Obsidian Therapeutics Announces Positive Interim Top-Line Clinical Data for OBX-115 Engineered TIL Cell Therapy in Advanced or Metastatic Melanoma Post-Anti-PD1 Therapy

- *Positive results observed in patients with advanced or metastatic melanoma, including a 50% (3/6) objective response rate (ORR) with two complete responses (33%) at median follow-up of 18 weeks. Disease control rate is 100% and responses deepened over time.*
- *Responses achieved without systemic IL2 and with an emerging safety profile that appears differentiated from that of unengineered TIL cell therapy, which utilizes high-dose IL2.*
- *Data validate pharmacologic regulation of membrane-bound IL15 activity to enhance persistence and anti-tumor activity of adoptive T-cell therapies.*

CAMBRIDGE, Mass., December 12, 2023 – Obsidian Therapeutics, Inc., a clinical-stage biotechnology company pioneering engineered cell and gene therapies, announced today positive top-line results from the ongoing first-in-human, Phase 1 clinical trial evaluating the safety and efficacy of OBX-115, Obsidian's lead engineered tumor-infiltrating lymphocyte (TIL) cell therapy candidate, in patients with metastatic melanoma that has relapsed and/or is refractory to prior immune checkpoint inhibitor (ICI) therapy (NCT05470283).

OBX-115 is an investigational novel IL2-sparing engineered TIL cell therapy armed with pharmacologically regulatable membrane-bound IL15 designed to enhance persistence, anti-tumor activity, and clinical safety of TIL cell therapy relative to unengineered TIL therapy plus high-dose IL2.

The first six patients treated with OBX-115 were enrolled by Rodabe Amaria, M.D., professor of Melanoma Medical Oncology and principal investigator of the study at The University of Texas MD Anderson Cancer Center. Patients were heavily pre-treated, and all had progressed on anti–PD-1 and anti–CTLA-4 therapy with disease that was primary-resistant to ICI therapy. At a median follow-up of 18 weeks (December 1st, 2023 data cut-off), a 50% investigator-assessed objective response rate (ORR) using RECIST 1.1 criteria was observed. Two complete responses and one partial response were achieved, with a disease control rate (DCR) of 100%.

To date, no dose-limiting toxicities have been observed, and the treatment-emergent adverse event profile was consistent with that of lymphodepletion. OBX-115 was manufactured from core-biopsies of tumors for the majority of patients by CTMC, a joint venture between MD Anderson and National Resilience, Inc. Additionally, early data from the study support validation of Obsidian's cytoDRiVE® technology for the pharmacologic regulation of membrane-bound IL15 to enable controlled proliferation, enhanced persistence and anti-tumor activity of adoptive T-cell therapies.

"The OBX-115 data show its potential to be a meaningful advancement in the treatment of metastatic melanoma and TIL cell therapy," said Parameswaran Hari, M.D., M.S., Chief Development Officer of Obsidian Therapeutics. "These initial topline results support the promise for OBX-115 to drive responses in this heavily pre-treated patient population and facilitate the expansion of TIL cell therapy in melanoma to a broad group of patients without the need for IL2."

In addition, Obsidian announced today that it has enrolled the first patient in its multicenter Phase 1/2 study of advanced or metastatic melanoma resistant to ICI therapy. This study allows multiple

centers to have access to OBX-115 and is currently enrolling patients. Additional details may be found at clinicaltrials.gov, using identifier: NCT06060613.

“These positive results underscore the potential for OBX-115 TIL cell therapy to offer patients with metastatic melanoma a differentiated TIL therapy without the need for IL2,” said Madan Jagasia, M.D., M.S., CEO of Obsidian Therapeutics. “Furthermore, the emerging profile of OBX-115 indicates it will allow expansion of TIL cell therapy into a broad patient population, including those who may not be able to tolerate IL2 or choose not to receive it. As we look to the future, we are exploring additional indications, including non-small cell lung cancer.”

About OBX-115

Obsidian’s lead investigational cytoTIL15™ program, OBX-115, is a novel engineered tumor-infiltrating lymphocyte (TIL) cell therapy armed with pharmacologically regulatable membrane-bound IL15 (mbIL15). OBX-115 has the potential to become a meaningful therapeutic option for patients with advanced or metastatic melanoma and other solid tumors by leveraging the expected benefits of mbIL15 and Obsidian’s proprietary, differentiated manufacturing process to enhance persistence, anti-tumor activity, and clinical safety of TIL cell therapy. OBX-115 is being investigated in two ongoing and enrolling clinical trials in advanced or metastatic melanoma (NCT05470283 and NCT06060613).

About Obsidian Therapeutics

Obsidian Therapeutics, Inc. is a clinical-stage biotechnology company pioneering engineered cell and gene therapies to deliver transformative outcomes for patients with intractable diseases. Obsidian’s proprietary cytoDRiVE® technology is designed to precisely control the timing and level of protein function by using FDA-approved small molecule drugs. Obsidian is headquartered in Cambridge, Mass. The Company has collaborations with Bristol Myers Squibb and Vertex Pharmaceuticals. For more information, please visit www.obsidiantx.com and follow us on LinkedIn.

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