NGM Expands Oncology Portfolio with First Immuno-Oncology Development Candidate, NGM707, a Novel Dual Antagonist Antibody Inhibiting ILT2 and ILT4

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- ILT2 and ILT4, key myeloid and lymphoid checkpoints, may restrict anti-tumor immunity, enable tumors to evade immune detection and contribute to T cell checkpoint resistance
- Company plans to initiate first-in-human testing of NGM707 in mid-2021
- With NGM707, NGM expands its diverse pipeline addressing liver and metabolic diseases, retinal and inflammatory diseases and cancer
- R&D Day planned for September 9, 2020 to showcase NGM’s portfolio

SOUTH SAN FRANCISCO, Calif., Oct. 19, 2020 (GLOBE NEWSWIRE) -- NGM Biopharmaceuticals, Inc. (NGM) (Nasdaq: NGM), a biotechnology company focused on discovering and developing transformative therapeutics for patients, today announced the expansion of its oncology portfolio with its first immuno-oncology development candidate, NGM707, a novel dual antagonist antibody that inhibits Immunoglobulin-like transcript 2 (ILT2) and Immunoglobulin-like transcript 4 (ILT4). NGM707 joins NGM120, a first-in-class antagonistic antibody that binds glial cell-derived neurotrophic factor receptor alpha-like (GFRAL) and inhibits growth differentiation factor 15 (GDF15) signaling, in NGM’s oncology portfolio. NGM120 is in an ongoing Phase 1a/1b trial in patients with cancer and cancer anorexia/cachexia syndrome (CACS).

ILT2 and ILT4 receptors expressed on myeloid cells in the tumor microenvironment are implicated in suppressing anti-tumor immune responses and may represent checkpoints that enable tumors to evade immune detection. Suppressive myeloid cells enriched with ILT2 and ILT4 receptors are upregulated in certain cancer types, while ILT2 is also expressed on natural killer (NK) cells, B cells and a subset of highly cytolytic T cells. Of note, ILT2 and ILT4 are upregulated on macrophages in the tumor microenvironment of certain cancer patients that are non-responders to T cell checkpoint inhibitor therapy and, therefore, may serve as T cell checkpoint inhibitor resistance mechanisms. Reversing myeloid suppression, or myeloid reprogramming, represents a promising new therapeutic area of immuno-oncology.

NGM scientists have spent several years researching members of the leukocyte Ig-like receptor (LILR) family of immunosuppressive receptors, including ILT2 and ILT4. NGM707 is designed to attempt to improve patient immune responses to tumors by inhibiting both the ILT2 and ILT4 receptors. In preclinical studies of NGM707, NGM has demonstrated that blockade of ILT4 reverses myeloid cell immune suppression, while blockade of ILT2 promotes NK and CD8+ T cell killing of tumor cells and activates macrophage phagocytosis of tumor cells. In addition, preclinical studies of NGM707 have shown that the dual blockade of ILT2 and ILT4 acts synergistically to reverse suppression of Fc receptor signaling.

“NGM707 represents another example of NGM’s core strength in deeply interrogating human biology, identifying the most promising targets and engineering tailored biologics to advance potentially transformative medicines for patients,” said David J. Woodhouse, Ph.D., Chief Executive Officer at NGM. “As ILT4 inhibition continues to gain interest as a potentially important anti-tumor strategy, our research suggests that NGM707’s novel dual blockade of ILT4 and ILT2 may yield enhanced anti-tumor advantages. We look forward to advancing NGM707 into the clinic next year and providing further updates on our myeloid reprogramming strategy.”

NGM707 was discovered by NGM under its strategic collaboration with Merck.

Dr. Woodhouse commented, “Merck recently presented encouraging findings from an early clinical trial evaluating its investigational anti-ILT4 therapeutic candidate, MK-4830. We are working closely with Merck, given their expertise in immuno-oncology, to determine how to best apply NGM707’s dual anti-ILT2/anti-ILT4 mechanism, enrich our mutual understanding of stromal biology and maximize the potential of myeloid checkpoint inhibition, with the goal of extending the benefits of immunotherapy to as many cancer patients as possible.”

About NGM Biopharmaceuticals, Inc.

NGM is a biopharmaceutical company focused on discovering and developing novel therapeutics based on scientific understanding of key biological pathways underlying liver and metabolic diseases, retinal and inflammatory diseases and cancer. We leverage our biology-centric drug discovery approach to uncover novel mechanisms of action and generate proprietary insights that enable us to move rapidly into proof-of-concept studies and deliver potential first-in-class medicines to patients. At NGM, we aspire to operate one of the most productive research and development engines in the biopharmaceutical industry, with multiple programs in clinical development. Visit us at www.ngmbio.com for more information.

Forward Looking Statements

Statements contained in this press release regarding matters that are not historical facts are “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as “may,” “plan,” “planned,” “implicate,” “promising,” “look forward,” “goal,” “designed to,” “suggests,” “aspire,” “advance,” “potential,” “potentially” and similar expressions (as well as other words or expressions referencing future events, conditions or circumstances) are intended to identify forward-looking statements. These statements include those related to: the therapeutic potential and potential benefits of NGM707, including NGM707’s potential to improve patient immune responses to tumors by its inhibiting both the ILT2 and ILT4 receptors (also referred to as a novel dual blockade of ILT2 and ILT4); statements about the possible activity of ILT2 and ILT4 in the tumor microenvironment and the possible benefits of inhibiting their receptors, including anti-tumor advantages; implications of the potential therapeutic advantages of reversing myeloid suppression or myeloid reprogramming; the planned Phase 1 clinical trial of NGM707 and the anticipated timing...
thereof; NGM’s planned R&D Day on December 9, 2020; the potential of NGM120 to treat cancer and cancer anorexia/cachexia syndrome; NGM’s ability to advance potentially transformative medicines for patients; NGM’s goal to extend the benefits of immunotherapy to as many cancer patients as possible; and other statements that are not historical fact. Because such statements deal with future events and are based on NGM’s current expectations, they are subject to various risks and uncertainties, and actual results, performance or achievements of NGM could differ materially from those described in or implied by the statements in this press release. These forward-looking statements are subject to risks and uncertainties, including, without limitation, risks and uncertainties associated with the costly and time-consuming pharmaceutical product development process and the uncertainty of clinical success, including risks related to failure or delays in successfully initiating, enrolling or completing clinical studies; the risk that NGM’s ongoing or future clinical studies in humans may show that NGM707 and/or NGM120 are not tolerable and effective treatments for cancer or CACS patients or that the effects of inhibiting both the ILT2 and ILT4 receptors are otherwise different than anticipated; the ongoing COVID-19 pandemic, which has adversely affected, and could materially and adversely affect in the future, NGM’s business and operations, including NGM’s ability to timely supply, initiate, enroll and complete its ongoing and future clinical studies; the time-consuming and uncertain regulatory approval process; NGM’s reliance on third-party manufacturers for NGM707, NGM120 and its other product candidates; the sufficiency of NGM’s cash, cash equivalents and short-term marketable securities and need for additional capital; and other risks and uncertainties affecting NGM and its development programs, as well as those discussed in the sections titled “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in NGM’s quarterly report on Form 10-Q for the quarter ended June 30, 2020 and future filings and reports that NGM makes from time to time with the United States Securities and Exchange Commission. Except as required by law, NGM assumes no obligation to update these forward-looking statements or to update the reasons if actual results differ materially from those anticipated in the forward-looking statements.

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