PALT trial : First in class glyco-humanized polyclonal antibody directed against tumoral T cells, in patients with relapsed/refractory peripheral T cells lymphoma (PTCL).

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Background

LIS22 is a first in class glyco-humanized polyclonal antibody (GH-pAb) targeting selectively multiple tumor-associated malignant T-cell antigens. LIS22 induces tumor cell apoptosis and promotes the elimination of tumor cells by immune effector cells through CDC (Complement Dependant Cytotoxicity) and ADCP (Antibody-Dependent Cell Phagocytosis). LIS22 demonstrated anti-tumor efficacy in mouse and rat xenograft models with human PTCL.

Safety, pharmacology and toxicology studies in non-human primates demonstrated an acceptable safety profile Taken together, the preclinical data support the initiation of human trials in patients with R/R PTCL .

Methods: 2-part study: Part 1, is a multi-center, open-label, multiple-dose, dose escalation (ESC) and dose-finding to establish the MTD or RP2D; followed by a Part 2, dose expansion (EXP) to investigate anti-tumors efficacy (*NCT06495723*). Key eligibility criteria include relapsed or refractory PTCL (after 1 or more systemic therapies); histological subtypes include, nodal TFH lymphoma; anaplastic large cell lymphoma ; PTCL-nos, intestinal T-cell lymphomas; hepatosplenic T-cell lymphoma and other nodal PTCL ; age > 18 years, ECOG performance status ; adequate organ functions; no known CNS involvement.

Primary endpoints:
Part I: Treatment-emergent adverse events (TEAEs), graded per CTCAE 5.0.
Part II: Response rate (Lugano & LYRIC criteria).
Secondary endpoints: PK, pharmacodynamics, immunogenicity, DOR, PFS, OS.
Up to 24 patients are planned for Part I, and 30 for Part II. Recruitment is planned/ongoing at 15 global sites.
LIS22 is administered via a 4-hour IV infusion once weekly for 4 weeks, then Q2W for up to 5 cycles (28 days each) at escalating doses (2–6 mg/kg). Dose adjustments follow Bayesian overdose control. Bayesian sequential monitoring applies in Part II.

Results:

As of March 10, 2025, seven patients were enrolled: nodal TFH/follicular type (n=1),AITL (n=4) PTCL-NOS (n=2), 5 patients were included in the third line setting, and 2 in the fourth line setting. No safety issues have arisen at this stage

Conclusions

Accrual is ongoing in this first in human trial