Neos Therapeutics, Inc. Form 424B3 December 20, 2018

Use these links to rapidly review the document <u>TABLE OF CONTENTS</u>

Table of Contents

Filed Pursuant to Rule 424(b)(3) Registration No. 333-228748

PROSPECTUS

3,796,668 Shares

Common Stock

This prospectus relates to the offer and sale of up to 3,796,668 shares of our common stock under this prospectus by the selling stockholders identified in the "Selling Stockholders" section of this prospectus or their transferees, pledges, donees or successors in interest. The shares of common stock registered hereunder are issuable to the selling stockholders at their election upon conversion of certain amended and restated senior secured convertible promissory notes, or Notes, issued pursuant to our facility agreement dated as of May 11, 2016, by and among us, the selling stockholders and other parties thereto, as amended by the First Amendment, dated June 1, 2017, and by the Second Amendment to the Facility Agreement, or the Second Amendment, dated November 5, 2018, which we refer to as the Facility Agreement.

The selling stockholders or their pledges, donees, transferees or other successors in interest may sell the shares of common stock described in this prospectus in a number of different ways and at varying prices. We provide more information about how the selling stockholders may sell shares of common stock in the section titled "Plan of Distribution" on page 13. We are not selling any securities under this prospectus and will not receive any of the proceeds from the sale of these shares by the selling stockholders. We will pay certain expenses incurred in registering the shares, including legal and accounting fees.

Our common stock is listed on the Nasdaq Global Market under the symbol "NEOS." On December 19, 2018, the closing price for our common stock, as reported on the Nasdaq Global Market, was \$1.88 per share. Our principal executive offices are located at 2940 N. Hwy 360, Grand Prairie, TX 75050.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties referenced under the heading "Risk Factors" contained in this prospectus beginning on page 7 and any applicable prospectus supplement, and under similar headings in the other documents that are incorporated by reference into this prospectus.

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 December 20, 2018.

Table of Contents

TABLE OF CONTENTS

INFORMATION CONTAINED IN THIS PROSPECTUS		<u>4</u>
<u>SUMMARY</u>		<u>5</u>
RISK FACTORS		<u>7</u>
<u>CAUTIONARY STATEMENT REGARDING FORWARD-LOOKIN</u>	<u>G STATEMENTS</u>	<u>8</u>
<u>USE OF PROCEEDS</u>		<u>10</u>
SELLING STOCKHOLDERS		<u>11</u>
PLAN OF DISTRIBUTION		<u>13</u>
DESCRIPTION OF CAPITAL STOCK		<u>16</u>
<u>LEGAL MATTERS</u>		<u>21</u>
<u>EXPERTS</u>		<u>21</u>
WHERE YOU CAN FIND MORE INFORMATION		<u>22</u>
INCORPORATION BY REFERENCE		<u>22</u>
	3	

INFORMATION CONTAINED IN THIS PROSPECTUS

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, if applicable, any accompanying prospectus supplement. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or, if applicable, any accompanying prospectus supplement. This prospectus and, if applicable, any accompanying prospectus supplement, 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, if applicable, any accompanying prospectus supplement constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus and, if applicable, any accompanying prospectus supplement, is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and, if applicable, any accompanying prospectus supplement, is delivered or securities are sold on a later date.

SUMMARY

The following summary provides an overview of selected information related to this offering and does not contain all the information that you should consider before investing in our securities. You should carefully read this entire prospectus, including the risks of investing discussed under "Risk Factors" beginning on page 7, the financial statements and related notes and other information incorporated by reference in this prospectus, and, if applicable, any prospectus supplement or related free writing prospectus, and the additional information described under the captions "Where You Can Find More Information" and "Incorporation by Reference," before buying securities in this offering. Unless the context otherwise requires, "NEOS," the "Company," "we," "us," "our" and similar names refer to Neos Therapeutics, Inc. References to "selling stockholders" refer to the stockholders listed herein under the heading "Selling Stockholders" on page 11, who may sell shares from time to time as described in this prospectus.

About This Prospectus

The securities described in this prospectus are part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, using a "shelf" registration process to register 3,796,668 shares of our common stock, or the Shares. The Shares are issuable to the selling stockholders at the election of each selling stockholder to convert the Notes issued to the selling stockholders pursuant to the Facility Agreement, and as described in the Current Report on Form 8-K filed by us with the SEC on November 5, 2018. The Shares are being registered for resale or other disposition by the selling stockholders or their pledges, donees, transferees or other successors in interest. We will not receive any proceeds from the sale or other disposition of the Shares registered hereunder, or interests therein.

About the Company

We are a pharmaceutical company focused on developing, manufacturing and commercializing products utilizing our proprietary modified-release drug delivery technology platform, which we have already used to develop Adzenys XR-ODT, Cotempla XR-ODT and Adzenys ER oral suspension, or Adzenys ER, for the treatment of attention deficit hyperactivity disorder, or ADHD. Our products and product candidates are modified release medications in patient-friendly, orally disintegrating tablets, or ODT, or oral suspension dosage forms. Our proprietary modified-release drug delivery platform has enabled us to create novel, extended-release ODT and oral suspension dosage forms. We received approval from the U.S. Food and Drug Administration, or FDA, for Adzenys XR-ODT, our amphetamine XR-ODT, on January 27, 2016 and launched the commercialization of this product on May 16, 2016. We received approval from the FDA for Cotempla XR-ODT, our methylphenidate XR-ODT for the treatment of ADHD in patients 6 to 17 years old, on June 19, 2017. We initiated an early experience program with limited product availability on September 5, 2017 before launching this product nationwide on October 2, 2017. Also, we received approval from the FDA for Adzenys ER, our amphetamine extended-release oral suspension, on September 15, 2017, and launched the commercialization of this product on February 26, 2018. We believe Adzenys XR-ODT and Cotempla XR-ODT are the first amphetamine XR-ODT and the first methylphenidate XR-ODT, respectively, for the treatment of ADHD on the market. In addition to our marketed products, we are developing NT-0400, our XR-ODT product candidate, for nausea and vomiting and NT0501, our product candidate for the treatment of sialorrhea.

Our predecessor company was incorporated in Texas on November 30, 1994 as PharmaFab, Inc. and subsequently changed its name to Neostx, Inc. On June 15, 2009, we completed a reorganization pursuant to which substantially all of the capital stock of Neostx, Inc. was acquired by a newly formed Delaware corporation, named Neos Therapeutics, Inc. The remaining capital stock of Neostx, Inc. was acquired by us on June 29, 2015, and Neostx, Inc. was merged with and into Neos Therapeutics, Inc. Our principal executive offices are located at 2940 N. Hwy 360, Grand Prairie, TX 75050 and our

Table of Contents

telephone number is (972) 408-1300. Our website address is www.neostx.com. The information contained on our website is not a part of, and should not be construed as being incorporated by reference into, this prospectus or any applicable prospectus supplement. Our common stock trades on the Nasdaq Global Market under the symbol "NEOS".

Implications of Being an Emerging Growth Company

We qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. As an emerging growth company, we may take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. These provisions include, among others:

only two years of audited financial statements, in addition to any required unaudited interim financial statements with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure:

reduced disclosure about our executive compensation arrangements;

no non-binding advisory votes on executive compensation or golden parachute arrangements; and

exemption from the auditor attestation requirement in the assessment of our internal controls over financial reporting.

We may take advantage of these exemptions until such time that we are no longer an emerging growth company. We will continue to remain an "emerging growth company" until the earliest of the following: (i) the last day of the fiscal year following the fifth anniversary of our initial public offering; (ii) the last day of the fiscal year in which our total annual gross revenue is equal to or more than \$1.07 billion (as inflation-adjusted by the SEC from time to time); (iii) the date on which we have issued more than \$1 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the Securities and Exchange Commission, or the SEC. We may choose to take advantage of some, but not all, of the available exemptions. We have taken advantage of certain reduced reporting burdens in this prospectus and any applicable prospectus supplement and in documents incorporated herein and therein by reference. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you hold stock.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully consider the risks described in this prospectus, together with all of the other information incorporated by reference into this prospectus, including from our most recent annual report on Form 10-K and subsequent quarterly reports on Form 10-Q, as well as other information we include or incorporate by reference into this prospectus and any applicable prospectus supplement, before making an investment decision. Our business, financial condition or results of operations could be materially adversely affected by the materialization of any of these risks. The trading price of our securities could decline due to the materialization of any of these risks, and you may lose all or part of your investment.

7

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents that we incorporate by reference, contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Any statements about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and may be forward-looking. These statements are often, but are not always, made through the use of words or phrases such as "may," "will," "could," "should," "expects," "intends," "plans," "anticipates," "believes," "estimates," "predicts," "projects," "potential," "continue," and similar expressions, or the negative of these terms, or similar expressions. Accordingly, these statements involve estimates, assumptions, risks and uncertainties which could cause actual results to differ materially from those expressed in them. Any forward-looking statements are qualified in their entirety by reference to the factors discussed throughout this prospectus, and in particular those factors referenced in the section "Risk Factors."

This prospectus contains forward-looking statements that are based on our management's belief and assumptions and on information currently available to our management. These statements relate to future events or our future financial performance, and involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. Forward-looking statements include, but are not limited to, statements about:

our anticipated cash needs and our estimates regarding our anticipated expenses, capital requirements and our needs for future financing;

our ability to commercialize Adzenys XR-ODT, Cotempla XR-ODT and Adzenys ER oral suspension, or Adzenys ER, or develop and commercialize any other future product or product candidate;

our ability to maintain our license for NT0501, to obtain regulatory approval of NT0501 and to otherwise realize the intended benefits of this license;

the effect of the amendment to our facility agreement and our ability to satisfy the repayment obligations thereunder;

the cost or other aspects of the future sales of Adzenys XR-ODT, Cotempla XR-ODT and Adzenys ER or the timing, cost or other aspects of the commercial launch and future sales of any other future product or product candidate;

our ability to increase our manufacturing and distribution capabilities for Adzenys XR-ODT, Cotempla XR-ODT and Adzenys ER or any other future product or product candidate;

the attention deficit hyperactivity disorder patient market size and market adoption of Adzenys XR-ODT, Cotempla XR-ODT and Adzenys ER by physicians and patients;

the therapeutic benefits, effectiveness and safety of Adzenys XR-ODT, Cotempla XR-ODT and Adzenys ER or any other future product or product candidate;

our expectations regarding the commercial supply of Adzenys XR-ODT, Cotempla XR-ODT and Adzenys ER, or any other future products, or our generic Tussionex;

our ability to receive, and the timing of any receipt of the U.S. Food and Drug Administration, or FDA, approvals, or other regulatory action in the United States and elsewhere, for any future product candidate;

our expectations regarding federal, state and foreign regulatory requirements;

8

Table of Contents

our entry into the settlement and licensing agreement with Actavis Laboratories FL, Inc., or Actavis, the effect of our agreement with Actavis on its Abbreviated New Drug Application, or ANDA, and with the FDA for a generic version of Adzenys XR-ODT, and the expected timing of the manufacture and marketing of Actavis's generic version of Adzenys XR-ODT under the ANDA;

our product research and development activities, including the timing and progress of our clinical trials, and projected expenditures;

issuance of patents to us by the U.S. Patent and Trademark Office and other governmental patent agencies;

our ability to achieve profitability;

our staffing needs; and

the additional risks, uncertainties and other factors described under the caption "Risk Factors" in this prospectus and any prospectus supplement that we may file.

These forward-looking statements are neither promises nor guarantees of future performance due to a variety of risks and uncertainties and other factors more fully discussed in the "Risk Factors" section in this prospectus, the section of any accompanying prospectus supplement entitled "Risk Factors" and the risk factors and cautionary statements described in other documents that we file from time to time with the SEC, specifically under "Item 1A. Risk Factors" and elsewhere in our most recent Annual Report on Form 10-K for the period ended December 31, 2017 and our most recent Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, and our Current Reports on Form 8-K.

Given these uncertainties, readers should not place undue reliance on our forward-looking statements. These forward-looking statements speak only as of the date on which the statements were made and are not guarantees of future performance. Except as may be required by applicable law, we do not undertake to update any forward-looking statements after the date of this prospectus or the respective dates of documents incorporated by reference herein or therein that include forward-looking statements.

Table of Contents

USE OF PROCEEDS

The proceeds from the sale of the Shares offered pursuant to this prospectus are solely for the accounts of the selling stockholders. Accordingly, we will not receive any of the proceeds from the sale of the Shares offered by this prospectus. See "Selling Stockholders" and "Plan of Distribution" described below.

10

SELLING STOCKHOLDERS

The shares of common stock covered by this prospectus may be acquired by the selling stockholders from us by electing to convert the Notes issued to the selling stockholders pursuant to the Facility Agreement. Under the registration rights agreement, or the Registration Agreement, dated November 5, 2018, by and among the Company and the selling stockholders, we agreed to file a registration statement with the SEC covering the resale of the shares issuable upon conversion of the Notes referenced above. The principal of the Notes is convertible by the selling stockholders into shares of our common stock at a per share conversion price that equals 95% (subject to adjustment as provided in the Notes) of the greater of: (A) the average of the volume weighted average prices per share of the common stock on the NASDAQ Global Market for the three trading day period immediately preceding such conversion, and (B) \$10.00 (subject to adjustment as provided in the Notes). However, the Notes provide that we are not required to issue more than an aggregate of 3,796,668 shares of common stock pursuant to conversions of the Notes (unless requisite stockholder approval is obtained), which we refer to as the Exchange Cap, and that only 50% of the principal amount of the Notes outstanding as of November 8, 2018 may be converted into shares of our common stock on or before November 5, 2019, which we refer to as the Conversion Cap. Further, under the terms of the Notes, the number of shares of our common stock that may be acquired by a selling stockholder upon any conversion of a Note is limited to the extent necessary to ensure that, following such conversion, such selling stockholder would not, together with its affiliates and any other persons or entities whose beneficial ownership of our common stock would be aggregated with such selling stockholder for purposes of Section 13(d) of the Exchange Act, beneficially own in excess of 4.985% of the total number of shares of our common stock then issued and outstanding, which we refer to as the 4.985% Blocker. For purposes of the 4.985% blocker, beneficial ownership is determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. In addition, beginning on May 11, 2019, subject to the terms, conditions and limitations set forth in the Notes, we will have the right to pay principal and future interest in shares of common stock not to exceed 2,135,625 shares in the aggregate. The numbers of shares in the table below do not reflect any such potential payment in shares, assume the Notes will be convertible into the maximum numbers of shares allowed under the Exchange Cap, and do not take into account the Conversion Cap or the 4.985% Blocker.

The following table provides information regarding the selling stockholders and the number of Shares each selling stockholder is offering under this prospectus. We have prepared this table based on information furnished to us by or on behalf of the selling stockholders. Under the rules of the SEC, beneficial ownership includes shares over which the indicated beneficial owner exercises voting or investment power. Beneficial ownership is determined under Section 13(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and generally includes voting or investment power with respect to securities, including any securities that grant a selling stockholder the right to acquire common stock within 60 days of November 30, 2018. Unless otherwise indicated in the footnotes below, we believe that the selling stockholders have sole voting and investment power with respect to all shares beneficially owned. The percentage ownership data is based on 49,676,303 shares of our common stock issued and outstanding as of November 15, 2018. The number of shares of common stock beneficially owned by the selling stockholders is based on information provided by the selling stockholders as of as of November 30, 2018. Since November 30, 2018, the selling stockholders may have sold, transferred or otherwise disposed of shares of our common stock in transactions exempt from the registration requirements of the Securities Act of 1933, as amended, or the Securities Act.

The Shares may be sold by the selling stockholders, by those persons or entities to whom they transfer, donate, devise, pledge or distribute their Shares or by other successors in interest. The information regarding shares beneficially owned after this offering assumes the sale of all Shares offered by each of the selling stockholders. The selling stockholders may sell less than all of the Shares

Table of Contents

listed in the table. In addition, the Shares listed below may be sold pursuant to this prospectus or in privately negotiated transactions. Accordingly, we cannot estimate the number of Shares the selling stockholders will sell under this prospectus.

Other than our Facility Agreement, the selling stockholders have not held any position or office or had any other material relationship with us or any of our predecessors or affiliates within the past three years, other than beneficial ownership of the shares described in the table below.

	Shares Beneficially Owned before	Shares Offered	Shares Beneficially Owned After Offering(3)	
Name of Selling Stockholder(1)	Offering(2)	Hereby(2)	Number	Percentage (%)
Deerfield Special Situations Fund, L.P.(4)	1,676,567	1,265,556	411,011	*
Deerfield Private Design Fund III, L.P.(5)	3,350,368	2,531,112	819,256	2.48%

Represents beneficial ownership of less than 1% of our outstanding common stock.

- (1)
 The business address of each selling stockholder is: c/o Deerfield Management Company, L.P., 780 Third Avenue, 37th Floor, New York, NY 10017. Additional information concerning named selling stockholders or pledgees, donees, transferees or other successors-in-interest of any such stockholder may be set forth in a prospectus supplement to this prospectus.
- The number of shares of common stock beneficially owned, and the number of shares offered, by each selling stockholder reflects the pro rata portion of the maximum number of Shares issuable the selling stockholders under the Exchange Cap, based on the principal amount of the Note held by such selling stockholder as of November 30, 2018.
- We do not know when or in what amounts a selling stockholder may offer Shares for sale. The selling stockholders may not sell any or all of the Shares offered by this prospectus. Because the selling stockholders may offer all or some of the Shares pursuant to this offering and because there are currently no agreements, arrangements or undertakings with respect to the sale of any of the Shares, we cannot estimate the number of Shares that will be held by the selling stockholders after completion of this offering. However, for purposes of this table, we have assumed that, after completion of this offering, none of the Shares covered by this prospectus will be held by the selling stockholders.
- (4)
 Includes: (i) 411,011 shares of common stock held by Deerfield Special Situations Fund, L.P., or DSS, and (ii) 1,265,556 shares of common stock