Background and Study Design

- CUE-101 is a modular T cell engager, comprised of an HLA-A*0201 complex, a peptide epitope derived from the HPV16 E7 protein, and 4 molecules of reduced affinity IL-2 that is designed to deliver differentiated interleukin-2 (IL-2) selectively to HPV16-specific CD8+ T cells for treatment of HPV16+ cancers.
- CUE-101-01 (NCT03978689) is a Phase 1, open-label, dose escalation and expansion study of CUE-101 in HLA-A*0201 positive patients with HPV16+ recurrent/metastatic HPV16+ head and neck cancer (R/M HNSCC).
- Patients with R/M HNSCC that progressed following platinum or checkpoint inhibitor-based therapies are eligible for CUE-101 monotherapy given as monotherapy and in combination with pembrolizumb, 200 mg every 3 weeks.
- Enrollment in both the monotherapy and combination therapy arms of the study is now complete. Here we report the updated results of the CUE-101 recommended phase 2 dose (RP2D) of 4 mg/kg in both monotherapy and in combination with pembrolizumab, 200 mg Q3W.

Patient Demographics & Prior Therapies

<table>
<thead>
<tr>
<th>Race</th>
<th>Monotherapy</th>
<th>Combination with Pembro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black/African American</td>
<td>47 (95.9%)</td>
<td>26 (96.3%)</td>
</tr>
<tr>
<td>Other/Not Reported</td>
<td>2 (4.1%)</td>
<td>1 (3.7%)</td>
</tr>
</tbody>
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**Initial Presentation of Metastatic Disease**
- A total of 46 patients were enrolled: 20 receiving the combination of CUE-101 and pembrolizumab with ≥ 1 post-CUE-101 scans (median number of scans, 10) and 26 receiving CUE-101 monotherapy.

Table 1: Success Rate by Prior Therapy

<table>
<thead>
<tr>
<th>Number of Prior Lines of Therapy</th>
<th>Monotherapy</th>
<th>Combination with Pembro</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>26 (53.1%)</td>
<td>12 (44.4%)</td>
</tr>
<tr>
<td>≥ 2</td>
<td>19 (39.6%)</td>
<td>17 (68.0%)</td>
</tr>
</tbody>
</table>

**Tumor Burden in 1L Patients Treated with Combination**

- Waterfall plot illustrates best change from baseline in the sum of diameters of target lesions with best overall response as measured by RECIST 1.1. Seventeen patients treated with ≥ 1 mg/kg CUE-101 and pembrolizumab with ≥ 1 post-dose scan as of 27-Sep-2023 are included.

**Treatment Related Adverse Events in Combination Patients**

- TRAEs occurring at ≥ 5% in all patients treated with ≥ 1 dose of CUE-101 + pembrolizumab (N=32) as of 07-Sep-2023.

**Survival in 1L Patients Treated with Combination**

- Overall survival (months) in the patients treated with CUE-101 monotherapy (4 mg/kg) from time of first dose of drug as of 07-Sep-2023.

**Summary**

- Enrollment in the monotherapy and combination arms of protocol CUE-101-01 is complete.
- Median overall survival of 20.8 months observed in 2L+ patients treated with CUE-101 monotherapy (Kaplan-Meier estimate, 95% CI; 11.0, 40.6). Landmark 12-month OS is 0.586 (0.406).
- Objective response rate (RR) of 47% (1 CR, 7 PR) observed in newly diagnosed R/M patients treated with CUE-101 in combination with pembrolizumab. Complete Response and 0 out of 7 Partial Responses occurring in tumors with CPS of 20 or less and a DCR of 65%.
- Seventy-two patients who have received the combination of CUE-101 and pembrolizumab remain alive at time of data cut-off, including 8 patients for ≥ 12 months. Thirteen remain on treatment.
- Adverse events are consistent with the CUE-101 mechanism of action, known profile of pembrolizumab and underlying disease. The risk of ≥Grade 3 TRAEs was low, most TRAEs grade < 3.

**Acknowledgments**

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