

INOVIO PHARMACEUTICALS, INC.  
Form 424B2  
January 10, 2011

Filed pursuant to Rule 424(b)(2)  
Registration Statement No. 333-160123

**PROSPECTUS SUPPLEMENT**

(to prospectus supplements dated September 7, 2010 and November 16, 2010 and prospectus dated June 19, 2009)

**1,487,872 Shares**

**Common Stock**

Pursuant to our Equity Distribution Agreement, dated August 27, 2010, with Roth Capital Partner, LLC, or Roth, during the period from October 1, 2010 through December 31, 2010, we have sold through Roth an aggregate of 1,487,872 shares through ordinary brokers' transactions on the NYSE Amex for an aggregate sales price of \$1,820,367. The Equity Distribution Agreement has been filed as an exhibit to a current report on Form 8-K filed with the Securities and Exchange Commission on August 27, 2010 and is incorporated by reference herein. At December 31, 2010, we could sell from time to time through Roth up to an additional \$22,613,983 under the Equity Distribution Agreement. In connection with these sales, we paid commissions to Roth as follows:

Gross proceeds to us	\$ 1,820,367
Commissions and Expenses	54,837
Net proceeds to us, before expenses	\$ 1,765,530

This prospectus supplement adds to, updates and changes information in, and should be read in conjunction with, the prospectus, dated June 19, 2009, and the prospectus supplements, dated September 7, 2010 and November 16, 2010.

Our common stock is listed on the NYSE Amex under the symbol INO. On January 6, 2011, the last reported sales price of our common stock on the NYSE Amex was \$1.29 per share.

**Investing in our common stock involves a high degree of risk. See Risk Factors beginning on page S-3 of the prospectus supplement dated September 7, 2010 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.

**Roth Capital Partners**

The date of this prospectus supplement is January 7, 2011.