**Immuno-STAT™ Selective Targeting and Alteration of T cells) Platform: Targeting Tumor Heterogeneity and Tumor Escape Mechanisms**

**Introduction**

Immuno-STAT™ (IS) is a novel immunotherapeutic approach that targets and modulates cell surface receptors to achieve enhanced efficacy and tolerability. The IS platform is designed to selectively target tumor-specific T cells, enabling the delivery of powerful, cytokine-mediated therapies while minimizing toxicity to normal tissues. The IS platform is the result of a collaboration between Cue Biopharma and PhosMed in the United States, and it is currently in clinical development.

**Concept**

The IS platform uses a combination of IS3 receptor-based ligands and IS2 receptor-based ligands to selectively target tumor-specific T cells. The IS3 ligands induce the expression of IS2 ligands, which in turn activate the IS2 receptors on the T cells, leading to their selective destruction. This selective targeting of tumor-specific T cells can potentially improve the efficacy of immune checkpoint blockade therapies while reducing toxicity to normal tissues.

**Ongoing Phase 1 monotherapy clinical trial of CUE-101 in heavily pretreated patients with HPV+ head and neck squamous cell carcinoma**

**CUE-101 preclinical studies support ongoing Phase 1 pembrolizumab combination trial**

**Bi-specific Redirected Immuno-STAT (RDi-STAT) platform: Addressing tumor escape mechanisms**

**CUE-101, CUE-100 series and derivatives**

**IL-2 based CUE-100 Immuno-STAT series**

**CUE-101: Leading drug candidate**

**Immuno-STAT design**

The IS platform is designed to selectively target tumor-specific T cells by using a combination of IS3 receptor-based ligands and IS2 receptor-based ligands. The IS3 ligands induce the expression of IS2 ligands, which in turn activate the IS2 receptors on the T cells, leading to their selective destruction. This selective targeting of tumor-specific T cells can potentially improve the efficacy of immune checkpoint blockade therapies while reducing toxicity to normal tissues.

**Conclusion**

The IS platform has shown promising results in preclinical studies and early clinical trials. Further development and validation of this platform are essential to determine its potential as a novel immunotherapeutic approach for the treatment of various cancer types.