A Phase 3, Open-Label, Multicenter, Randomized Study to Investigate the Efficacy and Safety of Tislelizumab, an Anti-PD-1 Antibody, Versus Docetaxel in Patients With Non-Small Cell Lung Cancer Who Have Progressed on a Prior Platinum-Containing Regimen

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Objective Non-small cell lung cancer (NSCLC) accounts for 80–85% of all lung cancers and has a poor prognosis in later stages. Recent studies of immune checkpoint inhibitors have shown efficacy in patients (pts) with advanced NSCLC. Tislelizumab is a humanized IgG4 monoclonal antibody to PD-1, specifically engineered to minimize FcγR binding on macrophages, possibly minimizing negative interactions with other immune cells. In early phase studies (NCT02407990, CTR20160872), tislelizumab was generally well tolerated and showed antitumor activity in Caucasian and Chinese pts; 200 mg IV every three weeks (Q3W) was established as the recommended dose.

Methods This phase 3, randomized, multicenter study (NCT03358875) was designed to evaluate the efficacy, safety, and tolerability of tislelizumab compared with docetaxel in the second- or third-line treatment of NSCLC. Adult pts aged ≥18 years with locally advanced or metastatic NSCLC (Stage IIIB or IV, squamous or non-squamous), who have progressed on ≥1 prior platinum-containing therapy, have adequate hematologic and end-organ function, and an Eastern Cooperative Oncology Group score ≤1 are eligible to enroll. Patients with epidermal growth factor receptor sensitizing/driver mutation or known anaplastic lymphoma kinase rearrangement are excluded. Approximately 800 pts will be randomized (2:1) to receive tislelizumab 200 mg IV Q3W or docetaxel 75 mg/m^2 IV Q3W. Randomization will be stratified by histology, lines of therapy, and programmed cell death protein ligand 1 (PD-L1) tumor cell expression (<25% vs ≥25% [PD-L1$^+$]). Dual primary endpoints are overall survival in the intent-to-treat population and in the PD-L1$^+$ population; secondary endpoints include objective response rate, duration of response, progression-free survival, health-related quality-of-life outcomes, and assessment of safety/tolerability. Disease control rate, clinical benefit rate, and assessments of the pharmacokinetic profile and immunogenicity are exploratory endpoints.