TPS8117 **Poster Session**

Phase 2 peri-operative study of fianlimab + cemiplimab + chemotherapy versus cemiplimab + chemotherapy in resectable early-stage non-small cell lung cancer (NSCLC).

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Background: Co-blockade of lymphocyte activation gene 3 (LAG-3) and programmed cell death-1 (PD-1) may enhance the efficacy of anti–PD-1 therapies. Fianlimab (anti–LAG-3) and cemiplimab (anti–PD-1) are high-affinity, fully human, immunoglobulin G4 monoclonal antibodies. In a Phase 1 study (NCT03005782), fianlimab + cemiplimab showed promising clinical activity with durable responses and an acceptable risk–benefit profile in patients with programmed death-ligand 1 (PD-L1)-naïve, advanced NSCLC. Immuno-oncology + chemotherapy is a new standard of care in the perioperative setting, but potential improvements to outcomes in early-stage disease remain under investigation. **Methods:** This is a randomized, multicenter, double-blind, Phase 2 peri-operative study (NCT06161441) in patients with fully resectable stage II–IIIB (N2), operable, and treatment-naïve NSCLC with squamous or non-squamous histology. The aim of this study is to investigate the efficacy and safety of fianlimab + cemiplimab + chemotherapy versus cemiplimab + chemotherapy as peri-operative treatment. The study will be conducted globally at ~130 sites. Key inclusion criteria: age ≥18 years; newly diagnosed, histologically confirmed, fully resectable stage II–IIIB (N2) NSCLC; no distant metastases; evaluable PD-L1 immunohistochemistry results; no cancer treatment in the past 3 years, except adjuvant hormone therapy for hormone-sensitive cancers in long-term remission; Eastern Cooperative Oncology Group performance status ≤1; no known *EGFR* mutations or *ALK* aberrations; and adequate organ and bone marrow function. Mediastinal lymph node sampling is required for patients with mediastinal adenopathy. Enrolled patients (n=~180) will be stratified by clinical TNM stage (II vs III), histology (nonsquamous vs squamous), and PD-L1 expression (<1%, 1–49%, ≥50%), and randomized (1:1:1) to the following study arms for the neoadjuvant period (≤4 cycles; each cycle is every 3 weeks): arm A, placebo + cemiplimab 350 mg + platinum doublet chemotherapy; arm B, fianlimab dose 1 + cemiplimab 350 mg + platinum doublet chemotherapy; arm C, fianlimab dose 2 + cemiplimab 350 mg + platinum doublet chemotherapy. After surgery, in the adjuvant period (≤14 cycles), patients in all arms will continue the same IO regimen with approved maintenance chemotherapy. Treatment will last ~12 months (12 weeks' neoadjuvant therapy + 42 weeks' adjuvant therapy), or until disease recurrence, unacceptable toxicity, or a decision from the patient or investigator. Primary endpoint: pathological complete response as determined by blinded independent pathological review (BIPR). Key secondary endpoints: event-free survival and tumor response by investigator assessment, major pathological response by BIPR, safety, pharmacokinetics, immunogenicity, and patient-reported outcomes. Clinical trial information: NCT06161441. Research Sponsor: Regeneron Pharmaceuticals, Inc.