Zacks Small-Cap Research

July 27, 2017
David Bautz, PhD
312-265-9471
dbautz@zacks.com

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

ContraFect Corp

(CFRX-NASDAQ)

CFRX: New Clinical and Microbiological Data Presented on CF-301; New Financing To Fund Company Past Phase 2 Results for CF-301…

Based on our probability adjusted DCF model that takes into account potential future revenues from CF-301 in bacteremia and CF-404 in influenza, CFRX is valued at $7/share. This model is highly dependent upon continued clinical success of CF-301 and CF-404 and will be adjusted accordingly based upon future clinical results.

Current Price (07/27/17)	$1.25
Valuation	**$7.00**

OUTLOOK

ContraFect Corp (CFRX) recently presented five posters at the American Society for Microbiology (ASM) Microbe 2017 conference. Initial data from the Phase 1 study of CF-301 showed the compound to be well tolerated with no adverse safety signals. The new data further supports the safety profile of CF-301, including an absence of acute cardiovascular and inflammatory responses.

The Phase 2 trial of CF-301 recently initiated, and we expect data in the fourth quarter of 2018. The company also recently completed a $36.9 million financing that will fund operations into the first half of 2019.

SUMMARY DATA

52-Week High	**$3.10**
52-Week Low	**$1.10**
One-Year Return (%)	**-46.35**
Beta	**-0.86**
Average Daily Volume (sh)	**95,723**
Shares Outstanding (mil)	**42**
Market Capitalization ($mil)	**$52**
Short Interest Ratio (days)	**N/A**
Institutional Ownership (%)	**45**
Insider Ownership (%)	**9**
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 2016 Estimate	**N/A**
P/E using 2017 Estimate	**N/A**

Risk Level	**Above Avg.,**
Type of Stock	**Small-Blend**
Industry	**Med-Drugs**

ZACKS ESTIMATES

Revenue
(in millions of $)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2016	0 A	0 A	0 A	0 A	0 A
2017	0 A	0 E	0 E	0 E	0 E
2018					0 E
2019					0 E

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

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2016	-$0.32 A	-$0.35 A	-$0.28 A	$0.01 A	-$0.85 A
2017	-$0.15 A	-$0.16 E	-$0.17 E	-$0.18 E	-$0.69 E
2018					-$0.63 E
2019					-$0.70 E

© Copyright 2017, Zacks Investment Research. All Rights Reserved.

WHAT'S NEW

Business Update

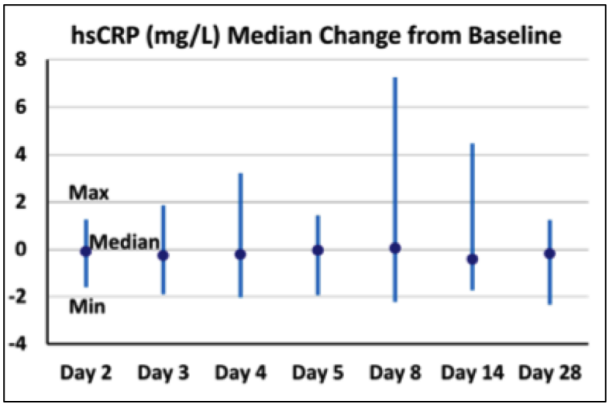
New Clinical and Microbiological Data Presented on CF-301

ContraFect Corp (CFRX) recently presented five posters at the American Society for Microbiology (ASM) Microbe 2017 conference. Initial data from the Phase 1 study of CF-301, which was released in late 2015, showed the compound to be well tolerated with no adverse safety signals. The new data further supports the safety profile of CF-301, including an absence of acute cardiovascular and inflammatory responses. In addition, the company presented data showing CF-301 has a low propensity to induce resistance and that very low concentrations of CF-301 may increase susceptibility to conventional antibiotics.

Poster #1: Inflammatory Markers in a Phase 1 Placebo Controlled Dose Escalating Study of Intravenous Doses of CF-301 in Human Subjects

Since CF-301 is a nonhuman protein, it is conceivable that dosing could elicit an inflammatory response, thus a range of inflammatory markers were evaluated before and after dosing. ContraFect analyzed high-sensitivity C-reactive protein (hs-CRP), erythrocyte sedimentation rate (ESR), and complement factors Bb, C3a, C5a, and CH50. IL-6 and TNF-α were only to be collected if a subject experienced infusion reaction symptoms, and since that did not occur those factors were not analyzed.

The data showed that outside of one subject who received CF-301 having an increase in hsCRP on Day 8 following infusion (with no associated clinical symptoms), there was little to no change in hsCRP for those who received CF-301, with similar changes seen in the placebo group.



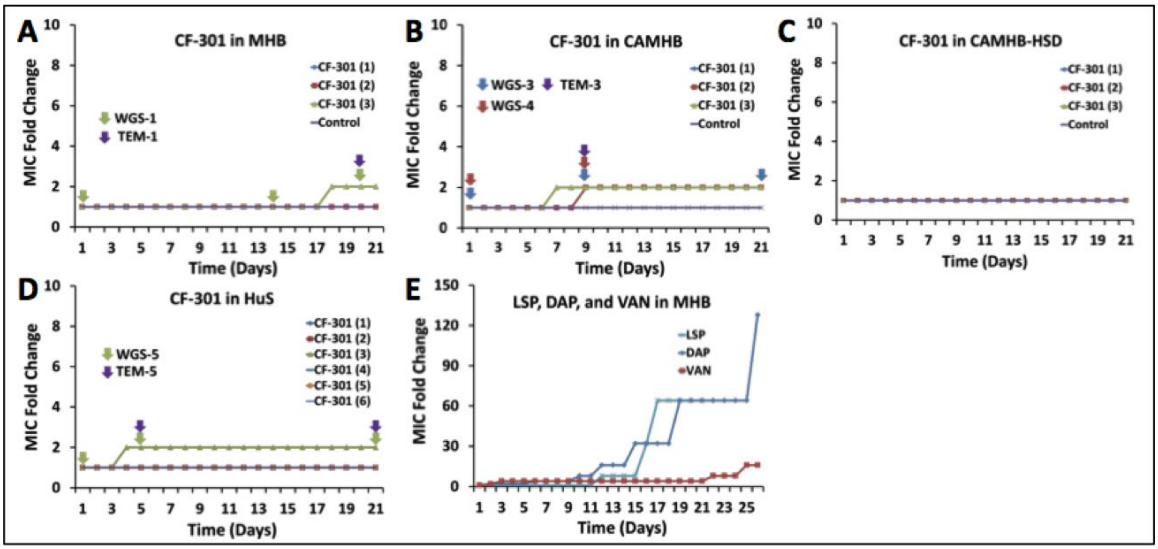
Source: Jandourek *et al.*, 2017

There were also no differences between placebo and CF-301 treated subjects for any of the other factors evaluated. The results suggest that there is a low propensity for a single dose of CF-301 to induce an inflammatory response.

Poster #2: Low Propensity of Resistance Development In Vitro in Staphylococcus aureus with Lysin CF-301

ContraFect had previously performed a serial passage study using the methicillin-resistant *Staphylococcus aureus* (MRSA) strain MW2. Those results showed a 2-fold increase in the minimum inhibitory concentration (MIC), however this never increased beyond 2-fold.

As a follow up, additional serial passage studies were performed using both MW2 and the methicillin-sensitive *S. aureus* (MSSA) strain ATCC 29213 in different types of media along with human serum. The following graphs show that the CF-301 MIC never increased more than 2-fold in any type of media or human serum, while comparator agents demonstrated high-level resistance (up to 128-fold; graph E)



Source: Oh *et al.*, 2017

Even with a 2-fold increase in MIC, those variants will remain susceptible to the clinical dose of 0.25 mg/kg based on exposure attainment studies and pharmacokinetic modeling. Importantly, these results suggest that the propensity for CF-301 resistance in *S. aureus* is low.

Poster #3: The Sub-MIC Effect of CF-301 on *Staphylococcus aureus*

ContraFect had previously performed a series of experiments demonstrating a strong post-antibiotic effect, post-antibiotic sub-MIC effect, and sub-MIC effect of CF-301 on a panel of 14 staphylococcal strains. This poster presented data that more thoroughly examined the CF-301 sub-MIC effect on structure, antibiotic susceptibility, biofilm formation, *in vitro* growth, and proliferation in a murine infection model.

The following tables show that treatment of MW2 with sub-MIC concentrations of CF-301 decreases the MIC for daptomycin, and vice versa. This is important as ContraFect is testing CF-301 with standard of care antibiotics, thus the ability of CF-301 to increase antibiotic susceptibility may lead to more favorable clinical outcomes.

SME induced with CF-301		SME induced with DAP	
[CF-301] (xMIC)	Fold reduction (DAP MIC)	SME induction (xMIC DAP)	Fold reduction (CF-301 MIC)
0.5	>8	0.75	8
0.25	>8	0.4	4
0.125	8	0.2	4
0.06	4	0.1	4
0.03	4	0.05	4
0.015	2	0.025	2
0.008	2	0.013	2

Source: Oh *et al.*, 2017

Phase 2 Trial of CF-301 in Bacteremia Underway

On May 25, 2017, ContraFect Corp. (CFRX) announced the initiation of a Phase 2 clinical trial to evaluate CF-301 as a potential treatment of bacteremia caused by both methicillin-resistant (MRSA) and methicillin-sensitive (MSSA) strains of *Staphylococcus aureus*.

The study is an international, multicenter, randomized, double blind, placebo controlled trial with a superiority comparison between CF-301 combined with the standard of care antibiotics compared to placebo with the standard of care antibiotics. The trial will include 115 patients randomized 3:2 to receive a single dose of 0.25 mg/kg CF-301 administered via a two-hour infusion or placebo. The primary endpoint of the study will be early clinical response. Safety, tolerability, and pharmacokinetics will also be examined along with additional exploratory clinical and health economic endpoints. We anticipate that the Phase 2 trial will cost anywhere from $10 to $20 million to run and topline results should be available in the fourth quarter of 2018. The company is not planning to perform an interim analysis.

Financial Update

On July 20, 2017, ContraFect announced the pricing of a public offering of 32 million shares of common stock and related warrants to purchase 16 million shares of common stock with an exercise price of $1.55 per share. The purchase price for one share of common stock and related warrant was $1.25. The net proceeds from the offering will be approximately $36.9 million. Importantly, this money will provide sufficient capital to fund operations past the expected release of data from the Phase 2 trial of CF-301 in the fourth quarter of 2018.

Conclusion and Valuation

The data recently presented by ContraFect helps to further establish the safety of CF-301 and its ability to increase susceptibility of *S. aureus* strains (including MRSA strains) to antibiotics. The company has initiated the Phase 2 study of CF-301 and we look forward to evaluating the results next year, which we anticipate in 4Q18. We have constructed a probability adjusted discounted cash flow model that takes into account potential future revenues from CF-301 and the company's influenza treatment CF-404. Our valuation currently stands at $7 per share, and we believe that all investors interested in the anti-infective space should consider taking a close look at ContraFect.

PROJECTED INCOME STATEMENT

ContraFect Corp.
Income Statement

ContraFect Corp.	2016 A	Q1 A	Q2 E	Q3 E	Q4 E	2017 E	2018 E	2019 E
CF-301 (Bacteremia)	$0	$0	$0	$0	$0	$0	$0	$0
YOY Growth	-	-	-	-	-			
CF-404 (Flu)	$0	$0	$0	$0	$0	$0	$0	$0
YOY Growth	-	-	-	-	-			
Grants & Collaborative Revenue	$0	$0	$0	$0	$0	$0	$0	$0
YOY Growth	-	-	-	-	-			
Total Revenues	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
YOY Growth	-	-	-	-	-			
Cost of Sales	$0	$0	$0	$0	$0	$0	$0	$0
Product Gross Margin	-	-	-	-	-			
Research & Development	$22.1	$4.2	$4.5	$5.0	$5.1	$18.8	$20.0	$25.0
General & Administrative	$11.4	$2.1	$2.4	$2.4	$2.4	$9.3	$11.0	$13.0
Other Expenses	$0	$0	$0	$0	$0	$0	$0	$0
Operating Income	($33.5)	($6.3)	($6.9)	($7.4)	($7.5)	($28.1)	($31.0)	($38.0)
Operating Margin	-	-	-	-	-			
Non-Operating Expenses (Net)	$5.0	($0.0)	($0.1)	($0.1)	($0.1)	($0.3)	($0.4)	($0.4)
Pre-Tax Income	($28.5)	($6.3)	($7.0)	($7.5)	($7.6)	($28.4)	($31.4)	($38.4)
Income Taxes Paid	$0	$0	$0	$0	$0	$0	$0	$0
Tax Rate	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
Net Income	**($28.5)**	**($6.3)**	**($7.0)**	**($7.5)**	**($7.6)**	**($28.4)**	**($31.4)**	**($38.4)**
Net Margin	-	-	-	-	-			
Reported EPS	**($0.85)**	**($0.15)**	**($0.17)**	**($0.18)**	**($0.18)**	**($0.68)**	**($0.63)**	**($0.70)**
YOY Growth	-	-	-	-	-			
Basic Shares Outstanding	33.5	41.6	41.8	41.8	41.9	41.8	50.0	55.0

Source: Zacks Investment Research, Inc. *David Bautz, PhD*

© Copyright 2017, Zacks Investment Research. All Rights Reserved.

HISTORICAL STOCK PRICE



© Copyright 2017, Zacks Investment Research. All Rights Reserved.

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, David Bautz, PhD, 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.

INVESTMENT BANKING AND FEES FOR SERVICES

Zacks SCR does not provide investment banking services nor has it received compensation for investment banking services from the issuers of the securities covered in this report or article.
Zacks SCR has received compensation from the issuer directly or from an investor relations consulting firm engaged by the issuer for providing non-investment banking services to this issuer and expects to receive additional compensation for such non-investment banking services provided to this issuer. The non-investment banking services provided to the issuer includes the preparation of this report, investor relations services, investment software, financial database analysis, organization of 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 and types of services contracted. Fees typically range between ten thousand and fifty thousand dollars per annum. Details of fees paid by this issuer are available upon request.

POLICY DISCLOSURES

This report provides an objective valuation of the issuer today and expected valuations of the issuer at various future dates based on applying standard investment valuation methodologies to the revenue and EPS forecasts made by the SCR Analyst of the issuer's business.
SCR Analysts are restricted from holding or trading securities in the issuers that they cover. ZIR and Zacks SCR do not make a market in any security followed by SCR nor do they act as dealers in these securities. Each Zacks SCR Analyst has full discretion over the valuation of the issuer included in this report based on his or her own due diligence. SCR Analysts are paid based on the number of companies they cover. SCR Analyst compensation is not, was not, nor will be, directly or indirectly, related to the specific valuations or views expressed in any report or article.

ADDITIONAL INFORMATION

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