Cue Biopharma Reports New Complete Response and Confirmed 50% Overall Response Rate in Ongoing Phase 1 Trial of CUE-101 and Pembrolizumab in Recurrent/Metastatic HPV+ Head and Neck Cancer

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- *Additional complete response (CR) observed in patient with multiple tumors*
- *Confirmed overall response rate (ORR) of 50% in patients with combined positive score (CPS) ≥1, including 50% ORR in patients with low CPS (1-19)*
- *12-month overall survival of 88% and median overall survival (mOS) of 32 months*

BOSTON, July 16, 2025 (GLOBE NEWSWIRE) -- Cue Biopharma, Inc. (Nasdaq: CUE), a clinical-stage biopharmaceutical company developing a novel class of therapeutic biologics to selectively engage and modulate disease-specific T cells for the treatment of autoimmune disease and cancer, today provided a clinical update on its most advanced asset, CUE-101, representative of the CUE-100 series.

"We are excited to report an additional CR in a patient that had recurrent metastatic HPV+ head and neck squamous cell carcinoma (HNSCC) treated with CUE-101 in combination with pembrolizumab (KEYTRUDA®)," said Matteo Levisetti, chief medical officer at Cue Biopharma. "This patient had durable stable disease for close to two years and more recently demonstrated significant tumor reductions and now a complete response. Notably, the patient had multiple sites of disease, including the lungs that cleared prior to the complete response observed in the target lesion. We believe the kinetics of tumor reduction and disease eradication in this patient is due to the repeated stimulation and expansion of tumor-specific T cells given the mechanism of action of CUE-101. It also serves as a clear example of the differences in timing of the clinical activity often observed with immunotherapy compared to traditional cytotoxic therapies and supports the prolonged mOS observed in this trial."

Key data highlights from the expansion portion of the trial evaluating CUE-101 at the recommended Phase 2 dose (RP2D) of 4mg/kg in combination with pembrolizumab in 1L patients (data cutoff of July 14, 2025) include:

- ORR of 50% (2 CR and 10 partial responses (PR) in patients with CPS ≥1, compared to an ORR of 19% observed with pembrolizumab alone in the historical third-party KEYNOTE-048 trial).
- Survival metrics have continued to mature favorably: 12-month overall survival (OS) of 88% compared to 57% with pembrolizumab alone in the historical KEYNOTE-048 trial, representing a reduction in the risk of death (HR 0.23) compared to historical data.
- mOS of 32 months compared to 12.3 months in the historical KEYNOTE-048 trial.
- ORR of 50% in patients, including 50% with low PD-L1 expression CPS (1-19).

Dan Passeri, chief executive officer at Cue Biopharma, added, "The culmination of maturing data further support our conviction that CUE-101, representative of our approach with the CUE-100 series, demonstrates a potential breakthrough therapeutic approach for establishing a new standard of care. With this maturing data, we are further emboldened in our conviction that our Immuno-STAT® platform represents transformative potential for selectively modulating the patient's immune system."

About CUE-101 and the Phase 1 Trial
CUE-101 is Cue Biopharma's most advanced clinical stage drug candidate from the CUE-100 series of interleukin 2 (IL-2)-based biologics. It is designed to activate and expand HPV16 tumor-specific T cells by presenting two signals or "cues" to T cells. Signal #1 incorporates the HPV E7 protein, harbored by HPV-induced cancer cells, to provide selectivity through interaction with the HPV-specific T cell receptor. Signal #2 consists of an engineered IL-2 variant to stimulate the activity of T cells. CUE-101 is currently being evaluated in a fully enrolled Phase 1 open-label, dose escalation and expansion study, for the treatment of HPV16+ driven recurrent/metastatic head and neck squamous cell carcinoma in second line (2L) and beyond patients as a monotherapy, and as a first line (1L) therapy in combination with pembrolizumab (KEYTRUDA®).

About Cue Biopharma
Cue Biopharma, a clinical-stage biopharmaceutical company, is developing a novel class of injectable biologics to selectively engage and modulate disease-specific T cells directly within the patient's body. The company's proprietary platform, Immuno-STAT ® *(Selective Targeting and Alteration of T cells)*, and biologics are designed to harness the curative potential of the body's intrinsic immune system without the adverse effects of broad systemic immune modulation.

Headquartered in Boston, Massachusetts, we are led by an experienced management team with deep expertise in immunology and immuno-oncology as well as the design and clinical development of protein biologics.

For more information please visit www.cuebiopharma.com and follow us on X and LinkedIn.

Forward Looking Statements
This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements include, but are not limited to, those regarding: the company's belief regarding the potential benefits and applications of its drug candidates and programs, including the CUE-100 series and that CUE-101 represents a potential breakthrough therapeutic approach for establishing a new standard of care for treating patients battling HNSCC and that the Immuno-STAT® platform represents transformative potential for selectively modulating the patient's immune system; and the company's business strategies, plans and prospects. Forward-looking statements, which are based on certain assumptions and describe the company's future plans, strategies and expectations, can generally be identified by the use of forward-looking terms such as "believe," "expect," "may," "will," "should," "would," "could," "seek," "intend," "plan," "goal," "project," "estimate," "anticipate," "strategy," "future," "likely," "promise" or other comparable terms, although not all forward-looking statements contain these identifying words. All statements other than statements of historical facts included in this press release regarding the company's strategies, prospects, financial condition, operations, costs, plans and objectives are forward-looking statements. Important factors that could cause the company's actual results and financial condition to differ materially from those indicated in the forward-looking statements include, among others, the company's limited operating history, limited cash and a history of losses; the company's ability to obtain adequate financing to fund its business operations in the near term and successfully remediate its current "going concern" determination that it does not have sufficient capital on hand to continue operations beyond the next twelve months; the company's ability to achieve profitability; potential setbacks in the company's research and development efforts including negative or inconclusive results from its preclinical studies or clinical trials or the company's ability to replicate in later clinical trials positive results found in preclinical studies and early-stage clinical trials of its product candidates; serious and unexpected drug-related side effects or other safety issues experienced by participants in clinical trials; its ability to secure required U.S. Food and Drug Administration ("FDA") or other governmental approvals for its product candidates and the breadth of any approved indication; adverse effects caused by public health pandemics, including possible effects on the company's operations and clinical trials; delays and changes in regulatory requirements, policy and guidelines including potential delays in submitting required regulatory applications to the FDA; the company's reliance on licensors, collaborators, contract research organizations, suppliers and other business partners; the company's ability to obtain adequate financing to fund its business operations in the future and ability to continue as a going concern; the company's ability to maintain and enforce necessary patent and other intellectual property protection; competitive factors; general economic and market conditions and the other risks and uncertainties described in the Risk Factors and Management's Discussion and Analysis of Financial Condition and Results of Operations sections of the company's most recently filed Annual Report on Form 10-K and any subsequently filed Quarterly Report(s) on Form 10-Q. Any forward-looking statement made by the company in this press release is based only on information currently available to the company and speaks only as of the date on which it is made. The company undertakes no obligation to publicly update any forward-looking statement, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise.

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