

PROSPECTUS SUPPLEMENT
(To the Prospectus dated December 15, 2023)**FENNEC PHARMACEUTICALS INC.****670,000 Common Shares**

This prospectus supplement and the accompanying prospectus registers the issuance by Fen nec Pharmaceuticals Inc. (the “Company,” “we,” “us,” or “our”) of 670,000 of our common shares at a price of \$7.50 per share, for aggregate gross proceeds to us of \$5,025,000.

The common shares are being issued to certain of our existing institutional shareholders and affiliated entities resident in the provinces of Canada (except Quebec) pursuant to the listed issuer financing exemption under Part 5A of *National Instrument 45-106 — Prospectus Exemptions*. We have entered into subscription agreements with each purchaser of the common shares setting forth the terms of the investors’ purchase of our common shares. Subject to the satisfaction of certain customary closing conditions, it is expected that the closing of the purchase of our common shares pursuant to this offering will occur on or around November 18, 2025. We have not engaged any broker or placement agent in connection with this offering.

Our common shares are listed on The Nasdaq Capital Market under the symbol “FENC” and on the Toronto Stock Exchange under the symbol “FRX.” On November 17, 2025, the last reported sale price of our common shares on The Nasdaq Capital Market was \$8.75 per share.

Investing in our securities involves a high degree of risk. You should carefully review and consider the risks and uncertainties described under the heading “Risk Factors” beginning on page S-3 of this prospectus supplement and in the related sections noted in the accompanying prospectus, and in the documents incorporated by reference herein and therein.

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

	Per Share	Total
Offering Price and proceeds, before expenses, to us	\$7.50	\$5,025,000

November 18, 2025

TABLE OF CONTENTS

Prospectus Supplement

ABOUT THIS PROSPECTUS SUPPLEMENT	S-ii
NOTE REGARDING FORWARD-LOOKING STATEMENTS	S-iii
SUMMARY	S-1
THE OFFERING	S-2
RISK FACTORS	S-3
USE OF PROCEEDS	S-4
DIVIDEND POLICY	S-5
CAPITALIZATION	S-6
DILUTION	S-8
PLAN OF DISTRIBUTION	S-9
NOTICE TO INVESTORS	S-10
MATERIAL CANADIAN AND UNITED STATES TAX CONSEQUENCES OF THIS OFFERING	S-11
LEGAL MATTERS	S-17
EXPERTS	S-18
WHERE YOU CAN FIND MORE INFORMATION	S-19
INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE	S-20

Prospectus

	<u>Page</u>
FORWARD LOOKING STATEMENTS	1
FENNEC PHARMACEUTICALS INC.	2
WHERE YOU CAN FIND MORE INFORMATION	3
INCORPORATION BY REFERENCE	4
RISK FACTORS	5
USE OF PROCEEDS	6
DESCRIPTION OF CAPITAL STOCK	7
CERTAIN ERISA MATTERS	9
PLAN OF DISTRIBUTION	10
LEGAL MATTERS	12
EXPERTS	13

ABOUT THIS PROSPECTUS SUPPLEMENT

This document contains two parts. The first part is this prospectus supplement, which describes the terms of this offering and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference in this prospectus supplement and the accompanying prospectus. The second part, the accompanying prospectus dated December 15, 2023, including the documents incorporated by reference therein, provides more general information, some of which may not apply to this offering. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or in any document incorporated by reference that was filed with the Securities and Exchange Commission (the “SEC”) before the date of this prospectus supplement, on the other hand, you should rely on the information in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date (for example, a document incorporated by reference in the accompanying prospectus), the statement in the document having the later date modifies or supersedes the earlier statement.

You should rely only on the information contained in or incorporated by reference in this prospectus supplement, the accompanying prospectus and any free writing prospectus we have authorized for use in connection with this offering. We have not, and the underwriters have not, authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus and any free writing prospectus we have authorized for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus supplement, the accompanying prospectus and the documents incorporated by reference in this prospectus supplement and the accompanying prospectus in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the sections of this prospectus supplement entitled “Where You Can Find More Information” and “Incorporation of Certain Documents by Reference.”

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference into this prospectus supplement or the accompanying prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreement, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants speak only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

All references in this prospectus supplement and the accompanying prospectus to “Fennec,” the “Company,” “we,” “us,” “our,” or similar references refer to Fennec Pharmaceuticals Inc. and its subsidiaries, except where the context otherwise requires or as otherwise indicated.

We are offering to sell, and are seeking offers to buy, the shares only in jurisdictions where such offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of the shares in certain jurisdictions or to certain persons within such jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about and observe any restrictions relating to the offering of the shares and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the documents the Company has filed with the SEC that are incorporated by reference in this prospectus supplement or the accompanying prospectus 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”). These forward-looking statements may concern possible or anticipated future results of operations or business developments. These statements are based on management’s current expectations or predictions of future conditions, events or results based on various assumptions and management’s estimates of trends and economic factors in the markets in which we are active, as well as our business plans. Words such as “expects”, “anticipates”, “intends”, “plans”, “believes”, “seeks”, “estimates”, “projects”, “forecasts”, “may”, “should”, variations of such words and similar expressions are intended to identify such forward-looking statements. The forward-looking statements may include, without limitation, statements regarding product development, product potential, regulatory environment, sales and marketing strategies, capital resources, operating performance, or the closing of this offering. The forward-looking statements are subject to risks and uncertainties, which may cause results to differ materially from those set forth in the statements. Forward-looking statements should be evaluated together with the many uncertainties that affect the Company’s business and its market, particularly those discussed under “Risk Factors” below, as well as any amendments to such risk factors reflected in our subsequent filings with the SEC. Forward-looking statements include, but are not limited to, statements about:

- our expectations regarding the use of our existing capital resources and any proceeds we may receive from the sale of common shares in this offering;
- our efforts to pursue collaborations with other companies and third parties;
- our ability to maintain regulatory approval of our sole product, PEDMARK[®] (known as PEDMARQSI[™] in the European Union);
- the benefits of the use of PEDMARK[®];
- our ability to successfully commercialize PEDMARK[®];
- the rate and degree of market acceptance of PEDMARK[®];
- our ability to maintain, or recognize the anticipated benefits of, orphan drug designation for PEDMARK[®];
- our ability to protect our intellectual property;
- our corporate and development strategies;
- our expected results of operations;
- our anticipated levels of expenditures;
- the nature and scope of potential markets for PEDMARK[®]; and
- our ability to attract and retain key employees.

Forward-looking statements are not guarantees of future performance, and actual results may differ materially from those projected. The forward-looking statements are representative only as of the date they are made, and the Company assumes no responsibility to update any forward-looking statements except as required by law.

This prospectus supplement and the documents incorporated by reference herein contain estimates, projections and other statistical data made by independent parties and by us relating to market size and growth, the incidence of certain medical conditions and other industry data. These data, to the extent they contain estimates or projections, involve a number of subjective assumptions and limitations, and you are cautioned not to give undue weight to such estimates or projections. Industry publications and other reports we have obtained from independent parties generally state that the data contained in these publications or other reports have been obtained in good faith or from sources considered to be reliable, but they do not guarantee the accuracy or completeness of such data. While we believe that the data from these industry publications and

other reports are generally reliable, we have not independently verified the accuracy or completeness of such data. These and other factors could cause results to differ materially from those expressed in these publications and reports.

We may from time to time provide estimates of the potential United States and foreign market for PEDMARK[®]. These estimates are based on a number of factors, including our expectation as to the number of patients with a certain medical condition that would potentially benefit from PEDMARK[®]. While we have determined these estimates based on assumptions that we believe are reasonable, there are a number of factors that could cause our expectations to change or not be realized. See the section entitled “Risk Factors”, beginning on page [S-3](#) of this prospectus supplement. It is possible that the ultimate market for PEDMARK[®] will differ significantly from our expectations due to these or other factors and, therefore, investors should not place undue reliance on such estimates.

SUMMARY

This summary is not complete and does not contain all the information that you should consider before investing in our common shares. Before making an investment decision, you should carefully read the entire prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein, including the risk factors described in “Risk Factors” beginning on page [S-3](#) of this prospectus supplement, as well as the financial statements and related notes and the other information incorporated by reference herein.

Company Overview

We incorporated under the laws of Canada in September 1996. On August 25, 2011, we continued from the laws of Canada under the *Canada Business Corporations Act* (the “CBCA”) to the laws of British Columbia in accordance with Section 302 of the *Business Corporations Act* (British Columbia) (the “Continuance”).

We are a commercial-stage biopharmaceutical company focused on our only product, PEDMARK[®]. On September 20, 2022 we received approval from the U.S. Food and Drug Administration (“FDA”) for PEDMARK[®] (sodium thiosulfate injection) to reduce the risk of ototoxicity associated with cisplatin in pediatric patients one month of age and older with localized, non-metastatic solid tumors. This approval makes PEDMARK[®] the first and only treatment approved by the FDA in this area of significant unmet medical need. On October 17, 2022, we announced commercial availability of PEDMARK[®] in the United States.

We sell our product through an experienced field force including Regional Pediatric Oncology Specialists and medical science liaisons who are helping to educate the medical communities and patients about cisplatin induced ototoxicity and our programs supporting patient access to PEDMARK[®].

Further, the Company has established Fennec HEARS[™], a comprehensive single source program designed to connect PEDMARK[®] patients to both patient financial and product access support. The program offers assistance and resources, regardless of insurance type, that can address co-pays or lack of coverage when certain eligibility requirements are met. Fennec HEARS also provides access to care coordinators that can answer insurance questions about coverage for PEDMARK[®] and provide tips and resources for managing treatment.

Hearing loss among children receiving platinum-based chemotherapy is frequent, permanent and often severely disabling. The incidence of hearing loss in these children depends upon the dose and duration of chemotherapy, and many of these children require lifelong hearing aids. In addition, adults undergoing chemotherapy for several common malignancies, including ovarian cancer, testicular cancer, and particularly head and neck cancer and brain cancer, often receive intensive platinum-based therapy and may experience severe, irreversible hearing loss, particularly in the high frequencies.

In the U.S. and Europe, it is estimated that, annually, over 10,000 children may receive platinum-based chemotherapy. The incidence of ototoxicity depends upon the dose and duration of chemotherapy. There is currently no established preventive agent for this hearing loss and only expensive, technically difficult and sub-optimal cochlear (inner ear) implants have been shown to provide some benefit. Infants and young children that suffer ototoxicity at critical stages of development lack speech language development and literacy, and older children and adolescents lack social-emotional development and educational achievement.

Recent Developments

Public Offering

On November 17, 2025, we completed an underwritten public offering of 5,366,667 of our common shares at a price of \$7.50 per share, for gross proceeds to us (before deducting the underwriting discounts and offering expenses) of approximately \$40,250,000. We anticipate using the net proceeds of the public offering for the same purposes described under “Use of Proceeds” on page [S-4](#) of this prospectus supplement.

THE OFFERING

Common shares offered by us pursuant to this prospectus supplement	670,000 common shares.
Common shares to be outstanding immediately after this offering	34,153,496
Use of Proceeds	We intend that the first use of proceeds from this offering, as well as proceeds from our public offering that closed on November 17, 2025, will be to repurchase and redeem our outstanding convertible notes (the “Petrichor Notes”) issued to Petrichor Opportunities Fund I LP and Petrichor Opportunities Fund I Intermediate LP (collectively, “Petrichor”) on or before November 19, 2025, for an aggregate repurchase and redemption price of approximately \$21,729,455 (consisting of approximately: \$18,205,775 in outstanding principal, \$1,270,880 in accrued PIK interest, \$305,134 in accrued cash interest, and a \$1,947,666 redemption fee), and to use the remaining net proceeds for working capital and for general corporate purposes. See “Use of Proceeds” on page S-4 of this prospectus supplement for more information.
Risk Factors	Before purchasing our common shares, you should carefully consider the risk factors described in “Risk Factors” beginning on page S-3 of this prospectus supplement.
Exchange Listing	Our common shares are listed on The Nasdaq Capital Market under the symbol “FENC” and on the Toronto Stock Exchange under the symbol “FRX.” On November 17, 2025, the last reported sale price of our common shares on The Nasdaq Capital Market was \$8.75 per share.

The information set forth above is based on 28,116,829 common shares issued and outstanding on November 12, 2025 and excludes as of that date the following:

- 2,505,586 common shares issuable upon conversion of the Petrichor Notes;
- 5,838,119 common shares issuable upon the exercise of outstanding options having a weighted average exercise price of \$6.38 per share;
- 244,500 common shares underlying outstanding performance share units (“PSUs”) issuable upon achievement of certain performance milestones;
- 397,023 common shares issuable upon vesting of outstanding restricted share units (“RSUs”);
- 110,996 common shares issuable upon the exercise of outstanding warrants having an exercise price of \$8.11 per share; and
- 2,020,358 additional common shares reserved for issuance under our equity incentive plan.

Unless otherwise indicated, all information in this prospectus supplement assumes no exercise of the outstanding options, PSUs, RSUs, warrants or other stock awards described above and no exercise by the underwriters of their option to purchase additional shares.

RISK FACTORS

Investing in our common shares involves a high degree of risk. Before deciding whether to invest in our common shares, you should consider carefully the risk factors described below, in conjunction with the risks under the heading “Risk Factors” beginning on page 5 of the accompanying prospectus, and the risks described under Part I, Item A of our [Annual Report on Form 10-K for the fiscal year ended December 31, 2024](#), under Part I, Item A of our [Quarterly Reports on Form 10-Q for the quarters ended March 31, 2025, June 30, 2025, and September 30, 2025](#), and all other information contained or incorporated by reference into this prospectus supplement and the accompanying prospectus, including our financial statements and the related notes, as updated by our subsequent filings under the Exchange Act, and in any free writing prospectus that we have authorized for use in connection with this offering before acquiring any of our common shares. If any of these risks were to occur, our business, financial condition or results of operations would likely suffer. In that event, the value of our common shares could decline, and you could lose part or all of your investment. The risks and uncertainties described below are not the only risks facing us. Additional risks not presently known to us or that we currently deem immaterial may also impair our business, operations or prospects and could cause the trading price of our common shares to decline, resulting in a loss of all or part of your investment.

Risks Related to this Offering

You will experience immediate and substantial dilution in the net tangible book value per share of the common shares you purchase.

The effective offering price per share in this offering may exceed the net tangible book value per common share outstanding prior to this offering, in which case you may incur an immediate and substantial dilution in the net tangible book value of the common shares you purchase in this offering. After giving effect to the sale by us of 670,000 common shares in this offering, as well as the 5,366,667 common shares issued in our public offering that closed on November 17, 2025, each at an offering price of \$7.50 per common share, you will experience immediate dilution of approximately \$6.40 per common share, representing the difference between the offering price per share and our pro forma net tangible book value per share as of September 30, 2025. You may also experience additional dilution after this offering on any future equity issuances, the exercise of outstanding warrants, exercise of outstanding stock options and vesting of other stock awards. See the section entitled “Dilution” appearing elsewhere in this prospectus supplement for a more detailed illustration of the dilution you would incur if you participate in this offering.

You may experience future dilution as a result of future equity offerings or other equity issuances.

We may in the future issue additional common shares or other securities convertible into or exchangeable for our common shares. We cannot assure you that we will be able to sell common shares or other securities in any other offering or other transactions at a price per share that is equal to or greater than the price per share paid by investors in this offering. The price per share at which we sell additional common shares or other securities convertible into or exchangeable for our common shares in future transactions may be higher or lower than the price per share in this offering.

In addition, we have a substantial number of stock options, PSUs, RSUs and warrants outstanding. To the extent that outstanding stock awards and warrants may be exercised or other shares issued, investors purchasing our common shares in this offering may experience further dilution.

We will have broad discretion in how we use the proceeds from this offering and our recently completed public offering, and our use of the offering proceeds may not yield a favorable return on your investment.

We currently anticipate that the net proceeds from this offering and our public offering that closed on November 17, 2025 will be used primarily to repurchase and redeem the Petrichor Notes, and that the remaining net proceeds will be used for working capital and for general corporate purposes. Our management has broad discretion over how these proceeds are used and could spend the proceeds in ways with which you may not agree, and the proceeds may not be invested in a manner that yields a favorable or any return. Our failure to use these funds effectively could have a material adverse effect on our business.

USE OF PROCEEDS

The net proceeds to us from this offering and our public offering that closed on November 17, 2025 (after deducting estimated expenses payable by us in connection with this offering and the underwriting discount and estimated offering expenses payable by us in connection with the public offering) are approximately \$42,014,502.

We intend that the first use of proceeds from this offering and the public offering will be to repurchase and redeem the Petrichor Notes, and that the remaining net proceeds will be used for working capital and for general corporate purposes. Our management will retain broad discretion over the allocation of the net proceeds from the sale of the common shares.

We have agreed with Petrichor to repurchase and redeem the Petrichor Notes on or before November 19, 2025, for an aggregate repurchase and redemption price of approximately \$21,729,455 (consisting of approximately: \$18,205,775 in outstanding principal, \$1,270,880 in accrued PIK interest, \$305,134 in accrued cash interest, and a \$1,947,666 redemption fee). The Petrichor Notes bear interest at a rate equal to the prime rate, as published in The Wall Street Journal, with a floor of 3.5%, plus an applicable margin rate of 4.5% and, prior to our agreement with Petrichor to repurchase and redeem the Petrichor Notes, were set to mature on August 19, 2027.

Investors in our common shares will be relying on the judgment of our management, who will have broad discretion regarding the application of the proceeds of this offering. The amounts and timing of our actual expenditures will depend upon numerous factors, including the amount of cash generated by our operations, our cash needs, and our ability to commercialize PEDMARK[®] both inside and outside of the United States. We may find it necessary or advisable to use portions of the proceeds from this offering and the public offering for other purposes.

Pending the application of the net proceeds, we intend to invest the net proceeds in money market accounts and/or investment-grade, interest-bearing securities. Our management has broad discretion over how these proceeds are used and could spend the proceeds in ways with which you may not agree, and the proceeds may not be invested in a manner that yields a favorable or any return.

DIVIDEND POLICY

We currently intend to retain earnings, if any, to finance the growth and development of our business, and do not expect to pay any cash dividends to our shareholders in the foreseeable future.

CAPITALIZATION

The following table describes our capitalization as of September 30, 2025:

- on an actual basis; and
- on an as adjusted basis to give effect to (i) the sale of common shares in this offering at an offering price of \$7.50 per share (after deducting estimated expenses payable by us in connection with this offering), and (ii) our public offering that closed on November 17, 2025 (after deducting the underwriting discount and estimated offering expenses payable by us in connection with the public offering).

You should read this capitalization table together with our consolidated financial statements and the related notes and other financial information incorporated by reference in this prospectus supplement and the accompanying prospectus and the “Use of Proceeds” section.

	As of September 30, 2025	
	Actual	As Adjusted
	(in thousands, except share and per share data)	
Assets		
Current assets		
Cash and cash equivalents	\$ 21,947	\$ 63,962
Accounts receivable, net	19,343	19,343
Prepaid expenses	1,399	1,399
Inventory, net	2,477	2,477
Other current assets	898	898
Total current assets	46,064	88,079
Non-current assets		
Non-current accounts receivable, net	\$ 2,454	\$ 2,454
Other non-current assets, net of amortization	743	743
Total non-current assets	3,197	3,197
Total assets	\$ 49,261	\$ 91,276
Liabilities and stockholders' deficit		
Current liabilities:		
Accounts payable	\$ 5,866	\$ 5,866
Accrued liabilities	3,701	3,701
Contract liability – current	248	248
Operating lease liability – current	—	—
Total current liabilities	\$ 9,815	\$ 9,815
Long-term liabilities		
Term loan	18,206	18,206
PIK interest	1,271	1,271
Debt discount	(100)	(100)
Contract liability – long-term	24,561	24,561
Total long-term liabilities	43,938	43,938
Total liabilities	\$ 53,753	\$ 53,753
Stockholders' deficit:		
Common stock, no par value; unlimited shares authorized; 28,062 shares issued and outstanding (as adjusted – 34,098)	\$ 147,652	\$ 189,667

	As of September 30, 2025	
	Actual	As Adjusted
	(in thousands, except share and per share data)	
Additional paid-in capital	71,249	71,249
Accumulated deficit	(224,636)	(224,636)
Accumulated other comprehensive income	1,243	1,243
Total stockholders' deficit	\$ (4,492)	\$ 37,523
Total liabilities and stockholders' deficit	\$ 49,261	\$ 91,276

Information in the above table is based on 28,071,134 common shares issued and outstanding on September 30, 2025 and excludes as of that date the following:

- 2,468,524 common shares issuable upon conversion of the Petrichor Notes;
- 5,914,352 common shares issuable upon the exercise of outstanding options having a weighted average exercise price of \$6.38 per share;
- 245,500 common shares underlying outstanding PSUs issuable upon achievement of certain performance milestones;
- 407,475 common shares issuable upon vesting of outstanding RSUs;
- 110,996 common shares issuable upon the exercise of outstanding warrants having an exercise price of \$8.11 per share; and
- 1,932,673 additional common shares reserved for issuance under our equity incentive plan.

DILUTION

Investors in this offering will suffer immediate and substantial dilution in the net tangible book value per share of the common shares they purchase. Our net tangible book value as of September 30, 2025 was approximately \$(4.5) million, or approximately \$(0.16) per common share. Net tangible book value per share is determined by dividing our total tangible assets less total liabilities by the actual number of common shares outstanding. After giving effect to the sale of common shares in this offering and our public offering that closed on November 17, 2025, each at an offering price of \$7.50 per share, and after deducting estimated expenses payable by us in connection with this offering and the underwriting discount and estimated offering expenses payable by us in connection with the public offering, our as adjusted net tangible book value as of September 30, 2025 would have been approximately \$37.5 million or approximately \$1.10 per common share. This represents an immediate increase in as adjusted net tangible book value of approximately \$1.26 per share to our existing shareholders and an immediate dilution of \$6.40 per share to new investors in this offering. The following table illustrates this per share dilution:

Offering price per common share	\$7.50
Net tangible book value per common share as of September 30, 2025	\$(0.16)
Increase in net tangible book value per common share attributable to this offering	<u>\$ 1.26</u>
As adjusted net tangible book value per common share after this offering	<u>\$1.10</u>
Dilution per common share to new investors	<u><u>\$6.40</u></u>

The table and discussion above are based on 28,071,134 common shares issued and outstanding on September 30, 2025 and excludes as of that date the following:

- 2,468,524 common shares issuable upon conversion of the Petrichor Notes;
- 5,914,352 common shares issuable upon the exercise of outstanding options having a weighted average exercise price of \$6.38 per share;
- 245,500 common shares underlying outstanding PSUs issuable upon achievement of certain performance milestones;
- 407,475 common shares issuable upon vesting of outstanding RSUs;
- 110,996 common shares issuable upon the exercise of outstanding warrants having an exercise price of \$8.11 per share; and
- 1,932,673 additional common shares reserved for issuance under our equity incentive plan.

To the extent that any of the outstanding warrants, options, or other stock awards are exercised, there will be further dilution to new investors. In addition, you may experience additional dilution after this offering on any future equity issuances. To the extent that additional capital is raised through the sale of equity securities, the issuance of these securities could result in further dilution to our shareholders.

PLAN OF DISTRIBUTION

We have not engaged any broker or placement agent in connection with this offering. We have entered into subscription agreements with each purchaser in this offering setting forth the terms of the investors' purchase of our common shares. The aggregate number of our common shares offered and sold pursuant to this prospectus supplement and the accompanying prospectus is 670,000. Subject to the satisfaction of certain customer closing conditions, we expect to deliver the common shares being offered and sold pursuant to this offering on or around November 18, 2025.

Computershare is the transfer agent for our common shares.

Our common shares are listed on The Nasdaq Capital Market under the symbol "FENC" and on the Toronto Stock Exchange under the symbol "FRX."

NOTICE TO INVESTORS

United States

The common shares subject to this offering are not offered for sale in the United States and may not be offered or sold in the United States, directly or indirectly, on our behalf. Purchasers of the common shares subject to this offering are hereby notified that their purchase of common shares subject to this offering will be deemed to constitute a representation and warranty that such investor is not a United States resident.

Canada

The common shares subject to this offering are being issued to certain of our existing institutional shareholders and affiliated entities resident in the provinces of Canada (except Quebec) pursuant to the listed issuer financing exemption under Part 5A of *National Instrument 45-106 — Prospectus Exemptions*.

**MATERIAL CANADIAN AND UNITED STATES TAX
CONSEQUENCES OF THIS OFFERING**

This section describes the material Canadian and U.S. federal income tax consequences to U.S. Holders (as defined below) of acquiring, owning, and disposing of our common shares acquired pursuant to this offering, subject to the qualifications set forth herein.

This section does not address all potential Canadian or U.S. federal income tax considerations that may be relevant to a particular U.S. Holder. In addition, this section does not take into account the individual facts and circumstances that may affect the Canadian or U.S. federal income tax consequences to a particular U.S. Holder, including specific tax consequences under an applicable income tax treaty. Accordingly, this summary is not intended to be, and should not be construed as, legal, Canadian or U.S. federal income tax advice with respect to any U.S. Holder. This section does not address any Canadian or U.S. non-income, provincial, state and local, or any non-Canadian and non-U.S. tax considerations, including any estate and gift tax considerations, and does not discuss tax reporting requirements that may be applicable to any particular U.S. Holder.

This section is based upon the provisions of the Income Tax Act of Canada (the “Tax Act”), the United States Internal Revenue Code of 1986, as amended (the “Code”), the United States Treasury Regulations (whether final, temporary, or proposed) promulgated thereunder, the Convention Between Canada and the United States of America with Respect to Taxes on Income and on Capital, signed September 26, 1980, as amended (the “Canada-U.S. Tax Convention”), and administrative rulings and judicial decisions interpreting the Income Tax Act of Canada, the Code and the United States Treasury Regulations, all as currently in effect, and all subject to differing interpretations or change, possibly on a retroactive basis. We have not sought, and will not seek, a ruling from the Canada Revenue Agency (the “CRA”) or the Internal Revenue Service of the United States (the “IRS”) regarding any matter discussed herein, and no assurance can be given that the CRA or the IRS would not assert, or that a court would not sustain, a position that is different from, or contrary to, the positions taken in this summary. This summary does not discuss the potential effects, whether adverse or beneficial, of any proposed legislation.

U.S. Holders

For purposes of this section, a U.S. Holder is a beneficial owner of common shares that holds such common shares as a capital asset within the meaning of section 1221 of the Code (generally, property held for investment purposes) and is for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the United States (as determined under U.S. federal income tax rules);
- a corporation created or organized in or under the laws of the United States or of any political subdivision of the United States or other entity treated as a domestic corporation for U.S. federal income tax purposes;
- an estate, the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust that (i) is subject to the primary supervision of a court within the United States and the control of one or more U.S. persons for all substantial decisions or (ii) has a valid election in effect under applicable United States Treasury Regulations to be treated as a U.S. person.

Certain U.S. Holders Not Addressed

This section does not address the Canadian and U.S. federal income tax considerations applicable to any holders that are not U.S. Holders, or to U.S. Holders that are subject to special provisions under the Code, including, but not limited to, U.S. Holders that:

- are tax-exempt organizations, qualified retirement plans, individual retirement accounts, or other tax-deferred accounts;
- are financial institutions, underwriters, insurance companies, real estate investment trusts, or regulated investment companies;

- are broker-dealers, dealers, or traders in securities or currencies that elect to apply a mark-to-market accounting method;
- have a “functional currency” other than the U.S. dollar;
- are subject to special tax accounting rules under Section 451(b) of the Code;
- own common shares as part of a straddle, hedging transaction, conversion transaction, constructive sale, or other arrangement involving more than one position;
- own, have owned, or will own (directly, indirectly, or by attribution) 10% or more of the total combined voting power or value of the outstanding shares of the Company;
- have been, are, or will be residents or deemed to be residents in Canada for purposes of the Tax Act;
- use or hold, will use or hold, or that are or will be deemed to use or hold common shares in connection with carrying on a business in Canada;
- are persons whose common shares constitute “taxable Canadian property” under the Tax Act; or
- have a permanent establishment in Canada for the purposes of the Canada-U.S. Tax Convention.

If an entity or arrangement that is classified as a partnership (or other “pass-through” entity) for U.S. federal income tax purposes holds common shares, the U.S. federal income tax consequences to such entity and the partners (or other owners) of such entity generally will depend on the activities of the entity and the status of such partners (or owners). This summary does not address the tax consequences to any such partner (or owner). Partners (or other owners) of entities or arrangements that are classified as partnerships or as “pass-through” entities for U.S. federal income tax purposes should consult their own tax advisors regarding the U.S. federal income tax consequences arising from and relating to the acquisition, ownership, and disposition of common shares.

Prospective holders of common shares are urged to consult their own tax advisors concerning the Canadian and U.S. federal income tax consequences of the acquisition, ownership and disposition of common shares in light of their particular circumstances, as well as any considerations arising under any non-U.S., non-Canadian, provincial, state, or local tax laws, including estate or gift tax laws.

Material Canadian Federal Income Tax Considerations

Non-Residents of Canada

The following discussion is generally applicable to a U.S. Holder. Special rules, which are not discussed in this summary, may apply to a U.S. Holder that is an insurer that carries on an insurance business in Canada and elsewhere.

Disposition of Common Shares

Upon the disposition by a U.S. Holder of common shares, the U.S. Holder will not be subject to tax under the Tax Act in respect of any capital gain realized unless the common shares disposed of constitute “taxable Canadian property” of the U.S. Holder and the U.S. Holder is not entitled to relief under an applicable tax treaty or convention. Common shares will generally not constitute “taxable Canadian property” of such U.S. Holder unless at any time in the preceding 60 months both of the following statements were true: (a) the U.S. Holder, together with either (i) persons with whom the U.S. Holder does not deal at arm’s length or (ii) partnerships in which the U.S. Holder or a person in (a) directly or indirectly hold membership interests, held shares and/or rights to acquire shares representing 25% or more of the issued shares of any class of our capital stock; and (b) more than 50% of the fair market value of our common stock was derived directly or indirectly from one or any combination of (i) real or immovable property situated in Canada, (ii) Canadian resource properties, (iii) timber resource properties, and (iv) options in respect of, or interests in, or for civil law rights in, property described in any of (i) to (iii).

U.S. Holders whose common shares constitute “taxable Canadian property” should consult their own tax advisors for advice having regard to their particular circumstances.

Dividends Paid on Common Shares

Dividends paid, credited or deemed to have been paid or credited on our common shares held by a U.S. Holder will be subject to a Canadian withholding tax under the Tax Act at a rate of 25% of the gross amount of the dividends, subject to reduction by any applicable tax convention. Under the Canada-U.S. Tax Convention, the rate of withholding tax on dividends generally applicable to U.S. Holders who beneficially own the dividends is reduced to 15%. In the case of U.S. Holders that are corporations that beneficially own at least 10% of our voting shares, the rate of withholding tax on dividends generally is reduced to 5%. So-called “fiscally transparent” entities, such as United States limited liability companies, or LLCs, are not entitled to rely on the terms of the Canada-U.S. Tax Convention, however a member of such entity will be considered to have received the dividend directly and to benefit from the reduced rates under the Canada-U.S. Tax Convention, where the member is considered under U.S. tax law to have derived the dividend through that entity and by reason of the entity being a fiscally transparent entity, the treatment of the dividend is the same as its treatment would be if the amount had been derived directly by the member. Members of such entities are regarded as holding their proportionate share of our common shares held by the entity for the purposes of the Canada-U.S. Tax Convention.

Material U.S. Federal Income Tax Considerations

The following discussion describes the material U.S. federal income tax consequences applicable to the ownership and disposition of the common shares by a U.S. Holder that acquires common shares pursuant to this offering.

Distributions on Common Shares

We do not expect to make any distributions to our shareholders in the foreseeable future. However, if we make any such distribution, and subject to the discussion below under “— Tax Consequences if We are a Passive Foreign Investment Company”, the gross amount of any distribution (including amounts, if any, withheld in respect of Canadian withholding tax) actually or constructively received by a U.S. Holder with respect to our common shares will be taxable to the U.S. Holder as a dividend to the extent of our current or accumulated earnings and profits as determined under U.S. federal income tax principles. Distributions to a U.S. Holder in excess of earnings and profits will be treated first as a return of capital that reduces a U.S. Holder’s tax basis in such common shares (thereby increasing the amount of gain or decreasing the amount of loss that a U.S. Holder would recognize on a subsequent disposition of our common shares), and then as gain from the sale or exchange of such common shares (see “— Sale or Other Taxable Disposition of Our Common Shares” below). The amount of any distribution of property other than cash will be the fair market value of that property on the date of distribution. In the event we make distributions to holders of common shares, we may or may not calculate our earnings and profits under U.S. federal income tax principles. If we do not do so, any distribution may be required to be regarded as a dividend, even if that distribution would otherwise be treated as a non-taxable return of capital or as capital gain. The amount of the dividend will generally be treated as foreign-source dividend income to U.S. Holders.

Dividends paid to a noncorporate U.S. Holder that constitute qualified dividend income will be taxable at a preferential tax rate applicable to long-term capital gains of, currently, 20 percent, provided that the U.S. Holder holds the common shares for more than 60 days during the 121-day period beginning 60 days before the ex-dividend date and meets other holding period requirements. If we are treated as a PFIC, dividends paid to a U.S. Holder will not be treated as qualified dividend income. If we are not treated as a PFIC, dividends we pay with respect to common shares generally will be qualified dividend income, provided that the holding period requirements are satisfied by the U.S. Holder.

A U.S. Holder must include any Canadian tax withheld from the dividend payment in the gross amount of the dividend even though the holder does not in fact receive it. The dividend is taxable to the holder when the holder receives the dividend, actually or constructively. Because we are not a United States corporation, the dividend will not be eligible for the dividends-received deduction generally allowed to United States corporations in respect of dividends received from other United States corporations. The amount of the dividend distribution includible in a U.S. Holder’s income will be the U.S. dollar value of the Canadian dollar payments made, determined at the spot Canadian dollar/U.S. dollar rate on the date the dividend distribution is includible in income, regardless of whether the payment is in fact converted into U.S. dollars. Generally, any

gain or loss resulting from currency exchange fluctuations during the period from the date the dividend payment is included in income to the date the payment is converted into U.S. dollars will be treated as ordinary income or loss and will not be eligible for the special tax rate applicable to qualified dividend income. The gain or loss generally will be income or loss from sources within the United States for foreign tax credit limitation purposes.

Subject to certain limitations, the Canadian tax withheld in accordance with the Canada-U.S. Tax Convention and paid over to Canada will be creditable or deductible against a U.S. Holder's U.S. federal income tax liability, if the U.S. Holder satisfies certain minimum holding period requirements. To the extent a refund of the tax withheld is available to a U.S. Holder under Canadian law or under the Canada-U.S. Tax Convention, the amount of tax withheld that is refundable will not be eligible for credit against a U.S. Holder's U.S. federal income tax liability. Dividends that we distribute generally should constitute "passive category income," or, in the case of certain U.S. Holders, "general category income" for foreign tax credit limitation purposes. The rules relating to the determination of the foreign tax credit limitation are complex, and U.S. Holders should consult their tax advisor to determine whether and to what extent they will be entitled to a credit for Canadian withholding taxes imposed in respect of any dividend we distribute.

Sale or Other Taxable Disposition of Our Common Shares

Subject to the discussion below under "— Tax Consequences if We are a Passive Foreign Investment Company", upon the sale, exchange, or other taxable disposition of our common shares, a U.S. Holder generally will recognize gain or loss equal to the difference between the amount realized upon the sale, exchange, or other disposition and such U.S. Holder's tax basis in such common shares sold or otherwise disposed of. If the U.S. Holder receives Canadian dollars in the transaction, the amount realized will be the U.S. dollar value of the Canadian dollars received, which is determined for cash basis taxpayers on the settlement date for the transaction and for accrual basis taxpayers on the trade date (although accrual basis taxpayers can also elect the settlement date). A U.S. Holder's tax basis in its common shares generally will be such holder's U.S. dollar cost for such common shares. Such gain generally will be treated as U.S. source gain for purposes of applying the U.S. foreign tax credit rules unless the gain is subject to tax in Canada and re-sourced as foreign source gain under the Canada-U.S. Tax Convention and such U.S. Holder elects to treat such gain or loss as foreign source gain. Gain or loss recognized on such sale or other disposition generally will be long-term capital gain or loss if, at the time of the sale or other disposition, the U.S. Holder's holding period in the common shares disposed of exceeds one year.

Preferential tax rates currently apply to long-term capital gain of a non-corporate U.S. Holder. No preferential tax rates currently apply to long-term capital gain of a corporate U.S. Holder. Deductions for capital losses are subject to significant limitations under the Code.

Additional Medicare Tax on Net Investment Income

Certain noncorporate U.S. Holders are subject to a tax at a rate of 3.8% on "net investment income" (or undistributed "net investment income," in the case of estates and trusts) for each taxable year, with such tax applying to the lesser of such income or the excess of such person's adjusted gross income (with certain adjustments) over a specified amount. Net investment income includes dividends on the common shares and net gains from the disposition of the common shares. U.S. Holders that are individuals, estates, or trusts should consult their own tax advisors regarding the applicability of this tax to any of their income or gains in respect of the common shares.

Information Reporting and Backup Withholding

Under U.S. federal income tax law, certain categories of U.S. Holders must file information returns with respect to their investment in, or involvement in, a foreign corporation. For example, certain U.S. Holders who hold certain "specified foreign financial assets" that exceed certain thresholds are required to report information relating to such assets. The definition of "specified foreign financial assets" generally includes not only financial accounts maintained in foreign financial institutions, but also, unless held in accounts maintained by a financial institution, any stock or security issued by a non-U.S. person, any financial instrument or contract held for investment that has an issuer or counterparty other than a U.S. person, and any interest in a foreign entity. U.S. Holders may be subject to these reporting requirements unless their

common shares are held in an account at certain financial institutions. Significant penalties may apply for failure to satisfy applicable reporting obligations. U.S. Holders should consult their own tax advisors regarding the requirements of filing information returns, including the requirement to file an IRS Form 8938.

Distributions paid with respect to common shares and proceeds from a sale, exchange, or redemption of common shares made within the United States or through certain U.S.-related financial intermediaries may be subject to information reporting to the IRS and possible U.S. backup withholding (currently at a rate of 24%). Backup withholding will not apply, however, to a U.S. Holder who furnishes a correct U.S. taxpayer identification number and makes any other required certification on IRS Form W-9 or that is a corporation or other entity that is otherwise exempt from backup withholding. Each U.S. Holder should consult its own tax advisors regarding the application of the U.S. information reporting and backup withholding rules. Backup withholding is not an additional tax. Amounts withheld as backup withholding may be credited against a holder's U.S. federal income tax liability, and such holder may obtain a refund of any excess amounts withheld under the backup withholding rules by filing an appropriate claim for refund with the IRS and furnishing any required information in a timely manner.

The discussion of reporting requirements set forth above is not intended to constitute a complete description of all reporting requirements that may apply to a U.S. Holder. A failure to satisfy certain reporting requirements may result in an extension of the time period during which the IRS can assess a tax and, under certain circumstances, such an extension may apply to assessments of amounts unrelated to any unsatisfied reporting requirement. U.S. Holders should consult with their own tax advisors regarding their reporting obligations, if any, as a result of their acquisition, ownership, or disposition of our common shares.

Tax Consequences if We are a Passive Foreign Investment Company

The Company generally will be treated as a passive foreign investment company, or PFIC, for any tax year for which, after applying certain "look-through" rules, either (i) 75% or more of the Company's gross income is passive income or (ii) 50% or more of the value of the Company's assets is attributable to assets that produce or are held to produce passive income, based on the quarterly average of the fair market value of such assets. Passive income for this purpose generally includes dividends, interest, rents, royalties and gains from securities and commodities transactions. Under the look-through rules a proportionate amount of assets and income of any corporation in which the Company owns at least 25% of the stock by value is treated as held or received directly by the Company.

We have not made the analysis necessary to determine whether or not we are currently a PFIC or whether we have ever been a PFIC. There can be no assurance that we are not, have never been or will not in the future be a PFIC. If we were to be treated as a PFIC, any gain recognized by a U.S. Holder upon the sale (or certain other dispositions) of our common shares (or the receipt of certain distributions) generally would be treated as ordinary income, and a U.S. Holder may be required, in certain circumstances, to pay an interest charge together with tax calculated at maximum rates on certain "excess distributions," including any gain on the sale or certain dispositions of our common shares. In order to avoid this tax consequence, a U.S. Holder (i) may be permitted to make a "qualified electing fund" election, in which case, in lieu of such treatment, such holder would be required to include in its taxable income certain undistributed amounts of our income or (ii) may elect to mark-to-market our common shares and recognize ordinary income (or possible ordinary loss) each year with respect to such investment and on the sale or other disposition of the common shares. Neither we nor our advisors have the duty to or will undertake to inform U.S. Holders of changes in circumstances that would cause us to become a PFIC. U.S. Holders should consult their own tax advisors regarding the application of the PFIC rules including eligibility for and the manner and advisability of making certain elections in the event we are determined to be a PFIC at any point in time after the date of this prospectus supplement. We intend to take the action necessary for a U.S. shareholder to make a "qualified electing fund" election in the event we are a PFIC.

Further, excess distributions treated as dividends, gains treated as excess distributions and mark-to-market inclusions and deductions, all under the PFIC rules discussed above, are included in the calculation of net investment income for purposes of the 3.8% tax described above under the subheading entitled "Additional Medicare Tax on Net Investment Income". U.S. Treasury Regulations provide, subject to the election described in this paragraph, that solely for purposes of this additional tax, distributions of previously taxed income will be treated as dividends and included in net investment income subject to the additional 3.8% tax. Additionally,

to determine the amount of any capital gain from the sale or other taxable disposition of common shares that will be subject to the additional tax on net investment income, a U.S. Holder who has made a “qualified electing fund” election will be required to recalculate its basis in the common shares excluding basis adjustments resulting from the “qualified electing fund” election. Alternatively, a U.S. Holder may make an election which will be effective with respect to all interests in a PFIC for which a “qualified electing fund” election has been made and which is held in that year or acquired in future years. Under this election, a U.S. Holder pays the additional 3.8% tax on income inclusions resulting from the “qualified electing fund” election and on gains calculated after giving effect to related tax basis adjustments.

A U.S. Holder of PFIC shares must generally file an annual information return on IRS Form 8621 (*Information Return by a Shareholder of a Passive Foreign Investment Company or Qualified Electing Fund*) containing such information as the U.S. Treasury Department may require. The failure to file IRS Form 8621 could result in the imposition of penalties and the extension of the statute of limitations with respect to U.S. federal income tax.

If we are treated as a PFIC, a U.S. Holder may, subject to certain qualifications, avoid the PFIC tax consequences discussed above with respect to our common shares if the U.S. Holder makes a valid qualified electing fund (“QEF”) election for the first taxable year in which the U.S. Holder owns (or is treated as owning) our common shares. In order to comply with the requirements of a QEF election, a U.S. Holder generally must receive a PFIC Annual Information Statement (as defined in Treasury Regulations Section 1.1295-1(g)) from us. As noted above, we have not made the analysis necessary to determine whether or not we are currently a PFIC or whether we have ever been a PFIC. If we are determined to be a PFIC for any taxable year, we will endeavor to make available to U.S. Holders a PFIC Annual Information Statement with respect to such taxable year. However, there is no assurance that we will have timely knowledge of our PFIC status in the future or that we will make available a PFIC Annual Information Statement.

U.S. Holders are urged to consult their tax advisors as to our status as a PFIC, and the U.S. federal income tax consequences to them if we were a PFIC, including the reporting requirements and the desirability of making, and the availability of, a QEF election or a mark-to-market election with respect to our common shares.

LEGAL MATTERS

Certain legal matters in connection with the securities offered hereby will be passed upon for us by LaBarge Weinstein LLP, Ottawa, Ontario.

EXPERTS

The consolidated financial statements of Fennec Pharmaceuticals Inc. appearing in our Annual Report on [Form 10-K for the year ended December 31, 2024](#) have been audited by Haskell & White LLP, independent registered public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference in reliance upon the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus supplement and the accompanying prospectus are only parts of a registration statement on [Form S-3 \(File No. 333-275452\)](#) that we filed with the SEC under the Securities Act and do not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus supplement or the accompanying prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference in this prospectus supplement and the accompanying prospectus for a copy of such contract, agreement or other document.

We are a public company and file proxy statements, annual, quarterly and special reports and other information with the SEC. The registration statement, such reports and other information can be accessed electronically by means of the SEC's home page on the internet (www.sec.gov).

We make our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports available through our website, free of charge, as soon as reasonably practicable after we file such material with, or furnish it to the SEC. Our website address is www.fennecpharma.com. We have included our website address in this prospectus supplement solely as an inactive textual reference. The information contained on, or that can be accessed through, our website is not part of this prospectus supplement.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to “incorporate by reference” information from other documents that we file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus supplement and the accompanying prospectus. Information contained in this prospectus supplement and the accompanying prospectus and information that we file with the SEC in the future and incorporate by reference in this prospectus supplement and the accompanying prospectus will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings (other than Current Reports on Form 8-K furnished under Item 2.02 or Item 7.01 and exhibits filed on such form that are related to such items) we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of the prospectus supplement and until the termination of this offering:

- our Annual Report on [Form 10-K for the year ended December 31, 2024](#), filed with the SEC on March 26, 2025;
- the information specifically incorporated by reference into our Annual Report on [Form 10-K for the year ended December 31, 2024](#) from our [Definitive Proxy Statement on Schedule 14A, filed with the SEC on April 25, 2025](#);
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2025, June 30, 2025, and September 30, 2025, filed with the SEC on [May 14, 2025](#), [August 14, 2025](#), and [November 13, 2025](#), respectively;
- our Current Reports on Form 8-K filed with the SEC on [February 7, 2025](#), [March 10, 2025](#), [June 3, 2025](#), and November 17, 2025 only to the extent filed and not furnished; and
- the description of our common shares set forth in our registration statement on [Form 8-A filed with the SEC on September 11, 2017](#), including any amendments or reports filed for the purpose of updating such description.

To receive a free copy of any of the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, other than any exhibits, unless the exhibits are specifically incorporated by reference into this prospectus, call or write us at the following address and telephone number:

Fennec Pharmaceuticals Inc.
PO Box 13628
68 TW Alexander Drive
Research Triangle Park, North Carolina 27709
(919) 636-4530

PROSPECTUS

\$90,000,000
Common Shares



Fennec Pharmaceuticals Inc. may offer from time to time up to an aggregate of \$90,000,000 of common shares in one or more offerings.

This prospectus describes the general manner in which these securities may be offered and sold. If necessary, the specific manner in which these securities may be offered and sold will be described in a supplement to this prospectus.

Our common shares are listed on The Nasdaq Capital Market (“NASDAQ”) under the symbol “FENC” and on the Toronto Stock Exchange (“TSX”) under the symbol “FRX.” The last reported sale price of our common shares on NASDAQ on November 6, 2023, was \$7.96 per share.

Investing in our securities involves risks. You should carefully consider the risks described under “Risk Factors” in Item 1A of our most recent Annual Report on Form 10-K and Item 1A of any subsequently filed Quarterly Reports on Form 10-Q (which documents are incorporated by reference herein), as well as the other information contained or incorporated by reference in this prospectus or in any prospectus supplement hereto before making a decision to invest in our securities. See “Where You Can Find More Information” below.

Neither the Securities and Exchange Commission nor any state securities commission or other regulatory body has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is December 15, 2023

TABLE OF CONTENTS

	<u>Page</u>
<u>FORWARD LOOKING STATEMENTS</u>	<u>1</u>
<u>FENNEC PHARMACEUTICALS INC.</u>	<u>2</u>
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	<u>3</u>
<u>INCORPORATION BY REFERENCE</u>	<u>4</u>
<u>RISK FACTORS</u>	<u>5</u>
<u>USE OF PROCEEDS</u>	<u>6</u>
<u>DESCRIPTION OF CAPITAL STOCK</u>	<u>7</u>
<u>CERTAIN ERISA MATTERS</u>	<u>9</u>
<u>PLAN OF DISTRIBUTION</u>	<u>10</u>
<u>LEGAL MATTERS</u>	<u>12</u>
<u>EXPERTS</u>	<u>13</u>

You should rely only on the information contained or incorporated by reference in this prospectus or any supplement to this prospectus. We have not authorized anyone to provide you with different information. We are not making an offer to sell or seeking an offer to buy these securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information contained in this prospectus or any supplement to this prospectus is accurate as of any date other than the date on the front cover of those documents. You should read all information supplementing this prospectus.

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission using a “shelf” registration process. Under the shelf registration process, we may offer from time to time up to an aggregate of \$90,000,000 of common shares in one or more offerings.

This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The 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 the applicable prospectus supplement, you should rely on the information in the prospectus supplement. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to a particular offering. For the securities being sold, the prospectus supplement will include the names of the underwriters, dealers or agents, if any, their compensation, the terms of the offering, and the net proceeds to the Company. The prospectus supplement may also contain additional information about certain United States federal income tax considerations relating to the securities covered by the prospectus supplement. You should read both this prospectus and any prospectus supplement, together with additional information described under the heading “Where You Can Find More Information.”

Unless the context suggests otherwise, references in this prospectus to “Fennec Pharmaceuticals,” the “Company,” “we,” “us” and “our” refer to Fennec Pharmaceuticals Inc. and its consolidated subsidiaries.

FORWARD LOOKING STATEMENTS

This prospectus and the documents we have filed with the SEC that are incorporated by reference in this prospectus 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”). These forward-looking statements may concern possible or anticipated future results of operations or business developments. These statements are based on management’s current expectations or predictions of future conditions, events or results based on various assumptions and management’s estimates of trends and economic factors in the markets in which we are active, as well as our business plans. Words such as “expects”, “anticipates”, “intends”, “plans”, “believes”, “seeks”, “estimates”, “projects”, “forecasts”, “may”, “should”, variations of such words and similar expressions are intended to identify such forward-looking statements. The forward-looking statements may include, without limitation, statements regarding product development, product potential, regulatory environment, sales and marketing strategies, capital resources, operating performance, or sales of common shares pursuant to this offering. Forward-looking statements include, but are not limited to, statements about:

- our expectations regarding the use of our existing capital resources and any proceeds we may receive from the sale of common shares offered under this prospectus;
- our efforts to pursue collaborations with other companies and third parties;
- our ability to maintain regulatory approval of our sole product, PEDMARK[®] (known as PEDMARQSI[®] in the European Union);
- the benefits of the use of PEDMARK[®];
- our ability to successfully commercialize PEDMARK[®];
- the rate and degree of market acceptance of PEDMARK[®];
- our ability to maintain, or recognize the anticipated benefits of, orphan drug designation for PEDMARK[®];
- our ability to protect our intellectual property;
- our corporate and development strategies;
- our expected results of operations;
- our anticipated levels of expenditures;
- the nature and scope of potential markets for PEDMARK[®]; and
- our ability to attract and retain key employees.

The forward-looking statements are not guarantees of future performance, and actual results may differ materially from those projected. The forward-looking statements are representative only as of the date they are made, and we assume no responsibility to update any forward-looking statements except as required by law. The forward-looking statements are subject to risks and uncertainties, which may cause results to differ materially from those set forth in the statements. Forward-looking statements should be evaluated together with the many uncertainties that affect our business and our market, particularly those discussed under the “Risk Factors” section of this prospectus and any accompanying prospectus supplement and under “Risk Factors” in Item 1A of our most recent [Annual Report on Form 10-K for the fiscal year ended December 31, 2022](#), and Item 1A of any subsequently filed Quarterly Reports on Form 10-Q, as such factors may be updated from time to time in our periodic filings with the SEC (which documents are incorporated by reference herein), as well as the other information contained or incorporated by reference in this prospectus.

FENNEC PHARMACEUTICALS INC.

This is only a summary and may not contain all the information that is important to you. You should carefully read both this prospectus and any accompanying prospectus supplement and any other offering materials, together with the additional information described under the heading “Where You Can Find More Information”. Unless otherwise noted, the terms “Fennec Pharmaceuticals”, “the Company,” “we,” “us,” and “our” refer to Fennec Pharmaceuticals Inc. and its wholly-owned subsidiaries.

We are a corporation existing under the laws of British Columbia. We are a commercial-stage biopharmaceutical company focused on our only product, PEDMARK[®]. On September 20, 2022, we received approval from the U.S. Food and Drug Administration (“FDA”) for PEDMARK[®] (sodium thiosulfate injection) to reduce the risk of ototoxicity associated with cisplatin in pediatric patients one month of age and older with localized, non-metastatic solid tumors. This approval makes PEDMARK[®] the first and only treatment approved by the FDA in this area of unmet medical need. On October 17, 2022, we announced commercial availability of PEDMARK[®] in the U.S. In addition, in January 2023, PEDMARK was included in the National Comprehensive Cancer Network (NCCN) clinical practice guidelines for Adolescent and Young Adult (AYA) Oncology with a category 2A recommendation.

In June 2023, we received European Commission Marketing Authorization for PEDMARQSI[™] (known as PEDMARK[®] in the U.S.). Further, the decision included the receipt of a Pediatric Use Marketing Authorization (“PUMA”) in the European Union (“EU”) with up to 10 years of data and market protection. We are currently preparing for an EU launch of PEDMARQSI[™] in 2024.

In the U.S., we sell PEDMARK[®] through an experienced field force including Regional Pediatric Oncology Specialists and medical science liaisons who are helping to educate the medical communities and patients about cisplatin induced ototoxicity and our programs supporting patient access to PEDMARK[®]. Now that we have obtained applicable regulatory approval to sell PEDMARK[®] in the U. S. and authorization from the European Commission Marketing Authorization for PEDMARQSI

During the three and nine months ended September 30, 2023, we incurred a loss from operations of \$1.0 million and \$11.0 million, respectively. At September 30, 2023, we had an accumulated deficit of \$216.6 million and had experienced negative cash flows from operating activities during the nine months ended September 30, 2023 in the amount of \$12.3 million.

Our principal executive offices are located at PO BOX 13628, 68 TW Alexander Drive, Research Triangle Park, NC 27709. Our telephone number is (919) 636-4530. Our website is www.fennecpharma.com. The information contained on, or that can be accessed through, our website is not part of this prospectus.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus supplement is only part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the "SEC") under the Securities Act and does not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference in this prospectus for a copy of such contract, agreement or other document.

We are a public company and file proxy statements, annual, quarterly and special reports and other information with the SEC. The registration statement, such reports and other information can be accessed electronically by means of the SEC's home page on the internet (www.sec.gov).

We make our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports available through our website, free of charge, as soon as reasonably practicable after we file such material with, or furnish it to the SEC. Our website address is www.fennecpharma.com. We have included our website address in this prospectus supplement solely as an inactive textual reference. The information contained on, or that can be accessed through, our website is not part of this prospectus supplement.

INCORPORATION BY REFERENCE

The SEC allows us to “incorporate by reference” information from other documents that we file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. Information contained in this prospectus and information that we file with the SEC in the future and incorporate by reference in this prospectus will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings (other than Current Reports on Form 8-K furnished under Item 2.02 or Item 7.01 and exhibits filed on such form that are related to such items) we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of the prospectus supplement and until the termination of this offering:

- [our Annual Report on Form 10-K for the fiscal year ended December 31, 2022](#) (filed with the SEC on March 29, 2023);
- our Quarterly Reports on Form 10-Q for the quarters ended [March 31, 2023](#) (filed with the SEC on May 12, 2023), [June 30, 2023](#) (filed with the SEC on August 7, 2023), and [September 30, 2023](#) (filed with the SEC on November 9, 2023);
- [our Definitive Proxy Statement on Schedule 14A filed with the SEC on April 28, 2023](#);
- our Current Reports on Form 8-K filed with the SEC on [June 13, 2023](#), [August 4, 2023](#), and [August 7, 2023](#); and
- the description of our common shares set forth in our registration statement on [Form 8-A filed with the SEC on September 11, 2017](#), 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 this prospectus supplement is delivered, upon his or her written or oral request, a copy of any or all documents referred to above which have been or may be incorporated by reference into this prospectus supplement, excluding exhibits to those documents unless they are specifically incorporated by reference into those documents. You can request those documents from the Corporate Secretary, Fennec Pharmaceuticals Inc., PO Box 13628, 68 TW Alexander Drive, Research Triangle Park, North Carolina 27709. You may also contact the Corporate Secretary at (919) 636-4530.

RISK FACTORS

Investing in our common shares involves risks. In deciding whether to invest in our common shares, you should carefully consider the risk factors included in our [Annual Report on Form 10-K for our fiscal year ended December 31, 2022](#), as well as any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K, in addition to the other information contained in this prospectus supplement and the accompanying prospectus and the information incorporated by reference herein and therein. The risks and uncertainties described in our filings with the SEC are not the only ones we face. Additional risks and uncertainties that we are unaware of, or that we currently deem immaterial, also may become important factors that affect us. If any of these risks occur, our business, financial condition or results of operations could be materially and adversely affected. In that case, the value of our common shares and your investment could decline. See “Forward-Looking Statements.”

USE OF PROCEEDS

Unless otherwise indicated in a prospectus supplement, we intend to use the net proceeds from this offering for the continuation of commercialization efforts of PEDMARK[®] in the United States, preparation for commercialization of PEDMARK[®] outside of the United States, and general corporate purposes. We have not allocated the proceeds to these purposes as of the date of this prospectus. Allocation of the proceeds of a particular series of securities, or the principal reasons for the offering, if no allocation has been made, will be described in the applicable prospectus supplement.

DESCRIPTION OF CAPITAL STOCK

The following summary of the terms of our capital stock does not purport to be complete and is subject to and qualified in its entirety by reference to our Articles of Incorporation and our Bylaws, each of which may be further amended from time to time and both of which are incorporated herein by reference.

General

As of November 6, 2023, our authorized capital stock consists of an unlimited number of common shares, no par value per share, of which 26,709,469 common shares were issued and outstanding as of that date.

Common Shares

Pursuant to our Notice of Articles and Articles, as amended, we are authorized to issue an unlimited number of common shares, no par value. Each holder of a Share is entitled to one vote for each common share held on all matters submitted to a vote of shareholders. We have not provided for cumulative voting for the election of directors in our Notice of Articles or Articles, as amended. This means that the holders of a majority of the shares voted can elect all of the directors then standing for election. The holders of outstanding our common shares are entitled to receive dividends out of assets legally available at the times and in the amounts that our board of directors may determine from time to time.

Holders of common shares have no preemptive subscription, redemption or conversion rights or other subscription rights. Upon our liquidation, dissolution or winding-up, the holders of common shares are entitled to share in all assets remaining after payment of all liabilities. The rights of the holders of our common shares are subject to, and may be adversely affected by, the rights of holders of shares of any preferred stock that we may designate and issue in the future. Each outstanding common share is, and all common shares to be issued in this offering, when they are paid for, will be fully paid and non-assessable.

Computershare is the transfer agent for our common shares.

Our common shares are listed on the NASDAQ Capital Market under the symbol “FENC”.

Exchange Controls, Restrictions on Voting or Ownership

There is currently no law, governmental decree or regulation in Canada that restricts the export or import of capital, or which would affect the remittance of dividends, interest or other payments by us to a non-resident holder of our common shares, other than applicable tax requirements.

There is currently no limitation imposed by the laws of Canada or by our Notice of Articles or Articles on the right of a non-resident to hold or vote our common shares, other than those imposed by the *Investment Canada Act* and the *Competition Act* (Canada). These acts will generally not apply except where control of an existing Canadian business or company, which has Canadian assets or revenue over a certain threshold, is acquired and will not apply to trading generally of securities listed on a stock exchange. A reviewable acquisition may not proceed unless the relevant minister is satisfied that the investment is likely to be of net benefit to Canada.

Shareholders' Rights Plan

The Company adopted a shareholder rights plan agreement (the “Rights Plan”) on June 27, 2017. The Rights Plan was adopted to ensure, to the extent possible, that all of our shareholders are treated fairly and equally in connection with any take-over bid or other acquisition of control. Generally stated, the Rights Plan is designed to address this purpose by requiring any potential transaction that will result in a person (an “Acquiring Person”) owning, in the aggregate, 20% or more of our outstanding common shares (inclusive of any common shares held by the Acquirer, its associates and affiliates, and any person acting jointly or in concert with any of them (collectively, the “Acquirer Group”)) to be structured as a formal take-over bid that satisfies certain minimum requirements relating primarily to the manner in which the bid must be made, the minimum number of days the bid must remain open, and the minimum number of shares that must be acquired under the bid. Non-compliant transactions may, through the operation of the Rights Plan and the

rights issued thereunder, result in the Acquirer Group's common share position in us being substantially diluted. Consequentially, the Rights Plan incentivizes the Acquirer to structure its proposed transaction in a manner that complies with the minimum requirements prescribed by the Rights Plan, thereby helping fulfill the purpose of the Rights Plan. One right (a "Right") is issued and attached to each common share. This includes all common shares issued as of the effective date of the Rights Plan and all common shares issued after the effective date of the Rights Plan but prior to the eighth trading day after the earlier of public announcement of a take-over bid (other than a take-over bid that is a permitted bid or a competing permitted bid, as the case may be, under the Rights Plan) or the date upon which a permitted bid or competing permitted bid under the Rights Plan ceases to be such, or such later date as may be determined by our board of directors.

CERTAIN ERISA MATTERS

Unless otherwise indicated in the applicable prospectus supplement, the offered securities may, subject to certain legal restrictions, be held by (i) an “employee benefit plan” (as defined in Section 3(3) of the Employee Retirement Security Act of 1974, as amended (“ERISA”)) that is subject to Title I of ERISA, (ii) a “plan” as defined in, and subject to, Section 4975 of the Code or (iii) a “benefit plan investor” within the meaning of Section 3(42) of ERISA. A fiduciary of any such employee benefit plan, plan, or benefit plan investor must determine that the purchase, holding and disposition of an interest in such offered security is consistent with its fiduciary duties and will not constitute or result in a non-exempt prohibited transaction under Section 406 of ERISA or Section 4975 of the Code.

PLAN OF DISTRIBUTION

We may from time to time offer and sell some or all of the securities covered by this prospectus. Registration of securities covered by this prospectus does not mean, however, that those securities necessarily will be offered or sold.

The securities covered by this prospectus may be sold from time to time, at market prices prevailing at the time of sale, at prices related to market prices, at a fixed price or prices subject to change or at negotiated prices, by a variety of methods including the following:

- on the NASDAQ Capital Market (including through at the market offerings);
- in the over-the-counter market;
- in privately negotiated transactions;
- through broker/dealers, who may act as agents or principals;
- through one or more underwriters on a firm commitment or best-efforts basis;
- in a block trade in which a broker/dealer will attempt to sell a block of securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- through put or call option transactions relating to the securities;
- directly to one or more purchasers;
- through agents; or
- in any combination of the above.

In effecting sales, brokers or dealers engaged by us may arrange for other brokers or dealers to participate. Broker/dealer transactions may include:

- purchases of securities by a broker/dealer as principal and resales of the securities by the broker/dealer for its account pursuant to this prospectus;
- ordinary brokerage transactions; or
- transactions in which the broker/dealer solicits purchasers on a best efforts basis.

No securities covered by this prospectus will be offered or sold in Canada, including through the TSX or any other trading market in Canada, or to or from persons resident in any Province or Territory of Canada or to or from any person acquiring such securities for the benefit of another person resident in any Province or Territory of Canada.

At any time a particular offer of the securities covered by this prospectus is made, a revised prospectus or prospectus supplement, if required, will set forth the aggregate amount of securities covered by this prospectus being offered and the terms of the offering, including the name or names of any underwriters, dealers, brokers or agents. In addition, to the extent required, any discounts, commissions, concessions and other items constituting underwriters' or agents' compensation, as well as any discounts, commissions or concessions allowed or reallocated or paid to dealers, will be set forth in such revised prospectus supplement. Any such required prospectus supplement, and, if necessary, a post-effective amendment to the Registration Statement of which this prospectus is a part, will be filed with the SEC to reflect the disclosure of additional information with respect to the distribution of the securities covered by this prospectus.

To the extent required, the applicable prospectus supplement will set forth whether or not underwriters may over-allot or effect transactions that stabilize, maintain or otherwise affect the market price of the securities at levels above those that might otherwise prevail in the open market, including, for example, by entering stabilizing bids, effecting syndicate covering transactions or imposing penalty bids.

If we utilize a dealer in the sale of the securities being offered pursuant to this prospectus, we 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.

We may also 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 revised prospectus or prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The conditions to these contracts and the commission that we must pay for solicitation of these contracts will be described in a revised prospectus or prospectus supplement.

In connection with the sale of the securities covered by this prospectus through underwriters, underwriters may receive compensation in the form of underwriting discounts or commissions and may also receive commissions from purchasers of securities for whom they may act as agent. Underwriters may sell to or through dealers, and such dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters and/or commissions from the purchasers for whom they may act as agent.

Any underwriters, broker/dealers or agents participating in the distribution of the securities covered by this prospectus may be deemed to be “underwriters” within the meaning of the Securities Act, and any commissions received by any of those underwriters, broker/dealers or agents may be deemed to be underwriting commissions under the Securities Act.

We may agree to indemnify underwriters, broker/dealers or agents against certain liabilities, including liabilities under the Securities Act, and may also agree to contribute to payments which the underwriters, broker/dealers or agents may be required to make.

Certain of the underwriters, broker/dealers or agents who may become involved in the sale of the securities may engage in transactions with and perform other services for us in the ordinary course of their business for which they receive customary compensation.

Some or all of the securities may be new issues of securities with no established trading market. Any underwriters that purchase the securities for public offering and sale may make a market in such securities, but such underwriters will not be obligated to do so and may discontinue any market making at any time without notice. We make no assurance as to the liquidity of or the trading markets for any securities.

LEGAL MATTERS

The validity of the securities offered hereby will be passed upon for us LaBarge Weinstein LLP, Ottawa, Ontario. Underwriters, dealers or agents, if any, who we identify in a prospectus supplement may have their own counsel pass upon certain legal matters in connection with the common shares offered under this prospectus.

EXPERTS

The consolidated financial statements of Fennec Pharmaceuticals Inc. as of December 31, 2022 and 2021, and for each of the years then ended, appearing in our [Annual Report on Form 10-K for the fiscal year ended December 31, 2022](#), have been audited by Haskell & White LLP, independent registered public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference in reliance upon the authority of said firm as experts in accounting and auditing.



FENNEC PHARMACEUTICALS INC.

670,000 Common Shares

PROSPECTUS SUPPLEMENT

November 18, 2025
