



NeOnc Technologies (Nasdaq: NTHI) Announces AI-Driven Findings Showing Ultrasound Enhances the Potency of an Already Effective NEO100 in Treating Primary and Metastatic Brain Tumors

December 1, 2025

CALABASAS, Calif., Dec. 01, 2025 (GLOBE NEWSWIRE) -- NeOnc Technologies Holdings, Inc. (Nasdaq: NTHI), a clinical-stage biopharmaceutical company developing brain-penetrant therapeutics for central nervous system (CNS) cancers, today announced newly published preclinical findings from a research collaboration at the University of Southern California (USC). The study, now available on bioRxiv (<https://www.biorxiv.org/content/10.1101/2025.11.25.690556v1>), demonstrates that ultrasound further enhances and amplifies NEO100's therapeutic potency, driving strong antitumor effects across multiple primary and metastatic brain tumor types.

Utilizing an AI-driven, 3D-bioprinted New Approach Methodology (NAM), researchers at USC, led by Dr. Josh Neman—Associate Professor of Neurological Surgery and Chief Clinical Officer of NTHI—identified NEO100 as a leading sonodynamic therapy agent. This NAM platform—built on NTHI-patented rapid magnetic 3D bioprinting technology (US Patent 11,788,057)—facilitates the rapid generation of physiologically relevant patient-derived tumor organoids within hours, rather than the weeks typically required by conventional methods, thereby significantly accelerating biomedical research and aligning with NIH objectives to minimize animal testing.

An AI-driven positive-unlabeled neural network, trained on over 200 molecular descriptors, was employed to predict compounds most likely to respond to focused ultrasound, penetrate the blood-brain barrier, and exhibit potent sonodynamic therapeutic activity. Throughout this extensive AI screening initiative, the platform consistently identified NEO100 as a leading predicted sonosensitizer. Validation studies on rapidly bioprinted tumor spheroids—including glioblastoma, pediatric medulloblastoma, high-grade meningioma, and breast- and lung-to-brain metastases—demonstrated that NEO100 displayed markedly enhanced tumor-killing activity when combined with focused ultrasound parameters. Together, these results support moving NEO100 combined with focused ultrasound into future clinical trials for a wide range of primary and metastatic brain tumors.

"This breakthrough provides strong external validation for NEO100's potential as a first-in-class, noninvasive sonodynamic therapeutic. The integration of AI, 3D bioprinting, and ultrasound significantly expands NEO100's commercial and clinical opportunity beyond current indications," said Amir Heshmatpour, Executive Chairman and President of NTHI.

ABOUT NEONC TECHNOLOGIES HOLDINGS, INC.

NeOnc Technologies Holdings, Inc. is a clinical-stage life sciences company focused on the development and commercialization of central nervous system therapeutics that are designed to address the persistent challenges in overcoming the blood-brain barrier. The company's NEO™ drug development platform has produced a portfolio of novel drug candidates and delivery methods with patent protections extending to 2038. These proprietary chemotherapy agents have demonstrated positive effects in laboratory tests on various types of cancers and in clinical trials treating malignant gliomas. NeOnc's NEO100™ and NEO212™ therapeutics are in Phase II human clinical trials and are advancing under FDA Fast-Track and Investigational New Drug (IND) status. The company has exclusively licensed an extensive worldwide patent portfolio from the University of Southern California consisting of issued patents and pending applications related to NEO100, NEO212, and other products from the NeOnc patent family for multiple uses, including oncological and neurological conditions.

For more about NeOnc and its pioneering technology, visit neonc.com.

Important Cautions Regarding Forward Looking Statements

This press release contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements can be identified by terminology such as "may," "will," "should," "intend," "expect," "plan," "budget," "forecast," "anticipate," "believe," "estimate," "predict," "potential," "continue," "evaluating," or similar words. Statements that contain these words should be read carefully, as they discuss our future expectations, projections of future results of operations or financial condition, or other forward-looking information.

Examples of forward-looking statements include, among others, statements regarding whether a definitive agreement will be reached with Quazar. These statements reflect our current expectations based on information available at this time, but future events may differ materially from those anticipated.

The "Risk Factors" section of our most recent Annual Report on Form 10-K filed with the Securities and Exchange Commission,

along with other cautionary language in that report or in our subsequent filings, outlines important risks and uncertainties. These may cause our actual results to differ materially from the forward-looking statements herein, including but not limited to the failure to finalize the agreement with Quazar, modifications to its terms, or alternative uses of proceeds.

We assume no obligation to revise or update any forward-looking statements, whether as a result of new information, future developments, or otherwise, except as required by applicable securities laws and regulations.

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