

Minerva Neurosciences, Inc.
Form 424B4
May 12, 2015
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Registration No. 333-203737

PROSPECTUS

12,563,322 Shares

Common Stock

This prospectus relates to the resale by the selling stockholders identified in this prospectus of up to 6,281,661 shares of our common stock that we sold to the selling stockholders and 6,281,661 shares of common stock that are issuable upon the exercise of outstanding warrants to purchase our common stock issued to the selling stockholders in connection with a private placement completed on March 18, 2015. We will not receive any proceeds from the sale of these shares by the selling stockholders.

We are not selling any shares of common stock and will not receive any proceeds from the sale of the shares under this prospectus. Upon the exercise of the warrants for 6,281,661 shares of our common stock by payment of cash, however, we will receive the exercise price of the warrants, which is \$5.772 per share.

We have agreed to bear all of the expenses incurred in connection with the registration of these shares. The selling stockholders will pay or assume brokerage commissions and similar charges, if any, incurred for the sale of shares of our common stock.

The selling stockholders identified in this prospectus, or their pledgees, donees, transferees or other successors-in-interest, may offer the shares from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices. For additional information on the methods of sale that may be used by the selling stockholders, see the section entitled "Plan of Distribution" beginning on page 10. For a list of the selling stockholders, see the section entitled "Selling Stockholders" beginning on page 5.

We may amend or supplement this prospectus from time to time by filing amendments or supplements as required. You should read the entire prospectus and any amendments or supplements carefully before you make your investment decision.

Our common stock is traded on the NASDAQ Global Market under the symbol NERV. On May 11, 2015, the closing sale price of our common stock on the NASDAQ Global Market was \$5.21 per share. You are urged to obtain current

market quotations for the common stock.

We are an emerging growth company as defined by the Jumpstart Our Business Startups Act of 2012 and, as such, we have elected to comply with certain reduced public company reporting requirements for this prospectus and future filings. Please see Prospectus Summary Implications of Being an Emerging Growth Company.

Investing in our common stock involves a high degree of risk. Please read Risk Factors beginning on page 3 of 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.

Prospectus dated May 12, 2015.

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You should rely only on the information contained in this prospectus, any supplement to this prospectus or in any free writing prospectus filed with the Securities and Exchange Commission. Neither we nor the selling stockholder have authorized anyone to provide you with additional information or information different from that contained in this prospectus filed with the Securities and Exchange Commission. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. The selling stockholder is offering to sell, and seeking offers to buy, our common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of shares of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

For investors outside the United States: Neither we nor the selling stockholder have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside the United States.

To the extent there is a conflict between the information contained in this prospectus, on the one hand, and the information contained in any document incorporated by reference filed with the Securities and Exchange Commission before the date of this prospectus, on the other hand, you should rely on the information in this prospectus. If any statement in a document incorporated by reference is inconsistent with a statement in another document incorporated

by reference having a later date, the statement in the document having the later date modifies or supersedes the earlier statement.

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PROSPECTUS SUMMARY

The following summary highlights selected information contained or incorporated by reference elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our common stock, you should carefully read this entire prospectus, including our financial statements and the related notes and other documents incorporated by reference in this prospectus, as well as the information under the caption Risk Factors herein and under similar headings in the other documents that are incorporated by reference into this prospectus.

Company Overview

We are a clinical-stage biopharmaceutical company focused on the development and commercialization of a portfolio of product candidates to treat patients suffering from central nervous system, or CNS, diseases. Leveraging our deep domain expertise, we have acquired or in-licensed four development-stage proprietary compounds that we believe have innovative mechanisms of action with potentially positive therapeutic profiles. Our lead product candidate is MIN-101, a compound for the potential treatment of patients with schizophrenia. In addition, our portfolio includes MIN-202, a compound we are co-developing with Janssen Pharmaceuticals for the treatment of patients suffering from primary and comorbid insomnia, MIN-117, a compound we are developing for the treatment of patients suffering from major depressive disorder, and MIN-301, a compound we are developing for the treatment of patients suffering from Parkinson's disease.

Corporate Information

We were incorporated under the name Cyrenaic Pharmaceuticals, Inc. under the laws of the State of Delaware on April 23, 2007. In November 2013, we merged with Sonkei Pharmaceuticals, Inc. and the combined company was renamed Minerva Neurosciences, Inc.

Our principal executive offices are located at 1601 Trapelo Road, Suite 284, Waltham, Massachusetts 02451 and our phone number is (617) 600-7373. Our website address is www.minervaneurosciences.com. The information contained on our website is not incorporated by reference into this prospectus, and you should not consider any information contained on, or that can be accessed through, our website as part of this prospectus or in deciding whether to purchase our common stock.

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THE OFFERING

Common stock offered by the selling stockholders	12,563,322 shares, including 6,281,661 shares of our common stock issuable upon exercise of warrants at an exercise price of \$5.772 per share
Common stock outstanding	24,721,143 shares
Use of proceeds	We will not receive any proceeds from the sale of shares in this offering. See Use of Proceeds.
Risk factors	See Risk Factors beginning on page 3 and the other information included in this prospectus for a discussion of factors you should carefully consider before deciding to invest in our common stock.

NASDAQ Global Market symbol NERV

The number of shares of our common stock outstanding is based on 24,721,143 shares of our common stock outstanding as of March 31, 2015 and excludes the following:

2,081,558 shares of common stock issuable upon the exercise of options outstanding as of March 31, 2015, with a weighted-average exercise price of \$6.63 per share;

2,199,775 shares of common stock reserved for future issuance under our Amended and Restated 2013 Equity Incentive Plan, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under the plan;

40,790 shares of our common stock issuable upon exercise of outstanding warrants held by our lenders, Oxford Finance LLC and Silicon Valley Bank, and any additional shares of our common stock issuable upon exercise of additional warrants issuable to Oxford Finance LLC or Silicon Valley Bank pursuant to the terms of our credit facility; and

6,281,661 shares of our common stock issuable upon exercise of warrants held by the selling stockholders at an exercise price of \$5.772 per share.

Unless otherwise indicated, all information in this prospectus assumes no exercise of outstanding options or warrants after March 31, 2015.

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RISK FACTORS

Investing in our common stock involves a high degree of risk. You should consider carefully the following risks and uncertainties as well as the risks and uncertainties described in the section entitled "Risk Factors" contained in our Annual Report on Form 10-K for the year ended December 31, 2014, as filed with the Securities and Exchange Commission, or SEC, on March 26, 2015 and in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, as filed with the SEC on May 7, 2015, which descriptions are incorporated in this prospectus by reference in their entirety, as well as in any prospectus supplement hereto. These risks and uncertainties are not the only risks and uncertainties we face. Additional risks and uncertainties not currently known to us, or that we currently view as immaterial, may also impair our business. If any of the risks or uncertainties described in our SEC filings or any additional risks and uncertainties actually occur, our business, financial condition, results of operations and cash flow could be materially and adversely affected. In that case, the trading price of our common stock could decline and you might lose all or part of your investment.

Risks Related to this Offering

Sales of shares issued in this offering may cause the market price of our shares to decline.

On March 18, 2015, we issued and sold 6,281,661 shares of our common stock and warrants to purchase an additional 6,281,661 in connection with a private placement. We have agreed to register for resale with the SEC such shares of common stock and shares of common stock issuable upon exercise of the warrants. The registration statement of which this prospectus forms a part has been filed to satisfy this obligation. Upon the effectiveness of the registration statement, an aggregate of 12,563,322 shares of common stock issued and issuable upon exercise of warrants may be freely sold in the open market. The sale of a significant amount of these shares of common stock in the open market, or the perception that these sales may occur, could cause the market price of our common stock to decline or become highly volatile.

We may have to pay liquidated damages to the selling stockholders, which would increase our expenses and reduce our cash resources.

In connection with the private placement, we entered into a registration rights agreement. Under the terms of the registration rights agreement, subject to certain limited exceptions, if the registration statement of which this prospectus forms a part has not been declared effective within the time periods specified in the registration rights agreement or we otherwise fail to comply with certain provisions set forth in the registration rights agreement, we will be required to pay the investors, as liquidated damages, 1.0% of the amount invested for each 30-day period (or a pro rata portion thereof) during which such failure continues until the shares are sold or can be sold without restriction under Rule 144 promulgated under the Securities Act of 1933, as amended, or the Securities Act. There can be no assurance that the registration statement of which this prospectus forms a part will be declared effective by the SEC or will remain effective for the time periods necessary to avoid payment of liquidated damages. Any payment of liquidated damages would increase our expenses, reduce our cash resources and may limit or preclude us from advancing our product candidates through clinical trials or otherwise growing our business.

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This prospectus, including the information that we incorporate by reference, contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this prospectus, including statements regarding our future operating results and financial position, business strategy, and plans and objectives of management for future operations, are forward-looking statements. In many cases, you can identify forward-looking statements by terms such as may, should, expects, plans, anticipates, could, intends, target, projects, believes, estimates, predicts, potential, or continue or the negative of these terms or other similar expressions.

The forward-looking statements contained in this prospectus reflect our views as of the date of this prospectus about future events and are subject to risks, uncertainties, assumptions, and changes in circumstances that may cause our actual results, performance, or achievements to differ significantly from those expressed or implied in any forward-looking statement. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future events, results, performance, or achievements. A number of important factors could cause actual results to differ materially from those indicated by the forward-looking statements, including, without limitation, those factors described in Risk Factors. Except as required by law, after the date of this prospectus, we are under no duty to update or revise any of the forward-looking statements contained or incorporated by reference herein, whether as a result of new information, future events or otherwise.

You should read this prospectus, including the information that we incorporate by reference, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

USE OF PROCEEDS

We are filing the registration statement of which this prospectus forms a part to permit holders of the shares of our common stock and warrants to purchase shares of our common stock described in the section entitled Selling Stockholders to resell such shares of common stock and shares of common stock issuable upon exercise of such warrants. We will not receive any proceeds from the resale of any shares offered by this prospectus by the selling stockholders. Upon the exercise of the warrants for 6,281,661 shares of our common stock by payment of cash, however, we will receive the exercise price of the warrants, which is \$5.772 per share.

PRICE RANGE OF COMMON STOCK

Our common stock has been listed on the NASDAQ Global Market under the symbol NERV since July 1, 2014. Prior to that, there was no public market for our common stock. The following table sets forth for the periods indicated the high and low sales prices per share of our common stock as reported on the NASDAQ Global Market:

	High	Low
Year ending December 31, 2015		
First Quarter	\$ 10.00	\$ 4.25
Second Quarter (through May 11, 2015)	\$ 5.90	\$ 4.75
Year ended December 31, 2014		
Third Quarter	\$ 7.90	\$ 5.57

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Fourth Quarter

\$ 6.91

\$ 4.08

On May 11, 2015, the last reported sale price of our common stock was \$5.21 per share. Computershare Trust Company, N.A. is the transfer agent and registrar for our common stock. As of April 22, 2015, there were approximately 38 holders of record of our common stock.

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DIVIDEND POLICY

We do not anticipate declaring or paying, in the foreseeable future, any cash dividends on our capital stock. We are also restricted by the terms of our existing credit facility from paying dividends or making other distributions or payments on our capital stock, subject to limited exceptions. Any future determination as to the declaration and payment of dividends, if any, will be at the discretion of our board of directors and will depend on then existing conditions, including our operating results, financial condition, contractual restrictions, capital requirements, business prospects and other factors our board of directors may deem relevant.

SELLING STOCKHOLDERS

On March 18, 2015, pursuant to a securities purchase agreement with certain accredited investors dated March 13, 2015, we sold in a private placement 6,281,661 shares of our common stock at a price per share of \$4.81 and warrants to purchase up to an aggregate of 6,281,661 shares of our common stock at a purchase price of \$0.125 per share underlying such warrants, with an initial exercise price of \$5.772 per share. The table below sets forth, to our knowledge, information about the selling stockholders as of April 17, 2015.

We do not know when or in what amounts the selling stockholders may offer shares for sale. The selling stockholders might not sell any or all of the shares registered pursuant to the registration statement of which this prospectus forms a part. Because the selling stockholders may offer all or some of the shares pursuant to the registration statement of which this prospectus forms a part and because there are currently no agreements or understandings with respect to the sale of any 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.

Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to shares of our common stock. Unless otherwise indicated below, to our knowledge, the selling stockholders named in the table have sole voting and investment power with respect to the shares of common stock beneficially owned by them. The number of shares of common stock beneficially owned prior to the offering for each selling stockholder includes (i) all shares of our common stock held by such selling stockholder prior to the private placement plus (ii) all shares of our common stock purchased by such selling stockholder pursuant to the private placement and being offered pursuant to the prospectus, as well as (iii) all options or other derivative securities held by such selling stockholder, which are exercisable within 60 days of March 31, 2015, including, without limitation, all shares of common stock issuable upon exercise of the warrants issued in connection with the private placement. The percentages of shares owned after the offering are based on 24,721,143 shares of our common stock outstanding as of March 31, 2015, which includes the outstanding shares of common stock offered by this prospectus. The inclusion of any shares in this table does not constitute an admission of beneficial ownership by the person named below.

Throughout this prospectus, when we refer to the shares of our common stock being offered by this prospectus on behalf of the selling stockholders, we are referring to the shares of our common stock sold in the private placement, unless otherwise indicated.

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The selling stockholders may have sold or transferred, in transactions exempt from the registration requirements of the Securities Act, some or all of their shares of common stock since the date on which the information in the table below is presented. Information about the selling stockholders may change over time.

Name and Address	Prior to Offering ⁽¹⁾		Number of Shares Offered	After Offering ⁽¹⁾	
	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned		Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned
Federated Kaufman Fund, a portfolio of Federated Equity Funds					
4000 Ericsson Drive, Warrendale, PA 15086-7561 ⁽²⁾	4,938,222	18.19%	4,240,000	75,000	0.30%
Federated Kaufman Small Cap Fund, a portfolio of Federated Equity Funds					
4000 Ericsson Drive, Warrendale, PA 15086-7561 ⁽²⁾	4,938,222	18.19%	534,000	75,000	0.30%
Federated Kaufman Fund II, a portfolio of Federated Insurance Series					
4000 Ericsson Drive, Warrendale, PA 15086-7561 ⁽²⁾	4,938,222	18.19%	89,222	75,000	0.30%
Highland Long/Short Healthcare Fund					
300 Crescent Court, Suite 700, Dallas, TX 75201 ⁽³⁾	2,431,610	9.42%	2,310,030	0	0.00%
Highland Capital Healthcare Partners (Master), L.P.					
300 Crescent Court, Suite 700, Dallas, TX 75201 ⁽³⁾	2,431,610	9.42%	121,580	0	0.00%
Perceptive Life Science Master Fund Ltd					
499 Park Ave, 25th Floor, New York, NY 10022 ⁽⁴⁾	1,621,074	6.35%	1,390,070	0	0.00%
Titan Perc, Ltd	1,621,074	6.35%	231,004	0	0.00%

750 Washington Blvd, 10th Floor, Stamford, CT 06901 ⁽⁴⁾					
Cormorant Global Healthcare Master Fund, LP					
100 High Street, Suite 1105, Boston, MA 02110 ⁽⁵⁾	1,752,946	6.92%	1,215,806	537,140	2.17%
Johnson & Johnson Innovation-JJDC, Inc.					
410 George Street, New Brunswick, N.J. 08901 ⁽⁶⁾	4,500,159	17.77%	1,215,806	3,284,353	13.29%
Index Ventures III (Jersey), L.P					
No 1 Seaton Place, St Helier					
Jersey JE4 8YJ, Channel Islands ⁽⁷⁾	5,690,906	22.83%	70,752	5,285,638	21.38%
Index Ventures III (Delaware), L.P					
No 1 Seaton Place, St Helier					
Jersey JE4 8YJ, Channel Islands ⁽⁷⁾	5,690,906	22.83%	143,724	5,285,638	21.38%

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Name and Address	Prior to Offering ⁽¹⁾		Number of Shares Offered	After Offering ⁽¹⁾	
	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned		Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned
Index Ventures III Parallel Entrepreneur Fund (Jersey), L.P No 1 Seaton Place, St Helier Jersey JE4 8YJ, Channel Islands ⁽⁷⁾	5,690,906	22.83%	2,560	5,285,638	21.38%
Index Ventures IV (Jersey), L.P Ogier House, The Esplanade, St Helier Jersey JE4 9WG, Channel Islands ⁽⁷⁾	5,690,906	22.83%	97,580	5,285,638	21.38%
Index Ventures IV Parallel Entrepreneur Fund (Jersey), L.P Ogier House, The Esplanade, St Helier Jersey JE4 9WG, Channel Islands ⁽⁷⁾	5,690,906	22.83%	9,262	5,285,638	21.38%
Index Ventures V (Jersey), L.P Ogier House, The Esplanade, St Helier Jersey JE4 9WG, Channel Islands ⁽⁷⁾	5,690,906	22.83%	77,168	5,285,638	21.38%
Index Ventures V Parallel Entrepreneur Fund (Jersey), L.P Ogier House, The Esplanade, St Helier Jersey JE4 9WG, Channel Islands ⁽⁷⁾	5,690,906	22.83%	626	5,285,638	21.38%
Yucca (Jersey) SLP 44 Esplanade, St Helier Jersey JE4 9WG, Channel Islands ⁽⁷⁾	5,690,906	22.83%	3,596	5,285,638	21.38%
Armistice Capital Master Fund, Ltd.	405,268	1.63%	405,268	0	0.00%

c/o Armistice Capital, LLC, 623 5th
Avenue, 31st Floor, New York, NY
10022⁽⁸⁾

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Name and Address	Prior to Offering ⁽¹⁾		Number of Shares Offered	After Offering ⁽¹⁾	
	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned		Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned
DAFNA Lifescience Market Neutral LP					
10990 Wilshire Blvd, Suite 1400, Los Angeles, CA 90024 ⁽⁹⁾	202,634	0.82%	12,210	0	0.00%
DAFNA Lifescience Select LP					
10990 Wilshire Blvd, Suite 1400, Los Angeles, CA 90024 ⁽⁹⁾	202,634	0.82%	72,896	0	0.00%
DAFNA Lifescience LP					
10990 Wilshire Blvd, Suite 1400, Los Angeles, CA 90024 ⁽⁹⁾	202,634	0.82%	117,528	0	0.00%
Shrewsbury Capital Partners LLC					
380 Lexington Ave, Suite 2020, New York, NY 10168 ⁽¹⁰⁾	202,634	0.82%	202,634	0	0.00%

- (1) This table is based upon information supplied by the selling stockholders, which information may not be accurate as of April 30, 2015. We have determined beneficial ownership in accordance with the rules of the SEC. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the selling stockholders named in the table above have sole voting and investment power with respect to all shares of common stock that they beneficially own, subject to applicable community property laws. Applicable percentages are based on 24,721,143 shares outstanding on April 22, 2015, adjusted as required by rules promulgated by the SEC.
- (2) The number of shares beneficially owned prior to this offering includes (a) 2,120,000 shares of common stock and immediately exercisable warrants to purchase 2,120,000 shares of common stock held by Federated Kaufman Fund, a portfolio of Federated Equity Funds, (b) 342,000 shares of common stock and immediately exercisable warrants to purchase 267,000 shares of common stock held by Federated Kaufman Small Cap Fund, a portfolio of Federated Equity Funds and (c) 44,611 shares of common stock and immediately exercisable warrants to purchase 44,611 shares of common stock held by Federated Kaufman Fund II, a portfolio of Federated Insurance Series.
- (3) The number of shares beneficially owned prior to this offering includes (a) 1,155,015 shares of common stock and immediately exercisable warrants to purchase 1,155,015 shares of common stock held by Highland Long/Short Healthcare Fund and (b) 60,790 shares of common stock and immediately exercisable warrants to purchase 60,790 shares of common stock held by Highland Capital Healthcare Partners (Master), L.P.
- (4) The number of shares beneficially owned prior to this offering includes (a) 695,035 shares of common stock and immediately exercisable warrants to purchase 695,035 shares of common stock held by Perceptive Life Science Master Fund, Ltd. and (b) 115,502 shares of common stock and immediately exercisable warrants to purchase 115,502 shares of common stock held by Titan Perc, Ltd.
- (5)

The number of shares beneficially owned prior to this offering includes 1,145,043 shares of common stock and immediately exercisable warrants to purchase 607,903 shares of common stock.

- (6) The number of shares beneficially owned prior to this offering includes 3,892,256 shares of common stock and immediately exercisable warrants to purchase 607,903 shares of common stock.
- (7) The number of shares beneficially owned before this offering consists of (a) 950,997 shares of common stock and immediately exercisable warrants to purchase 35,376 shares of common stock held by Index Ventures III (Jersey) L.P., (b) 1,931,847 shares of common stock and immediately exercisable warrants to purchase 71,862 shares of common stock held by Index Ventures III (Delaware) L.P., (c) 34,414 shares of common stock and immediately exercisable warrants to purchase 1,280 shares of common stock held by Index Ventures III Parallel Entrepreneur Fund (Jersey), L.P., (d) 70,622 shares of common stock and immediately exercisable warrants to purchase 1,798 shares of common stock held by Yucca (Jersey) SLP, (e) 1,321,464 shares of common stock and immediately exercisable warrants to purchase 48,790 shares of

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common stock held by Index Ventures IV (Jersey) L.P., (f) 125,434 shares of common stock and immediately exercisable warrants to purchase 4,631 shares of common stock held by Index Ventures IV Parallel Entrepreneur Fund (Jersey), L.P., (g) 1,045,026 shares of common stock and immediately exercisable warrants to purchase 38,584 shares of common stock held by Index Ventures V (Jersey), L.P., and (h) 8,468 shares of common stock and immediately exercisable warrants to purchase 313 shares of common stock held by Index Ventures V Parallel Entrepreneur Fund (Jersey), L.P. Michèle Ollier, one of our directors, is a partner of Index Ventures S.A., which provides advisory services to the foregoing funds, and Francesco De Rubertis, also one of our directors, is a partner of Index Ventures (UK) LLP, which acts as investment advisor to the foregoing funds. Each of Dr. Ollier and Dr. De Rubertis disclaims beneficial ownership of all such shares held by the foregoing funds, except to the extent of his or her respective pecuniary interest therein.

- (8) The number of shares beneficially owned prior to this offering includes 202,634 shares of common stock and immediately exercisable warrants to purchase 202,634 shares of common stock.
- (9) The number of shares beneficially owned prior to this offering includes (a) 6,105 shares of common stock and immediately exercisable warrants to purchase 6,105 shares of common stock held by DAFNA Lifescience Market Neutral LP, (b) 36,448 shares of common stock and immediately exercisable warrants to purchase 36,448 shares of common stock held by DAFNA Lifescience Select LP and (c) 58,764 shares of common stock and immediately exercisable warrants to purchase 58,764 shares of common stock held by DAFNA Lifescience LP.
- (10) The number of shares beneficially owned prior to this offering includes 101,317 shares of common stock and immediately exercisable warrants to purchase 101,317 shares of common stock.

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PLAN OF DISTRIBUTION

We are registering the shares of common stock previously issued and the shares of common stock issuable upon exercise of the warrants to permit the resale of these shares of common stock by the holders of the common stock and warrants from time to time after the date of this prospectus. We will not receive any of the proceeds from the sale by the selling stockholders of the shares of common stock. Upon the exercise of the warrants for 6,281,661 shares of our common stock by payment of cash, however, we will receive the exercise price of the warrants, which is \$5.772 per share. We will bear all fees and expenses incident to our obligation to register the shares of common stock, except that, if the shares of common stock are sold through underwriters or broker-dealers, the selling stockholders will be responsible for underwriting discounts or commissions or agent's commissions.

The selling stockholders may sell all or a portion of the shares of our common stock beneficially owned by them and offered hereby from time to time directly or through one or more underwriters, broker-dealers or agents. The shares of common stock may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale, or at negotiated prices. These sales may be effected in transactions, which may involve crosses or block transactions,

on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;

in the over-the-counter market;

in transactions otherwise than on these exchanges or systems or in the over-the-counter market;

through the writing of options, whether such options are listed on an options exchange or otherwise;

ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;

block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;

purchases by a broker-dealer as principal and resale by the broker-dealer for its account;

an exchange distribution in accordance with the rules of the applicable exchange;

privately negotiated transactions;

short sales;

sales pursuant to Rule 144 of the Securities Act;

broker-dealers may agree with the selling stockholder to sell a specified number of such shares at a stipulated price per share;

a combination of any such methods of sale; and

any other method permitted pursuant to applicable law.

If the selling stockholders effect such transactions by selling shares of our common stock to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the selling stockholders or commissions from purchasers of the shares of our common stock for whom they may act as agent or to whom they may sell as principal (which discounts, concessions or commissions as to particular underwriters, broker-dealers or agents may be in excess of those customary in the types of transactions involved). In connection with sales of the shares of our common stock or otherwise, the selling stockholders may enter into hedging transactions with broker-dealers, which may in turn engage in short sales of the shares of our common stock in the course of hedging in positions they assume. The selling stockholders may also sell shares of our common stock short and deliver shares of our common stock covered by this prospectus to close out short positions and to return borrowed shares in connection with such short sales. The selling stockholders may also loan or pledge shares of our common stock to broker-dealers that in turn may sell such shares.

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The selling stockholders may pledge or grant a security interest in some or all of the warrants or shares of our common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock from time to time pursuant to this prospectus or other applicable provisions of the Securities Act, amending, if necessary, the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer and donate the shares of our common stock in other circumstances in which case the transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

The selling stockholders and any broker-dealer participating in the distribution of the shares of our common stock may be deemed to be underwriters within the meaning of the Securities Act, and any commission paid, or any discounts or concessions allowed to, any such broker-dealer may be deemed to be underwriting commissions or discounts under the Securities Act. At the time a particular offering of the shares of our common stock is made, a prospectus supplement, if required, will be distributed which will set forth the aggregate amount of shares of our common stock being offered and the terms of the offering, including the name or names of any broker-dealers or agents, any discounts, commissions and other terms constituting compensation from the selling stockholders and any discounts, commissions or concessions allowed or reallocated or paid to broker-dealers.

Under the securities laws of some states, the shares of our common stock may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the shares of our common stock may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with.

There can be no assurance that any selling stockholder will sell any or all of the shares of our common stock registered pursuant to the registration statement, of which this prospectus forms a part.

The selling stockholders and any other person participating in such distribution will be subject to applicable provisions of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and the rules and regulations thereunder, including, without limitation, Regulation M of the Exchange Act, which may limit the timing of purchases and sales of any of the shares of our common stock by the selling stockholders and any other participating person. Regulation M may also restrict the ability of any person engaged in the distribution of the shares of our common stock to engage in market-making activities with respect to the shares of our common stock. All of the foregoing may affect the marketability of the shares of our common stock and the ability of any person or entity to engage in market-making activities with respect to the shares of our common stock.

We will pay all expenses of the registration of the shares of our common stock pursuant to the registration statement of which this prospectus forms a part, estimated to be \$92,883.24 in total, including, without limitation, SEC filing fees and expenses of compliance with state securities or blue sky laws; provided, however, that a selling stockholder will pay all underwriting discounts and selling commissions, if any. We will indemnify the selling stockholders against liabilities, including some liabilities under the Securities Act, or the selling stockholders will be entitled to contribution. We may be indemnified by the selling stockholders against civil liabilities, including liabilities under the Securities Act, that may arise from any written information furnished to us by the selling stockholder specifically for use in this prospectus or we may be entitled to contribution.

Once sold under the registration statement of which this prospectus forms a part, the shares of our common stock will be freely tradable in the hands of persons other than our affiliates.

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LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Cooley LLP, Boston, Massachusetts.

EXPERTS

The consolidated financial statements, incorporated in this prospectus by reference from the Company's Annual Report on Form 10-K for the year ended December 31, 2014, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which is incorporated herein by reference. Such financial statements have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

This prospectus is part of the registration statement on Form S-1 we filed with the SEC under the Securities Act and does not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference into this prospectus for a copy of such contract, agreement or other document. 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 <http://www.sec.gov>. You may also read and copy any document we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room. In addition, any person to whom this prospectus is delivered may request copies of this prospectus and any related amendments or supplements or documents incorporated by reference, without charge, by written or telephonic request directed to Mark S. Levine, Vice President and General Counsel, Minerva Neurosciences, Inc., 1601 Trapelo Road, Suite 284, Waltham, Massachusetts 02451; telephone: (617) 600-7375; E-mail: mlevine@minervaneurosciences.com.

We maintain a website at www.minervaneurosciences.com. Information found on, or accessible through, our website is not a part of, and is not incorporated into, this prospectus, and you should not consider it part of this prospectus.

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INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus.

We incorporate by reference into this prospectus and the registration statement of which this prospectus form a part the information or documents listed below that we have filed with the SEC:

our Annual Report on Form 10-K for the year ended December 31, 2014, filed on March 26, 2015;

our Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed on May 7, 2015;

our Current Reports on Form 8-K filed on January 5, 2015, January 20, 2015, January 21, 2015, March 3, 2015, March 13, 2015, March 18, 2015 and April 17, 2015;

our Definitive Proxy Statement on Schedule 14A filed on April 30, 2015; and

the description of our common stock contained in our Registration Statement on Form 8-A, filed on June 23, 2014, including any amendments or reports filed for the purposes of updating this description.

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference in this prospectus, including exhibits to these documents. You should direct any requests for documents to Mark S. Levine, Vice President and General Counsel, Minerva Neurosciences, Inc., 1601 Trapelo Road, Suite 284, Waltham, Massachusetts 02451; telephone: (617) 600-7375; E-mail: mlevine@minervaneurosciences.com.

You also may access these filings on our website at www.minervaneurosciences.com. We do not incorporate the information on our website into this prospectus or any supplement to this prospectus and you should not consider any information on, or that can be accessed through, our website as part of this prospectus or any supplement to this prospectus (other than those filings with the SEC that we specifically incorporate by reference into this prospectus or any supplement to this prospectus).

Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus will be deemed modified, superseded or replaced for purposes of this prospectus to the extent that a statement contained in this prospectus modifies, supersedes or replaces such statement.

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12,563,322 Shares

Common Stock

Prospectus

May 12, 2015