Bicara Therapeutics Reports Updated Interim Phase 1/1b Data of Ficerafusp Alfa (BCA101) in 1L HPV-negative Recurrent/Metastatic Head and Neck Squamous Cell Carcinoma (HNSCC)

Jun 27, 2024

First-in-class bifunctional EGFR/TGF-β inhibitor, ficerafusp alfa, in combination with pembrolizumab has demonstrated clinically meaningful anti-tumor activity and significant improvement over standard of care in HNSCC with at least 12 months of follow-up

In HPV-negative HNSCC, data demonstrated an 64% ORR, 18% CR rate and mPFS of 9.8 months; median duration of response and median overall survival not yet reached

BOSTON, Mass., June 27, 2024 – Bicara Therapeutics, a clinical-stage biotechnology company developing transformative bifunctional therapies for patients with solid tumors, today announced the presentation of updated interim data from its ongoing, open-label Phase 1/1b dose expansion study of ficerafusp alfa (BCA101) at the 3rd Hawaii Global Summit on Thoracic Malignancies, taking place from June 25-29, 2024. Ficerafusp alfa is a bifunctional antibody that combines two clinically validated targets: an epidermal growth factor receptor (EGFR) directed monoclonal antibody with a domain that binds to human transforming growth factor beta (TGF-β).

In the Phase 1/1b clinical trial, ficerafusp alfa in combination with pembrolizumab has demonstrated clinically meaningful anti-tumor activity, with a 64% overall response rate (ORR), 18% complete response (CR) rate and median progression free survival (mPFS) of 9.8 months in frontline human papillomavirus (HPV)-negative, recurrent/metastatic (R/M) head and neck squamous cell carcinoma (HNSCC), along with a favorable tolerability profile.

“Data from our ongoing Phase 1/1b clinical trial reflected a substantial increase over the historical 19% ORR observed in a Phase 3 trial with pembrolizumab monotherapy, the current standard of care in R/M HNSCC,” said David Raben, M.D., chief medical officer of Bicara Therapeutics. “Now with at least a year of follow-up on this cohort, it is encouraging to see a number of patients experience durable responses with the CR and mPFS data that have emerged. We believe these data indicate that ficerafusp alfa in combination with pembrolizumab may become a new chemotherapy-free standard of care treatment for HPV-negative first-line R/M HNSCC.”

“Ficerafusp alfa has the potential to exert potent anti-tumor activity by simultaneously blocking both cancer cell intrinsic EGFR survival and proliferation, as well as immunosuppressive TGF-β signaling within the tumor microenvironment to lead to durable responses and improved survival,” said Claire Mazumdar, Ph.D., MBA, chief executive officer of Bicara Therapeutics. “Given these data, we intend to initiate a pivotal Phase 2/3 trial of ficerafusp alfa in combination with pembrolizumab in frontline R/M HNSCC excluding HPV-positive patients. We also remain excited about the potential of ficerafusp alfa to expand into other populations of HNSCC patients and across other squamous cell tumor types where there is a strong biologic rationale for the dual inhibition of both EGFR and TGF-β.”

Presentation Highlights:

- Updated interim data (April 2024 cut-off date) from the Phase 1/1b dose expansion cohort of BCA101 in combination with pembrolizumab include 39 evaluable frontline R/M HNSCC patients with a PD-L1 combined positive score (CPS) of ≥1. 28 patients were HPV-negative and 11 patients were HPV-positive, as determined by p16 testing.
    - 54% ORR in total evaluable study population (21/39 patients), including 3 unconfirmed responses1.
    - 15% complete response (CR) rate (6/39 patients). 26% (10/39) of patients with 100% reductions in target lesions.
    - Favorable tolerability profile with the most common treatment-related adverse events (TRAEs) including acneiform rash (76%, with majority being Grade 1/2 in severity), fatigue (43%), and hypophosphatemia (38%).
- In HPV-negative population (n=28):
    - 64% ORR (18/28 patients) with responses observed across different levels of PD-L1 expression, including 3 unconfirmed responses1.
    - 18% complete response (CR) rate (5/28 patients). 29% (8/28) of patients with 100% reductions in target lesions.
    - Median progression free survival (mPFS) of 9.8 months.
    - With at least 12 months of follow-up, median duration of response (DOR) and median overall survival (OS) have not yet been reached.

Presentation Details:
Title: Altering the HNSCC landscape: Breaking through the Tumor Defense with EGFR-TGF-β blockade
Presentation Date and Time: Thursday, June 27, 2:50 p.m. HST
Presenter: Dr. David Raben

About Head and Neck Squamous Cell Carcinoma
Head and neck squamous cell carcinomas (HNSCCs) develop from the mucosal epithelium in the oral cavity, pharynx and larynx and are the most common malignancies that arise in the head and neck. HNSCC is one of the most common cancers in the United States and globally with a rising incidence anticipated to reach one million new global cases annually by 20302. Ten percent of HNSCC patients are diagnosed with metastatic disease and up to 30% develop a recurrence or metastases over time after initial treatment for advanced HNSCC.

Most cases of HNSCC are believed to arise from mutations that accumulate due to carcinogenic exposure, such as tobacco smoke, or by HPV. Approximately 80% of patients with R/M HNSCC are HPV-negative. HPV-negative HNSCC tumors typically recur locally and are associated with an increased risk of fatal tumor bleeding, excruciating pain and difficulty swallowing. Thus, there remains a significant unmet need for therapies with a durable anti-tumor response in this population.

About Ficerafusp Alfa (BCA101)
Ficerafusp alfa is a bifunctional antibody designed to inhibit the epidermal growth factor receptor (EGFR) and disable transforming growth factor beta (TGF-β) directly at the tumor site. This approach is designed with the intent to allow ficerafusp alfa to inhibit tumor proliferation, while restoring the cytolytic activity of the local immune cells.

Ficerafusp alfa is currently being evaluated in a dose expansion phase of an open-label Phase 1/1b study in combination with pembrolizumab in HPV-negative patients with R/M HNSCC, advanced squamous non-small cell lung cancer (SqNSCLC), or squamous cancer of the anal canal (SCAC) and as a monotherapy for cutaneous squamous cell carcinoma (cSCC).

About Bicara Therapeutics
Bicara Therapeutics is a clinical-stage biotechnology company developing bifunctional therapies engineered to combine the precision of well validated, tumor-targeting antibodies with the power of tumor microenvironment modulators. The Company's bifunctional antibodies are designed to deliver an immunomodulatory payload directly to the tumor microenvironment to ramp up immune cell activity, offering the potential for synergistic therapeutic impact at the site of the tumor. Bicara's lead product candidate, ficerafusp alfa, is a EGFR/TGF-β-trap bifunctional antibody in clinical development for multiple tumor types. For more information, please visit www.bicara.com or follow us on LinkedIn or X.

1Of 3 unconfirmed responses, all three were in HPV-negative patients. One patient had progressive disease at confirmatory scan, and the other two patients withdrew from study due to non-treatment-related adverse events prior to confirmatory scan.

2Johnson, D.E., Burtness, B., Leemans, C.R. et al. Head and neck squamous cell carcinoma. Nat Rev Dis Primers 6, 92 (2020). https://doi.org/10.1038/s41572-020-00224-3

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