82TiP IMpower030: Phase III study evaluating neoadjuvant treatment of resectable stage II-IIIB non-small cell lung cancer (NSCLC) with atezolizumab (atezo) + chemotherapy

S. Peters[1], A.W. Kim[2], B. Solomon[3], D.R. Gandara[4], R. Dziadziuszko[5], A. Brunelli[6], M.C. Garassino[7], M. Reck[8], L. Wang[9], I. To[9], S.W. Sun[9], B.J. Gitlitz[9], A. Sandler[9], N. Rizvi[10]

[1]Multidisciplinary Oncology Center, Centre Hospitalier Universitaire Vaudois - CHUV, Lausanne, Switzerland, [2]University of Southern California, Los Angeles, CA, USA, [3]Peter MacCallum Cancer Center, Melbourne, Australia, [4]University of California Davis Cancer Center, Sacramento, CA, USA, [5]Medical University of Gdańsk, Gdańsk, Poland, [6]St. James's University Hospital Leeds, Leeds, UK, [7]Thoracic Unit, Fondazione IRCCS - Istituto Nazionale dei Tumori, Milan, Italy, [8]Thoracic Oncology, Krankenhaus Grosshansdorf, Grosshansdorf, Germany, [9]Genentech, Inc., South San Francisco, CA, USA, [10]Columbia University Medical Center College of Physicians & Surgeons - New York Presbyterian Hospital, New York, NY, USA

Background: A standard of care for resectable early-stage NSCLC is surgery alone or in combination with adjuvant or neoadjuvant platinum-based doublet chemotherapy (PT-DC). Still, 30%-70% of patients develop recurrence and die from disease progression, highlighting the need for more effective treatments. Atezo, an anti–programmed death-ligand 1 (PD-L1) antibody that restores anti-tumour immunity, has shown promising efficacy as monotherapy and in combination with chemotherapy in advanced NSCLC. It is hypothesised that the combination of atezo and PT-DC may provide clinical benefit in the neoadjuvant setting by enhancing cancer cell killing and eradicating micrometastases, reducing the risk of disease recurrence. The objective of IMpower030 (NCT03456063) is to evaluate the efficacy and safety of atezo in combination with PT-DC as neoadjuvant treatment for patients with resectable early-stage NSCLC.

Trial design: IMpower030 is a global, Phase III, double-blind, randomized study in patients with histologically or cytologically confirmed, resectable stage II, IIIA, or select IIIB (T3N2) NSCLC (per AJCC/UICC, 8th ed). Study inclusion requires measurable disease per RECIST v1.1, ECOG PS of 0/1 and eligibility for R0 resection with curative intent and PT-DC. Patients who had received prior therapy for lung cancer or present with nonsquamous NSCLC with activating EGFR mutations or ALK translocation are excluded. Patients will be randomized to receive 4 cycles of neoadjuvant atezo (1200 mg Q3W, Arm A) or placebo (Arm B) in combination with an investigator-selected PT-DC regimen. Following unblinding, patients in Arm A will receive adjuvant atezo treatment for $\leq$ 16 cycles or until disease recurrence or unacceptable toxicity, and patients in Arm B will receive best supportive care and scheduled observational follow-up. Endpoints will include major pathological response ($\leq$ 10% residual viable tumour tissue at time of resection), investigator-assessed event-free survival and disease-free survival per RECIST v1.1, OS, ORR, pathological complete response and patient-reported outcomes. Exploratory biomarkers will also be evaluated.

Clinical trial identification: NCT03456063.

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