A novel gene therapy for treatment of aggressive B cell Lymphoma

SUMMARY

A specific point mutation of the protein MyD88 is known to be a key oncogenic driver event in around 20% of patients with an aggressive variant of Diffuse Large B cell Lymphoma, and in around 50% of patients with Primary CNS Lymphoma. Both patient populations have a poor prognosis, and only limited therapies are available especially for the elderly and patients with severe comorbidities. The project seeks to complete the preclinical characterization of a human-derived T cell receptor that selectively recognizes this specific mutation of MyD88. Adoptive T cell therapy with MyD88-specific T cells would represent a truly tumor-specific therapy, being much more selective than CAR T cells or immune checkpoint inhibitors.

PROJECT ACHIEVEMENTS DURING SPARK

• Preclinical development of novel TCR T cell candidate accomplished
• Successful publication of preclinical data in *Journal for ImmunoTherapy of Cancer*
• PEI scientific advice meeting
• Planning of FiH study
• Follow-on funding acquired of Else Kröner-Fresenius Foundation
• Pitch contribution at BIO Partnering at JP Morgan 2022

LONG-TERM GOALS

• Perform phase I clinical trial
• License to Pharma or clinical co-development