

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

FORM S-1  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933

**DECOY THERAPEUTICS INC.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of incorporation or organization)

**2834**  
(Primary Standard Industrial Classification Code Number)

**46-5087339**  
(I.R.S. Employer Identification Number)

**2450 Holcombe Blvd., Suite X  
Houston, TX 77021  
(713) 913-5608**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**Frederick E. Pierce  
Chief Executive Officer  
Decoy Therapeutics Inc.  
2450 Holcombe Blvd., Suite X  
Houston, TX 77021  
(713) 913-5608**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

**Copies to:**

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(313) 465-7000**

**Approximate date of commencement of proposed sale to the public:** From time to time after the effective date of this registration statement, as determined by the selling stockholder.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

**The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.**

**The information in this prospectus is not complete and may be changed. The selling stockholder may not sell these securities until the registration statement filed with the U.S. Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.**

**SUBJECT TO COMPLETION, DATED June 12, 2026**

**PRELIMINARY PROSPECTUS**



**DECOY THERAPEUTICS INC.**

**Up to 808,000 Shares of Common Stock**

This prospectus relates to the resale from time to time by C/M Capital Master Fund, LP (the "Selling Stockholder") of up to 808,000 shares of our common stock, par value \$0.0001 per share ("common stock"). The shares of common stock to which this prospectus relates consist of shares of common stock that have been or may be issued by us to the Selling Stockholder pursuant to a Securities Purchase Agreement, dated as of December 12, 2024, as amended (the "Purchase Agreement"), establishing an equity line of credit (the "Equity Financing" or "ELOC"), between us and the Selling Stockholder.

Such shares of our common stock consist of (i) up to 800,000 shares of common stock (the "Purchase Shares") that we may elect, in our sole discretion, subject to the restrictions and satisfaction of the conditions in the Purchase Agreement, to issue and sell to the Selling Stockholder, from time to time from and after the Commencement Date (as defined in the Purchase Agreement) (assuming the shares are sold at an assumed price of \$6.25 per share, the closing price of our common stock on Nasdaq on June 8, 2026, and (ii) up to 8,000 shares of common stock (the "Commitment Shares") that may be issued to the Selling Stockholder as consideration for its execution and delivery of the Purchase Agreement, in an amount equal to 1% of the Purchase Shares actually sold.

At a special meeting of our stockholders held on July 8, 2025, our stockholders approved, for purposes of Nasdaq Listing Rules 5635(a) and 5635(d), the issuance of shares of common stock under the Purchase Agreement in excess of the Exchange Cap (as defined herein), up to the maximum amount of Purchase Shares issuable under the Purchase Agreement. Accordingly, the shares of common stock covered by this prospectus may be issued without regard to the Exchange Cap. To the extent we sell shares of common stock under the Purchase Agreement, investors purchasing shares of common stock in this offering could experience significant additional dilution.

The actual number of shares of our common stock issuable will vary depending on the then-current market price of our common stock at the time we elect to sell shares to the Selling Stockholder under the Purchase Agreement, but will not exceed the number set forth above unless we file an additional registration statement with the Securities and Exchange Commission (the "SEC") and it is declared effective. We may receive up to \$5,000,000 in aggregate gross proceeds from the Selling Stockholder under the Purchase Agreement.

We are not selling any securities under this prospectus and will not receive any of the proceeds from the resale of shares of common stock by the Selling Stockholder. We will, however, receive proceeds from the sale of Purchase Shares that we elect to sell to the Selling Stockholder, from time to time, under the Purchase Agreement. We intend to use the net proceeds we receive under the Purchase Agreement to redeem our outstanding Series B Non-Voting Convertible Preferred Stock (the "Series B Preferred

Stock”) as required under our merger agreement (50% of net proceeds, until the Series B Preferred Stock is fully redeemed), and the remainder for working capital and other general corporate purposes. See “Use of Proceeds.”

The Selling Stockholder will pay the purchase price for the Purchase Shares at a discount to prevailing market prices as described in this prospectus. The Selling Stockholder may sell or otherwise dispose of the shares of common stock described in this prospectus in a number of different ways and at varying prices. See “Plan of Distribution.”

The Selling Stockholder is an “underwriter” within the meaning of Section 2(a)(11) of the Securities Act of 1933, as amended (the “Securities Act”). We have agreed to pay certain expenses in connection with the registration of the shares of common stock and to indemnify the Selling Stockholder against certain liabilities. See “Plan of Distribution.”

Our common stock is listed on The Nasdaq Capital Market (“Nasdaq”) under the symbol “DCOY.” On June 8, 2026, the last reported sale price of our common stock was \$6.25 per share.

We are a “smaller reporting company” under the federal securities laws and have elected to comply with certain reduced public company reporting requirements. See “Prospectus Summary — Implications of Being a Smaller Reporting Company.”

**Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading “Risk Factors” beginning on page 10 of this prospectus, and under similar headings in any amendment of or supplement to this prospectus or in any other documents that are incorporated by reference into this prospectus.**

**NEITHER THE SEC NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.**

The date of this prospectus is \_\_\_\_\_, 2026.

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## ABOUT THIS PROSPECTUS

The registration statement we filed with the SEC includes exhibits that provide more detail of the matters discussed in this prospectus. You should read this prospectus, the related exhibits filed with the SEC, and the documents incorporated by reference herein before making your investment decision. You should rely only on the information provided in this prospectus and the documents incorporated by reference herein or any amendment thereto.

You should not assume that the information contained in this prospectus is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference herein or therein is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus is delivered, or securities are sold, on a later date. This prospectus contains or incorporates by reference summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been or will be filed or have been or will be incorporated by reference as exhibits to the registration statement of which this prospectus forms a part, and you may obtain copies of those documents as described in this prospectus under the heading “Where You Can Find More Information.”

You should rely only on the information contained in or incorporated by reference into this prospectus and any applicable prospectus supplement or free writing prospectus. Neither we nor the Selling Stockholder has authorized anyone to provide you with different or additional information. If anyone provides you with different or inconsistent information, you should not rely on it. Neither we nor the Selling Stockholder are making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus and the documents incorporated by reference herein is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed since those dates.

Unless the context otherwise requires, references in this prospectus to the “Company,” “we,” “us,” “our,” “Decoy” and similar references refer to Decoy Therapeutics Inc. and, where appropriate, its consolidated subsidiaries. References to “Legacy Decoy” refer to Decoy Therapeutics Inc. as it existed prior to the Merger described herein, which became a wholly owned subsidiary of the Company as a result of the Merger. References to “Salaris” refer to the Company when it was known as Salaris Pharmaceuticals, Inc. prior to the Name Change described herein.

On August 15, 2025, we filed a Certificate of Amendment to our restated certificate of incorporation, as amended, to effect a 1-for-15 reverse stock split of our issued and outstanding common stock, which became effective on August 18, 2025 (the “2025 Reverse Stock Split”). On March 5, 2026, we filed a Certificate of Amendment to our amended and restated certificate of incorporation, as amended, to effect a 1-for-12 reverse stock split of our issued and outstanding common stock, which became effective on March 6, 2026 (the “2026 Reverse Stock Split” and, together with the 2025 Reverse Stock Split and the 1-for-8 reverse stock split effected on June 14, 2024, the “Reverse Stock Splits”). Unless otherwise indicated, all share and per share amounts in this prospectus have been adjusted to give retroactive effect to the Reverse Stock Splits.

## PROSPECTUS SUMMARY

*This summary highlights selected information appearing elsewhere in, or incorporated by reference into, this prospectus. This summary is not complete and does not contain all of the information that you should consider before investing in our common stock. You should carefully read this entire prospectus, including the information under “Risk Factors” and the financial statements and related notes and other information that we incorporate by reference herein, including our Annual Report on Form 10-K for the fiscal year ended December 31, 2025 and our Quarterly Report on Form 10-Q for the quarter ended March 31, 2026, before making an investment decision.*

### Overview

We are a pre-clinical stage biotechnology company focused on advancing our pipeline of peptide conjugate therapeutics engineered through our proprietary IMP<sup>3</sup>ACT™ platform. Our IMP<sup>3</sup>ACT™ platform represents a paradigm shift in peptide conjugate drug discovery and manufacturing, leveraging machine learning (“ML”) and artificial intelligence (“AI”) tools alongside high-speed synthesis techniques to rapidly engineer, optimize and manufacture peptide conjugates that target serious unmet medical needs. Peptide conjugates are emerging as a major therapeutic drug modality, with the potential to transform multiple therapeutic areas. Utilizing our novel IMP<sup>3</sup>ACT™ platform that increases the drug development speed and reduces the complexity of variant synthesis, we aim to build a robust portfolio of novel peptide conjugate therapeutics, initially focusing on infectious diseases and oncology, with the goal of becoming a fully integrated biopharmaceutical company at the forefront of this field. Through this approach, we intend to revolutionize the design, development, and commercialization of peptide conjugate therapeutics. We have no products approved for commercial sales and have not generated any revenue from product sales.

### The Merger and Name Change

Prior to January 8, 2026, we were known as Salaris Pharmaceuticals, Inc. On November 12, 2025, pursuant to an Agreement and Plan of Merger dated January 10, 2025, as amended (the “Merger Agreement”), a wholly owned subsidiary of Salaris merged with and into Legacy Decoy, with Legacy Decoy surviving and becoming a wholly owned subsidiary of the Company (the “Merger”). In connection with the Merger, we issued 877,709 shares of Series A Non-Voting Convertible Preferred Stock (the “Series A Preferred Stock”) and 796,306 shares of Series B Preferred Stock to former Legacy Decoy stockholders and debtholders and reserved additional shares of Series A Preferred Stock for assumed in-the-money options and warrants. The shares of Series A Preferred Stock and Series B Preferred Stock are not convertible into common stock until our stockholders approve such conversion in accordance with Nasdaq Rule 5635 and we satisfy the Nasdaq initial listing requirements applicable to the combined company. On January 8, 2026, we filed a Certificate of Amendment to change our corporate name to “Decoy Therapeutics Inc.” (the “Name Change”), and our common stock, which had traded under the symbol “SLRX,” began trading under the symbol “DCOY.”

The Merger combined our complementary approaches to create a comprehensive drug development platform. The Decoy IMP<sup>3</sup>ACT platform is generating a pipeline of Designable Multi-Antivirals (“D-MAV”) candidates across respiratory viruses, designed to be extended, not rebuilt, when the next threat emerges. Additionally, two small molecule drugs that address gene dysregulation are legacy Salaris clinical candidates: (1) SP-3164, a targeted protein degrader, and (2) seclidemstat (“SP-2577”), a targeted protein inhibitor. We supported The University of Texas MD Anderson Cancer Center (“MDACC”) in MDACC’s sponsored clinical trial evaluating SP-2577 in combination with azacytidine in adult patients with myelodysplastic syndromes and chronic myelomonocytic leukemia through December, 2025. No further enrollment is planned. We intend to seek strategic alternatives for this program including potential out-licensing.

We plan to integrate SP-3164 to expand our opportunities in creating a novel class of peptide conjugates called peptide-based proteolysis targeting chimeras (“P-PROTACs”). We believe the synergies from the Merger are evident in our combined approach to drug development, integrating expertise in peptide conjugates with our small molecule assets. This combination enables us to address a wider range of diseases and potentially “undruggable” targets.

### **The Committed Equity Financing**

On December 12, 2024, we entered into the Purchase Agreement with the Selling Stockholder, pursuant to which we have the right, but not the obligation, to sell to the Selling Stockholder, and the Selling Stockholder is obligated to purchase, subject to the terms, conditions and limitations of the Purchase Agreement, up to \$10,000,000 of newly issued Purchase Shares. As consideration for the Selling Stockholder’s execution and delivery of the Purchase Agreement, we agreed to issue Commitment Shares equal to 1% of the Purchase Shares actually sold in each sale under the Purchase Agreement.

Between January 13, 2025 and July 30, 2025, we issued and sold an aggregate of 5,747,604 Purchase Shares (on a pre-Reverse Stock Split basis) of our common stock to the Selling Stockholder under the Purchase Agreement at a weighted-average price of \$0.79 per share, for an aggregate purchase price of \$4,538,587. These issuances and sales were made following written notice delivered by us to the Selling Stockholder directing it to purchase the Purchase Shares. We also issued 57,476 shares of our common stock (on a pre-Reverse Stock Split basis) to the Selling Stockholder as Commitment Shares pursuant to the terms of the Purchase Agreement. After giving effect to these sales, approximately \$5.0 million remained available for issuance and sale under the Purchase Agreement, and we are registering for resale under this prospectus the shares of common stock issuable in respect of that remaining availability.

At our special meeting of stockholders held on July 8, 2025, our stockholders approved a proposal to remove the Exchange Cap under the Purchase Agreement (for purposes of Nasdaq Listing Rules 5635(a) and 5635(d)) so that we may issue additional shares of common stock pursuant to the Purchase Agreement up to the maximum of \$10,000,000 of newly issued Purchase Shares (the “Nasdaq 20% Issuance Proposal”). As a result, the shares of common stock covered by this prospectus may be issued without regard to the Exchange Cap. To the extent that we sell shares of our common stock pursuant to the Purchase Agreement or any similar program in the future, investors purchasing shares of our common stock in this offering could experience significant additional dilution. See “The Committed Equity Financing — Stockholder Approval; Exchange Cap.”

We will control the timing and amount of any sales of common stock to the Selling Stockholder. Sales will depend on a variety of factors to be determined by us from time to time, including market conditions, the trading price of our common stock and determinations by us as to appropriate sources of funding. There are substantial risks to our stockholders as a result of the sale and issuance of common stock to the Selling Stockholder under the Purchase Agreement, including substantial dilution, significant declines in our stock price, and our inability to draw sufficient funds when needed. See “Risk Factors” and “The Committed Equity Financing.”

#### *Use of Proceeds Restriction - Series B Preferred Stock*

Under the terms of the Merger Agreement, we are required to use 50% of the net proceeds we receive from any sales of common stock under the Purchase Agreement (and from sales under our at-the-market offering program) to redeem our outstanding Series B Preferred Stock, until the Series B Preferred Stock is fully redeemed. As a result, only a portion of any gross proceeds we receive under the Purchase Agreement will be available to fund our operations. See “Use of Proceeds” and “Risk Factors.”

**Corporate Information**

We were incorporated in Delaware in February 2014 as Flex Pharma, Inc. In July 2019, our predecessor merged with Salaris Pharmaceuticals, LLC and we changed our name to Salaris Pharmaceuticals, Inc., and effective January 8, 2026 we changed our name to Decoy Therapeutics Inc. Our principal executive offices are located at 2450 Holcombe Blvd., Suite X, Houston, TX 77021, and our telephone number is (713) 913-5608. Our website address is [www.decoytx.com](http://www.decoytx.com). Information on, or accessible through, our website is not part of this prospectus.

**Recent Developments***Nasdaq listing matters*

On December 31, 2025, we received notice from Nasdaq that we were not in compliance with the \$1.00 minimum bid price requirement under Nasdaq Listing Rule 5550(a)(2). We appealed to a Nasdaq Hearings Panel and implemented the 2026 Reverse Stock Split on March 6, 2026, and on March 20, 2026 our common stock achieved the requisite closing bid price. On March 31, 2026, the Hearings Panel confirmed our compliance. We remain subject to a Mandatory Panel Monitor through March 31, 2027, during which Nasdaq may take expedited action if we again fall out of compliance. We must also continue to satisfy Nasdaq's \$2.5 million stockholders' equity requirement. See "Risk Factors."

**Implications of Being a Smaller Reporting Company**

We are a "smaller reporting company" as defined in Rule 12b-2 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). We may take advantage of certain scaled disclosure requirements available to smaller reporting companies, including presenting only two years of audited financial statements and reduced executive compensation disclosure. We will remain a smaller reporting company until the last day of the fiscal year in which (i) the market value of our common stock held by non-affiliates is \$250 million or more measured as of the last business day of our most recently completed second fiscal quarter, or (ii) our annual revenue is \$100 million or more during the most recently completed fiscal year and the market value of our common stock held by non-affiliates is \$700 million or more measured as of the last business day of our most recently completed second fiscal quarter.

## THE OFFERING

<b>Shares of common stock offered by the Selling Stockholder</b>	Up to 808,000 shares of common stock, consisting of (i) up to 800,000 Purchase Shares and (ii) up to 8,000 Commitment Shares (assuming sales at an assumed price of \$6.25 per share, the closing price of our common stock on Nasdaq on June 8, 2026.)
<b>Shares of common stock outstanding prior to this offering</b>	531,968 shares of common stock outstanding as of June 9, 2026.
<b>Shares of common stock outstanding after this offering</b>	Up to 1,339,968 shares of common stock, assuming the sale of all 808,000 shares of common stock offered hereby.
<b>Terms of the offering</b>	The Selling Stockholder will determine when and how it will dispose of any shares of our common stock that are registered under this prospectus for resale. See “Plan of Distribution.”
<b>Use of proceeds</b>	We will not receive any proceeds from the resale of shares by the Selling Stockholder. We may receive up to \$5,000,000 in gross proceeds from sales of Purchase Shares to the Selling Stockholder under the Purchase Agreement. We are required to use 50% of the net proceeds to redeem our outstanding Series B Preferred Stock until fully redeemed, with the remainder used for working capital and other general corporate purposes. See “Use of Proceeds.”
<b>Exchange Cap</b>	The Purchase Agreement contains an “Exchange Cap” that would otherwise limit issuances to 19.99% of the shares of common stock outstanding immediately prior to the execution of the Purchase Agreement. At a special meeting held on July 8, 2025, our stockholders approved, for purposes of Nasdaq Listing Rules 5635(a) and 5635(d), the issuance of shares under the Purchase Agreement in excess of the Exchange Cap, up to the full \$10,000,000 commitment. See “The Committed Equity Financing — Stockholder Approval; Exchange Cap.”
<b>Beneficial ownership limitation</b>	The Selling Stockholder is not obligated to purchase shares that would result in its beneficial ownership exceeding 4.99% of our outstanding common stock (which it may increase to 9.99% on 61 days’ notice). See “The Committed Equity Financing.”
<b>Risk factors</b>	Investing in our common stock involves a high degree of risk. See “Risk Factors” beginning on page 8.
<b>Nasdaq Capital Market symbol</b>	“DCOY”

Except as otherwise indicated, the number of shares of our common stock to be outstanding after this offering is based on 531,968 shares of common stock outstanding as of June 9, 2026, and does not give effect to the conversion of our outstanding Series A Non-Voting Convertible Preferred Stock or Series B Non-Voting Convertible Preferred Stock, which are not convertible into common stock unless and until our stockholders approve such conversion in accordance with Nasdaq Listing Rule 5635 and the Company satisfies the applicable Nasdaq initial listing requirements. As of June 9, 2026, the issued and reserved shares of Series A Preferred Stock and Series B Preferred Stock would, upon such approval, be

convertible into an aggregate of 390,604 shares of common stock. The number of shares of common stock to be outstanding after this offering excludes:

- the 390,604 shares of common stock issuable upon conversion of our outstanding Series A Preferred Stock and Series B Preferred Stock issued, which conversion remains subject to stockholder approval under Nasdaq Listing Rule 5635 and satisfaction of the applicable Nasdaq initial listing requirements;
- 932,991 shares of common stock issuable upon the exercise of warrants outstanding as of March 31, 2026, at a weighted-average exercise price of \$26.06 per share;
- 13,723 shares of common stock issuable upon the exercise of stock options outstanding under our equity incentive plans as of March 31, 2026, at a weighted-average exercise price of \$480.70 per share;
- 91,667 shares of common stock reserved for future issuance under our 2026 Equity Incentive Plan.

Except as otherwise noted, the share figures above are presented as of the dates indicated and after giving effect to the 1-for-12 reverse stock split effected on March 6, 2026. Unless otherwise indicated, this prospectus assumes no conversion of the Preferred Stock and no exercise of outstanding warrants or options.

## RISK FACTORS

*Investing in our common stock involves a high degree of risk. Before making an investment decision, you should carefully consider the risks described below, together with the risk factors described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2025, and our Quarterly Report on Form 10-Q for the quarter ended March 31, 2026, each of which is incorporated by reference herein, as well as the other information contained in or incorporated by reference into this prospectus, including our consolidated financial statements and the related notes. The risks and uncertainties described below and in the documents incorporated by reference herein are not the only ones we face; additional risks and uncertainties that we are not aware of, or that we currently believe are not material, may also adversely affect our business. If any of these risks actually occur, our business, financial condition, results of operations and prospects could be materially and adversely affected, the trading price of our common stock could decline, and you could lose all or part of your investment. The risk factors set forth below are limited to those arising primarily from this offering and the Equity Financing and supplement, and should be read together with, the risk factors incorporated by reference herein; they do not purport to be a complete statement of all risks relevant to an investment in our common stock.*

### **Risks Related to Our Liquidity and Capital Needs**

***Our financial condition raises substantial doubt about our ability to continue as a going concern.***

We have incurred recurring losses from operations since inception and have not generated any revenue from product sales. Our independent registered public accounting firm and management have concluded that there is substantial doubt about our ability to continue as a going concern. We believe our existing cash and cash equivalents will be sufficient to fund our operations only into late 2026, and a substantial portion of our cash is restricted for use under our grant agreements. If we are unable to obtain additional capital in the very near term, we may be forced to cease operations, liquidate our assets and pursue dissolution.

***Even if we are able to access the full amount under the Equity Financing, the net proceeds will not be sufficient to fund our operations, and we will need substantial additional capital.***

Even if we are able to access the full amount under the Equity Financing, the net proceeds will not be sufficient to fund our operations, and we will need substantial additional capital. Our ability to sell shares of our common stock to the Selling Stockholder is subject to conditions and limitations in the Purchase Agreement, including a minimum closing price condition, the Beneficial Ownership Limitation, the effectiveness of the registration statement of which this prospectus forms a part, and the number of shares of our common stock registered hereunder, so we may not have access to the full \$5,000,000 commitment. Moreover, we are required to use 50% of the net proceeds of any sales to redeem our Series B Preferred Stock (as described below), and our existing cash is expected to fund operations only into late 2026. Accordingly, even if we access the full commitment, we will need to raise substantial additional capital, which may not be available on acceptable terms or at all.

***Our ability to access the full amount under the Equity Financing depends on numerous conditions and limitations, and we may not be able to draw sufficient funds when needed.***

Our ability to sell shares of our common stock to the Selling Stockholder is subject to conditions and limitations in the Purchase Agreement, including a minimum closing price condition, the Beneficial Ownership Limitation, the effectiveness of the registration statement of which this prospectus forms a part, and the number of shares of our common stock registered hereunder. As a result, we may not have access to the full \$5,000,000 commitment, and our inability to access sufficient funds could have a material adverse effect on our business, financial condition and results of operations.

***We are required to use a substantial portion of any proceeds under the Equity Financing to redeem our Series B Preferred Stock, reducing the funds available for our operations.***

Under the Merger Agreement, we must use 50% of the net proceeds we receive from sales under the Purchase Agreement to redeem our outstanding Series B Preferred Stock until it is fully redeemed. Accordingly, only a portion of any gross proceeds we receive will be available to fund our operations, which may require us to seek additional sources of capital sooner than we otherwise would.

**Risks Related to This Offering and the Equity Financing**

***It is not possible to predict the actual number of shares of common stock we will sell under the Purchase Agreement, or the gross proceeds resulting from those sales.***

Subject to the Beneficial Ownership Limitation and the other conditions and limitations in the Purchase Agreement, we generally have the right to control the timing and amount of any sales of common stock to the Selling Stockholder, and the actual number of shares of our common stock that are sold will depend on a variety of factors, including the market price of our common stock from time to time. Because the purchase price per share to be paid by the Selling Stockholder will fluctuate based on the market price of our common stock, it is not possible for us to predict the number of shares of common stock that we will sell, the actual gross proceeds, or the number of shares of common stock that the Selling Stockholder will ultimately resell under this prospectus.

***The sale and issuance of our common stock to the Selling Stockholder will cause substantial dilution to our existing stockholders.***

The number of shares of common stock ultimately offered for resale by the Selling Stockholder is dependent upon the number of shares of common stock we elect to sell under the Purchase Agreement. Depending on a variety of factors, including market liquidity, sales of substantial amounts of our common stock may cause the trading price of our common stock to decline. We had only 531,968 shares of common stock outstanding as of June 9, 2026, and the resale of up to 808,000 shares under this prospectus would, if all such shares were issued and resold, represent a significant increase in our outstanding shares of common stock and result in substantial dilution to our existing stockholders.

***The number of shares we have registered may not be sufficient to access the full commitment, and registering additional shares of common stock would cause further dilution.***

We are registering 808,000 shares of our common stock for resale under this prospectus, based on an assumed price of \$6.25 per share. Because the price at which we may sell shares of common stock will fluctuate with the market price of our common stock, if our stock price declines we would need to issue and register more shares of common stock to obtain the same proceeds. To sell more than the shares of common stock registered hereby, we would be required to file one or more additional registration statements, which the SEC would need to declare effective, and any such additional shares would result in further dilution to our existing stockholders. We cannot assure you that any such registration statement would be filed or declared effective on a timely basis, if at all.

***The Selling Stockholder will pay less than the then-prevailing market price for our common stock, which could cause the price of our common stock to decline.***

The common stock to be sold to the Selling Stockholder under the Purchase Agreement will be sold at a discount to the prevailing market price, as described under “The Committed Equity Financing.” As a result of this pricing structure, the Selling Stockholder may sell the shares of common stock it receives at prices lower than those paid by other investors, and may have an incentive to sell quickly, which could cause the price of our common stock to decline.

***If we issue securities at a price below the applicable purchase price shortly after a sale to the Selling Stockholder, the price the Selling Stockholder pays may be reduced, resulting in additional dilution.***

Under the Purchase Agreement, if within three business days after a Purchase Date we issue or sell common stock or common stock equivalents, other than in connection with certain exempt issuances, such as equity-plan awards, conversions of existing securities and strategic transactions, at an effective price per share less than the applicable purchase price for that sale, the purchase price for the affected sale will be reduced to that lower price. For Fixed Purchases this reduction is automatic, and for VWAP Purchases and Additional VWAP Purchases it applies at the Selling Stockholder's election. Any such reduction would increase the number of shares issuable for a given amount of proceeds and could result in additional dilution to our existing stockholders, and could limit our ability to raise capital through other equity issuances during these periods.

***Investors who buy shares of our common stock from the Selling Stockholder at different times will likely pay different prices.***

Pursuant to the Purchase Agreement, we will have discretion to vary the timing, price and number of shares of common stock sold to the Selling Stockholder. If and when we elect to sell shares of our common stock to the Selling Stockholder, it may resell all, some or none of those shares of common stock at different times and at different prices. As a result, investors who purchase shares of our common stock from the Selling Stockholder at different times will likely pay different prices for those shares of common stock, and may experience different levels of dilution and different investment results.

***Future resales or issuances of our common stock, or the perception that such sales may occur, may cause the market price of our common stock to decline.***

In addition to the shares of our common stock offered hereby, we have a significant number of shares of common stock issuable upon the conversion of outstanding Series A Preferred Stock and Series B Preferred Stock (subject to stockholder approval) and upon the exercise of outstanding warrants. The issuance and subsequent resale of these shares of common stock, or the perception that such sales may occur, could depress the market price of our common stock and impair our ability to raise capital. In addition, on April 2, 2026 we filed a registration statement on Form S-8 registering the shares of common stock issuable under our equity incentive plans, which became effective upon filing. Those shares are generally available for resale in the public market (subject to vesting and, for affiliates, the volume and manner-of-sale conditions of Rule 144), adding to the potential overhang on our common stock.

***We will have broad discretion over the use of the proceeds we receive under the Equity Financing and may not use them effectively.***

Except for the portion we are required to apply to redeem our Series B Preferred Stock, we will have broad discretion in the application of the net proceeds we receive under the Purchase Agreement, and we could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. Our failure to apply these funds effectively could harm our business, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately.

#### **Risks Related to Nasdaq Listing**

***Our common stock may be delisted from Nasdaq, which would adversely affect the liquidity and market price of our common stock.***

We have a history of non-compliance with Nasdaq continued listing requirements, including the minimum bid price requirement and the stockholders' equity requirement, and we remain subject to a Mandatory Panel Monitor. As of March 31, 2026, our stockholders' equity was approximately \$3.9

million, only modestly above the \$2.5 million minimum. If we again fail to comply with Nasdaq's continued listing requirements, Nasdaq may take expedited delisting action, and our common stock could be delisted, which would adversely affect the liquidity and market price of our common stock and our ability to access the Equity Financing.

## CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein contain forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. All statements other than statements of historical fact are forward-looking statements. In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “could,” “would,” “should,” “expect,” “intend,” “plan,” “anticipate,” “believe,” “estimate,” “predict,” “potential,” “continue,” “seek,” “target” or the negative of these terms or other comparable terminology. These forward-looking statements include, among others, statements about:

- our ability to continue as a going concern and to support our operations;
- our expectations regarding the timing, likelihood and expected benefits of, and the potential value created by, the recently completed Merger with Legacy Decoy, and the execution of our related integration plans;
- our ability to maintain the listing of our common stock on Nasdaq, including specifically our ability to continue to comply with the minimum \$2.5 million stockholders’ equity requirement and the conditions of the Mandatory Panel Monitor, and the effect of any noncompliance on the liquidity and trading of our common stock;
- our ability to successfully manage our cash and cash equivalents and any anticipated proceeds from financing transactions, including the Equity Financing;
- our ability to acquire sufficient sources of funding if and when needed, and on acceptable terms;
- the plans, strategies and objectives of management for future operations, including the execution of our integration plans and the anticipated timing of filings and of the commencement of preclinical studies or clinical trials of our current and future product candidates, including the timing of our planned regulatory communications, submissions and approvals and the release of data from such studies or trials;
- our financial performance, and our estimates and expectations as to expenses, ongoing losses, future revenue, cash flow, capital requirements and our need for, or ability to obtain, additional funding before we can expect to generate any revenue from product sales;
- our belief regarding the sufficiency of our cash resources, and our liquidity position and the expected sufficiency of that position for our anticipated operating and capital requirements;
- our plans to develop and commercialize our product candidates, including planned preclinical, clinical, regulatory, commercialization and manufacturing activities, and our expectations regarding the scope of any approved indication for any product candidate, if approved;
- our use of artificial intelligence and machine learning to identify and develop current and future product candidates, and the risks associated with the use of such technologies;
- the attraction and retention of highly qualified personnel;
- our ability to protect and enhance our products and intellectual property;
- developments and projections relating to our competitors and our industry, and future regulatory, judicial and legislative changes affecting our industry;
- our relationships and actions with third parties; and
- our anticipated use of the net proceeds, if any, that we may receive under the Purchase Agreement.

The forward-looking statements in this prospectus and the documents incorporated by reference herein are subject to known and unknown risks, uncertainties and assumptions, including those described under “Risk Factors” in this prospectus and the risks set forth under Item 1A of our Annual Report on Form 10-K for the fiscal year ended December 31, 2025, as supplemented by Part II, Item 1A of our Quarterly Report on Form 10-Q for the quarter ended March 31, 2026, each of which is incorporated by reference herein, and the other documents incorporated by reference herein, that could cause our actual results to differ materially from those expressed or implied by these forward-looking statements. These forward-looking statements speak only as of the date of this prospectus or, in the case of forward-looking statements contained in any document incorporated by reference herein, as of the date of that document. 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.

### **USE OF PROCEEDS**

This prospectus relates to the resale of shares of our common stock that may be offered and sold from time to time by the Selling Stockholder. We will not receive any proceeds from the resale of shares of common stock by the Selling Stockholder. We will not receive any proceeds from the issuance of the Commitment Shares.

We may receive up to \$5,000,000 in aggregate gross proceeds from the sale of Purchase Shares to the Selling Stockholder under the Purchase Agreement, from time to time after the date of this prospectus. The actual proceeds may be less than this amount depending on the number of Purchase Shares sold and the prices at which they are sold. Because we are unable to predict the timing or amount of potential sales, we cannot specify with certainty all of the particular uses of any net proceeds.

Pursuant to the Merger Agreement, we are required to use 50% of the net proceeds we receive from sales of common stock under the Purchase Agreement to redeem our outstanding Series B Preferred Stock until it is fully redeemed. We intend to use the remainder of any net proceeds for working capital and other general corporate purposes. As of June 9, 2026, the aggregate redemption amount of our outstanding Series B Preferred Stock was approximately \$8,361,234

## MARKET INFORMATION, DETERMINATION OF OFFERING PRICE AND DIVIDEND INFORMATION

### Market Price and Determination of Offering Price

Our common stock is listed on the Nasdaq Capital Market under the symbol "DCOY." Prior to January 8, 2026, our common stock traded on Nasdaq under the symbol "SLRX." On June 8, 2026, the last reported sale price of our common stock on Nasdaq was \$6.25 per share.

The Selling Stockholder will determine at what price(s) it may sell the shares of common stock, and such sales may be made at prevailing market prices, or at privately negotiated prices.

### Holders

As of March 19, 2026, we had approximately 16 holders of record of our common stock. Because many of our shares of common stock are held by brokers and other institutions on behalf of stockholders, this number is not representative of the number of beneficial holders of our common stock or the total number of stockholders.

### Dividend Policy

We have never declared or paid any cash dividends on our common stock and do not anticipate paying any cash dividends in the foreseeable future. We currently intend to retain all available funds and any future earnings, if any, to fund the development and growth of our business. Any future determination to declare and pay cash dividends, if any, will be made at the discretion of our board of directors and will depend on a number of factors, including our financial condition, results of operations, capital requirements, contractual restrictions, general business conditions and other factors that our board of directors deems relevant.

## THE COMMITTED EQUITY FINANCING

### Overview

On December 12, 2024, we entered into the Purchase Agreement with the Selling Stockholder. Sales of our common stock to the Selling Stockholder under the Purchase Agreement, and the timing of any sales, will be determined by us from time to time in our sole discretion and will depend on a variety of factors, including, among other things, market conditions, the trading price of our common stock and determinations by us regarding the use of proceeds from any sale of such common stock. The net proceeds from any sales under the Equity Financing will depend on the frequency with, and prices at, which the shares of common stock are sold to the Selling Stockholder. As described under “Use of Proceeds,” we are required under the Merger Agreement to use 50% of the net proceeds we receive from sales under the Purchase Agreement to redeem our outstanding Series B Preferred Stock until it is fully redeemed, and we intend to use the remainder for working capital and other general corporate purposes.

In accordance with our obligations under the Purchase Agreement and the Registration Rights Agreement, dated as of December 12, 2024, between us and the Selling Stockholder (the “Registration Rights Agreement”), pursuant to which we agreed to provide the Selling Stockholder with customary registration rights related to the shares issued under the Purchase Agreement, we have filed the registration statement of which this prospectus forms a part in order to register the resale of up to (i) 800,000 Purchase Shares that we may elect, in our sole discretion, to issue and sell to the Selling Stockholder from time to time after the date of this prospectus, upon the terms and subject to the conditions and limitations of the Purchase Agreement (assuming the shares are sold at an assumed price of \$6.25 per share, the closing price of our common stock on Nasdaq on June 8, 2026, and aggregate gross proceeds of \$5,000,000); and (ii) up to 8,000 Commitment Shares that may be issued to the Selling Stockholder in connection with related issuances and sales of Purchase Shares as consideration for the Selling Stockholder's execution and delivery of the Purchase Agreement.

In addition, the Selling Stockholder is not obligated to buy any common stock under the Purchase Agreement if such shares, when aggregated with all other common stock then beneficially owned by the Selling Stockholder and its affiliates (as calculated pursuant to Section 13(d) of the Exchange Act and Rule 13d-3 promulgated thereunder), would result in the Selling Stockholder beneficially owning common stock in excess of 4.99% of the then-outstanding shares of common stock (the “Beneficial Ownership Limitation”); provided, however, that the Selling Stockholder may increase the Beneficial Ownership Limitation up to 9.99% at its sole discretion upon sixty-one days' prior written notice to us; provided, further, that the Beneficial Ownership Limitation in no event will exceed 19.99% of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock pursuant to the Purchase Agreement. Our inability to access a portion or the full amount available under the Purchase Agreement, in the absence of any other financing sources, could have a material adverse effect on our business or results of operations.

The Purchase Agreement and the Registration Rights Agreement contain customary registration rights, representations, warranties, conditions and indemnification obligations of each party. The representations, warranties and covenants contained in those agreements were made only for purposes of those agreements and as of specific dates, were solely for the benefit of the parties to those agreements and are subject to certain important limitations.

### Purchase Agreement

Pursuant to the Purchase Agreement, the Selling Stockholder shall, subject to the restrictions and satisfaction of the conditions in the Purchase Agreement, purchase from us up to the lesser of (i) \$10,000,000 of shares of our common stock and (ii) the Exchange Cap, upon the terms and subject to the conditions and limitations set forth in the Purchase Agreement (the “Commitment Amount”); provided,

however, that the Exchange Cap limitation will not apply because, at a special meeting held on July 8, 2025, our stockholders approved the issuance of shares of common stock under the Purchase Agreement in excess of the Exchange Cap, as described under “—Stockholder Approval; Exchange Cap” below. As described above, approximately \$4,538,587 of the Commitment Amount had been drawn through July 30, 2025, and approximately \$5.0 million of the Commitment Amount remained available as of the date of this prospectus. Accordingly, we have registered for resale under this prospectus up to 808,000 shares (consisting of 800,000 Purchase Shares and 8,000 Commitment Shares), assuming that \$5,000,000 of Purchase Shares are issued and sold at an assumed price of \$6.25 per share.

The shares of our common stock that may be issued under the Purchase Agreement may be sold by us to the Selling Stockholder at our discretion from time to time over the period from the Commencement Date until the earliest to occur of (i) the first day of the month next following the 36-month anniversary of the Commencement Date (the “Maturity Date”), (ii) the date on which the Selling Stockholder shall have purchased the full Commitment Amount, (iii) the ninetieth day after the date on which, pursuant to or within the meaning of any bankruptcy law, we commence a voluntary case or any person commences a proceeding against us, in each case that is not discharged or dismissed prior to such ninetieth day, and (iv) the date on which, pursuant to or within the meaning of any bankruptcy law, a custodian is appointed for us or for all or substantially all of our property, or we make a general assignment for the benefit of our creditors (each, a “Termination Event”). The Commencement Date occurred upon the satisfaction of the conditions precedent set forth in the Purchase Agreement, and sales of Purchase Shares to the Selling Stockholder commenced on January 13, 2025.

#### **Purchases of Shares of Our Common Stock Under the Purchase Agreement**

*Fixed Purchases.* On any business day on which the closing sale price of our common stock is equal to or greater than \$1.00 (the “Fixed Purchase Date”), we will have the right, but not the obligation, from time to time at our sole discretion, subject to the restrictions and satisfaction of the conditions in the Purchase Agreement, to direct the Selling Stockholder, by delivery of an irrevocable written notice (a “Fixed Purchase Notice”), to purchase a number of shares of our common stock (a “Fixed Purchase”) up to \$200,000 (the “Fixed Purchase Maximum Amount”), at a purchase price equal to 95% of the lesser of (i) the closing sale price of our common stock on the business day immediately preceding the applicable Fixed Purchase Date and (ii) the daily volume weighted average price (“VWAP”) of our common stock for the five trading days immediately preceding the applicable Fixed Purchase Date.

*VWAP Purchases.* In addition, on any business day that is a Fixed Purchase Date for a Fixed Purchase of an amount of shares of common stock not less than the Fixed Purchase Maximum Amount, we may also direct the Selling Stockholder, by delivery of an irrevocable written notice (a “VWAP Purchase Notice”), to purchase, on the immediately following business day (the “VWAP Purchase Date”), an additional number of shares of common stock equal to the lesser of (i) 300% of the number of shares directed to be purchased in the applicable Fixed Purchase and (ii) 30% of the trading volume in our common stock on Nasdaq during the applicable VWAP Purchase Period (as defined in the Purchase Agreement) (a “VWAP Purchase”), at a purchase price equal to 95% of the lesser of (i) the closing sale price of our common stock on the business day immediately preceding the applicable VWAP Purchase Date and (ii) the VWAP during the applicable VWAP Purchase Period.

*Additional VWAP Purchases.* On any business day that is also a VWAP Purchase Date, we may also direct the Selling Stockholder, by delivery of an irrevocable written notice (an “Additional VWAP Purchase Notice” and, together with a Fixed Purchase Notice and a VWAP Purchase Notice, a “Purchase Notice”), to purchase, on the same business day (the “Additional VWAP Purchase Date” and, together with a Fixed Purchase Date and a VWAP Purchase Date, the “Purchase Dates”), an additional number of shares of common stock equal to the lesser of (i) 300% of the number of shares directed to be purchased in the corresponding Fixed Purchase and (ii) 30% of the trading volume in our common stock on Nasdaq during the applicable Additional VWAP Purchase Period (as defined in the Purchase Agreement) (an

“Additional VWAP Purchase” and, together with a Fixed Purchase and a VWAP Purchase, the “Purchases”), at a purchase price equal to 95% of the lesser of (i) the closing sale price of our common stock on the business day immediately preceding the applicable Additional VWAP Purchase Date and (ii) the VWAP for the applicable Additional VWAP Purchase Period.

In no event may the aggregate amount of Purchase Shares submitted in any single or combination of VWAP Purchase Notices and/or Additional VWAP Purchase Notices on a particular date require a payment from the Selling Stockholder to us that exceeds \$2,500,000, unless such limitation is waived by the Selling Stockholder. For purposes of the Purchase Agreement, “VWAP” means the daily volume weighted average price of our common stock on Nasdaq as reported by Bloomberg, L.P. through its “AQR” function. All such determinations are subject to appropriate adjustment for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split, stock combination or other similar transaction.

#### **Commitment Shares and Fees**

As consideration for its irrevocable commitment to purchase our common stock under the Purchase Agreement, we have agreed to issue to the Selling Stockholder a number of shares of common stock equal to 1.0% of the shares of common stock issued in each Fixed Purchase, VWAP Purchase or Additional VWAP Purchase, as the case may be. We have also agreed to pay to the Selling Stockholder \$25,000 in cash as reimbursement for the reasonable, out-of-pocket expenses incurred by the Selling Stockholder, including the legal fees and disbursements of its legal counsel, in connection with its due diligence investigation of us and the preparation, negotiation and execution of the Purchase Agreement.

#### **Conditions Precedent to Commencement**

Our right to commence delivering Purchase Notices under the Purchase Agreement, and the Selling Stockholder's obligation to accept such Purchase Notices, were subject to the initial satisfaction, at the Commencement Date, of the conditions precedent set forth in the Purchase Agreement, which included, among others: the accuracy in all material respects of our representations and warranties; our having performed and complied in all material respects with the covenants and conditions required to be performed or complied with by us under the Purchase Agreement and the Registration Rights Agreement; the absence of any material misstatement or omission in the registration statement covering the resale of the Purchase Shares and Commitment Shares; the effectiveness of that registration statement and the absence of any stop order; our common stock not having been suspended from trading; the absence of any Material Adverse Effect (as defined in the Purchase Agreement); customary compliance-with-laws and bankruptcy-related conditions; and the receipt by the Selling Stockholder of a customary legal opinion. These conditions were satisfied and the Commencement occurred prior to our initial sales of Purchase Shares in January 2025.

#### **Stockholder Approval; Exchange Cap**

The Purchase Agreement provides that, under applicable Nasdaq rules, in no event may we issue to the Selling Stockholder shares of common stock that, when aggregated with the Commitment Shares, would exceed 19.99% of the total number of shares of common stock issued and outstanding immediately prior to the execution of the Purchase Agreement (the “Exchange Cap”), subject to adjustment for any reverse stock split or other similar transaction, unless (i) we obtain stockholder approval to issue shares in excess of the Exchange Cap, or (ii) the average price paid for all shares of common stock issued under the Purchase Agreement (including the Commitment Shares, valued at \$0.00 per share) equals or exceeds the applicable “Minimum Price” under Nasdaq rules, such that the issuances would be exempt from the Exchange Cap as transactions “at market.” At a special meeting of stockholders held on July 8, 2025, our stockholders approved, for purposes of Nasdaq Listing Rules 5635(a) and 5635(d), the issuance of shares of common stock pursuant to the Purchase Agreement without giving effect to the Exchange Cap, up to

the maximum of \$10,000,000 of newly issued Purchase Shares (the “Nasdaq 20% Issuance Proposal”). As a result, subject to the matters described below, the shares of common stock covered by this prospectus may be issued without regard to the Exchange Cap.

In approving the Nasdaq 20% Issuance Proposal, our stockholders effectively removed the Exchange Cap as a limit on issuances under the Purchase Agreement, permitting us to issue and sell shares of common stock to the Selling Stockholder up to the full \$10,000,000 Commitment Amount without further stockholder action. Prior to obtaining that approval, the Exchange Cap would have limited the aggregate number of shares issuable under the Purchase Agreement (including the Commitment Shares) to 19.99% of the shares of common stock outstanding immediately prior to the execution of the Purchase Agreement. The removal of the Exchange Cap means that we are able to issue the 808,000 shares of common stock offered for resale under this prospectus, which represent substantially more than 19.99% of our outstanding shares, without being constrained by the Exchange Cap. The removal of the Exchange Cap does not, however, eliminate the other limitations on issuances under the Purchase Agreement, including the Beneficial Ownership Limitation and the conditions to our ability to deliver Purchase Notices, and it does not reduce the dilutive effect of the additional issuances it permits; to the contrary, by allowing us to issue a substantially greater number of shares, the removal of the Exchange Cap increases the potential dilution to our existing stockholders. See “Risk Factors.”

#### **Beneficial Ownership Limitation**

The Selling Stockholder is not obligated to purchase shares of common stock under the Purchase Agreement to the extent that, after giving effect to such purchase, the Selling Stockholder, together with its affiliates, would beneficially own more than 4.99% of the then-outstanding shares of common stock (calculated in accordance with Section 13(d) of the Exchange Act and Rule 13d-3 thereunder). The Selling Stockholder may increase this 4.99% limitation to up to 9.99% upon 61 days' prior written notice to us, but in no event will it exceed 9.99% (and in no event will it exceed 19.99% of the shares outstanding immediately after giving effect to the issuance in question).

#### **No Short-Selling or Hedging**

The Selling Stockholder has agreed that, during the term of the Purchase Agreement, neither it nor any entity managed or controlled by it will engage in, directly or indirectly, any “short sale” (as defined in Rule 200 of Regulation SHO under the Exchange Act) of our common stock or any hedging transaction that establishes a net short position with respect to our common stock.

#### **Termination**

Unless earlier terminated as provided in the Purchase Agreement, the Purchase Agreement will terminate automatically on the earliest to occur of: (i) the Maturity Date (the first day of the month next following the 36-month anniversary of the Commencement Date); (ii) the date on which the Selling Stockholder has purchased the full Commitment Amount; (iii) the ninetieth day after the commencement of specified voluntary or involuntary bankruptcy proceedings that are not discharged or dismissed; and (iv) the date on which a custodian is appointed for us or for all or substantially all of our property, or we make a general assignment for the benefit of our creditors. In addition, we have the right to terminate the Purchase Agreement at any time after the Commencement Date, at no cost or penalty, upon one business day's prior written notice to the Selling Stockholder, subject to our satisfaction of all existing obligations with respect to any shares issued to the Selling Stockholder prior to termination. No termination will affect our or the Selling Stockholder's rights and obligations with respect to any pending Purchase, or under the Registration Rights Agreement, which will survive termination, or release either party from liability for intentional misrepresentation or willful breach.

#### **Dilutive Issuances and Purchase Price Adjustment**

For as long as the Selling Stockholder owns any of our common stock, if within three trading days immediately following a Purchase Date we make certain issuances of our securities at a price (the “New Issuance Price”) less than the price to be paid by the Selling Stockholder in a Fixed Purchase, VWAP Purchase or Additional VWAP Purchase, the purchase price for that Purchase would be reduced to the New Issuance Price, subject to the terms and conditions set forth in the Purchase Agreement.

#### Effect of Sales of Our Common Stock Under the Purchase Agreement on Our Stockholders

The shares of common stock being registered for resale in this offering may be issued and sold by us to the Selling Stockholder from time to time at our discretion over the term described above. The resale by the Selling Stockholder of a significant number of shares registered for resale in this offering, or the perception that these sales may occur, could cause the market price of our common stock to decline and to be highly volatile. We may ultimately decide to sell to the Selling Stockholder all, some or none of the shares that may be available for us to sell under the Purchase Agreement. If we elect to sell shares to the Selling Stockholder, the Selling Stockholder may resell all, some or none of those shares at any time or from time to time in its discretion and at different prices. As a result, investors who purchase shares from the Selling Stockholder in this offering at different times will likely pay different prices for those shares and may experience different levels of dilution and different investment results.

Because the purchase price per share to be paid by the Selling Stockholder will fluctuate based on the market price of our common stock at the time we elect to sell shares, it is not possible for us to predict, as of the date of this prospectus, the number of shares we will sell to the Selling Stockholder, the actual purchase price per share, or the actual gross proceeds. As of June 9, 2026, there were 531,968 shares of common stock outstanding. If all 808,000 shares offered for resale under this prospectus were issued and outstanding as of that date, those shares would represent approximately 60.3% of the total number of shares of our common stock outstanding after giving effect to such issuance. The actual number of shares issuable will vary depending on the then-current market price of our common stock.

The following table sets forth the approximate number of Purchase Shares that would be issuable under the Purchase Agreement, the corresponding Commitment Shares (equal to 1% of the Purchase Shares issued), the total number of shares that would be issued, and the gross proceeds we would receive, in each case assuming the sale of the full \$5,000,000 of Purchase Shares being registered hereby at the assumed purchase prices set forth below. The number of shares of common stock issued at any assumed purchase price below the assumed \$6.25 per share would exceed the 808,000 shares registered under this prospectus, in which case we would be required to file an additional registration statement, and have it declared effective, before issuing and selling shares in excess of the number registered hereby.

Assumed Purchase Price Per Share <sup>(1)</sup>	Total Number of Purchase Shares to be Issued <sup>(2)</sup>	Total Number of Commitment Shares to be Issued (1%)	Total Shares to be Issued	Percentage of Outstanding Common Stock After Giving Effect to the Issuance <sup>(3)</sup>	Gross Proceeds from the Sale of the Purchase Shares <sup>(4)</sup>
\$ 4.00	1,250,000	12,500	1,262,500	70.4%	\$ 5,000,000
\$ 6.00	833,333	8,333	841,667	61.3%	\$ 5,000,000
\$ 6.25	800,000	8,000	800,000	60.3%	\$ 5,000,000
\$ 10.00	500,000	5,000	505,000	48.7%	\$ 5,000,000
\$ 12.00	416,667	4,167	420,833	44.2%	\$ 5,000,000

(1) The assumed purchase prices are before giving effect to the discount to market price (95% of the applicable reference price) at which Purchase Shares are sold under the Purchase Agreement.

(2) Determined by dividing \$5,000,000 by the applicable assumed purchase price per share. We are registering 808,000 shares under this prospectus; to the extent the number of Purchase Shares issuable at a given assumed price (together with the related Commitment Shares) exceeds that amount, we would be required to register additional shares before issuing them.

(3) The denominator is based on 531,968 shares of common stock outstanding as of June 9, 2026, adjusted to include the total number of shares set forth in the adjacent columns. The percentages in this column assume that the Selling Stockholder retains all shares issued to it under the Purchase Agreement and do not reflect any resales; the Selling Stockholder's actual beneficial ownership at any time remains subject to the Beneficial Ownership Limitation (4.99%, or up to 9.99% on 61 days' notice). This column does not give effect to the conversion of our outstanding Series A Preferred Stock or Series B Preferred Stock or the exercise of any outstanding warrants or options.

(4) We will not receive any proceeds from the issuance of the Commitment Shares. The proceeds reflected in this column would be reduced by an amount equal to the product of the Commitment Shares issued multiplied by the assumed purchase price per share.

## SELLING STOCKHOLDER

This prospectus relates to the possible resale from time to time by the Selling Stockholder of any or all of the shares of common stock that may be issued by us to the Selling Stockholder under the Purchase Agreement. Such shares of our common stock include (i) up to 800,000 Purchase Shares that we may elect, in our sole discretion, to issue and sell to the Selling Stockholder from time to time from and after the Commencement Date under the Purchase Agreement; and (ii) up to 8,000 Commitment Shares that may be issued to the Selling Stockholder as consideration for its execution and delivery of the Purchase Agreement.

As used in this prospectus, the term “Selling Stockholder” includes the Selling Stockholder listed in the table below, and its permitted pledgees, donees, transferees, assignees, successors, designees, successors-in-interest and others who later come to hold any of the Selling Stockholder's interest in the shares of common stock in accordance with the terms of the applicable agreements governing their respective registration rights, other than through a public sale. This prospectus also covers any additional securities that may become issuable by reason of stock splits, stock dividends or other similar transactions.

For additional information regarding the issuance of common stock covered by this prospectus, see the section entitled “The Committed Equity Financing” above. We are registering the shares of common stock pursuant to the provisions of the Purchase Agreement and the Registration Rights Agreement in order to permit the Selling Stockholder to offer the shares of common stock for resale from time to time. Except for the transactions contemplated by the Purchase Agreement and the Registration Rights Agreement, the Selling Stockholder has not had any material relationship with us within the past three years.

The table below presents information regarding the Selling Stockholder and the shares of common stock that it may offer from time to time under this prospectus. This table is prepared based on information supplied to us by the Selling Stockholder and reflects holdings as of June 11, 2026. The number of shares in the column “Maximum Number of Shares of Common Stock to be Offered Pursuant to this Prospectus” represents all of the shares of common stock that the Selling Stockholder may offer under this prospectus. The Selling Stockholder may sell some, all or none of its shares of our common stock in this offering. We do not know how long the Selling Stockholder will hold the shares of common stock before selling them, and we currently have no agreements, arrangements or understandings with the Selling Stockholder regarding the sale of any of the shares of common stock.

Beneficial ownership is determined in accordance with Rule 13d-3(d) promulgated by the SEC under the Exchange Act, and includes shares of common stock with respect to which the Selling Stockholder has voting and investment power. The percentage of common stock beneficially owned by the Selling Stockholder prior to the offering shown in the table below is based on 531,968 shares of our common stock outstanding as of June 8, 2026. Because the purchase price of the common stock issuable under the Purchase Agreement is determined on each Fixed Purchase Date, with respect to a Fixed Purchase, on the applicable VWAP Purchase Date, with respect to a VWAP Purchase, and on the applicable Additional VWAP Purchase Date, with respect to an Additional VWAP Purchase, the number of shares of common stock that may actually be sold by us to the Selling Stockholder under the Purchase Agreement may be fewer than the number of shares of common stock being offered by this prospectus. The fourth column assumes the sale of all of the shares of common stock offered by the Selling Stockholder pursuant to this prospectus.

We may amend or supplement this prospectus from time to time in the future to update or change the Selling Stockholder list and the securities that may be resold.

Please see the section titled “Plan of Distribution” for further information regarding the Selling Stockholder's method of distributing these securities.

Name of Selling Stockholder	Shares Beneficially Owned Prior to Offering <sup>(1)</sup>	% Prior to Offering <sup>(2)</sup>	Maximum Shares Offered Hereby	Number of Shares of Common Stock Owned After Offering	
				Number <sup>(3)</sup>	Percent <sup>(3)</sup>
C/M Capital Master Fund, LP <sup>(4)</sup>	0	0%	808,000	808,000	60.30%

(1) In accordance with Rule 13d-3(d) under the Exchange Act, we have excluded from the number of shares of common stock beneficially owned prior to the offering all of the shares of common stock that the Selling Stockholder may be required to purchase under the Purchase Agreement, because the issuance of such shares of common stock is solely at our discretion and is subject to conditions contained in the Purchase Agreement, the satisfaction of which is entirely outside of the Selling Stockholder's control, including the registration statement that includes this prospectus becoming and remaining effective. Furthermore, the Fixed Purchase, VWAP Purchase or Additional VWAP Purchase, as applicable, of common stock is subject to certain agreed-upon maximum amount limitations set forth in the Purchase Agreement. Also, the Purchase Agreement prohibits us from issuing and selling any of our common stock to the Selling Stockholder to the extent such shares of common stock, when aggregated with all other common stock then beneficially owned by the Selling Stockholder, would cause the Selling Stockholder's beneficial ownership of our common stock to exceed the Beneficial Ownership Limitation.

(2) Applicable percentage ownership is based on 531,968 shares of our common stock outstanding as of June 9, 2026.

(3) Assumes the sale of all shares of our common stock being offered pursuant to this prospectus, and is based on 531,968 shares of our common stock outstanding as of June 9, 2026.

(4) The business address of C/M Capital Master Fund, LP is 1111 Brickell Avenue, Suite 2920, Miami, Florida 33131. Thomas Walsh and Jonathan Juchno are the Managing Partners of C/M Capital Master Fund, LP, and therefore may be deemed to have shared voting and investment power over securities owned directly and indirectly by C/M Capital Master Fund, LP. C/M Capital Master Fund, LP is not a registered broker-dealer or an affiliate of a registered broker-dealer. The foregoing should not be construed in and of itself as an admission by Mr. Walsh and Mr. Juchno as to beneficial ownership of the securities beneficially owned directly or indirectly by C/M Capital Master Fund, LP.

#### Material relationships with the Selling Stockholder

Cavalry Investment Fund, an affiliate of the Selling Stockholder owns 418,162 shares of our Series B Preferred Stock, or 52.5% of the shares of Series B Stock outstanding, which upon stockholder approval of conversion and compliance with the Nasdaq Initial Listing Standards, is currently convertible into 97,571 shares of our common stock. Because 50% of the proceeds we receive from purchases by the Selling Stockholder will be used to redeem our Series B shares, Cavalry Investment Fund will receive its pro rata portion of such proceeds. Other than as described above, the transactions contemplated by the Purchase Agreement and the related Registration Rights Agreement, and as described in this prospectus and the documents incorporated by reference herein, the Selling Stockholder has not held any position or office, or had any other material relationship, with us during the three years prior to the date of this prospectus.

## PLAN OF DISTRIBUTION

The Selling Stockholder and any of its pledgees, assignees and successors-in-interest may, from time to time, sell any or all of its securities covered hereby on the principal trading market or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices. The Selling Stockholder may use any one or more of the following methods when selling securities:

- ordinary brokers' transactions;
- transactions involving cross or block trades;
- through brokers, dealers, or underwriters who may act solely as agents;
- "at the market" into an existing market for our common stock;
- in other ways not involving market makers or established business markets, including direct sales to purchasers or sales effected through agents;
- in privately negotiated transactions; or
- any combination of the foregoing.

In order to comply with the securities laws of certain states, if applicable, the shares of common stock may be sold only through registered or licensed brokers or dealers. In addition, in certain states, the shares of common stock may not be sold unless they have been registered or qualified for sale in the state or an exemption from the state's registration or qualification requirement is available and complied with.

The Selling Stockholder is an "underwriter" within the meaning of Section 2(a)(11) of the Securities Act.

The Selling Stockholder has informed us that it intends to use one or more registered broker-dealers to effectuate all sales, if any, of our common stock that it has acquired and may in the future acquire from us pursuant to the Purchase Agreement. Such sales will be made at prices and at terms then prevailing or at prices related to the then current market price. Each such registered broker-dealer will be an underwriter within the meaning of Section 2(a)(11) of the Securities Act. The Selling Stockholder has informed us that each such broker-dealer will receive commissions from the Selling Stockholder that will not exceed customary brokerage commissions.

Brokers, dealers, underwriters or agents participating in the distribution of our common stock offered by this prospectus may receive compensation in the form of commissions, discounts, or concessions from the purchasers, for whom the broker-dealers may act as agent, of the shares of common stock sold by the Selling Stockholder through this prospectus. The compensation paid to any such particular broker-dealer by any such purchasers of our common stock sold by the Selling Stockholder may be less than or in excess of customary commissions. Neither we nor the Selling Stockholder can presently estimate the amount of compensation that any agent will receive from any purchasers of our common stock sold by the Selling Stockholder.

We know of no existing arrangements between the Selling Stockholder or any other stockholder, broker, dealer, underwriter or agent relating to the sale or distribution of our common stock offered by this prospectus.

We may from time to time file with the SEC one or more supplements to this prospectus or amendments to the registration statement of which this prospectus forms a part to amend, supplement or update information contained in this prospectus, including, if and when required under the Securities Act, to disclose certain information relating to a particular sale of shares of our common stock offered by this prospectus by the Selling Stockholder, including the names of any brokers, dealers, underwriters or agents

participating in the distribution of such shares of common stock by the Selling Stockholder, any compensation paid by the Selling Stockholder to any such brokers, dealers, underwriters or agents, and any other required information.

We will pay the expenses incident to the registration under the Securities Act of the offer and sale of our common stock covered by this prospectus by the Selling Stockholder. As consideration for its irrevocable commitment to purchase our common stock under the Purchase Agreement, we have agreed to issue to the Selling Stockholder 1.0% of the shares of common stock issued in each Fixed Purchase, VWAP Purchase or Additional VWAP Purchase, as the case may be. We have also agreed to pay to the Selling Stockholder \$25,000 in cash as reimbursement for the reasonable, out-of-pocket expenses incurred by the Selling Stockholder, including the legal fees and disbursements of the Selling Stockholder's legal counsel, in connection with its due diligence investigation of us and in connection with the preparation, negotiation and execution of the Purchase Agreement. See "The Committed Equity Financing" for more information.

We also have agreed to indemnify the Selling Stockholder and certain other persons against certain liabilities in connection with the offering of our common stock offered hereby, including liabilities arising under the Securities Act or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities. The Selling Stockholder has agreed to indemnify us against liabilities under the Securities Act that may arise from certain written information furnished to us by the Selling Stockholder specifically for use in this prospectus or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons, we have been advised that in the opinion of the SEC this indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

We estimate that the total expenses for the offering will be approximately \$115,000.

The Selling Stockholder has represented to us that at no time prior to the date of the Purchase Agreement has the Selling Stockholder or its agents, representatives or affiliates engaged in or effected, in any manner whatsoever, directly or indirectly, any short sale (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of our common stock or any hedging transaction, which establishes a net short position with respect to our common stock. The Selling Stockholder has agreed that during the term of the Purchase Agreement, neither the Selling Stockholder, nor any of its agents, representatives or affiliates will enter into or effect, directly or indirectly, any of the foregoing transactions.

We have advised the Selling Stockholder that it is required to comply with Regulation M promulgated under the Exchange Act. With certain exceptions, Regulation M precludes the Selling Stockholder, any affiliated purchasers, and any broker-dealer or other person who participates in the distribution from bidding for or purchasing, or attempting to induce any person to bid for or purchase any security which is the subject of the distribution until the entire distribution is complete. Regulation M also prohibits any bids or purchases made in order to stabilize the price of a security in connection with the distribution of that security. All of the foregoing may affect the marketability of the securities offered by this prospectus.

This offering will terminate on the date that all of our common stock offered by this prospectus have been sold by the Selling Stockholder.

Our common stock is currently listed on The Nasdaq Capital Market under the symbol "DCOY."

## **MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

Our discussion and analysis of financial condition and results of operations is incorporated by reference from Part II, Item 7 of the Company’s Annual Report on Form 10-K, as 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 (see “Incorporation of Certain Information by Reference”).

### **BUSINESS**

The description of our business is incorporated by reference from Part I, Item 1 of the Company’s Annual Report on Form 10-K, as 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 (see “Incorporation of Certain Information by Reference”).

### **DESCRIPTION OF CAPITAL STOCK**

The Selling Stockholder is offering for resale up to an aggregate of 808,000 shares of our common stock. The terms of our common stock are contained in our Amended and Restated Certificate of Incorporation, as amended, and our Second Amended and Restated Bylaws, each as filed or incorporated by reference as exhibits to our Annual Report on Form 10-K for the fiscal year ended December 31, 2025, as amended. For a description of our common stock, see Exhibit 4.9—Description of The Company’s Securities Registered Under Section 12 of the Securities Exchange Act of 1934, As Amended, to 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 Amended and Restated Certificate of Incorporation, as amended, authorizes the issuance of up to 100,000,000 shares of common stock, par value \$0.0001 per share, and up to 10,000,000 shares of preferred stock, par value \$0.0001 per share, of which we have designated (i) 877.707 shares of Series A Preferred Stock, 877.707 of which are issued and outstanding as of March 31, 2026; and (ii) 796.308 of our shares of Series B Preferred Stock, 796.308 of which are issued and outstanding as of March 31, 2026. As of June 9, 2026, we had 531,968 shares of common stock outstanding. The Series A Preferred Stock and Series B Preferred Stock are not convertible into common stock until our stockholders approve such conversion in accordance with Nasdaq Listing Rule 5635 and we satisfy the applicable Nasdaq initial listing requirements. Our Board of Directors may establish the rights and preferences of any additional series of preferred stock from time to time.

### **DIRECTORS, EXECUTIVE OFFICERS, AND CORPORATE GOVERNANCE**

The description of our directors, executive officers and corporate governance is incorporated by reference from Part III, Item 10 of the Company’s Annual Report on Form 10-K, as 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 (see “Incorporation of Certain Information by Reference”).

### **EXECUTIVE COMPENSATION**

The description of our executive compensation is incorporated by reference from Part III, Item 11 of the Company’s Annual Report on Form 10-K, as 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 (see “Incorporation of Certain Information by Reference”).

## **SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**

The description of the security ownership of certain beneficial owners and management and related stockholder matters is incorporated by reference from Part III, Item 12 of the Company's Annual Report on Form 10-K, as 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 (see "Incorporation of Certain Information by Reference").

## **CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE**

The description of certain relationships and related transactions and director independence is incorporated by reference from Part III, Item 13 of the Company's Annual Report on Form 10-K, as 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 (see "Incorporation of Certain Information by Reference").

## **LEGAL MATTERS**

The validity of the shares of common stock offered by this prospectus will be passed upon for us by Honigman LLP.

## **EXPERTS**

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2025, as set forth in their report thereon (which contains an explanatory paragraph describing conditions that raise substantial doubt about the Company's ability to continue as a going concern as described in Note 1 to the consolidated financial statements), which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

## **WHERE YOU CAN FIND MORE INFORMATION**

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website at [www.sec.gov](http://www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. We also maintain a website at [www.decoytx.com](http://www.decoytx.com). Information on, or accessible through, our website is not part of this prospectus. We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock offered by this prospectus. This prospectus does not contain all of the information set forth in the registration statement and its exhibits and schedules. For further information, we refer you to the registration statement and its exhibits and schedules.

## INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” into this prospectus the information in other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (other than information furnished and not filed) after the date of the initial registration statement and prior to effectiveness, and after the date of this prospectus and prior to the termination of the offering:

- 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;
- 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](#) and [May 19, 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.

For the purposes of this registration statement, any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this registration statement.

We will provide, without charge, to each person to whom a copy of this prospectus is delivered, upon written or oral request, a copy of any or all of the documents incorporated by reference into this prospectus (other than exhibits, unless those exhibits are specifically incorporated by reference). Requests should be directed to Decoy Therapeutics Inc., 2450 Holcombe Blvd., Suite X, Houston, TX 77021, Attn: Corporate Secretary, (713) 913-5608.



**Up to 808,000 Shares of Common Stock**

**Preliminary Prospectus**

**, 2026**

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**PART II**  
**INFORMATION NOT REQUIRED IN PROSPECTUS**

**Item 13. Other Expenses of Issuance and Distribution**

The following table sets forth the fees and expenses in connection with the issuance and distribution of the securities being registered (other than underwriting discount and commissions). Except for the SEC registration fee, all amounts are estimates.

SEC registration fee	\$	5,000
Legal fees and expenses	\$	30,000
Accounting fees and expenses	\$	25,000
Miscellaneous expenses	\$	55,000
<b>Total</b>	<b>\$</b>	<b>115,000</b>

**Item 14. Indemnification of Directors and Officers**

Section 102 of the Delaware General Corporation Law (the "DGCL") permits a corporation to eliminate the personal liability of its directors or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his or her duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. The Registrant's Amended and Restated Certificate of Incorporation provides that no director shall be personally liable to the Registrant or its stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability, except to the extent that the DGCL prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the DGCL provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he or she is or is threatened to be made a party by reason of such position, if such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnification for such expenses which the Court of Chancery or such other court shall deem proper.

The Registrant's Amended and Restated Certificate of Incorporation provides that the Registrant will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Registrant), by reason of the fact that he or she is or was, or has agreed to become, the Registrant's director or officer, or is or was serving, or has agreed to serve, at the Registrant's request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an Indemnitee), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom if

such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the Registrant's best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful.

The Registrant's Amended and Restated Certificate of Incorporation also provides that the Registrant will indemnify any Indemnitee who was or is a party to an action or suit by or in the right of the Registrant to procure a judgment in the Registrant's favor by reason of the fact that the Indemnitee is or was, or has agreed to become, the Registrant's director or officer, or is or was serving, or has agreed to serve, at the Registrant's request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the Registrant's best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the Registrant, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by the Registrant against all expenses (including attorneys' fees) actually and reasonably incurred by him or her or on his or her behalf in connection therewith. If the Registrant does not assume the defense, expenses must be advanced to an Indemnitee under certain circumstances.

The Registrant maintains a general liability insurance policy that covers certain liabilities of the Registrant's directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers.

Insofar as the foregoing provisions permit indemnification of directors, executive officers, or persons controlling the Registrant for liability arising under the Securities Act, the Registrant has been informed that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

#### **Item 15. Recent Sales of Unregistered Securities**

The following sets forth information regarding all securities sold or issued by the Registrant within the past three years that were not registered under the Securities Act. Unless otherwise indicated, the offers, sales and issuances described below were made in reliance on the exemption from registration provided by Section 4(a)(2) of the Securities Act, and/or Regulation D promulgated thereunder, as transactions by an issuer not involving any public offering, and no underwriting discounts or commissions were paid in connection therewith. Share and per share amounts give effect to the Reverse Stock Splits, except as noted.

On November 12, 2025, in connection with the closing of the Merger, the Registrant issued 877.709 shares of Series A Non-Voting Convertible Preferred Stock and 796.308 shares of Series B Non-Voting Convertible Preferred Stock to former stockholders and debtholders of Legacy Decoy as merger consideration, and reserved 45.098 shares of Series A Preferred Stock for assumed in-the-money options and warrants of Legacy Decoy. These securities were issued in reliance on Section 4(a)(2) of the Securities Act and Regulation D thereunder.

The Registrant issued and sold to C/M Capital Master Fund, LP an aggregate of 37,035 Purchase Shares and 370 related Commitment Shares (in each case as adjusted for the Reverse Stock Splits), at a weighted-average price of approximately \$128.76 per share, for aggregate gross proceeds of approximately \$4.8 million through June 9, 2026, in private placements under the Purchase Agreement in

reliance on Section 4(a)(2) of the Securities Act. The Commitment Shares were issued as consideration for the Selling Stockholder's execution and delivery of the Purchase Agreement, in an amount equal to 1% of the Purchase Shares sold.

On November 12, 2025, in connection with the Registrant's November 2025 underwritten public offering, the Registrant issued to the representative of the underwriter warrants to purchase up to 22,361 shares of common stock at an exercise price of \$27.90 per share. These warrants were issued in reliance on Section 4(a)(2) of the Securities Act.

**Item 16. Exhibits and Financial Statement Schedules**

The exhibits to this registration statement are listed in the Exhibit Index below.

<b>Exhibit No.</b>	<b>Description</b>
3.1	<a href="#"><u>Amended and Restated Certificate of Incorporation (incorporated herein by reference to Exhibit 3.1 to our Current Report on Form 8-K filed with the Commission on February 9, 2015).</u></a>
3.2	<a href="#"><u>Certificate of Amendment to Amended and Restated Certificate of Incorporation of the Registrant filed with the Secretary of State of the State of Delaware on July 18, 2019 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on July 22, 2019).</u></a>
3.3	<a href="#"><u>Certificate of Amendment to Restated Certificate of Incorporation of the Registrant filed with the Secretary of State of the State of Delaware on October 14, 2022 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on October 14, 2022).</u></a>
3.4	<a href="#"><u>Certificate of Amendment to Amended and Restated Certificate of Incorporation of the Registrant filed with the Secretary of State of the State of Delaware on June 14, 2024 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on June 14, 2024).</u></a>
3.5	<a href="#"><u>Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Salarius Pharmaceuticals, Inc., effective August 15, 2025 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on August 15, 2025).</u></a>
3.6	<a href="#"><u>Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Salarius Pharmaceuticals, Inc., effective January 8, 2026 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on January 8, 2026).</u></a>
3.7	<a href="#"><u>Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Decoy Therapeutics Inc. effective March 6, 2026 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on March 5, 2026).</u></a>
3.8	<a href="#"><u>Amended and Restated Bylaws of the Registrant, effective July 19, 2019 (incorporated by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K filed with the SEC on July 22, 2019).</u></a>
3.9	<a href="#"><u>Amendment to the Amended and Restated Bylaws of the Registrant, effective April 1, 2022 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on April 1, 2022).</u></a>
3.10	<a href="#"><u>Second Amended and Restated Bylaws of the Registrant, effective January 8, 2026 (incorporated by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K filed with the SEC on January 8, 2026).</u></a>
3.11	<a href="#"><u>Form of Common Stock Certificate (incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-1 filed on December 29, 2014).</u></a>
3.12	<a href="#"><u>Form of Certificate of Designation of Series A Non-Voting Convertible Preferred Stock (incorporated by reference to Exhibit 2.2 to the Registrant's Current Report on Form 8-K filed with the SEC on September 18, 2025).</u></a>

3.13	<a href="#">Form of Certificate of Designation of Series B Non-Voting Convertible Preferred Stock (incorporated by reference to Exhibit 2.3 to the Registrant's Current Report on Form 8-K filed with the SEC on September 18, 2025).</a>
4.1	<a href="#">Form of Common Stock Certificate of Registrant (incorporated by reference to Exhibit 4.1 to the Registrant's registration statement on Form S-1 (File No. 333-201276), as amended, filed January 13, 2015).</a>
5.1*	<a href="#">Opinion of Honigman LLP</a>
10.1	<a href="#">Securities Purchase Agreement, dated December 12, 2024, by and between Salius Pharmaceuticals, Inc. and C/M Capital Master Fund, LP (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the SEC on December 13, 2024).</a>
10.2	<a href="#">Registration Rights Agreement, dated December 12, 2024, by and between Salius Pharmaceuticals, Inc. and C/M Capital Master Fund, LP (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed with the SEC on December 13, 2024).</a>
23.1*	<a href="#">Consent of Ernst &amp; Young LLP, independent registered public accounting firm</a>
23.2*	<a href="#">Consent of Honigman LLP (included in Exhibit 5.1)</a>
24.1*	<a href="#">Power of Attorney (included on the signature page hereto)*</a>
107*	Filing Fee Table

\* Filed herewith.

#### Item 17. Undertakings

The undersigned Registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
  - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
  - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Filing Fee Tables" in the effective registration statement; and
  - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (1)(i), (1)(ii) and (1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser, if the Registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness; provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.
- (5) That, for the purpose of determining liability of the Registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned Registrant undertakes that in a primary offering of securities of the undersigned Registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned Registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
  - (i) Any preliminary prospectus or prospectus of the undersigned Registrant relating to the offering required to be filed pursuant to Rule 424;
  - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned Registrant or used or referred to by the undersigned Registrant;
  - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned Registrant or its securities provided by or on behalf of the undersigned Registrant; and
  - (iv) Any other communication that is an offer in the offering made by the undersigned Registrant to the purchaser.

- (6) That, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (7) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Houston, State of Texas, on June 12, 2026.

**DECOY THERAPEUTICS INC.**

By: /s/ Mark J. Rosenblum  
Mark J. Rosenblum  
Chief Financial Officer

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**POWER OF ATTORNEY**

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Frederick E. Pierce and Mark J. Rosenblum, and each of them, his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement, and any registration statement relating to the same offering as this registration statement that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

<b>Signature</b>	<b>Title</b>	<b>Date</b>
<hr/> <i>/s/ Frederick E. Pierce</i> <b>Frederick E. Pierce</b>	Chief Executive Officer and Director <i>(Principal Executive Officer)</i>	June 12, 2026
<hr/> <i>/s/ Mark J. Rosenblum</i> <b>Mark J. Rosenblum</b>	Chief Financial Officer <i>(Principal Financial Officer and Principal Accounting Officer)</i>	June 12, 2026
<hr/> <i>/s/ William K. McVicar</i> <b>William K. McVicar</b>	Chairman of the Board of Directors	June 12, 2026
<hr/> <i>/s/ David J. Arthur</i> <b>David J. Arthur</b>	Director	June 12, 2026
<hr/> <i>/s/ Tess Burleson</i> <b>Tess Burleson</b>	Director	June 12, 2026
<hr/> <i>/s/ Arnold Hanish</i> <b>Arnold Hanish</b>	Director	June 12, 2026
<hr/> <i>/s/ Paul Lammers</i> <b>Paul Lammers</b>	Director	June 12, 2026
<hr/> <i>/s/ Jonathan Lieber</i> <b>Jonathan Lieber</b>	Director	June 12, 2026

[•], 2026

Decoy Therapeutics Inc.  
2450 Holcombe Blvd., Suite X  
Houston, Texas 77021

**Re: Registration Statement on Form S-1**

Ladies and Gentlemen:

We have acted as counsel to Decoy Therapeutics Inc., a Delaware corporation (the “*Company*”), in connection with preparing and filing with the U.S. Securities and Exchange Commission (the “*Commission*”) pursuant to the Securities Act of 1933, as amended (the “*Securities Act*”), a Registration Statement on Form S-1 (the “*Registration Statement*”), in connection with the registration under the Securities Act for resale from time to time by the selling stockholder named in the related prospectus included in the Registration Statement (the “*Selling Stockholder*”) of up to [808,000] shares (the “*Shares*”) of the Company’s common stock, par value \$0.0001 per share (the “*Common Stock*”). The Shares consist of (i) up to [800,000] shares of Common Stock that the Company may, in its sole discretion, elect to issue and sell to the Selling Stockholder, and (ii) up to [8,000] shares of Common Stock that the Company may issue to the Selling Stockholder as consideration for its execution and delivery of that certain Securities Purchase Agreement, dated as of December 12, 2024, as amended (the “*Purchase Agreement*”), by and between the Company and the Selling Stockholder, in each case as described in the Registration Statement and the related prospectus. This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or the related prospectus, other than as expressly stated herein with respect to the issuance of the Shares.

In connection with this opinion letter, we examined originals or copies of such records, instruments, certificates, opinions, memoranda and other documents as in our judgment are necessary or appropriate to enable us to render the opinions expressed below. We have not independently sought to verify factual matters. In conducting our examination, we assumed, without independent investigation, the genuineness and authenticity of all signatures on original documents, the accuracy, completeness and authenticity of all certificates, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted as copies, and the authenticity of the originals of such copies, the accuracy and completeness of all records made available to us by the Company, and the due authorization, execution and delivery by the Selling Stockholder of all documents where authorization, execution and delivery are prerequisites to the legal effectiveness of such documents. In addition, in connection with this opinion letter, we have assumed that the Shares will be offered in the manner and on the terms identified or referred to in the Registration Statement and the accompanying prospectus, including all supplements and amendments thereto.

Our opinions herein are limited solely to the matters set forth herein. The law covered by the opinions expressed herein is limited to the Delaware General Corporation Law as in effect on the date hereof (the “*DGCL*”). We are not admitted to practice in the State of Delaware and, with respect to the opinions set forth below, with your permission, we have (i) limited our review to standard compilations available to us of the DGCL, which we have assumed to be accurate and complete, and (ii) not reviewed case law. We express no opinion as to whether the laws of any jurisdiction are applicable to the subject matter hereof. We are not rendering any opinion with respect to federal law, including federal securities laws, or state blue sky securities laws. It is understood that this opinion letter is to be used only in connection with the offer and resale of the Shares while the Registration Statement is effective under the Securities Act.

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Honigman LLP • 660 Woodward Ave • Suite 2290 • Detroit, Michigan 48226

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Based upon, subject to and limited by the foregoing, we are of the opinion that, when the Shares are issued and delivered to the Selling Stockholder against payment in full of the consideration therefor (in an amount not less than the par value thereof) in accordance with the terms and conditions of the Purchase Agreement and in the manner described in the Registration Statement and the included prospectus, and upon the due registration of the Shares on the books of the transfer agent and registrar of the Company in the name of or on behalf of the Selling Stockholder, the Shares will be validly issued, fully paid and non-assessable.

In giving the opinions set forth above, with respect to the Shares opined on in this opinion letter, we have assumed that (i) at or prior to the time of the delivery of such Shares, the authorization of such Shares will not have been modified or rescinded, and there will not have occurred any change in law affecting such Shares, including their validity or enforceability, (ii) the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the DGCL, (iii) the Purchase Agreement has been duly authorized, executed and delivered by the Company and the Selling Stockholder and constitutes a valid and legally binding obligation of the Company enforceable in accordance with its terms; and (iv) upon the issuance of any of the Shares, the total number of shares of Common Stock then issued and outstanding will not exceed the total number of shares of Common Stock that the Company is then authorized to issue under its Amended and Restated Certificate of Incorporation, as amended, and by the board of directors of the Company in connection with the offering contemplated by the Registration Statement.

We hereby consent to the filing of this opinion letter with the Commission as Exhibit 5.1 to the Registration Statement and to the reference to our firm under the caption "Legal Matters" in the Registration Statement and the related prospectus. In giving such consent, we do not admit that we are within the category of persons whose consent is required by Section 7 of the Securities Act or the rules and regulations promulgated thereunder by the Commission. This opinion speaks only at and as of its date and is based solely on the facts and circumstances known to us as of such date. In addition, in rendering this opinion, we assume no obligation to revise, update or supplement this opinion (i) should the present aforementioned laws be changed by legislative action, judicial decision or otherwise, or (ii) to reflect any facts or circumstances which may hereafter come to our attention.

Very truly yours,

*/s/ Honigman LLP*

HONIGMAN LLP

IP/JHK/GSWA/JPK

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**Honigman LLP • 660 Woodward Ave • Suite 2290 • Detroit, Michigan 48226**

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**Consent of Independent Registered Public Accounting Firm**

We consent to the reference to our firm under the caption "Experts" in the Registration Statement (Form S-1) and related Prospectus of Decoy Therapeutics Inc. (formerly Salarius Pharmaceuticals, Inc.) for the registration of 808,000 shares of its common stock and to the incorporation by reference therein of our report dated March 31, 2026, with respect to the consolidated financial statements of Decoy Therapeutics Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2025, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Houston, Texas  
June 12, 2026

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# Calculation of Filing Fee Tables

S-1

## Decoy Therapeutics Inc.

Table 1: Newly Registered and Carry Forward Securities

Not Applicable

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee	Carry Forward Form Type	Carry Forward File Number	Carry Forward Initial Effective Date	Filing Fee Previously Paid in Connection with Unsold Securities to be Carried Forward
<b>Newly Registered Securities</b>												
Fees to be Paid	1 Equity	Common Stock, par value \$0.0001 per share	Other	808,000	\$ 6.07	4,904,560.00	\$ 0.0001381	\$ 677.32				
Fees Previously Paid												
<b>Carry Forward Securities</b>												
Carry Forward Securities												
Total Offering Amounts:						\$		\$ 677.32				
Total Fees Previously Paid:								\$ 0.00				
Total Fee Offsets:								\$ 0.00				
Net Fee Due:								\$ 677.32				

### Offering Note

1

(1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall also cover an indeterminate number of additional shares of common stock, par value \$0.0001 per share ("Common Stock"), of Decoy Therapeutics Inc. (the "Registrant") as may be issued or issuable resulting from stock splits, stock dividends or similar transactions.

(2) Includes (i) up to 800,000 shares of Common Stock that are issuable pursuant to a securities purchase agreement, dated December 12, 2024, as amended (the "Purchase Agreement"), by and between the Registrant and C/M Capital Master Fund, LP ("Capital Master"), as Purchase Shares, and (ii) up to 8,000 shares of Common Stock that are issuable to Capital Master as consideration for Capital Master's execution and delivery of the Purchase Agreement, as Commitment Shares. The Registrant will not receive any proceeds from the resale of such shares by the selling stockholder.

(3) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) of the Securities Act, based on the average of the high and low prices for a share of the Registrant's Common Stock as reported on the Nasdaq Stock Market, LLC on June 8, 2026, which is a date within five business days of the filing of the Registration Statement.

Table 2: Fee Offset Claims and Sources

Not Applicable

	Registrant or Filer Name	Form or Filing Type	File Number	Initial Filing Date	Filing Date	Fee Offset Claimed	Security Type Associated with Fee Offset Claimed	Security Title Associated with Fee Offset Claimed	Unsold Securities Associated with Fee Offset Claimed	Unsold Aggregate Offering Amount Associated with Fee Offset Claimed	Fee Paid with Fee Offset Source
<b>Rules 457(b) and 0-11(a)(2)</b>											
Fee Offset Claims											
Fee Offset Sources											
<b>Rule 457(p)</b>											
Fee Offset Claims											
Fee Offset Sources											

Table 3: Combined Prospectuses

Not Applicable

Security Type	Security Class Title	Amount of Securities	Maximum Aggregate Offering Price of	Form Type	File Number	Initial Effective

			Previously Registered	Securities Previously Registered			Date
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