**BACKGROUND**

VGL101 is in development for the potential treatment of ALSP, a rare, fatal, neurodegenerative disease precipitated by mutations in the colony-stimulating factor-1 receptor (CSF1R) gene.

**OBJECTIVE**

To evaluate the safety, tolerability, PK, and PD of VGL101 in healthy adult volunteers (HV). This is the first antibody to report durability of CSF1R blockade with single and multiple doses.

**METHODS**

**Study Design**

A Phase 1, first-in-human, double-blind, placebo-controlled, single- and multiple-ascending intravenous Dose Study of VGL101, a novel TREM2 agonist, in healthy adult volunteers.

**Study Design**

- **Study Design:** A Phase 1, first-in-human, randomized, double-blind, placebo-controlled, single- and multiple-ascending intravenous Dose Study of VGL101, a novel TREM2 agonist, in healthy adult volunteers.

**Participants**

- **Participants:** In total, 136 volunteers received VGL101 (n=113) or placebo (n=23) in various dose cohorts.

**Study Design**

- **Study Design:** A Phase 1, first-in-human, randomized, double-blind, placebo-controlled, single- and multiple-ascending intravenous Dose Study of VGL101, a novel TREM2 agonist, in healthy adult volunteers.

**RESULTS (continued)**

- **RESULTS:** Administration of VGL101 demonstrated dose-dependent and statistically durable decreases in VGL101 levels, indicating proof of concept.

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**DISCUSSION**

- **DISCUSSION:** Overall, the study demonstrated promising safety and tolerability of VGL101, with no unexpected adverse events observed.

**ACKNOWLEDGMENTS**

- **ACKNOWLEDGMENTS:** The authors express gratitude to all study participants and the VGL101 team for their contributions.

**REFERENCES**

- **REFERENCES:** A list of references is provided at the end of the document, including relevant studies on ALSP and CSF1R biology.

**Figure 1:** VGL101 Mechanism of Action

**Figure 2:** Study Design

**Figure 3:** Study Design

**Figure 4:** VGL101 Phase 1 PD: Changes From Baseline in Osteopontin

**Figure 5:** VGL101 Phase 1 PD: Changes From Baseline in sCSF1R

**Figure 6:** VGL101 Phase 1 PD: Changes From Baseline in sTREM2