The information in this preliminary prospectus supplement is not complete and may be changed. The registration statement relating to these securities has been declared effective by the Securities and Exchange Commission. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities, and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to completion, dated December 4, 2023

Prospectus Supplement (To prospectus dated October 30, 2023)

\$175,000,000

EyePoint Pharmaceuticals, Inc.



Common Stock

We are offering \$175,000,000 million of shares of our common stock, par value \$0.001 per share, at a public offering price of \$ per share of common stock.

Our common stock is listed on The Nasdaq Global Market under the symbol "EYPT." On December 1, 2023, the closing price of our common stock, as reported on The Nasdaq Global Market, was \$6.61 per share.

	Per Share	Total
Public offering price	\$	\$
Underwriting discounts and commissions(1)	\$	\$
Proceeds to EyePoint Pharmaceuticals, Inc., before expenses	\$	\$

(1) See "Underwriting" beginning on page S-21 of this prospectus supplement for additional information regarding total underwriting compensation.

We have granted the underwriters an option for a period of 30 days to purchase up to an additional \$26,250,000 of shares of our common stock at the public offering price, less the underwriting discounts and commissions.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties referenced under the heading "*Risk Factors*" on page S-7 of this prospectus supplement, page 6 of the accompanying prospectus and in the documents that are incorporated herein by reference.

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.

The underwriters expect to deliver the shares of common stock against payment on or about December , 2023.

J.P. Morgan

TD Cowen

Guggenheim Securities

December , 2023.

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Table of contents

Prospectus supplement

About this prospectus supplement	S-1
Prospectus supplement summary	S-3
The offering	S-5
Risk factors	S-7
Note regarding forward-looking statements	S-10
<u>Use of proceeds</u>	S-13
Dilution	S-14
Material U.S. Federal Income Tax Consequences To Non-U.S. Holders	S-16
Underwriting	S-21
Legal matters	S-34
Experts	S-34
Where you can find more information	S-34
Incorporation of certain information by reference	S-35
Prospectus	
About this prospectus	ii
Forward to a bin a state as ante	4

Forward-looking statements	I
Market, industry and other data	4
<u>Summary</u>	5
Risk factors	6
Use of proceeds	7
Plan of distribution	8
General description of our securities	11
Description of our common stock	12
Description of our preferred stock	16
Description of our warrants	18
Description of our debt securities	20
Description of our units	25
Where you can find more information	26
Incorporation by reference	27
Legal matters	28
Experts	29
i	
•	

About this prospectus supplement

This prospectus supplement and the accompanying prospectus are part of a "shelf" registration statement on Form S-3 (File No. 333-275125) that we initially filed with the SEC on October 20, 2023, and that was declared effective by the SEC on October 30, 2023. Under the shelf registration statement process, we may from time to time offer and sell any combination of the securities described in the accompanying prospectus up to a total dollar amount of \$350 million under the registration statement, of which this prospectus forms a part.

This document is in 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 herein or therein. The second part, the accompanying prospectus, including the documents incorporated by reference into the accompanying prospectus, provides more general information. 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 and the information contained in the accompanying prospectus or any document incorporated by reference herein or therein filed prior to the date of this prospectus supplement, you should rely on the information in this prospectus supplement; provided that 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.

Neither we nor the underwriters have authorized anyone to provide information different from that contained in this prospectus supplement, the accompanying prospectus and any free writing prospectus that we have authorized for use in this offering. If anyone provides you with different or inconsistent information, you should not rely on it. Neither we nor the underwriters take any responsibility for, and can provide no assurance as to the reliability of, any other information that others may provide. Neither the delivery of this prospectus supplement, the accompanying prospectus and any free writing prospectus that we have authorized for use in this offering, nor the sale of our common stock means that information contained in this prospectus supplement, the accompanying prospectus and any free writing prospectus that we have authorized for use in this offering, is correct after their respective dates. It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus, including the information incorporated by reference into this prospectus supplement, the accompanying prospectus that we have authorized for use in this offering in making your investment decision.

This prospectus supplement does not contain all of the information that is important to you. You should also read and consider the information in the documents to which we have referred you in the sections entitled "Where You Can Find More Information" and "Incorporation of Certain Information by Reference" in this prospectus supplement. You should rely only on the information contained or incorporated by reference in this document. You should assume that the information in this prospectus supplement and the accompanying prospectus, as well as the information we have filed with the SEC and incorporated by reference in this document, is accurate only as of its date or the date which is specified in those documents.

We are offering to sell, and seeking offers to buy, and the underwriters are soliciting offers to buy, these securities only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of the securities in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus relating to, the offering of the securities 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.

This prospectus supplement and the information incorporated herein by reference include trademarks, service marks and trade names owned by us or other companies. DEXYCU[®], DURASERT[®] and DURASERT E[™] are our trademarks. Retisert[®] and Vitrasert[®] are Bausch & Lomb's trademarks. ILUVIEN[®] is Alimera Sciences, Inc.'s trademark. YUTIQ[®] was assigned to Alimera Sciences, Inc. in certain jurisdictions pursuant to a product rights agreement in May 2023. YUTIQ[®] was licensed to Ocumension in other jurisdictions pursuant to a license agreement with Ocumension in November 2018. Verisome[®] is a trademark owned by Ramscor, Inc. and exclusively licensed to us. All trademarks, service marks and trade names included or incorporated by reference herein are the property of their respective owners.

Unless the context otherwise requires, in this prospectus supplement the "Company," "we," "us," "our" and similar names refer to EyePoint Pharmaceuticals, Inc. and its subsidiaries.

Prospectus supplement summary

This summary highlights certain information about us, this offering and selected information contained elsewhere in or incorporated by reference into this prospectus supplement and the accompanying prospectus. This summary is not complete and does not contain all of the information that you should consider before deciding whether to invest in our securities. For a more complete understanding of EyePoint and this offering, we encourage you to read and consider carefully the more detailed information in this prospectus supplement and the accompanying prospectus, including the information incorporated by reference in this prospectus supplement and the accompanying prospectus, including the information incorporated by reference in this prospectus supplement and the accompanying prospectus, and the information included in any free writing prospectus that we have authorized for use in connection with this offering, including the information referred to under the heading "Risk Factors" in this prospectus supplement beginning on page S-7 and under similar headings in our public filings incorporated by reference herein, including, without limitation, our Annual Report on Form 10-K for the year ended December 31, 2022 and our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2023.

Our Company

We are a company committed to developing and commercializing innovative therapeutics to help improve the lives of patients with retinal diseases. Our pipeline leverages our proprietary erodible DURASERT E[™] technology for sustained intraocular drug delivery including EYP-1901, an investigational treatment delivering vorolanib, currently in Phase 2 clinical trials for wet age-related macular degeneration, or Wet AMD the leading cause of vision loss among people 50 years of age and older in the United States, and non-proliferative diabetic retinopathy, or NPDR. We are also advancing EYP-2301 into pre-clinical development delivering razuprotafib in Durasert E for the potential treatment of diabetic eye diseases.

Recent Developments

On December 4, 2023, we announced positive topline results from our Phase 2 DAVIO 2 trial of EYP-1901, an investigational sustained delivery maintenance treatment for wet AMD combining vorolanib, a selective tyrosine kinase inhibitor with bioerodible Durasert E[™]. The clinical trial met its primary endpoint with both EYP-1901 doses demonstrating statistical non-inferiority change in best corrected visual acuity, or BCVA, compared to aflibercept control and a favorable safety profile with no EYP-1901-related ocular or systemic serious adverse events, or SAEs. The trial also achieved key secondary endpoints with both EYP-1901 doses, including an over 80% reduction in treatment burden, nearly two-thirds of eyes supplement-free up to six months and over 80% receiving only zero or one supplement up to six-months. Additionally, there was strong anatomical control with both EYP-1901 cohorts as measured by optical coherence tomography, or OCT.

DAVIO 2 topline interim results included:

- Both EYP-1901 doses (2mg and 3mg) achieved all primary and secondary endpoints.
- Statistical non-inferiority in change in BCVA (at a confidence interval of 95%) compared to aflibercept control, at weeks 28 and weeks 32 combined. The 2mg and 3mg doses were only -0.3 and -0.4 letters different, respectively, versus on-label aflibercept. The lower limit of the non-inferiority margin is defined as a -4.5 letters by the FDA with 5 letters representing one line on the eye chart.
- Continued positive safety and tolerability profile with no EYP-1901-related ocular or systemic SAEs.
- 89% and 85% reduction in treatment burden, respectively, for the 2mg and 3mg EYP-1901 doses.

- 65% and 64% of eyes were supplement free up to six-months, respectively, for the 2mg and 3mg doses of EYP-1901.
- Both EYP-1901 doses demonstrated strong anatomic control with OCT difference below 10 microns at week 32 compared to the aflibercept control.
- · Patient discontinuation up to week 32 was low at 4%.

DAVIO 2 is a randomized, controlled Phase 2 clinical trial of EYP-1901 in previously treated patients with wet AMD. Originally designed to enroll 144 patients, the trial enrolled 160 patients in total due to strong investigator and patient interest. All enrolled patients were previously treated with a standard-of-care anti-VEGF therapy and were randomly assigned to one of two doses of EYP-1901 (approximately 2 mg or 3 mg) or an aflibercept control. EYP-1901 is delivered with a single intravitreal injection in the physician's office, similar to current FDA approved anti-VEGF treatments. The primary non-inferiority efficacy endpoint is change in BCVA compared to the aflibercept control, approximately six-months after the EYP-1901 injection. Secondary endpoints include safety, change in CST as measured by OCT, the number of eyes that remain free of supplemental anti-VEGF injections, and number of aflibercept injections in each group.

We plan to present the DAVIO 2 dataset at Angiogenesis, Exudation, and Degeneration 2024 in February 2024.

We remain on track to reach additional clinical milestones with EYP-1901 with the initiation of the Phase 2 VERONA trial in diabetic macular edema, or DME, anticipated in the first quarter of 2024 and the readout of topline data from the Phase 2 PAVIA trial in NPDR, anticipated in the second quarter of 2024.

Corporate Information

We were incorporated under the laws of the state of Delaware on March 19, 2008 under the name New pSivida, Inc.; our predecessor, pSivida Limited, was formed in December 2000 as an Australian company incorporated in Western Australia. We subsequently changed our name to pSivida Corp. in May 2008 and again to EyePoint Pharmaceuticals, Inc. in March 2018. Our principal executive office (and mailing address) is located at 480 Pleasant Street, Suite B300, Watertown, MA 02472, and our telephone number is (617) 926-5000. Our corporate website is www.eyepointpharma.com. We make available free of charge on our website our annual, quarterly and current reports, including amendments to such reports, as soon as reasonably practicable after we electronically file such material with, or furnish such material to, the SEC. Information contained on our website is not incorporated by reference into this prospectus supplement or the accompanying prospectus, and you should not consider information contained on our website as part of this prospectus supplement or the accompanying prospectus.

The offering	
Common stock offered by us	\$175,000,000 million of shares of our common stock (or \$201,250,000 million of shares of our common stock if the underwriters exercise their option to purchase additional shares of our common stock in full).
Option to purchase additional shares	We have granted the underwriters an option, exercisable for 30 days from the date of the final prospectus supplement, to purchase up to an additional \$26,250,000 million of shares of our common stock from us at the public offering price, less underwriting discounts and commissions.
Common stock to be outstanding immediately after this offering	shares (or shares if the underwriters exercise their option to purchase additional shares of our common stock in full).
Use of Proceeds	We estimate that our net proceeds from this offering will be approximately \$million, or million if the option to purchase additional shares is exercised in full by the underwriters, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.
	We intend to use the net proceeds from this offering to advance clinical development of EYP-1901 for wet age macular degeneration, through the initiation of and reporting of topline data from two pivotal Phase 3 clinical trials, as well as support our earlier stage pipeline development initiatives, and for general corporate purposes. See "Use of Proceeds."
Risk Factors	An investment in our securities involves a high degree of risk. See "Risk Factors" beginning on page S-7 of this prospectus supplement, and under similar headings in other documents filed after the date hereof and incorporated by reference into this prospectus supplement and the accompanying prospectus.
Nasdaq Global Market symbol	"EYPT"

The number of shares of our common stock to be outstanding after this offering is based on 35,309,432 shares of our common stock outstanding as of September 30, 2023. Unless specifically stated otherwise, the information in this prospectus supplement is as of September 30, 2023, and excludes:

- 6,340,662 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2023 at a weighted-average exercise price of \$10.00 per share;
- 1,333,742 shares of common stock underlying our restricted stock units outstanding as of September 30, 2023;
- 2,401,051 shares of our common stock available for future issuance under our 2023 Long-Term Incentive Plan, or the 2023 Plan, as of September 30, 2023;
- 48,683 shares of our common stock issuable upon the exercise of warrants outstanding as of September 30, 2023 at a weighted average exercise price of \$12.33 per share;

- 3,272,727 shares of our common stock issuable upon the exercise of pre-funded warrants outstanding as of September 30, 2023 at an exercise price of \$0.01 per share;
- 128,095 shares of our common stock reserved for future issuance under our 2019 Employee Stock Purchase Plan, or the 2019 ESPP, as of September 30, 2023; and
- Up to \$40,026,143 of shares of our common stock that may be sold from time to time pursuant to that certain Controlled Equity OfferingSM Sales Agreement, dated August 5, 2020, with Cantor Fitzgerald & Co, or the Sales Agreement.

Unless otherwise indicated, all information in this prospectus supplement reflects or assumes the following:

- No exercise or forfeiture of any outstanding options, pre-funded warrants or warrants or settlement of restricted stock units since September 30, 2023;
- 120,000 shares of our common stock underlying equity awards granted since September 30, 2023; and
- · No exercise by the underwriters of their option to purchase additional shares of our common stock.

Risk factors

Investing in our securities involves a high degree of risk. Before investing in our securities, you should carefully consider the risks described below, together with all of the other information contained in this prospectus supplement and the accompanying prospectus and incorporated by reference herein and therein, including from our Annual Report on Form 10-K for the year ended December 31, 2022, as well as any amendment or update to our risk factors reflected in subsequent filings with the SEC. Some of these factors relate principally to our business and the industry in which we operate. Other factors relate principally to your investment in our securities. The risks and uncertainties described therein and below are not the only risks facing us. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also materially and adversely affect our business and operations.

If any of the matters included in the following risks were to occur, our business, financial condition, results of operations, cash flows or prospects could be materially and adversely affected. In such case, you may lose all or part of your investment.

Risks Related to this Offering

You will experience immediate and substantial dilution if you purchase our securities in this offering.

Since the price per share of our common stock being offered is substantially higher than the net tangible book value per share of our common stock, you will suffer substantial dilution with respect to the shares of common stock you purchase in this offering. Our net tangible book value as of September 30, 2023 was approximately \$58.6 million, or \$1.66 per share of our common stock, based on 35,309,432 shares of our common stock outstanding on September 30, 2023.

Based on the public offering price of \$ per share of our common stock, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2023, would have been approximately \$ million, or approximately \$ per share of our common stock. As a result, investors purchasing shares of common stock in this offering will incur immediate dilution of \$ per share. As a result of the dilution to investors purchasing shares in this offering, investors may receive significantly less than the purchase price paid in this offering, if anything, in the event of our liquidation. See "Dilution" on page S-14 of this prospectus supplement for a more detailed discussion of the dilution you will incur if you purchase shares of our common stock in this offering.

In addition, as of September 30, 2023, we had outstanding options to acquire approximately 6,340,662 shares of our common stock at a weighted-average exercise price of \$10.00 per share, outstanding restricted stock units to acquire 1,333,742 shares of our common stock, pre-funded warrants to acquire 3,272,727 shares of our common stock at an exercise price of 0.01 and warrants to acquire 48,683 shares of our common stock at a weighted average exercise price of \$12.33. The issuance of shares of our common stock upon exercise of the stock options, pre-funded warrants or warrants or the settlement of the restricted stock units could result in dilution to the interests of other holders of our common stock and could adversely affect our stock price.

Substantial future sales or other issuances of our common stock could depress the market for our common stock.

Sales of a substantial number of shares of our common stock, or the perception by the market that those sales could occur, could cause the market price of our common stock to decline or could make it more difficult for us to raise funds through the sale of equity in the future.



In connection with this offering, we and our directors, executive officers and Ocumension Therapeutics, one of our significant stockholders, have entered into lock-up agreements for a period of 60 days (or 30 days, in the case of Ocumension Therapeutics,) following this offering. We and our directors, executive officers and Ocumension Therapeutics, may be released from such lock-up agreements prior to the expiration of the lock-up period at the sole discretion of J.P. Morgan Securities LLC (See "Underwriting" beginning on page S-21 of this prospectus supplement). Upon expiration or earlier release of the lock-up, we and our directors, executive officers and Ocumension Therapeutics, may sell shares into the market, which could adversely affect the market price of shares of our common stock.

We have previously entered into the Sales Agreement, pursuant to which, from time to time, we may offer and sell shares of our common stock with an aggregate offering price of up to \$50,000,000 under an "at-the-market" offering program. As of the date of this prospectus supplement, we have common stock that we may issue and sell for gross proceeds of up to \$40,026,143 million that remain available under our at-the-market offering program. To the extent that we sell shares of our common stock pursuant to our at-the-market offering program, investors purchasing shares of common stock in this offering could experience further dilution.

In addition, certain of our employees, executive officers, and directors have entered or may enter into Rule 10b5-1 trading plans providing for sales of shares of our common stock from time to time. Under a Rule 10b5-1 trading plan, a broker executes trades pursuant to parameters established by the employee, director, or officer when entering into the plan, without further direction from the employee, officer, or director. A Rule 10b5-1 trading plan may be amended or terminated in some circumstances. Our employees, executive officers, and directors also may buy or sell additional shares outside of a Rule 10b5-1 trading plan when they are not in possession of material, nonpublic information, subject to the expiration of the lock-up agreements, if applicable, described in "Underwriting."

In particular, during the lock-up period, sales of shares of common stock held by our executive officers and directors permitted under Rule 10b5-1 trading plans that have been entered into prior to the date of this prospectus supplement are considered exceptions to the restrictions set forth in the lock-up agreements, and a significant number of shares of our common stock could be sold by our officers and directors under Rule 10b5-1 trading plans during the lock-up period. Furthermore, the lock-up agreements also include other exceptions for shares sold by our executive officers and directors. Such sales of shares into the market, including during the lock-up period, could adversely affect the market price of shares of our common stock. See "Underwriting."

Future issuances of our common stock or our other equity securities could further depress the market for our common stock. We expect to continue to incur commercialization, drug development and selling, general and administrative costs, and to satisfy our funding requirements, we may need to sell additional equity securities. The sale or the proposed sale of substantial amounts of our common stock or our other equity securities may adversely affect the market price of our common stock and our stock price may decline substantially. Our stockholders may experience substantial dilution and a reduction in the price that they are able to obtain upon sale of their shares. New equity securities issued may have greater rights, preferences or privileges than our existing common stock.

We have broad discretion in the use of the net proceeds from this offering and, despite our efforts, we may use such net proceeds in a manner that does not increase the value of your investment.

We currently intend to use the net proceeds from this offering to advance clinical development of EYP-1901 for wet AMD, through the initiation of and reporting of topline data from two pivotal Phase 3 clinical trials, as well as support our earlier stage pipeline development initiatives, and for general corporate purposes, as described in "Use of Proceeds." However, we have not determined the specific allocation of the net proceeds among these potential uses. Our management will have broad discretion over the use and investment of the net proceeds from this offering, and, accordingly, investors in this offering will need to rely upon the judgment of our

management with respect to the use of proceeds, with only limited information concerning our specific intentions. These proceeds could be applied in ways that do not improve our operating results or increase the value of your investment. See the section entitled "Use of Proceeds" on page S-13 of this prospectus supplement for further information about the use of proceeds.

We do not currently intend to pay dividends on our common stock, and any return to investors is expected to come, if at all, only from potential increases in the price of our common stock.

We have never declared or paid cash dividends on our capital stock, and you should not rely on an investment in our common stock to provide dividend income. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

The trading price of the shares of our common stock could be highly volatile, and purchasers of our common stock could incur substantial losses.

The price of our common stock is highly volatile and may be affected by developments directly affecting our business, as well as by developments out of our control or not specific to us. The pharmaceutical and biotechnology industries, in particular, and the stock market generally, are vulnerable to abrupt changes in investor sentiment. Prices of securities and trading volumes of companies in the pharmaceutical and biotechnology industries, including ours, can swing dramatically in ways unrelated to, or that bear a disproportionate relationship to, our performance. This volatility may affect the price at which you could sell the shares of our common stock, and the sale of substantial amounts of our common stock could adversely affect the price of our common stock. Our stock price is likely to continue to be volatile and subject to significant price and volume fluctuations in response to market and other factors, including those described in the sections captioned "Risk factors" in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein.

As a result, you may not be able to sell your shares of common stock at or above the price at which you purchase them. In addition, the stock market in general, and The Nasdaq Global Market and the stock of pharmaceutical and bio pharmaceutical companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of our common stock, regardless of our actual operating performance.

Note regarding forward-looking statements

Various statements made in this prospectus supplement and in the documents incorporated by reference herein are forward-looking and involve risks and uncertainties. All statements that address activities, events or developments that we intend, expect or believe may occur in the future are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Such statements give our current expectations or forecasts of future events and are not statements of historical or current facts. These statements include, among others, statements about:

- the potential for EYP-1901, as an investigational sustained delivery intravitreal treatment deploying an erodible Durasert E insert of vorolanib, a selective and patented tyrosine kinase inhibitor (TKI) targeting wet AMD, NPDR and DME;
- our expectations regarding the timing and outcome of our ongoing clinical trials for EYP-1901 for the treatment of wet AMD, and NPDR;
- our expectations regarding the timing and clinical development of our product candidates, including EYP-1901 and EYP-2301;
- · our strategic alliances with other companies;
- our ability to manufacture YUTIQ, EYP-1901 or any future products or product candidates, in sufficient quantities and quality;
- our belief that our cash, cash equivalents, and investments in marketable securities of \$136.0 million at September 30, 2023 will fund
 our operating plan into 2025 under current expectations regarding the timing and outcomes of our clinical trials for EYP-1901;
- our ability to obtain additional capital in sufficient amounts and on terms acceptable to us, and the consequences of failing to do so;
- · our future expenses and capital expenditures;
- our expectations regarding the timing and results of the subpoena from the U.S. Attorney's Office for the District of Massachusetts seeking production of documents related to sales, marketing and promotional practices (DOJ Subpoena), including as pertain to DEXYCU;
- our expectations regarding our ability to obtain and adequately maintain sufficient intellectual property protection for EYP-1901 and any
 future products or product candidates, and to avoid claims of infringement of third-party intellectual property rights;
- risks associated with global economic conditions, including inflation and rising interest rates, or uncertainty caused by geopolitical violence and unrest, including the ongoing conflicts between Ukraine and Russia, and Israel and Hamas;
- risks associated with the COVID-19 pandemic or other public health crises, which may adversely impact our workforce, global supply chain, business, clinical trials and financial results;
- the potential to receive future payments from Alimera pursuant to our May 2023 sale and license agreement with Alimera;

- our expectation that we will continue to incur significant expenses and that our operating losses and our net cash outflows to fund operations will continue for the foreseeable future;
- · the effect of legal and regulatory developments; and
- our use of proceeds from this offering.

Forward-looking statements also include statements other than statements of current or historical fact, including, without limitation, all statements related to any expectations of revenues, expenses, cash flows, earnings or losses from operations, cash required to maintain current and planned operations, capital or other financial items; any statements of the plans, strategies and objectives of management for future operations; any plans or expectations with respect to product research, development and commercialization, including regulatory approvals; any other statements of expectations, plans, intentions or beliefs; and any statements of assumptions underlying any of the foregoing. We often, although not always, identify forward-looking statements by using words or phrases such as "likely", "expect", "intend", "anticipate", "believe", "estimate", "plan", "project", "forecast" and "outlook".

The following are some of the factors that could cause actual results to differ materially from the anticipated results or other expectations expressed, anticipated or implied in our forward-looking statements:

- our ability to realize the anticipated operational benefits and future cash flow from the May 2023 sale of YUTIQ[®] to Alimera Sciences, Inc. (Alimera);
- · the sufficiency of our existing cash resources into 2025;
- · our access to needed capital;
- our ability to manufacture YUTIQ in sufficient quantities pursuant to our commercial supply agreements with Alimera and Ocumension Therapeutics (Ocumension);
- the effectiveness and timeliness of our preclinical studies and clinical trials, and the usefulness of the data;
- our expectations regarding the timing and clinical development of our product candidates, including EYP-1901 and EYP-2301, and the
 potential for EYP-1901 as a sustained delivery treatment for serious eye diseases, including wet AMD, NPDR and DME;
- · fluctuations in our operating results;
- · the duration, scope and outcome of any governmental inquiries or investigations;
- the extent to which the global economic conditions, uncertainty caused by geopolitical violence and unrest and public health crises impact our business, the medical community and the global economy;
- the success of current and future license and collaboration agreements, including our agreements with Alimera, Ocumension, Equinox Science, LLC (Equinox) and Betta Pharmaceuticals Co., Ltd. (Betta);
- · our dependence on contract research organizations, vendors and investigators;
- · effects of competition and other developments affecting sales of products;
- market acceptance of our products;
- · protection of intellectual property and avoiding intellectual property infringement;
- product liability; and
- other factors described in our filings with the SEC.

We cannot guarantee that the results and other expectations expressed, anticipated or implied in any forward-looking statement will be realized. The risks set forth under Item 1A of our Annual Report on Form 10-K for the fiscal year ended December 31, 2022 and any other risks set forth under Item 1A of our Quarterly Reports on Form 10-Q and other documents we file with the SEC describe the material risks to our business, and you should read and interpret any forward-looking statements together with these risks. A variety of factors, including these risks, could cause our actual results and other expectations to differ materially from the anticipated results or other expectations expressed, anticipated or implied in our forward-looking statements. You should read and interpret any forward-looking statements in light of these risks. Should known or unknown risks materialize, or should underlying assumptions prove inaccurate, actual results could differ materially from past results and those anticipated, estimated or projected in the forward-looking statements. You should bear this in mind as you consider any forward-looking statements.

Our forward-looking statements speak only as of the dates on which they are made. We do not undertake any obligation to publicly update or revise our forward-looking statements even if experience or future changes makes it clear that any projected results expressed or implied in such statements will not be realized.

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus supplement, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

Before deciding to purchase our securities, you should carefully consider the risk factors discussed and incorporated by reference in this prospectus supplement and the accompanying prospectus and in the registration statement of which this prospectus supplement and the accompanying prospectus form a part.

Use of proceeds

We estimate that the net proceeds from this offering, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately \$ million (or approximately \$ if the underwriters exercise their option to purchase additional shares in full).

We currently intend to use the net proceeds from this offering to advance clinical development of EYP-1901 for wet AMD, through the initiation of and reporting of topline data from two pivotal Phase 3 clinical trials, as well as support our earlier stage pipeline development initiatives, and for general corporate purposes.

Based on our current plans, we believe our existing cash, cash equivalents and marketable securities, together with the net proceeds from this offering, will be sufficient to fund our operating expenses and capital expenditure requirements into 2026. We have based these estimates on assumptions that may prove to be incorrect, and we could use our available capital resources sooner than we currently expect. In any event, we may require additional funding to be able to continue to advance our research and development pipeline, support our commercialization activities, or conduct additional business development activities. We may satisfy our future cash needs through the sale of equity securities, debt financings, working capital lines of credit, corporate collaborations or license agreements, grant funding, interest income earned on invested cash balances or a combination of one or more of these sources.

The amounts and timing of our use of the net proceeds from this offering will depend on a number of factors, such as the timing and progress of our commercialization efforts, research and development efforts, the timing and progress of any partnering efforts, technological advances, the effect of the Pandemic on our business and the competitive environment for our products. As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses for the net proceeds from the sale of the securities offered by us hereunder. Accordingly, our management will have broad discretion in the timing and application of these proceeds. Pending application of the net proceeds as described above, we intend to temporarily invest the proceeds in short-term, interest-bearing instruments.

Dilution

Purchasers of our common stock in this offering will experience immediate dilution to the extent of the difference between the public offering price per share of our common stock, and the as adjusted net tangible book value per share of our common stock immediately after this offering.

We calculate net tangible book value per share by dividing our net tangible book value, which is tangible assets less total liabilities, by the number of outstanding shares of our common stock.

Our net tangible book value as of September 30, 2023 was approximately \$58.6 million, or \$1.66 per share of our common stock.

Dilution per share to new investors represents the difference between the amount per share paid by purchasers of our common stock in this offering and the as adjusted net tangible book value per share of our common stock immediately following the completion of this offering.

After giving effect to the sale of shares of our common stock in this offering at the public offering price of \$ per share, and after deducting the underwriting discounts and commissions and the estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2023 would have been approximately \$, or approximately \$ per share of our common stock. This represents an immediate increase in net tangible book value of \$ per share of our common stock to our existing stockholders and an immediate dilution in net tangible book value of \$ per share of our common stock in this offering.

The following table illustrates this calculation on a per share basis:

Offering price per share in this offering	\$	
Net tangible book value per share as of September 30, 2023	\$1.66	
Increase in net tangible book value per share attributable to purchasers in this offering	\$	
As adjusted net tangible book value per share immediately after this offering	\$	
Dilution per share to purchasers in this offering	\$	

The above table is based on 35,309,432 shares of our common stock outstanding as of September 30, 2023, and excludes:

- 6,340,662 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2023 at a weighted-average exercise price of \$10.00 per share;
- 1,333,742 shares of common stock underlying our restricted stock units outstanding as of September 30, 2023;
- 2,401,051 shares of our common stock available for future issuance under the 2023 Plan as of September 30, 2023;
- 48,683 shares of our common stock issuable upon the exercise of warrants outstanding as of September 30, 2023 at a weighted average exercise price of \$12.33 per share;
- 3,272,727 shares of our common stock issuable upon the exercise of pre-funded warrants outstanding as of September 30, 2023 at an
 exercise price of \$0.01 per share;
- 128,095 shares of our common stock reserved for future issuance under the 2019 ESPP as of September 30, 2023; and

• Up to \$40,026,143 of shares of our common stock that may be sold from time to time pursuant to the Sales Agreement.

Unless otherwise indicated, all information in this prospectus supplement reflects or assumes the following:

- No exercise or forfeiture of any outstanding options, pre-funded warrants or warrants or settlement of restricted stock units since September 30, 2023;
- 120,000 shares of our common stock underlying equity awards granted since September 30, 2023; and
- No exercise by the underwriters of their option to purchase additional shares of our common stock.

If the underwriters exercise in full their option to purchase up to additional shares of our common stock at the public offering price of \$ per share, the as adjusted net tangible book value after this offering would be \$ per share, representing an increase in net tangible book value of \$ per share to existing stockholders and immediate dilution in net tangible book value of \$ per share to investors purchasing our common stock in this offering at the public offering price.

To the extent that options, pre-funded warrants or warrants are exercised, other equity awards vest and settle, new equity awards are issued under our equity incentive plans or pursuant to inducement awards, new shares are issued under the 2019 ESPP, or we issue additional shares of common stock in the future, there may be further dilution to investors participating in this offering. In addition, we may choose to raise additional capital because of market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans. If we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

Material U.S. federal income tax consequences to non-U.S. holders

The following discussion is a summary of the material U.S. federal income tax consequences of the purchase, ownership and disposition of shares of our common stock issued pursuant to this offering by non-U.S. holders (as defined below), but does not purport to be a complete analysis of all potential tax effects. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local or foreign tax laws are not discussed. This discussion is based on the Internal Revenue Code of 1986, as amended, or the Code, Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the U.S. Internal Revenue Service, or IRS, in effect as of the date of this offering. These authorities may change or be subject to differing interpretations. Any such change or differing interpretation may be applied retroactively in a manner that could adversely affect a holder of our common stock. We have not sought and will not seek any rulings from the IRS regarding the matters discussed below. There can be no assurance the IRS or a court will not take a contrary position regarding the tax consequences of the purchase, ownership and disposition of our common stock.

This discussion is limited to holders that hold our common stock as a "capital asset" within the meaning of Section 1221 of the Code (property held for investment). This discussion does not address all U.S. federal income tax consequences relevant to a holder's particular circumstances, including the impact of the alternative minimum tax or the unearned income Medicare contribution tax. In addition, it does not address consequences relevant to holders subject to particular rules, including, without limitation:

- U.S. expatriates and certain former citizens or long-term residents of the U.S.;
- persons holding our common stock as part of a hedge, straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- · banks, insurance companies, and other financial institutions;
- · brokers, dealers or traders in securities;
- controlled foreign corporations, "passive foreign investment companies," and corporations that accumulate earnings to avoid U.S. federal income tax;
- · partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- · tax-exempt organizations or governmental organizations;
- · persons deemed to sell our common stock under the constructive sale provisions of the Code;
- · persons for whom our stock constitutes "qualified small business stock" within the meaning of Section 1202 of the Code;
- · persons who hold or receive our common stock pursuant to the exercise of any employee stock option or otherwise as compensation;
- · tax-qualified retirement plans; and
- "qualified foreign pension funds" as defined in Section 897(L)(2) of the Code and entities, all of the interests of which are held by qualified foreign pension funds.

If a partnership (or other entity treated as a partnership for U.S. federal income tax purposes) holds our common stock, the tax treatment of a partner in the partnership will depend on the status of the partner, the

activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding our common stock and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

THIS DISCUSSION IS FOR INFORMATION PURPOSES ONLY AND IS NOT INTENDED AS TAX ADVICE. INVESTORS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR COMMON STOCK ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.

For purposes of this discussion, a "U.S. holder" is any beneficial owner of our common stock that, for U.S. federal income tax purposes, is:

- · an individual who is a citizen or resident of the U.S.;
- a corporation (or other entity treated as a corporation for U.S. federal income tax purposes) created or organized under the laws of the U.S., any state thereof, or the District of Columbia;
- · an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust that (1) is subject to the primary supervision of a U.S. court and the control of one or more U.S. persons (within the meaning of Section 7701(a)(30) of the Code), or (2) has made a valid election under applicable Treasury Regulations to continue to be treated as a U.S. person.

For purposes of this discussion, a "non-U.S. holder" is a beneficial owner of our common stock that is neither a U.S. holder nor an entity treated as a partnership for U.S. federal income tax purposes.

Distributions

We do not anticipate declaring or paying distributions to holders of our common stock in the foreseeable future. However, if we do make distributions on our common stock, such distributions of cash or property will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts not treated as dividends for U.S. federal income tax purposes will constitute a return of capital and first be applied against and reduce a non-U.S. holder's adjusted tax basis in its common stock, but not below zero. Any excess will be treated as capital gain and will be treated as described below in the section relating to the sale or disposition of our common stock. Because we may not know the extent to which a distribution is a dividend for U.S. federal income tax purposes at the time it is made, for purposes of the withholding rules discussed below we or the applicable withholding agent may treat the entire distribution as a dividend.

Subject to the discussion below on backup withholding and FATCA, dividends paid to a non-U.S. holder that are not effectively connected with the non-U.S. holder's conduct of a trade or business within the U.S. will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends (or such lower rate specified by an applicable income tax treaty).

Non-U.S. holders may be entitled to a reduction in or an exemption from withholding on dividends as a result of either (a) an applicable income tax treaty or (b) the non-U.S. holder holding our common stock in connection with the conduct of a trade or business within the U.S. and dividends being effectively connected with that trade or business. To claim such a reduction in or exemption from withholding, the non-U.S. holder must provide the applicable withholding agent with a properly executed (a) IRS Form W-8BEN or W-8BEN-E (or other applicable

documentation) claiming an exemption from or reduction of the withholding tax under the benefit of an income tax treaty between the U.S. and the country in which the non-U.S. holder resides or is established, or (b) IRS Form W-8ECI stating that the dividends are not subject to withholding tax because they are effectively connected with the conduct by the non-U.S. holder of a trade or business within the U.S., as may be applicable. These certifications must be provided to the applicable withholding agent prior to the payment of dividends and must be updated periodically. Non-U.S. holders that do not timely provide the applicable withholding agent with the required certification, but that qualify for a reduced rate under an applicable income tax treaty, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

If dividends paid to a non-U.S. holder are effectively connected with the non-U.S. holder's conduct of a trade or business within the U.S. (and, if required by an applicable income tax treaty, the non-U.S. holder maintains a permanent establishment in the U.S. to which such dividends are attributable), then, although exempt from U.S. federal withholding tax (provided the non-U.S. holder provides appropriate certification, as described above), the non-U.S. holder will be subject to U.S. federal income tax on such dividends on a net income basis at the regular graduated U.S. federal income tax rates. In addition, a non-U.S. holder that is a corporation may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on its effectively connected earnings and profits for the taxable year that are attributable to such dividends, as adjusted for certain items. Non-U.S. holders should consult their tax advisors regarding their entitlement to benefits under any applicable income tax treaty.

Sale or Other Disposition of Common Stock

Subject to the discussions below on backup withholding and foreign accounts, a non-U.S. holder will not be subject to U.S. federal income tax on any gain realized upon the sale or other disposition of our common stock unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business within the U.S. (and, if required by an
 applicable income tax treaty, the non-U.S. holder maintains a permanent establishment in the U.S. to which such gain is attributable);
- the non-U.S. holder is a nonresident alien individual present in the U.S. for 183 days or more during the taxable year of the disposition and certain other requirements are met; or
- our common stock constitutes U.S. real property interests, or USRPIs, by reason of our status as a U.S. real property holding corporation, or USRPHC, for U.S. federal income tax purposes.

Gain described in the first bullet point above will generally be subject to U.S. federal income tax on a net income basis at the regular graduated U.S. federal income tax rates. A non-U.S. holder that is a foreign corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected gain, as adjusted for certain items.

A non-U.S. holder described in the second bullet point above will be subject to U.S. federal income tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on any gain derived from the disposition, which may be offset by certain U.S. source capital losses of the non-U.S. holder (even though the individual is not considered a resident of the U.S.) provided the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses.

With respect to the third bullet point above, we believe we are not currently and do not anticipate becoming a USRPHC. Because the determination of whether we are a USRPHC depends on the fair market value of our USRPIs relative to the fair market value of our other business assets and our non-U.S. real property interests, however, there can be no assurance we are not a USRPHC or will not become one in the future. Even if we are or

were to become a USRPHC, gain arising from the sale or other taxable disposition by a non-U.S. holder of our common stock will not be subject to U.S. federal income tax if our common stock is "regularly traded," as defined by applicable Treasury Regulations, on an established securities market such as the Nasdaq Global Market, and such non-U.S. Holder owned, actually and constructively, 5% or less of our common stock throughout the shorter of the five-year period ending on the date of the sale or other taxable disposition or the non-U.S. Holder's holding period.

Non-U.S. holders should consult their tax advisors regarding potentially applicable income tax treaties that may provide for different rules.

Information Reporting and Backup Withholding

Subject to the discussion below on FATCA, a non-U.S. holder will not be subject to backup withholding with respect to distributions on our common stock we make to the non-U.S. holder, provided the applicable withholding agent does not have actual knowledge or reason to know such holder is a U.S. person and the holder certifies its non-U.S. status, such as by providing a valid IRS Form W-8BEN, W-8BEN-E or W-8ECI, or other applicable certification. However, information returns generally will be filed with the IRS in connection with any distributions (including deemed distributions) made on our common stock to the non-U.S. holder, regardless of whether any tax was actually withheld. Copies of these information returns may also be made available under the provisions of a specific treaty or agreement to the tax authorities of the country in which the non-U.S. holder resides or is established.

Information reporting and backup withholding may apply to the proceeds of a sale or other taxable disposition of our common stock within the U.S., and information reporting may (although backup withholding generally will not) apply to the proceeds of a sale or other taxable disposition of our common stock outside the U.S. conducted through certain U.S.-related financial intermediaries, in each case, unless the beneficial owner certifies under penalty of perjury that it is a non-U.S. holder on IRS Form W-8BEN or W-8BEN-E, or other applicable form (and the payor does not have actual knowledge or reason to know that the beneficial owner is a U.S. person) or such owner otherwise establishes an exemption. Proceeds of a disposition of our common stock conducted through a non-U.S. office of a non-U.S. broker generally will not be subject to backup withholding or information reporting.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a non-U.S. holder's U.S. federal income tax liability, provided the required information is timely furnished to the IRS.

FATCA

Withholding taxes may be imposed under the Foreign Account Tax Compliance Act, or FATCA, on certain types of payments made to non-U.S. financial institutions and certain other non-U.S. entities. Specifically, a 30% withholding tax may be imposed on dividends (including deemed dividends) paid on our common stock, to a "foreign financial institution" or a "non-financial foreign entity" (each as defined in the Code), unless (1) the foreign financial institution undertakes certain diligence and reporting obligations, (2) the non-financial foreign entity either certifies it does not have any "substantial United States owners" (as defined in the Code) or furnishes identifying information regarding each substantial U.S. owner, or (3) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules, in each case subject to the proposed Treasury Regulations discussed below. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in (1) above, it must enter into an agreement with the U.S. Department of the Treasury requiring, among other things, that it undertake to identify accounts held by

certain "specified United States persons" or "United States-owned foreign entities" (each as defined in the Code), and annually report certain information about such accounts. Because we may not know the extent to which a distribution is a dividend for U.S. federal income tax purposes at the time it is made, for purposes of these withholding rules we or the applicable withholding agent may treat the entire distribution as a dividend. While withholding under FATCA would have applied also to payments of gross proceeds from the sale or other disposition of stock on or after January 1, 2019, proposed Treasury Regulations eliminate FATCA withholding on payments of gross proceeds entirely. Taxpayers generally may rely on these proposed Treasury Regulations until final Treasury Regulations are issued. Prospective investors should consult their tax advisors regarding the potential application of these withholding provisions. Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the U.S. governing FATCA may be subject to different rules.

Underwriting

We are offering the shares of common stock described in this prospectus supplement through a number of underwriters. J.P. Morgan Securities LLC, Cowen and Company, LLC and Guggenheim Securities, LLC are acting as joint book-running managers of the offering and J.P. Morgan Securities LLC is acting as representative of the underwriters. We have entered into an underwriting agreement with the underwriters. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters, and each underwriter has severally agreed to purchase, at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus supplement, the number of shares of common stock listed next to its name in the following table:

Name	Number of Shares
J.P. Morgan Securities LLC	
Cowen and Company, LLC	

Guggenheim Securities, LLC

Total

The underwriters are committed to purchase all the shares of common stock offered by us if they purchase any shares. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may also be increased or the offering may be terminated.

The underwriters propose to offer the shares of common stock directly to the public at the public offering price set forth on the cover page of this prospectus and to certain dealers at that price less a concession not in excess of \$ per share. After the initial offering of the shares to the public, if all of the shares of common stock are not sold at the public offering price, the underwriters may change the offering price and the other selling terms. Sales of any shares made outside of the United States may be made by affiliates of the underwriters.

The underwriters have an option to buy up to additional shares of common stock from us. The underwriters have 30 days from the date of this prospectus supplement to exercise this option to purchase additional shares. If any shares are purchased with this option to purchase additional shares, the underwriters will purchase shares in approximately the same proportion as shown in the table above. If any additional shares of common stock are purchased, the underwriters will offer the additional shares on the same terms as those on which the shares are being offered.

The underwriting fee is equal to the public offering price per share of common stock less the amount paid by the underwriters to us per share of common stock. The underwriting fee is \$ per share. The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

	Without option to purchase additional shares exercise	With full option to purchase additional shares exercise
Per Share	\$	\$
Total	\$	\$

We estimate that the total expenses of this offering, including registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding the underwriting discounts and commissions, will be approximately \$. We have also agreed to reimburse the underwriters for certain of their expenses relating to the clearance of the offering with the Financial Industry Regulatory Authority, Inc. in an amount up to \$20,000.

A prospectus supplement and the accompanying prospectus in electronic format may be made available on the web sites maintained by one or more underwriters, or selling group members, if any, participating in the offering. The underwriters may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the representative to underwriters and selling group members that may make Internet distributions on the same basis as other allocations.

We have agreed that we will not, directly or indirectly, offer, sell, assign, transfer, pledge, lend, contract to sell, establish an open "put equivalent position" within the meaning of Rule 16a-1(h) under the Exchange Act, or otherwise dispose of, or announce the offering of, or submit or file any registration statement under the Securities Act in respect of, our common stock or securities convertible into or exercisable for our common stock (other than the shares of our common stock to be sold in this offering), or publicly announce any intention to do any of the foregoing, in each case without the prior written consent of J.P. Morgan Securities LLC for a period of 60 days after the date of this prospectus.

The restrictions on our actions, as described above, do not apply to certain transactions, including (i) the issuance of common stock, options to purchase shares of our common stock, restricted stock units, deferred stock units, other equity awards, shares of our common stock underlying options, restricted stock units, deferred stock units, equity awards and other securities convertible into, exchangeable for or that represent the right to receive shares of our common stock, in each case pursuant to any director or employee equity incentive plan, stock ownership plan, employee stock purchase plan, or dividend reinvestment plan of ours in effect on the date of the underwriting agreement and described in this prospectus or the accompanying prospectus or pursuant to inducement awards within the meaning of Nasdaq Listing Rule 5635(c)(4) consistent with past practice of the Company; (ii) the issuance of common stock pursuant to the exercise (including the net exercise) of an option or warrant or the exercise, conversion or exchange of securities, or upon the vesting of restricted stock units or deferred stock units, in each case as described in this prospectus supplement or the accompanying prospectus; (iii) the issuance of up to 5% of the outstanding shares of our common stock, or securities convertible into, exercisable for, or which are otherwise exchangeable for, our common stock, on the date of the underwriting agreement, in connection with a transaction with a third party that includes a bona fide commercial relationship (including joint ventures, marketing or distribution arrangements, collaboration agreements or intellectual property license agreements) or any acquisition of assets of not less than a majority or controlling portion of the equity of another entity, provided that each receipt of common stock or securities convertible into or exercisable for common stock shall execute a lock-up agreement containing the restrictions described below or (iv) our filing of any registration statement on Form S-8 relating to shares of our common stock granted (i) pursuant to our benefit plans described in this prospectus supplement or the accompanying prospectus or (ii) pursuant to inducement grants within the meaning of Nasdaq Listing Rule 5635(c)(4).

Our directors and executive officers, and Ocumension Therapeutics, one of our significant shareholders (such persons, the "lock-up parties") have entered into lock-up agreements with the underwriters prior to the commencement of this offering pursuant to which each lock-up party, with limited exceptions, for a period of 60 days (or 30 days, in the case of Ocumension Therapeutics) after the date of this prospectus (such period, the "restricted period"), may not (and may not cause any of their direct or indirect affiliates to), without the prior written consent of J.P. Morgan Securities LLC, (1) offer, sell, assign, transfer, pledge, contract to sell, lend or otherwise dispose of or announce the intention to otherwise dispose of any common stock or securities convertible into or exercisable for our common stock (including, without limitation, common stock or such other securities which may be deemed to be beneficially owned by such directors and executive officers in accordance with the rules and regulations of the SEC and securities convertible into or exchangeable for common stock provided, however, that (i) the restrictions described in this paragraph do not apply to the sale, transfer or other disposition of up to 1,000,000 shares of our common stock held by Ocumension Therapeutics and

(ii) provided, further, that in the case of our director who is affiliated with Ocumension Therapeutics, (a) any shares directly owned by Ocumension Therapeutics will be unencumbered upon the expiry of its lock-up, irrespective of any indirect ownership by such director, and (b) nothing contained in such director's lock-up shall prohibit the transactions contemplated by clause (i) above), (2) enter into, or announce the intention to enter into any swap, hedge or similar agreement or arrangement that transfers, is designed to transfer or reasonably could be expected to transfer, in whole or in part, directly or indirectly, the economic risk of ownership of any common stock or securities convertible into or exercisable for our common stock (including, without limitation, common stock or such other securities which may be deemed to be beneficially owned by such directors and executive officers in accordance with the rules and regulations of the SEC and securities convertible into or exchangeable for common stock), or (3) engage in, or announce the intention to engage in, any short selling of our common stock or securities convertible into or exchangeable for our exchangeable for our common stock).

The restrictions described in the immediately preceding paragraph and contained in the lock-up agreements between the underwriters and the lock-up parties do not apply, subject in certain cases to various conditions, to certain transactions, including:

(i) if the lock-up party is a natural person, transfers of lock-up securities: (a) as a bona fide gift, (b) to any member of the immediate family of the lock-up party or to a trust the beneficiaries of which are exclusively such lock-up party or members of such lock-up party's immediate family, (c) by will or intestate succession upon the death of such lock-up party, (d) as a bona fide gift to a charity or educational institution, (e) pursuant to a domestic order, divorce settlement, divorce decree, separation agreement or pursuant to an order of a court of competent jurisdiction enforcing such agreement, or (f) to a corporation, limited liability company or partnership wholly owned by such lock-up party and/or any member of the immediate family of such lock-up party;

(ii) if the lock-up party is a corporation, partnership, limited liability company or other business entity, transfers of lock-up securities: (a) to any stockholder, partner or member of, or owner of a similar equity interest in, such lock-up party, if such transfer is not for value, (b) made by such lock-up party in connection with the sale or other bona fide transfer in a single transaction of all or substantially all of such lock-up party's capital stock, partnership interests, membership interests or other similar equity interests, or all or substantially all of such lock-up party's assets, or (c) to another corporation, partnership, limited liability company or other business entity so long as the transferee is an affiliate of the lock-up party and such transfer is not for value;

(iii) transactions relating to our common stock or other securities convertible into or exercisable or exchangeable for our common stock acquired in open market transactions after completion of this offering or pursuant to our employee stock purchase plan, provided that no such transfer is required to be, or is, publicly announced during the restricted period;

(iv) the entry into a Rule 10b5-1(c) trading plan, or 10b5-1 plan, provided that such 10b5-1 plan (a) will not provide for or permit the sale of any common stock during the restricted period and (b) no public announcement regarding such 10b5-1 plan will be voluntarily made during the restricted period and any required disclosure during the restricted period regarding such 10b5-1 plan includes the restrictions set forth in the lock-up agreement;

(v) transfers pursuant to a bona fide third-party tender offer for all of our outstanding shares, merger, consolidation or other similar transaction that is approved by our board of directors made to all holders of our securities involving a change of control (as defined in the lock-up agreement) of our company (including, without limitation, the entering into of any lock-up, voting or similar agreement pursuant to which such lock-up party may agree to transfer, sell, tender or otherwise dispose of our common stock or securities convertible into or exchangeable or exchangeable for our common stock in connection with such common stock, or vote any

common stock or securities convertible into or exercisable or exchangeable for common stock in favor of any transaction), provided that in the event that such tender offer, merger, consolidation or other such transaction is not completed, such securities held by such lock-up party shall remain subject to the provisions of the lock-up agreement; and

(vi) transfers or dispositions of our common stock pursuant to a 10b5-1 plan, provided that such 10b5-1 plan was established prior to the execution of the lock-up agreement by such lock-up party, the existence and details of such 10b5-1 plan were communicated to the representative and such 10b5-1 plan will not be amended or otherwise modified during the restricted period without the prior written consent of J.P. Morgan Securities LLC;

provided however that in the case of any transfer described in clause (i) or (ii) above, it shall be a condition to the transfer that the transferee executes and delivers to the representative a lock-up agreement containing the restrictions laid out above, and in the case of any transfer described in clause (i), (ii) or (vi) above, no public announcement or filing is voluntarily made regarding such transfer during the restricted period and if the lock-up party is required to file a report under Section 16(a) of the Exchange Act reporting a reduction of beneficial ownership of securities during the restricted period, such filing shall include a footnote describing the circumstances described in the applicable clause above.

For avoidance of doubt, nothing in the lock-up prohibits (A) the lock-up from exercising any options or warrants to purchase shares of our common stock (which exercises may be effected on a net exercise or cashless basis to the extent the instruments representing such options or warrants permit exercises on a net exercise or cashless basis), it being understood that any shares of common stock issued upon such exercises or vesting will be subject to the restrictions of the lock-up agreement or (B) the surrender or forfeiture of securities in partial or full settlement of any income, employment or social tax withholding and remittance obligations of the lock-up party or the employer of the undersigned in connection with the vesting or exercise of any equity award outstanding on the date of the underwriting agreement granted pursuant to our equity plans described or incorporated by reference in this prospectus, and provided, however, that no public announcement or filing is voluntarily made regarding such exercise or vesting during the restricted period and provided that if the lock-up party is required to file a report under Section 16(a) of the Exchange Act reporting a reduction in beneficial ownership of such options or warrants or restricted stock units or other equity awards during the restricted party, the undersigned shall include a statement in such report to the effect that the disposition relates to the exercise of an option or warrant or vesting of restricted stock units or other equity award, as applicable, and that the shares of common stock received upon exercise or vesting are subject to the restrictions of the lock-up agreement.

J.P. Morgan Securities LLC, in its sole discretion, may release the securities subject to any of the lock-up agreements with the underwriters described above, in whole or in part at any time.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act of 1933.

Our common stock is listed on the Nasdaq Global Market under the symbol "EYPT."

In connection with this offering, the underwriters may engage in stabilizing transactions, which involves making bids for, purchasing and selling shares of common stock in the open market for the purpose of preventing or retarding a decline in the market price of the common stock while this offering is in progress. These stabilizing transactions may include making short sales of common stock, which involves the sale by the underwriters of a greater number of shares of common stock than they are required to purchase in this offering, and purchasing shares of common stock on the open market to cover positions created by short sales. Short sales may be "covered" shorts, which are short positions in an amount not greater than the underwriters' option to purchase

additional shares referred to above, or may be "naked" shorts, which are short positions in excess of that amount. The underwriters may close out any covered short position either by exercising their option to purchase additional shares, in whole or in part, or by purchasing shares in the open market. In making this determination, the underwriters will consider, among other things, the price of shares available for purchase in the open market compared to the price at which the underwriters may purchase shares through the option to purchase additional shares. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market that could adversely affect investors who purchase in this offering. To the extent that the underwriters create a naked short position, they will purchase shares in the open market to cover the position.

The underwriters have advised us that, pursuant to Regulation M of the Securities Act of 1933, they may also engage in other activities that stabilize, maintain or otherwise affect the price of the common stock, including the imposition of penalty bids. This means that if the representative of the underwriters purchases common stock in the open market in stabilizing transactions or to cover short sales, the representative can require the underwriters that sold those shares as part of this offering to repay the underwriting discount received by them.

These activities may have the effect of raising or maintaining the market price of the common stock or preventing or retarding a decline in the market price of the common stock, and, as a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. If the underwriters commence these activities, they may discontinue them at any time. The underwriters may carry out these transactions on the Nasdaq Global Market, in the over-the-counter market or otherwise.

Other relationships

Certain of the underwriters and their affiliates have provided in the past to us and our affiliates and may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for us and such affiliates in the ordinary course of their business, for which they have received and may continue to receive customary fees and commissions. In addition, from time to time, certain of the underwriters and their affiliates may effect transactions for their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future.

Selling restrictions

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus supplement in any jurisdiction where action for that purpose is required. The securities offered by this prospectus supplement may not be offered or sold, directly or indirectly, nor may this prospectus supplement or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus supplement comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus supplement. This prospectus supplement does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus supplement in any jurisdiction in which such an offer or a solicitation is unlawful.

Notice to prospective investors in the European Economic Area

In relation to each Member State of the European Economic Area, each a Member State, no securities have been offered or will be offered pursuant to the offering to the public in that Member State prior to the publication of a prospectus supplement in relation to the securities which has been approved by the competent authority in that Member State or, where appropriate, approved in another Member State and notified to the competent

authority in that Member State, all in accordance with the Prospectus Regulation, except that offers of securities may be made to the public in that Member State at any time under the following exemptions under the Prospectus Regulation:

A. to any legal entity which is a qualified investor as defined under the Prospectus Regulation;

B. to fewer than 150, natural or legal persons (other than qualified investors as defined under the Prospectus Regulation), subject to obtaining the prior consent of the underwriters; or

C. in any other circumstances falling within Article 1(4) of the Prospectus Regulation, provided that no such offer of securities shall require us or any underwriter to publish a prospectus supplement pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus supplement pursuant to Article 23 of the Prospectus Regulation and each person who initially acquires any shares or to whom any offer is made will be deemed to have represented, acknowledged and agreed to and with each of the underwriters and us that it is a "qualified investor" within the meaning of Article 2(e) of the Prospectus Regulation.

In the case of any securities being offered to a financial intermediary as that term is used in the Prospectus Regulation, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the securities acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any securities to the public other than their offer or resale in a Member State to qualified investors as so defined or in circumstances in which the prior consent of the underwriters have been obtained to each such proposed offer or resale.

For the purposes of this provision, the expression an "offer to the public" in relation to shares in any Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any securities to be offered so as to enable an investor to decide to purchase or subscribe for any shares of common stock, and the expression "Prospectus Regulation" means Regulation (EU) 2017/1129.

Notice to prospective investors in the United Kingdom

No securities have been offered or will be offered pursuant to the offering to the public in the United Kingdom prior to the publication of a prospectus supplement in relation to the securities which has been approved by the Financial Conduct Authority, except that the securities may be offered to the public in the United Kingdom at any time:

A. to any legal entity which is a qualified investor as defined under Article 2 of the U.K. Prospectus Regulation;

B. to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the U.K. Prospectus Regulation), subject to obtaining the prior consent of the representative of the underwriters for any such offer; or

C. in any other circumstances falling within Section 86 of the FSMA,

provided that no such offer of the securities shall require our company or any underwriter to publish a prospectus supplement pursuant to Section 85 of the FSMA or supplement a prospectus supplement pursuant to Article 23 of the U.K. Prospectus Regulation.

For the purposes of this provision, the expression an "offer to the public" in relation to the securities in the United Kingdom means the communication in any form and by any means of sufficient information on the terms of the offer and any securities to be offered so as to enable an investor to decide to purchase or subscribe for

any securities and the expression "U.K. Prospectus Regulation" means Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018.

In addition, in the United Kingdom, this document is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are "qualified investors" (as defined in the Prospectus Regulation) (i) who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended, or the Order, and/or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order, or, all such persons together being referred to as relevant persons, or otherwise in circumstances which have not resulted and will not result in an offer to the public of the securities in the United Kingdom within the meaning of the Financial Services and Markets Act 2000.

Any person in the United Kingdom that is not a relevant person should not act or rely on the information included in this document or use it as basis for taking any action. In the United Kingdom, any investment or investment activity that this document relates to may be made or taken exclusively by relevant persons.

Notice to prospective investors in Canada

The securities may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the securities must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus supplement requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Notice to prospective investors in Switzerland

The securities may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange, or SIX, or on any other stock exchange or regulated trading facility in Switzerland. This document does not constitute a prospectus supplement within the meaning of, and has been prepared without regard to the disclosure standards for issuing prospectus supplements under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectus supplements under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, the Company, or the securities have been or will be filed with or approved by any Swiss regulatory authority. In particular, this

document will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority and the offer of securities has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or CISA. The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of securities.

Notice to prospective investors in the Dubai International Financial Centre, or DIFC

This prospectus supplement and the accompanying prospectus relate to an Exempt Offer in accordance with the Markets Rules 2012 of the Dubai Financial Services Authority, or the DFSA. This prospectus supplement and the accompanying prospectus are intended for distribution only to persons of a type specified in the Markets Rules 2012 of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus supplement or the accompanying prospectus nor taken steps to verify the information set forth herein and has no responsibility for this prospectus supplement or the accompanying prospectus. The securities to which this prospectus supplement and the accompanying prospectus relate may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the securities offered should conduct their own due diligence on the securities. If you do not understand the contents of this prospectus supplement and the accompanying prospectus you should consult an authorized financial advisor.

In relation to its use in the DIFC, this document is strictly private and confidential and is being distributed to a limited number of investors and must not be provided to any person other than the original recipient, and may not be reproduced or used for any other purpose. The interests in the securities may not be offered or sold directly or indirectly to the public in the DIFC.

Notice to prospective investors in the United Arab Emirates

The securities have not been, and are not being, publicly offered, sold, promoted or advertised in the United Arab Emirates (including the Dubai International Financial Centre) other than in compliance with the laws of the United Arab Emirates (and the Dubai International Financial Centre) governing the issue, offering and sale of securities. Further, this prospectus supplement does not constitute a public offer of securities in the United Arab Emirates (including the Dubai International Financial Centre) and is not intended to be a public offer. This prospectus supplement has not been approved by or filed with the Central Bank of the United Arab Emirates, the Securities and Commodities Authority or the Dubai Financial Services Authority.

Notice to prospective investors in Australia

This prospectus supplement:

- does not constitute a disclosure document or a prospectus supplement under Chapter 6D.2 of the Corporations Act 2001 (Cth), or the Corporations Act;
- has not been, and will not be, lodged with the Australian Securities and Investments Commission, or ASIC, as a disclosure document for the purposes of the Corporations Act and does not purport to include the information required of a disclosure document for the purposes of the Corporations Act; and
- may only be provided in Australia to select investors who are able to demonstrate that they fall within one or more of the categories of investors, available under section 708 of the Corporations Act, or the Exempt Investors.

The securities may not be directly or indirectly offered for subscription or purchased or sold, and no invitations to subscribe for or buy the securities may be issued, and no draft or definitive offering memorandum, advertisement or other offering material relating to any securities may be distributed in Australia, except where disclosure to investors is not required under Chapter 6D of the Corporations Act or is otherwise in compliance with all applicable Australian laws and regulations. By submitting an application for the securities, you represent and warrant to us that you are an Exempt Investor.

As any offer of securities under this prospectus supplement will be made without disclosure in Australia under Chapter 6D.2 of the Corporations Act, the offer of those securities for resale in Australia within 12 months may, under section 707 of the Corporations Act, require disclosure to investors under Chapter 6D.2 if none of the exemptions in section 708 applies to that resale. By applying for the securities you undertake to us that you will not, for a period of 12 months from the date of issue of the securities, offer, transfer, assign or otherwise alienate those securities to investors in Australia except in circumstances where disclosure to investors is not required under Chapter 6D.2 of the Corporations Act or where a compliant disclosure document is prepared and lodged with ASIC.

Notice to prospective investors in Japan

The securities have not been and will not be registered pursuant to Article 4, Paragraph 1 of the Financial Instruments and Exchange Act. Accordingly, none of the securities nor any interest therein may be offered or sold, directly or indirectly, in Japan or to, or for the benefit of, any "resident" of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to or for the benefit of a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Act and any other applicable laws, regulations and ministerial guidelines of Japan in effect at the relevant time.

Notice to prospective investors in Hong Kong

The securities have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (a) to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong), or the SFO, of Hong Kong and any rules made thereunder; or (b) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong, or the CO, or which do not constitute an offer to the public within the meaning of the CO. No advertisement, invitation or document relating to the securities has been or may be issued or has been or may be in the possession of any person for the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to securities which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the SFO and any rules made thereunder.

Notice to prospective investors in Singapore

Each underwriter has acknowledged that this prospectus supplement and the accompanying prospectus has not been registered as a prospectus supplement with the Monetary Authority of Singapore. Accordingly, each underwriter has represented and agreed that it has not offered or sold any securities or caused the securities to be made the subject of an invitation for subscription or purchase and will not offer or sell any securities or cause the securities to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, this prospectus supplement and the accompanying prospectus

or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the securities, whether directly or indirectly, to any person in Singapore other than:

(i) to an institutional investor (as defined in Section 4A of the Securities and Futures Act (Chapter 289) of Singapore, as modified or amended from time to time, or the SFA) pursuant to Section 274 of the SFA;

(ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA; or

(iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the securities are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

(i) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(ii) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor, securities or securities-based derivatives contracts (each term as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the securities pursuant to an offer made under Section 275 of the SFA except:

a. to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;

b. where no consideration is or will be given for the transfer;

c. where the transfer is by operation of law;

d. as specified in Section 276(7) of the SFA; or

e. as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities based Derivatives Contracts) Regulations 2018.

Singapore SFA Product Classification—In connection with Section 309B of the SFA and the CMP Regulations 2018, unless otherwise specified before an offer of securities, we have determined, and hereby notify all relevant persons (as defined in Section 309A(1) of the SFA), that the securities are "prescribed capital markets products" (as defined in the CMP Regulations 2018) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

Notice to prospective investors in Bermuda

The securities may be offered or sold in Bermuda only in compliance with the provisions of the Investment Business Act of 2003 of Bermuda, which regulates the sale of securities in Bermuda.

Additionally, non-Bermudian persons (including companies) may not carry on or engage in any trade or business in Bermuda unless such persons are permitted to do so under applicable Bermuda legislation.

Notice to prospective investors in Saudi Arabia

This document may not be distributed in the Kingdom of Saudi Arabia except to such persons as are permitted under the Offers of Securities Regulations as issued by the board of the Saudi Arabian Capital Market Authority, or CMA, pursuant to resolution number 2-11-2004 dated 4 October 2004 as amended by resolution number 1-28-2008, as amended, or the CMA Regulations. The CMA does not make any representation as to the accuracy or completeness of this document and expressly disclaims any liability whatsoever for any loss arising from, or incurred in reliance upon, any part of this document. Prospective purchasers of the securities offered hereby should conduct their own due diligence on the accuracy of the information relating to the securities. If you do not understand the contents of this document, you should consult an authorized financial adviser.

Notice to prospective investors in the British Virgin Islands

The securities are not being, and may not be offered to the public or to any person in the British Virgin Islands for purchase or subscription by or on behalf of us. The shares may be offered to companies incorporated under the BVI Business Companies Act, 2004 (British Virgin Islands), or BVI Companies, but only where the offer will be made to, and received by, the relevant BVI Company entirely outside of the British Virgin Islands. This prospectus supplement has not been, and will not be, registered with the Financial Services Commission of the British Virgin Islands. No registered prospectus has been or will be prepared in respect of the securities for the purposes of the Securities and Investment Business Act, 2010 or the Public Issuers Code of the British Virgin Islands.

Notice to prospective investors in China

This prospectus supplement will not be circulated or distributed in the People's Republic of China, or the PRC, and the securities will not be offered or sold, and will not be offered or sold to any person for re-offering or resale directly or indirectly to any residents of the PRC except pursuant to any applicable laws and regulations of the PRC. Neither this prospectus supplement nor any advertisement or other offering material may be distributed or published in the PRC, except under circumstances that will result in compliance with applicable laws and regulations.

Notice to prospective investors in Korea

The securities have not been and will not be registered under the Financial Investments Services and Capital Markets Act of Korea, or the FSCMA, and the decrees and regulations thereunder and the securities have been and will be offered in Korea as a private placement under the FSCMA. None of the securities may be offered, sold or delivered directly or indirectly, or offered or sold to any person for re-offering or resale, directly or indirectly, in Korea or to any resident of Korea except pursuant to the applicable laws and regulations of Korea, including the FSCMA and the Foreign Exchange Transaction Law of Korea, or the FETL, and the decrees and regulations thereunder. The securities have not been listed on any securities exchanges in the world including, without limitation, the Korea Exchange in Korea. Furthermore, the purchaser of the shares shall comply with all applicable regulatory requirements (including but not limited to requirements under the FETL) in connection with the purchase of the securities. By the purchase of the securities, the relevant holder thereof will be deemed to represent and warrant that if it is in Korea or is a resident of Korea, it purchased the securities pursuant to the applicable laws and regulations of Korea.

Notice to prospective investors in Malaysia

No prospectus or other offering material or document in connection with the offer and sale of the securities has been or will be registered with the Securities Commission of Malaysia, or the Commission, for the Commission's

approval pursuant to the Capital Markets and Services Act 2007. Accordingly, this prospectus supplement and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the securities may not be circulated or distributed. nor may the securities be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Malaysia other than (i) a closed end fund approved by the Commission, (ii) a holder of a Capital Markets Services Licence, (iii) a person who acquires the securities, as principal, if the offer is on terms that the securities may only be acquired at a consideration of not less than RM250,000 (or its equivalent in foreign currencies) for each transaction, (iv) an individual whose total net personal assets or total net joint assets with his or her spouse exceeds RM3 million (or its equivalent in foreign currencies), excluding the value of the primary residence of the individual, (v) an individual who has a gross annual income exceeding RM300,000 (or its equivalent in foreign currencies) per annum in the preceding twelve months, (vi) an individual who, jointly with his or her spouse, has a gross annual income of RM400,000 (or its equivalent in foreign currencies), per annum in the preceding twelve months, (vii) a corporation with total net assets exceeding RM10 million (or its equivalent in a foreign currencies) based on the last audited accounts, (viii) a partnership with total net assets exceeding RM10 million (or its equivalent in foreign currencies), (ix) a bank licensee or insurance licensee as defined in the Labuan Financial Services and Securities Act 2010, (x) an Islamic bank licensee or takaful licensee as defined in the Labuan Financial Services and Securities Act 2010 and (xi) any other person as may be specified by the Commission; provided that, in the each of the preceding categories (i) to (xi), the distribution of the securities is made by a holder of a Capital Markets Services Licence who carries on the business of dealing in securities. The distribution in Malaysia of this prospectus supplement is subject to Malaysian laws. This prospectus supplement does not constitute and may not be used for the purpose of public offering or an issue, offer for subscription or purchase. invitation to subscribe for or purchase any securities requiring the registration of a prospectus with the Commission under the Capital Markets and Services Act 2007.

Notice to prospective investors in Taiwan

The securities have not been and will not be registered with the Financial Supervisory Commission of Taiwan pursuant to relevant securities laws and regulations and may not be sold, issued or offered within Taiwan through a public offering or in circumstances which constitutes an offer within the meaning of the Securities and Exchange Act of Taiwan that requires a registration or approval of the Financial Supervisory Commission of Taiwan. No person or entity in Taiwan has been authorized to offer, sell, give advice regarding or otherwise intermediate the offering and sale of the securities in Taiwan.

Notice to prospective investors in South Africa

Due to restrictions under the securities laws of South Africa, no "offer to the public" (as such term is defined in the South African Companies Act, No. 71 of 2008 (as amended or re-enacted, or the South African Companies Act) is being made in connection with the issue of the securities in South Africa. Accordingly, this document does not, nor is it intended to, constitute a "registered prospectus" (as that term is defined in the South African Companies Act) prepared and registered under the South African Companies Act and has not been approved by, and/or filed with, the South African Companies and Intellectual Property Commission or any other regulatory authority in South Africa. The securities are not offered, and the offer shall not be transferred, sold, renounced or delivered, in South Africa or to a person with an address in South Africa, unless one or other of the following exemptions stipulated in section 96 (1) applies:

Section 96(1)(a): the offer, transfer, sale, renunciation or delivery is to:

(i) persons whose ordinary business, or part of whose ordinary business, is to deal in securities, as principal or agent;

(ii) the South African Public Investment Corporation;

(iii) persons or entities regulated by the Reserve Bank of South Africa;

(iv) authorized financial service providers under South African law;

(v) financial institutions recognized as such under South African law;

(vi) a wholly-owned subsidiary of any person or entity contemplated in (iii), (iv) or (v), acting as agent in the capacity of an authorized portfolio manager for a pension fund, or as manager for a collective investment scheme (in each case duly registered as such under South African law); or

(vii) any combination of the persons in (i) to (vi); or

Section 96(1)(b): the total contemplated acquisition cost of the securities, for a single addressee acting as principal is equal to or greater than ZAR1,000,000 or such higher amount as may be promulgated by notice in the Government Gazette of South Africa pursuant to section 96(2)(a) of the South African Companies Act.

Information made available in this prospectus supplement should not be considered as "advice" as defined in the South African Financial Advisory and Intermediary Services Act, 2002.

Notice to prospective investors in Israel

In the State of Israel, this prospectus supplement shall not be regarded as an offer to the public to purchase securities under the Israeli Securities Law, 5728-1968, which requires a prospectus to be published and authorized by the Israel Securities Authority, if it complies with certain provisions of Section 15 of the Israeli Securities Law, 5728-1968, including, inter alia, if: (i) the offer is made, distributed or directed to not more than 35 investors, subject to certain conditions, or the Addressed Investors; or (ii) the offer is made, distributed or directed to certain qualified investors defined in the First Addendum of the Israeli Securities Law, 5728-1968, subject to certain conditions, or the Qualified Investors. The Qualified Investors shall not be taken into account in the count of the Addressed Investors and may be offered to purchase securities in addition to the 35 Addressed Investors. The company has not and will not take any action that would require it to publish a prospectus in accordance with and subject to the Israeli Securities Law, 5728-1968. We have not and will not distribute this prospectus supplement or make, distribute or direct an offer to subscribe for our securities to any person within the State of Israel, other than to Qualified Investors and up to 35 Addressed Investors.

Qualified Investors may have to submit written evidence that they meet the definitions set out in the First Addendum to the Israeli Securities Law, 5728-1968. In particular, we may request, as a condition to be offered securities, that Qualified Investors will each represent, warrant and certify to us and/or to anyone acting on our behalf: (i) that it is an investor falling within one of the categories listed in the First Addendum to the Israeli Securities Law, 5728-1968; (ii) which of the categories listed in the First Addendum to the Israeli Securities Law, 5728-1968; (iii) which of the categories listed in the First Addendum to the Israeli Securities Law, 5728-1968 regarding Qualified Investors is applicable to it; (iii) that it will abide by all provisions set forth in the Israeli Securities Law, 5728-1968 and the regulations promulgated thereunder in connection with the offer to be issued securities; (iv) that the securities that it will be issued are, subject to exemptions available under the Israeli Securities Law, 5728-1968: (a) for its own account; (b) for investment purposes only; and (c) not issued with a view to resale within the State of Israel, other than in accordance with the provisions of the Israeli Securities Law, 5728-1968; and (v) that it is willing to provide further evidence of its Qualified Investor status. Addressed Investors may have to submit written evidence in respect of their identity and may have to sign and submit a declaration containing, inter alia, the Addressed Investor's name, address and passport number or Israeli identification number.

Legal matters

The validity of the securities offered hereby will be passed upon for us by Hogan Lovells US LLP. Cooley LLP, New York, New York is acting as counsel for the underwriters in connection with this offering.

Experts

The financial statements of EyePoint Pharmaceuticals, Inc. incorporated by reference in this prospectus supplement from the Company's Annual Report on Form 10-K have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report. Such financial statements are incorporated by reference in reliance upon the report of such firm, given their authority as experts in accounting and auditing.

Where you can find more information

We have filed with the SEC registration statement on Form S-3 under the Securities Act, of which this prospectus supplement forms a part. The rules and regulations of the SEC allow us to omit from this prospectus supplement certain information included in the registration statement. For further information about us and the securities we are offering under this prospectus supplement, you should refer to the registration statement and the exhibits and schedules filed with the registration statement. With respect to the statements contained in this prospectus supplement regarding the contents of any agreement or any other document, in each instance, the statement is qualified in all respects by the complete text of the agreement or document, a copy of which has been filed as an exhibit to the registration statement.

Because we are subject to the information and reporting requirements of the Exchange Act, we file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at www.sec.gov.

We make available free of charge on our website our annual, quarterly and current reports, including amendments to such reports, as soon as reasonably practicable after we electronically file such material with, or furnish such material to, the SEC. Please note, however, that we have not incorporated any other information by reference from our website, other than the documents listed under the heading "Incorporation of Certain Information by Reference" on page S-35 of this prospectus supplement. In addition, you may request copies of these filings at no cost by writing or telephoning us at the following address or telephone number:

EyePoint Pharmaceuticals, Inc. 480 Pleasant Street Watertown, MA 02472 Telephone: (617) 926-5000

Incorporation of certain information by reference

The SEC allows us to incorporate by reference the information we file with it, which means that we can disclose important information to you by referring you to another document that we have filed separately with the SEC. The information incorporated by reference is considered to be part of this prospectus supplement. Information in this prospectus supplement supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus supplement, while information that we file later with the SEC will automatically update and supersede the information in this prospectus supplement and the accompanying prospectus. We incorporate by reference our documents listed below and any future filings made by us with the SEC (File No. 001-51122) under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act, including those made after the date of this prospectus supplement and until we file a post- effective amendment that indicates the termination of the offering of the securities made by this prospectus supplement. We are not, however, incorporating by reference any documents or portions thereof, whether specifically listed below or filed in the future, that are not deemed "filed" with the SEC, including any information furnished pursuant to Item 2.02 or 7.01 of Form 8-K or related exhibits furnished pursuant to Item 9.01 of Form 8-K.

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, filed with the SEC on March 10, 2023;
- our Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2023, June 30, 2020 and September 30, 2023, filed with the SEC on <u>May 4, 2023</u>, <u>August 4, 2023</u> and <u>November 3</u>, 2023, respectively;
- our Current Reports on Form 8-K, filed with the SEC on <u>January 6</u>, 2023 (including Item 2.02 and Exhibit 99.1), <u>January 12</u>, 2023, <u>January 23</u>, 2023, <u>March 10</u>, 2023, <u>March 27</u>, 2023, <u>May 18</u>, 2023, <u>June 5</u>, 2023, <u>June 21</u>, 2023, <u>July 10</u>, 2023, <u>July 11</u>, 2023, <u>July 27</u>, 2023, <u>September 11</u>, 2023, <u>September 13</u>, 2023, <u>October 16</u>, 2023, <u>November 9</u>, 2023, and <u>December 4</u>, 2023;
- our Definitive Proxy Statement on <u>Schedule 14A</u>, filed with the SEC on April 28, 2023 (other than the portions thereof that are furnished and not filed); and
- the description of our common stock contained in our Registration Statement on <u>Form 20-F</u> filed with the SEC on January 20, 2005 and subsequent Current Report on Form 8-K filed under Rule 12g-3 of the Exchange Act on June 19, 2008, as updated by <u>Exhibit 4.5</u> to our Annual Report on <u>Form 10-K</u> for the fiscal year ended December 31, 2022, including any amendments or reports filed for the purpose of updating such description.

Information in such future filings updates and supplements the information provided in this prospectus supplement and the accompanying prospectus. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later filed document modify or replace such earlier statements.

To obtain copies of these filings, see "Where You Can Find More Information" on page S-34 of this prospectus supplement.

S-35

PROSPECTUS



\$350,000,000

Common Stock Preferred Stock Warrants Debt Securities Units

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

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

The aggregate initial offering price of all securities sold by us pursuant to this prospectus will not exceed \$350,000,000.

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

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

Our common stock trades on the Nasdaq Global Market under the ticker symbol "EYPT." On October 19, 2023, the last reported sale price per share of our common stock was \$7.50. We have not yet determined whether the other securities that may be offered by this prospectus will be listed on any exchange, interdealer quotation system or over-the-counter market. If we decide to seek the listing of any such securities upon issuance, the prospectus supplement relating to those securities will disclose the exchange, quotation system or market on which those securities will be listed.

INVESTING IN OUR SECURITIES INVOLVES A HIGH DEGREE OF RISK. RISKS ASSOCIATED WITH AN INVESTMENT IN OUR SECURITIES WILL BE DESCRIBED IN THE APPLICABLE PROSPECTUS SUPPLEMENT AND CERTAIN OF OUR FILINGS WITH THE SECURITIES AND EXCHANGE COMMISSION INCORPORATED BY REFERENCE INTO THIS PROSPECTUS, AS DESCRIBED UNDER "RISK FACTORS" ON PAGE 6.

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

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

The date of this prospectus is October 30, 2023

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TABLE OF CONTENTS

	Page
ABOUT THIS PROSPECTUS	ii
FORWARD-LOOKING STATEMENTS	1
MARKET, INDUSTRY AND OTHER DATA	4
SUMMARY	5
<u>RISK FACTORS</u>	6
USE OF PROCEEDS	7
PLAN OF DISTRIBUTION	8
GENERAL DESCRIPTION OF OUR SECURITIES	11
DESCRIPTION OF OUR COMMON STOCK	12
DESCRIPTION OF OUR PREFERRED STOCK	16
DESCRIPTION OF OUR WARRANTS	18
DESCRIPTION OF OUR DEBT SECURITIES	20
DESCRIPTION OF OUR UNITS	25
WHERE YOU CAN FIND MORE INFORMATION	26
INCORPORATION BY REFERENCE	27
LEGAL MATTERS	28
EXPERTS	29

i

ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or the SEC, using a "shelf" registration process. Under this shelf registration process, we may offer to sell any of the securities, or any combination of the securities, described in this prospectus, in each case in one or more offerings, up to a total dollar amount of \$350,000,000.

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

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

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

References in this prospectus to the terms "the Company," "EyePoint," "we," "our" and "us" or other similar terms mean EyePoint Pharmaceuticals, Inc. and our wholly owned subsidiaries, unless we state otherwise or the context indicates otherwise.

ii

FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein contain, and any prospectus supplement and the documents incorporated therein, may contain forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, included in this prospectus, any prospectus supplement or the documents incorporated herein and therein by reference, including statements regarding our future financial condition, results of operations, business strategy and plans and objectives of management for future operations, industry trends and other future events, are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as "believe," "will," "may," "estimate," "continue," "anticipate," "intend," "should," "plan," "expect," "predict," "project," "could," "potentially," "continue," "ongoing," "scheduled" or the negative of these terms or other similar expressions, although not all forward-looking statements contain these identifying terms. The forward-looking statements in this prospectus and the documents incorporated herein by reference include, among other things, statements about:

- the potential for EYP-1901, as an investigational sustained delivery intravitreal treatment deploying an erodible Durasert E insert of vorolanib, a selective and patented tyrosine kinase inhibitor targeting wet age-related macular degeneration, non-proliferative diabetic retinopathy and diabetic macular edema;
- our expectations regarding the timing and outcome of our ongoing Phase 2 clinical trials for EYP-1901 for the treatment of wet age-related macular degeneration and non-proliferative diabetic retinopathy;
- our expectations regarding the timing and clinical development of our product candidates, including EYP-1901 and EYP-2301;
- our strategic alliances with other companies;
- our ability to manufacture YUTIQ, EYP-1901 or any future products or product candidates, in sufficient quantities and quality;
- our belief that our cash, cash equivalents, and investments in marketable securities of \$142.5 million at June 30, 2023 will fund our operating plan into 2025 under current expectations regarding the timing and outcomes of our Phase 2 clinical trials for EYP-1901;
- our ability to obtain additional capital in sufficient amounts and on terms acceptable to us, and the consequences of failing to do so;
- our future expenses and capital expenditures;
- our expectations regarding the timing and results of the subpoena from the U.S. Attorney's Office for the District of Massachusetts seeking production of documents related to sales, marketing and promotional practices, including as pertain to DEXYCU;
- our expectations regarding our ability to obtain and adequately maintain sufficient intellectual property protection for EYP-1901 and any future products or product candidates, and to avoid claims of infringement of third-party intellectual property rights;
- the extent to which our business, clinical studies, the medical community and the global economy will continue to be materially and adversely impacted by the effects of the COVID-19 pandemic, or by other pandemics, epidemics or outbreaks;
- our expectation that we will continue to incur significant expenses and that our operating losses and our net cash outflows to fund operations will continue for the foreseeable future; and
- the effect of legal and regulatory developments.

Forward-looking statements also include statements other than statements of current or historical fact, including, without limitation, all statements related to any expectations of revenues, expenses, cash flows, earnings or losses from operations, cash required to maintain current and planned operations, capital or other financial items; any

statements of the plans, strategies and objectives of management for future operations; any plans or expectations with respect to product research, development and commercialization, including regulatory approvals; any other statements of expectations, plans, intentions or beliefs; and any statements of assumptions underlying any of the foregoing. We often, although not always, identify forward-looking statements by using words or phrases such as "likely", "expect", "intend", "anticipate", "believe", "estimate", "plan", "project", "forecast" and "outlook".

The following are some of the factors that could cause actual results to differ materially from the anticipated results or other expectations expressed, anticipated or implied in our forward-looking statements:

- our ability to realize the anticipated operational benefits and future cash flow from the May 2023 sale of YUTIQ[®] to Alimera Sciences, Inc.;
- the sufficiency of our existing cash resources into 2025;
- our access to needed capital;
- our ability to manufacture YUTIQ in sufficient quantities pursuant to our commercial supply agreements with Alimera Sciences, Inc. and Ocumension Therapeutics;
- the effectiveness and timeliness of our preclinical studies and clinical trials, and the usefulness of the data;
- our expectations regarding the timing and clinical development of our product candidates, including EYP-1901 and EYP-2301, and the
 potential for EYP-1901 as a sustained delivery treatment for serious eye diseases, including wet age-related macular degeneration,
 non-proliferative diabetic retinopathy and diabetic macular edema;
- fluctuations in our operating results;
- the duration, scope and outcome of any governmental inquiries or investigations;
- the extent to which the COVID-19 pandemic impacts our business, the medical community and the global economy;
- the success of current and future license and collaboration agreements, including our agreements with Alimera Sciences, Inc., Ocumension Therapeutics, Equinox Science, LLC and Betta Pharmaceuticals Co., Ltd.;
- our dependence on contract research organizations, vendors and investigators;
- · effects of competition and other developments affecting sales of products;
- market acceptance of our products;
- · protection of intellectual property and avoiding intellectual property infringement;
- product liability; and
- other factors described in our filings with the SEC.

We cannot guarantee that the results and other expectations expressed, anticipated or implied in any forward-looking statement will be realized. The risks set forth under Item 1A of our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, as revised or supplemented by our Quarterly Reports on Form 10-Q and other documents we file with the SEC, describe material risks to our business, and you should read and interpret any forward-looking statements together with these risks. A variety of factors, including these risks, could cause our actual results and other expectations to differ materially from the anticipated results or other expectations expressed, anticipated or implied in our forward-looking statements. Should known or unknown risks materialize, or should underlying assumptions prove inaccurate, actual results could differ materially from past results and those anticipated, estimated or projected in the forward-looking statements. You should bear this in mind as you consider any forward-looking statements.

You should read this prospectus, any prospectus supplement and the documents that we incorporate by reference herein and therein completely and with the understanding that our actual future results may be materially different from what we expect. The forward-looking statements contained in this prospectus are made as of the date of this prospectus and we do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law.

MARKET, INDUSTRY AND OTHER DATA

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

SUMMARY

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

Company Overview

We are a company committed to developing and commercializing innovative therapeutics to help improve the lives of patients with serious eye disorders. Our pipeline leverages our proprietary erodible DURASERT E^{TM} technology for sustained intraocular drug delivery including EYP-1901, an investigational treatment delivering vorolanib, currently in Phase 2 clinical trials for wet age-related macular degeneration, the leading cause of vision loss among people 50 years of age and older in the United States, and non-proliferative diabetic retinopathy. We are also advancing EYP-2301 into preclinical development delivering razuprotafib in Durasert E for the potential treatment of diabetic eye diseases.

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

Corporate Information

We were incorporated under the laws of the state of Delaware on March 19, 2008 under the name New pSivida, Inc.; our predecessor, pSivida Limited, was formed in December 2000 as an Australian company incorporated in Western Australia. We subsequently changed our name to pSivida Corp. in May 2008 and again to EyePoint Pharmaceuticals, Inc. in March 2018. Our principal executive office is located at 480 Pleasant Street, Watertown, Massachusetts 02472 and our telephone number is (617) 926-5000. Our website address is www.eyepointpharma.com. The information contained on, or that can be accessed through, our website is not a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

DEXYCU[®], DURASERT[®] and DURASERT E^M are our trademarks. Retisert[®] and Vitrasert[®] are Bausch & Lomb's trademarks. ILUVIEN[®] is Alimera Sciences, Inc.'s trademark. YUTIQ[®] was assigned to Alimera Sciences, Inc. in certain jurisdictions pursuant to a product rights agreement in May 2023. YUTIQ[®] was licensed to Ocumension in other jurisdictions pursuant to a license agreement with Ocumension in November 2018. Verisome[®] is a trademark owned by Ramscor, Inc. and exclusively licensed to us.

RISK FACTORS

Investing in our securities involves a high degree of risk. The prospectus supplement applicable to each offering of our securities will contain a discussion of the risks applicable to an investment in our securities. Prior to making a decision about investing in our securities, you should carefully consider the specific factors discussed under the heading "Risk Factors" in the applicable prospectus supplement, together with all of the other information contained or incorporated by reference in the prospectus supplement or appearing or incorporated by reference in this prospectus. You should also consider the risks, uncertainties and assumptions discussed under the heading "Risk Factors" in our most recent Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q and other documents that we file with the SEC, which are incorporated herein by reference as described in this prospectus under the heading "Where You Can Find More Information". The risks and uncertainties we have described in such documents are not the only risks that we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our operations.

USE OF PROCEEDS

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

PLAN OF DISTRIBUTION

We may sell the securities, from time to time pursuant to public offerings, negotiated transactions, block trades, "At the Market Offerings," within the meaning of Rule 415(a)(4) of the Securities Act of 1933, as amended, or the Securities Act, into an existing trading market, at prevailing market prices, or a combination of these methods. We may sell the securities to or through underwriters or dealers, through agents or remarketing firms, or directly to one or more purchasers. We may distribute securities from time to time in one or more transactions:

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

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

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

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

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Unless otherwise indicated in the prospectus supplement, subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement, other than securities covered by any purchase option. Any public offering price and any discounts or concessions allowed or reallowed or paid to

dealers may change from time to time. We may use underwriters, dealers or agents with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, dealer or agent, the nature of any such relationship.

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

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

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

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

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

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

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

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

Any underwriter may engage in purchase options, stabilizing transactions, short-covering transactions and penalty bids in accordance with Regulation M under the Securities Exchange Act of 1934, as amended, or the Exchange Act. Purchase options involve sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum price. Syndicate-covering or other short-covering transactions involve purchases of the securities, either through exercise of the purchase option or in the open market after the distribution is

completed, to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

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

GENERAL DESCRIPTION OF OUR SECURITIES

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

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

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

DESCRIPTION OF OUR COMMON STOCK

The following summary of the terms of our common stock is subject to and qualified in its entirety by reference to our certificate of incorporation and by-laws, copies of which are on file with the SEC as exhibits to previous filings with the SEC. Please refer to "Where You Can Find More Information" below for directions on obtaining these documents.

Our certificate of incorporation authorizes us to issue up to 305,000,000 shares, 300,000,000 of which are designated as common stock with a par value of \$0.001 per share. As of October 17, 2023, there were 35,309,432 shares of common stock outstanding, held by 45 stockholders of record. This figure does not reflect the number of beneficial owners of shares of our common stock as a single stockholder of record often holds shares in nominee name (also referred to as, in "street name") on behalf of multiple beneficial owners.

Voting Rights

Holders of shares of our common stock are entitled to one vote for each share held of record on all matters to be voted on by stockholders, including the election of directors. When a quorum is present at any meeting, a plurality of the votes properly cast for election to any office shall elect to such office and a majority of the votes properly cast upon any question other than an election to an office shall decide the question, except when a larger vote is required by law, by our certificate of incorporation or by our by-laws.

Our certificate of incorporation and by-laws do not provide for cumulative voting rights. Because of this, the holders of a majority of the shares of common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they should so choose.

Dividend Rights

Subject to the preferences that may be applicable to any then outstanding preferred stock, the holders of our outstanding shares of common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds. We have never paid a dividend and we do not anticipate paying a dividend in the foreseeable future.

Liquidation Rights

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock.

Other Rights and Preferences

The terms of our common stock do not include any preemptive, conversion or subscription rights, nor any redemption or sinking fund provisions. The common stock is not subject to future calls or assessments by us. The rights, preferences and privileges of the holders of our common stock are subject to, and may be adversely affected by, the rights of shares of any series of our preferred stock that we may classify and issue in the future.

Outstanding Stock Options

As of October 16, 2023, we had outstanding options to purchase 5,659,641 shares of our common stock at a weighted-average exercise price of \$9.31 per share, pursuant to our equity incentive plans. As of October 16, 2023, there were 2,312,909 shares of our common stock reserved for future issuance under our 2023 Long-Term Incentive Plan.

As of October 16, 2023, we had outstanding options to purchase 782,288 shares of our common stock at a weighted-average exercise price of 14.76 per share, which options were issued outside of our equity compensation plans as an inducement material to certain individuals entering into employment with us in accordance with Nasdaq Listing Rule 5635(c)(4).

Outstanding Stock Units

As of October 16, 2023, we had 1,333,742 shares of our common stock underlying outstanding restricted stock units, pursuant to our equity incentive plans.

2019 Employee Stock Purchase Plan

As of October 16, 2023, there were 128,095 shares of our common stock reserved for future issuance under our 2019 Employee Stock Purchase Plan.

Outstanding Warrants

As of October 16, 2023, there were 3,321,410 shares of our common stock underlying outstanding warrants. 48,683 of the outstanding warrants have a weighted average exercise price of \$12.33 and the remaining 3,272,727 outstanding warrants have an exercise price of \$0.01.

Director Nomination Rights

Per the terms of that certain Voting and Investor Rights Agreement, dated December 31, 2020, or the Ocumension Closing Date, with Ocumension and certain other investors party thereto, or the Voting Agreement, for so long as Ocumension owns a number of shares of our common stock equal to at least 75% of the shares of our common stock it acquired on the Ocumension Closing Date, and subject to compliance with applicable law and our guidelines with respect to the nomination of directors, Ocumension is entitled to designate for nomination one person, or the Ocumension Designee, to serve as a member of our board of directors, the Science Committee of our board of directors and certain other ad-hoc committees of our board of directors. Notwithstanding the foregoing, in accordance with Nasdaq Listing Rule 5640, Ocumension will not be entitled to designate for nomination any person to serve as a member of our board of directors if, at any time, Ocumension owns a number of shares of our common stock representing less than 5% of the shares of our common stock outstanding. Pursuant to the Voting Agreement, for so long as the other investors party to the Voting Agreement beneficially own at least 10% of the outstanding shares of our common stock, such investors agreed to vote in favor of the Ocumension Designee at each election of our board of directors. Mr. Ye Liu, the Chief Executive Officer of Ocumension, was appointed to our board of directors as the Ocumension Designee pursuant to the Voting Agreement.

Participation Rights

Per the terms of that certain Share Purchase Agreement with Ocumension, for so long as Ocumension owns a number of shares of our common stock equal to at least 75% of the shares of our common stock it acquired on the Ocumension Closing Date, Ocumension is entitled to participate in subsequent issuances of our equity securities in order to maintain its ownership percentage, subject to certain exceptions for, among other things, the issuance of equity awards pursuant to equity incentive plans, inducement awards and/or employee stock purchase plans and the issuance of shares of our common stock pursuant to "at-the-market" equity offering programs. Any participation rights granted to Ocumension in the Share Purchase Agreement would be effected via a separate private placement.

Additional Voting Rights

Per the terms of the Voting Agreement, Ocumension and the other investors party thereto agreed that, for so long as such investor owns a number of shares equal to at least 75% of the shares of our common stock it owns on the

Ocumension Closing Date, at any meeting of our stockholders, however called, or at any adjournment thereof, or in any other circumstances in which Ocumension or such other investors, as applicable, are entitled to vote, consent or give any other approval, except as otherwise agreed to in writing in advance by us, Ocumension and such other investors shall (a) appear at each such meeting or otherwise cause the shares of our common stock owned by such investor or their respective affiliates to be counted as present thereat for purposes of calculating a quorum; and (b) vote (or cause to be voted), in person or by proxy, all such shares of our common stock that are beneficially owned by such investor or as to which such investor has, directly or indirectly, the right to vote or direct the voting, (i) in favor of any proposals recommended by our board of directors for approval; and (ii) against any proposals that our board of directors recommends our stockholders vote against; provided, however, that the foregoing does not apply to meetings or proposals that are inconsistent with the investor's rights and obligations under certain agreements between the applicable investor and us.

Description of Certain Provisions of Delaware Law and our Certificate of Incorporation and By-laws

Section 203 of the Delaware General Corporation Law

We are subject to the provisions of Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a three-year period following the time that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- the interested stockholder owned at least 85% of the voting stock of the corporation outstanding upon consummation of the transaction, excluding for purposes of determining the number of shares outstanding (1) shares owned by persons who are directors and also officers and (2) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or subsequent to the consummation of the transaction, the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66-2/3% of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, lease, pledge or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- subject to exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; and
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

Certificate of Incorporation and By-laws

Provisions of our certificate of incorporation and by-laws may delay or discourage transactions involving an actual or potential change of control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares, or transactions that our stockholders might otherwise deem to be in their best interests. Therefore, these provisions could adversely affect the price of our common stock. Among other things, our certificate of incorporation and our by-laws:

- permit our board of directors to issue up to 5,000,000 shares of preferred stock, with any rights, preferences and privileges as it may designate, which issuance could result in the loss of voting control by other stockholders;
- subject to any director nomination rights, provide that all vacancies on our board of directors, including as a result of newly created directorships, may, except as otherwise required by law, be filled only by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- provide that, with the exception of director nominees submitted by Ocumension, stockholders seeking to present proposals before a
 meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide advance notice in
 writing, and also specify requirements as to the form and content of a stockholder's notice;
- do not provide for cumulative voting rights, thereby allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election; and
- provide that special meetings of our stockholders may be called only by the (i) the chairperson of the board; (ii) our president; or (iii) a majority of the members of our board of directors then in office.

The Nasdaq Global Market

Our shares of common stock are listed for trading on the Nasdaq Global Market under the symbol "EYPT."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A.

DESCRIPTION OF OUR PREFERRED STOCK

We are authorized to issue up to 5,000,000 shares of preferred stock, par value \$0.001 per share, of which no shares have been designated.

Our board of directors may, without further action by our stockholders, from time to time, direct the issuance of shares of preferred stock in series and may, at the time of issuance, determine and fix the number of shares of such series and the designation of such series, the voting powers, if any, of the shares of such series, the preferences and relative, participating, optional or other special rights, if any, and the qualifications, limitations or restrictions thereof, including without limitation thereof, dividend rights, conversion rights, redemption privileges and liquidation preferences, of the shares of such series. Satisfaction of any dividend preferences of outstanding shares of our preferred stock would reduce the amount of funds available for the payment of dividends on shares of our common stock. Holders of shares of our preferred stock may be entitled to receive a preference payment in the event of any liquidation, dissolution or winding-up of our company before any payment is made to the holders of shares of our common stock. In some circumstances, the issuance of shares of preferred stock may render more difficult or tend to discourage a merger, tender offer or proxy contest, the assumption of control by a holder of a large block of our securities or the removal of incumbent management. Upon the affirmative vote of our board of directors, without stockholder approval, we may issue shares of preferred stock with voting and conversion rights which could adversely affect the holders of shares of our common stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock on the rights of holders of common stock until the board of directors determines the specific rights attached to that preferred stock. We have no current plan to issue any shares of preferred stock.

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

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

- any material limitations on issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights upon our liquidation, dissolution, or winding up; and
- any other affirmative, negative or other covenants or contractual rights which might be attendant with the specific series of preferred stock.

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

Transfer Agent and Registrar

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

DESCRIPTION OF OUR WARRANTS

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

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

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

Transfer Agent and Registrar

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

Description of Outstanding Warrants

See "Description of Our Capital Stock-Description of Our Common Stock-Outstanding Warrants."

DESCRIPTION OF OUR DEBT SECURITIES

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

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

We may offer under this prospectus up to an aggregate principal amount of \$350,000,000 in debt securities, or if debt securities are issued at a discount, or in a foreign currency, foreign currency units or composite currency, the principal amount as may be sold for an aggregate initial public offering price of up to \$350,000,000. Unless otherwise specified in the applicable prospectus supplement, the debt securities will represent direct, unsecured obligations of ours and will rank equally with all of our other unsecured indebtedness.

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

General

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

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

- the title of the series;
- the aggregate principal amount;
- the issue price or prices, expressed as a percentage of the aggregate principal amount of the debt securities;
- any limit on the aggregate principal amount;
- the date or dates on which the debt securities will be issued and on which principal of, and premium, if any, is payable;
- the interest rate or rates (which may be fixed or variable) or, if applicable, the method used to determine such rate or rates;
- the date or dates from which interest will accrue, the interest payment date or dates on which interest will be payable and any regular record date for the interest payable, and the basis upon which interest will be calculated if other than that of a 360-day year of twelve 30-day months;
- the place or places where principal and, if applicable, premium and interest, is payable;

- the terms and conditions upon which we may, or the holders may require us to, redeem or repurchase the debt securities;
- the denominations in which such debt securities may be issuable, if other than a minimum denomination of \$2,000 or an integral multiple of \$1,000 in excess thereof;
- whether the debt securities are to be issuable in the form of certificated debt securities (as described below) or global debt securities (as described below);
- the portion of principal amount that will be payable upon declaration of acceleration of the maturity date if other than the principal amount of the debt securities;
- the currency of denomination;
- the designation of the currency, currencies or currency units in which payment of principal and, if applicable, premium and interest, will be made;
- if payments of principal and, if applicable, premium or interest, on the debt securities are to be made in one or more currencies or currency units other than the currency of denomination, the manner in which the exchange rate with respect to such payments will be determined;
- if amounts of principal and, if applicable, premium and interest may be determined by reference to an index, including an index based on a currency or currencies other than in which the debt securities are payable, then the manner in which such amounts will be determined;
- the provisions, if any, relating to any collateral provided for such debt securities;
- whether the debt securities will be guaranteed by any person or persons and, if so, the identity of such person or persons, the terms and conditions upon which such debt securities shall be guaranteed and, if applicable, the terms and conditions upon which such guarantees may be subordinated to other indebtedness of the respective guarantors;
- any addition to or change in the covenants described in this prospectus or in the indenture;
- any events of default, if not otherwise described below under "Events of Default";
- the terms and conditions, if any, for conversion into or exchange for shares of our common stock or preferred stock;
- any depositaries, interest rate calculation agents, exchange rate calculation agents or other agents;
- the terms and conditions, if any, upon which the debt securities shall be subordinated in right of payment to other indebtedness of our company; and
- any other terms of the debt securities of such series.

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

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

Exchange and/or Conversion Rights

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

Transfer and Exchange

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

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

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

Certificated Debt Securities

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

Global Securities

The debt securities of a series may be issued in the form of one or more global securities that will be deposited with a depositary or its nominees identified in the prospectus supplement relating to the debt securities. In such a case, one or more global securities will be issued in a denomination or aggregate denominations equal to the portion of the aggregate principal amount of outstanding debt securities of the series to be represented by such global security or securities.

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

Protection in the Event of Change of Control

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

Covenants

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

Consolidation, Merger, Conveyance, Transfer or Lease

We may agree in any indenture that governs the debt securities of any series covered by this prospectus that we will not consolidate with or merge into any other person or convey, transfer or lease (as lessor) our properties and

assets as, or substantially as, an entirety to any person, unless such person and such proposed transaction meets various criteria, which we will describe in detail in the applicable prospectus supplement.

Defaults and Notice

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

- default in the payment of any interest upon any debt security of that series when it becomes due and payable, and continuance of such default for a period of 30 days;
- default in the payment of the principal of or any premium on any debt security of that series at its maturity;
- default in the deposit of any sinking fund payment, when and as due by the terms of a debt security of that series;
- default in the performance or breach of any other covenants or agreements in the indenture with respect to the debt securities of such series; and
- certain events relating to our bankruptcy, insolvency or reorganization.

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

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

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

Any indenture that governs our debt securities covered by this prospectus may endow the holders of such debt securities to institute a proceeding with respect to such indenture, subject to certain conditions, which will be



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

Modification of the Indenture

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

Defeasance; Satisfaction and Discharge

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

Regarding the Trustee

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

Governing Law

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

DESCRIPTION OF OUR UNITS

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

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

General

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

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

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

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

Issuance in Series

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

WHERE YOU CAN FIND MORE INFORMATION

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

INCORPORATION BY REFERENCE

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

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, filed with the SEC on March 10, 2023 (including those portions of the Company's Definitive Proxy Statement on Schedule 14A, filed with the Commission on <u>April 28, 2023</u>, that are incorporated by reference into Part III of such Annual Report on Form 10-K);
- our Quarterly Reports on Form 10-Q for the quarterly periods ended <u>March 31, 2023</u>, filed with the SEC on May 4, 2023, and <u>June 30</u>, 2023, filed with the SEC on August 4, 2023;
- our Current Reports on Form 8-K, filed with the SEC on January 6, 2023 (except Item 2.02 and the portions of Item 99.1 covered by Item 2.02), January 12, 2023, January 23, 2023, March 10, 2023, March 27, 2023, May 18, 2023, as amended by our Current Report on Form 8-K/A filed on May 23, 2023, June 5, 2023, June 21, 2023, July 10, 2023, July 11, 2023, July 27, 2023, September 11, 2023, September 13, 2023 and October 16, 2023; and
- the description of our common stock contained in our Registration Statement on Form 20-F filed with the SEC on January 20, 2005 and subsequent Current Report on Form 8-K filed under Rule 12g-3 of the Exchange Act on June 19, 2008, as updated by Exhibit 4.5 to our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, including any amendments or reports filed for the purpose of updating such description.

You may request, orally or in writing, a copy of any or all of the documents incorporated herein by reference. These documents will be provided to you at no cost, by contacting: EyePoint Pharmaceuticals, Inc., Attn: Corporate Secretary, 480 Pleasant Street, Watertown, Massachusetts 02472. In addition, copies of any or all of the documents incorporated herein by reference may be accessed at our website at www.eyepointpharma.com. The information on such website is not incorporated by reference and is not a part of this prospectus.

LEGAL MATTERS

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

EXPERTS

The financial statements of EyePoint Pharmaceuticals, Inc. incorporated by reference in this Prospectus from the Company's Annual Report on Form 10-K have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report. Such financial statements are incorporated by reference in reliance upon the report of such firm, given their authority as experts in accounting and auditing.

\$175,000,000



Common Stock

Prospectus supplement

J.P. Morgan

TD Cowen

Guggenheim Securities

December , 2023