Date of Diagnosis: January 29, 2020

Primary Diagnosis: Stage IV Non-Small Cell Lung Cancer (NSCLC), adenocarcinoma,

brain and bone metastases

Molecular Profile: Wild-type EGFR/ALK/ROS1; PD-L1 Tumor Proportion Score 40%, CPS

45, IC 5

Patient Name: Woody Ilen

Patient ID: SYN119 DOB: 1950-06-04

- 1. Initial Presentation and Diagnosis: The patient presented in early January 2020 with persistent headaches, progressive lower back pain, and new-onset weakness in the right leg. MRI of the brain identified multiple enhancing lesions in the frontal and cerebellar lobes. Whole-body PET-CT revealed a left lower lobe pulmonary mass (4.1 cm, SUVmax 12.3), FDG-avid osseous metastases in the sacrum and thoracic spine, and bilateral small-volume hilar adenopathy. CT-guided biopsy of the lung lesion confirmed moderately differentiated adenocarcinoma. Molecular testing was negative for driver mutations (EGFR, ALK, ROS1), and PD-L1 staining revealed intermediate expression.
- **2. Treatment Summary:** The patient was initiated on first-line chemoimmunotherapy with Carboplatin (AUC 5), Pemetrexed (500 mg/m²), and Pembrolizumab (200 mg IV q3w), beginning February 20, 2020. After four cycles, reassessment on June 2, 2020 showed stable extracranial disease but new progression in CNS lesions. Maintenance therapy continued briefly with Pemetrexed and Pembrolizumab until July 2020.

Palliative whole-brain radiotherapy (WBRT) was delivered in June 2020 (30 Gy in 10 fractions), which provided transient symptomatic relief. However, by September 2020, progressive bone pain and ECOG performance status deterioration prompted treatment de-escalation. Second-line therapy was not initiated due to declining functional reserve.

3. Disease Course and Outcome: The patient's condition declined with progressive fatigue, increasing confusion due to CNS progression, and worsening bone pain. Palliative care was integrated in October 2020. The patient passed away peacefully at home in August 2021

Philadelphia August 26, 2021