**Introduction and Highlights**

**Background: Myelofibrosis (MF)**

- MF is a BCR-ABL-negative myeloproliferative neoplasm characterized by clonal hematopoiesis, dysregulated stromal signaling, and release of aberrant cytokines.
- Presence of clinical manifestations includes severe anemia, thrombocytopenia, splenomegaly, and splenic pain, and constitutional symptoms (fever, night sweats, and weight loss).
- Rarely, it is observed in the USA (<1% of the population). The disease is characterized by progressive fibrosis and hematopoietic failure.
- MF patients with BM involvement present with monocytosis, anemia, and thrombocytopenia.
- Patients with MF who fail to meet criteria for other MPN subtypes have to be treated empirically.
- The disease is characterized by progressive fibrosis and hematopoietic failure.

**Spleen Responses in Patients with MF, including CD123**

- MF (all doses); Stages 1 and 2 (n=27)
- Most Common (21%) Treatment-Related Adverse Events (TRAEs)
- Safety and Tolerability

**Safety and Tolerance**

- Predictable and manageable safety profile
- No apparent cumulative effects of the drug in the bone marrow, over multiple cycles
- MF (all doses); Stages 1 and 2 (n=27)

**Clinical Activity Overview**

- CD123 Expression in MF
- CD123+ pDCs in MF tumor microenvironment
- CD123+ pDCs are co-localized near the neoplastic bone marrow microenvironment
- CD123+ pDCs are present in the sinusoids of MF patients

**Treatment Duration and Outcomes**

- Patients with treatment duration of 12+ months: 2 patients ongoing (12, 24+ months)
- Patients with previous monotherapy with treatment duration 12+ months
- Patients with baseline thrombocytopenia (platelets ≤100x10^9/L with treatment durations ≥6 months: 1 patient ongoing)

**Conclusions and Next Steps**

- Tagraxofusp has shown clinical activity with a predictable and manageable safety profile, in patients with intermediate or high risk relapsed/refractory myelofibrosis
- Monotherapy treatment duration of 12+ months, with 2 patients ongoing
- Monotherapy treatment duration of 12+ months
- Patients with baseline thrombocytopenia (platelets ≤100x10^9/L with treatment durations ≥6 months: 1 patient ongoing)

**References**

8. N/A = not available; N/E = not evaluable

**Quality of Life Assessment**

- Based on these encouraging results, next steps are being evaluated including single agent, combination, and registration trials.

**Safety and Tolerability**

- No apparent cumulative effects of the drug in the bone marrow, over multiple cycles
- MF (all doses); Stages 1 and 2 (n=27)
- Most Common (21%) Treatment-Related Adverse Events (TRAEs)

**Treatment Duration and Outcomes**

- Patients with treatment duration of 12+ months: 2 patients ongoing (12, 24+ months)
- Patients with previous monotherapy with treatment duration 12+ months
- Patients with baseline thrombocytopenia (platelets ≤100x10^9/L with treatment durations ≥6 months: 1 patient ongoing)

- Includes 1 patient with platelet≤50K