

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

SCHEDULE 14A
Proxy Statement Pursuant to Section 14(a) of the
Securities Exchange Act of 1934

Filed by the Registrant ☒

Filed by a Party other than the Registrant ☐

Check the appropriate box:

- ☐ Preliminary Proxy Statement
- ☐ **Confidential, for Use of the Commission Only** (as permitted by Rule 14a-6(e)(2))
- ☒ Definitive Proxy Statement
- ☐ Definitive Additional Materials
- ☐ Soliciting Material Pursuant to §240.14a-12

Decoy Therapeutics Inc.
(Name of Registrant as Specified in its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- ☒ No fee required.
 - ☐ Fee paid previously with preliminary materials.
 - ☐ Fee computed on table in exhibit required by Item 25(b) per Exchange Act Rules 14a-6(i)(1) and 0-11.
-

DECOY THERAPEUTICS INC.

2450 Holcombe Blvd.
Suite X
Houston, TX 77021
contact@decoytx.com

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

To Be Held on September 14, 2026

To Our Stockholders:

NOTICE IS HEREBY GIVEN that a special meeting of stockholders (the ***“Special Meeting”***) of Decoy Therapeutics Inc., a Delaware corporation (***“Decoy,”*** the ***“Company,”*** ***“we,”*** ***“us”*** or ***“our”***), will be held on September 14, 2026, at 3:00 p.m., Central Time. The Special Meeting will be held solely by means of live audio webcast online; you will not be able to attend the Special Meeting in person. In order to attend the Special Meeting, you must register at <https://web.viewproxy.com/DCOY2026SM2> by 11:59 p.m., Central Time, on September 13, 2026. You will receive a link by which to join the Special Meeting upon registering to attend. On the day of the Special Meeting, if you have properly registered, you may enter the meeting by clicking on the link provided via email in your registration confirmation. If you hold your shares in an account at a brokerage firm, bank, dealer or other similar organization, you will need to obtain a “legal proxy” from that entity and submit it when you register. You will be able to attend and participate in the Special Meeting online, vote your shares electronically and submit your questions prior to and during the meeting. The Special Meeting is being held for the following purposes:

1. **The Warrant Exercise Proposal** – To approve, for purposes of Nasdaq Listing Rules 5635(b) and 5635(d), the issuance of shares of the Company’s common stock, par value \$0.0001 per share (the ***“Common Stock”***), upon the exercise of the Series A common warrants, Series B common warrants and Series C common warrants (collectively, the ***“Milestone Warrants”***) issued in the private placement described in the accompanying proxy statement, including the issuance of shares of Common Stock equal to 20% or more of the shares of Common Stock outstanding immediately prior to the issuance of such Milestone Warrants (***“Proposal 1”*** or the ***“Warrant Exercise Proposal”***);
2. **The Authorized Share Proposal** – To approve an amendment to our Certificate of Incorporation to reduce the number of authorized shares of Common Stock by 10,000,000 to 90,000,000 (***“Proposal 2”*** or the ***“Authorized Share Proposal”***);
3. **The Adjournment Proposal** – To approve the adjournment of the Special Meeting to a later date or dates, if necessary or appropriate, to solicit additional proxies if there are insufficient votes at the time of the Special Meeting to approve the Warrant Exercise Proposal or the Authorized Share Proposal (***“Proposal 3”*** or the ***“Adjournment Proposal”***).

In accordance with our Second Amended and Restated Bylaws (our ***“Bylaws”***), business transacted at the Special Meeting will be limited to the matters relating to the purposes stated in this notice.

These items of business are more fully described in the proxy statement accompanying this notice. This notice of Special Meeting of Stockholders and the accompanying proxy statement contain important information regarding the Special Meeting and the proposals to be considered. If you are in doubt as to how you should vote at the Special Meeting, you should seek advice from your own legal counsel, accountant or other professional adviser prior to voting. Our board of directors (the ***“Board”*** or ***“Board of Directors”***) has fixed the close of business on July 20, 2026 as the record date (the ***“Record Date”***) for the determination of stockholders entitled to notice of, and to vote at, the Special Meeting and any adjournments or postponements thereof. Only stockholders of record at the close of business on the Record Date are entitled

to notice of, and to vote at, the Special Meeting. A complete list of stockholders of record entitled to vote at the Special Meeting will be open to the examination of any stockholder, for any purpose germane to the Special Meeting, for a period of at least ten days prior to the Special Meeting during ordinary business hours at our principal executive offices at 2450 Holcombe Blvd., Suite X, Houston, Texas 77021, and, because the Special Meeting will be held solely by means of remote communication, will also be open to examination during the whole time of the Special Meeting on a reasonably accessible electronic network, the information required to access which will be provided with the notice of the meeting.

The Board of Directors unanimously recommends that you vote **“FOR”** Proposal 1 (the Warrant Exercise Proposal), **“FOR”** Proposal 2 (the Authorized Share Proposal), and "FOR" Proposal 3(the Adjournment Proposal).

YOUR VOTE IS IMPORTANT. Whether or not you plan to attend the Special Meeting, we urge you to vote and submit your proxy in advance of the Special Meeting by one of the methods described in the proxy materials. If your shares are held in the name of a bank, broker or other nominee, please follow the instructions on the voting instruction form furnished to you by such record holder.

We are using the “Notice and Access” method of providing proxy materials to you via the Internet. We are mailing to our stockholders a Notice of Internet Availability of Proxy Materials (the **“Notice”**) instead of paper copies of this Notice of Special Meeting of Stockholders and the accompanying proxy statement. The Notice contains instructions on how to access those documents over the Internet and how to vote. The Notice also contains instructions on how to request a paper copy of our proxy materials.

By Order of the Board of Directors,

/s/ Frederick E. Pierce

Frederick E. Pierce

Chief Executive Officer and Director

Houston, Texas

August 4, 2026

Important Notice Regarding the Availability of Proxy Materials for the Special Meeting of Stockholders to be Held on September 14, 2026:

The Notice of Special Meeting of Stockholders and the accompanying Proxy Statement are available free of charge at:

<https://web.viewproxy.com/DCOY2026SM2>

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DECOY THERAPEUTICS INC.
PROXY STATEMENT
FOR SPECIAL MEETING OF STOCKHOLDERS

To Be Held on September 14, 2026

INFORMATION CONCERNING VOTING AND SOLICITATION

This proxy statement (this “**Proxy Statement**”) is furnished in connection with the solicitation of proxies by and on behalf of the Board of Directors of Decoy Therapeutics Inc. for use at the special meeting of stockholders to be held on September 14, 2026 at 3:00 p.m., Central Time, and at any adjournments or postponements thereof. The Special Meeting will be held solely by means of a live audio webcast. We intend to make this Proxy Statement available to stockholders on or about August 4, 2026.

At the Special Meeting, stockholders will be asked to consider and vote upon (1) the Warrant Exercise Proposal (2) the Authorized Share Proposal and (3) the Adjournment Proposal, each as described in this Proxy Statement. This Proxy Statement contains important information regarding the Special Meeting, the proposals on which you are being asked to vote, information you may find useful in determining how to vote and voting procedures.

As used in this Proxy Statement, references to “we,” “us,” “our,” “Decoy” and the “Company” refer to Decoy Therapeutics Inc. and our consolidated subsidiaries. Information contained on, or that can be accessed through, our website is not intended to be incorporated by reference into this Proxy Statement, and references to our website address in this Proxy Statement are inactive textual references only.

QUESTIONS AND ANSWERS ABOUT THE SPECIAL MEETING AND VOTING

Q: Why am I receiving these materials?

A: The Board of Directors is soliciting your proxy to vote at the Special Meeting because you owned shares of our Common Stock at the close of business on the Record Date. This Proxy Statement, together with the related Notice and proxy card, is intended to provide you with the information you need in order to vote at the Special Meeting. You do not need to attend the Special Meeting to vote your shares.

Q: Why did I receive a notice regarding the availability of proxy materials on the Internet?

A: Pursuant to rules adopted by the SEC, we have elected to provide access to our proxy materials over the Internet. Accordingly, we have sent you a Notice because the Board of Directors is soliciting your vote at the Special Meeting, including at any adjournments or postponements of the meeting. All stockholders will have the ability to access the proxy materials on the website referred to in the Notice and may request to receive a printed set of the proxy materials. Instructions on how to access the proxy materials over the Internet or to request a printed copy may be found in the Notice.

Q: Will I receive any other proxy materials by mail?

A: We may send you a proxy card, along with a second Notice, on or after August 4, 2026. In addition, if you wish, we will send you paper copies of our proxy materials, including a proxy card. Instructions on how to request paper copies of the proxy materials can be found in the Notice.

Q: What proposals will be voted on at the Special Meeting?

A: There are three proposals scheduled to be voted on at the Special Meeting: (1) the Warrant Exercise Proposal (Proposal 1); (2) the Authorized Share Proposal (Proposal 2); and (3) the Adjournment Proposal (Proposal 3). In accordance with our Second Amended and Restated Bylaws (our “*Bylaws*”), business transacted at the Special Meeting is limited to the matters relating to the purposes stated in the Notice of Special Meeting of Stockholders.

Q: What is the purpose of the Warrant Exercise Proposal?

A: In connection with a private placement that we completed on June 29, 2026 (the “*Private Placement*”), we issued Milestone Warrants that are not exercisable, and the shares of Common Stock issuable upon exercise thereof are not issuable, unless and until our stockholders approve the exercise of the Milestone Warrants and the issuance of the underlying shares of Common Stock, as required under the applicable rules of The Nasdaq Stock Market LLC (“*Nasdaq*”). We are asking our stockholders to approve the Warrant Exercise Proposal so that the Milestone Warrants may become exercisable in accordance with their terms. See “*Proposal 1 – The Warrant Exercise Proposal.*”

Q: How does the Board of Directors recommend that I vote?

A: The Board of Directors unanimously recommends that you vote:

- “**FOR**” the Warrant Exercise Proposal (Proposal 1); and
- “**FOR**” the Authorized Share Proposal (Proposal 2); and
- “**FOR**” the Adjournment Proposal (Proposal 3).

Q: Who can vote at the Special Meeting?

A: Only stockholders of record at the close of business on the Record Date, July 20, 2026, are entitled to notice of, and to vote at, the Special Meeting. As of the close of business on the Record Date, there were 590,185 shares of Common Stock issued and outstanding and entitled to vote. Each share of Common Stock is entitled to one vote on each matter properly brought before the Special Meeting. As of the Record Date, there were also 877.709 shares of our Series A Non-Voting Convertible Preferred Stock and 796.306 shares

of our Series B Non-Voting Convertible Preferred Stock issued and outstanding. The Series A Preferred Stock and the Series B Preferred Stock are not entitled to vote on the matters being considered at the Special Meeting, and we have no other class of voting securities outstanding.

Q: How many votes do I have?

A: On each matter to be voted upon, you have one vote for each share of Common Stock you own as of the close of business on the Record Date.

Q: What is the difference between a stockholder of record and a beneficial owner of shares held in street name?

A: *Stockholder of Record.* If your shares are registered directly in your name with our transfer agent, Equiniti Trust Company, LLC, you are considered the stockholder of record with respect to those shares, and the proxy materials were sent or made available directly to you.

Beneficial Owner of Shares Held in Street Name. If your shares are held in an account at a bank, broker or other nominee, then you are the beneficial owner of shares held in “street name,” and the proxy materials were forwarded to you by that organization. As a beneficial owner, you have the right to direct your bank, broker or other nominee on how to vote the shares in your account.

Q: How can I attend the Special Meeting?

A: The Special Meeting will be held solely by means of live audio webcast; no physical meeting will be held. In order to attend the Special Meeting, you must register at <https://web.viewproxy.com/DCOY2026SM2> by 11:59 p.m., Central Time, on September 13, 2026. You will receive a link by which to join the Special Meeting upon registering to attend. On the day of the Special Meeting, if you have properly registered, you may enter the meeting by clicking on the link provided via email in your registration confirmation. If you hold your shares in an account at a brokerage firm, bank, dealer or other similar organization, you will need to obtain a “legal proxy” from that entity and submit it when you register. You will be able to attend and participate in the Special Meeting online, vote your shares electronically and submit your questions prior to and during the meeting.

Q: How do I vote?

A: If you are a stockholder of record, you may vote (1) via the Internet in advance of the Special Meeting, by going to www.AALvote.com/DCOYSM2 and completing an electronic proxy card (you will be asked to provide the control number from your Notice or proxy card, and your vote must be received by 11:59 p.m., Eastern Time, on September 13, 2026 to be counted); (2) by telephone, by dialing toll-free 1-866-804-9616 and following the recorded instructions (your vote must be received by 11:59 p.m., Eastern Time, on September 13, 2026 to be counted); (3) by completing, signing and dating the proxy card that may be delivered to you and returning it promptly in the envelope provided (if you return your signed proxy card to us before the Special Meeting, we will vote your shares as you direct); or (4) online while attending the Special Meeting, if you have properly registered. To vote at the Special Meeting, (a) if you hold your shares through a broker, bank or other nominee, you will need the control number you receive by email after registering (and you must obtain a “legal proxy” from that entity and submit it when you register), and (b) if you hold your shares in an account with our transfer agent, you will need the control number shown on your Notice of Internet Availability of Proxy Materials or on your proxy card if you elected to receive proxy materials by mail. If you are a beneficial owner of shares held in street name, you should follow the voting instructions provided by your bank, broker or other nominee. Even if you plan to attend the Special Meeting, we recommend that you vote in advance so that your vote will be counted if you later decide not to attend.

Q: What happens if I do not vote?

A:

Stockholder of Record: Shares Registered in Your Name: If you are a stockholder of record and do not vote by completing your proxy card, by telephone, through the Internet or at the Special Meeting, your shares will not be voted.

Beneficial Owner: Shares Registered in the Name of Broker, Bank or Other Nominee : If you are a beneficial owner and do not direct your broker, bank or other nominee how to vote your shares, your broker, bank or other nominee will only be able to vote your shares with respect to proposals considered to be “routine.” Your broker, bank or other nominee is not entitled to vote your shares with respect to “non-routine” proposals, which we refer to as a “broker non-vote.” Whether a proposal is considered routine or non-routine is subject to stock exchange rules and final determination by the stock exchange. We believe that the Authorized Share Proposal and the Adjournment Proposal are routine matters on which brokers and nominees can vote on behalf of their clients if clients do not furnish voting instructions. However, even with respect to routine matters, some brokers choose not to exercise discretionary voting authority. As a result, we urge you to direct your broker, bank or other nominee how to vote your shares on all proposals to ensure that your vote is counted. On the other hand, absent instructions from the beneficial owner of such shares, a broker is not entitled to vote shares held for a beneficial owner on “non-routine” matters, such as the Warrant Exercise Proposal.

Q: What if I return a proxy card or otherwise vote but do not make specific choices?

A: If you return a signed and dated proxy card or otherwise vote without marking voting selections, your shares will be voted “FOR” the Warrant Exercise Proposal (Proposal 1), “FOR” the Authorized Share Proposal (Proposal 2) and “FOR” the Adjournment Proposal (Proposal 3).

Q: Who am I being asked to appoint as proxy holders and what does it mean?

A: Our Board of Directors asks you to appoint our Chief Executive Officer, Frederick E. Pierce, and our Chief Financial Officer, Mark J. Rosenblum, and each of them, as your proxy holders to vote your shares at the Special Meeting. You make this appointment when you vote. If appointed by you, the proxy holders will vote your shares as you direct on the matters described in this Proxy Statement. In the absence of your direction, they will vote your shares as recommended by our Board of Directors. In accordance with our Bylaws, business transacted at the Special Meeting is limited to the matters relating to the purposes stated in the Notice of Special Meeting of Stockholders.

Q: What is a quorum, and what happens if a quorum is not present?

A: A quorum of stockholders is necessary to hold a valid meeting. Under our Bylaws, the holders of 34% of the voting power of the capital stock issued and outstanding and entitled to vote, present in person (including by virtual attendance) or represented by proxy, will constitute a quorum for the transaction of business at the Special 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 bank, broker or other nominee) or if you vote by telephone, over the Internet or at the Special Meeting. Because we believe that the Authorized Share Proposal is a "outine matter" abstentions and broker non-votes will be counted towards the quorum requirement. If there is no quorum, either any officer entitled to preside at the Special Meeting or the holders of a majority of the shares present in person at the Special Meeting or represented by proxy and entitled to vote may adjourn the Special Meeting from time to time until a quorum is present or represented.

Q: What vote is required to approve each proposal?

A: Warrant Exercise Proposal (Proposal 1). The affirmative vote of holders of a majority of votes cast is required for the approval of the Warrant Exercise Proposal. Abstentions and broker non-votes, if any, will not have an effect on this proposal. A broker non-vote occurs when a bank, broker or other nominee holding shares for a beneficial owner does not vote on a particular proposal because that nominee does not have discretionary voting power with respect to that proposal and has not received voting instructions from the

beneficial owner. Broker non-vote shares will be considered present at the Annual Meeting for quorum purposes. **Authorized Share Proposal (Proposal 2).** The affirmative vote of holders of a majority of votes cast is required for the approval of the Authorized Share proposal. Because we believe that the Authorized Share Proposal is a “routine matter” brokers and other nominees may generally vote in their discretion on routine matters, and therefore broker non-votes are not expected on this proposal. Abstentions are not considered votes cast and will therefore have no effect on this proposal. **Adjournment Proposal (Proposal 3).** The affirmative vote of holders of a majority of votes cast is required for the approval of the Adjournment Proposal. Abstentions and broker non-votes, if any, will not have an effect on this proposal.

Q: Can I change my vote or revoke my proxy after I have submitted it?

A: Yes. If you are a stockholder of record, you may revoke your proxy or change your vote at any time before the final vote at the Special Meeting by (1) submitting a new proxy bearing a later date (by Internet, telephone or mail); (2) delivering a written notice of revocation to our Corporate Secretary at 2450 Holcombe Blvd., Suite X, Houston, Texas 77021; or (3) attending the Special Meeting and voting online during the meeting. Attendance at the Special Meeting will not, by itself, revoke a proxy. If your shares are held in street name, you must follow the instructions provided by your bank, broker or other nominee to change or revoke your voting instructions.

Q: What does it mean if I receive more than one Notice?

A: If you receive more than one Notice, your shares may be registered in more than one name or held in more than one account. Please follow the voting instructions on each proxy card or Notice you receive to ensure that all of your shares are voted.

Q: I share an address with another stockholder, and we received only one paper copy of the proxy materials. How may I obtain an additional copy of the proxy materials?

A: We have adopted a procedure called “householding,” which the SEC has approved. Under this procedure, we deliver a single copy of the Notice and, if applicable, our proxy materials to multiple stockholders who share the same address unless we have received contrary instructions from one or more of such stockholders. This procedure reduces our printing costs, mailing costs and fees. Stockholders who participate in householding will continue to be able to access and receive separate proxy cards. Upon written or oral request, we will promptly deliver a separate copy of the Notice and, if applicable, our proxy materials to any stockholder at a shared address to which we delivered a single copy of any of these materials. To receive a separate copy, or, if a stockholder is receiving multiple copies, to request that we only send a single copy of the Notice and, if applicable, our proxy materials, such stockholder may contact us at Decoy Therapeutics Inc., Attention: Chief Financial Officer, 2450 Holcombe Blvd., Suite X, Houston, TX 77021, or contact@decoytx.com. Street name stockholders may contact their broker, bank or other nominee to request information about householding.

Q: Who is paying for this proxy solicitation?

A: We will bear the entire cost of soliciting proxies, including the preparation, assembly, printing and mailing of the proxy materials. In addition to solicitation by mail, our directors, officers and other employees may solicit proxies in person, by telephone or by other means of communication, without additional compensation. We may also reimburse banks, brokers and other nominees for their reasonable out-of-pocket expenses incurred in forwarding proxy materials to beneficial owners. We have engaged Alliance Advisors, LLC to assist in the solicitation of proxies and to provide related advice and informational support, for a services fee not expected to exceed \$75,000, plus the reimbursement of customary disbursements.

Q: Where can I find the voting results of the Special Meeting?

A: We will announce preliminary voting results at the Special Meeting and will report the final voting results in a Current Report on Form 8-K that we will file with the U.S. Securities and Exchange Commission (the “SEC”) within four business days after the Special Meeting.

Q: Whom should I contact if I have questions?

A: If you have questions about the Special Meeting or how to vote your shares, or if you need additional copies of the proxy materials, please contact our Corporate Secretary at 2450 Holcombe Blvd., Suite X, Houston, Texas 77021, or by telephone at (713) 913-5608.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Proxy Statement and the documents we have filed with the SEC that are incorporated by reference into this Proxy Statement contain “forward-looking statements” within the meaning of the U.S. federal securities laws, including the Private Securities Litigation Reform Act of 1995. These statements are based on the beliefs and assumptions of our management. Generally, statements that are not historical facts, including statements concerning possible or assumed future actions, business strategies, events or results of operations, are forward-looking statements. These statements may be preceded by, followed by or include the words “believes,” “estimates,” “expects,” “projects,” “target,” “goal,” “forecasts,” “may,” “will,” “potential,” “should,” “would,” “could,” “future,” “seeks,” “plans,” “predicts,” “propose,” “scheduled,” “anticipates,” “intends” or similar expressions.

Forward-looking statements in this Proxy Statement and the documents incorporated by reference into this Proxy Statement include, but are not limited to, statements about: whether and when the clinical milestones applicable to the Milestone Warrants will be achieved; whether we will obtain the Stockholder Approval required for the Milestone Warrants to become exercisable; the amount and timing of any proceeds we may receive upon the exercise of the Milestone Warrants, and our anticipated use of any such proceeds; the anticipated timing of our regulatory filings and communications and of the commencement of preclinical studies or clinical trials of our product candidates, and the release of data from such studies or trials; our ability to continue as a going concern and the sufficiency of our cash resources for our anticipated operating and capital requirements; our ability to maintain the listing of our Common Stock on Nasdaq; and our need for, and ability to obtain, additional funding.

Although we believe that the plans, intentions and expectations reflected in or suggested by these forward-looking statements are reasonable, we cannot assure you that we will achieve or realize these plans, intentions or expectations. Forward-looking statements are inherently subject to risks, uncertainties and assumptions, including those described under “Risk Factors” in our Annual Report on Form 10-K for the fiscal year ended December 31, 2025, as amended, and our Quarterly Report on Form 10-Q for the quarter ended March 31, 2026, and in our other filings with the SEC. Forward-looking statements speak only as of the date of this Proxy Statement or, in the case of documents incorporated by reference, as of the date of those documents. Except as required by law, we undertake no obligation to update or revise publicly any forward-looking statement, whether as a result of new information, future events or otherwise.

PROPOSAL 1

THE WARRANT EXERCISE PROPOSAL

Overview

We are asking our stockholders to approve, for purposes of Nasdaq Listing Rules 5635(b) and 5635(d), the issuance of shares of our Common Stock upon the exercise of the Milestone Warrants that we issued in the Private Placement, including the issuance of shares of Common Stock in an amount equal to or in excess of 20% of the shares of Common Stock outstanding immediately prior to the issuance of the Milestone Warrants and the securities issued in the Private Placement. We refer to this proposal as the ***“Warrant Exercise Proposal.”***

As described below, the Milestone Warrants are not exercisable, and the shares of Common Stock issuable upon exercise thereof (the ***“Warrant Shares”***) are not issuable, unless and until we obtain the approval of our stockholders contemplated by this proposal (such approval, ***“Stockholder Approval,”*** and the date on which Stockholder Approval is obtained, the ***“Stockholder Approval Date”***). We agreed in connection with the Private Placement to hold a special meeting of stockholders no later than 90 days after the closing of the Private Placement to seek Stockholder Approval, and, if Stockholder Approval is not then obtained, to seek such approval at least every 90 days thereafter until the earlier of the date Stockholder Approval is obtained and the date on which the Milestone Warrants are no longer outstanding.

Background of the Private Placement

On June 26, 2026, we entered into a Securities Purchase Agreement (the ***“Securities Purchase Agreement”***) with a single institutional and accredited investor (the ***“Purchaser”***) for a private placement of our securities. The closing of the Private Placement occurred on June 29, 2026 (the ***“Closing Date”***). Curvature Securities, LLC acted as the sole placement agent for the Private Placement (the ***“Placement Agent”***).

Pursuant to the Securities Purchase Agreement, we agreed to issue and sell to the Purchaser, at a purchase price of \$5.91 per share (the ***“Per Share Purchase Price”***), (i) an aggregate of 592,217 shares of Common Stock (the ***“Shares”***) or, at the election of the Purchaser whose purchase would otherwise cause it to exceed the applicable beneficial ownership limitation, pre-funded warrants in lieu thereof (the ***“Pre-Funded Warrants”***), and (ii) accompanying Series A common warrants (the ***“Series A Warrants”***), Series B common warrants (the ***“Series B Warrants”***) and Series C common warrants (the ***“Series C Warrants”*** and, together with the Series A Warrants and the Series B Warrants, the Milestone Warrants). The purchase price of each Pre-Funded Warrant equals the Per Share Purchase Price minus \$0.0001, and the exercise price of each Pre-Funded Warrant is \$0.0001 per share.

The Purchaser elected to purchase Pre-Funded Warrants in lieu of shares of Common Stock and, accordingly, at the closing we issued to the Purchaser Pre-Funded Warrants to purchase 592,217 shares of Common Stock and did not issue any shares of Common Stock. The Purchaser received Series A Warrants, Series B Warrants and Series C Warrants to purchase up to a number of shares of Common Stock equal to 100%, 200% and 200%, respectively, of the number of Shares (and shares underlying any Pre-Funded Warrants) purchased in the Private Placement, in each case at an exercise price of \$5.91 per share, subject to adjustment. Based on the number of Shares issued in the Private Placement, the Milestone Warrants are exercisable, subject to receipt of Stockholder Approval, for up to an aggregate of 2,961,085 Warrant Shares, consisting of up to 592,217 shares issuable upon exercise of the Series A Warrants, up to 1,184,434 shares issuable upon exercise of the Series B Warrants and up to 1,184,434 shares issuable upon exercise of the Series C Warrants.

The aggregate gross proceeds to the Company from the Private Placement were approximately \$3.5 million, before deducting placement agent fees and other offering expenses payable by us and excluding the proceeds, if any, from the future exercise of the Milestone Warrants. If the Milestone Warrants are exercised in full for cash following receipt of Stockholder Approval, we would receive up to approximately \$17.5 million in additional gross proceeds. We intend to use the net proceeds from the Private Placement for general corporate purposes, including to advance our lead asset into clinical trials.

Each Milestone Warrant has an exercise price equal to the Per Share Purchase Price. The terms of the Private Placement, including the Per Share Purchase Price, were determined through arm's-length negotiations between the Company and the Purchaser. At the time of the Private Placement, our Board of Directors considered our cash position and funding requirements, the terms available in the transaction and other alternatives, and determined that the Private Placement was in the best interests of the Company and our stockholders.

Description of the Securities Issued in the Private Placement

Pre-Funded Warrants

Each Pre-Funded Warrant is exercisable at any time on or after its date of issuance and will not expire until exercised in full. A holder of Pre-Funded Warrants may not exercise any portion of its Pre-Funded Warrants to the extent that, after giving effect to such exercise, the holder (together with its affiliates and certain related parties) would beneficially own more than 9.99% of the number of shares of Common Stock outstanding immediately after giving effect to such exercise, which percentage may be adjusted at the holder's election (but not in excess of 9.99%) upon 61 days' prior notice to us. The Pre-Funded Warrants may be exercised on a cashless basis. The exercise price and the number of shares issuable upon exercise of the Pre-Funded Warrants are subject to adjustment in the event of certain stock dividends, stock splits, stock combinations, reclassifications and similar events. The issuance of the shares of Common Stock issuable upon exercise of the Pre-Funded Warrants is not subject to, or conditioned upon, Stockholder Approval and is not the subject of the Warrant Exercise Proposal.

Series A, Series B and Series C Milestone Warrants

Each of the Series A Warrants, Series B Warrants and Series C Warrants has an exercise price of \$5.91 per share, subject to adjustment. Each Milestone Warrant becomes exercisable, if at all, on the Stockholder Approval Date, and, under the terms of each Milestone Warrant and the Securities Purchase Agreement, the Milestone Warrants are not exercisable, and the Warrant Shares are not issuable, unless and until Stockholder Approval is obtained.

Term; Milestone Events. Each Milestone Warrant will expire on the earlier of (i) the 90th day following the date of the applicable Milestone Event (or, if such 90th day falls on a day other than a business day, the next business day) and (ii) June 29, 2031. As defined in each Milestone Warrant, the applicable "Milestone Event" means the later of (a) the date on which Stockholder Approval is obtained and (b) the occurrence of the applicable clinical milestone set forth below. The occurrence of the applicable clinical milestone accordingly does not delay the exercisability of the Milestone Warrants following the Stockholder Approval Date; rather, it determines when the 90-day period preceding the expiration of the applicable series of Milestone Warrants begins. The applicable clinical milestones are as follows:

- **Series A Warrants.** The date of the filing by the Company of a Clinical Trial Application with the applicable competent regulatory authority in the European Economic Area to commence a Phase 1 clinical trial.
- **Series B Warrants.** The date on which the Company provides notice to the holder of the Company's receipt of formal written approval from the Medicines and Healthcare products Regulatory Agency to conduct a Phase 2a human challenge trial in the United Kingdom.
- **Series C Warrants.** The Company's public announcement that the Phase 2a human challenge trial conducted in the United Kingdom met its primary endpoint.

Exercise Limitation. A holder of Milestone Warrants may not exercise any portion of its Milestone Warrants to the extent that, after giving effect to such exercise, the holder (together with its affiliates and certain related parties) would beneficially own more than 4.99% (or, at the election of the holder, 9.99%) of the number of shares of Common Stock outstanding immediately after giving effect to such exercise. A holder of Milestone Warrants may also elect to receive Pre-Funded Warrants in lieu of shares of Common Stock upon exercise of the Milestone Warrants.

Exercise. The Milestone Warrants are only exercisable for cash, provided, however, that if, at the time a holder exercises its Milestone Warrants, a registration statement registering the resale of the Warrant Shares under the Securities Act of 1933, as amended (the “**Securities Act**”), is not then effective or available, then in lieu of making the cash payment otherwise contemplated to be made upon such exercise, the holder may elect to receive the net number of shares of Common Stock determined according to a formula set forth in the applicable Milestone Warrant.

Adjustments. The exercise price and the number of Warrant Shares issuable upon exercise of the Milestone Warrants are subject to adjustment in the event of stock dividends, stock splits, stock combinations, reclassifications and similar events affecting the Common Stock.

No Rights as a Stockholder; No Listing. Except as otherwise provided in the Milestone Warrants or by virtue of a holder’s ownership of shares of Common Stock, the holders of the Milestone Warrants do not have the rights or privileges of holders of our Common Stock, including voting rights, until they exercise their Milestone Warrants. There is no established public trading market for the Milestone Warrants, and we do not intend to apply to list the Milestone Warrants on any securities exchange or trading market.

Registration Rights Agreement

In connection with the Securities Purchase Agreement, we entered into a Registration Rights Agreement (the “**Registration Rights Agreement**”) with the Purchaser, pursuant to which we agreed to file with the SEC a registration statement covering the resale of the shares of Common Stock issuable upon exercise of the Pre-Funded Warrants and the Milestone Warrants. We filed the registration statement on Form S-1 required by the Registration Rights Agreement with the SEC on July 10, 2026 (File No. 333-297381), which was declared effective on July 17, 2026. The Registration Rights Agreement also provides that, upon the occurrence of certain events, we will be obligated to pay to each holder partial liquidated damages equal to 1.5% of the aggregate subscription amount paid by such holder on the applicable event date and on each monthly anniversary thereof until the applicable event is cured, subject to a maximum aggregate amount of 10.5% of such holder’s aggregate subscription amount and excluding, for purposes of such calculation, any amount attributable to shares underlying Milestone Warrants for which the applicable Milestone Event or Stockholder Approval has not then occurred.

Lock-Up Agreements

In connection with the Private Placement, each of our executive officers and directors entered into a lock-up agreement in favor of the Placement Agent (each, a “**Lock-Up Agreement**”), pursuant to which each such person agreed, subject to certain limited exceptions, not to, without the prior written consent of the Placement Agent, offer, sell, pledge, transfer or otherwise dispose of, or enter into certain hedging transactions with respect to, any shares of Common Stock or securities convertible into or exercisable or exchangeable for Common Stock, or publicly disclose an intention to do any of the foregoing, for a period of 90 days following the Closing Date.

Placement Agency Agreement

On June 26, 2026, we entered into a Placement Agency Agreement (the “**Placement Agency Agreement**”) with the Placement Agent, pursuant to which the Placement Agent agreed to act as our sole placement agent on a “reasonable best efforts” basis in connection with the Private Placement. As compensation for its

services, we agreed to pay the Placement Agent a cash fee equal to 9.0% of the aggregate gross proceeds received by us from the sale of securities in the Private Placement and to reimburse the Placement Agent for certain of its accountable expenses (including legal fees) up to \$75,000 and non-accountable expenses up to \$25,000. We also agreed to issue to the Placement Agent or its designees warrants (the **“Placement Agent Warrants”**) to purchase an aggregate of 213,198 shares of Common Stock, equal to 6.0% of the aggregate number of shares of Common Stock underlying the securities sold in the Private Placement, issued to the Placement Agent and its designees, including Ladenburg Thalmann & Co. Inc., which received Placement Agent Warrants to purchase 95,939 shares of Common Stock as a designee of the Placement Agent in consideration for the waiver of its right of first refusal. The Placement Agent Warrants have an exercise price of \$7.3875 per share (equal to 125% of the Per Share Purchase Price), become exercisable six months after their date of issuance and expire on June 29, 2031. The Placement Agent Warrants and the shares of Common Stock issuable upon exercise thereof are subject to a 180-day lock-up and the other transfer restrictions set forth in FINRA Rule 5110.

The foregoing descriptions of the Securities Purchase Agreement, the Pre-Funded Warrants, the Series A Warrants, the Series B Warrants, the Series C Warrants, the Registration Rights Agreement, the Lock-Up Agreements, the Placement Agency Agreement and the Placement Agent Warrants do not purport to be complete and are qualified in their entirety by reference to the full text of such agreements or forms of agreements, copies of which were filed as exhibits to our Current Report on Form 8-K filed with the SEC on June 29, 2026, and are incorporated by reference herein. See *“Where You Can Find More Information.”*

Why We Are Seeking Stockholder Approval

Our Common Stock is listed on The Nasdaq Capital Market under the symbol “DCOY,” and, as a result, we are subject to the Nasdaq Listing Rules. We are seeking Stockholder Approval in order to comply with Nasdaq Listing Rules 5635(b) and 5635(d).

Nasdaq Listing Rule 5635(d)

Nasdaq Listing Rule 5635(d) Rule 5635(d) requires stockholder approval of transactions other than public offerings of greater than 20% of the outstanding common stock or voting power of the issuer prior to such issuance for less than the applicable Minimum Price. Under Rule 5635(d), the “Minimum Price” means a price that is the lower of: (i) the closing price immediately preceding the signing of the binding agreement; or (ii) the average closing price of the common stock for the five trading days immediately preceding the signing of the binding agreement. Under Nasdaq’s rules, when an issuance includes common stock (or the equivalent) and warrants, it is necessary to attribute a value of \$0.125, plus any amount that the warrant is currently in the money or could be in the money due to adjustments, such as for price protection, to each warrant for purposes of determining whether the securities are issued at a discount to the Minimum Price. While the shares underlying the Pre-funded Warrants were issued at a price equal to the Minimum Price, additional value of \$0.125 was not paid for the Milestone Warrants. Accordingly, in order to comply with Rule 5635(d), the Milestone Warrants are not exercisable until stockholder approval is obtained.

The aggregate number of Warrant Shares issuable upon exercise of the Milestone Warrants (together with the shares of Common Stock issuable upon exercise of the Pre-Funded Warrants and the Placement Agent Warrants) exceeds 20% of the shares of Common Stock outstanding immediately prior to the Private Placement. As of the Record Date, we had 590,185 shares of Common Stock outstanding, and the Milestone Warrants are exercisable for up to an aggregate of 2,961,085 Warrant Shares. Accordingly, in order to comply with Nasdaq Listing Rule 5635(d), the Milestone Warrants are not exercisable, and the Warrant Shares are not issuable, unless and until we obtain Stockholder Approval.

Nasdaq Listing Rule 5635(b)

Nasdaq Listing Rule 5635(b) requires stockholder approval prior to an issuance of securities that will result in a “change of control” of the issuer, which Nasdaq has generally interpreted to mean an issuance that would result in an investor or a group acquiring, or obtaining the right to acquire, 20% or more of the outstanding common stock (or voting power) and such ownership or voting power being the largest ownership position of the issuer. Although the Milestone Warrants contain beneficial ownership limitations that prohibit the holder from exercising the Milestone Warrants to the extent that, after giving effect to such exercise, the holder (together with its affiliates and certain related parties) would beneficially own more than 4.99% (or, at the holder’s election, 9.99%) of the outstanding Common Stock, we are also seeking Stockholder Approval for purposes of Rule 5635(b) to the extent that the issuance of the Warrant Shares could be deemed to result in a change of control under that rule. We are seeking Stockholder Approval under both Rule 5635(b) and Rule 5635(d) out of an abundance of caution.

Reasons for the Warrant Exercise Proposal

We are a clinical-stage biotechnology company and have incurred significant operating losses and negative cash flows from operations since inception. We expect to continue to incur significant expenses and operating losses as we advance our product candidates through preclinical and clinical development. As a result, we will need to raise substantial additional capital to fund our operations and advance our programs. The Private Placement was undertaken to strengthen our balance sheet and to provide funding to advance our lead asset into clinical trials.

The milestone-based structure of the Milestone Warrants – under which each series expires on the 90th day following the later of the Stockholder Approval Date and the occurrence of the applicable clinical milestone (or, if earlier, on June 29, 2031) – provides us with a potential additional source of funding for the further advancement of our programs and for other working capital and general corporate purposes. Approval of the Warrant Exercise Proposal is one of the conditions for us to be able to receive up to approximately \$17.5 million in additional gross proceeds upon the exercise of the Milestone Warrants in full for cash. If our stockholders do not approve the Warrant Exercise Proposal, the Milestone Warrants will not become exercisable, and we will not receive any proceeds from the exercise of the Milestone Warrants, which could adversely affect our ability to fund our operations and advance our programs.

The Board of Directors has determined that the Private Placement and the transactions contemplated thereby, including the issuance of the Milestone Warrants and the potential issuance of the Warrant Shares upon exercise thereof, are advisable and in the best interests of the Company and our stockholders. In reaching this determination, the Board of Directors considered, among other things, our cash position and funding requirements at the time of the Private Placement, the terms of the Private Placement (including the milestone-based structure of the Milestone Warrants), the alternatives reasonably available to us and the potential dilutive effect of the issuance of the Warrant Shares.

Potential Effects of Approval of the Warrant Exercise Proposal

Dilution. If the Warrant Exercise Proposal is approved, the Milestone Warrants will become exercisable in accordance with their terms, and the issuance of the Warrant Shares upon exercise of the Milestone Warrants will dilute the ownership interests of our existing stockholders. Assuming the exercise in full of the Milestone Warrants, an aggregate of up to 2,961,085 additional shares of Common Stock would be issued and outstanding, and the ownership and voting interests of our existing stockholders would be correspondingly reduced. The number of Warrant Shares issuable upon exercise of the Milestone Warrants is subject to adjustment for certain events, including stock splits and stock dividends, and the actual number of shares issued may be greater or less than 2,961,085. In addition, the sale into the public market of the Warrant Shares, or the perception that such sales could occur, could adversely affect the prevailing market price of our Common Stock.

Market Effects. The exercise of the Milestone Warrants and the resale of the Warrant Shares pursuant to the resale registration statement contemplated by the Registration Rights Agreement could depress the market price of our Common Stock. The beneficial ownership limitations in the Milestone Warrants restrict the ability of the holder to exercise the Milestone Warrants to the extent that such exercise would cause the holder (together with its affiliates and certain related parties) to exceed the applicable beneficial ownership limitation, which may limit the number of Warrant Shares that may be issued at any one time but does not limit the aggregate number of Warrant Shares that may ultimately be issued over time.

Consequences if the Warrant Exercise Proposal Is Not Approved

If our stockholders do not approve the Warrant Exercise Proposal, the Milestone Warrants will not become exercisable, and we will not be able to issue the Warrant Shares upon exercise of the Milestone Warrants. As a result, we would not receive the up to approximately \$17.5 million in additional gross proceeds that could be realized upon the exercise of the Milestone Warrants for cash, which could adversely affect our ability to fund our operations and advance our programs. In addition, we have agreed to hold a special meeting of stockholders to seek Stockholder Approval no later than 90 days after the Closing Date and, if Stockholder Approval is not then obtained, to seek such approval at least every 90 days thereafter until the earlier of the date Stockholder Approval is obtained and the date on which the Milestone Warrants are no longer outstanding. The costs and expenses associated with seeking such approval at one or more additional meetings could be significant and could adversely affect our ability to fund our operations.

Interests of Certain Persons in the Warrant Exercise Proposal

Our directors and executive officers do not have any substantial interest, directly or indirectly, in the Warrant Exercise Proposal, except to the extent of their ownership of shares of our Common Stock and other securities and their entry into Lock-Up Agreements in connection with the Private Placement. To our knowledge, no director or executive officer participated as a Purchaser in the Private Placement.

No Appraisal Rights

Under the General Corporation Law of the State of Delaware, our Amended and Restated Certificate of Incorporation, as amended, and our Second Amended and Restated Bylaws, stockholders are not entitled to appraisal or dissenters' rights with respect to the Warrant Exercise Proposal, and we will not independently provide our stockholders with any such rights.

Vote Required

The affirmative vote of the holders of shares of Common Stock representing a majority of votes cast at the Special Meeting will be required for approval of this proposal. Accordingly, abstentions and broker non-votes, if any, will not have an effect on this proposal.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT STOCKHOLDERS VOTE "FOR" THE APPROVAL OF THE WARRANT EXERCISE PROPOSAL (PROPOSAL 1).

PROPOSAL 2

THE AUTHORIZED SHARE PROPOSAL

Overview

Our Amended and Restated Certificate of Incorporation, as amended by the Certificate of Amendment on March 5, 2026, currently authorizes the issuance of 100,000,000 shares of Common Stock, par value \$0.0001 per share. On July 23, 2026 our Board of Directors approved an amendment to our Certificate of Incorporation to decrease the number of shares of Common Stock that we are authorized to issue by 10,000,000 shares, from 100,000,000 shares to 90,000,000 shares, subject to stockholder approval (the “Authorized Share Amendment”). If approved by the stockholders at the Special Meeting, the Company intends to file the Authorized Share Amendment, in the form attached hereto as Annex A, with the Secretary of State of the State of Delaware as soon as practicable following the Special Meeting. If this proposal is not approved by our stockholders, our Current Certificate of Incorporation will remain unchanged.

Reasons for the Authorized Share Amendment

We are mindful of the potential negative effects of a large number of authorized but unissued shares of Common Stock. For instance, future issuances of Common Stock or securities convertible into Common Stock could have a negative impact on our earnings per share and book value per share and would dilute the voting power and ownership of our existing stockholders. In addition, the availability of a substantial number of authorized but unissued shares of Common Stock could, under certain circumstances, discourage or make more difficult efforts to obtain control of us.

Given the number of outstanding shares of Common Stock, and based on the Board’s assessment of the Company’s needs to issue additional shares for financing purposes in the near future, the Board determined that it is advisable and prudent to reduce the number of authorized shares of Common Stock by 10,000,000 shares, or from 100,000,000 shares to 90,000,000 shares. Our Board believes 90,000,000 authorized shares of Common Stock will provide us with sufficient flexibility to issue shares of our Common Stock as needed for the foreseeable future.

Potential Adverse Effects of the Authorized Share Amendment

Although our Board believes 90,000,000 authorized shares of Common Stock will be sufficient for our expected purposes for the foreseeable future, these expectations could turn out to be incorrect, and we may require additional authorized shares sooner than we expect. In that case, we would be forced to obtain the approval of our stockholders to effect an increase to our authorized shares of Common Stock. The stockholder approval process can be time-consuming and is subject to a variety of SEC rules that implement waiting periods throughout the process, which could prevent us from obtaining any increase to our authorized shares in a timely manner. Moreover, our stockholders may not approve any future proposal to increase our authorized shares. Either of these outcomes could force us to forego opportunities that we believe to be valuable or prevent us from using equity for compensation or other corporate purposes, which could limit our flexibility and prospects and strain our cash resources.

Effectiveness of the Authorized Share Amendment

If the proposed amendment is approved by stockholders, the number of authorized shares of our Common Stock will be decreased from 100,000,000 to 90,000,000. The proposed amendment will not change the par value of the shares of our Common Stock, affect the number of shares of our Common Stock that are outstanding, or affect the rights or privileges of holders of shares of our Common Stock. If the proposed

amendment is approved, it will become effective upon the filing of the Certificate of Amendment with the Secretary of State of the State of Delaware, which the Company expects to file promptly after the Special Meeting. If the proposed amendment is not approved by the Company's stockholders, the number of authorized shares of Common Stock will remain unchanged.

Vote Required

This proposal requires that the number of votes cast in favor exceeds the number of votes cast against approval of this proposal. Abstentions are not considered votes cast and will therefore have no effect on this proposal. We believe that this proposal is a routine matter under applicable stock exchange rules, and brokers and other nominees may generally vote in their discretion on routine matters. If a proxy card is signed and returned but no direction is made, the persons named in your proxy will vote your shares "**FOR**" this proposal.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT STOCKHOLDERS VOTE "FOR" THE APPROVAL OF THE AUTHORIZED SHARE PROPOSAL (PROPOSAL 2).

PROPOSAL 3

THE ADJOURNMENT PROPOSAL

Overview

The Adjournment Proposal, if adopted, will allow the Board of Directors or the chairperson of the Special Meeting to adjourn the Special Meeting to a later date or dates, if necessary or appropriate, to permit further solicitation of proxies if there are insufficient votes at the time of the Special Meeting to approve the Warrant Exercise Proposal, the Authorized Share Proposal or to otherwise ensure that any supplement or amendment to this Proxy Statement is timely provided to our stockholders.

In the Adjournment Proposal, we are asking our stockholders to authorize the holder of any proxy solicited by the Board of Directors to vote in favor of adjourning the Special Meeting to a later date or dates, if necessary or appropriate, to solicit additional proxies in the event that there are insufficient votes to approve the Warrant Exercise Proposal or the Authorized Share Proposal at the time of the Special Meeting. If our stockholders approve the Adjournment Proposal, we could adjourn the Special Meeting, and any adjourned session of the Special Meeting, to use the additional time to solicit additional proxies in favor of the Warrant Exercise Proposal or the Authorized Share Proposal.

If the Special Meeting is adjourned, and provided that a new record date is not set for the adjourned Special Meeting, stockholders who have already submitted their proxies will be able to revoke them at any time prior to the final vote on the proposals. If we do not approve the Adjournment Proposal and there are insufficient votes to approve the Warrant Exercise Proposal or the Authorized Share Proposal, we may not be able to adjourn the Special Meeting to a later date for the purpose of soliciting additional proxies in favor of the Warrant Exercise Proposal.

Vote Required

The affirmative vote of the holders of shares of Common Stock representing a majority of votes cast at the Special Meeting will be required for approval of this proposal. Abstentions are not considered votes cast and will therefore have no effect on this proposal. We believe this proposal is considered a “routine” matter under applicable stock exchange rules, and we expect your broker will have discretion to vote your shares on this proposal.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT STOCKHOLDERS VOTE “FOR” THE APPROVAL OF THE ADJOURNMENT PROPOSAL (PROPOSAL 2).

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information regarding the beneficial ownership of our Common Stock as of July 20, 2026 by: (i) each person or group known by us to beneficially own more than 5% of our outstanding Common Stock; (ii) each of our directors; (iii) each of our named executive officers; and (iv) all of our current directors and executive officers as a group.

We have determined beneficial ownership in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities. In addition, the rules include shares of Common Stock issuable pursuant to the exercise of stock options or warrants that are either immediately exercisable or exercisable within 60 days of July 20, 2026. These shares are deemed to be outstanding and beneficially owned by the person holding those options or warrants for the purpose of computing the percentage ownership of that person, but are not treated as outstanding for the purpose of computing the percentage ownership of any other person. The Milestone Warrants are subject to beneficial ownership limitations of 4.99% (or, at the holder's election, 9.99%) and, prior to the Stockholder Approval Date, are not exercisable; accordingly, shares issuable upon exercise of the Milestone Warrants are not included as beneficially owned in the table below.

The percentage of beneficial ownership is based on 590,185 shares of Common Stock outstanding as of the Record Date). Unless otherwise indicated, the address for each person or entity listed in the table is c/o Decoy Therapeutics Inc., 2450 Holcombe Blvd., Suite X, Houston, Texas 77021. All share amounts reflect the 1-for-15 reverse stock split effected on August 15, 2025 and the 1-for-12 reverse stock split effected on March 6, 2026.

Name of Beneficial Owner	Shares Beneficially Owned	Percentage
<i>Directors and Named Executive Officers:</i>		
Frederick E. Pierce(3)	5,141	*
Mark J. Rosenblum(4)	1,699	*
Barbara Hibner, Ph.D.(5)	974	*
Peter Marschel(6)	974	*
William K. McVicar, Ph.D.(7)	18	*
Tess Burleson(8)	18	*
Arnold C. Hanish(9)	18	*
Paul Lammers, M.D.(10)	17	*
Jonathan Lieber(11)	18	*
Patricia Gauthier(12)	—	—
All current directors and executive officers as a group (10 persons)	8,877	1.5%
<i>5% Stockholders:</i>		
Armistice Capital Master Fund Ltd.(1)	58,217	9.86%
CVI Investments, Inc.(2)	59,047	9.99%

* Represents beneficial ownership of less than 1% of the outstanding shares of Common Stock.

(1) Consists of 58,217 shares of Common Stock issuable upon exercise of the Pre-Funded Warrants held by Armistice Capital Master Fund Ltd. (the "Master Fund"), which are subject to a beneficial ownership limitation of 9.99% of the outstanding Common Stock. Excludes 2,961,085 shares of Common Stock issuable upon exercise of the Milestone Warrants held by the Master Fund, which are not exercisable prior to the Stockholder Approval Date and are subject to a beneficial ownership limitation of 4.99%. The securities are directly held by the Master Fund, a

Member of Armistice Capital, LLC. The address of the Master Fund is c/o Armistice Capital, LLC, 510 Madison Avenue, 7th Floor, New York, NY 10022.

(2) Based on a Schedule 13G/A filed by CVI Investments, Inc. on February 20, 2026. The number of shares reported as beneficially owned consists of shares of Common Stock issuable upon the exercise of warrants, subject to a beneficial ownership limitation. Heights Capital Management, Inc. is the investment manager of CVI Investments, Inc. and may exercise voting and dispositive power over the shares. The address of CVI Investments, Inc. is P.O. Box 309GT, Ugland House, South Church Street, George Town, Grand Cayman, KY1-1104, Cayman Islands.

(3) Includes (i) 1,389 shares of Common Stock, (ii) 974 shares of Common Stock subject to options exercisable within 60 days, and (iii) 1,389 shares issuable upon exercise of Series A warrants and 1,389 shares issuable upon exercise of Series B warrants issued in a prior financing (which are not the Milestone Warrants that are the subject of Proposal 1). Certain options are held of record by the Frederick E. Pierce II Living Trust dated January 28, 2011, of which Mr. Pierce is the trustee and sole beneficiary.

(4) Includes (i) 1,681 shares of Common Stock held directly and (ii) 18 shares of Common Stock subject to options exercisable within 60 days.

(5) Includes 974 shares of common stock subject to options that are exercisable within 60 days.

(6) Includes 974 shares of common stock subject to options that are exercisable within 60 days.

(7) Includes (i) 2 shares of common stock, (ii) 16 shares of common stock subject to options that are exercisable within 60 days.

(8) Includes (i) 2 shares of common stock and (ii) 16 shares of common stock subject to options that are exercisable within 60 days.

(9) Includes (i) 2 shares of common stock and (ii) 16 shares of common stock subject to options that are exercisable within 60 days.

(10) Includes (i) 1 share of common stock and (ii) 16 shares of common stock subject to options that are exercisable within 60 days.

(11) Includes (i) 2 shares of common stock and (ii) 16 shares of common stock subject to options that are exercisable within 60 days.

(12) Ms. Gauthier was elected as a Class II director at the 2026 annual meeting of stockholders held on July 14, 2026.

INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to “incorporate by reference” information into this Proxy Statement, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The documents incorporated by reference into this Proxy Statement contain important information that you should read about us. The following documents are incorporated by reference into this Proxy Statement:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2025, filed with the SEC on [March 31, 2026](#), as amended by Amendment No. 1 on Form 10-K/A filed with the SEC on [April 30, 2026](#);
- our Quarterly Report on Form 10-Q for the quarter ended [March 31, 2026](#), filed with the SEC on May 8, 2026;
- those portions of our Definitive Proxy Statement on Schedule 14A filed with the SEC on June 4, 2026 that are deemed “filed” with the SEC;
- our Current Reports on Form 8-K and Form 8-K/A (other than portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits accompanying such reports that relate to such items) filed with the SEC on [January 2, 2026](#), [January 2, 2026](#), [January 8, 2026](#), [February 25, 2026](#), [March 5, 2026](#), [April 2, 2026](#), [May 19, 2026](#), [June 29, 2026](#), and [July 15, 2026](#); and
- the description of our common stock contained in our Registration Statement on [Form 8-A](#) filed on January 23, 2015, as updated by [Exhibit 4.9](#) to the Registrant’s Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2025, including any amendments or reports filed for the purpose of updating such description.

We also incorporate by reference into this Proxy Statement all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this Proxy Statement and prior to the date of the Special Meeting (or any adjournment or postponement thereof). These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

Any statement contained herein or in a document incorporated or deemed to be incorporated by reference into this Proxy Statement will be deemed to be modified or superseded for purposes of this Proxy Statement to the extent that a statement contained in this Proxy Statement or any other subsequently filed document that is deemed to be incorporated by reference into this Proxy Statement modifies or supersedes the statement.

You may request, orally or in writing, a copy of any or all of the documents incorporated herein by reference. These documents will be provided to you at no cost, by contacting: Decoy Therapeutics Inc., Attention: Chief Financial Officer, 2450 Holcombe Blvd., Suite X, Houston, TX 77021, or contact@decoytx.com. In addition, copies of any or all of the documents incorporated herein by reference may be accessed at our website at www.decoytx.com. The information on such website is not incorporated by reference and is not a part of this Proxy Statement.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We file periodic reports under the Exchange Act, including annual, quarterly and current reports, proxy statements and other information with the SEC. These periodic reports and other information are available for inspection and copying on the website of the SEC at www.sec.gov.

We make available free of charge on or through our Internet website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The information found on our website, www.decoytx.com, other than as specifically incorporated by reference in this Proxy Statement, is not part of this Proxy Statement.

The descriptions in this Proxy Statement of the Securities Purchase Agreement, the Pre-Funded Warrants, the Series A Warrants, the Series B Warrants, the Series C Warrants, the Registration Rights Agreement, the Lock-Up Agreements, the Placement Agency Agreement and the Placement Agent Warrant are qualified in their entirety by reference to the full text of those agreements or forms of agreements, which were filed as exhibits to our Current Report on Form 8-K filed with the SEC on June 29, 2026. You may obtain copies of these documents as described above.

OTHER MATTERS

In accordance with our Bylaws, business transacted at the Special Meeting is limited to the matters relating to the purposes stated in the Notice of Special Meeting of Stockholders. The Board of Directors does not know of any other business that will be presented at the Special Meeting. Whether or not you intend to attend the Special Meeting, we urge you to vote in advance by telephone or through the Internet.

Stockholder Proposals for the 2027 Annual Meeting of Stockholders

To be considered for inclusion in next year's proxy materials, your proposal must be submitted in writing by February 4, 2027, to our Secretary at 2450 Holcombe Blvd., Suite X, Houston, TX 77021. If you wish to submit any other motion related to business proposed to be brought before next year's annual meeting of stockholders, you must provide the specified information required by our Bylaws to our Secretary at 2450 Holcombe Blvd., X, Houston, TX 77021 not more than 120 days (February 4, 2027) nor less than 90 days (March 8, 2027) prior to the first anniversary of the date the proxy statement was provided to our stockholders in connection with the 2026 Annual Meeting of stockholders; however, if the annual meeting is called for a date that is more than 30 days before or after the anniversary date of the 2026 annual meeting of stockholders, notice by the stockholder must be received by our Secretary not later than the close of business on the later of (i) the 90th day prior to the 2027 annual meeting of stockholders and (ii) the 10th day following the day on which public announcement of the date of the 2027 annual meeting of stockholders is publicly given. You are also advised to review our Bylaws, which contain additional requirements regarding advance notice of stockholder proposals and director nominations.

By Order of the Board of Directors,

/s/ Frederick E. Pierce

Frederick E. Pierce

Chief Executive Officer and Director

Houston, Texas

August 4, 2026

ANNEX A

CERTIFICATE OF AMENDMENT

**CERTIFICATE OF AMENDMENT TO THE
AMENDED AND RESTATED CERTIFICATE OF INCORPORATION
OF
DECOY THERAPEUTICS INC.**

Decoy Therapeutics Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the “***Corporation***”), does hereby certify as follows:

FIRST: The name of the Corporation is Decoy Therapeutics Inc., and the Corporation was originally incorporated pursuant to the DGCL on February 26, 2014 (as subsequently amended, the “***Certificate of Incorporation***”), under the name Flex Pharma, Inc.

SECOND: Article IV.A. of the Certificate of Incorporation is amended and restated in its entirety to read as follows:

This Company is authorized to issue two classes of stock to be designated, respectively, “***Common Stock***” and “***Preferred Stock***.” The total number of shares which the Company is authorized to issue is 100,000,000 shares. 90,000,000 shares shall be Common Stock, each having a par value of \$0.0001. 10,000,000 shares shall be Preferred Stock, each having a par value of \$0.0001.

THIRD: This Certificate of Amendment has been duly adopted by the Board of Directors and stockholders of the Corporation in accordance with Section 242 of the General Corporation Law of the State of Delaware.

[Signature page follows]

IN WITNESS WHEREOF, the Corporation has caused its duly authorized officer to execute this Certificate of Amendment on this ____ day of _____, 2026.

DECOY THERAPEUTICS INC.

By: _____
Name: Mark Rosenblum
Title: Executive Vice President and Chief
Financial Officer



NAME & ADDRESS HERE

As a stockholder of Decoy Therapeutics, Inc., you have the option of voting your shares electronically through the Internet or by telephone, eliminating the need to return the proxy card. Your electronic or telephonic vote authorizes the named proxies to vote your shares in the same manner as if you marked, signed, dated, and returned the proxy card. Votes submitted electronically over the Internet or by telephone must be received by 11:59 p.m. Eastern Time on September 13, 2026.

PROXY VOTING INSTRUCTIONS

Please have your 11-digit control number ready when voting by Internet or Telephone.



Vote Your Proxy on the Internet:
Go to www.AALvotes.com/DCOYSM2
Have your proxy card available when you access the above website. Follow the prompts to vote your shares.



Vote Your Proxy by Phone:
Call 1-866-804-9616
Use any touch-tone telephone to vote your proxy. Have your proxy card available when you call. Follow the voting instructions to vote your shares.



Vote Your Proxy by Mail:
Mark, sign, and date your proxy card, then detach it and return it in the postage-paid envelope provided.

CONTROL NUMBER

▼ PLEASE DETACH ALONG PERFORATED LINE AND MAIL IN THE ENVELOPE PROVIDED. ▼

Decoy Therapeutics, Inc.
SPECIAL MEETING OF STOCKHOLDERS
September 14, 2026 AT 3:00 p.m. Central Time

THIS PROXY IS SOLICITED ON BEHALF OF
THE BOARD OF DIRECTORS OF DECOY THERAPEUTICS, INC.

The Stockholder(s) hereby appoint(s) Frederick E. Pierce and Mark J. Rosenblum, or any of them, as proxies, each with the power to appoint his substitute, and hereby authorize(s) them to represent and to vote, as designated on the reverse side of this proxy card, all of the shares of common stock of Decoy Therapeutics, Inc., that the stockholder(s) is/are entitled to vote at the Special Meeting of Stockholders to be held at 3:00 p.m. CT on September 14, 2026, and any adjournment or postponement thereof. The Special Meeting of Stockholders will be held virtually. In order to attend the meeting, you must register at <https://web.viewproxy.com/DCOY2026SM2> by 11:59 p.m. ET on September 13, 2026. On the day of the Special Meeting of Stockholders, if you have properly registered, you may enter the meeting by clicking on the link you received via email in your registration confirmation. Further instructions on how to attend and vote at the Special Meeting of Stockholders are contained in the Proxy Statement.

NAME & ADDRESS HERE

BARCODE HERE

CONTROL NUMBER

**Important Notice Regarding the Availability of Proxy Materials for the
Special Meeting of Stockholders to be held on September 14, 2026:**

The Proxy Statement is available at:
<https://web.viewproxy.com/DCOY2026SM2>

▽ PLEASE DETACH ALONG PERFORATED LINE AND MAIL IN THE ENVELOPE PROVIDED. ▽

When properly executed, your proxy card/voting instruction form will be voted in the manner you direct. If you do not specify your choices, your shares will be voted "FOR" each of Proposal Nos. 1, 2, and 3.

Proposal 1. The Warrant Exercise Proposal – To approve, for purposes of Nasdaq Listing Rules 5635(b) and 5635(d), the issuance of shares of the Company's common stock, par value \$0.0001 per share (the "Common Stock"), upon the exercise of the Series A common warrants, Series B common warrants and Series C common warrants (collectively, the "Milestone Warrants") issued in the private placement described in the accompanying proxy statement, including the issuance of shares of Common Stock equal to 20% or more of the shares of Common Stock outstanding immediately prior to the issuance of such Milestone Warrants ("Proposal 1" or the "Warrant Exercise Proposal").

FOR ☐ AGAINST ☐ ABSTAIN ☐

Proposal 2. To approve an amendment to our Certificate of Incorporation to reduce the number of authorized shares of Common Stock by 10,000,000 to 90,000,000 ("Proposal 2" or the "Authorized Share Proposal").

FOR ☐ AGAINST ☐ ABSTAIN ☐

Proposal 3. To approve the adjournment of the Special Meeting to a later date or dates, if necessary or appropriate, to solicit additional proxies if there are insufficient votes at the time of the Special Meeting to approve the Warrant Exercise Proposal or the Authorized Share Proposal ("Proposal 3" or the "Adjournment Proposal").

FOR ☐ AGAINST ☐ ABSTAIN ☐

Note: Such other business as may properly come before the meeting, and any adjournment or postponement thereof.

