As filed with the Securities and Exchange Commission on November 13, 2026

Registration No. 333-

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

FORM S-3

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

DECOY THERAPEUTICS INC.

(Exact name of registrant as specified in its charter)

Delaware	**46-5087339**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification Number)**

2450 Holcombe Blvd., Suite X
Houston, Texas 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, Texas 77021
(713) 913-5608
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copy to:

Jeffrey H. Kuras
Honigman LLP
660 Woodward Avenue, 2290 First National Building
Detroit, Michigan 48226
(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.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. ☐

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, other than securities offered only in connection with dividend or interest reinvestment plans, 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, please 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 registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. ☐

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. ☐

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, as amended, or until this registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The information contained in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the 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 state where such offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED NOVEMBER 13, 2026

PROSPECTUS



$50,000,000

Common Stock
Preferred Stock
Warrants
Debt Securities
Units

We may offer to the public from time to time in one or more series or issuances and on terms that we will determine at the time of offering:

- shares of our common stock;
- shares of our preferred stock;
- warrants to purchase shares of our common stock, preferred stock and/or debt securities;
- debt securities consisting of debentures, notes or other evidences of indebtedness;
- units consisting of a combination of the foregoing securities; or
- any combination of these securities.

The aggregate initial offering price of all securities sold by us pursuant to this prospectus will not exceed $50,000,000.

This prospectus provides a general description of the securities that we may offer. Each time that we offer securities under this prospectus, we will provide the specific terms of the securities offered, including the public offering price, in a supplement to this prospectus. Any prospectus supplement may add to, update or change information contained or incorporated by reference in this prospectus.

The securities may be sold by us to or through underwriters or dealers, directly to purchasers or through agents designated from time to time. For additional information on the methods of sale, you should refer to the section entitled “Plan of Distribution” in this prospectus and the comparable section of any applicable prospectus supplement. If any underwriters are involved in the sale of the securities with respect to which this prospectus is being delivered, the names of such underwriters and any applicable discounts or commissions and over-allotment options will be set forth in the applicable prospectus supplement.

Our common stock trades on the Nasdaq Capital Market under the ticker symbol “DCOY.” On November 11, 2026, the last reported sale price per share of our common stock was $1.09. We have not yet determined whether the other securities that may be offered by this prospectus will be listed on any exchange, interdealer quotation system or over-the-counter market. If we decide to seek the listing of any such securities upon issuance, the prospectus supplement relating to those securities will disclose the exchange, quotation system or market on which those securities will be listed.

As of November 11, 2026, the aggregate market value of our outstanding common stock held by non-affiliates, or public float, was approximately $2,525,022, based on 2,385,282 shares of outstanding common stock, of which 68,748 shares were held by non-affiliates, and a per share price of $1.09, which was the last reported sale price of our common stock on the Nasdaq Capital Market on November 11, 2026, a date within 60 days of the date of this prospectus. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities pursuant to the registration statement of which this prospectus forms a part in a public primary offering with a value exceeding more than one-third of our public float in any 12-month period so long as our public float remains below $75.0 million. During the prior 12 calendar month period that ends on, and includes, the date of this prospectus, we have not offered or sold any securities pursuant to General Instruction I.B.6 of Form S-3.

INVESTING IN OUR SECURITIES INVOLVES A HIGH DEGREE OF RISK. RISKS ASSOCIATED WITH AN INVESTMENT IN OUR SECURITIES WILL BE DESCRIBED IN THE APPLICABLE PROSPECTUS SUPPLEMENT **AND CERTAIN OF OUR FILINGS WITH THE SECURITIES AND EXCHANGE COMMISSION INCORPORATED BY REFERENCE INTO THIS PROSPECTUS, AS DESCRIBED UNDER "RISK FACTORS" ON PAGE 4.**

You should read this prospectus and any applicable prospectus supplement together with additional information described under the heading "Where You Can Find More Information" before you make your investment decision.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved **of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.**

The date of this prospectus is November 13, 2026.

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ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement on Form S-3 that we filed with the U.S. Securities and Exchange Commission (the "SEC"), using a "shelf" registration process. Under this shelf registration process, we may offer to sell any of the securities, or any combination of the securities, described in this prospectus, in each case in one or more offerings, up to a total dollar amount of $50,000,000.

This prospectus provides you only with a general description of the securities that we may offer. Each time securities are sold under this shelf registration statement, we will provide an accompanying prospectus supplement that will contain specific information about the terms of those securities and the terms of that offering. The accompanying prospectus supplement may also add, update or change information contained in this prospectus. If there is any inconsistency between the information in this prospectus and any accompanying prospectus supplement, you should rely on the information in the accompanying prospectus supplement. You should read both this prospectus and any accompanying prospectus supplement, including all documents incorporated by reference herein and therein, together with the additional information described under "Where You Can Find More Information" below.

The information contained in this prospectus is not complete and may be changed. You should rely only on the information provided in or incorporated by reference in this prospectus or in any accompanying prospectus supplement, or documents to which we otherwise refer you. We have not authorized anyone else to provide you with different information.

We have not authorized any dealer, agent or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and any accompanying prospectus supplement. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or an accompanying prospectus supplement. This prospectus and the accompanying prospectus supplement, if any, do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and the accompanying prospectus supplement, if any, constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus and the accompanying prospectus supplement, if any, is accurate on any date subsequent to the date set forth on the front of such document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and any accompanying prospectus supplement is delivered or securities are sold on a later date.

References in this prospectus to the terms "the Company," "Decoy," "we," "our" and "us" or other similar terms mean Decoy Therapeutics Inc. (formerly known as Salarius Pharmaceuticals, Inc.) and our wholly owned subsidiaries, unless we state otherwise or the context indicates otherwise. References to "Salarius" refer to the Company prior to the Merger (as defined below), and references to "Legacy Decoy" refer to Decoy Therapeutics, Inc., our wholly owned subsidiary, prior to the Merger.

"Decoy Therapeutics," "DCOY," "IMP3ACT™" and the Decoy logo are our trademarks. This prospectus and the documents incorporated by reference into this prospectus may also contain trademarks and trade names that are the property of their respective owners. We do not intend our use or display of other companies' trade names, trademarks or service marks to imply relationships with, or endorsements or sponsorship of us by, these other companies.

On June 14, 2024, we effected a 1-for-8 reverse stock split of our issued and outstanding shares of common stock, par value $0.0001 per share. On August 15, 2025, we filed a Certificate of Amendment to our amended and restated certificate of incorporation, as amended, with the Secretary of State of the State of Delaware to effect a 1-for-15 reverse stock split of our issued and outstanding shares of common stock, which became effective on August 18, 2025. 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 shares of common stock, which became effective at 5:00 p.m. Eastern Time on March 6, 2026. Unless otherwise indicated, all historical share and per share amounts reflected in this prospectus have been adjusted to reflect these reverse stock splits.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein contain, and any applicable prospectus supplement and the documents incorporated by reference therein may contain, forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended, (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 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 imposed by the Nasdaq Hearings Panel through March 31, 2027 (the "Mandatory Panel Monitor"), and the effect of any noncompliance on the liquidity and trading of our common stock;
- whether and when the milestone events applicable to the milestone-based Series A and Series C warrants will be achieved;
- our ability to successfully manage our cash and cash equivalents and any anticipated proceeds from financing transactions;
- 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 from any sale of securities under this prospectus.

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 in the applicable prospectus supplement 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 amended, as supplemented by our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2026, June 30, 2026 and September 30, 2026, each of which is incorporated by reference herein, and the other documents incorporated by reference herein, that could cause our actual results and other expectations to differ materially from those expressed, anticipated or implied by these

forward-looking statements. Should known or unknown risks materialize, or should underlying assumptions prove inaccurate, actual results could differ materially from past results and those anticipated, estimated or projected in the 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, except as required by applicable law.

MARKET, INDUSTRY AND OTHER DATA

This prospectus and any applicable prospectus supplement and the documents incorporated by reference herein and therein contain estimates, projections, market research and other information concerning, among other things, our industry, our business, and markets for our product candidates. Unless otherwise expressly stated, we obtain this information from reports, research surveys, studies and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data and similar sources as well as from our own internal estimates and research and from publications, research, surveys and studies conducted by third parties on our behalf. Information that is based on estimates, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances that are reflected in this information. As a result, you are cautioned not to give undue weight to such information.

PROSPECTUS SUMMARY

This summary highlights selected information from this prospectus and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus, the applicable prospectus supplement and any related free writing prospectus, including the risks of investing in our securities discussed under the heading "Risk Factors" contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus is a part.

Company Overview

We are a pre-clinical stage biotechnology company focused on advancing our pipeline of peptide conjugate therapeutics engineered through our proprietary IMP³ACT platform. Our IMP³ACT 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 IMP³ACT 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 (as defined below) combined our complementary approaches to create a comprehensive drug development platform. Our IMP³ACT 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, (1) SP-3164, a targeted protein degrader, and (2) seclidemstat ("SP-2577"), a targeted protein inhibitor, are legacy Salarius clinical candidates which received FDA fast track designation as a potential treatment for Ewing sarcoma, a rare pediatric disease. 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 are seeking 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.

For more information about our company, please refer to other documents that we have filed with the SEC and that are incorporated by reference into this prospectus, as listed under the heading "Incorporation by Reference."

The Merger and Name Change

Prior to January 8, 2026, we were known as Salarius 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 Salarius 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 Non-Voting Convertible Preferred Stock (the "Series B Preferred Stock") to former Legacy Decoy stockholders and debtholders. 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.," and our common stock, which had traded under the symbol "SLRX," began trading under the symbol "DCOY."

Implications of Being a Smaller Reporting Company

We are a smaller reporting company as defined in the Exchange Act. We may take advantage of certain of the scaled disclosures available to smaller reporting companies and will be able to take advantage of these scaled disclosures for so long as (i) the market value of our voting and non-voting common stock held by non-affiliates is less than $250 million measured on the last business day of our second fiscal quarter or (ii) our annual revenue is less than $100 million during the most recently completed fiscal year and the market value of our voting and non-voting common stock held by non-affiliates is less than $700 million measured on the last business day of our second fiscal quarter. Specifically, as a smaller reporting company, we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Reports on Form 10-K and have reduced disclosure obligations regarding executive compensation, and, as long as we are a smaller reporting company with less than $100 million in annual revenue, we are not required to obtain an attestation report on internal control over financial reporting from our independent registered public accounting firm.

Corporate Information

We were incorporated as Flex Pharma, Inc. in Delaware on February 26, 2014. In July 2019, our wholly owned subsidiary, Falcon Acquisition Sub, LLC, merged with and into Salarius Pharmaceuticals, LLC, which became our wholly owned subsidiary, and we changed our name to Salarius Pharmaceuticals, Inc. On November 12, 2025, we completed the Merger, 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, Texas 77021 and our telephone number is (713) 913-5608. Our website address is www.decoytx.com. We do not incorporate the information on, or accessible through, our website into this prospectus, and you should not consider any information on, or accessible through, our website as part of this prospectus.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains an Internet website at www.sec.gov that contains reports, proxy and information statements and other information about issuers, like us, that file electronically with the SEC. We make available, free of charge, on our investor relations website at investors.decoytx.com, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to these reports as soon as reasonably practicable after electronically filing or furnishing those reports to the SEC. Information contained on or accessible through our website is not a part of or incorporated by reference into this prospectus and the inclusion of our website and investor relations website addresses in this prospectus is an inactive textual reference only.

RISK FACTORS

Investing in our securities involves a high degree of risk. The prospectus supplement applicable to each offering of our securities will contain a discussion of the risks applicable to an investment in our securities. Before making an investment decision, you should carefully consider the risks described below and under the heading "Risk Factors" in the applicable prospectus supplement and any related free writing prospectus, together with the risk factors described in our Annual Report on Form 10-K for the fiscal year ended December 31*, 2025, as amended, and our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2026, June 30, 2026 and September 30, 2026, each of which is incorporated in its entirety by reference herein, as well as the other information contained in or incorporated by reference into this prospectus. The risk factors set forth below 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 securities. 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.*

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, and the report of our independent registered public accounting firm on our consolidated financial statements for the year ended December 31, 2025 includes an explanatory paragraph to that effect. We believe our existing cash and cash equivalents will be sufficient to fund our operations only into early 2027. If we are unable to obtain additional capital in the near term, we may be forced to delay, reduce or eliminate some or all of our development programs, or cease operations, in which case you could lose all or part of your investment.

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 are currently subject to the Mandatory Panel Monitor through March 31, 2027. 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 raise capital.

Nasdaq's new $5.0 million market value standard for continued listing may, if implemented, threaten our ability to remain listed on the exchange.

On July 22, 2026, the SEC approved a new Nasdaq continued listing requirement (the "MVLS Rule") that required each Nasdaq listed issuer to maintain a minimum market value of listed securities of at least $5 million. Under the MVLS Rule, if the value of an issuer's listed securities, as measured by each applicable trading day's closing price, continues to be less than $5 million for a period of 30 consecutive trading days, the issuer's securities would immediately be delisted, with no compliance or cure period. The MVLS Rule would also preclude an issuer's ability to seek stay of delisting during any appeals process, and would preclude Nasdaq hearings panels from reversing the delisting determination to situations where there was an error and the company never actually failed to satisfy the requirement. The panel would also not be able to consider any facts indicating that an issuer subsequently regained compliance with the requirement or grant an issuer any additional time to regain compliance.

On July 29, 2026, the SEC notified Nasdaq that the order granting approval of the MVLS Rule had been stayed pending further review. It is unknown whether the SEC will affirm its order to approve the MVLS Rule following such review. If approved by the SEC, the MVLS Rule could become effective on an immediate basis. Our Common Stock currently trades at levels that are below the $5 million aggregate market value threshold proposed by Nasdaq. As such, if the MVLS Rule is approved by the SEC, our Common Stock could be imminently delisted by Nasdaq on this basis.

If the MVLS Rule is approved, we may be required to monitor our market value of listed securities closely and, if necessary, take actions such as issuing additional securities, raising additional capital or undertaking other corporate

actions to seek to maintain compliance, any of which could dilute our existing shareholders, increase our costs, or divert management's attention. The risk of a rapid loss of Nasdaq listing, or an actual delisting, could adversely affect investor confidence, the liquidity and trading price of our Common Stock, and our ability to access the capital markets, and could have a material adverse effect on our business, financial condition and results of operations.

Further, if our Common Stock is delisted, we may seek to have our Common Stock quoted on an over-the-counter marketplace, such as on the OTCQX. The OTCQX is not a stock exchange, and if our Common Stock trades on the OTCQX rather than a securities exchange, there may be significantly less trading volume and analyst coverage of, and significantly less investor interest in, our Common Stock, which may lead to lower trading prices for our Common Stock.

USE OF PROCEEDS

Except as otherwise provided in the applicable prospectus supplement relating to a specific offering, we intend to use the net proceeds from the sale of securities by us under this prospectus and any applicable prospectus supplement for general corporate purposes, which may include working capital, capital expenditures, research and development expenditures, clinical trial expenditures, acquisitions of new technologies, products or businesses, and investments. Additional information on the use of net proceeds from the sale of securities by us under this prospectus may be set forth in the accompanying prospectus supplement relating to the specific offering.

PLAN OF DISTRIBUTION

We may sell the securities, from time to time pursuant to public offerings, negotiated transactions, block trades, "At the Market Offerings," within the meaning of Rule 415(a)(4) of the Securities Act, into an existing trading market, at prevailing market prices, or a combination of these methods. We may sell the securities to or through underwriters or dealers, through agents or remarketing firms, or directly to one or more purchasers. We may distribute securities from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

A prospectus supplement or supplements (and any related free writing prospectus that we may authorize to be provided to you) will describe the terms of the offering of the securities, including, to the extent applicable:

- the name or names of the underwriters, dealers or agents, if any;
- if the securities are to be offered through the selling efforts of brokers or dealers, the plan of distribution and the terms of any agreement, arrangement, or understanding entered into with broker(s) or dealer(s) prior to the effective date of the registration statement, and, if known, the identity of any broker(s) or dealer(s) who will participate in the offering and the amount to be offered through each;
- the purchase price of the securities or other consideration therefor, and the proceeds, if any, we will receive from the sale;
- if any of the securities being registered are to be offered otherwise than for cash, the general purposes of the distribution, the basis upon which the securities are to be offered, the amount of compensation and other expenses of distribution, and by whom they are to be borne;
- any delayed delivery arrangements;
- any options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents' or underwriters' compensation;
- any public offering price;
- any discounts, commissions or concessions allowed or reallowed or paid to dealers;
- the identity and relationships of any finders, if applicable; and
- any securities exchange or market on which the securities may be listed.

Only underwriters named in the prospectus supplement will be underwriters of the securities offered by the prospectus supplement.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Unless otherwise indicated in the prospectus supplement, subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement, other than securities covered by any over-allotment or other option. Any public offering price and any discounts or concessions allowed or reallowed or paid to dealers may change from time to time. We may use underwriters, dealers or agents with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, dealer or agent, the nature of any such relationship.

We may use a remarketing firm to offer the securities in connection with a remarketing arrangement upon their purchase. Remarketing firms will act as principals for their own account or as agents for us. These remarketing firms will offer or sell the securities pursuant to the terms of the securities. A prospectus supplement will identify any remarketing firm and the terms of its agreement, if any, with us and will describe the remarketing firm's compensation. Remarketing firms may be deemed to be underwriters in connection with the securities they remarket.

If we offer and sell securities through a dealer, we or an underwriter will sell the securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale. The name of the dealer and the terms of the transaction will be set forth in the applicable prospectus supplement.

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities and we will describe any commissions we will pay to the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

Dealers and agents participating in the distribution of the securities may be deemed to be underwriters, and compensation received by them on resale of the securities may be deemed to be underwriting discounts. If such dealers or agents were deemed to be underwriters, they may be subject to statutory liabilities under the Securities Act.

We may sell securities directly to one or more purchasers without using underwriters or agents. Underwriters, dealers and agents that participate in the distribution of the securities may be underwriters as defined in the Securities Act, and any discounts or commissions they receive from us and any profit on their resale of the securities may be treated as underwriting discounts and commissions under the Securities Act.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents, underwriters and dealers with indemnification against civil liabilities, including liabilities under the Securities Act, or contribution with respect to payments that the agents, underwriters or dealers may make with respect to these liabilities. Agents, underwriters and dealers, or their respective affiliates, may engage in transactions with, or perform services for, us in the ordinary course of business.

All securities we may offer, other than common stock, will be new issues of securities with no established trading market. Any underwriter may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

Any underwriter may engage in over-allotment, stabilizing transactions, short-covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum price. Syndicate-covering or other short-covering transactions involve purchases of the securities, either through exercise of the over-allotment option or in the open market after the distribution is completed, to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

Any underwriters that are qualified market makers on the Nasdaq Stock Market may engage in passive market making transactions in the common stock on the Nasdaq Stock Market in accordance with Regulation M under the Exchange Act, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the common stock. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker’s bid, however, the passive market maker’s bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

GENERAL DESCRIPTION OF OUR SECURITIES

We may offer and sell, at any time and from time to time:

- shares of our common stock;
- shares of our preferred stock;
- warrants to purchase shares of our common stock, preferred stock and/or debt securities;
- debt securities consisting of debentures, notes or other evidences of indebtedness;
- units consisting of a combination of the foregoing securities; or
- any combination of these securities.

The terms of any securities we offer will be determined at the time of sale. We may issue debt securities that are exchangeable for and/or convertible into common stock or any of the other securities that may be sold under this prospectus. When particular securities are offered by us, a supplement to this prospectus will be filed with the SEC, which will describe the terms of the offering and sale of the offered securities.

DESCRIPTION OF OUR COMMON STOCK

The summary of general terms and provisions of our capital stock set forth below does not purport to be complete and is subject to and qualified by reference to our Amended and Restated Certificate of Incorporation, as amended, (the "Certificate of Incorporation"), our Second Amended and Restated Bylaws (the "Bylaws"), and the Certificates of Designation of Preferences*, Rights and Limitations of our Series A Non-Voting Convertible Preferred Stock and our Series B Non-Voting Convertible Preferred Stock (the "Certificates of Designation"), and together with the Certificate of Incorporation and the Bylaws, the Charter Documents, each of which is included as an exhibit to the registration statement of which this prospectus forms a part. For additional information, please read the Charter Documents and the applicable provisions of the Delaware General Corporation Law (the "DGCL").*

Authorized Capital Stock

We are authorized to issue up to 110,000,000 shares, of which (i) 100,000,000 have been designated common stock, par value $0.0001 per share, and (ii) 10,000,000 have been designated preferred stock, par value $0.0001 per share. Of the authorized preferred stock, we have designated 924 shares of Series A Preferred Stock and 797 shares of Series B Preferred Stock (together, the "Designated Preferred Stock"), the terms of which are described under "Description of Our Preferred Stock."

As of November 11, 2026, there were 2,385,282 shares of our common stock outstanding, held by 20 stockholders of record. This figure does not reflect the number of beneficial owners of shares of our common stock as a single stockholder of record often holds shares in nominee name (also referred to as, in "street name") on behalf of multiple beneficial owners.

Voting Rights

The holders of shares of our common stock have the exclusive power to vote on all matters presented to our stockholders unless Delaware law or the certificate of designation for an outstanding series of our preferred stock gives the holders of that series of our preferred stock the right to vote on certain matters. Each holder of shares of our common stock is entitled to one vote per share.

When a quorum is present at any meeting, the vote of the holders of a majority of the voting power of our capital stock entitled to vote and present in person or represented by proxy shall decide any question brought before such meeting, unless the question is one upon which by express provision of the Charter Documents or by law, a different vote is required in which case such express provision shall govern and control the decision of such question. Directors are elected by a plurality of the voting power of the shares present in person or represented by proxy and entitled to vote on the election of directors at a meeting at which a quorum is present, and stockholders are not entitled to cumulate their votes for the election of directors.

Dividend Rights

Subject to any prior rights of any preferred stock then outstanding, the holders of shares of our common stock are entitled to receive dividends ratably out of funds legally available, when and if declared by our board of directors.

No Preemptive or Similar Rights

Our common stock is not entitled to preemptive rights and is not subject to conversion, redemption or sinking fund provisions.

Rights to Receive Liquidation Distributions

If we become subject to a liquidation, dissolution or winding-up, the assets legally available for distribution to our stockholders would be distributable ratably among the holders of our common stock and any participating preferred stock outstanding at that time, subject to prior satisfaction of all outstanding debt and liabilities and the preferential rights and payment of liquidation preferences, if any, on any outstanding shares of our preferred stock. Neither the Series A Preferred Stock nor the Series B Preferred Stock has a fixed-dollar liquidation preference; however, upon any liquidation, dissolution or winding-up of our company, holders of the Designated Preferred Stock are entitled to receive, prior to any distribution to holders of junior securities, a cash amount per share equal to the as-if-converted value.

Anti-Takeover Provisions in Charter Documents

Certain provisions of the Charter Documents, which are summarized below, may have the effect of delaying, deferring or preventing another person from acquiring control of our company. These provisions may discourage takeovers, coercive or otherwise, and are also designed, in part, to encourage persons seeking to acquire control of our company to negotiate first with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging a proposal to acquire us because negotiation of these proposals could result in an improvement of their terms. These provisions include the following:

Board of Directors Vacancies. Pursuant to the Charter Documents, our board of directors may fill vacant directorships. In addition, directors may only be removed for cause and only upon the affirmative vote of at least sixty-six and two-thirds percent of the voting power of outstanding voting stock. In addition, the number of directors constituting our board of directors may be set only by a resolution adopted by a majority vote of our board of directors. These provisions may have the effect of deferring, delaying or discouraging hostile takeovers, or changes in control or management of our company and will make it more difficult to change the composition of our board of directors, which will promote continuity of management.

Classified Board. The Charter Documents provide that our board of directors is classified into three classes of directors, with each class serving three-year staggered terms. A third-party may be discouraged from making a tender offer or otherwise attempting to obtain control of our company as it is more difficult and time-consuming for stockholders to replace a majority of the directors on a classified board of directors.

Stockholder Action; Special Meeting of Stockholders. Pursuant to Section 228 of the DGCL, any action required to be taken at any annual or special meeting of the stockholders may be taken without a meeting, without prior notice and without a vote if a consent or consents in writing, setting forth the action so taken, is signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares of stock entitled to vote thereon were present and voted, unless the Certificate of Incorporation provides otherwise. The Certificate of Incorporation provides that no action shall be taken by the stockholders except at an annual or special meeting of stockholders called in accordance with the Bylaws, and that no action shall be taken by the stockholders by written consent or electronic transmission. As a result, a holder controlling a majority of our capital stock would not be able to amend the Bylaws or remove directors without holding a meeting of stockholders called in accordance with the Charter Documents. The Bylaws provide that, unless otherwise prescribed by statute or by the Certificate of Incorporation, special meetings of the stockholders may be called only by the Secretary at the request of the Chairman of the Board or the Chief Executive Officer, or by a resolution duly adopted by the affirmative vote of a majority of our board of directors, and that business transacted at any special meeting is limited to the purposes stated in the notice of meeting. These provisions might delay the ability of our stockholders to force consideration of a proposal or for stockholders controlling a majority of our capital stock to take any action, including the removal of directors.

Advance Notice Requirements for Stockholder Proposals and Director Nominations. The Bylaws provide advance notice procedures for stockholders seeking to bring business before our annual meeting of stockholders or to nominate candidates for election as directors at our annual meeting of stockholders. The Bylaws specify certain requirements regarding the form and content of a stockholder's notice and prohibit the conduct of any business at a special meeting other than as specified in the notice for such meeting. These provisions might preclude stockholders from bringing matters before our annual meeting of stockholders or from making nominations for directors at our annual meeting of stockholders if the proper procedures are not followed. These provisions may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of our company.

No Cumulative Voting. The DGCL provides that stockholders are not entitled to cumulate votes in the election of directors unless a corporation's certificate of incorporation provides otherwise. The Certificate of Incorporation does not provide for cumulative voting.

Amendment of Charter Provisions and Bylaws. The Charter Documents provide that the Bylaws may be adopted, amended, altered or repealed by either (i) the vote of at least a majority of the directors then in office or (ii) in addition to any other vote otherwise required by law or the Certificate of Incorporation, the affirmative vote of the holders of at least sixty-six and two-thirds percent of the voting power of the shares of our capital stock entitled to vote in the election of directors, voting as one class.

Our Charter Documents also provide that the provisions of the Certificate of Incorporation relating to the management of the business, board of directors, director liability, indemnification and forum selection may only be amended, altered, changed or repealed by the affirmative vote of the holders of at least sixty-six and two-thirds percent of the voting power of all of our outstanding shares of capital stock entitled to vote generally in the election of directors, voting together as a single class.

Issuance of Undesignated Preferred Stock. Our board of directors has the authority, without further action by our stockholders, to designate and issue shares of preferred stock with rights and preferences, including super voting, special approval, dividend or other rights or preferences on a discriminatory basis. The existence of authorized but unissued shares of undesignated preferred stock would enable our board of directors to render more difficult or to discourage an attempt to obtain control of our company by means of a merger, tender offer, proxy contest or other means.

Business Combinations with Interested Stockholders. We are subject to the provisions of Section 203 of the DGCL. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a business combination, such as a merger, with an interested stockholder (i.e., subject to certain exceptions, a person or group owning 15% or more of the corporation's voting stock) for a period of three years following the date the person became an interested stockholder, unless (with certain exceptions) the business combination or the transaction in which the person became an interested stockholder is approved in a prescribed manner.

Forum Selection. The Charter Documents provide that unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware (or, under the Bylaws, if no state court located within the State of Delaware has jurisdiction or is permitted by applicable law to be the sole and exclusive forum, the federal district court for the District of Delaware) will, to the fullest extent permitted by applicable law, be the sole and exclusive forum for:

- any derivative action or proceeding brought in the name or right of our company or on its behalf;
- any action asserting a claim for breach of any fiduciary duty owed by any director, officer, employee or agent of our company to us or our stockholders;
- any action arising or asserting a claim arising pursuant to any provision of the DGCL or any provision of the Certificate of Incorporation or the Bylaws; and
- any action asserting a claim governed by the internal affairs doctrine, including, without limitation, any action to interpret, apply, enforce or determine the validity of the Certificate of Incorporation or the Bylaws.

The forum selection provision in the Certificate of Incorporation is subject, in each case, to the Court of Chancery of the State of Delaware having personal jurisdiction over the indispensable parties named as defendants therein. The Charter Documents also provide that any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock will be deemed to have notice of, and to have consented to, this forum selection provision.

Although these provisions benefit us by providing increased consistency in the application of Delaware law for the specified types of actions and proceedings, the provisions may have the effect of increasing the costs of and discouraging lawsuits against our directors, officers, employees and agents. The enforceability of similar exclusive forum provisions in other companies' charters has been challenged in legal proceedings, and it is possible that, in connection with one or more actions or proceedings described above, a court could rule that these provisions are inapplicable or unenforceable. For example, the choice of forum provisions summarized above are not intended to, and would not, apply to suits brought to enforce any liability or duty created by the Exchange Act, or other claim for which the federal courts have exclusive jurisdiction. Additionally, there is uncertainty as to whether our choice of forum provisions would be enforceable with respect to suits brought to enforce any liability or duty created by the Securities Act, or other claims for which the federal courts have concurrent jurisdiction, and in any event stockholders will not be deemed to have waived our compliance with federal securities laws and rules and regulations thereunder.

Listing

Our common stock is listed on the Nasdaq Capital Market under the symbol "DCOY." Prior to January 8, 2026, our common stock traded under the symbol "SLRX."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Equiniti Trust Company, LLC.

DESCRIPTION OF OUR PREFERRED STOCK

We currently have authorized 10,000,000 shares of preferred stock, par value $0.0001 per share, of which 924 shares have been designated as Series A Preferred Stock and 797 shares have been designated as Series B Preferred Stock. As of November 11, 2026, 877.709 shares of Series A Preferred Stock and 796.306 shares of Series B Preferred Stock were issued and outstanding.

Our board of directors may, without further vote or action by our stockholders, from time to time, direct the issuance of shares of preferred stock in one or more series and may, at the time of issuance, determine and fix the number of shares of such series and the designation of such series, the voting powers, if any, of the shares of such series, the preferences and relative, participating, optional or other special rights, if any, and the qualifications, limitations or restrictions thereof, including without limitation thereof, dividend rights, conversion rights, redemption privileges and liquidation preferences, of the shares of such series. Satisfaction of any dividend preferences of outstanding shares of our preferred stock would reduce the amount of funds available for the payment of dividends on shares of our common stock. Holders of shares of our preferred stock may be entitled to receive a preference payment in the event of any liquidation, dissolution or winding-up of our Company before any payment is made to the holders of shares of our common stock. In some circumstances, the issuance of shares of preferred stock may render more difficult or tend to discourage a merger, tender offer or proxy contest, the assumption of control by a holder of a large block of our securities or the removal of incumbent management. Upon the affirmative vote of our board of directors, without stockholder approval, we may issue shares of preferred stock with voting and conversion rights which could adversely affect the holders of shares of our common stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock on the rights of holders of common stock until the board of directors determines the specific rights attached to that preferred stock.

If we offer a specific series of preferred stock under this prospectus, we will describe the terms of the preferred stock in the prospectus supplement for such offering and will file a copy of the certificate establishing the terms of the preferred stock with the SEC. To the extent required, this description will include:

- the title and stated value;
- the number of shares offered, the liquidation preference per share, and the purchase price;
- the dividend rate(s), period(s), and/or payment date(s), or method(s) of calculation for such dividends;
- whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
- the procedures for any auction and remarketing, if any;
- the provisions for a sinking fund, if any;
- the provisions for redemption, if applicable;
- any listing of the preferred stock on any securities exchange or market;
- whether the preferred stock will be convertible into our common stock or our other securities and, if applicable, the conversion price (or how it will be calculated), the conversion period and any other terms of conversion (including any anti-dilution provisions, if any);
- whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange price (or how it will be calculated), the exchange period and any other terms of exchange (including any anti-dilution provisions, if any);
- voting rights, if any, of the preferred stock;
- a discussion of any material and/or special U.S. federal income tax considerations applicable to the preferred stock;
- the relative ranking and preferences of the preferred stock as to dividend rights and rights upon liquidation, dissolution, or winding up of our affairs;
- any material limitations on issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights upon our liquidation, dissolution, or winding up; and
- any other affirmative, negative or other covenants or contractual rights which might be attendant with the specific series of preferred stock.

The preferred stock offered by this prospectus, when issued, will not have, or be subject to, any preemptive or similar rights.

Designated Preferred Stock

In connection with the Merger, which closed on November 12, 2025, we issued shares of Series A Preferred Stock and Series B Preferred Stock. The rights and preferences of each series are set forth in the applicable Certificate of Designation filed with the Secretary of State of the State of Delaware. The following is a summary of the material terms of each series.

Series A Non-Voting Convertible Preferred Stock

Dividends. Holders of Series A Preferred Stock are entitled to receive dividends equal to, on an as-if-converted-to-common-stock basis, and in the same form as, dividends actually paid on shares of our common stock.

Voting Rights. Except as provided in the Series A Certificate of Designation or as otherwise required by law, the Series A Preferred Stock does not have voting rights. However, as long as any shares of Series A Preferred Stock are outstanding, we may not, without the affirmative vote of the holders of a majority of the then-outstanding shares of Series A Preferred Stock: (a) alter or change adversely the powers, preferences or rights given to the Series A Preferred Stock or alter or amend the Series A Certificate of Designation; (b) amend or repeal any provision of, or add any provision to, the Certificate of Incorporation or Bylaws in a manner that adversely alters or changes the preferences, rights, privileges or powers of the Series A Preferred Stock; (c) issue further shares of Series A Preferred Stock or increase or decrease (other than by conversion) the number of authorized shares of Series A Preferred Stock; (d) authorize, create or issue classes or series of equity securities other than junior securities; (e) authorize, create and/or issue any funded indebtedness (other than indebtedness already incurred); (f) sell or transfer, other than in the ordinary course of business, mortgage, assign, pledge, lease, grant a security interest in, or encumber any of our assets; or (g) enter into any agreement with respect to any of the foregoing.

Conversion. Each share of Series A Preferred Stock is convertible into shares of common stock at the then-prevailing conversion ratio, subject to (i) stockholder approval of the conversion in accordance with Nasdaq Rule 5635 and (ii) Nasdaq approval of our initial listing application (collectively, the "Conversion Conditions"). Until the Conversion Conditions are satisfied, no shares of Series A Preferred Stock may be converted. Following satisfaction of the Conversion Conditions, each share of Series A Preferred Stock will be automatically converted into such number of shares of common stock as is determined by the then-prevailing conversion ratio. The initial conversion ratio was 1,000 shares of common stock per share of Series A Preferred Stock. However, prior to the Conversion Approval Date (as defined in the Series A Certificate of Designation), the conversion ratio is subject to anti-dilution adjustment: if we conduct any financing (other than certain exempt issuances) at an effective price per underlying share of common stock below the initial issuance price of $10.50, the conversion ratio will be reset proportionally, with the denominator subject to a floor price of $3.75 per underlying share (which amounts were established before our 1-for-12 reverse stock split). Our November 12, 2025 financing triggered the floor price, and accordingly the conversion ratio was reset to 2,800 shares of common stock per share of Series A Preferred Stock. Thereafter, we effected a 1-for-12 reverse stock split, which further adjusted the conversion ratio to 233.33 shares of common stock per share of Series A Preferred Stock effective March 6, 2026. No single holder may convert shares to the extent such conversion would result in such holder (together with its affiliates) beneficially owning more than 4.99% of the then-outstanding common stock (the "Beneficial Ownership Limitation"), subject to such holder's right to increase this limit to 9.99% upon 61 days' prior notice. In no event may the Beneficial Ownership Limitation exceed 19.99% of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock upon conversion.

Liquidation. The Series A Preferred Stock does not have a fixed-dollar liquidation preference; however, upon any liquidation, dissolution or winding-up of our company, holders of Series A Preferred Stock are entitled to receive, prior to any distribution to holders of junior securities, a cash amount per share equal to the as-if-converted value.

No Listing. The Series A Preferred Stock is not listed on any national securities exchange and is not registered under the Securities Act.

Series B Non-Voting Convertible Preferred Stock

The Series B Preferred Stock is identical in all material respects to the Series A Preferred Stock, except for the following additional terms:

Mandatory Redemption. Fifty percent (50%) of the net proceeds received by us from any post-closing drawdowns and/or sales under our at-the-market equity program with Ladenburg Thalmann & Co. Inc. or equity line of credit with C/M Capital Master Fund, LP must be used to redeem outstanding shares of Series B Preferred Stock at the redemption price until all Series B Preferred Stock is fully redeemed.

Optional Redemption. We have the option to redeem all or any portion of the outstanding Series B Preferred Stock at any time following the Merger closing upon seven (7) days' prior written notice to the holders. The redemption price per share equals the initial issuance price multiplied by 83.33 (reflecting the initial conversion ratio, as adjusted for our 1-for-12 reverse stock split effected on March 6, 2026), subject to adjustment.

Optional Conversion. Following satisfaction of the Conversion Conditions, holders of Series B Preferred Stock may convert any or all of their shares into common stock at the then-prevailing conversion ratio, subject to the Beneficial Ownership Limitation. After the one-year anniversary of the satisfaction of the Conversion Conditions, any remaining shares of Series B Preferred Stock will automatically convert into common stock at the then-prevailing conversion ratio.

The conversion ratio applicable to the Series B Preferred Stock is subject to the same anti-dilution adjustment and reverse stock split adjustments as the Series A Preferred Stock, and is currently 233.33 shares of common stock per share of Series B Preferred Stock, effective March 6, 2026.

Liquidation. The Series B Preferred Stock does not have a fixed-dollar liquidation preference; however, upon any liquidation, dissolution or winding-up of our company, holders of Series B Preferred Stock are entitled to receive, prior to any distribution to holders of junior securities, a cash amount per share equal to the as-if-converted value.

Transfer Agent and Registrar

The transfer agent and registrar for any series of preferred stock will be set forth in each applicable prospectus supplement.

DESCRIPTION OF OUR WARRANTS

We may issue warrants to purchase shares of our common stock, preferred stock and/or debt securities in one or more series together with other securities or separately, as described in each applicable prospectus supplement. Below is a description of certain general terms and provisions of the warrants that we may offer. Particular terms of the warrants will be described in the applicable warrant agreements and the applicable prospectus supplement for the warrants.

The applicable prospectus supplement will contain, where applicable, the following terms of and other information relating to the warrants:

- the specific designation and aggregate number of, and the price at which we will issue, the warrants;
- the currency or currency units in which the offering price, if any, and the exercise price are payable;
- the designation, amount and terms of the securities purchasable upon exercise of the warrants;
- if applicable, the exercise price for shares of our common stock and the number of shares of common stock to be received upon exercise of the warrants;
- if applicable, the exercise price for shares of our preferred stock, the number of shares of preferred stock to be received upon exercise of the warrants, and a description of that series of our preferred stock;
- if applicable, the exercise price for our debt securities, the amount of our debt securities to be received upon exercise of the warrants, and a description of that series of debt securities;
- the date on which the right to exercise the warrants will begin and the date on which that right will expire or, if the warrants may not be continuously exercised throughout that period, the specific date or dates on which the warrants may be exercised;
- whether the warrants will be issued in fully registered form or bearer form, in definitive or global form or in any combination of these forms, although, in any case, the form of a warrant included in a unit will correspond to the form of the unit and of any security included in that unit;
- any applicable material U.S. federal income tax or foreign tax consequences;
- the identity of the warrant agent for the warrants, if any, and of any other depositaries, execution or paying agents, transfer agents, registrars or other agents;
- the proposed listing, if any, of the warrants or any securities purchasable upon exercise of the warrants on any securities exchange or market;
- if applicable, the date from and after which the warrants and the common stock, preferred stock and/or debt securities will be separately transferable;
- if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;
- information with respect to book-entry procedures, if any;
- any beneficial ownership limitation on exercise;
- the anti-dilution provisions of the warrants, if any;
- any redemption, put or call provisions;
- whether the warrants are to be sold separately or with other securities as parts of units; and
- any additional terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

Transfer Agent and Registrar

The transfer agent and registrar for any warrants will be set forth in the applicable prospectus supplement.

DESCRIPTION OF OUR DEBT SECURITIES

This section describes the general terms and provisions of the debt securities that we may offer under this prospectus, any of which may be issued as convertible or exchangeable debt securities. We will set forth the particular terms of the debt securities we offer in a prospectus supplement. The extent, if any, to which the following general provisions apply to particular debt securities will be described in the applicable prospectus supplement. The following description of general terms relating to the debt securities and the indenture under which the debt securities will be issued are summaries only and therefore are not complete. You should read the indenture and the prospectus supplement regarding any particular issuance of debt securities.

We will issue the debt securities offered by this prospectus and any accompanying prospectus supplement under an indenture to be entered into between us and the trustee identified in the applicable prospectus supplement. The terms of the debt securities will include those stated in the indenture and those made part of the indenture by reference to the Trust Indenture Act of 1939, as in effect on the date of the indenture. We have filed or will file a copy of the form of indenture as an exhibit to the registration statement in which this prospectus is included. The indenture will be subject to and governed by the terms of the Trust Indenture Act of 1939.

We may offer under this prospectus up to an aggregate principal amount of $50,000,000 in debt securities, or if debt securities are issued at a discount, or in a foreign currency, foreign currency units or composite currency, the principal amount as may be sold for an aggregate initial public offering price of up to $50,000,000. Unless otherwise specified in the applicable prospectus supplement, the debt securities will represent direct, unsecured obligations of our company and will rank equally with all of our other unsecured indebtedness.

The following statements relating to the debt securities and the indenture are summaries, qualified in their entirety by reference to the detailed provisions of the indenture and the final form indenture as may be filed with a future prospectus supplement.

General

We may issue the debt securities in one or more series with the same or various maturities, at par, at a premium, or at a discount. We will describe the particular terms of each series of debt securities in a prospectus supplement relating to that series, which we will file with the SEC.

The prospectus supplement will set forth, to the extent required, the following terms of the debt securities in respect of which the prospectus supplement is delivered:

- the title of the series;
- the aggregate principal amount;
- the issue price or prices, expressed as a percentage of the aggregate principal amount of the debt securities;
- any limit on the aggregate principal amount;
- the date or dates on which principal is payable;
- the interest rate or rates (which may be fixed or variable) or, if applicable, the method used to determine such rate or rates;
- the date or dates from which interest, if any, will be payable and any regular record date for the interest payable;
- the place or places where principal and, if applicable, premium and interest, is payable;
- the terms and conditions upon which we may, or the holders may require us to, redeem or repurchase the debt securities;
- the denominations in which such debt securities may be issuable, if other than denominations of $1,000 or any integral multiple of that number;
- whether the debt securities are to be issuable in the form of certificated debt securities (as described below) or global debt securities (as described below);
- the portion of principal amount that will be payable upon declaration of acceleration of the maturity date if other than the principal amount of the debt securities;
- the currency of denomination;

- the designation of the currency, currencies or currency units in which payment of principal and, if applicable, premium and interest, will be made;
- if payments of principal and, if applicable, premium or interest, on the debt securities are to be made in one or more currencies or currency units other than the currency of denomination, the manner in which the exchange rate with respect to such payments will be determined;
- if amounts of principal and, if applicable, premium and interest may be determined by reference to an index based on a currency or currencies or by reference to a commodity, commodity index, stock exchange index or financial index, then the manner in which such amounts will be determined;
- the provisions, if any, relating to any collateral provided for such debt securities;
- any addition to or change in the covenants and/or the acceleration provisions described in this prospectus or in the indenture;
- any events of default, if not otherwise described below under "Defaults and Notice";
- the terms and conditions, if any, for conversion into or exchange for shares of our common stock or preferred stock;
- any depositaries, interest rate calculation agents, exchange rate calculation agents or other agents; and
- the terms and conditions, if any, upon which the debt securities shall be subordinated in right of payment to other indebtedness of our company.

We may issue discount debt securities that provide for an amount less than the stated principal amount to be due and payable upon acceleration of the maturity of such debt securities in accordance with the terms of the indenture. We may also issue debt securities in bearer form, with or without coupons. If we issue discount debt securities or debt securities in bearer form, we will describe material U.S. federal income tax considerations and other material special considerations that apply to these debt securities in the applicable prospectus supplement.

We may issue debt securities denominated in or payable in a foreign currency or currencies or a foreign currency unit or units. If we do, we will describe the restrictions, elections, and general tax considerations relating to the debt securities and the foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

Exchange and/or Conversion Rights

We may issue debt securities which can be exchanged for or converted into shares of our common stock or preferred stock. If we do, we will describe the terms of exchange or conversion in the prospectus supplement relating to these debt securities.

Transfer and Exchange

We may issue debt securities that will be represented by either:

- "book-entry securities," which means that there will be one or more global securities registered in the name of a depositary or a nominee of a depositary; or
- "certificated securities," which means that they will be represented by a certificate issued in definitive registered form.

We will specify in the prospectus supplement applicable to a particular offering whether the debt securities offered will be book-entry or certificated securities.

Certificated Debt Securities

If you hold certificated debt securities issued under an indenture, you may transfer or exchange such debt securities in accordance with the terms of the indenture. You will not be charged a service charge for any transfer or exchange of certificated debt securities but may be required to pay an amount sufficient to cover any tax or other governmental charge payable in connection with such transfer or exchange.

Global Securities

The debt securities of a series may be issued in the form of one or more global securities that will be deposited with a depositary or its nominees identified in the prospectus supplement relating to the debt securities. In such a case,

one or more global securities will be issued in a denomination or aggregate denominations equal to the portion of the aggregate principal amount of outstanding debt securities of the series to be represented by such global security or securities.

Unless and until it is exchanged in whole or in part for debt securities in definitive registered form, a global security may not be registered for transfer or exchange except as a whole by the depositary for such global security to a nominee of the depositary and except in the circumstances described in the prospectus supplement relating to the debt securities. The specific terms of the depositary arrangement with respect to a series of debt securities will be described in the prospectus supplement relating to such series.

Protection in the Event of Change of Control

Any provision in an indenture that governs our debt securities covered by this prospectus that includes any covenant or other provision providing for a put or increased interest or otherwise that would afford holders of our debt securities additional protection in the event of a recapitalization transaction, a change of control of our company, or a highly leveraged transaction will be described in the applicable prospectus supplement.

Covenants

Unless otherwise indicated in this prospectus or the applicable prospectus supplement, our debt securities may not have the benefit of any covenant that limits or restricts our business or operations, the pledging of our assets or the incurrence by us of indebtedness. We will describe in the applicable prospectus supplement any material covenants in respect of a series of debt securities.

Consolidation, Merger and Sale of Assets

We may agree in any indenture that governs the debt securities of any series covered by this prospectus that we will not consolidate with or merge into any other person or convey, transfer, sell or lease our properties and assets substantially as an entirety to any person, unless such person and such proposed transaction meets various criteria, which we will describe in detail in the applicable prospectus supplement.

Defaults and Notice

The debt securities of any series will contain events of default to be specified in the applicable prospectus supplement, which may include, without limitation:

- failure to pay the principal of, or premium or make-whole amount, if any, on any debt security of such series when due and payable (whether at maturity, by call for redemption, through any mandatory sinking fund, by redemption at the option of the holder, by declaration or acceleration or otherwise);
- failure to make a payment of any interest on any debt security of such series when due;
- failure to perform or observe any other covenants or agreements in the indenture with respect to the debt securities of such series;
- certain events relating to our bankruptcy, insolvency or reorganization; and
- certain cross defaults, if and as applicable.

If an event of default with respect to debt securities of any series shall occur and be continuing, we may agree that the trustee or the holders of at least 25% in aggregate principal amount of the then outstanding debt securities of such series may declare the principal amount (or, if the debt securities of such series are issued at an original issue discount, such portion of the principal amount as may be specified in the terms of the debt securities of such series) of all debt securities of such series or such other amount or amounts as the debt securities or supplemental indenture with respect to such series may provide, to be due and payable immediately. Any provisions pertaining to events of default and any remedies associated therewith will be described in the applicable prospectus supplement.

Any indenture that governs our debt securities covered by this prospectus may require that the trustee under such indenture shall, within 90 days after the occurrence of a default, give to holders of debt securities of any series notice of all uncured defaults with respect to such series known to it. However, in the case of a default that results from the failure to make any payment of the principal of, premium or make-whole amount, if any, or interest on the debt securities of any series, or in the payment of any mandatory sinking fund installment with respect to debt securities of such series, if any, the trustee may withhold such notice if it in good faith determines that the withholding of such notice is in the interest of the holders of debt securities of such series. Any terms and provisions relating to the foregoing types of provisions will be described in further detail in the applicable prospectus supplement.

Any indenture that governs our debt securities covered by this prospectus will contain a provision entitling the trustee to be indemnified by holders of debt securities before proceeding to exercise any trust or power under the indenture at the request of such holders. Any such indenture may provide that the holders of at least a majority in aggregate principal amount of the then outstanding debt securities of any series may direct the time, method and place of conducting any proceedings for any remedy available to the trustee, or of exercising any trust or power conferred upon the trustee with respect to the debt securities of such series. However, the trustee under any such indenture may decline to follow any such direction if, among other reasons, the trustee determines in good faith that the actions or proceedings as directed may not lawfully be taken, would involve the trustee in personal liability or would be unduly prejudicial to the holders of the debt securities of such series not joining in such direction.

Any indenture that governs our debt securities covered by this prospectus may endow the holders of such debt securities to institute a proceeding with respect to such indenture, subject to certain conditions, which will be specified in the applicable prospectus supplement and which may include, that the holders of at least a majority in aggregate principal amount of the debt securities of such series then outstanding make a written request upon the trustee to exercise its power under the indenture, indemnify the trustee and afford the trustee reasonable opportunity to act. Even so, such holders may have an absolute right to receipt of the principal of, premium or make-whole amount, if any, and interest when due, to require conversion or exchange of debt securities if such indenture provides for convertibility or exchangeability at the option of the holder and to institute suit for the enforcement of such rights. Any terms and provisions relating to the foregoing types of provisions will be described in further detail in the applicable prospectus supplement.

Modification of the Indenture

We and the trustee may modify any indenture that governs our debt securities of any series covered by this prospectus with or without the consent of the holders of such debt securities, under certain circumstances to be described in a prospectus supplement.

Defeasance; Satisfaction and Discharge

The prospectus supplement will outline the conditions under which we may elect to have certain of our obligations under the indenture discharged and under which the indenture obligations will be deemed to be satisfied.

Regarding the Trustee

We will identify the trustee and any relationship that we may have with such trustee, with respect to any series of debt securities, in the prospectus supplement relating to the applicable debt securities. You should note that if the trustee becomes a creditor of the Company, the indenture and the Trust Indenture Act of 1939 limit the rights of the trustee to obtain payment of claims in certain cases, or to realize on certain property received in respect of any such claim, as security or otherwise. The trustee and its affiliates may engage in, and will be permitted to continue to engage in, other transactions with us and our affiliates. If, however, the trustee acquires any “conflicting interest” within the meaning of the Trust Indenture Act of 1939, it must eliminate such conflict or resign.

Governing Law

The law governing the indenture and the debt securities will be identified in the prospectus supplement relating to the applicable indenture and debt securities.

DESCRIPTION OF OUR UNITS

The following description, together with the additional information we include in any applicable prospectus supplement, summarizes the material terms and provisions of the units that we may offer under this prospectus. Units may be offered independently or together with common stock, preferred stock, debt securities and/or warrants offered by any prospectus supplement, and may be attached to or separate from those securities. While the terms we have summarized below will generally apply to any future units that we may offer under this prospectus, we will describe the particular terms of any series of units that we may offer in more detail in the applicable prospectus supplement. The terms of any units offered under a prospectus supplement may differ from the terms described below.

We will incorporate by reference into the registration statement of which this prospectus forms a part the form of unit agreement, including a form of unit certificate, if any, that describes the terms of the series of units we are offering before the issuance of the related series of units. The following summaries of material provisions of the units, and the unit agreements, are subject to, and qualified in their entirety by reference to, all the provisions of the unit agreement applicable to a particular series of units. We urge you to read the applicable prospectus supplements related to the units that we sell under this prospectus, as well as the complete unit agreements that contain the terms of the units.

General

We may issue units comprised of one or more shares of our common stock or preferred stock, debt securities and warrants in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We will describe in the applicable prospectus supplement the terms of the series of units, including:

- the designation and terms of the units and of the securities comprising the units, including whether, and under what circumstances, those securities may be held or transferred separately;
- the rights and obligations of the unit agent, if any;
- any provisions of the governing unit agreement that differ from those described below; and
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those described under “Description of Our Common Stock,” “Description of Our Preferred Stock,” “Description of Our Debt Securities” and “Description of Our Warrants,” will apply to each unit and to any common stock, preferred stock, debt securities or warrants included in each unit, respectively.

Issuance in Series

We may issue units in such amounts and in numerous distinct series as we determine.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement on Form S-3 that we filed with the SEC under the Securities Act. This prospectus does not contain all of the information set forth in the registration statement and the exhibits thereto. Statements in this prospectus about the contents of any contract or other document are not necessarily complete, and you should refer to the exhibits that are part of the registration statement or incorporated by reference for a copy of the contract or other document.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains an Internet website at www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. Our reports on Forms 10-K, 10-Q and 8-K, and amendments to those reports, are also available for download, free of charge, as soon as reasonably practicable after these reports are filed with, or furnished to, the SEC, at our investor relations website at investors.decoytx.com. Information contained on or accessible through our website is not a part of this prospectus or any prospectus supplement, and the inclusion of our website address in this prospectus is an inactive textual reference only.

INCORPORATION BY REFERENCE

The SEC allows us to "incorporate by reference" into this prospectus the information in other documents that we file with it. This means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus, and information in documents that we file later with the SEC will automatically update and supersede information contained in documents filed earlier with the SEC or contained in this prospectus. We incorporate by reference in this prospectus (i) the documents listed below, (ii) all documents that we file with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of the initial filing of the registration statement of which this prospectus is included and prior to the effectiveness of such registration statement, and (iii) any future filings that we may make with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act prior to the termination of the offering under this prospectus; provided, however, that we are not incorporating, in each case, any documents or information deemed to have been furnished and not filed, including any information that we disclose under Items 2.02 or 7.01 of any Current Report on Form 8-K, in accordance with SEC rules:

- 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 Reports on Form 10-Q for the quarterly periods ended March 31, 2026, June 30, 2026 and September 30, 2026, filed with the SEC on May 8, 2026, August 12, 2026 and November 12, 2026, respectively;
- our Current Reports on Form 8-K filed with the SEC on January 2, 2026, January 2, 2026, January 8, 2026, February 25, 2026, March 5, 2026, April 2, 2026, May 19, 2026, June 29, 2026, July 15, 2026, September 15, 2026, and September 23, 2026, (in each case, other than information furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits accompanying such reports that relate to such items); 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 our Annual Report on Form 10-K for the fiscal year ended December 31, 2025, including any amendments or reports filed for the purpose of updating such description.

We will provide, without charge, to each person, including any beneficial owner, to whom a prospectus is delivered, upon written or oral request of such person, a copy of any or all of the documents incorporated by reference in this prospectus (other than exhibits to such documents, unless such exhibits are specifically incorporated by reference into such documents). Requests should be directed to: Decoy Therapeutics Inc., Attention: Chief Financial Officer, 2450 Holcombe Blvd., Suite X, Houston, Texas 77021, telephone (713) 913-5608. In addition, copies of any or all of the documents incorporated herein by reference may be accessed at our investor relations website at investors.decoytx.com. The information on such website is not incorporated by reference and is not a part of this prospectus.

LEGAL MATTERS

The validity of the issuance of the securities offered hereby will be passed upon for us by Honigman LLP, Detroit, Michigan. As appropriate, legal counsel representing the underwriters, dealers or agents will be named in the accompanying prospectus supplement and may opine to certain legal matters.

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 (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.



$50,000,000

Common Stock
Preferred Stock
Warrants
Debt Securities
Units

PROSPECTUS

November 13, 2026

PART II
INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

Set forth below is an estimate (except in the case of the registration fee and the FINRA fee) of the amount of fees and expenses to be incurred in connection with the issuance and distribution of the offered securities registered hereby, other than underwriting discounts and commissions, if any, incurred in connection with the sale of the offered securities. All such amounts will be borne by Decoy Therapeutics Inc.

		Amount to be paid
SEC registration fee	$	4,350.00[(1)]
FINRA fee	$	8,000.00
Printing expenses	$	[(2)]
Accounting fees and expenses	$	[(2)]
Legal fees and expenses	$	[(2)]
Miscellaneous	$	[(2)]
Total	$	[(2)]

(1) Pursuant to Rule 457(p) under the Securities Act, the registration fee is offset in full by filing fees previously paid in connection with the Registrant's registration statements on Form S-3 (File No. 333-289646), initially filed August 15, 2025 and withdrawn on June 5, 2026, and (File No. 333-266589), initially filed August 5, 2022, as described in Exhibit 107.

(2) These fees are calculated based on the securities offered and the number of issuances and accordingly cannot be estimated at this time.

Item 15. 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 to the corporation 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 16. Exhibits and Financial Statement Schedules.

Exhibit No.	Description
1.1	At the Market Offering Agreement, dated February 5, 2021, between Salarius Pharmaceuticals, Inc. and Ladenburg Thalmann & Co. Inc. (incorporated by reference to Exhibit 1.1 to the Registrant's Current Report on Form 8-K filed with the SEC on February 5, 2021).
1.2*	Form of Underwriting Agreement.
2.1^	Agreement and Plan of Merger, dated as of January 10, 2025, by and among the Registrant, Decoy Therapeutics, Inc., Decoy Therapeutics MergerSub I, Inc. and Decoy Therapeutics MergerSub II, LLC (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed with the SEC on January 13, 2025).
2.2	Amendment No. 1 to the Agreement and Plan of Merger, dated as of March 28, 2025, by and among Salarius Pharmaceuticals, Inc., Decoy Therapeutics, Inc., Decoy Therapeutics MergerSub I, Inc. and Decoy Therapeutics MergerSub II, LLC (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed with the SEC on March 28, 2025).
2.3	Amendment No. 2 to the Agreement and Plan of Merger, dated as of June 10, 2025, by and among Salarius Pharmaceuticals, Inc., Decoy Therapeutics, Inc., Decoy Therapeutics MergerSub I, Inc. and Decoy Therapeutics MergerSub II, LLC (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed with the SEC on June 11, 2025).
2.4	Amendment No. 3 to the Agreement and Plan of Merger, dated as of July 18, 2025, by and among Salarius Pharmaceuticals, Inc., Decoy Therapeutics, Inc., Decoy Therapeutics MergerSub I, Inc. and Decoy Therapeutics MergerSub II, LLC (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed with the SEC on July 21, 2025).
2.5	Amendment No. 4 to the Agreement and Plan of Merger, dated as of July 29, 2025, by and among Salarius Pharmaceuticals, Inc., Decoy Therapeutics, Inc., Decoy Therapeutics MergerSub I, Inc. and Decoy Therapeutics MergerSub II, LLC (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed with the SEC on July 29, 2025).
2.6	Amendment No. 5 to the Agreement and Plan of Merger, dated as of September 17, 2025, by and among Salarius Pharmaceuticals, Inc., Decoy Therapeutics, Inc., Decoy Therapeutics MergerSub I, Inc. and Decoy Therapeutics MergerSub II, LLC (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed with the SEC on September 18, 2025).
3.1	Amended and Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on February 9, 2015).
3.2	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).
3.3	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 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).
3.4	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).
3.5	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).
3.6	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).
3.7	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).
3.8	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).

Exhibit No.	Description
3.9	Form of Certificate of Designation of Preferences, Rights and Limitations 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).
3.10	Form of Certificate of Designation of Preferences, Rights and Limitations 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).
4.1	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).
4.2	Description of the Registrant's Securities Registered under Section 12 of the Securities Exchange Act of 1934 (incorporated by reference to Exhibit 4.9 to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2025, filed with the SEC on March 31, 2026).
4.3	Form of Common Warrant (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the SEC on September 23, 2026).
4.4*	Specimen certificate evidencing shares of preferred stock.
4.5*	Form of any Certificate of Designation setting forth the preferences and rights with respect to any preferred stock issued hereunder.
4.6	Form of Indenture (incorporated by reference to Exhibit 4.7 to the Registrant's Registration Statement on Form S-3 (File No. 333-266589), filed with the SEC on August 5, 2022).
4.7*	Form of Debt Security.
4.8*	Form of Warrant Agreement for Common Stock, including Warrant Certificate for Common Stock.
4.9*	Form of Warrant Agreement for Preferred Stock, including Warrant Certificate for Preferred Stock.
4.10*	Form of Warrant Agreement for Debt Securities, including Warrant Certificate for Debt Securities.
4.11*	Form of Unit Agreement, including Form of Unit Certificate.
5.1	Opinion of Honigman LLP (filed herewith).
23.1	Consent of Ernst & Young LLP, independent registered public accounting firm (filed herewith).
23.2	Consent of Honigman LLP (included in Exhibit 5.1).
24.1	Power of Attorney (included on the signature page hereto).
25.1**	Form T-1 Statement of Eligibility and Qualification under the Trust Indenture Act of 1939 of Trustee for Form of Indenture.
107	Filing Fee Table (filed herewith).

* To be filed, if necessary, subsequent to the effectiveness of this registration statement by an amendment to this registration statement or incorporated by reference pursuant to a Current Report on Form 8-K in connection with an offering of securities.

** To be filed in accordance with the requirements of Section 305(b)(2) of the Trust Indenture Act of 1939 and Rule 5b-3 thereunder.

^ Certain schedules and exhibits have been omitted pursuant to Item 601(a)(5) of Regulation S-K. The Registrant agrees to furnish supplementally a copy of any omitted schedule or exhibit to the SEC upon request.

Item 17. Undertakings.

(a) 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 SEC 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" or "Calculation of Registration Fee" table, as applicable, 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 (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) do not apply if the registration statement is on Form S-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act 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:

(i) If the registrant is relying on Rule 430B:

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which the prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *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 effective date, 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 effective date; and

(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.

(b) The undersigned registrant hereby undertakes 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 Exchange Act that is incorporated by reference in this 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.

(h) 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 Act 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 Act and will be governed by the final adjudication of such issue.

(j) The undersigned registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the Securities and Exchange Commission under Section 305(b)(2) of the Trust Indenture Act.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant, Decoy Therapeutics Inc., certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and 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 this 13th day of November, 2026.

DECOY THERAPEUTICS INC.

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

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Frederick E. Pierce and Mark J. Rosenblum, and each of them, as his or her true and lawful attorney-in-fact and agent, with the full power of substitution, for him or her and in his or her name, place or stead, in any and all capacities, to sign any and all amendments to this registration statement (including post-effective amendments), and any other registration statements for the same offering pursuant to Rule 462(b) of the Securities Act of 1933, as amended, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, 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, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Frederick E. Pierce **Frederick E. Pierce**	Chief Executive Officer and Director *(Principal Executive Officer)*	November 13, 2026
/s/ Mark J. Rosenblum **Mark J. Rosenblum**	Chief Financial Officer *(Principal Financial Officer and Principal Accounting Officer)*	November 13, 2026
/s/ William K. McVicar **William K. McVicar**	Chairman of the Board of Directors	November 13, 2026
/s/ Patricia Gauthier **Patricia Gauthier**	Director	November 13, 2026
/s/ Tess Burleson **Tess Burleson**	Director	November 13, 2026
/s/ Arnold Hanish **Arnold Hanish**	Director	November 13, 2026
/s/ Paul Lammers **Paul Lammers**	Director	November 13, 2026
/s/ Jonathan Lieber **Jonathan Lieber**	Director	November 13, 2026

Exhibit 5.1

November 13, 2026

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

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel to Decoy Therapeutics Inc., a Delaware corporation (the ***"Company"***), in connection with a Registration Statement on Form S-3 (the ***"Registration Statement"***) filed by the Company with the Securities and Exchange Commission (the ***"Commission"***) on November 13, 2026, in connection with the registration under the Securities Act of 1933, as amended (the ***"Securities Act"***), of the offering and sale from time to time by the Company of up to $50,000,000 of (A) shares of the Company's common stock, par value $0.0001 per share (the ***"Common Stock"***); (B) shares of the Company's preferred stock, par value $0.0001 per share (the ***"Preferred Stock"***); (C) one or more series of debt securities (the ***"Debt Securities"***) issuable pursuant to an indenture (the ***"Indenture"***) by and between the Company and a financial institution to be identified therein as trustee (the ***"Trustee"***); (D) warrants to purchase Common Stock, Preferred Stock and/or Debt Securities (the "***Warrants***"); and/or (E) units consisting of any combination of two or more of such foregoing securities described in clauses (A) through (D) above (the ***"Units"***). The shares of Common Stock, shares of Preferred Stock, the Debt Securities, the Warrants and the Units are herein collectively referred to as the ***"Securities"***. The Securities may be sold from time to time by the Company as set forth in the Registration Statement, the base prospectus contained within the Registration Statement (the ***"Base Prospectus"***) and any prospectus supplements to the Base Prospectus (each, a ***"Prospectus Supplement"***). The Securities are being registered for offer and sale from time to time pursuant to Rule 415 under the Securities Act.

In so acting, we reviewed 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. In conducting such review, we have assumed the genuineness of all signatures, the legal capacity of natural persons, the authenticity of all documents submitted to us as originals, and the conformity to authentic original documents of all documents submitted to us as duplicates or certified or conformed copies. We have not independently sought to verify factual matters. In conducting our examination, we assumed, without independent investigation or verification, the accuracy and completeness of all records made available to us by the Company, and the due authorization, execution and delivery by the Company 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 Securities will be offered in the manner and on the terms identified or referred to in the Registration Statement, the Base Prospectus and any Prospectus Supplement, as applicable.

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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"), and as to the Debt Securities, the Warrants and the Units constituting valid and binding obligations of the Company, the existing internal laws of the State of New York as in effect on the date hereof (the "***Applicable Laws***"). 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 sale of the Securities while the Registration Statement is effective under the Securities Act.

In connection with our opinions expressed below, we have assumed that (i) at or prior to the time of the delivery of any of the Securities, there will not have occurred any change in the law or the facts affecting the validity of the Securities; (ii) the Registration Statement and any amendments (including any necessary post-effective amendments) will have been declared effective under the Securities Act; (iii) at the time of the offer, issuance and sale of any Securities, no stop order suspending the Registration Statement's effectiveness will have been issued and remain in effect; (iv) no future amendments will be made to the Company's Amended and Restated Certificate of Incorporation (as amended from time to time, including by the Certificates of Designation of Preferences, Rights and Limitations of the Company's Series A Non-Voting Convertible Preferred Stock and Series B Non-Voting Convertible Preferred Stock, the "***Certificate of Incorporation***"), or the Company's Bylaws (as amended from time to time, the ***"Bylaws"*** and, together with the Certificate of Incorporation, the "***Charter Documents***") that would be in conflict with or inconsistent with the Company's right and ability to issue the Securities; (v) at the time of the issuance and sale of the Securities, the Company will be validly existing as a corporation and in good standing under the laws of the State of Delaware; and (vi) at the time of each offer, issuance and sale of any Securities, the Company will have a sufficient number of authorized, unissued and unreserved sharesof the applicable class or series of its capital stock included in (or purchasable upon exercise or conversion of) the Securities so issued and sold (after taking into account all other outstanding securities of the Company which may require the Company to issue shares of such applicable class or series) to be able to issue all such shares.

This opinion letter is qualified by, and is subject to, and we render no opinion with respect to, the following limitations and exceptions to the enforceability of the Debt Securities, the Warrants and the Units: (i) the effect of the laws of bankruptcy, insolvency, reorganization, arrangement, moratorium, fraudulent conveyance, assignment for the benefit of creditors, and other laws now or hereafter in effect relating to or affecting the rights and remedies of creditors, including the effect of statutory or other laws regarding fraudulent transfers or preferential transfers; (ii) the effect of general principles of equity and similar principles, including, without limitation, concepts of materiality, reasonableness, good faith and fair dealing, public policy and unconscionability, and the possible unavailability of specific performance, injunctive relief, or

other equitable remedies, regardless of whether considered in a proceeding in equity or at law; and (iii) in the case of the Debt Securities, including Debt Securities that are issued as part of a Unit, the effect of laws relating to usury or permissible rates of interest for loans, forbearances or the use of money, late charges, penalties, forfeitures, liquidated or other pre-measured damages, or limitations thereon, any prepayment premiums or the unaccrued portion of original issue discount or rights of setoff. We express no opinion regarding the effectiveness of any waiver of stay, extension or usury laws or of unknown future rights. Further, we express no opinion regarding the effect of provisions relating to indemnification, exculpation or contribution to the extent such provisions may be held unenforceable as contrary to federal or state securities laws or public policy.

On the basis of the foregoing and in reliance thereon, and subject to the qualifications herein stated, it is our opinion that:

1. With respect to the shares of Common Stock registered pursuant to the Registration Statement, when (i) the issuance of and the terms of the offering of such shares of Common Stock and related matters have been duly authorized by all required corporate action of the Company's Board of Directors or a duly authorized committee thereof (the ***"Board"***), and, if required, of the stockholders of the Company in accordance with the Charter Documents and Applicable Laws; (ii) the Company has complied with all applicable notice requirements regarding uncertificated shares, if required, provided in the DGCL; (iii) the shares of Common Stock have been duly registered on the books of the transfer agent and registrar of the Company in the name of the purchaser of such shares of Common Stock; and (iv) the certificates, if required, representing the shares of Common Stock have been duly executed, countersigned, registered and delivered in accordance with the applicable definitive purchase, underwriting or similar agreement approved by the Board, or upon the conversion or exercise of any other Security offered under the Registration Statement, and upon payment of the consideration therefor (in an amount not less than the par value of the Common Stock) provided for therein, then such shares of Common Stock will be validly issued, fully paid and nonassessable.

2. With respect to any particular series of shares of Preferred Stock registered pursuant to the Registration Statement, when (i) the issuance and terms of such shares of Preferred Stock, the terms of the offering thereof and related matters, including the adoption of a certificate of designation relating to such Preferred Stock (a "***Certificate of Designation***") conforming to the Charter Documents and the DGCL, and the filing of such Certificate of Designation with the Secretary of State of the State of Delaware, have been duly authorized by all required corporate action of the Board and, if required, of the stockholders of the Company in accordance with the Charter Documents and Applicable Laws; (ii) the Company has complied with all applicable notice requirements regarding uncertificated shares, if required, provided in the DGCL; (iii) the shares of Preferred Stock have been duly registered on the books of the transfer agent and registrar of the Company in the name of the purchaser of such shares of Preferred Stock; and (iv) the certificates, if required, representing the shares of Preferred Stock have been duly executed, countersigned,

registered and delivered in accordance with the applicable definitive purchase, underwriting or similar agreement approved by the Board, or upon the conversion or exercise of any other Security offered under the Registration Statement, and upon payment of the consideration therefor (in an amount not less than the par value per share of such Preferred Stock) provided for therein, then such shares of Preferred Stock will be validly issued, fully paid and nonassessable.

3. With respect to any Debt Securities registered pursuant to the Registration Statement, when (i) the issuance of such Debt Securities has been duly authorized by all required corporate action of the Board and, if required, of the stockholders of the Company in accordance with the Charter Documents and Applicable Laws; (ii) an Indenture relating to such Debt Securities in the form filed as an exhibit to the Registration Statement or any required post-effective amendment thereto or incorporated by reference therein has been duly authorized and validly executed and delivered by each of the Company and the Trustee; and (iii) the specific form and terms of the Debt Securities have been duly established in accordance with the Indenture, duly authorized pursuant to resolutions duly adopted by the Board, and validly executed, authenticated, issued, and delivered in accordance with the Indenture and the applicable definitive purchase, underwriting or similar agreement, in the manner and for the consideration approved by the Board and stated in the Prospectus Supplement relating thereto (as amended as of the date of such issuance, sale and delivery) or upon the exercise of Warrants to purchase Debt Securities, upon payment of the consideration therefor provided for therein, then such Debt Securities will be validly issued and will constitute valid and binding obligations of the Company under the laws of the State of New York.

4. With respect to any Warrants registered pursuant to the Registration Statement, when (i) the issuance and terms of such Warrants, the terms, execution and delivery of any warrant agreement relating to the Warrants (a ***"Warrant Agreement"***), the terms of the offering thereof and related matters have been duly authorized by all required corporate action of the Board and, if required, of the stockholders of the Company in accordance with the Charter Documents and Applicable Laws; (ii) the Warrant Agreement has been duly authorized and validly executed and delivered by the Company; and (iii) such Warrants have been duly executed, issued and delivered by the Company in accordance with the provisions of the Warrant Agreement and the applicable definitive purchase, underwriting or similar agreement approved by the Board, upon payment of the consideration therefor provided for therein, then such Warrants will constitute valid and binding obligations of the Company under the laws of the State of New York.

5. With respect to any Units registered pursuant to the Registration Statement, when (i) the conditions outlined in the immediately preceding paragraphs (1) through (4) that apply to the Securities that make up such Units are all met; (ii) the issuance and terms of such Units, the terms, execution and delivery of the unit agreement relating to such Units (a "***Unit Agreement***"), the terms of the offering thereof and related matters have been duly authorized by all required corporate action of the Board and, if required, of the stockholders

of the Company in accordance with the Charter Documents and Applicable Laws; (iii) the Unit Agreement has been duly authorized and validly executed and delivered by the Company; and (iv) such Units have been duly executed, issued and delivered by the Company in accordance with the provisions of the Unit Agreement and the applicable definitive purchase, underwriting or similar agreement approved by the Board, upon payment of the consideration therefor provided for therein, then such Units will constitute valid and binding obligations of the Company under the laws of the State of New York.

In connection with the opinions expressed above, we have assumed that each of the Debt Securities and the Indenture, the Warrant Agreement and the Unit Agreement governing such Securities is legally valid and binding obligations of each party thereto other than the Company.

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 Base Prospectus included in the Registration Statement. 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 letter is given as of its date, and we disclaim any undertaking to advise you of any subsequent changes in the facts stated or assumed in this opinion letter or of any subsequent changes in applicable law.

Very truly yours,

/s/ HONIGMAN LLP

Honigman LLP

IP/JHK/GSWA/JPK/ JHC

Exhibit 23.1

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-3) and related Prospectus of Decoy Therapeutics Inc. for the registration of common stock, preferred stock, warrants, debt securities and units, 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
November 13, 2026

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Calculation of Filing Fee Tables

S-3

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
Newly Registered Securities													
		Equity	Common Stock, $0.0001 par value per share	457(o)									
		Equity	Preferred Stock, $0.0001 par value per share	457(o)									
		Other	Warrants	457(o)									
		Debt	Debt Securities	457(o)									
		Other	Units	457(o)									
Fees to be Paid	1	Unallocated (Universal) Shelf		457(o)			$ 50,000,000.00	0.000087	$ 4,350.00				
Fees Previously Paid													
Carry Forward Securities													
Carry Forward Securities													
				Total Offering Amounts:			$ 50,000,000.00		$ 4,350.00				
				Total Fees Previously Paid:					$ 0.00				
				Total Fee Offsets:					$ 4,350.00				
				Net Fee Due:					$ 0.00				

Offering Note

1

(1) Decoy Therapeutics Inc. (the "registrant") is registering an indeterminate number of shares of common stock and preferred stock, principal amount of debt securities, warrants to purchase common stock, preferred stock and/or debt securities, and units, which together shall have an aggregate initial offering price not to exceed $50,000,000. If any debt securities are issued at an original issue discount, then such greater principal amount as shall result in an aggregate initial offering price not to exceed $50,000,000. The registrant will determine the proposed maximum offering price per unit from time to time in connection with the issuance of the securities. The securities registered also include such indeterminate number of shares of common stock and preferred stock and amount of debt securities as may be issued upon conversion, exchange or exercise of any securities registered hereunder or pursuant to their anti-dilution provisions. Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), the securities registered also include such indeterminate number of shares of common stock and preferred stock as may be issued as a result of stock splits, stock dividends or similar transactions.

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
Rules 457(b) and 0-11(a)(2)												
Fee Offset Claims												
Fee Offset Sources												
Rule 457(p)												
Fee Offset Claims	1	Decoy Therapeutics Inc. (formerly Salarius	S-3	333-289646	08/15/2025		$ 576.25	Unallocated (Universal) Shelf	Unallocated (Universal) Shelf		$ 3,763,889.00	

		Pharmaceuticals, Inc.)										
Fee Offset Claims	2	Decoy Therapeutics Inc. (formerly Salarius Pharmaceuticals, Inc.)	S-3	333-266589	08/05/2022		$ 3,773.75	Unallocated (Universal) Shelf	Unallocated (Universal) Shelf		$ 40,709,277.00	
Fee Offset Sources	3	Salarius Pharmaceuticals, Inc	S-3	333-289646		08/15/2025						$ 576.25
Fee Offset Sources	4	Salarius Pharmaceuticals, Inc.	S-3	333-266589		08/05/2022						$ 4,635.00

Rule 457(p) Statement of Withdrawal, Termination, or Completion:

1

(2) On August 15, 2025, the registrant filed a registration statement on Form S-3 (File No. 333-289646) (the "2025 Registration Statement") registering $3,763,889 of new securities, for which it paid a filing fee of $576.25. The 2025 Registration Statement was never declared effective, no securities were sold under it, and the registrant withdrew it on June 5, 2026. The 2025 Registration Statement's proposed carry forward, pursuant to Rule 415(a)(6), of unsold securities under the 2022 Registration Statement (as defined below) never became effective. Pursuant to Rule 457(p) under the Securities Act, the registrant is offsetting the $576.25 fee against the fee due for this registration statement.

2

(3) On August 5, 2022, the registrant filed a registration statement on Form S-3 (File No. 333-266589), declared effective on August 16, 2022 (the "2022 Registration Statement"), registering $50,000,000 of securities, for which it paid a filing fee of $4,635.00. The offering under the 2022 Registration Statement terminated on February 12, 2026, with securities having an aggregate offering price of $43,636,112.91 unsold, representing $4,045.07 of the fee paid. Pursuant to Rule 457(p) under the Securities Act, the registrant is offsetting $3,773.75 of that fee, associated with $40,709,277 of such unsold securities, against the remaining fee due for this registration statement.

Offset Note

3

(2) On August 15, 2025, the registrant filed a registration statement on Form S-3 (File No. 333-289646) (the "2025 Registration Statement") registering $3,763,889 of new securities, for which it paid a filing fee of $576.25. The 2025 Registration Statement was never declared effective, no securities were sold under it, and the registrant withdrew it on June 5, 2026. The 2025 Registration Statement's proposed carry forward, pursuant to Rule 415(a)(6), of unsold securities under the 2022 Registration Statement (as defined below) never became effective. Pursuant to Rule 457(p) under the Securities Act, the registrant is offsetting the $576.25 fee against the fee due for this registration statement.

4

(3) On August 5, 2022, the registrant filed a registration statement on Form S-3 (File No. 333-266589), declared effective on August 16, 2022 (the "2022 Registration Statement"), registering $50,000,000 of securities, for which it paid a filing fee of $4,635.00. The offering under the 2022 Registration Statement terminated on February 12, 2026, with securities having an aggregate offering price of $43,636,112.91 unsold, representing $4,045.07 of the fee paid. Pursuant to Rule 457(p) under the Securities Act, the registrant is offsetting $3,773.75 of that fee, associated with $40,709,277 of such unsold securities, against the remaining fee due for this registration statement.

Table 3: Combined Prospectuses **☑Not Applicable**

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