Altamira Therapeutics' Peptide-Based Delivery Platform Shown to Enhance Potency of Commonly Used Gene Delivery Method as Published in Peer-Reviewed Journal

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- *Independent peer-reviewed study shows enhanced cell transduction with adeno-associated virus (AAV) vectors, commonly used in gene therapy, when integrating Altamira's peptide-based delivery technology*

- *Increased potency may help to reduce AAV immunogenicity and resistance to AAVs in certain cell types*

HAMILTON, BERMUDA, Feb. 7, 2024 -- Altamira Therapeutics Ltd. (Nasdaq: CYTO) ("Altamira" or the "Company"), a company providing nanoparticle-based technology for efficient RNA delivery to extrahepatic targets, announced today the publication of a peer-reviewed article in the Journal of Integrative Medicine titled, "Melittin analog p5RHH enhances recombinant adeno-associated virus transduction efficiency". This work evaluates the use of various peptides to enhance adeno-associated virus (AAV) cell transduction and was conducted by an independent research group.[1] Recombinant AAVs are commonly used as carriers to introduce nucleic acids in cells for gene therapy; several AAV-based gene therapy drugs have already been approved by the U.S. Food and Drug Administration (FDA).

The study sought to find ways of increasing the endosomal release of AAV-based therapeutics by using peptides derived from melittin, a component of bee venom known for its ability to permeabilize biological membranes. The research group evaluated 76 melittin derivatives, including p5RHH, the peptide underlying Altamira's OligoPhore™ / SemaPhore™ nanoparticle platform for RNA delivery. The scientists discovered that insertion of p5RHH into the AAV vector (p5RHH-rAAV) not only enhanced cell transduction, but also succeeded in transducing cell lines typically considered resistant to AAVs. Further, an *in vivo* study in mice showed that the addition of p5RHH to the AAV capsid of several AAV serotypes significantly enhanced liver transduction compared to non-modified AAV vectors, observed up to the last time point four weeks after systemic administration.

"The study results once again highlight the strong capability of our technology to promote the release of nucleic acids from the endosome into the cytoplasm, which has remained a key limiting factor for both non-viral vectors and viral-derived delivery vehicles such as AAVs," commented Covadonga Pañeda, Ph.D., Altamira Therapeutics' Chief Operating Officer. "Better transduction efficiency means that lower doses of AAVs may be used, which could lower the risk for deleterious immune responses and increase the safety of AAV-based vectors. In addition, the integration of the p5RHH peptide into different serotypes of AAV vectors may open new possibilities in AAV-based gene therapy in cells and tissues that are not typically amenable to AVV transduction."

About Altamira Therapeutics

Altamira Therapeutics (Nasdaq: CYTO) is developing and supplying peptide-based nanoparticle technologies for efficient RNA delivery to extrahepatic tissues (OligoPhore™ / SemaPhore™ platforms). The Company currently has two flagship siRNA programs using its proprietary delivery technology AM-401 for KRAS driven cancer and AM-411 for rheumatoid arthritis, both in preclinical development beyond in vivo proof of concept. The versatile delivery platform is also suited for mRNA and other RNA modalities and made available to pharma or biotech companies through out-licensing. In addition, Altamira holds a 49% stake (with additional economic rights) in its commercial-stage legacy asset Bentrio®, an OTC nasal spray for allergic rhinitis. Further, the Company is in the process of partnering / divesting its inner ear legacy assets (AM-125 nasal spray for vertigo; post Phase 2; Keyzilen® and Sonsuvi® for tinnitus and hearing loss; Phase 3). Founded in 2003, Altamira is headquartered in Hamilton, Bermuda, with its main operations in Basel, Switzerland. For more information, visit: https://altamiratherapeutics.com

Forward-Looking Statements

This press release may contain statements that constitute "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements are statements other than historical facts and may include statements that address future operating, financial or business performance or Altamira's strategies or expectations. In some cases, you can identify these statements by forward-looking words such as "may", "might", "will", "should", "expects", "plans", "anticipates", "believes", "estimates", "predicts", "projects", "potential", "outlook" or "continue", or the negative of these terms or other comparable terminology. Forward-looking statements are based on management's current expectations and beliefs and involve significant risks and uncertainties that could cause actual results, developments and business decisions to differ materially from those contemplated by these statements. These risks and uncertainties include, but are not limited to, the success of strategic transactions, including licensing or partnering, with respect to Altamira's legacy assets, Altamira's need for and ability to raise substantial additional funding to continue the development of its product candidates, the clinical utility of Altamira's product candidates, the timing or likelihood of regulatory filings and approvals, Altamira's intellectual property position and Altamira's financial position, including the impact of any future acquisitions, dispositions, partnerships, license transactions or changes to Altamira's capital structure, including future securities offerings. These risks and uncertainties also include, but are not limited to, those described under the caption "Risk Factors" in Altamira's Annual Report on Form 20-F for the year ended December 31, 2022, and in Altamira's other filings with the Securities Exchange Commission ("SEC"), which are available free of charge on the SEC's website at: www.sec.gov. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those indicated. All forward-looking statements and all subsequent written and oral forward-looking statements attributable to Altamira or to persons acting on behalf of Altamira are expressly qualified in their entirety by reference to these risks and uncertainties. You should not place undue reliance on forward-looking

statements. Forward-looking statements speak only as of the date they are made, and Altamira does not undertake any obligation to update them in light of new information, future developments or otherwise, except as may be required under applicable law.

[1] Meng et al. (2024), Melittin analog p5RHH enhances recombinant adeno-associated virus transduction efficiency, J Integr Med, in press.

Contact Investor Contact: Hear@altamiratherapeutics.com 800-460-0183