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Presentations at ASM Microbe Conference Demonstrate Potential of ContraFect's Direct Lytic Agents (DLAs) to Address MRSA Infections

YONKERS, N.Y., June 14, 2022 (GLOBE NEWSWIRE) -- **ContraFect Corporation (Nasdaq: CFRX)**, a late clinical-stage biotechnology company focused on the discovery and development of direct lytic agents (DLAs), including lysins and amurin peptides, as new medical modalities for the treatment of life-threatening, antibiotic-resistant infections, announces today presentation data showing that the Company's lead product candidate, exebacase, which has been designated as a Breakthrough Therapy for development as a treatment for methicillin-resistant *Staphylococcus aureus* (MRSA) bloodstream infections by the FDA, was effective in a rabbit model of implant-associated osteomyelitis. Additional data was also presented which further supports that exebacase has a low propensity for the development of antimicrobial resistance, and also has the ability to suppress antibiotic resistance to standard of care antibiotics *in vitro*. These data were recently presented at the ASM Microbe Conference held in Washington, D.C. from June 9-13, 2022.

"While we are keenly focused on continued enrollment in our Phase 3 trial of exebacase and the upcoming interim futility analysis from the study, we continue to amass evidence of the potential utility of exebacase against antibiotic resistant staphylococcus infections in a variety of clinical contexts," commented Roger Pomerantz, M.D., ContraFect's Chairman, CEO and President. "And together with our presentations at ECCMID earlier this year, these data further underpin the foundation of our direct lysin agent platform, and the potential for these agents to provide patients with meaningful improvements in clinical outcomes of antibiotic resistant infections."

Poster Presentations:

Title: Locally Delivered Antistaphylococcal Lysins Exebacase or CF-296 is Active in Methicillin-Resistant *Staphylococcus Aureus* Implant-Associated Osteomyelitis

In this rabbit study, either exebacase or CF-296 was delivered locally into the medial tibia (both with and without systemic daptomycin) to treat osteomyelitis resulting from methicillin-resistant *Staphylococcus aureus* (MRSA) implantation, all compared to a placebo control (six groups total). While all treatment groups showed activity, the greatest reductions in the

concentration of bacteria colonies (CFU) compared to daptomycin also were demonstrated with exebacase alone (3.87 $\log_{10}$ CFU reduction (p=0.007)), or used in addition to daptomycin (3.48 $\log_{10}$ CFU reduction (p=0.0015)). A notable reduction in CFUs was also seen with CF-296 used in addition to daptomycin (3.17 $\log_{10}$ CFU reduction (p=0.0064)), compared to daptomycin alone. These results demonstrate that lysins offer a potentially effective strategy for treating implant-associated MRSA osteomyelitis infections.

Title: Lysin Exebacase Has a Low Propensity for Resistance Development and Suppresses the Emergence of Resistance to Anti-Staphylococcal Antibiotics

These *in vitro* studies demonstrate the low propensity for the development of resistance to exebacase in both MRSA and methicillin-sensitive *S. aureus* (MSSA) strains. 28-day serial passage resistance assays demonstrated that the minimum inhibitory concentration (MIC) of exebacase was not increased against MRSA and MSSA. In comparison, 28-day serial passage studies of daptomycin and vancomycin (against MRSA), and oxacillin (against MSSA), demonstrated the emergence of resistance to each of these standard of care antibiotics as evidenced by the need for greatly increased concentrations in order to suppress the bacteria. Of note, the addition of sub-MIC concentrations of exebacase (e.g. 1/16x MIC) to the respective antibiotics suppressed the emergence of resistance of *S. aureus* to daptomycin, vancomycin or oxacillin.

These posters are available on the ContraFect website.

About Exebacase (CF-301):

Exebacase is a recombinantly-produced lysin (cell wall hydrolase enzyme) with potent bactericidal activity against *Staph aureus*, a major cause of bloodstream infections (BSIs) also known as bacteremia. In the Company's Phase 2 study of exebacase, a pre-specified analysis of MRSA-infected patients showed that the clinical responder rate at Day 14 in patients treated with exebacase was nearly 43-percentage points higher than in patients treated with SOC antibiotics alone (74.1% for patients treated with exebacase compared to 31.3% for patients treated with SOC antibiotics alone (p=0.010)). In addition to the higher rate of clinical response, MRSA-infected patients treated with exebacase showed a 21-percentage point reduction in 30-day all-cause mortality (p=0.056), a four-day lower median length of hospital stay and meaningful reductions in hospital readmission rates. Exebacase was well-tolerated and treatment emergent adverse events, including serious treatment-emergent serious adverse events (SAEs) were balanced between the treatment groups. There were no SAEs determined to be related to exebacase, there were no reports of hypersensitivity related to exebacase and no patients discontinued treatment with study drug in either treatment group.

Exebacase is currently being studied in the Phase 3 DISRUPT superiority design study of exebacase in patients with *Staph aureus* bacteremia, including right-sided endocarditis.

Exebacase has the potential to be a first-in-class treatment for *Staph aureus* bacteremia. The lysin was licensed from The Rockefeller University and is being developed at ContraFect.

About ContraFect

ContraFect is a biotechnology company focused on the discovery and development of DLAs, including lysins and amurin peptides, as new medical modalities for the treatment of life-threatening, antibiotic-resistant infections. An estimated 700,000 deaths worldwide each year are attributed to antimicrobial-resistant infections. We intend to address life threatening infections using our therapeutic product candidates from our platform of DLAs, which include lysins and amurin peptides. Lysins are a new class of DLAs which are recombinantly produced antimicrobial proteins with a novel mechanism of action associated with the rapid killing of target bacteria, eradication of biofilms and synergy with conventional antibiotics. Amurin peptides are a novel class of DLAs which exhibit broad-spectrum activity against a wide range of antibiotic-resistant Gram-negative pathogens, including *P. aeruginosa*, *Acinetobacter baumannii*, and *Enterobacter* species. We believe that the properties of our lysins and amurin peptides will make them suitable for targeting antibiotic-resistant organisms, such as MRSA and highly resistant strains of *P. aeruginosa*, which can cause serious infections such as bacteremia, pneumonia and osteomyelitis. We have completed a Phase 2 clinical trial for the treatment of *Staph aureus* bacteremia, including endocarditis, with our lead lysin candidate, exebacase, which is the first lysin to enter clinical studies in the U.S. Exebacase, currently being studied in a pivotal Phase 3 clinical study, was granted Breakthrough Therapy designation by the FDA for development as a treatment of MRSA bloodstream infections, including right-sided endocarditis, when used in addition to SOC anti-staphylococcal antibiotics.

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Activities related to exebacase during the period of performance under the contract will be funded in part with federal funds from HHS; ASPR; BARDA, under contract number 75A501212C00021.

Forward-Looking Statements

This press release contains, and our officers and representatives may make from time to time, “This press release contains, and our officers and representatives may make from time to time, “forward-looking statements” within the meaning of the U.S. federal securities laws. Forward-looking statements can be identified by words such as “projects,” “may,” “will,” “could,” “would,” “should,” “believes,” “expects,” “anticipates,” “estimates,” “intends,” “plans,” “potential,” “promise” or similar references to future periods. Examples of forward-looking statements in this release include, without limitation, statements regarding: the poster presentations and data presented, statements made by Dr. Pomerantz, ContraFect’s ability to discover and develop DLAs as new medical modalities for the treatment of life-threatening, antibiotic-resistant infections, exebacase attributes, including its effectiveness, propensity for resistance and antibiotic resistance suppression, whether ContraFect will address life-threatening infections using therapeutic candidates from its DLA platform, whether exebacase has the potential to be a first-in-class treatment for *Staph aureus* bacteremia, whether lysins are a new class of DLAs which are recombinantly produced, antimicrobial proteins with a novel mechanism of action associated with the rapid killing of target bacteria, eradication of biofilms and synergy with conventional antibiotics, whether amurins are a novel class of DLAs which exhibit broad-spectrum activity against a wide range of antibiotic-resistant Gram-negative pathogens, and whether the properties of ContraFect’s lysins and amurins will make them suitable for targeting antibiotic-resistant organisms, such as MRSA and *P. aeruginosa*. Forward-looking statements are statements

that are not historical facts, nor assurances of future performance. Instead, they are based on ContraFect's current beliefs, expectations and assumptions regarding the future of its business, future plans, strategies, projections, anticipated events and trends, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent risks, uncertainties and changes in circumstances that are difficult to predict and many of which are beyond ContraFect's control, including the occurrence of any adverse events related to the discovery, development and commercialization of ContraFect's product candidates such as unfavorable clinical trial results, insufficient supplies of drug products, the lack of regulatory approval, or the unsuccessful attainment or maintenance of patent protection and other important risks detailed under the caption "Risk Factors" in ContraFect's filings with the Securities and Exchange Commission. Actual results may differ from those set forth in the forward-looking statements. Important factors that could cause actual results to differ include, among others, our ability to develop treatments for drug-resistant infectious diseases. Any forward-looking statement made by ContraFect in this press release is based only on information currently available and speaks only as of the date on which it is made. Except as required by applicable law, ContraFect expressly disclaims any obligations to publicly update any forward-looking statements, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise.

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