



Study Confirms CT-179 Potentiates Radiation Therapy in Pediatric High-Grade Glioma Models

Curtana Pharmaceuticals Announces New Data Confirming CT-179 Effectively Crosses Blood-Brain Barrier and Synergizes with Radiation in Pediatric Brain Cancers.

Austin, TX – February 5, 2026 – Curtana Pharmaceuticals, a clinical-stage biotechnology company focused on improving outcomes for brain cancer patients, today announced the publication of a new study in the *International Journal of Molecular Sciences*. The research, titled "[Targeting Pediatric Glioblastomas by Combining OLIG2 Inhibitor CT-179 with Fractionated Radiation in a Panel of Patient-Derived Orthotopic Xenograft Mouse Models](#)," provides critical pharmacological validation for the company's lead asset, CT-179, in preparation for the launch of the OPAL study – a multi-site Phase 1 trial of CT-179 in recurrent and newly diagnosed glioblastoma.

Led by researchers at Northwestern University Feinberg School of Medicine and Texas Children's Hospital, the study utilized a comprehensive panel of ten patient-derived orthotopic xenograft (PDOX) models to evaluate the efficacy of CT-179 against pediatric high-grade glioma (pHGG).

Breakthrough Delivery and Efficacy

One of the historical challenges in treating brain tumors is effective drug delivery through the blood-brain barrier (BBB). This study confirms that orally administered CT-179 successfully penetrates the BBB, achieving high therapeutic concentrations in the cerebrum, brain stem, and tumor tissue.

Key findings from the publication include:

- **Target Validation:** High-level overexpression of the target, *OLIG2*, was confirmed in 70% of the pediatric malignant gliomas analyzed, validating it as a critical molecular target.
- **Effective Delivery:** Oral administration of CT-179 resulted in drug concentrations in tumor tissues that were significantly higher than serum levels, confirming the drug's ability to overcome the BBB.
- **Combination Synergy:** While single-agent efficacy was limited in these highly aggressive models, combining CT-179 with fractionated radiation (standard of care) significantly extended survival in multiple models compared to radiation alone.
- **Stem Cell Targeting:** In vitro assays demonstrated that CT-179 suppressed both monolayer tumor cells and stem-cell-enriched neurospheres in a dose-dependent manner.

Leadership Perspectives

"This study serves as a vital translational bridge between our mechanistic discoveries and clinical application," said Gregory Stein, M.D., CEO of Curtana Pharmaceuticals. "Recent publications in *Nature Communications* and *The Journal of Clinical Investigation* have defined *why* CT-179 works – by blocking cancer stem cell plasticity and reversing immune evasion. Now, the Lindsay et al. study confirms *how* we can deliver it. Demonstrating that CT-179 achieves effective concentrations in the brain and enhances the effect of radiation de-risks our clinical strategy and reinforces our approach of using CT-179 as a backbone therapy to prevent recurrence."



Building on Scientific Momentum

This publication follows a series of high-impact studies reinforcing the therapeutic potential of targeting OLIG2. Just days ago, research published in *The Journal of Clinical Investigation* revealed that CT-179 can turn "cold" GBM tumors "hot" by unlocking CXCL10 expression, thereby sensitizing them to immunotherapy. Additionally, studies published last year in *Nature Communications* highlighted CT-179's ability to block the transition of cancer stem cells into proliferative states in medulloblastoma. Collectively, these data support Curtana's upcoming clinical roadmap, including the launch of the OPAL study in Australia in recurrent and newly diagnosed adult glioblastoma later this year.

About Curtana Pharmaceuticals

Curtana Pharmaceuticals, founded in 2013, is a privately held, clinical-stage biopharmaceutical company headquartered in Austin, Texas. Current investors include Thynk Capital, angelMD, Biosense Global, DEFTA Partners, and other anonymous investors. The company was also awarded a \$7.6 million grant from the Cancer Prevention and Research Institute of Texas (CPRIT). Curtana focuses on the development of novel first-in-class, small molecule therapeutics targeting cancer stem cells in the central nervous system for the treatment of glioblastoma, low grade glioma, medulloblastoma, diffuse midline glioma, and other brain cancers. For more information, visit <https://www.curtanapharma.com/>.

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