Excision BioTherapeutics Presents Positive Interim Clinical Data from Ongoing Phase 1/2 Trial of EBT-101 for the Treatment of HIV at ESGCT 30th Annual Congress

- Excision reported positive safety and biodistribution data to 48 weeks in the first-in-human Phase 1/2 clinical evaluation of EBT-101
- No serious adverse events or dose-limiting toxicities were seen in any trial participant
- EBT-101 was detected in blood in all participants

SAN FRANCISCO, October 25, 2023 -- Excision BioTherapeutics, Inc., a clinical-stage biotechnology company developing CRISPR-based therapies to cure viral infectious diseases, today announced positive safety data from the first dose cohort in its first-in-human Phase 1/2 trial to assess safety and pharmacodynamics of EBT-101. EBT-101 is a dual-guide, CRISPR-based investigational gene therapy for the treatment of human immunodeficiency virus type 1 (HIV-1). The data was presented at the European Society for Gene & Cell Therapy annual meeting on October 25, 2023 in Brussels, Belgium.

"Excision is dedicated to developing curative, CRISPR-based therapies for people with infectious disease," said Daniel Dornbusch, Chief Executive Officer of Excision. "EBT-101 is a CRISPR-based gene therapy being tested as a potential functional cure for HIV. We believe that sharing this initial safety and biodistribution data is important for the HIV/AIDS community, the larger infectious disease community, and for gene therapies in development for other indications."

William Kennedy, M.D., SVP of Clinical Development at Excision commented, "Establishing the safety and biodistribution of EBT-101 is an important first step in the clinical program. Treatment with EBT-101 resulted in no serious adverse events or dose limiting toxicities in the first three participants, and all reported adverse events were mild and reversible. Excision was also able to demonstrate positive biodistribution of the product candidate at this dose level. These initial observations provide important clinical data that support the advancement of the EBT-101-001 trial to the next dosing cohort."

Details of the Abstract and Presentation:

Title: *First-in-human trial of systemic CRISPR-Cas9 multiplex gene therapy for functional cure of HIV*
Abstract: OR31
Presenter: Dr. Rachel Presti, Washington University St. Louis School of Medicine
Date/Time: Wednesday, October 25, 2023, 14:30-16:30 pm (CEST)

- **EBT-101 is a CRISPR-based therapy being developed as a potential cure for HIV** – EBT-101 is being developed as a potential cure for HIV-1 by targeting latently integrated proviral HIV DNA. Latency is a barrier to curing HIV since antiretroviral therapies (ART) do not eliminate latent HIV. Excision uses a multiplexed and *in vivo* CRISPR-based gene editing approach to excise large segments of latently integrated proviral HIV DNA.
- **All participants in Cohort A (n=3) have been safely dosed** – Initial results, as reported by Excision, indicate no serious adverse events or dose limiting toxicities. Although four mild

(Grade 1) adverse events (AEs) possibly or definitely related to EBT-101 were observed in the first three participants, all reversed without intervention. Across the Cohort, there were no withdrawals during IV administration, no infusion-related reactions, and no complement-mediated toxicity. Transient and reversible transaminase elevations were observed in two of the three participants.

- **EBT-101 is detectable in blood at 4 weeks in every participant** – Peripheral exposure has been achieved with a single dose of EBT-101 at the first dose level being evaluated in the study ($9.0x10^{11}$ vg/kg). Excision observed no evidence of horizontal transmission of gene vector shedding of EBT-101 in two tissue compartments associated with male reproductive function.
- **Data supports dose escalation to Cohort B and further development of EBT-101** – Excision plans to dose escalate to its next dose level ($3.0x10^{12}$ vg/kg) in Q4 2023 and present additional data in 2024.

About EBT-101

EBT-101 is a first-in-class *in vivo* CRISPR-based therapeutic designed to cure HIV infection after a single intravenous infusion. EBT-101 employs an adeno-associated virus (AAV) to deliver a CRISPR nuclease and two guide RNAs. By targeting multiple sites in the HIV genome, EBT-101 has been shown to remove large sections of HIV proviral DNA in preclinical studies, thereby rendering HIV incapable of replication. The FDA granted Fast Track designation to EBT-101 in 2023.

About the EBT-101 Clinical Program

The EBT-101-001 Phase 1/2 trial is an open-label, multi-center, single ascending dose study designed to evaluate the safety, tolerability, biodistribution and pharmacodynamics of EBT-101 in approximately nine participants with HIV-1 with an undetectable viral load on antiretroviral therapy. Preliminary efficacy assessments will also be conducted. Participants in EBT-101-001 will be followed for 48 weeks post EBT-101 administration. All eligible participants will be assessed for sustained viral suppression off their background ART, in an analytical treatment interruption (ATI) starting at Week 12. After EBT-101-001, participants will be enrolled in a long-term follow up study, EBT-101-002. For more information, see ClinicalTrials.gov identifiers NCT05144386 (Phase 1/2 trial) and NCT05143307 (long-term follow up study). The EBT-101 Phase 1/2 clinical trial is supported by a grant from the California Institute for Regenerative Medicine (CIRM). For more information on CIRM go to www.cirm.ca.gov.

About Excision BioTherapeutics, Inc.

Excision BioTherapeutics, Inc. is a clinical-stage biotechnology company developing CRISPR-based therapies as potential cures for viral infectious diseases. EBT-101, the Company's lead program, is an *in vivo* CRISPR-based therapeutic designed to cure HIV infection after a single intravenous infusion. Excision's pipeline unites next-generation CRISPR nucleases with a novel gene editing approach to develop curative therapies for Herpes virus, Hepatitis B virus and JC virus, which causes PML. Excision's foundational technologies were developed in the laboratories of Dr.

Kamel Khalili at Temple University and Dr. Jennifer Doudna at the University of California, Berkeley. For more information, please visit www.excision.bio.

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