Unicycive Therapeutics, Inc. Amendment and Supplement to the Proxy Statement For the Annual Meeting of Stockholders To be Held on June 9, 2025

EXPLANATORY NOTE

On April 30, 2025, Unicycive Therapeutics, Inc. ("Unicycive" or the "Company") filed its definitive proxy statement (the "Proxy Statement") with the Securities and Exchange Commission ("SEC") for its annual meeting of shareholders to be held on June 9, 2025 (the "Annual Meeting").

The Company is amending and supplementing the Proxy Statement with the information provided in this amendment and supplement to the Proxy Statement (the "Amendment and Supplement") to clarify the amount of votes available to holders of Series A Preferred Stock and the total shares which must be present in person or by proxy to constitute a quorum for the Annual Meeting.

Any proxies submitted by stockholders before the date of this Amendment and Supplement will be voted as instructed on those proxies, unless a stockholder changes his or her vote by submitting a later dated proxy. Stockholders should follow the instructions described in the Proxy Statement regarding how to submit proxies or vote at the Annual Meeting.

THIS AMENDMENT AND SUPPLEMENT SHOULD BE READ IN CONJUNCTION WITH THE PROXY STATEMENT.

This supplemental information should be read in conjunction with the Proxy Statement, which should be read in its entirety. Section references in the below disclosures are to sections in the Proxy Statement, and defined terms used but not defined herein have the meanings set forth in the Proxy Statement. To the extent the following information differs from or conflicts with the information contained in the Proxy Statement, the information set forth below shall be deemed to supersede the respective information in the Proxy Statement.

Amendments and Supplemental Disclosure

Proxy Statement

The text under the heading "QUESTIONS AND ANSWERS ABOUT THIS PROXY MATERIAL AND VOTING— Who is Entitled to Vote?" is amended and restated as follows:

The Board has fixed the close of business on April 30, 2025 as the record date (the "Record Date") for the determination of stockholders entitled to notice of, and to vote at, the Annual Meeting or any adjournment or postponement thereof. On the Record Date, there were 120,629,281. shares of common stock outstanding, 5,464.21 shares of Series A Preferred Stock outstanding and 3,000 shares of Series B Preferred Stock outstanding. Each share of common stock represents one vote that may be voted on each proposal that may come before the Annual Meeting. Each share of Series A Preferred Stock is entitled to vote together with the holders of common stock on an as-if-converted-to-Common-Stock basis, subject to a beneficial ownership limitation of 9.99% of the Company's outstanding shares of common stock. Accordingly, of the 5,464.21 shares of Series A Preferred Stock outstanding, only 1,816.33102 shares are entitled to vote at the meeting. Each holder of Series A Preferred Stock will be entitled to a number of votes equal to the number of shares of Series A Preferred Stock held by such holder, multiplied by the \$1,000 stated value and divided by the \$0.49 conversion price, subject to the 9.99% beneficial ownership limitation referred to above. Accordingly, the 1,816.33102 shares of Series A Preferred Stock eligible to vote are convertible into an aggregate of 5,068,068 shares of common stock for a total of 5,068,068 votes. Each share of Series B Preferred Stock is entitled to vote together with the holders of common stock on an as-ifconverted-to-Common-Stock basis, subject to a beneficial ownership limitation of 9.99% of the Company's outstanding shares of common stock. Accordingly, of the 3,000 shares of Series B Preferred Stock outstanding, only 1,189.718 shares are entitled to vote at the meeting. Each holder of Series B Preferred Stock will be entitled to a number of votes equal to the number of shares of Series B Preferred Stock held by such holder, multiplied by the \$1,000 stated value and divided by the \$1.00 conversion price, subject to the beneficial ownership limitation referred to above. Accordingly, the 1,189.718 shares of Series B Preferred Stock eligible to vote are convertible into an aggregate of 1,189,718 shares of common stock for a total of 1,189,718 votes. As such, the aggregate amount of shares eligible to vote at the meeting is 126,887,067.

The text under the heading "QUESTIONS AND ANSWERS ABOUT THIS PROXY MATERIAL AND VOTING— What Constitutes a Quorum?" is amended and restated as follows:

To carry on business at the Annual Meeting, we must have a quorum. A quorum is present when a majority of the shares entitled to vote as of the Record Date, are represented in person or by proxy. Thus, 63,443,535 shares must be represented in person or by proxy to have a quorum at the Annual Meeting. Your shares will be counted towards the quorum only if you submit a valid proxy (or one is submitted on your behalf by your broker, bank or other nominee) or if you vote in person at the Annual Meeting. Abstentions and broker non-votes will be counted towards the quorum requirement. Shares owned by us are not considered outstanding or considered to be present at the Annual Meeting. If there is not a quorum at the Annual Meeting, either the chairperson of the Annual Meeting or our stockholders entitled to vote at the Annual Meeting may adjourn the Annual Meeting.