A Phase 1 Study of Plamotamab, an Anti-CD20 x Anti-CD3 Bispecific Antibody, in Patients With Relapsed/Refractory Non-Hodgkin’s Lymphoma: Recommended Dose

Safety/Efficacy Update and Escalation Exposure-Response Analysis

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Methods

• Primary objectives of this study are preliminary anti-tumor activity and pharmacokinetics (PK)/pharmacodynamics.

• ER analysis for CRS identifies the safety exposure limits after both priming (Cmax) and step-up dosing (Cmax/Ctrough) to avoid high-grade CRS events.

• Efficacy response rates are calculated using the International Harmonization Conference (ICH) E1a, E1b and E1s guidelines. CRS was graded per the ASTCT criteria for cytokine release syndrome (CRS). The maximum CRS grade is used. The denominator for CRS is not the full 32 patients enrolled but increased to 40 patients with at least 1 TEAE Grade ≥3.

• CRS After First Dose

• Positive trend observed between plamotamab CRS peak and C1D1 step-up doses. 

• RD demonstrated evidence of clinical activity (ORR = 60.6%; efficacy evaluable population) in DLBCL/HGBCL and FL patients despite adverse prognostic factors such as high DT by ICT (75%), bulky disease (66%), and high-risk cytogenetics (45%).

• Significant correlation between plamotamab associated adverse events and clinical activity (ORR) for CRS toxicity (p = 0.007).

Conclusion

• Plamotamab was generally well tolerated with no Grade 3+ CRS events in RD. 

• RD demonstrated evidence of clinical activity (ORR = 38%; efficacy evaluable population in DLBCL/HGBCL, and FL patients despite adverse prognostic factors such as high DT, ICT, bulky disease, and high-risk cytogenetics).

• The maximum CRS grade was Grade 3, and no CRS events were observed in the RD cohort.

• SnapShot for Exposure Responder Analysis

• Dose cohorts to establish exposure-response and escalation for RD.

• Cohorts for subcutaneous administration to further improve safety and efficacy profile now actively recruiting (Part D).

• Phase 2 study in combination with talasitamab (anti-CD19) and lenalidomide in R/R DLBCL underway (Protocol XmAb13676-03, NCT05328102, ASH 2022).