NGM Bio Announces Initiation of Phase 1/1b Clinical Study of NGM438 for the Treatment of Patients with Advanced Solid Tumors

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--Dose-escalation and dose-expansion trial will evaluate the potential of NGM438, a LAIR1 antagonist antibody product candidate, as a monotherapy and in combination with KEYTRUDA®--

--All three of NGM Bio's wholly-owned myeloid reprogramming product candidates –NGM707, a dual ILT2/ILT4 antagonist antibody product candidate, NGM831, an ILT3 antagonist antibody, and NGM438 – are now in the clinic--

--NGM Bio is implementing a biomarker strategy across NGM707, NGM831 and NGM438 designed to assess target engagement and guide dose selection, to demonstrate proof-of-mechanism and to potentially enable patient selection strategies--

SOUTH SAN FRANCISCO, Calif., May 12, 2022 (GLOBE NEWSWIRE) -- NGM Biopharmaceuticals, Inc. (NGM Bio) (Nasdaq: NGM), a biotechnology company focused on discovering and developing transformative therapeutics for patients, today announced it has initiated a Phase 1/1b clinical study of NGM438 for the treatment of patients with advanced solid tumors. With the initiation of this trial, all three of NGM Bio's wholly-owned myeloid checkpoint inhibition and reprogramming product candidates – NGM438, a LAIR1 antagonist antibody; NGM707, a dual ILT2/ILT4 antagonist antibody; and NGM831, an ILT3 antagonist antibody – are now in the clinic. ILT2, ILT4, ILT3 and LAIR1 are myeloid checkpoints that may play a central role in establishing an immune-suppressive state in the tumor microenvironment. NGM707, NGM831 and NGM438 are engineered to release distinct myeloid checkpoints and reprogram myeloid cells to reverse immune suppression and enhance immune response in tumors.

"We're thrilled to now have three myeloid checkpoint inhibition programs in the clinic. NGM707, NGM831 and NGM438 are directed at distinct myeloid checkpoints, each of which is suspected of playing a central role in impeding anti-tumor immunity," said Hsiao D. Lieu, M.D., Chief Medical Officer at NGM Bio. "We look forward to the initial interim monotherapy topline data readout from the Phase 1a portion of our ongoing NGM707 Phase 1/2 trial in the second half of the year, the first of multiple anticipated data readouts from this portfolio in 2022 and 2023."

NGM438 is an antagonist antibody product candidate engineered to inhibit LAIR1 being developed by NGM Bio for the treatment of advanced solid tumors. LAIR1 is a collagen-binding inhibitory receptor expressed on immune cells that is implicated in immune suppression. LAIR1 and collagens are upregulated in multiple cancer types and are associated with poor responses to checkpoint inhibitors. For these tumors, the formation of LAIR1-collagen complexes may act as a stromal checkpoint to suppress productive immune responses in the tumor microenvironment.

NGM Bio presented late-breaking preclinical data at the 2022 AACR Annual Meeting showing that NGM438 may inhibit LAIR1-mediated collagen-driven immune suppression alone and in combination with T cell checkpoint inhibition. Visit https://www.ngmbio.com/discovery-engine/publications/ to view this poster and all of NGM Bio's immuno-oncology research presented at the 2022 AACR Annual Meeting.

KEYTRUDA® is a registered trademark of Merck Sharp & Dohme Corp., a subsidiary of Merck & Co., Inc., Rahway, NJ, USA.

About the NGM438 Phase 1/1b Trial Design

The Phase 1/1b open-label, multicenter, dose-escalation and dose-expansion trial is designed to determine the safety, pharmacokinetics and pharmacodynamics of NGM438 when given alone and in combination with KEYTRUDA to patients across a spectrum of advanced solid tumors, and to evaluate preliminary antitumor activity. The trial will enroll up to approximately 80 adult patients with multiple tumor types, including pancreatic cancer, breast cancer, mesothelioma, gastric cancer, non-small cell lung cancer (NSCLC), cervical and endocervical cancer, biliary duct cancer (cholangiocarcinoma), squamous cell carcinoma of the head and neck (SCCHN), bladder urothelial cancer, colorectal cancer (CRC), esophageal cancer, ovarian cancer, renal cell carcinoma (RCC), prostate cancer and melanoma (skin cutaneous).

The Phase 1 portion of the trial will include a monotherapy dose escalation (Part 1a) and a combination dose finding with KEYTRUDA (Part 1b). Part 1c of the trial will be a serial tumor biopsy biomarker cohort, in which patients will be enrolled to receive NGM438 monotherapy for one cycle, followed by combination treatment with KEYTRUDA after tumor biopsies have been performed.

About NGM Bio's Myeloid Checkpoint Inhibition and Reprogramming Portfolio
Myeloid cells, which are abundantly present in the tumor microenvironment of many tumor types, play a critical role in the immune system, where they are largely responsible for innate defense against an array of pathogens. However, myeloid cells act independently and collaboratively with other components of the tumor stroma (the non-malignant components of a tumor) to serve as myeloid checkpoints. Like T cell checkpoints, myeloid checkpoints keep the brakes 'on', enabling tumors to evade the immune system and driving resistance to cancer therapies. Through the inhibition of key, distinct receptors – ILT3 (NGM831), LAIR1 (NGM438) and ILT2/ILT4 (NGM707) – NGM Bio's approach has the potential to switch myeloid cells from their current state as 'checkpoints' that suppress anti-tumor immunity to a state where they may enhance anti-tumor immunity.

Abbreviations (in Alphabetical Order)
CRC=colorectal cancer; ILT2=Immunoglobin-Like Transcript 2; ILT3=Immunoglobin-Like Transcript 3; ILT4=Immunoglobin-Like Transcript 4; LILR= Leukocyte Immunoglobin-Like Receptor [ILT2 = LILRB1, ILT3=LILRB4, ILT4=LILRB2]; LAIR1=Leukocyte-Associated Immunoglobulin-Like Receptor 1; NSCLC=non-small cell lung cancer; RCC= renal cell carcinoma; and SCCHN=squamous cell carcinoma of the head and neck.

About NGM Bio
NGM Bio is focused on discovering and developing novel, life-changing medicines for people whose health and lives have been disrupted by disease.

The company's biology-centric drug discovery approach aims to seamlessly integrate interrogation of complex disease-associated biology and protein engineering expertise to unlock proprietary insights to generate promising product candidates and enable their rapid advancement into proof-of-concept studies. As explorers on the frontier of life-changing science, NGM Bio aspires to operate one of the most productive research and development engines in the biopharmaceutical industry. All therapeutic candidates in the NGM Bio pipeline have been generated by its in-house discovery engine, with a disease-agnostic mindset, always led by biology and motivated by unmet patient need. Today, the company has seven programs in active development, including four in Phase 2 or 2b studies, across three therapeutic areas: cancer, retinal diseases and liver and metabolic diseases. 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 "will," "may," "expected," "engineered to," "designed to," "potentially," "suspected," "look forward," "anticipated," "promising," "plan," "aspires," "aims" 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 of NGM Bio's product candidates; enrollment expectations in NGM Bio's NGM438 trial; the design and potential of NGM Bio's biomarker strategy; the timing of multiple anticipated pipeline topline data readouts; the role of LILR receptors in driving immune suppression in the tumor microenvironment; the potential to switch myeloid cells from suppressing to enhancing anti-tumor immunity; the role of collagen:LAIR1 complexes as potentially acting as a stromal checkpoint to suppress productive immune responses in the tumor microenvironment; NGM Bio's continued pipeline development and research and development output; and other statements that are not historical fact. Because such statements deal with future events and are based on NGM Bio's current expectations, they are subject to various risks and uncertainties, and actual results, performance or achievements of NGM Bio 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, reporting data from or completing clinical studies, as well as the risks that results obtained in clinical trials to date may not be indicative of results obtained in ongoing or future trials and that NGM Bio's product candidates may otherwise not be tolerable and effective treatments in their planned indications; the ongoing COVID-19 pandemic, which has adversely affected, and could materially and adversely affect in the future, NGM Bio's business and operations, including NGM Bio's ability to timely supply, initiate, enroll and complete its ongoing and future clinical trials; the time-consuming and uncertain regulatory approval process; NGM Bio's reliance on third-party manufacturers for its product candidates and the risks inherent in manufacturing and testing pharmaceutical products; the sufficiency of NGM Bio's cash resources, including to fund its wholly-owned programs, and NGM Bio's need for additional capital; and other risks and uncertainties affecting NGM Bio and its development programs, including those discussed in the section titled "Risk Factors" in NGM Bio's quarterly report on Form 10-Q for the quarter ended March 31, 2022 filed with the United States Securities and Exchange Commission (SEC) on May 5, 2022 and future filings and reports that NGM Bio makes from time to time with the SEC. Except as required by law, NGM Bio 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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