthermore, tumors from treated mice exhibited statistically significant reductions in size and weight, extensive tumor cell death, reduction in the tumor-expressed VEGF-A biomarker, and destruction of the blood vessels feeding the tumors.

The company presented positive **preclinical data** at the European Cancer Congress 2015 (ECC2015) in Vienna on September 27, 2015 in a poster titled "HIF-2α targeting with a novel RNAi delivery platform as therapy for renal cell carcinoma," (abstract #353).

The company further presented positive preclinical data on ARO-HIF2 at AACR2016.

The poster presentation described data from various stages of development of ARO-HIF2, including RNAi trigger selection, HIF2-α target validation, delivery and targeting ligand validation, and multiple RCC tumor models. These data show that important advancements are being made in this program and for Arrowhead's Dynamic Polyconjugate™ (DPCTM) delivery platform generally, including the following key findings:

- Proof-of-concept ligand dependent, functional delivery was demonstrated using the DPC targeted delivery platform
- Silencing HIF2-α expression by RNA interference resulted in reduction of HIF-2α regulated genes
- In two different RCC tumor bearing mouse models, ARO-HIF2 inhibited tumor growth and promoted tumor cell death and structural degeneration

The company is in the process of manufacturing scale up to allow for initiation of IND-enabling studies. Timing for anticipated regulatory submission will be announced in the future.

We Remain Optimistic about the Prospect of Arrowhead

We continue to be optimistic about the prospect of Arrowhead and raise our valuation to $15 per share based on the recent development within the company.

We believe management decision to focus on the subQ and extra-hepatic programs is prudent.

The discontinuation of the DPCiv programs is not based on the safety or efficacy of the three candidates. Instead, the safety profile of ARC-520, ARC-521, and ARC-AAT in human clinical trials appeared to be favorable, and supported advancing the programs, with a small minority (6%) of infusions being associated with infusion reactions. In addition, across the ARC-520, ARC-521, and ARC-AAT clinical programs, laboratory values have not been deemed indicative of drug induced organ toxicity.

In addition, each candidate was highly active against its respective target. For example, ARC-AAT achieved 90% knockdown of serum AAT, which is believed to be near full suppression of liver production of the protein, in a **Phase I** clinical study. For ARC-520, it was previously reported that reductions in surface antigen (HBsAg) of almost 99%, or 2 logs, were achieved after a single dose. In subsequent multiple dose studies, for which data have not yet been reported, reductions of almost 3 logs were observed, with several patients being tracked that appear poised to possibly seroclear HBsAg, representing potential function cures.

The major reason for discontinuing the DPCiv programs is that it may takes more than 18 months to obtain actionable results to lift the clinical hold on the DPCiv programs. Even after this long delay, the possibility remains that the study could be inconclusive or fall short of satisfying the regulators in some way.

Therefore, management decided to focus entirely on its SubQ and extra-hepatic programs.

We believe it is a natural transition because the company's SubQ platform is capable of achieving similar results as the EX1 delivery vehicle, with the added benefit of a more convenient mode of administration and expected improved safety margins.

Our price target $15 per share values the company at about $1.3 billion in market capitalization, which we think is appropriate at this time. As long as management remains committed, value will be generated for shareholders in the future.

PROJECTED INCOME STATEMENT

	2017 (Sept)					2018 (Sept)					2019 (Sept)
$ in millions except per share data	Q1	Q2	Q3	Q4	FY	Q1	Q2	Q3	Q4	FYE	FYE
Revenue	$4.37	$8.99	$9.34	$8.71	$31.41	$3.51	$8.00	$9.00	$9.00	$29.51	$35.00
YOY Growth	-	-	-	-	*19736.5%*	*-19.6%*	*-11.0%*	*-3.7%*	*3.3%*	*-6.0%*	*18.6%*
Total Revenues	**$4.37**	**$8.99**	**$9.34**	**$8.71**	**$31.41**	**$3.51**	**$8.00**	**$9.00**	**$9.00**	**$29.51**	**$35.00**
YOY Growth	*9878.3%*	*20439.3%*	*23502.3%*	*27784.1%*	*19736.5%*	*-19.6%*	*-11.0%*	*-3.7%*	*3.3%*	*-6.0%*	*18.6%*
Cost of Revenue	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Gross Income	**$4.4**	**$9.0**	**$9.3**	**$8.7**	**$31.4**	**$3.5**	**$8.0**	**$9.0**	**$9.0**	**$29.5**	**$35.0**
Gross Margin	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
R&D	$9.5	$7.0	$6.9	$8.3	$31.7	$8.4	$8.6	$9.0	$9.5	$35.5	$50.0
% R&D	*218.2%*	*77.6%*	*73.9%*	*95.0%*	*100.9%*	*240.2%*	*107.5%*	*100.0%*	*105.6%*	*120.4%*	*142.9%*
Salary and G&A	$6.1	$5.2	$5.3	$7.5	$24.1	$5.7	$5.8	$6.0	$6.2	$23.7	$35.0
% SG&A	*140.4%*	*57.9%*	*56.5%*	*86.3%*	*76.8%*	*161.2%*	*72.5%*	*66.7%*	*68.9%*	*80.2%*	*100.0%*
Other expenses	$3.6	$2.9	$2.9	$3.2	$12.6	$3.2	$3.0	$3.0	$3.0	$12.2	$12.0
% Other	*82.7%*	*32.6%*	*30.8%*	*36.3%*	*40.1%*	*92.1%*	*37.5%*	*33.3%*	*33.3%*	*41.5%*	*34.3%*
Operating Income	**($14.9)**	**($6.1)**	**($5.7)**	**($10.3)**	**($37.0)**	**($13.8)**	**($9.4)**	**($9.0)**	**($9.7)**	**($41.9)**	**($62.0)**
Operating Margin	-	-	-	-	-	-	-	-	-	-	-
Other Income (Net)	$2.8	$0.1	$0.2	($0.5)	$2.6	$0.6	$0.0	$0.0	$0.0	$0.6	($0.5)
Pre-Tax Income	**($12.1)**	**($6.0)**	**($5.5)**	**($10.7)**	**($34.4)**	**($13.2)**	**($9.4)**	**($9.0)**	**($9.7)**	**($41.3)**	**($62.5)**
Net Taxes (benefit)	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Tax Rate	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Reported Net Income	**($12.1)**	**($6.0)**	**($5.5)**	**($10.7)**	**($34.4)**	**($13.2)**	**($9.4)**	**($9.0)**	**($9.7)**	**($41.3)**	**($62.5)**
YOY Growth	-	-	-	-	-	-	-	-	-	-	-
Net Margin	-	-	-	-	-	-	-	-	-	-	-
Weighted avg. Shares Out	*71.4*	*74.6*	*74.8*	*74.7*	*73.9*	*74.8*	*75.0*	*75.2*	*76.0*	*75.3*	*85.0*
Reported EPS	**($0.17)**	**($0.08)**	**($0.07)**	**($0.14)**	**($0.47)**	**($0.18)**	**($0.13)**	**($0.12)**	**($0.13)**	**($0.55)**	**($0.74)**
YOY Growth	-	-	-	-	-	-	-	-	-	-	-
One-time charge	($2.82)	($0.09)	($0.19)	$0.48	($2.62)	($0.61)	$0.00	$0.00	$0.00	($0.61)	$0.00
Non GAAP Net Income	**($14.9)**	**($6.1)**	**($5.7)**	**($10.3)**	**($37.0)**	**($13.8)**	**($9.4)**	**($9.0)**	**($9.7)**	**($41.9)**	**($62.5)**
Non GAAP EPS	**($0.21)**	**($0.08)**	**($0.08)**	**($0.14)**	**($0.50)**	**($0.18)**	**($0.13)**	**($0.12)**	**($0.13)**	**($0.56)**	**($0.74)**

Source: Company filing and Zacks estimates

© Copyright 2018, Zacks Investment Research. All Rights Reserved.

HISTORICAL STOCK PRICES



DISCLOSURES

The following disclosures relate to relationships between Zacks Small-Cap Research ("Zacks SCR"), a division of Zacks Investment Research ("ZIR"), and the issuers covered by the Zacks SCR Analysts in the Small-Cap Universe.

ANALYST DISCLOSURES

I, Grant Zeng, hereby certify that the view expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the recommendations or views expressed in this research report. I believe the information used for the creation of this report has been obtained from sources I considered to be reliable, but I can neither guarantee nor represent the completeness or accuracy of the information herewith. Such information and the opinions expressed are subject to change without notice.

INVESMENT BANKING, REFERRALS, AND FEES FOR SERVICE

Zacks SCR does not provide nor has received compensation for investment banking services on the securities covered in this report. Zacks SCR does not expect to receive compensation for investment banking services on the Small-Cap Universe. Zacks SCR may seek to provide referrals for a fee to investment banks. Zacks & Co., a separate legal entity from ZIR, is, among others, one of these investment banks. Referrals may include securities and issuers noted in this report. Zacks & Co. may have paid referral fees to Zacks SCR related to some of the securities and issuers noted in this report. From time to time, Zacks SCR pays investment banks, including Zacks & Co., a referral fee for research coverage.

Zacks SCR has received compensation for non-investment banking services on the Small-Cap Universe, and expects to receive additional compensation for non-investment banking services on the Small-Cap Universe, paid by issuers of securities covered by Zacks SCR Analysts. Non-investment banking services include investor relations services and software, financial database analysis, advertising services, brokerage services, advisory services, investment research, investment management, non-deal road shows, and attendance fees for conferences sponsored or co-sponsored by Zacks SCR. The fees for these services vary on a per client basis and are subject to the number of services contracted. Fees typically range between ten thousand and fifty thousand per annum.

© Copyright 2018, Zacks Investment Research. All Rights Reserved.

POLICY DISCLOSURES

Zacks SCR Analysts are restricted from holding or trading securities in the issuers which they cover. ZIR and Zacks SCR do not make a market in any security nor do they act as dealers in securities. Each Zacks SCR Analyst has full discretion on the rating and price target based on his or her own due diligence. Analysts are paid in part based on the overall profitability of Zacks SCR. Such profitability is derived from a variety of sources and includes payments received from issuers of securities covered by Zacks SCR for services described above. No part of analyst compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in any report or article.

ADDITIONAL INFORMATION

Additional information is available upon request. Zacks SCR reports are based on data obtained from sources we believe to be reliable, but are not guaranteed as to be accurate nor do we purport to be complete. Because of individual objectives, this report should not be construed as advice designed to meet the particular investment needs of any investor. Any opinions expressed by Zacks SCR Analysts are subject to change without notice. Reports are not to be construed as an offer or solicitation of an offer to buy or sell the securities herein mentioned.

ZACKS RATING & RECOMMENDATION

ZIR uses the following rating system for the 1056 companies whose securities it covers, including securities covered by Zacks SCR:
Buy/Outperform: The analyst expects that the subject company will outperform the broader U.S. equity market over the next one to two quarters.
Hold/Neutral: The analyst expects that the company will perform in line with the broader U.S. equity market over the next one to two quarters.
Sell/Underperform: The analyst expects the company will underperform the broader U.S. Equity market over the next one to two quarters.

The current distribution is as follows: Buy/Outperform- 16.7%, Hold/Neutral- 77.0%, Sell/Underperform – 5.6%. Data is as of midnight on the business day immediately prior to this publication.