4DMT Receives EMA Priority Medicines (PRIME) Designation for 4D-150 Clinical-Stage Genetic Medicine for Treatment of Wet AMD

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- *The European Medicines Agency's priority medicines status is granted to drug candidates that may offer a major therapeutic advantage over existing treatments or benefit patients without treatment options*
- *4D-150 combines a novel, targeted intravitreal next generation AAV vector with a dual transgene that inhibits four VEGF pathway targets (VEGF A, B, C, and PlGF) in wet age-related macular degeneration (wet AMD) and diabetic macular edema (DME)*
- *Designation follows positive interim Phase 1 PRISM clinical data for 4D-150 that demonstrated an encouraging safety, tolerability and clinical activity profile; 4D-150 has the potential to address an unmet medical need to maintain long term visual acuity outcomes while avoiding the need for repeated intravitreal injections*
- *Interim clinical data from randomized Phase 2 PRISM Dose Expansion clinical trial in highest anti-VEGF need patients (n=50) to be released in early 2024*

EMERYVILLE, Calif., Oct. 23, 2023 (GLOBE NEWSWIRE) -- 4D Molecular Therapeutics (Nasdaq: FDMT, 4DMT or the Company), a clinical-stage biotherapeutics company with three novel, highly targeted next generation AAV vectors currently in the clinic, today announced that the European Medicines Agency (EMA) has granted Priority Medicine (PRIME) designation for the investigational genetic medicine candidate 4D-150 for intravitreal treatment of wet age-related macular degeneration (wet AMD).

PRIME designation is granted by the EMA to enhance support for the development of medicines that target an unmet medical need and offers the opportunity to accelerate review of the marketing applications to bring such medicines to patients sooner. The designation follows positive interim Phase 1 PRISM clinical data for 4D-150 that demonstrated an encouraging safety, tolerability and clinical activity profile. 4D-150 has the potential to address an unmet medical need to maintain long term visual acuity outcomes while avoiding the need for repeated intravitreal injections.

"We are thrilled that the EMA has awarded PRIME designation to intravitreal 4D-150," said David Kirn, M.D., Co-founder and Chief Executive Officer of 4DMT. "We believe this designation, which is only awarded to one-quarter of applications, validates the promising clinical data to date with 4D-150 in wet AMD patients and the potential to offer major therapeutic advantages over existing treatments. We are efficiently advancing 4D-150 development for treatment of both wet AMD and DME patients, both of which represent large market opportunities. This designation enables enhanced support from the EMA and provides the potential for expedited regulatory review."

Robert Kim, M.D., Chief Medical Officer of 4DMT, added, "We look forward to continuing our interactions with the EMA, FDA, and other regulatory agencies to bring 4D-150 to wet AMD patients as soon as possible. In the United States, we are on track for initial discussions in Q4 2023 with the FDA on a potential Phase 3 pivotal trial plan, and we look forward to sharing this FDA feedback in Q1 2024. We also look forward to sharing initial interim data from the Phase 2 Dose Expansion clinical trial in highest anti-VEGF need patients in early 2024, and initial interim data for the Population Extension cohort to include the broader patient population with standard anti-VEGF need later in 2024."

In July 2023, 4DMT announced that a dose response was demonstrated in favor of the highest tested dose of 3E10 vg/eye, including 100% reduction in supplemental anti-VEGF injections (4 of 4 evaluable patients injection-free) and a clinically meaningful reduction in mean central subfield thickness (CST) at 36 weeks in the patient population with highest anti-VEGF need. As of July 2023, intravitreal 4D-150 remained well tolerated at all doses in all patients, with no Grade ≥1 inflammatory cells, hypotony, dose-limiting toxicities or treatment-related serious adverse events (SAE) during follow-up through 36 weeks in all 15 patients. Additionally, 4DMT announced that the 3E10 vg/eye dose cohort showed a durable reduction in supplemental anti-VEGF injections beyond 36 weeks, with 3 of 4 evaluable participants remaining injection-free beyond one year and one patient remaining injection-free during a maximum follow-up of 80 weeks with no change in safety profile observed.

About 4D-150 for Wet AMD

4D-150 comprises our customized and evolved intravitreal vector, R100, and a transgene cassette that expresses both aflibercept and a VEGF-C inhibitory RNAi. This dual-transgene payload inhibits four angiogenic factors that drive wet AMD and DME: VEGF A, B, C and PlGF. R100 was invented at 4DMT through our proprietary Therapeutic Vector Evolution platform; we invented this platform utilizing principles of directed evolution, a Nobel Prize-winning technology. 4D-150 is designed for single, low-dose intravitreal delivery for transgene expression from the retina without significant inflammation.

About Wet AMD

Wet AMD is a highly prevalent disease with estimated incidence rate of 200,000 new patients per year in the United States. It is estimated that the total prevalence of wet AMD in the major markets, including the U.S., EU (major markets), and Japan, is approximately 3.1 million individuals. Wet AMD is a type of macular degeneration where abnormal blood vessels (choroidal neovascularization or CNV) grow into the macula, the central area of the retina. As a consequence, CNV causes swelling and edema of the retina, bleeding and scarring, and causes visual distortion and reduced acuity. The proliferation and leakage of abnormal blood vessels is stimulated by VEGF. This process distorts and can potentially destroy central vision and may progress to blindness without treatment.

About 4DMT

4DMT is a clinical-stage biotherapeutics company with three novel, highly targeted next generation AAV vectors currently in the clinic targeting multiple large market diseases in ophthalmology and pulmonology, plus other therapeutic areas. 4DMT seeks to unlock the full potential of genetic medicines using its proprietary invention platform, Therapeutic Vector Evolution, which combines the power of the Nobel Prize-winning technology, directed evolution, with approximately one billion synthetic AAV capsid-derived sequences to invent customized and evolved vectors for use in our product

candidates. All of our vectors are proprietary to 4DMT and were invented at 4DMT, including the vectors utilized in our clinical-stage and preclinical pipeline product candidates: R100, A101, and C102. The Company is initially focused on five clinical-stage product candidates in three therapeutic areas for both rare and large market diseases: ophthalmology, pulmonology, and cardiology. The 4DMT customized and evolved vectors were invented with the goal of being delivered at relatively low doses 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-150 for wet AMD and DME, 4D-710 for cystic fibrosis lung disease, 4D-310 for Fabry disease cardiomyopathy, 4D-125 for XLRP, and 4D-110 for choroideremia. The 4D preclinical product candidates in development are: 4D-175 for geographic atrophy and 4D-725 for AATLD.

4D-150, 4D-710, 4D-310, 4D-125, and 4D-110 are our product candidates in clinical development 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-150, 4D-710, 4D-310, 4D-125, or 4D-110 for the therapeutic uses for which they are being studied.

Forward Looking Statements:

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, including, without limitation, implied and express statements regarding the therapeutic potential, and clinical benefits of 4DMT’s product candidates, as well as the plans, announcements and related timing for the clinical development of and regulatory interactions regarding 4D-150. The words "may," “might,” "will," "could," "would," "should," "expect," "plan," "anticipate," "intend," "believe," “expect,” "estimate," “seek,” "predict," “future,” "project," "potential," "continue," "target" and similar words or expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Any forward looking statements in this press release are based on management's current expectations and beliefs and are subject to a number of risks, uncertainties and important factors that may cause actual events or results to differ materially from those expressed or implied by any forward-looking statements contained in this press release, including risks and uncertainties that are described in greater detail in the section entitled "Risk Factors" in 4D Molecular Therapeutics’ most recent Quarterly Report on Form 10-Q as well as any subsequent filings with the Securities and Exchange Commission. In addition, any forward-looking statements represent 4D Molecular Therapeutics' views only as of today and should not be relied upon as representing its views as of any subsequent date. 4D Molecular Therapeutics explicitly disclaims any obligation to update any forward-looking statements. No representations or warranties (expressed or implied) are made about the accuracy of any such forward looking statements.

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