Abstracts

THE ASSOCIATION OF THE GUT MICROBIOTA AND CLINICAL RESPONSE TO IMMUNE CHECKPOINT INHIBITORS IN PATIENTS WITH ADVANCED CANCER

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Background The gut microbiome is associated with the immune function of the host. No consensus has been reached regarding to the association between microbiota and the treatment response to immune checkpoint inhibitor (ICI). This study is designed to explore the relationship between gut microbiome composition and clinical outcomes in patients with advanced cancer treated with ICI.

Methods Fifty patients were enrolled in this study. Fecal samples were collected at the baseline, 3 months after treatment and when disease progression was noted. To explore the gut microbiota as a potential predictive biomarker for immune-suppressive factors. Preferential binding of AMV564 to selectively deplete MDSC while sparing target cells such as MDSC while promoting T cell polarization and activation. Whereas CD33 plays an insignificant role in differentiated myeloid cells, CD33 signaling in immature myeloid cells promotes expansion of MDSC and production of immune-suppressive factors. Preferential binding of AMV564 to areas of high CD33 density enables selective targeting of MDSC. Ex vivo data as well as data from a clinical trial in acute myeloid leukemia (NCT03144245) demonstrate the ability of AMV564 to selectively deplete MDSC while sparing monocytes and neutrophils.

Methods NCT04128423 is a multi-center Phase 1 study to determine the safety and tolerability, define the maximum-tolerated or pharmacologically active dose, and assess the preliminary efficacy of AMV564. In this 3+3 dose escalation study, patients with advanced solid tumors receive AMV564 once daily via subcutaneous (SC) injection on Days 1–5 and 8–12 of a 21-day cycle. Primary endpoints include incidence, nature and severity of adverse events (AEs). Secondary endpoints include assessment of pharmacokinetics and pharmacodynamics.

Results As of June 30, 2020, 11 patients have been dosed across 3 dose cohorts (15 mcg – 75 mcg). The tumor types enrolled were: colorectal (n=2), GE junction (n=2), pancreatic (n=2), squamous cell carcinoma (n=2), small intestine, ovarian, and endometrial cancer. AMV564 has been well tolerated without any dose-limiting toxicities. The most common