INOVIO PHARMACEUTICALS, INC.

Form 424B5 June 01, 2012 Table of Contents

> Filed pursuant to Rule 424(b)(5) Registration Statement No. 333-176670

PROSPECTUS SUPPLEMENT

(to Prospectus dated September 2, 2011)

\$25,000,000

Common Stock

We have entered into a sales agreement, or the Agreement, with Cowen and Company, LLC, or Cowen, relating to shares of our common stock, par value \$0.001 per share.

Under the Agreement, we may offer and sell shares of our common stock having an aggregate offering price of up to \$25,000,000 from time to time through Cowen as our sales agent.

Upon our delivery of a placement notice and subject to the terms and conditions of the sales agreement, Cowen may sell the common stock by methods deemed to be an at the market offering as defined in Rule 415 promulgated under the Securities Act of 1933, as amended, or the Securities Act, including sales made directly on the NYSE MKT, on any other existing trading market for the common stock or to or through a market maker. In addition, with our prior written approval, Cowen may also sell the common stock by any other method permitted by law, including in negotiated transactions. Cowen will act as the sales agent using its commercially reasonable efforts consistent with its normal trading and sales practices and applicable state and federal laws, rules and regulations and the rules of the NYSE MKT.

We will pay Cowen a commission, or allow a discount, as the case may be, in each case equal to 3.0% of the gross sales prices of the shares sold through it as agent under the Agreement.

Our common stock is listed on the NYSE MKT under the symbol INO. On May 29, 2012, the last reported sales price of our common stock on the NYSE MKT was \$0.44 per share.

Investing in our common stock involves a high degree of risk. See Risk Factors beginning on page S-5 of this prospectus supplement and the risk factors contained in our filings with the Securities and Exchange Commission, or SEC, which have been incorporated herein.

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

Cowen and Company

The date of this prospectus supplement is June 1, 2012

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FORWARD-LOOKING STATEMENTS

A number of the statements we make or incorporate by reference in this prospectus supplement and the accompanying prospectus are not historical or current facts, but instead signify potential future circumstances and developments. We intend these statements as Forward-Looking Statements under the Private Securities Litigation Reform Act of 1995. These statements relate to future events or our future financial performance. In some cases, you can identify forward-looking statements by terminology such as may, will, should, expect, plan, anticipat believe, estimate, predict, potential or continue, the negative of such terms or other comparable terminology. These statements are only predictions. Actual events or results may differ materially.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Moreover, neither we, nor any other person, assume responsibility for the accuracy and completeness of the forward-looking statements. We are under no obligation to update any of the forward-looking statements after the filing of this prospectus supplement to conform such statements to actual results or to changes in our expectations.

We urge you to review carefully and consider the various disclosures we make that attempt to advise interested parties of the factors that affect our business, including without limitation, the disclosures we make or incorporate by reference under the caption Risk Factors in this prospectus supplement.

Risk factors that could cause actual results to differ from those contained in the forward-looking statements include but are not limited to:

our history of losses;

our lack of products that have received regulatory approval;

uncertainties inherent in clinical trials and product development programs, including but not l

uncertainties inherent in clinical trials and product development programs, including but not limited to the fact that pre-clinical and clinical results may not be indicative of results achievable in other trials or for other indications, that results from one study may not necessarily be reflected or supported by the results of other similar studies, that results from an animal study may not be indicative of results achievable in human studies, that clinical testing is expensive and can take many years to complete, that the outcome of any clinical trial is uncertain and failure can occur at any time during the clinical trial process, and that our electroporation technology and DNA vaccines may fail to show the desired safety and efficacy traits in clinical trials;

the availability of funding;

the ability to manufacture vaccine candidates;

the availability or potential availability of alternative therapies or treatments for the conditions we or our collaborators target, including alternatives that may be more efficacious or cost-effective than any therapy or treatment that we and our collaborators hope to develop;

whether our proprietary rights are enforceable or defensible or infringe or allegedly infringe on rights of others or can withstand claims of invalidity; and

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the impact of government healthcare legislation and proposals.

You should not place undue reliance on any forward-looking statements, which we base on current expectations. Further, forward-looking statements speak only as of the date we make them, and we undertake no obligation to update publicly any of them in light of new information or future events.

ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering and sale of shares of our common stock and certain other matters, and may also add to, update or change information contained in the accompanying prospectus and the documents incorporated by reference. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. The second part is the accompanying prospectus, dated September 2, 2011, which provides general information about securities we may offer from time to time, some of which may not apply to this offering. To the extent that the information contained in this prospectus supplement, on the one hand, differs or varies from the information contained in the accompanying prospectus or any document incorporated by reference, on the other hand, the information in this prospectus supplement will control and you should rely on the information in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date for example, a document incorporated by reference in this prospectus supplement or the accompanying prospectus the statement in the document having the later date modifies or supersedes the earlier statement.

You should rely only on the information contained in or incorporated by reference into this prospectus supplement and the accompanying prospectus. We have not authorized anyone to provide you with additional information or information that is different from that contained in or incorporated by reference into this prospectus supplement and the accompanying prospectus.

We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers or sales are permitted. This prospectus supplement and the accompanying prospectus do not constitute an offer to sell or a solicitation of an offer to buy the shares offered hereby in any jurisdiction where, or to any person to whom, it is unlawful to make such offer or solicitation.

The information appearing in this prospectus supplement, the accompanying prospectus and the documents incorporated herein and therein by reference is accurate only as of its respective date or dates or on the date or dates that are specified in these documents, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or any sale of shares of our common stock. Our financial condition, results of operations and business prospects may have changed since those dates. We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference in this prospectus supplement or the accompanying prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

Information contained on our website does not constitute part of this prospectus supplement or accompanying prospectus.

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PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights information contained or incorporated by reference in this prospectus supplement. Because it is only a summary, it does not contain all of the information that may be important to you or that you should consider before making an investment in our units. You should carefully read the entire prospectus supplement and the accompanying prospectus, including the information contained under the caption Risk Factors and elsewhere in our most recent Annual Report on Form 10-K for the fiscal year ended December 31, 2011 and our Quarterly Report on Form 10-Q for the quarter ended March 31, 2012, the information under Risk Factors beginning on page S-4 of this prospectus supplement and other information that we file from time to time with the SEC as well as the financial statements and related notes and the other information incorporated by reference herein, before making an investment decision. See Where You Can Find More Information and Incorporation of Certain Documents By Reference in this prospectus supplement. This prospectus supplement may add to, update or change information in the accompanying prospectus.

Unless the context otherwise requires, all references in this prospectus to Inovio, we, us, our, the Company or similar words refer to Inovio Pharmaceuticals, Inc., together with our consolidated subsidiaries.

Our Company

We are engaged in the discovery, development, and delivery of a new generation of vaccines, called synthetic vaccines, focused on cancers and infectious diseases. Our SynCon® technology enables the design of universal vaccines capable of providing cross-protection against new, unmatched strains of pathogens such as influenza. Our electroporation DNA delivery technology uses brief, controlled electrical pulses to increase cellular DNA vaccine uptake. Initial human data has shown this method can safely and significantly increase gene expression and immune responses. Our clinical programs include HPV/cervical cancer (therapeutic), avian influenza (preventative), prostate cancer (therapeutic), leukemia (therapeutic), HCV and HIV vaccines. We are advancing preclinical research for a universal seasonal/pandemic influenza vaccine as well as other products. Our partners and collaborators include University of Pennsylvania, Drexel University, National Microbiology Laboratory of the Public Health Agency of Canada, Program for Appropriate Technology in Health/Malaria Vaccine Initiative (PATH or MVI), National Institute of Allergy and Infectious Diseases (NIAID), Merck, ChronTech, University of Southampton, United States Military HIV Research Program (USMHRP), U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID), HIV Vaccines Trial Network (HVTN) and Department of Homeland Security (DHS).

All of our potential human products are in research and development phases. We have not generated any revenues from the sale of any such products, and we do not expect to generate any such revenues for at least the next several years. We earn revenue from license fees and milestone revenue, collaborative research and development agreements, grants and government contracts. Our product candidates will require significant additional research and development efforts, including extensive preclinical and clinical testing. All product candidates that we advance to clinical testing will require regulatory approval prior to commercial use, and will require significant costs for commercialization. We may not be successful in our research and development efforts, and we may never generate sufficient product revenue to be profitable.

We are a Delaware corporation with executive offices located at 1787 Sentry Park West, Blue Bell, Pennsylvania 19422, and our telephone number is (267) 440-4200. We maintain an Internet website at www.inovio.com. Information contained in or accessible through our website does not constitute part of this prospectus supplement.

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THE OFFERING

Common stock offered by us pursuant to this prospectus supplement

Shares having an aggregate offering price of up to \$25.0 million.

Common stock to be outstanding after this offering

Up to 191,786,576 shares, assuming sales at a price of \$0.44 per shares, which was the closing price on the NYSE MKT on May 29, 2012. The actual number of shares issued

will vary depending on the sales price under this offering.

Manner of offering

At-the-market offering that may be made from time to time through our agent, Cowen

and Company, LLC. See Plan of Distribution on page S-8.

Use of proceeds

We intend to use the net proceeds from this offering primarily for general corporate purposes, including clinical trial expenses, research and development expenses, working capital and general and administrative expenses. See Use of Proceeds on page S-6.

NYSE MKT symbol

INO

Risk factors

See Risk Factors beginning on page S-5 of this prospectus supplement for a discussion of factors that you should read and consider before investing in our securities.

The number of shares of our common stock that will be outstanding immediately after this offering as shown above is based on 134,968,394 shares outstanding as of March 31, 2012. The number of shares outstanding as of March 31, 2012, as used throughout this prospectus supplement, unless otherwise indicated, excludes:

16,495,527 shares issuable upon exercise of outstanding options pursuant to our stock incentive plans at a weighted average option exercise price of \$1.30 per share as of March 31, 2012;

2,031,371 shares of common stock available for future grants under our stock incentive plans as of March 31, 2012; and

21,743,844 shares issuable upon exercise of outstanding warrants, at a weighted average exercise price of \$1.17 per share as of March 31, 2012.

RISK FACTORS

An investment in our common stock is subject to numerous risks as discussed more fully below and under the caption Risk Factors in the accompanying prospectus, our most recent Annual Report on Form 10-K for the year ended December 31, 2011 and our Quarterly Report on Form 10-Q for the quarter ended March 31, 2012, which we incorporate by reference herein, and other information that we file from time to time with the SEC after the date of this prospectus supplement and which we incorporate by reference herein. Any of these risks could adversely affect our financial condition and results of operations or our ability to execute our business strategy. You should read and consider carefully all the information set forth and incorporated by reference in this prospectus supplement and the accompanying prospectus before deciding whether to invest in our common stock. The risks and uncertainties we have described are not the only ones facing our company. Additional risks and uncertainties not presently known to us or that we currently consider immaterial may also affect our business operations. See Incorporation of Certain Documents By Reference.

Risks Related to this Offering

Resales of our common stock in the public market during this offering by our stockholders may cause the market price of our common stock to fall.

We may issue common stock from time to time in connection with this offering. This issuance from time to time of these new shares of our common stock, or our ability to issue these shares of common stock in this offering, could result in resales of our common stock by our current stockholders concerned about the potential dilution of their holdings. In turn, these resales could have the effect of depressing the market price for our common stock.

There may be future sales or other dilution of our equity, which may adversely affect the market price of our common stock.

We are generally not restricted from issuing additional common stock, including any securities that are convertible into or exchangeable for, or that represent the right to receive, common stock. The market price of our common stock could decline as a result of sales of common stock or securities that are convertible into or exchangeable for, or that represent the right to receive, common stock after this offering or the perception that such sales could occur.

We have broad discretion in how we use the net proceeds of this offering, and we may not use these proceeds effectively or in ways with which you agree.

Our management will have broad discretion as to the application of the net proceeds of this offering and could use them for purposes other than those contemplated at the time of this offering. Our stockholders may not agree with the manner in which our management chooses to allocate and spend the net proceeds. Moreover, our management may use the net proceeds for corporate purposes that may not increase the market price of our common stock.

Purchasers will experience immediate dilution in the book value per share of the common stock purchased in the Offering.

The expected offering price of our common stock will be substantially higher than the net tangible book value per share of our outstanding common stock. As a result, based on our capitalization as of March 31, 2012, investors purchasing shares in this offering would incur immediate dilution of \$0.20 per share of common stock purchased, based on an assumed public offering price of our common stock of \$0.44 per share, the last reported sale price of the common stock on May 29, 2012. In addition to this offering,

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subject to market conditions and other factors, it is likely that we will pursue additional financings in the future, as we continue to build our business. In future years, we will likely need to raise significant additional capital to finance our operations and to fund clinical trials, regulatory submissions and the development, manufacture and marketing of other products under development and new product opportunities. Accordingly, we may conduct substantial future offerings of equity or debt securities. The exercise of outstanding options and warrants and future equity issuances, including future public offerings or future private placements of equity securities and any additional shares issued in connection with acquisitions, will result in dilution to investors. In addition, the market price of our common stock could fall as a result of resales of any of these shares of common stock due to an increased number of shares available for sale in the market.

USE OF PROCEEDS

We intend to use the net proceeds, if any, from the sale of the common stock under this prospectus supplement for general corporate purposes, including clinical trial expenses, research and development expenses, general and administrative expenses, manufacturing expenses and potential acquisitions of companies and technologies that complement our business.

As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses of the proceeds from this offering. Accordingly, our management will retain broad discretion over the use of such proceeds. Pending the use of the net proceeds from this offering, we intend to invest the net proceeds in investment-grade, interest-bearing instruments.

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DILUTION

If you invest in our common stock, your interest will be diluted immediately to the extent of the difference between the public offering price per share of our common stock and the adjusted net tangible book value per share of our common stock after this offering.

The net tangible book value of our common stock as of March 31, 2012, was approximately \$21.3 million, or approximately \$0.16 per share. Net tangible book value per share represents the amount of our total tangible assets, excluding goodwill and intangible assets, less total liabilities divided by the total number of shares of our common stock outstanding.

Dilution per share to new investors represents the difference between the amount per share paid by purchasers for our common stock in this offering and the 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 the aggregate amount of \$25,000,000 at an assumed offering price of \$0.44 per share, the last reported sale price of our common stock on May 29, 2012 on the NYSE MKT, and after deducting estimated commissions and estimated offering expenses, our as adjusted net tangible book value as of March 31, 2012 would have been approximately \$45.4 million or approximately \$0.24 per share. This represents an immediate increase in net tangible book value of approximately \$0.08 per share to our existing stockholders and an immediate dilution in as adjusted net tangible book value of approximately \$0.20 per share to purchasers of our common stock in this offering, as illustrated by the following table:

Assumed public offering price per share		\$ 0.44
Net tangible book value per share as of March 31, 2012	\$ 0.16	
Increase in net tangible book value per share attributable to new		
investors	0.08	
As adjusted net tangible book value per share after this offering	0.24	
Net dilution per share to new investors		\$ 0.20

The table above assumes for illustrative purposes only an aggregate of 56,818,182 shares of our common stock are sold at a price of \$0.44 per share, for aggregate gross proceeds of \$25 million. The shares, if any, sold in this offering will be sold from time to time at various prices. An increase of \$0.25 per share in the price at which the shares are sold from the assumed offering price of \$0.69 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$25 million is sold at that price, would increase our adjusted net tangible book value per share after the offering to \$0.26 per share and would increase the dilution in net tangible book value per share to new investors in this offering to \$0.43 per share, after deducting commissions and estimated aggregate offering expenses payable by us. A decrease of \$0.25 per share in the price at which the shares are sold from the assumed offering price of \$0.19 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$25 million is sold at that price, would increase our adjusted net tangible book value per share after the offering to \$0.17 per share and would decrease the dilution in net tangible book value per share to new investors in this offering to \$0.02 per share, after deducting commissions and estimated aggregate offering expenses payable by us. This information is supplied for illustrative purposes only.

The calculations above are based upon 134,968,394 shares of common stock outstanding as of March 31, 2012 and exclude:

16,495,527 shares issuable upon exercise of outstanding options pursuant to our stock incentive plans at a weighted average option exercise price of \$1.30 per share as of March 31, 2012; and

21,743,844 shares issuable upon exercise of outstanding warrants, at a weighted average exercise price of \$1.17 per share as of March 31, 2012.

DESCRIPTION OF CAPITAL STOCK

The following information supplements the discussion set forth in the accompanying prospectus under the heading Description of Capital Stock.

A summary of some of the important terms of our common stock is set forth beginning on page 7 of the accompanying prospectus under the heading, Description of Capital Stock. You should refer to our certificate of incorporation, as amended, and our by-laws, as amended, for the

actual terms of our capital stock. Copies of our current charter and bylaws may be obtained as described under the heading Where You Can Find More Information in this prospectus.

As of May 29, 2012, 134,968,394 shares of common stock and 26 shares of Series C preferred stock were issued and outstanding.

Computershare Investor Services Inc. is the transfer agent and registrar for the common stock.

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PLAN OF DISTRIBUTION

We have entered into the Agreement with Cowen under which we may, from time to time, offer and sell our common stock having aggregate sales proceeds of up to \$25,000,000 through Cowen, or to Cowen, for resale. Sales of the common stock, if any, will be made at market prices by any method that is deemed to be an at the market offering as defined in Rule 415 under the Securities Act, including sales made directly on the NYSE MKT and any other trading market for the common stock, and sales to or through a market maker other than on an exchange. Cowen will not engage in any transactions that stabilize the price of our common stock.

Cowen will offer the commons stock subject to the terms and conditions of the Agreement on a daily basis or as otherwise agreed upon by us and Cowen. We will designate the maximum amount of common stock to be sold through Cowen on a daily basis or otherwise determine such maximum amount together with Cowen. Subject to the terms and conditions of the Agreement, Cowen will use its commercially reasonable efforts to sell on our behalf all of the shares of common stock requested to be sold by us. We may instruct Cowen not to sell common stock if the sales cannot be effected at or above the price designated by us in any such instruction. We or Cowen may suspend the offering of the common stock being made through Cowen under the Agreement upon proper notice to the other party.

The aggregate compensation payable to Cowen as sales agent shall equal 3.0% of the gross sales price of the shares sold through it pursuant to the sales agreement. In addition, we have agreed to reimburse a portion of the expenses of Cowen in connection with this offering up to a maximum of \$50,000.

The remaining sales proceeds, after deducting any expenses payable by us and any transaction fees imposed by any governmental, regulatory or self-regulatory organization in connection with the sales, will equal our net proceeds for the sale of such common stock.

Cowen will provide written confirmation to us following the close of trading on the NYSE MKT, each day in which common stock is sold through it as sales agent under the sales agreement. Each confirmation will include the number of shares of common stock sold through it as sales agent on that day, the gross sales price per share, the net proceeds to us and the compensation payable by us to Cowen.

We will report at least quarterly the number of shares of common stock sold through Cowen under the Agreement, the net proceeds to us and the compensation paid by us to Cowen in connection with the sales of common stock.

Settlement for sales of common stock will occur, unless the parties agree otherwise, on the third business day that is also a trading day following the date on which any sales were made in return for payment of the net proceeds to us. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

In connection with the sale of our common stock, Cowen may be deemed to be an underwriter within the meaning of the Securities Act and the compensation paid to Cowen may be deemed to be underwriting commissions or discounts. We have agreed to provide indemnification and contribution to Cowen against certain civil liabilities, including liabilities under the Securities Act. Cowen may engage in transactions with, or perform other services for, us in the ordinary course of its business.

Unless an exemption applies, pursuant to Regulation M under the Exchange Act, Cowen will be prohibited from engaging in certain activities in our common stock while shares of common stock are being offered pursuant to the terms of the Agreement.

The offering of our shares of common stock pursuant to the Agreement will terminate upon the earlier of (1) the sale of all shares of common stock subject to the agreement or (2) termination of the Agreement. The Agreement may be terminated by Cowen under certain circumstances described in the Agreement or by either us or Cowen in either of our sole discretion at any time by giving notice to the other party.

LEGAL MATTERS

The validity of the common stock being offered by this prospectus supplement and the accompanying prospectus has been passed upon for us by Duane Morris LLC, Philadelphia, Pennsylvania. Certain legal matters in connection with this offering will be passed upon for Cowen and Company, LLC by LeClairRyan, A Professional Corporation, Newark, New Jersey.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2011, and the effectiveness of our internal control over financial reporting as of December 31, 2012, as set forth in their reports, which are incorporated by reference in this prospectus supplement and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP s reports, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any reports, statements and other information filed by us at the SEC s Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call (800) SEC-0330 for further information on the Public Reference Room. The SEC maintains an Internet website that contains reports, proxy and information statements and other information regarding issuers, including us, that file electronically with the SEC. The address for the SEC s website is http://www.sec.gov.

We make available, free of charge, through our investor relations website, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, statements of changes in beneficial ownership of securities and amendments to those reports and statements as soon as reasonably practicable after they are filed with the SEC. The address for our website is http://www.inovio.com. The contents on our website are not part of this prospectus, and the reference to our website does not constitute incorporation by reference into this prospectus of the information contained at that site.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference into this prospectus supplement the information in documents we file with it, which means that we can disclose important information to you by referring you to those documents. The information we incorporate by reference is considered to be a part of this prospectus supplement and accompanying prospectus, and information that we file later with the SEC will automatically update and supersede this information. Any statement contained in any document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus supplement and the accompanying prospectus to the extent that a statement contained in or omitted from this prospectus or any accompanying prospectus supplement, or in any other subsequently filed document that also is or is deemed to be incorporated by reference herein, modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus. We incorporate by reference the documents or information listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934 until the offering is completed:

The description of our common stock set forth in the accompanying prospectus;

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Our Annual Report on Form 10-K for the year ended December 31, 2011, as filed with the SEC on March 15, 2012;

Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2012, as filed with the SEC on May 9, 2012; and

Our Definitive Proxy Statement on Schedule 14A filed with the SEC on April 6, 2012 and

Our Current Report on Form 8-K filed with the SEC on May 17, 2012.

You may request, and we will provide to you, a copy of these filings at no cost by writing or telephoning us at the following address:

Inovio Pharmaceuticals, Inc.

1787 Sentry Parkway West

Building 18, Suite 400

Blue Bell, Pennsylvania 19422

Telephone: (267) 440-4200

We have filed with the SEC a registration statement on Form S-3 under the Securities Act covering the common stock to be offered and sold by this prospectus supplement and the accompanying prospectus. This prospectus supplement and the accompanying prospectus do not contain all of the information included in the registration statement, some of which is contained in exhibits to the registration statement. The registration statement, including the exhibits, can be read at the SEC website or at the SEC offices referred to above. Any statement made in this prospectus supplement or the accompanying prospectus concerning the contents of any contract, agreement or other document is only a summary of the actual contract, agreement or other document. If we have filed any contract, document, agreement or other document as an exhibit to the registration statement or a document incorporated by reference therein, you should read the exhibit for a more complete understanding of the document or matter involved. We qualify in its entirety each statement regarding a contract, agreement or other document by reference to the actual document.

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INOVIO PHARMACEUTICALS, INC.

\$75,000,000

Common Stock

Preferred Stock

Debt Securities

Warrants

Units

From time to time, we may offer up to \$75,000,000 of any combination of the securities described in this prospectus, either individually or in units. We may also offer common stock or preferred stock upon conversion of debt securities, common stock upon conversion of preferred stock, or common stock, preferred stock or debt securities upon the exercise of warrants. We will provide the specific terms of these offerings and securities in one or more supplements to this prospectus. We may also authorize the provision to you of one or more free writing prospectuses in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information we include in this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents we incorporate by reference, before buying any of the securities being offered.

Our common stock is traded on the NYSE Amex under the symbol INO. On August 26, 2011, the last reported sale price of our common stock on the NYSE Amex was \$0.69. The applicable prospectus supplement will contain information, where applicable, as to any other listing, if any, on the NYSE Amex or any securities market or other exchange of the securities covered by the applicable prospectus supplement.

On August 17, 2011, the aggregate market value of our outstanding common stock our non-affiliates held was approximately \$83.7 million.

We may sell the securities directly to investors, through agents designated from time to time or to or through underwriters or dealers, on a continuous or delayed basis. For additional information on the methods of sale, you should refer to the section entitled Plan of Distribution in this prospectus. If any agents or underwriters are involved in the sale of any securities with respect to which this prospectus is being delivered, we will set forth in a prospectus supplement the names of such agents or underwriters and any applicable fees, commissions, discounts and over-allotment options. We will also set forth in a prospectus supplement the price to the public of such securities and the net proceeds that we expect to receive from such sale.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described 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 we incorporate by reference into this prospectus.

This prospectus may not be used to consummate a sale of any securities unless accompanied by a prospectus supplement.

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

This prospectus is dated September 2, 2011.

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You should rely only on the information contained in this prospectus, any applicable prospectus supplement and any related free writing prospectus, including the information we incorporate by reference as described under. Where You Can Find More Information. We have not authorized anyone to provide you with different information. If you receive any other information, you should not rely on it. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus that we may authorize to be provided to you. You must not rely on any unauthorized information or representation. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. You should assume that the information in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of a security.

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RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully consider the specific risks and uncertainties we describe under the caption Risk Factors or similar heading in our periodic reports referred to in Where You Can Find More Information below and, if included in an applicable prospectus supplement or free writing prospectus under the caption Risk Factors or similar heading in the applicable prospectus supplement. Additional risks not presently known to us or that we currently believe are immaterial may also significantly impair our business operations.

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ABOUT THIS PROSPECTUS

All references in this prospectus to Inovio, Company, we, our and us refer to Inovio Pharmaceuticals, Inc. and its consolidated subsidiaries unless the context otherwise requires.

This prospectus is part of a registration statement on Form S-3 that we have filed with the Securities and Exchange Commission, or SEC, using a shelf registration process. Under this shelf registration process, we and certain holders of our securities may sell the securities described in this prospectus in one or more offerings, up to the total dollar amount of \$75,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we or holders of our securities offer to sell securities under this shelf registration statement, we will provide a prospectus supplement that will contain more specific information about the terms of the offering and those securities. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also modify, add to or supersede the information contained in this prospectus or in the documents we have incorporated by reference into this prospectus. You should read this prospectus together with the documents incorporated by reference, the applicable prospectus supplement and any related free writing prospectus, to with the additional information referred to below under. Where You Can Find More Information, before buying any of the securities being offered.

We have filed a registration statement on Form S-3 with the SEC relating to the securities covered by this prospectus. This prospectus is a part of the registration statement and does not contain all of the information in the registration statement. Whenever we refer in this prospectus, including other documents we incorporate by reference, to a Company contract or other document, please be aware that the reference is only a summary and that you should refer to the exhibits that are a part of the registration statement for a copy of the applicable contract or other document. We qualify all of the summaries in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading Where You Can Find Additional Information.

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WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any documents we file with the SEC 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 public reference room. Our filings with the SEC are also available to the public through the SEC s Internet site at http://www.sec.gov.

The SEC s rules allow us to incorporate by reference information into this prospectus. Therefore, we can disclose important information to you by referring you to any of the SEC filings we reference in the list below. Any information we refer to in this way in this prospectus or the applicable prospectus supplement is considered part of this prospectus or the applicable prospectus supplement. Any reports we file with the SEC after the date of this prospectus and before the date that the offering of securities by means of this prospectus terminates will automatically update and, where applicable, supersede any information contained or incorporated by reference in this prospectus or the applicable prospectus supplement.

We incorporate by reference into this prospectus the following documents or information we file with the SEC, other than, in each case, documents or information deemed to have been furnished and not filed in accordance with SEC rules. The SEC file number for these documents is 001-31940.

Our annual report on Form 10-K for the year ended December 31, 2010 we filed with the SEC on March 16, 2011;

Our quarterly reports on Form 10-Q for the quarter ended March 31, 2011 and June 30, 2011 we filed with the SEC on May 10, 2011 and August 5, 2011;

Our current reports on Form 8-K we filed on January 24, 2011, March 4, 2011, April 15, 2011, May 18, 2011, July 1, 2011 and August 12, 2011;

The description of our common stock contained in our registration statement filed pursuant to Section 12 of the Securities Exchange Act of 1934, or the Exchange Act, as modified by our reports we file under the Exchange Act; and

All documents we file under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act on or after the date of this prospectus and before the termination of the offering of securities under this prospectus, other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits we file on such form that relate to such items.

Any statement contained in a document incorporated by reference in this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that any statement contained in this prospectus or in any subsequently filed document, which also is or is deemed to be incorporated by reference in this prospectus or any prospectus supplement, modifies or supersedes this statement. Any statement modified or superseded in this way will not be deemed, except as so modified or superseded, to constitute a part of this prospectus or any prospectus supplement. The information incorporated by reference contains information about us and our financial condition and performance and is an important part of this prospectus.

We will provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon his or her written or oral request, a copy of any or all documents referred to above which have been or may be incorporated by reference into this prospectus, excluding exhibits to those documents unless they are specifically incorporated by reference into those documents. You can request those documents from Inovio Pharmaceuticals, Inc., Attention: Investor Relations, 11494 Sorrento Valley Road, Suite A, San Diego, California, 92121, telephone (858) 410-3140.

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CAUTIONARY STATEMENT ON FORWARD-LOOKING INFORMATION

This prospectus, including documents we incorporate by reference, any applicable prospectus supplement and any related free writing prospectus, contains forward-looking statements, as defined in Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These statements relate to future events or our future financial performance. In some cases, you can identify forward-looking statements by terminology such as may, will, should, expect, plan, anticipate, believe, estimate, predict, the negative of such terms or other comparable terminology. These statements are only predictions. Actual events or results may differ materially.

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Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Moreover, neither we, nor any other person, assume responsibility for the accuracy and completeness of the forward-looking statements. We are under no obligation to update any of the forward-looking statements after the date of this prospectus and any applicable prospectus supplement to conform such statements to actual results or to changes in our expectations.

Readers are also urged to carefully review and consider the various disclosures made by us that attempt to advise interested parties of the factors that affect our business, including without limitation the disclosures made in our quarterly report on Form 10-Q for the quarter ended June 30, 2011 under the caption Risk Factors.

Risk factors that could cause actual results to differ from those contained in the forward-looking statements include but are not limited to: our history of losses; our lack of products that have received regulatory approval; uncertainties inherent in clinical trials and product development programs, including but not limited to the fact that pre-clinical and clinical results may not be indicative of results achievable in other trials or for other indications, that results from one study may not necessarily be reflected or supported by the results of other similar studies, that results from an animal study may not be indicative of results achievable in human studies, that clinical testing is expensive and can take many years to complete, that the outcome of any clinical trial is uncertain and failure can occur at any time during the clinical trial process, and that our electroporation technology and DNA vaccines may fail to show the desired safety and efficacy traits in clinical trials; the availability of funding; the ability to manufacture vaccine candidates; the availability or potential availability of alternative therapies or treatments for the conditions targeted by us or our collaborators, including alternatives that may be more efficacious or cost-effective than any therapy or treatment that we and our collaborators hope to develop; whether our proprietary rights are enforceable or defensible or infringe or allegedly infringe on rights of others or can withstand claims of invalidity; and the impact of government healthcare proposals.

OUR COMPANY

We are engaged in the development of a new generation of vaccines, called DNA vaccines, focused on cancers and infectious diseases. Our SynCon technology enables the design of universal DNA-based vaccines capable of providing cross-protection against new, unmatched strains of pathogens such as influenza. Our electroporation DNA delivery technology uses brief, controlled electrical pulses to increase cellular DNA vaccine uptake. Initial human data has shown this method can safely and significantly increase gene expression and immune responses. Our clinical programs include cervical dysplasia/cancer (therapeutic), avian influenza (preventative), hepatitis C virus and human immunodeficiency virus (HIV) vaccines. We are advancing preclinical research for a universal seasonal/pandemic influenza vaccine as well as other products including dengue fever and prostate cancer vaccines. Our partners and collaborators include University of Pennsylvania, Drexel University, National Microbiology Laboratory of the Public Health Agency of Canada, Program for Appropriate Technology in Health/Malaria Vaccine Initiative, National Institute of Allergy and Infectious Diseases, Merck, ChronTech, University of Southampton, United States Military HIV Research Program, U.S. Army Medical Research Institute of Infectious Diseases and HIV Vaccines Trial Network.

All of our potential human products are in research and development phases. We have not generated any revenues from the sale of any such products, and we do not expect to generate any such revenues for at least the next several years. We earn revenue from license fees and milestone revenue, collaborative research and development agreements, grants and government contracts. Our product candidates will require significant additional research and development efforts, including extensive preclinical and clinical testing. All product candidates that we advance to clinical testing will require regulatory approval prior to commercial use, and will require significant costs for commercialization. We may not be successful in our research and development efforts, and we may never generate sufficient product revenue to be profitable.

Our executive offices are located at 1787 Sentry Park West, Blue Bell, Pennsylvania 19422, and our telephone number is (267) 440-4200. We maintain an Internet website at www.inovio.com. Information contained in or accessible through our website does not constitute part of this prospectus.

STATEMENT OF COMPUTATION OF RATIOS

The following table sets forth our ratio of earnings to fixed charges and to combined fixed charges and preferred stock dividends for the years ended December 31, 2006, 2007, 2008, 2009, 2010 and the six months ended June 30, 2011⁽¹⁾:

						Six Months
		Year Ended December 31,				Ended
	2006	2007	2008	2009	2010	June 30, 2011
Ratio of earnings to fixed charges ⁽²⁾						

ino of earnings to fixed charge

Ratio of earnings to combined fixed charges and preferred stock dividends⁽³⁾