FDA grants Regenerative Medicine Advanced Therapy designation for BrainChild Bio's B7-H3 CAR T-cell therapy for incurable pediatric brain tumors

CAR T-cell therapy is designed to overcome barriers to effective treatments for diffuse intrinsic pontine glioma (DIPG)

BrainChild Bio advancing BCB-276 towards BLA submission with a single pivotal Phase 2 trial planned to commence in Q4 2025

SEATTLE, WA and Cambridge, MA, May 15 2025 – BrainChild Bio, Inc., a clinical-stage biotechnology company developing CAR T-cell therapies to treat tumors in the central nervous system (CNS), today announced that the investigational B7-H3 targeting autologous CAR T-cell therapy has been granted Regenerative Medicine Advanced Therapy (RMAT) designation by the U.S Food and Drug Administration (FDA) for the treatment of diffuse intrinsic pontine glioma (DIPG), an incurable pediatric brain tumor.

The use of a regenerative medicine, specifically a CAR T-cell therapy, offers the potential to overcome barriers for other drug modalities to be effective in addressing DIPG, including the precarious location of the DIPG tumor in the brainstem, the infiltrative growth of the tumor throughout normal brainstem functional anatomy, and the blood brain barrier that remains intact during tumor progression. BrainChild Bio has designed BCB-276 to be administered by locoregional delivery of targeted CAR T-cells directly into the cerebrospinal fluid, permitting infused CAR T-cells to directly access the tumor bed, using an indwelling reservoir-catheter device.

This approach to administering an autologous B7-H3 CAR T-cell therapy has been successfully implemented and resulted in the promising overall survival benefit in patients with brain tumors observed in the BrainChild-03 Phase 1 trial (NCT04185038), conducted by BrainChild Bio's academic partner, Seattle Children's Research Institute, and recently published in *Nature Medicine*.

"We are very pleased to now also receive RMAT designation, less than one month after being granted Breakthrough Therapy designation from FDA for our lead CAR T therapy, BCB-276, for the treatment of DIPG. Receiving designations from two independent reviews within FDA further validates the positive CAR-T clinical results achieved by our team to date and the urgent need for a treatment for DIPG," stated Michael Jensen, MD, Founder and Chief Scientific Officer of BrainChild Bio. "Our team is keenly focused on initiating the pivotal Phase 2 trial by the end of this year and look forward to continuing to work with the FDA on an accelerated path forward to bring potential new CAR-T treatments for CNS brain tumors in children and adults."

FDA grants RMAT designation to investigational regenerative medicine therapies, including cell therapies, that are aimed at treating serious or life-threatening diseases have shown preliminary clinical evidence that the drug has the potential to address unmet medical needs for the disease. Investigational medicines with RMAT

are provided intensive interactions with the FDA during the product candidate's development process in addition to being eligible for rolling submission and priority review of the marketing application.

"It's gratifying to see another important benchmark reached in our work to combat pediatric brain cancer," said Dr. Jeff Sperring, Chief Executive Officer at Seattle Children's. "Our research is the foundation of progress to bring potential therapies to kids as fast as we can – and we're excited about the possibilities afforded by this designation."

BrainChild Bio is preparing to advance BCB-276 in a Phase 2 multi-center, pivotal registration trial to support a potential Biologics License Application (BLA) to the FDA for the treatment of children and young adults with DIPG. This clinical plan is based on alignment between BrainChild Bio and FDA at a Type B meeting in late 2024.

About Diffuse Intrinsic Pontine Glioma (DIPG) and Application of CAR T-cell Therapies

Diffuse intrinsic pontine glioma (DIPG) is a primary high-grade brain tumor that arises in the pons and is uniformly fatal. DIPG affects approximately 300 children per year in the U.S. with the majority of diagnoses made in children between 5 and 10 years of age. Current standard-of-care treatment remains limited to palliative focal radiation therapy which results in a median overall survival of only about 11 months from diagnosis.[1] Barriers to effective therapies for DIPG include the precarious location of the tumor in the brainstem, the infiltrative growth of the tumor throughout normal brainstem functional anatomy, and the blood brain barrier that remains relatively intact during tumor progression preventing therapies from gaining access to the cancer.

The barriers to effective therapies for DIPG can be effectively overcome by the locoregional delivery of appropriately targeted CAR T-cells directly into the cerebrospinal fluid via intracerebroventricular (ICV) dosing with an indwelling reservoir-catheter device. This enables the potential for extensive exposure of the pons to cerebrospinal fluid flow from the ventricular system, thus permitting infused CAR T-cells to directly access the tumor bed. This also allows for repetitive infusions of CAR T-cells to replenish the tumor bed, offering the potential for more durable and sustained efficacy. Additionally, with the blood brain barrier intact, this therapeutic approach can also minimize any on-target, off-tumor toxicities resulting from systemic exposure of CAR T cells.

About BrainChild Bio

BrainChild Bio, Inc., is a kids-first, clinical-stage biotechnology company harnessing the power of CAR T-cell technology to treat tumors in the central nervous system, prioritizing pediatric indications with plans to expand into adult CNS tumors, specifically Glioblastoma and brain metastasis. BrainChild Bio was launched out of Seattle Children's Therapeutics program and founded on the work of Dr. Michael Jensen, a pioneer in the cancer immunotherapy field and previous Chief Therapeutics Officer at Seattle Children's. BrainChild Bio is advancing a next-generation CAR T-cell therapy platform for tumors of the CNS that weaves together synthetic technologies, including multiplex targeting and enhanced potency controls, to enable multiple targets in a single CAR T-cell therapy, novel transgenes to increase potency, delivery technology for durable efficacy, and streamlined CAR T-cell design and manufacturing. BrainChild Bio's lead drug candidate is BCB-276, an autologous CAR T-cell therapy that targets the immune checkpoint B7-H3, that is advancing in clinical trials for the treatment of diffuse intrinsic pontine glioma (DIPG), a pediatric cancer that forms in the brainstem which currently has no approved treatments. BrainChild Bio's cell therapy approach using autologous B7-H3 CAR Tcell therapy has received Breakthrough Therapy designation and Regenerative Medicine Advanced Therapy designation from the U.S. Food and Drug Administration (FDA). More information is available at www.brainchildbio.com.

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[1] DIPG Registry.