



## **4D Molecular Therapeutics Announces First Patient Dosed in Phase 1/2 Clinical Trial of 4D-150, a Dual-Transgene Intravitreal Gene Therapy for Patients with wet AMD**

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EMERYVILLE, Calif., Jan. 06, 2022 (GLOBE NEWSWIRE) -- 4D Molecular Therapeutics, Inc. (4DMT) (Nasdaq: FDMT), a clinical-stage gene therapy company harnessing the power of directed evolution for targeted gene therapies, announced that the first patient has been dosed in the Phase 1/2 clinical trial of 4D-150 for neovascular age-related macular degeneration (wet AMD).

"The dosing of the first patient in the 4D-150 Phase 1/2 clinical trial in wet AMD marks an important milestone for our company and for the patients we aim to serve. 4D-150 is a dual-transgene intravitreal gene therapy incorporating the R100 capsid which we invented through our proprietary Therapeutic Vector Evolution platform," said David Kim, M.D., Co-Founder and Chief Executive Officer of 4DMT.

"We believe that 4D-150's design, which targets four distinct angiogenic factors with dual transgenes, has the potential for broad, robust and durable efficacy after a single low dose intravitreal administration in patients with wet AMD," said Robert Kim, M.D., Senior Vice President and Ophthalmology Therapeutic Area Head of 4DMT.

"While there have been significant advances in the treatment of wet AMD, the treatment burden remains significant, and as a result, many patients experience suboptimal vision outcomes," said Arshad Khanani, M.D., M.A., Managing Partner, Director of Clinical Research at Sierra Eye Associates and a principal investigator on the 4D-150 Phase 1/2 clinical trial. "Utilizing the R100 capsid and a unique, dual-mechanism of action, 4D-150 has the potential to provide long-term benefits for patients with wet AMD after a single-dose of intravitreal anti-angiogenic gene therapy."

The Phase 1/2 clinical trial is a dose-escalation and randomized, controlled, masked expansion trial of intravitreal 4D-150 and is expected to enroll approximately 60 adults with wet AMD. In the dose-escalation phase, multiple dose levels of 4D-150 will be examined in an open-label, 3+3 design with an initial dose of 3E10 vg/eye. In dose expansion, patients (n=50) will be randomized 2:2:1 to receive one of 2 dose levels of 4D-150 (n=20 for each dose level) or aflibercept (n=10). The primary endpoints of the study are safety and tolerability. Secondary endpoints include the number of supplemental aflibercept injections received and change from baseline in best corrected visual acuity (BCVA) over time.

### **About 4D-150 and wet AMD**

4D-150 is a dual-transgene, intravitreal gene therapy designed to inhibit four distinct angiogenic factors to prevent angiogenesis and reduce vascular permeability for the treatment of wet AMD. Efficient intravitreal delivery to the retina of a payload expressing two transgenes that inhibit four distinct angiogenic factors has the potential for greater efficacy and/or lower required doses versus therapies that target a single VEGF factor, including in patients refractory to currently approved anti-VEGF therapies. Intravitreal delivery of biologics to the eye is routine, and a single dose intravitreal gene therapy that could provide long-term efficacy in patients would be an advantage for patients who struggle with treatment burden and/or treatment resistance. 4D-150 builds on the excellent tolerability to date of the proprietary R100 capsid in the 4D-125 XLRP clinical program at doses up to 1E12 vg/eye. In the non-human primate retinal laser-induced CNV model data presented in May 2021 at the annual conference of the American Society of Gene and Cell Therapy, at doses ranging from 1E11 to 1E12 vg/eye, 4D-150 intravitreal injection resulted in 100% suppression of high grade angiogenic lesions (grade 4).

Wet AMD is a type of macular degeneration in which abnormal blood vessels grow into the macula and cause visual distortion, reduced acuity and, in some cases, blindness. The proliferation of abnormal blood vessels in the retina is stimulated by VEGF family members. There are approximately 200,000 newly diagnosed cases of wet AMD per year in the United States alone. High expression levels of VEGF family members appears to play a causal role in the symptoms of wet AMD.

### **About 4DMT**

4DMT is a clinical-stage company harnessing the power of directed evolution for targeted gene therapies. 4DMT seeks to unlock the full potential of gene therapy using its platform, Therapeutic Vector Evolution, which combines the power of directed evolution with approximately one billion synthetic capsid sequences to invent evolved vectors for use in targeted gene therapy products. The company is initially focused in three therapeutic areas: ophthalmology, cardiology and pulmonology. The 4DMT targeted and evolved vectors are invented with the goal of being delivered through clinically routine, well-tolerated and minimally invasive routes of administration, transducing diseased cells in target tissues efficiently, having reduced immunogenicity and, where relevant, having resistance to pre-existing antibodies. 4DMT is currently advancing five product candidates in clinical development: 4D-310 for Fabry disease, 4D-125 for XLRP, 4D-150 for wet AMD, 4D-110 for choroideremia and 4D-710 for cystic fibrosis.

4D-310, 4D-150, 4D-125 and 4D-110 are in clinical trials and have not yet been approved for marketing by the US FDA or any other regulatory authority. No representation is made as to the safety or effectiveness of 4D-310, 4D-150, 4D-125 or 4D-110 for the therapeutic use for which they are being studied. 4D Molecular Therapeutics™, 4DMT™, Therapeutic Vector Evolution™, and the 4DMT logo are trademarks of 4DMT.

### **Forward Looking Statements**

This press release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (Securities Act), and Section 21E of the Securities Exchange Act of 1934, as amended. In some cases, you can identify forward-looking statements by terminology such as "aim," "anticipate," "assume," "believe," "contemplate," "continue," "could," "design," "due," "estimate," "expect," "goal," "intend," "may," "objective," "plan," "positioned," "potential," "predict," "seek," "should," "target," "will," "would" and other similar expressions that are predictions of or indicate future events and future trends, or the negative of these terms or other comparable terminology. All statements other than statements of historical facts contained in this press release are forward-looking statements. These forward-looking statements include, but are not limited to, statements about: 4D-150's potential as a therapeutic product, including its potential efficacy and benefits for patients, and the number of patients to

enroll in 4D-150's Phase 1/2 clinical trial. Forward-looking statements are not guarantees of future performance and are subject to risks and uncertainties that could cause actual results and events to differ materially from those anticipated, including, but not limited to, risks and uncertainties related to: the company's history of net operating losses and limited operating history; the company's ability to obtain necessary capital to fund its clinical programs; the risk and uncertainties inherent in the clinical drug development process; the early stages of clinical development of the company's product candidates and the limited regulatory and clinical experience to date for novel AAV gene therapy product candidates; the effects of COVID-19 or other public health crises on the company's clinical programs and business operations; the company's ability to obtain regulatory approval of and successfully commercialize its product candidates; any undesirable side effects or other properties of the company's product candidates; the company's reliance on third-party suppliers and other service providers; the outcomes of any current or future collaboration and license agreements; and the company's ability to adequately maintain intellectual property rights for its product candidates. These and other risks are described in greater detail under the section titled "Risk Factors" contained in the company's most recent Quarterly Report on Form 10-Q filed November 10, 2021, as well as any subsequent filings with the Securities and Exchange Commission. Any forward-looking statements that the company makes in this press release are made pursuant to the Private Securities Litigation Reform Act of 1995, as amended, and speak only as of the date of this press release. Except as required by law, the company undertakes no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise.

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