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ContraFect Announces Multiple Publications on Exebacase, Including First Manuscript on Local Administration of Lysin for Potential Treatment of Prosthetic Joint Infections

Exebacase showed the potential to be used in patients with chronic Staphylococci prosthetic knee infection (PKI) to reduce symptoms and improve function

The observed clinical responses in patients treated under compassionate use in France warrant further study of the use of intra-articular administration of exebacase for prosthetic joint infection (PJI)

YONKERS, N.Y., May 26, 2021 (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, today announced the publication on the administration of exebacase, arthroscopically, in the setting of debridement, or the surgical removal of the infected tissue, in patients with relapsing multidrug resistant (MDR) *Staph epidermidis (S. epidermidis)* PKI in Frontiers in Medicine.

“The very encouraging results support further investigation of exebacase in patients with multi-drug resistant *Staphylococcal* prosthetic joint infections, a potential additional therapeutic use for our direct lytic agents,” said Cara Cassino, M.D., Chief Medical Officer and Executive Vice President of Research and Development at ContraFect. “These patients do not have effective treatment options today, and many face devastating complications that arise from these infections. Supported by the encouraging data, we are considering further investigation of exebacase in this indication.”

The company also announced two additional publications of a novel method for the clinical determination of the susceptibility of *Staphylococci* to exebacase for use in the clinical setting.

Access to Exebacase for Patients with Relapsing Multi Drug Resistant *Staphylococcal* PJI

ContraFect provides early access to exebacase to individual named patients with chronic post-operative PJIs under Temporary Authorizations for Use (ATUs) from the French National Agency for Medicines and Health Products Safety (ANSM) in collaboration with Tristan Ferry, M.D., Ph.D., of the Hôpital de la Croix Rousse, Lyon, France. *Staphylococcal* PJIs pose significant treatment challenges due to biofilm formation which renders conventional antibiotics ineffective and necessitates surgical removal and replacement of the joint.

In this manuscript, four patients ages 79 to 89 years with significant comorbidities received intra-articular administration of exebacase. All had undergone several previous prosthetic knee revisions. Three had relapsing PKI despite suppressive antibiotics, following open debridement and implant retention (DAIR). Two had clinical signs of septic arthritis; the two others had sinus tracts. All patients were infected only by *S. epidermidis* that expressed different drug susceptibilities over time.

After over one year of follow-up, two patients had a favorable clinical outcome with the disappearance of clinical signs of septic arthritis, providing encouraging preliminary evidence supporting the potential activity of exebacase in this highly treatment resistant patient group. The safety profile was favorable and there were no serious adverse events deemed to be associated with treatment. The Company continues to provide early access to exebacase to individual named patients with chronic post-operative PJIs under ATUs and is evaluating further investigation of exebacase for the treatment of PJIs.

Additional Exebacase Publications

ContraFect published two additional exebacase manuscripts. In theAntimicrobial Agents and Chemotherapy, a leading peer review journal dedicated to the study of infectious diseases, where the publication was selected by the journal as an 'Editor's Pick', laboratory data demonstrate the accurate and reproducible assessment of microbial susceptibility to exebacase. This assay is expected to facilitate further clinical development of exebacase for various infections. The Journal of Clinical Microbiology, another leading peer review journal dedicated to the study of infectious diseases, published laboratory data to establish new standards of susceptibility testing to evaluate the *in vitro* activity of exebacase against *Staph aureus*, a bacterium associated with serious and life-threatening infections.

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 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. Exebacase 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 *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 the treatment of MRSA bloodstream infections, including right-sided endocarditis, when used in addition to SOC anti-staphylococcal antibiotics in adult patients.

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Forward-Looking Statements

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 exebacase publications, PKI study results, future PJI studies, compassionate use in France, ContraFect’s ability to discover and develop DLAs as new medical modalities for the treatment of life-threatening, antibiotic-resistant infections, whether ContraFect will address life-threatening infections using 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.

Investor Relations Contacts

Michael Messinger
ContraFect Corporation
mmessinger@contrafect.com

Carlo Tanzi, Ph.D.
Kendall Investor Relations
ctanzi@kendallinvestorrelations.com

Source: ContraFect Corporation