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ABSTRACT SUPPLEMENT

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Safety and Efficacy of CF101 in Rheumatoid Arthritis Patients: A Phase II Study. Rumen M. Stoilov¹, Rodina N. Licheva², Mariyana K. Mihaylova³, Tatiana Reitblat⁴, Emil A. Dimitrov¹, Krasimira M. Shimbova¹, Girish Bhatia⁵, Amit Pispati⁶, Alexandra Gurman-tein⁸, Balbir⁷, B R Bagaria⁵, Boytcho A. Oparanov², Sari Fishman⁸, Zivit Harpaz⁸, Motti Farbvei Shira Cohen⁸, Michael H. Silverman⁸ and Pnina Fishman⁸. ¹Multiprofile Hospital for Act Treatment "Sv. Ivan Rilski" - EAD, Clinic of Rheumatology, Sofia, Bulgaria, ²Diagnostic Consulting Center, Rheumatology office, Sofia, Bulgaria, ³Diagnostic Consulting Center, Rheumatology office, Sofia, Bulgaria, ⁴Barzilai Medical Center, Ashkelon, Israel, ⁵Mal mumbai, Multispeciality Hospital, Mumbai, India, ⁶Bhatia Hospital Medical Research Society, India, ⁷Rambam Medical Center, Haifa, Israel, ⁸CanFite Biopharma Ltd, Petah Tikva, Israel

Background/Purpose: CF101, is a highly selective A₃ adenosine receptor (A₃AR) agonist, demonstrated safety and anti-inflammatory effect in Phase 2 clinical studies of rheumatoid arthritis (RA) and Psoriasis. A₃AR has been defined as a biological predictive marker, but baseline significant correlation found in a former Phase II study, between its over-expression and positive patients' response to CF101 treatment.

Methods: This was a Phase 2, multicenter, randomized, double-blind, placebo-controlled, parallel-group study designed to assess the efficacy and safety of CF101 1mg, administered orally twice daily to patients with active RA for 12 weeks. Primary efficacy endpoint was Ent-To-t20 response at week 12, with all-cause dropouts considered as non-responders, in the Intention-to-Treat (ITT) population. Secondary efficacy included: ACR 20/50/70 by visit, ITT, using non-responder imputation.

> Seventy nine patients were enrolled for the study based on inclusion criteria of A₃AR antibody from 1.5 units and were randomized for two groups receiving CF101 1 mg (n = 42), or Placebo (n = 37).

Results: CF101 achieved ACR20 of 48.6%, statistically significantly higher than in the Placebo group (25.0%) at week 12 (P=0.0352). CF101 showed superiority in ACR50 and the low ACR70 values vs. placebo although not statistically significant, most probably due to the number of patients. Interestingly, ACR20, ACR 50 and ACR 70 response rate at week 12 compared to patients with no prior systemic therapy, i.e., naïve patients were significantly higher than the response of the whole patient population treated with CF101.

The proportion of patients experiencing any adverse event (AE) was similar for both groups (16.7% for the CF101 group and 16.2% for the Placebo group). Two AEs, RA and rash, were considered possibly related to CF101. The majority of AEs were considered to be mild.

Conclusion: CF101 was very well tolerated and reached the primary endpoint in the current study demonstrating clear evidence of efficacy as a monotherapy for 12 weeks in patients with active RA.

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