Imprime PGG-mediated innate activation requires Anti-Beta Glucan Antibody (ABA)

Imprime PGG activates antigen presenting cells (Imprime) is a novel, systemically-delivered Dectin Receptor agonist that, mechanistically, activates the innate immune system.

Background: In metastatic TNBC patients, prior treatment with ICI therapy results in only limited clinical benefit. To improve clinical outcomes, strategies that combine ICI with a synergistic immune activator are being explored.

Methods: An open-label, Simon 2 stage study design was employed (12 pts in Stage 1; 32 pts in Stage 2) with full enrollment completed Nov. 2018. Pts received Imprime (4 mg/kg IV days 1, 8, 15 of each 3-week cycle) + pembro 200 mg on D1 of each cycle. OS and TTP were the primary endpoints.

Results: Data from analysis are shown in Table 1. Median OS of 14.6 months was observed in the 32 pts in Stage 2. In the subset of pts with ≥ 1 prior line of chemotherapy after the diagnosis of metastatic TNBC (mTNBC), median OS was 16.4 months by K-M estimation (95% CI 11.1 – 23.9 mos). A majority of pts (62.5%) showed target lesion (TL) response and 10% at 12 wks (HR 0.14, p=0.001); or, 3) total tumor burden below 20% at 12 wks (HR 0.14, p=0.001).

Discussion: The combination of Imprime and pembro showed promising response rates and overall survival in chemotherapeutic refractory metastatic TNBC. Biopsy analyses consistently revealed activation of both myeloid and T cells with extensive infiltration of activated myeloid and T cells into tumor tissue after 6 wks of therapy. Pts at baseline were largely refractory metastatic TNBC. These data suggest that clinical benefit from the combination of Imprime and ICI therapy may not be adequately reflected by presence of new lesions or increased non-target lesions. These data support the continued development of Imprime PGG with pembrolizumab for previously-treated, metastatic TNBC patients and suggest a modified RECIST criteria may be more appropriate for tumor assessment due to the “mixed” nature of responses observed. 

**Abstract**

**IMPRIME 1 (NCT02981303) Study Design**

**IMPRIME 1 Efficacy Data**

**IMPRIME 1 Translational Research**

**IMPRIME 1 Peripheral Blood Analyses**