Issuer Free Writing Prospectus
Filed Pursuant to Rule 433
Dated December 17, 2025
Relating to Form S-3 Dated December 1, 2025
Registration Statement No. 333-291432

This free writing prospectus relates only to the offering described below and should be read together with the Registration Statement on Form S-3 (File No. 333-291432) filed with the Securities and Exchange Commission (the "SEC") effective as of December 1, 2025 (the "Registration Statement"), including the documents incorporated by reference therein, and the accompanying base prospectus, before making a decision in connection with an investment in the securities. This free writing prospectus is qualified in its entirety by reference to the Registration Statement, including the documents incorporated by reference therein, and the accompanying base prospectus. Financial information and other information presented in the Registration Statement or incorporated by reference therein is deemed to have changed only to the extent affected by the changes described herein.

On December 17, 2025, CAMP4 Therapeutics Corporation (the "Company") entered into a Research, Collaboration and License Agreement (the "Agreement") with GlaxoSmithKline Intellectual Property (No. 3) Limited ("GSK"). Pursuant to the Agreement, the Company and GSK have agreed to collaborate on the research and development of antisense oligonucleotide ("ASO") therapeutics targeting regulatory RNAs associated with multiple gene targets relevant to neurodegenerative and kidney disease indications (the "Collaboration Targets"). The collaboration combines the Company's proprietary regRNA mapping and ASO discovery platform with GSK's global development and commercial capabilities.

Under the terms of the Agreement, the Company has granted GSK an exclusive, worldwide license under certain patents and know-how to research, develop, manufacture, and commercialize certain compounds and products directed to the Collaboration Targets. The Company has agreed to conduct research activities under agreed research plans to identify, validate, and deliver lead ASO series that achieve certain criteria set forth in the research plan for each Collaboration Target and transfer related data packages and know-how to GSK. After such research activities, GSK will have sole responsibility for development, regulatory activities, manufacturing, and commercialization of licensed compounds and licensed products globally.

GSK has agreed to pay the Company a one-time, non-refundable upfront payment of $17.5 million. In addition, the Company is eligible to receive up to $440 million in development and commercial milestone payments, subject to achievement of specified criteria, as well as tiered royalties on annual net sales of licensed products ranging from the low- to mid-single digits during a defined royalty term for each licensed product.

The Agreement includes customary provisions regarding governance, diligence, intellectual property ownership, confidentiality, and indemnification. The Agreement may be terminated in its entirety or on a Collaboration Target-by-Collaboration Target basis for convenience by GSK and may also be terminated by either the Company or GSK under certain other circumstances, including material breach, as set forth in the Agreement. The term of the Agreement continues on a country-by-country and product-by-product basis until the expiration of the applicable royalty term, unless terminated earlier in accordance with its terms.

The foregoing description of the material terms of the Agreement is qualified in its entirety by reference to the complete text of the Agreement, which the Company intends to file, with confidential terms redacted, with the

Securities and Exchange Commission as an exhibit to the Company's Annual Report on Form 10-K for the year ended December 31, 2025.

CAMP4 Therapeutics Corporation has filed a registration statement (including a prospectus) with the SEC for the offering to which this communication relates. Before you invest, you should read the prospectus in that registration statement and other documents the issuer has filed with the SEC for more complete information about the issuer and the offering. You may get these documents for free by visiting EDGAR on the SEC website at www.sec.gov. Alternatively, copies may be obtained from: Leerink Partners LLC, Syndicate Department, 53 State Street, 40th Floor, Boston, MA 02109, or by telephone at (800) 808-7525 ext. 6105, or by email at syndicate@leerink.com.