BlossomHill Therapeutics Presents Preclinical Data on Novel Pan-KRAS Inhibitor, BH-501284, at the AACR Conference on Pancreatic Cancer

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Preclinical data demonstrate prolonged KRAS target engagement and potent antitumor activity across multiple KRAS-mutant cancer models, supporting the continued advancement of BH-501284 toward an IND submission in Q1 2027

Novel Switch-II scaffold and pseudo-irreversible binding designed to enable prolonged, potent and selective inhibition of mutant KRAS to potentially achieve improved efficacy and tolerability

SAN DIEGO, Sept. 28, 2026 (GLOBE NEWSWIRE) -- BlossomHill Therapeutics, Inc. (Nasdaq: BLSM), a clinical-stage biopharmaceutical company applying an intentional, chemistry-based approach to design and develop innovative small molecule medicines for the treatment of cancer, today announced the presentation of preclinical data on BH-501284 at the American Association for Cancer Research (AACR) Conference on Pancreatic Cancer: New Frontiers in Biology and Therapeutic Development, taking place September 25-28, 2026, in San Diego, CA. BH-501284 is a novel, orally bioavailable, non-covalent, pseudo-irreversible pan-KRAS inhibitor designed to overcome limitations of current KRAS-targeted therapies.

"*KRAS* mutation has historically been one of the most challenging oncogenic drivers to target, and while recent advances have validated its therapeutic potential, we believe there remains an opportunity to develop a pan-KRAS inhibitor capable of delivering potent and durable target inhibition across a broad range of *KRAS* mutations," said Jean Cui, Ph.D., Founder and Chief Executive Officer of BlossomHill Therapeutics. "We designed BH-501284 with a novel Switch-II chemical scaffold and pseudo-irreversible binding characteristics intended to achieve prolonged, potent and selective inhibition of *KRAS* mutations, which we believe may result in improved efficacy and tolerability. These preclinical data demonstrate sustained KRAS pathway suppression, and deep and durable antitumor activity across multiple *KRAS*-mutant tumor models, further supporting the advancement of BH-501284 toward an IND submission in Q12027."

Presentation highlights:

- **BH-501284 exhibited potent and prolonged activity across a broad range of *KRAS* mutations.** BH-501284 showed a target residence time of more than 54 hours in a SPR study using GDP- state KRAS G12D protein, extended KRAS signaling inhibition in *KRAS*-mutant cell lines, and potent cellular activity across multiple *KRAS* mutations, while sparing HRAS and NRAS.
- **BH-501284 showed deep and durable antitumor activity across multiple preclinical *KRAS*-mutant tumor models.** Treatment resulted in tumor regression across pancreatic, lung and colorectal cancer models with *KRAS* G12V, D or C mutation at relatively low doses. In a KRAS G12C lung cancer model, pseudo-irreversible BH-501284 achieved tumor regression comparable to covalent, irreversible KRAS G12C inhibitors.
- **BH-501284 demonstrated deeper and more durable tumor regression than tricomplex RAS inhibitors.** In a KRAS G12D pancreatic cancer model, BH-501284 achieved deeper and more durable tumor regression than tricomplex inhibitors when administered at similar doses.
- **BH-501284 also demonstrated the potential to combine with an anti-PD-1 treatment.** In a KRAS G12D colorectal cancer model, the combination demonstrated prolonged survival compared with either treatment alone.

About BH-501284
BH-501284 is an investigational, orally bioavailable pan-KRAS inhibitor, which utilizes a novel Switch-II chemical scaffold to achieve prolonged, potent and selective inhibition of *KRAS* mutations. We believe this molecule, which uses a non-covalent scaffold, is unique in its potential to achieve tight and durable binding, a feature described as "pseudo-irreversible" binding. In preclinical studies, BH-501284 demonstrated sustained blocking of KRAS signaling leading to deeper and more durable antitumor activities in *KRAS* mutant cells and tumor models at low dose levels.

About BlossomHill Therapeutics
BlossomHill Therapeutics, Inc. is a clinical-stage biopharmaceutical company applying an intentional, chemistry-based approach to design and develop innovative small molecule medicines that address significant unmet medical needs in cancer treatment. Founded and led by industry veteran J. Jean Cui, Ph.D., with her proven track record in oncology drug design and development – including three FDA-approved drugs – BlossomHill Therapeutics applies cutting-edge science with a goal to address key oncogenic drivers and improve patient outcomes in difficult-to-treat cancers. The company's lead clinical program is BH-30643, an investigational, non-covalent, macrocyclic, brain active, mutant-selective OMNI-EGFR™ inhibitor for the treatment of EGFR-mutant non-small cell lung cancer (NSCLC), which has received Fast Track designation for the C797S resistance population after 3rd generation EGFR TKI treatment. The company is also conducting clinical development of BH-30236, an investigational macrocyclic CDC-like kinase (CLK) inhibitor initially being studied in a clinical trial for the treatment of relapsed or refractory acute myeloid leukemia (R/R AML) and higher-risk myelodysplastic syndromes (HR-MDS). The company's pipeline also includes BH-501284, a preclinical, non-covalent, selective, pan-KRAS Switch-II inhibitor for potential future development in diverse

KRAS-mutant tumors.

BlossomHill Therapeutics is headquartered in San Diego, California. For more information, visit bhtherapeutics.com and follow us on LinkedIn and X.

Cautionary Note Regarding Forward-Looking Statements
This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, and other federal securities laws, including, without limitation, statements regarding: the therapeutic potential, clinical benefits, safety and potential competitive differentiation of the company's product candidates, including BH-30643, BH-30236 and BH-501284; the design, enrollment, timing, progress and results of the company's clinical trials and preclinical studies; the company's planned regulatory interactions and submissions; anticipated program milestones, including the timing of program and data updates; statements by the company's management; and the company's development plans and continued advancement of its pipeline. The words "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "should," "target," "upcoming," "will," "would" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

Any forward-looking statements in this press release are based on management's current expectations and beliefs and are subject to a number of risks, uncertainties and important factors that may cause actual events or results to differ materially, including, without limitation: the company's limited operating history, history of significant losses and the early stage of development of its product candidates; the risk that preclinical data may not be predictive of results in clinical trials; the risk that preliminary and interim clinical data are subject to further analysis and may not be predictive of, may be inconsistent with, or may be more favorable than, data generated as clinical trials continue or data from future clinical trials; uncertainties inherent in the initiation, timing, design and enrollment of clinical trials, and the availability and timing of data from ongoing and future trials; the company's ability to successfully demonstrate the safety and efficacy of its product candidates and to obtain and maintain regulatory approvals; the timing and outcome of planned interactions with, and submissions to, the FDA and other regulatory authorities, including whether an accelerated approval pathway will be available to the company; competition from third parties that are developing products for similar indications; the prior success of the company's management team not being indicative of future success; the company's reliance on third parties, including contract research organizations and contract manufacturing organizations; the company's ability to obtain, maintain and protect its intellectual property; and the company's need for additional financing and its estimates regarding operating expenses and capital requirements. These and other risks are described in greater detail under the heading "Risk Factors" in the company's filings with the Securities and Exchange Commission (the "SEC"), including the company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2026, as well as in the company's subsequent filings with the SEC. Any forward-looking statements represent the company's views only as of the date of this press release, and the company expressly disclaims any obligation to update any forward-looking statements, except as required by law.

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