Antion Biosciences announces latest data and validation of its technology platform through important milestone achievements

- *In vivo Proof-of-Concept demonstrated for its off-the-shelf miCAR7 T-cell product, data presented at the 7th CAR-TCR Summit Europe*

- *Milestone achieved in its collaboration with Allogene Therapeutics*

GENEVA, Mar. 06, 2024 (GLOBE NEWSWIRE) – Antion Biosciences (Antion), a Geneva-based cell and gene therapy company developing off-the-shelf and universally applicable cellular immunotherapies, announces achievement of two significant milestones that underscore the uniquely powerful, multiplex engineering capability of its technology platform.

First, the company reports highly effective control of tumor growth in an *in vivo* Proof-of-Concept study for its lead therapeutic candidate, "miCAR7" – an allogeneic anti-CD7 chimeric antigen receptor (CAR7) T-cell product with simultaneous modulation of six molecules. This first of its kind, wholly owned cell therapy product was developed using Antion's best-in-class gene silencing platform, which is underpinned by its highly efficient and tunable microRNA (miRNA)-mediated gene silencing technology.

"miCAR7 is the product of thoughtful design and remarkable engineering" commented Dr. Marco Alessandrini, PhD, Chief Executive Officer of Antion. "We set out to develop a multimodal cell therapy to not only address a clinical unmet need in CD7 positive malignancies, but also to overcome significant challenges that may compromise therapeutic efficacy. In developing miCAR7, we realized outstanding engineering efficiencies, resulting in post-manufacturing purities of >99%, meaning that essentially all cells in the product carry all the modifications. From a safety perspective, since all modulations are driven from a single gene construct requiring only a single payload insertion, there is limited risk of chromosomal aberrations, as would be the case with other multiplex genome engineering modalities. Moreover, miCAR7 T-cells performed exceptionally well in functional *in vitro* assays and in an *in vivo* model of tumor-engrafted mice."

Effective treatment of T-cell malignancy with a targeted cell therapy requires complex engineering. Besides for the obvious benefits of having an off-the-shelf and readily available product, manufacturing CAR T-cells from healthy allogeneic donors is also preferred to avoid malignant T-cell contamination. However, allogeneic donor cells are prone to immune rejection, and perhaps even more so in patients with malignant T-cells, where the adaptive immune response might be further exacerbated due to the underlying malignancy. Then there is the added effect of fratricide where CAR7 T-cells will not only kill-off malignant T-cells, but also other CAR7 T-cells, thus compromising manufacturing efficiencies and therapeutic efficacy. These challenges can be overcome in various ways, but all require a safe and highly efficient multiplex engineering approach – something which only a handful of developers are capable of, including Antion. Proof-of-Concept data for miCAR7 was unveiled for the first time at the 7th CAR-TCR Summit in London on February 28th, 2024.

Second, Antion reports milestone achievement in its strategic collaboration with Allogene Therapeutics. In August of 2023, Antion successfully delivered novel gene constructs and a supporting data package for silencing of four relevant targets to Allogene. "Our collaboration with Allogene was nothing short of exceptional," commented the CEO of Antion. "Reaching this pivotal milestone not only reinforces the strength of our multiplex gene silencing platform, but also underscores the dedication of our team to deliver on the objectives set in this all-important partnership."

"We are very pleased with the outcome of this partnership and the level of collaboration between the teams. We established ambitious goals from the outset, and Antion delivered. The achievement of this milestone

reflects the successful outcome and reinforces our confidence in Antion's technology," remarked Zachary Roberts, M.D., Ph.D., Executive Vice President, Research & Development and Chief Medical Officer of Allogene.

These accomplishments lay the groundwork for Antion's forward strategy. With a validated technology platform, established operations and a history of fruitful collaboration, Antion is optimally positioned to accelerate its pipeline developments, while leveraging the full potential of its technology through key strategic partnerships with global innovation leaders.

About miCAR7

Antion's miCAR7 therapeutic candidate is an allogeneic CD7-targeting CAR T-cell product built with add-on features for enhanced persistence and safety. The product is multiplex-engineered with a proprietary CAR binder to target CD7, a safety switch mechanism, and multiplex gene silencing to diminish the expression of TCR, HLA-I, HLA-II and CD7. Compared to competitor products, Antion's technology platform enables the engineering of such allogeneic, hypoimmunogenic and fratricide-resistant CAR7 T-cells with unprecedented safety and efficiency.

About Antion Biosciences

Antion Biosciences SA is a Swiss-based biotechnology company developing universal cell and gene therapy products for the treatment of diseases with significant unmet medical needs. Antion's proprietary gene silencing and miCAR™ technologies allow for a modular and tunable approach to multiplex engineering of therapeutic cells. By developing off-the-shelf therapies with enhanced potency, our vision is to make cell and gene therapies universal and broaden access to these life-changing therapies for all patients. For more information, please visit https://www.antionbio.com.

Antion's Cautionary Note on Forward-Looking Statements

Please note: This announcement can contain forward-looking statements based on current expectations and projections about future events. Actual results may differ materially from those expressed or implied by these forward-looking statements due to various factors, including, but not limited to, market conditions, industry trends, and operational risks.

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