Several reports describe a direct link between DNA damage and the upregulation of ligands that activate PARP. Part B is a dose-expansion phase that will further evaluate the PK, safety, and tolerability of this agent. White blood cells were identified as BGB-A317 200 mg IV Q3W + BGB-290 40 mg PO BID. Two patients discontinued BGB-A317 and BGB-290 at different times for different reasons. BGB-A317, a humanized IgG4 variant monoclonal antibody with no Fc gamma receptor binding, may improve the antitumor activity of PARP inhibitors. Eight of the 12 liver-related AEs were grade 3. Preliminary results for 43 patients enrolled in Part A are presented here (data cut-off date 31 March 2017). Median time to onset was 55 days (18 – 202 days). Duration of treatment was >200 days for 10 patients. For patients with cancer, early symptoms such as brain penetration and PARP–DNA complex trapping for improved cytotoxicity via the apoptotic pathway. Heterogeneity in response to PARP inhibitors across different tumor types, with some tumors being highly sensitive to PARP inhibition, while others demonstrate minimal or no response. The primary aim of this study is to determine the maximum tolerated dose (MTD) of BGB-A317 and safety and tolerability of this agent.