74P - Phase I Study to Assess the Safety and Efficacy of P-BCMA-ALLO1, a Fully Allogeneic CAR T Therapy, in Patients with Relapsed / Refractory Multiple Myeloma (RRMM)

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BACKGROUND
- Multiple myeloma (MM) is an incurable plasma cell malignancy with high expression of membrane target BCMA (Bone-Marrow Angiogenesis-Modulating Cell Surface Marker). BCMA-targeted therapy with CAR T-cell products is now approved for the treatment of RRMM. BCMA-directed CAR T-cell therapy is active in patients who have failed prior BCMA-targeted therapy and in patients with high-risk myeloma.
- Unfortunately, autologous CAR T-cell therapy has substantial clinical challenges including the need for expensive, long-lasting cell expansion, and the need to culture and expand the patient's own cells.

OBJECTIVES
- To assess the safety and efficacy of allogeneic CAR T-cell therapy targeting BCMA in patients with RRMM.

METHODS
- The study is a dose-escalation trial designed to provide dose findings for further phase II trials.
- Dose escalation is ongoing based on the 3+3 design.

RESULTS
- Dose escalation is ongoing due to the excellent tolerability and encouraging clinical activity at the lowest dose tested, while demonstrating excellent tolerability.
- A total of 12 patients were treated with P-BCMA-ALLO1, 7 in cohort 1, and 5 in cohort 2.

SUMMARY
- A total of 12 patients were treated with P-BCMA-ALLO1, 7 in cohort 1, and 5 in cohort 2. There were no serious adverse events in cohort 1, and a manageable level of toxicity in cohort 2.
- BCMA-GP4 (an IgG3 antibody) is currently being developed in concert with the CAR T-cell product for patients who have failed P-BCMA-ALLO1.

CONCLUSION
- P-BCMA-ALLO1 is an allogeneic "off the shelf" BCMA-targeting CAR T therapy that demonstrates compelling anti-myeloma activity in a heavily pretreated patient population. The results from this study are promising and warrant further exploration of this attractive treatment option for multiple myeloma.

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