



PepGen Presents Clinical and Nonclinical Data at the 2023 Annual Muscular Dystrophy Association Clinical and Scientific Conference

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- In NHP, four monthly doses of 20 mg/kg of PGN-EDO51 resulted in 34.9% exon skipped transcripts in biceps; a 14-fold increase over the 2.5% exon 51 skipped transcripts observed after a single dose –
 - Following on the EDO51 Phase 1 study, we anticipate initiating in the first half of 2023 the CONNECT1-EDO51 Study in Duchenne muscular dystrophy (DMD) patients, a Phase 2 open-label multiple ascending dose (MAD) study in Canada. We expect to report top-line tolerability, exon skipping and dystrophin data in 2024 –
- In parallel, we anticipate initiating in the second half of 2023 the CONNECT2-EDO51 Study in DMD patients, a Phase 2 global, randomized placebo-controlled MAD study that is designed to potentially provide an accelerated path to approval for EDO51 –
- *In vitro* studies of the clinical candidate PGN-EDODM1 showed a dose-dependent 54% reduction in toxic nuclear foci per nuclei, liberated MBNL1 from toxic foci and produced >68% correction of downstream transcript mis-splicing events in myotonic dystrophy type 1 (DM1) patient myoblasts –
- We anticipate initiating in the first half of 2023 the FREEDOM-DM1 Study in DM1 patients, a Phase 1 global, placebo-controlled randomized single ascending dose (SAD) study for EDODM1 –

BOSTON, March 22, 2023 (GLOBE NEWSWIRE) -- PepGen Inc. (Nasdaq: PEPG), a clinical-stage biotechnology company advancing the next generation of oligonucleotide therapies with the goal of transforming the treatment of severe neuromuscular and neurological diseases, will be presenting today nonclinical and clinical data of its Enhanced Oligonucleotide Delivery (EDO) platform at the Muscular Dystrophy Association (MDA) Clinical and Scientific Conference in Dallas, Texas.

PepGen's preclinical data of PGN-EDO51, the company's lead product candidate for the treatment of people living DMD whose mutations are amenable to an exon 51 skipping approach, showed in the *mdx* mouse model that a single, 30 mg/kg dose of PGN-EDO23 (mouse equivalent of PGN-EDO51) resulted in 52.5% exon 23 skipping and dystrophin production of 22.5% that was sustained for up to four weeks. Exon skipping increased considerably with repeat dosing of 30 mg/kg PGN-EDO23 once every four weeks for a total of four doses achieving 91.5% exon 23 skipping measured by RT-PCT and production of 82.3% normal levels of dystrophin in biceps.

Even more encouraging was the increase in exon 51 skipping as measured by ddPCR in non-human primates (NHPs) dosed with PGN-EDO51 at 20 mg/kg. NHPs receiving a single-dose of 20 mg/kg PGN-EDO51 observed 2.5% exon 51 skipping in biceps as measured by ddPCR, the same method employed to measure exon skipping in the EDO51 Phase 1 healthy volunteer (HV) clinical trial. Fourteen-fold higher levels of exon 51 skipping (approximately 35% skipped transcripts) were observed following four doses of PGN-EDO51 every four weeks in NHPs.

The preclinical results, combined with the exon 51 skipping observed in PepGen's Phase 1 HV study of PGN-EDO51, suggests that repeat-dosing with PGN-EDO51 every four weeks has the potential to result in meaningfully higher levels of exon 51 skipped transcripts and potentially dystrophin levels which we believe could result in meaningful clinical benefit.

"Our preclinical and Phase 1 clinical data that is being presented at MDA highlight the observed ability of PepGen's EDO technology platform to drive encouraging levels of exon 51 skipped transcripts following a single-dose in NHPs and in humans. Our repeat-dose NHP data we will present here further support the potential stacking of exon 51 skipped transcripts with monthly PGN-EDO51 dosing," stated Jaya Goyal, PhD, Executive Vice President, Research and Preclinical Development at PepGen. "We look forward to sharing our PGN-EDO51 clinical development plan in the near future."

Based on the encouraging nonclinical data, PepGen is planning to initiate two clinical trials to assess the safety and efficacy of repeat doses of PGN-EDO51 in young men living with DMD. CONNECT1-EDO51 is a Phase 2 open-label MAD clinical trial to be initiated in Canada in the first half of 2023 that is expected to report dystrophin protein data in 2024. Additionally, CONNECT2-EDO51, a Phase 2, global, randomized placebo-controlled clinical trial is expected to be initiated in the second half of 2023 to support a potential accelerated approval pathway, subject to alignment with regulators.

PepGen is also presenting preclinical *in vitro* and *in vivo* pharmacology data from its DM1 program, PGN-EDODM1, in an oral presentation at MDA. PGN-EDODM1 reduced pathogenic nuclear foci by 54% per nuclei and liberated muscleblind like splicing regulator 1 (MBLN1) which resulted in >68% correction of downstream transcript mis-splicing events in *in vitro* DM1 patient cells with 2,600 CTG repeats.

"Our PGN-EDODM1 preclinical data showed the potential of an investigational therapy designed to liberate MBNL1," commented James McArthur, President and Chief Executive Officer of PepGen. "PGN-EDODM1 is designed to address the root cause of DM1 pathology by freeing MBNL1 from the toxic DMPK-CUG foci in the nucleus which we believe could lead to clinically meaningful outcomes for people living with DM1, while supporting the further development of PGN-EDODM1."

Based on the encouraging nonclinical data, in the first half of 2023, PepGen expects to initiate a Phase 1 global, placebo-controlled randomized SAD clinical trial, FREEDOM-DM1, to assess safety and initial impact on functional assessments. PepGen plans to report safety, correction of transcript mis-splicing and clinical data from the FREEDOM-DM1 trial in 2024.

The corresponding poster presentation and slides referenced during the oral presentations are available on the [Events and Presentations](#) page in the Investor Relations section of the company's website.

About PepGen

PepGen Inc. is a clinical-stage biotechnology company advancing the next-generation of oligonucleotide therapies with the goal of transforming the treatment of severe neuromuscular and neurological diseases. PepGen's Enhanced Delivery Oligonucleotide, or EDO, platform is founded on over a

decade of research and development and leverages cell-penetrating peptides to improve the uptake and activity of conjugated oligonucleotide therapeutics. Using these EDO peptides, we are generating a pipeline of oligonucleotide therapeutic candidates that target the root cause of serious diseases.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended. These statements may be identified by words such as “aims,” “anticipates,” “believes,” “could,” “estimates,” “expects,” “forecasts,” “goal,” “intends,” “may,” “plans,” “possible,” “potential,” “seeks,” “will,” and variations of these words or similar expressions that are intended to identify forward-looking statements. Any such statements in this press release that are not statements of historical fact may be deemed to be forward-looking statements. These forward-looking statements include, without limitation, statements regarding the potential therapeutic benefits and safety profile of our candidates, initiation of the Phase 2 studies in PGN-EDO51 and the Phase 1 study in PGN-EDODM1, our interpretation of clinical and preclinical study results and how they may impact our programs, the filing of an IND application for PGN-EDODM1; and statements about our clinical and preclinical programs, product candidates, achievement of milestones, and corporate and clinical/preclinical strategies.

Any forward-looking statements in this press release are based on current expectations, estimates and projections only as of the date of this release and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements. These risks and uncertainties include, but are not limited to that we may fail to successfully initiate or complete our planned clinical trials for PGN-EDO51 and PGN-EDODM1 and preclinical studies of other product candidates or to obtain regulatory approval before commercialization for marketing of such products; our interpretation of clinical and preclinical study results may be incorrect; our product candidates may not be safe and effective; there may be delays in regulatory approval or changes in regulatory framework that are out of our control; we may not be able to nominate new drug candidates within the estimated timeframes; our estimation of addressable markets of our product candidates may be inaccurate; we may need additional funding before the end of our expected cash runway and may fail to timely raise such additional required funding; more efficient competitors or more effective competing treatment may emerge; we may be involved in disputes surrounding the use of our intellectual property crucial to our success; we may not be able to take advantage of certain accelerated regulatory pathways; we may not be able to attract and retain key employees and qualified personnel; earlier study results may not be predictive of later stage study outcomes; we may encounter liquidity distress due to failure of financial institutions with which we maintain relationship; and we are dependent on third parties for some or all aspects of our product manufacturing, research and preclinical and clinical testing. Additional risks concerning PepGen’s programs and operations are described in its quarterly reports on Form 10-Q, which are on file with the SEC, and in its most recent quarterly report on Form 10-Q to be filed with the SEC. PepGen explicitly disclaims any obligation to update any forward-looking statements except to the extent required by law.

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