Augtyro™ (repotrectinib) – New orphan drug approval

- On November 15, 2023, Bristol Myers Squibb announced the FDA approval of Augtyro (repotrectinib), for the treatment of adult patients with locally advanced or metastatic *ROS1*-positive non-small cell lung cancer (NSCLC).

- NSCLC represents up to 85% of diagnoses of lung cancer. *ROS1* fusions are rare and occur in about 1 to 2% of patients with NSCLC. *ROS1*-positive lung cancer tends to be aggressive and can often spread to the brain.

- Augtyro is a tyrosine kinase inhibitor (TKI) targeting *ROS1* oncogenic fusions.

- The efficacy of Augtyro was established in TRIDENT-1, a single-arm, open-label, multi-cohort clinical study in patients with *ROS1*-positive locally advanced or metastatic NSCLC. The efficacy populations included 71 ROS1 TKI-naïve patients who received up to 1 prior line of platinum-based chemotherapy and/or immunotherapy and 56 patients who received 1 prior ROS1 TKI with no prior platinum-based chemotherapy or immunotherapy. All patients received Augtyro. The major efficacy measures were overall response rate (ORR) and duration of response (DOR).

    - In ROS1 inhibitor naïve patients, the ORR was 79% (95% CI: 68, 88). The median DOR was 34.1 months (95% CI: 25.6, not estimable).
    - In ROS1 inhibitor pretreated patients, the ORR was 38% (95% CI: 25, 52). The median DOR was 14.8 months (95% CI: 7.6, not estimable).

- Warnings and precautions for Augtyro include central nervous system adverse reactions; interstitial lung disease/pneumonitis; hepatotoxicity; myalgia with creatinine phosphokinase elevation; hyperuricemia; skeletal fractures, and embryo-fetal toxicity.

- The most common adverse reactions (≥ 20%) with Augtyro use were dizziness, dysgeusia, peripheral neuropathy, constipation, dyspnea, ataxia, fatigue, cognitive disorders, and muscular weakness.

- The recommended dose of Augtyro is 160 mg orally once daily with or without food for 14 days, then increase to 160 mg twice daily and continue until disease progression or unacceptable toxicity.

- Bristol Myers Squibb plans to launch Augtyro in mid-December 2023. Augtyro will be available as a 40 mg capsule.