



## **NGM Bio Presents Phase 1 Safety and Pharmacokinetics Data for NGM621, an Anti-Complement C3 Antibody, in Patients with Geographic Atrophy at the American Academy of Ophthalmology 2020 Virtual**

November 13, 2020

*--Single and multiple intravitreal injections of NGM621 appeared safe and well tolerated in first-in-human study, with no patients experiencing serious adverse events, drug-related AEs, intraocular inflammation or choroidal neovascularization--*

*--The serum pharmacokinetics (PK) of NGM621 were linear and dose-proportional--*

*--NGM621 ocular PK/pharmacodynamics (PD) modeling supports potential for up to every eight-week dosing regimen--*

*--Enrollment of the CATALINA Phase 2 study of NGM621 in patients with geographic atrophy underway with the first patient dosed in July 2020--*

SOUTH SAN FRANCISCO, Calif., Nov. 13, 2020 (GLOBE NEWSWIRE) -- NGM Biopharmaceuticals, Inc. (Nasdaq: NGM), a biotechnology company focused on discovering and developing transformative therapeutics for patients, announced that findings from its Phase 1 clinical study of NGM621, an anti-complement C3 antibody, in patients with geographic atrophy (GA) were presented today at the American Academy of Ophthalmology 2020 Virtual. The poster presentation titled, "Inhibition of Complement Component 3 in GA With NGM621: Phase 1 Dose-Escalation Study Results," was given by the study's lead investigator Charles C. Wykoff, M.D., Ph.D., Director of Research at Retina Consultants Houston and the Greater Houston Retina Research Foundation. The presentation is available on the NGM Bio website [here](#).

The primary objective of the Phase 1 trial was to assess the safety and tolerability of single and multiple intravitreal (IVT) injections of NGM621 in patients with GA. Secondary objectives were to characterize the serum PK of single or multiple doses of NGM621. The study enrolled 15 patients across three single-ascending dose cohorts of NGM621, 2 mg, 7.5 mg and 15 mg, the maximum planned dose in the study, and a multiple dose cohort that received two 15 mg doses separated by four weeks. Patients were dosed sequentially and followed closely over 12 weeks.

In the study, NGM621 was well tolerated, with no patients experiencing serious adverse events (SAEs), drug-related adverse events (AEs), intraocular inflammation, endophthalmitis or choroidal neovascularization (CNV). No dose-related safety patterns or concerns were reported. Ocular AEs observed were mild in severity and representative of those commonly associated with IVT injections. No vision-related safety signals were detected. On average, patients maintained their visual acuity over the 12-week follow-up study duration.

The serum PK of NGM621 was linear and dose-proportional. Based on ocular PK/PD modeling, NGM621 is predicted to achieve >90% reduction in free C3 in the eye for 7 weeks following a single IVT dose of 15 mg. Taken together, the PK profile of NGM621 demonstrated in the Phase 1 study and subsequent PK/PD modeling support up to an every eight-week (or every other month) dosing regimen of NGM621 at the 15 mg dose level. NGM621 serum exposure was below concentrations expected to produce systemic complement inhibition after IVT injection of the 15 mg dose. No anti-drug antibodies were detected in any patient at any timepoint.

"The findings from this first-in-human study of NGM621 in patients with geographic atrophy give us important insights regarding the potential of this therapeutic to address this progressive and devastating disease," said Dr. Wykoff. "The favorable safety and tolerability profile seen in this study, combined with the potential for every other month dosing suggest NGM621 may be valuable as a complement C3 inhibitor to treat geographic atrophy. I look forward to continuing to advance our clinical understanding of NGM621 in the ongoing, double-masked Phase 2 CATALINA study."

GA, an advanced form of age-related macular degeneration, is a progressive retinal degenerative disease associated with irreversible loss of vision, diminished quality of life and eventual blindness. Dysregulated activation of the complement system, a key component of the immune system, has been implicated in the onset and progression of GA. NGM621 is a humanized IgG1 monoclonal antibody engineered to potently inhibit activity of complement C3. It is being tested in the Phase 2 CATALINA trial to evaluate its effects on disease progression when given every four weeks or every eight-weeks.

"We are very pleased to see NGM621's exciting preclinical data now translating in the clinic as expected. These results support our belief that NGM621 may have a highly differentiated therapeutic profile in the complement inhibition space, and we look forward to building on this body of data with our ongoing Phase 3-enabling CATALINA study," said Hsiao D. Lieu, M.D., Chief Medical Officer at NGM Bio. "We recognize the difficult and far-reaching impact geographic atrophy can have on patients' quality of life, and we are committed to advancing this promising therapeutic candidate for these patients."

More details on the Phase 2 CATALINA study can be found at this [link](#) on clinicaltrials.gov.

### **About NGM621 and Complement C3 Inhibition**

NGM621 is a humanized IgG1 monoclonal antibody engineered to potently inhibit complement C3. It is being evaluated with dosing every four weeks and every eight-weeks. NGM621 is not pegylated. In preclinical models, NGM621's high affinity binding to C3 has demonstrated the potential for potent C3 inhibition. In addition, in well validated animal models of laser-induced choroidal neovascularization (CNV), C3 inhibition has demonstrated the ability to reduce retinal vascular leakage, suggesting the potential for NGM621 to prevent CNV development.

C3 is a key component of the complement system, which helps orchestrate the body's response to infection and maintains tissue homeostasis. The

complement cascade can be activated through its three distinct pathways – classical, lectin and alternative – all of which converge to activate C3. When this cascade is dysregulated, the immune response may lead to the development and progression of GA. Inhibition of C3 represents a promising therapeutic approach that broadly inhibits downstream effector functions triggered by the excessive activation of C3, including inflammation, activation of the adaptive immune system, opsonization (the marking of a pathogen to be destroyed by phagocytes, a type of immune cell), phagocytosis and cell lysis (cell death).

NGM621 was discovered by NGM under its [strategic collaboration](#) with Merck.

#### **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 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](http://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 “potential,” “suggesting,” “look forward,” “advance,” “belief,” “engineered to,” “aspire,” “appeared” 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 profile of NGM621, including the potential to slow the progression of GA, to prevent CNV development and potentially inhibit C3, and the potential for up to every eight week dosing of NGM621; the enrollment and potential results of the Phase 2 CATALINA study of NGM621 for the treatment of patients with GA; NGM’s commitment and ability to advance potentially first-in-class and transformative medicines for patients 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, the risk that NGM’s ongoing or future clinical studies in humans may show that NGM621 is not a tolerable and effective treatment for geographic atrophy or that every eight week dosing with NGM621 is not possible 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 September 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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