QL401, a tumor targeted CD47 and PD-L1 blocker without blood toxicity

In vivo Efficacy

The anti-tumor efficacy of QL401 in vivo was comparable to that of clinical anti-
CD47 and anti-PD-L1 antibodies or their combination. Raji and A575 were implanted followed by human PBMC and treatment of the indicated antibodies.

Phase 1 Clinical Study

- Ongoing, first patient dosed in March of 2022.
- Objectives: safety, tolerability, and early efficacy
- Format: i3 + 3, QW IV infusion, DLT period = 21 days
- Indications: locally advanced, recurrent or metastatic solid tumors, or hematological tumors (r/r AML, MDS, PTCL)
- NHP Toxicology
- QL401 was safe in cytomolgus monkeys up to 100 mg/kg, with red blood cell count remained mostly within the normal range.

Disclosures

I Tang, L Schimmer, S Gu, WW Prior, HV Tran, A Chen, A McClain, and S Chen are current or former employees of QLSF Biotherapeutics, Inc. receiving salaried compensation and stock options.

C Cao, C Sun, M Si, and G Wang are current employees of QILU Pharmaceutical Co., Ltd. receiving salaried compensation.

Summary

- QL401 blocks CD47, the “Don’t Eat Me” signal and provides an “Eat Me” signal at the same time
- QL401 activates both innate (phagocytosis) and adaptive (PD-L1 blockade) immune responses
- QL401 has reduced binding to red blood cells, is safe in cynomolgus monkeys up to 100 mg/kg without severe anemia or the need of a priming dose
- A Phase 1 clinical trial is ongoing