**Discharge Summary: Patient SYN206**

**Name**: Juliane Robertson
**DOB**: 15 July 1965

Stage IV NSCLC, adenocarcinoma subtype (07 January 2022)

## Clinical Course

The patient initially presented with a three-month history of progressive fatigue, unintentional 8 kg weight loss, and upper abdominal discomfort. Routine liver panel testing showed elevated ALT (145 U/L), AST (98 U/L), and GGT (231 U/L). Imaging via contrast-enhanced CT and subsequent PET-CT revealed a 3.8 cm mass in the right upper lobe of the lung with FDG-avid multifocal hepatic lesions.

Liver biopsy confirmed moderately differentiated adenocarcinoma of pulmonary origin, TTF-1 and CK7 positive, negative for CK20. PD-L1 expression was strongly positive (TPS 55%) using the 22C3 pharmDx assay. Initial staging showed no brain involvement on MRI, and no adrenal or bone lesions.

Comprehensive NGS (FoundationOne CDx) reported a wild-type profile for all targetable driver mutations, including EGFR, ALK, ROS1, BRAF, MET exon 14 skipping, RET, and KRAS G12C. TMB was modest at 3.8 mutations/Mb; microsatellite stable.

Pembrolizumab monotherapy at 200 mg every 3 weeks was initiated on 28 January 2022. The patient demonstrated clinical benefit after the second infusion, with improved energy levels, appetite, and hepatic enzyme normalization over the first 2 months.

Radiologic response at 12 weeks showed a 47% reduction in hepatic lesion volume and shrinkage of the primary tumor to 2.1 cm. Response continued through months 6 and 9. However, in November 2022, the patient developed Grade 3 immune-mediated colitis (7–9 episodes of watery diarrhea daily, abdominal cramping), confirmed by colonoscopy showing mucosal erythema and crypt abscesses.

Pembrolizumab was withheld, and she was hospitalized for IV steroids, later transitioning to an 8-week taper of oral methylprednisolone. Colitis resolved fully by early January 2023, and pembrolizumab was cautiously reintroduced under close GI supervision.

Over the following months, surveillance imaging in August 2023 raised concerns of a solitary new liver lesion. Biopsy confirmed it was an inflammatory pseudotumor, with no malignancy, and pembrolizumab was continued. Repeat PET-CT in November 2023 confirmed no new lesions and continued reduction of residual disease.

The patient developed hypothyroidism (TSH 9.2 mU/L) in early 2024, managed with levothyroxine 50 mcg daily. Mild renal impairment (baseline eGFR 64 → 58) developed, likely multifactorial due to dehydration and age-related decline.

Other comorbidities include osteoarthritis (knees), for which she uses occasional NSAIDs and physiotherapy, and controlled hypertension (bisoprolol 5 mg daily). She remains fully independent (ECOG 0–1).

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Last scan in March 2025 confirmed ongoing response with no measurable progression. Continued on pembrolizumab monotherapy. Liver enzymes remain within normal limits. Ongoing monitoring with LFTs and imaging every 12 weeks.

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**Future Plan**:

- Continuation of pembrolizumab until disease progression or toxicity
- Monitoring for further immune-related adverse events
- Quarterly scans with optional circulating tumor DNA assay for minimal residual disease tracking
- Reinforcement of hydration and renal monitoring

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**Physician**: Dr. S. Nguyen, MD, Immuno-Oncology
**Date of Discharge Note**: 04 April 2025