IGM Biosciences Advances Novel Antibody IGM-6268 Into Clinical Trials for the Treatment and Prevention of COVID-19

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– In vitro studies indicate IGM-6268 exhibits potent neutralization activity against the Omicron variant and all other Variants of Concern and Variants of Interest tested –

– IGM-6268 Phase 1 clinical trials advancing in U.S. and South Africa –

MOUNTAIN VIEW, Calif., Feb. 09, 2022 (GLOBE NEWSWIRE) -- IGM Biosciences, Inc. (Nasdaq: IGMS), a clinical-stage biotechnology company focused on creating and developing engineered IgM antibodies, today announced its progress in two Phase 1 clinical trials evaluating IGM-6268, an anti-SARS-CoV-2 IgM monoclonal antibody, for the treatment and prevention of COVID-19. The first, a Phase 1 clinical trial in the U.S., is a multi-center, randomized, double-blinded, placebo-controlled single (SAD) and multiple (MAD) ascending dose study to assess the safety, tolerability, and pharmacokinetics of IGM-6268 administered intranasally in healthy volunteers. The first two dose cohorts of healthy volunteers have been successfully cleared in the U.S., and data from the study are expected in the first half of 2022. The second, a Phase 1a/1b clinical trial in South Africa, is a multi-center, randomized, double-blinded, placebo-controlled study to assess the safety, tolerability, pharmacokinetics, and preliminary efficacy of IGM-6268 administered intranasally first in healthy volunteers, once an appropriate dose cohort has been cleared, in outpatients with mild to moderate COVID-19. The first dose cohort of healthy volunteers has been cleared in the South Africa study, and data from the study are expected in mid-2022.

IGM today also announced that results from *in vitro* pseudovirus testing conducted by a widely recognized, commercial laboratory indicate that IGM-6268 exhibits neutralization of the Omicron (B.1.1.529) variant at an IC_{50} of 230 ng/mL, as well as potent *in vitro* neutralization activity against all other SARS-CoV-2 Variants of Concern (VoC) and Variants of Interest (VoI) tested to date, including the Delta variant. This indicated IC_{50} for the Omicron variant is expected to be well below the concentrations achievable by intranasal administration in key sites of infection and viral replication, based on previous observations from animal studies. These results expand upon data previously published in *Nature*, in which IGM-6268 exhibited significantly increased potency against wild type SARS-CoV-2 relative to an IgG antibody with the same binding domains and exhibited potent neutralization against the Alpha (B.1.1.7), Gamma (P.1), and Beta (B.1.351) variants, as well as other receptor-binding domain mutants that conferred resistance to several IgG antibodies authorized for emergency use.

“IgM antibodies are the first antibodies produced by the immune system when a virus attacks, and they demonstrate very high avidity, or overall binding strength, against the viral antigens they target,” said Chris Takimoto, MD, PhD, Chief Medical Officer of IGM Biosciences. “Our *in vitro* neutralization data suggest that engineered IgM antibodies, because of their inherently enhanced avidity and engineered specificity, offer resilience against the emergence of resistant variants of SARS-CoV-2, while demonstrating superior potency over an IgG antibody with the same binding domains.”

About IGM-6268
IGM-6268 is an engineered IgM antibody that specifically targets the receptor binding domain (RBD) of the SARS-CoV-2 spike protein. This humanized pentameric IgM antibody has 10 binding sites to the spike protein. IGM-6268 is being developed as a treatment or prophylaxis for symptoms associated with mild to moderate COVID-19 with administration by intranasal plus intraoral spray once for 1 day (SAD), or once or twice each day for 5 days (MAD). The primary mechanism of action of IGM-6268 is to block the binding of the SARS-CoV-2 RBD on the spike protein to human angiotensin converting enzyme 2 (hACE2), the cellular receptor for SARS-CoV-2. By blocking this binding, IGM-6268 neutralizes the infectivity of the virus. In preclinical studies, IGM-6268 has been shown to be highly effective in preventing and treating COVID-19 after intranasal administration. Due to its ability to bind to SARS-CoV-2 with greater strength, IGM-6268 offers advantages over an IgG antibody with the same binding domains, including 50-500x greater neutralizing potency against wildtype virus and greater ability to effectively neutralize certain Variants of Concern and Variants of Interest, such as the Delta and Omicron variants, as compared with an IgG antibody with the same binding domains.

About IGM Biosciences, Inc.
Headquartered in Mountain View, California, IGM Biosciences is a clinical-stage biotechnology company focused on creating and developing engineered IgM antibodies. Since 2010, IGM Biosciences has worked to overcome the manufacturing and protein engineering hurdles that have limited the therapeutic use of IgM antibodies. Through its efforts, IGM Biosciences has created a proprietary IgM technology platform for the development of IgM antibodies for those clinical indications where their inherent properties may provide advantages as compared to IgG antibodies.

Cautionary Note Regarding Forward-Looking Statements
This press release contains forward-looking statements, including statements relating to IGM’s plans, expectations, and forecasts and to future events. Such forward-looking statements include, but are not limited to: the potential of, and expectations regarding, IGM’s technology platform, its IgM antibodies and IGM-6268; statements regarding IGM’s Phase 1 clinical trials of IGM-6268, including the expected timing of data from such trials; IGM’s plans and expectations regarding its development strategy and activities for IGM-6268; and statements by IGM’s Chief Medical Officer. Such statements are subject to numerous important factors, risks and uncertainties that may cause actual events or results to differ materially, including but not limited to: potential delays and disruption resulting from the COVID-19 pandemic and governmental responses to the pandemic, including any future impacts to IGM’s operations, the manufacturing of its product candidates, the progression of its clinical trials, enrollment in its current and future clinical trials and progression of its collaborations and related efforts; IGM’s early stages of clinical drug development; risks related to the use of engineered IgM antibodies, which is a novel and unproven therapeutic approach; IGM’s ability to demonstrate the safety and efficacy of its product candidates; IGM’s ability to successfully and timely advance its product candidates through preclinical studies and clinical trials; IGM’s ability to enroll patients in its clinical trials; the potential for the results of clinical trials to differ from preclinical, preliminary, initial or expected results; the risk of significant adverse events, toxicities or other undesirable side effects; IGM’s ability to successfully manufacture and supply its product candidates for clinical trials; the potential impact of continuing or worsening supply chain constraints; the risk that all necessary regulatory approvals cannot be obtained; the potential market for IGM’s product candidates, the potential diminishing need for therapeutics to address COVID-19, particularly in the

United States and other major markets, and the progress and success of alternative therapeutics currently available or in development; IGM's ability to obtain additional capital to finance its operations, if needed; uncertainties related to the projections of the size of patient populations suffering from the diseases IGM is targeting; IGM's ability to obtain, maintain and protect its intellectual property rights; developments relating to IGM's competitors and its industry, including competing product candidates and therapies; risks related to collaborations with third parties, including the risk of the occurrence of any event, change or other circumstance that could give rise to the termination of any such collaboration; general economic and market conditions; and other risks and uncertainties, including those more fully described in IGM's filings with the Securities and Exchange Commission (SEC), including IGM's Annual Report on Form 10-K filed with the SEC on March 30, 2021, IGM's Quarterly Report on Form 10-Q filed with the SEC on November 4, 2021 and in IGM's future reports to be filed with the SEC. Any forward-looking statements contained in this press release speak only as of the date hereof, and IGM specifically disclaims any obligation to update any forward-looking statement, except as required by law.

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