

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

**FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

AMICUS THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State of incorporation)

71-0869350
(IRS Employer Identification Number)

**1 Cedar Brook Drive, Cranbury, NJ 08512
(609) 662-2000**
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**John F. Crowley
Chief Executive Officer
Amicus Therapeutics, Inc.
1 Cedar Brook Drive
Cranbury, New Jersey 08512
(609) 662-2000**
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Approximate date of commencement of proposed sale to the public:
From time to time after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. o

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. x

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. o

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o Accelerated filer o Non-accelerated filer o Smaller reporting company x
(Do not check if a smaller reporting company)

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Security (2)	Proposed Aggregate Maximum Offering Price (2)	Amount of Registration fee (2)
Common Stock, par value \$0.01 per share	2,949,581	\$ 6.29	\$ 18,552,865	\$ 2,531

- (1) Consists of 2,949,581 shares of common stock and an indeterminate number of shares of common stock as may be issuable from time to time as a result of a stock split, stock dividend, capitalization or similar event.
- (2) Estimated pursuant to Rule 457(c) solely for purposes of calculating the amount of the registration fee, based on the average of the high and low prices of the Registrant's common stock reported as of October 17, 2012 on the NASDAQ Global Market.

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until this registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

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The information contained in this prospectus is not complete and may be changed. The selling stockholder named in this prospectus may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any jurisdiction where such offer or sale is not permitted.

Subject to Completion, Dated October 22, 2012

PROSPECTUS

AMICUS THERAPEUTICS, INC.

2,949,581 Shares of Common Stock

We are registering our common stock, par value \$0.01 per share, for resale by the selling stockholder identified in this prospectus. We are not selling any shares of our common stock under this prospectus and we will not receive any of the proceeds from the sale of shares by the selling stockholder. Specifically, this prospectus relates to the resale of 2,949,581 shares of our common stock. The selling stockholder acquired these shares from us in a private placement that closed on July 26, 2012.

The selling stockholder identified in this prospectus, or its pledges, donees, transferees or other successors in interest, may offer and sell the shares of common stock being offered by this prospectus from time to time in public or private transactions, or both. These sales may occur at fixed prices, at market prices prevailing at the time of sale, at prices related to prevailing market prices, or at negotiated prices. The selling stockholder may sell shares being offered by this prospectus to or through underwriters, broker-dealers or agents, who may receive compensation in the form of discounts, concessions or commissions from the selling stockholder, the purchasers of such shares, or both. See "Plan of Distribution" for a more complete description of the ways in which the shares being offered by this prospectus may be sold.

Our common stock is traded on the NASDAQ Global Market under the symbol "FOLD." On October 17, 2012, the closing price of our common stock was \$6.25.

INVESTING IN OUR SECURITIES INVOLVES A HIGH DEGREE OF RISK. BEFORE INVESTING, YOU SHOULD REFER TO THE RISK FACTORS ON PAGE 5 OF THIS PROSPECTUS.

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

The date of this prospectus is _____, 2012.

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ABOUT THIS PROSPECTUS

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

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

correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and any accompanying prospectus supplement is delivered or securities are sold on a later date.

References in this prospectus to the terms “the Company,” “Amicus,” “we,” “our” and “us” or other similar terms mean Amicus Therapeutics, Inc., unless we state otherwise or the context indicates otherwise.

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THE COMPANY

Overview

We are a biopharmaceutical company focused on the discovery, development and commercialization of orally-administered, small molecule drugs known as pharmacological chaperones, a novel, first-in-class approach to treating a broad range of diseases including lysosomal storage diseases and diseases of neurodegeneration. We advance these objectives utilizing both internal resources and through entry into strategic collaborations essential to our core business strategy which complement, finance and catalyze our pipeline. We believe that our pharmacological chaperone technology, our advanced product pipeline, especially our lead product candidate for Fabry disease, migalastat HCl, a strong balance sheet and our strategic collaboration with GlaxoSmithKline uniquely position us at the forefront of developing therapies for rare and orphan diseases.

We are focused on the development of pharmacological chaperones as monotherapies and in combination with enzyme replacement therapy (ERT), the current standard of treatment for Fabry and other lysosomal storage diseases. In 2012, we are advancing two monotherapy programs for genetic diseases:

- Migalastat HCl for patients with Fabry disease identified as having alpha-galactosidase A (alpha-Gal A) mutations amenable to chaperone therapy; and
- AT3375 for Parkinson’s disease in Gaucher disease carriers and potentially the broader Parkinson’s population.

Our pharmacological chaperone-ERT combination programs for 2012 include:

- Migalastat HCl co-administered with ERT for patients with Fabry disease receiving ERT treatment with any genetic mutation;
- Migalastat HCl co-formulated with a proprietary preclinical ERT;
- AT2220 (duvoglustat HCl) co-administered with ERT for Pompe disease;
- AT3375 and afegostat tartrate co-administered with ERT for Gaucher disease; and
- Several new, undisclosed pharmacological chaperone programs focused on the combination of chaperones with ERTs for additional lysosomal storage diseases.

Fabry and other lysosomal storage diseases such as Gaucher and Pompe diseases are among certain human diseases that are caused by mutations in specific genes that, in many cases, lead to the production of proteins with reduced stability. Proteins with such mutations may not fold into their correct three-dimensional shape and are generally referred to as misfolded or unstable proteins. Misfolded or unstable proteins are often recognized by cells as having defects and, as a result, may be eliminated prior to reaching their intended location in the cell. The reduced biological activity of these proteins leads to impaired cellular function and ultimately to disease.

Our novel approach to the treatment of human genetic diseases consists of using pharmacological chaperones that selectively bind to the target protein, increasing the stability of the protein and helping it fold into the correct three-dimensional shape. This allows proper trafficking of the protein within the cell, thereby increasing protein activity, improving cellular function and potentially reducing cell stress. We have also demonstrated in preclinical studies that pharmacological chaperones can further stabilize normal, or “wild-type” proteins. This stabilization could lead to a higher percentage of the target proteins folding correctly and more stably, which can increase cellular levels of that target protein and improve cellular function, making chaperones potentially applicable to a wide range of diseases.

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Our lead product candidate, migalastat HCl for Fabry disease, is in late Phase 3 development. We are developing and commercializing migalastat HCl in collaboration with an affiliate of GlaxoSmithKline PLC (GSK) pursuant to an Amended and Restated License and Expanded Collaboration Agreement entered into on July 17, 2012 (the “Expanded Collaboration Agreement”), which agreement amended and replaced in its entirety the License and Collaboration Agreement previously entered into by the parties in October 2010. Our partnership with GSK allows us to utilize GSK’s significant expertise in clinical, regulatory, commercial and manufacturing matters in the development of migalastat HCl. In addition, the cost-sharing arrangements under the Expanded Collaboration Agreement provide us with financial strength and allows us to continue the development of migalastat HCl while also advancing our other programs. We also believe this collaboration is important in validating our status as a leader in the development of treatments for rare diseases given the increasing focus placed on the rare disease field.

Our Phase 3 clinical development program for the use of migalastat HCl as monotherapy in Fabry disease includes two global registration studies for patients with Fabry disease identified as having alpha-Gal A mutations amenable to migalastat HCl: Study 011 and Study 012. We completed enrollment of 67 patients in Study 011, our placebo-controlled Phase 3 study, in December 2011 and expect results in the fourth quarter of 2012. We plan to use the data from Study 011 to support marketing applications for the U.S. Food and Drug Administration (FDA) and other regulatory agencies. Study 012 is our second Phase 3 study for migalastat HCl study intended to support the worldwide registration of migalastat HCl for Fabry disease. We dosed the first patient in Study

012 in September 2011 to compare the safety and efficacy of migalastat HCl and ERT and expect to complete enrollment of approximately 50 patients by the end of 2012.

In addition to potential benefits pharmacological chaperones may provide as a monotherapy, we also believe the use of pharmacological chaperones co-administered and co-formulated with ERT may address certain key limitations of ERT. The use of pharmacological chaperones co-administered with ERT may significantly enhance the safety and efficacy of ERT by, among other effects, prolonging the half-life of infused enzymes in the circulation, increasing uptake of the infused enzymes into cells and tissues, and increasing enzyme activity and substrate reduction in target tissues compared to that observed with ERT alone. We are evaluating the use of pharmacological chaperones co-administered with ERT in two Phase 2 clinical studies, one evaluating the use of migalastat HCl co-administered with ERT for Fabry disease (Study 013) and another evaluating the use of AT2220 co-administered with ERT for Pompe disease (Study 010).

We are also conducting preclinical studies with JCR Pharmaceutical Co., Ltd (JCR) evaluating migalastat HCl co-formulated with a proprietary recombinant human alpha-Gal A enzyme (JR-051). Preclinical studies conducted by Amicus, GSK and JCR suggest that this co-formulated chaperone-ERT product may provide greater alpha-Gal A enzyme uptake into tissue and markedly reduced levels of GL-3 in Fabry disease-relevant tissues compared to recombinant enzyme alone. Amicus and GSK believe that this co-formulated chaperone-ERT product for Fabry disease has the potential to enter clinical studies in 2013.

We are also investigating chaperone-ERT combinations as potential next-generation treatments for Gaucher and other undisclosed lysosomal storage diseases where there are significant opportunities to improve treatment outcomes. In Gaucher disease, Amicus is continuing preclinical studies to evaluate two pharmacological chaperones, AT2101 (afegostat tartrate) and AT3375, in combination with ERT (beta-glucosidase). Both of these chaperones target the enzyme deficient in Gaucher disease.

Gaucher disease is caused by inherited genetic mutations in the GBA gene, and mutations in this gene that encodes for the GCase enzyme are the most common genetic risk factor for Parkinson's. By targeting GCase in the brain, AT3375 could potentially treat Gaucher, Parkinson's disease in Gaucher carriers, and possibly the general Parkinson's population.

Although Fabry, Gaucher and Pompe are relatively rare diseases, they represent substantial commercial markets due to the severity of the symptoms and the chronic nature of the diseases. The publicly-reported worldwide net product sales for the seven then approved therapeutics to treat Fabry, Gaucher and Pompe disease were approximately \$2.0 billion in 2011.

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Collaboration with GSK

On July 17, 2012, we entered into the Expanded Collaboration Agreement with GSK pursuant to which we and GSK will continue to develop and commercialize migalastat HCl, currently in Phase 3 development for the treatment of Fabry disease. The Expanded Collaboration Agreement amends and replaces in its entirety the original collaboration agreement for the development and commercialization of migalastat HCl entered into in October 2010 (Original Collaboration Agreement). Under the terms of the Expanded Collaboration Agreement, we and GSK will co-develop all formulations of migalastat HCl for Fabry disease, including the development of migalastat HCl co-formulated with JR-051 (Co-formulated Product). If approved, we will commercialize all migalastat HCl products for Fabry disease in the United States while GSK will commercialize all such products in the rest of the world.

The exclusive license granted to GSK under the Original Collaboration Agreement to commercialize migalastat HCl worldwide was replaced by the Expanded Collaboration Agreement, which grants two exclusive licenses: (i) an exclusive license from GSK to Amicus to commercialize migalastat HCl in the United States, and (ii) an exclusive license from Amicus to GSK to commercialize migalastat HCl in the rest of world. GSK and Amicus each have a license to manufacture migalastat HCl for commercialization of monotherapy and chaperone-ERT co-administration migalastat HCl products while GSK maintains an exclusive license to manufacture such products for development purposes (subject to limited exceptions) and to manufacture the Co-formulated Product. In the event of a change of control of Amicus during the term of the Expanded Collaboration Agreement, GSK has the option to purchase an exclusive license to develop, manufacture and commercialize migalastat HCl in the United States.

GSK is eligible to receive U.S. regulatory approval milestones totaling \$20 million for migalastat HCl monotherapy and chaperone-ERT co-administration, and additional regulatory approval and product launch milestone payments totaling up to \$35 million within seven years following the launch of the Co-formulated Product. Amicus will also be responsible for certain pass-through milestone payments and single-digit royalties on the net U.S. sales of the Co-formulated Product that GSK must pay to a third party. In addition, Amicus is no longer eligible to receive any milestones or royalties it would have been eligible to receive under the Original Collaboration Agreement other than a \$3.5 million clinical development milestone paid by GSK to Amicus in the third quarter of 2012.

We and GSK will continue to jointly fund development costs for all formulations of migalastat HCl in accordance with agreed upon development plans pursuant to which Amicus and GSK will fund 25% and 75% of such costs, respectively, for the monotherapy and co-administration development of migalastat HCl for the remainder of 2012 and 40% and 60%, respectively, thereafter. Costs for the development of the Co-formulated Product are also split 40% and 60% between Amicus and GSK, respectively.

Additionally, simultaneous with entry into the Expanded Collaboration Agreement, we and GSK entered into a Stock Purchase Agreement (SPA) pursuant to which GSK purchased approximately 2.9 million shares of Amicus common stock at a price of \$6.30 per share. The total value of this equity investment to us is approximately \$18.6 million and increases GSK's ownership position in the Company to 19.9%.

Corporate Information

Our principal executive offices are located at 1 Cedar Brook Drive, Cranbury, NJ 08512, and our phone number is (609) 662-2000.

RISK FACTORS

Investing in our securities involves risk. Prior to making a decision about investing in our securities, you should carefully consider the specific factors discussed under the heading “Risk Factors” in our Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2012 filed on August 8, 2012, with the Securities and Exchange Commission (Commission), which is incorporated herein by reference, and may be amended, supplemented or superseded from time to time by other reports we file with the Commission in the future. The risks and uncertainties we have described are not the only risks that we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our operations.

FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein contain forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, included in this prospectus or the documents incorporated herein by reference regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans and objectives of management are forward-looking statements. The words “anticipate,” “believe,” “estimate,” “expect,” “intend,” “may,” “plan,” “predict,” “project,” “will,” “would” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

The forward-looking statements in this prospectus and the documents incorporated herein by reference include, among other things, statements about:

- the progress and results of our clinical trials of our drug candidates, including migalastat HCl;
- the continuation of our collaboration with GSK and GSK’s achievement of milestone payments thereunder;
- the scope, progress, results and costs of preclinical development, laboratory testing and clinical trials for our product candidates including those testing the use of pharmacological chaperones co-administered or co-formulated with ERT and for the treatment of diseases of neurodegeneration;
- the costs, timing and outcome of regulatory review of our product candidates;
- the number and development requirements of other product candidates that we pursue;
- the costs of commercialization activities, including product marketing, sales and distribution;
- the emergence of competing technologies and other adverse market developments;
- the costs of preparing, filing and prosecuting patent applications and maintaining, enforcing and defending intellectual property related claims;
- the extent to which we acquire or invest in businesses, products and technologies; and
- our ability to establish collaborations and obtain milestone, royalty or other payments from any such collaborators.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this prospectus, particularly

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under “Risk Factors,” that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures, collaborations or investments we may make.

You should read this prospectus and the documents that we incorporate by reference herein completely and with the understanding that our actual future results may be materially different from what we expect. We do not assume any obligation to update any forward-looking statements.

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USE OF PROCEEDS

We will not receive any proceeds from the sale or other disposition by the selling stockholder of the shares of our common stock covered hereby, or interests therein. The selling stockholder will pay any expenses incurred by the selling stockholder for brokerage, accounting, tax or legal services or any other expenses incurred by the selling stockholder in disposing of these shares. We will bear all other costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus, including, without limitation, all registration fees, listing fees of the NASDAQ Global Market (NASDAQ) and fees and expenses of our counsel and our accountants.

SELLING STOCKHOLDER

The shares covered hereby consist of 2,949,581 shares of our common stock that we issued to the selling stockholder in a private placement related to the Expanded Collaboration Agreement discussed above that closed on July 26, 2012. In connection with the registration rights we granted to the selling stockholder, we filed with the Commission a registration statement on Form S-3, of which this prospectus forms a part, with respect to the resale or other disposition of the shares of common stock offered by this prospectus from time to time on NASDAQ, in privately negotiated transactions or otherwise. We have also agreed to prepare and file amendments and supplements to the registration statement to the extent necessary to keep the registration statement effective for the period of time required under our agreement with the selling stockholder.

Beneficial ownership is determined in accordance with the rules of the Commission, and includes voting or investment power with respect to our common stock. To our knowledge, the selling stockholder has sole voting and investment power with respect to its shares of common stock.

As noted above, since October 2010, we have had an ongoing collaboration with the selling stockholder which is now governed by the Expanded Collaboration Agreement.

The selling stockholder may sell some, all or none of its shares of common stock offered by this prospectus from time to time. We do not know how long the selling stockholder will hold its shares of common stock covered hereby before selling them. Other than the SPA, we currently have no agreements, arrangements or understandings with the selling stockholder regarding the sale of any of the shares of common stock being offered hereunder.

The following table sets forth, to our knowledge, information about the selling stockholder as of October 19, 2012.

Name and Address of Selling Stockholder	Number of Shares of Common Stock Beneficially Owned Prior to the Offering	Number of Shares of Common Stock Registered for Sale Hereby	Shares Beneficially Owned After Offering
Glaxo Group Limited Great West Road Brentford, Middlesex United Kingdom TW8 9GS	9,815,825	2,949,581	14%

PLAN OF DISTRIBUTION

The selling stockholder and any of its pledgees, assignees and successors-in-interest may, from time to time in one or more transactions on NASDAQ or any other organized market where our shares of common stock may be traded, sell any or all of its shares of our common stock offered hereby through underwriters, dealers or agents, directly to one or more purchasers or through a combination of any such methods of sale. The selling stockholder may distribute the shares of our common stock offered hereby from time to time in one or more transactions:

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

The selling stockholder may use any one or more of the following methods when selling the shares offered hereby:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- one or more block trades in which the broker-dealer will attempt to sell such shares as agent or principal of all of such shares held by the selling stockholder;
- purchases by a broker-dealer as principal and resale by such broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales;
- agreements between broker-dealers and the selling stockholder to sell a specified number of such shares at a stipulated price per share; and
- any other method permitted pursuant to applicable law.

If the selling stockholder effects such transactions by selling shares of common stock offered hereby 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 stockholder or commissions from purchasers of the shares of common stock offered hereby 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 common stock offered hereby or otherwise, the selling stockholder may enter into hedging transactions with broker-dealers, which may in turn engage in short sales of the shares of common stock offered hereby in the course of hedging in positions they assume. The selling stockholder may also sell shares of common stock offered hereby short and deliver shares of common stock covered by this prospectus to close out short positions and to return borrowed shares in connection with such short sales. The selling stockholder may also loan or pledge shares of common stock offered hereby to broker-dealers that in turn may sell such shares.

The selling stockholder may pledge or grant a security interest in some or all of the shares of common stock offered hereby and owned by it and, if it defaults in the performance of its secured obligations, the pledgees or secured parties may offer and sell such shares of common stock from time to time pursuant to this prospectus or any amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act of 1933, as amended (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 stockholder also may transfer and donate the shares of common stock offered hereby 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 stockholder and any broker-dealer participating in the distribution of the shares of common stock offered hereby 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

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commissions or discounts under the Securities Act. At the time a particular offering of the shares of common stock offered hereby is made, a prospectus supplement, if required, will be distributed which will set forth the aggregate amount of shares of 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 stockholder and any discounts, commissions or concessions allowed or reallocated or paid to broker-dealers.

Under the securities laws of some states, the shares of common stock offered hereby may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the shares of common stock offered hereby 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 the selling stockholder will sell any or all of the shares of common stock registered pursuant to the registration statement of which this prospectus forms a part.

The selling stockholder and any other person participating in such distribution will be subject to applicable provisions of the Securities Exchange Act of 1934, as amended (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 common stock offered hereby by the selling stockholder and any other participating person. Regulation M may also restrict the ability of any person engaged in the distribution of the shares of common stock offered hereby to engage in market-making activities with respect to the shares of common stock offered hereby. All of the foregoing may affect the marketability of the shares of common stock offered hereby and the ability of any person or entity to engage in market-making activities with respect to the shares of common stock offered hereby.

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

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WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the Commission. You may read and copy information filed by us with the Commission at the Commission’s public reference section, 100 F Street, N.E., Washington, D.C. 20549. Information regarding the operation of the public reference section can be obtained by calling 1-800-SEC-0330. The Commission also maintains an Internet site at <http://www.sec.gov> that contains reports, statements and other information about issuers, such as us, who file electronically with the Commission. We maintain an Internet site at <http://www.amicustherapeutics.com>. However, the information on our Internet site is not incorporated by reference in this prospectus and any prospectus supplement and you should not consider it a part of this prospectus or any accompanying prospectus supplement.

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

- Our Annual Report on Form 10-K for the year ended December 31, 2011 filed with the Commission on February 28, 2012;
- Our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2012 and June 30, 2012 filed with the Commission on May 11, 2012 and August 8, 2012, respectively;
- Our Current Reports on Form 8-K filed with the Commission on January 9, 2012, March 2, 2012, April 16, 2012, June 19, 2012, June 26, 2012, July 23, 2012, September 12, 2012 and October 22, 2012; and
- The description of our common stock contained in our registration statement on Form 8-A (File No. 001-33497) filed May 23, 2007, under the Exchange Act, including any amendment or report filed for the purpose of updating such description.

You may obtain a copy of any or all of the documents referred to above which may have been or may be incorporated by reference into this prospectus, except for exhibits to those documents (unless the exhibits are specifically incorporated by reference into those documents) at no cost to you by writing or telephoning us at the following address: Office of the Corporate Secretary, Amicus Therapeutics, Inc., 1 Cedar Brook Drive, Cranbury, NJ 08512, telephone (609)-662-2000.

LEGAL MATTERS

The validity of the issuance of the securities offered hereby will be passed upon for us by Pepper Hamilton LLP, Philadelphia, Pennsylvania. As appropriate, legal counsel representing the selling stockholders, underwriters, dealers or agents will be named in the accompanying prospectus supplement

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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, as set forth in their report, which is incorporated by reference in the prospectus and elsewhere in this registration statement. Our consolidated financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

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Set forth below is an estimate (except in the case of the registration fee) of the amount of fees and expenses to be incurred in connection with the issuance and distribution of the offered securities registered hereby, other than underwriting discounts and commission, if any, incurred in connection with the sale of the offered securities. All such amounts will be borne by Amicus Therapeutics, Inc.

SEC Registration Fee	\$	2,531
Legal Fees and Expenses	\$	5,000
Accounting Fees and Expenses	\$	10,000
Miscellaneous Fees and Expenses	\$	2,000
Total:	\$	19,531

Item 15. Indemnification of Directors and Officers.

Section 102 of the Delaware General Corporation Law permits a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his or her duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. The Registrant's restated certificate of incorporation provides that no director of the Registrant shall be personally liable to it or its stockholders for monetary damages for any breach of fiduciary duty as director, notwithstanding any provision of law imposing such liability, except to the extent that the Delaware General Corporation Law prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the Delaware General Corporation Law provides that a corporation has the power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he or she is or is threatened to be made a party by reason of such position, if such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Delaware Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Delaware Court of Chancery or such other court shall deem proper.

The Registrant's restated certificate of incorporation provides that the Registrant will, to the fullest extent permitted by Section 145 of the Delaware General Corporation Law and the Registrant's by-laws (each as amended from time to time), indemnify each person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he or she is or was, or has agreed to become, a director or officer of the Registrant, or is or was serving, or has agreed to serve, at the request of the Registrant, as a director, officer, partner, or trustee of, or in

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a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, including any employee benefit plan (all such persons being referred to hereafter as an "Indemnitee"), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by, or on behalf of, the Indemnitee in connection with such action, suit or proceeding and any appeal therefrom. Such indemnification may include payment by the Registrant of expenses in defending an action or proceeding in advance of the final disposition of such action or proceeding upon receipt of an undertaking by the Indemnitee (such undertaking acceptable by the Registrant without reference to the financial ability of the Indemnitee) to repay such payment if it is ultimately determined that the Indemnitee is not entitled to indemnification under the Registrant's restated certificate of incorporation; however, the Registrant will not indemnify any person seeking

indemnification in connection with a proceeding (or part thereof) initiated by such person, unless such initiation was approved by the Registrant's board of directors. Also, the indemnification rights provided in the Registrant's restated certificate of incorporation (i) are not exclusive of any other rights to which those indemnified may be entitled under any law, agreement or vote of stockholders or disinterested directors or otherwise, and (ii) will inure to the benefit of the heirs, executors and administrators of such persons. The Registrant may, to the extent authorized from time to time by its board of directors, grant indemnification rights to other employees of the Registrant or other persons serving the Registrant and such rights may be equivalent to, or greater or less than, those set forth in the Registrant's restated certificate of incorporation.

The Registrant has entered into indemnification agreements with each of its directors. These agreements, among other things, require the Registrant to indemnify each director to the fullest extent permitted by Delaware law, including indemnification of expenses such as attorneys' fees, judgments, fines and settlement amounts incurred by the director in any action or proceeding, including any action or proceeding by or in right of the Registrant, arising out of the person's services as a director.

The Registrant maintains a general liability insurance policy that covers certain liabilities of the Registrant's directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers. In any underwriting agreement that the Registrant enters into in connection with the sale of common stock being registered hereby, the underwriters will agree to indemnify, under certain conditions, the Registrant, its directors, its officers and persons who control the Registrant within the meaning of the Securities Act, against certain liabilities.

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Item 16. Exhibits

<u>Exhibit</u>	<u>Description</u>
3.1	Restated Certificate of Incorporation of the registrant (incorporated by reference to Exhibit 3.1 of the registrant's Annual Report on Form 10-K filed with the Commission on February 28, 2012)
3.2	Restated By-laws of the of the registrant (incorporated by reference to Exhibit 3.4 of the registrant's Registration Statement on Form S-1/A (Registration No. 333-141700), as amended, originally filed with the Commission on April 27, 2007)
4.1	See Exhibits 3.1 and 3.2 for instruments defining rights of holders of common stock
4.2	Specimen Stock Certificate evidencing shares of common stock (incorporated by reference to Exhibit 4.1 of the registrant's Registration Statement on Form S-1 (Registration No. 333-141700), as amended, originally filed with the Commission on March 30, 2007)
4.3	Third Amended and Restated Investor Rights Agreement, dated as of September 13, 2006, as amended, by and among the registrant and certain stockholders of the registrant (incorporated by reference to Exhibit 4.3 of the registrant's Registration Statement on Form S-1 (Registration No. 333-141700), as amended, originally filed with the Commission on March 30, 2007)
4.4	Form of Warrant (incorporated by reference to Exhibit 4.1 of the registrant's Current Report on Form 8-K filed with the Commission on February 26, 2010)
5.1	Opinion of Pepper Hamilton LLP (filed herewith)
23.1	Consent of Pepper Hamilton LLP (included in Exhibit 5.1)
23.2	Consent of Ernst & Young LLP (filed herewith)
24.1	Power of attorney (included on the signature page hereto)

Item 17. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) to file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement: (i) to include any prospectus required by Section 10(a)(3) of the Securities Act; (ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and (iii) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement; *provided, however*, that paragraphs (i), (ii) and (iii) do not apply if the registration statement is on Form S-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference

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in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement;

(2) that, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof;

(3) to remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering; and

(4) that, for the purpose of determining liability under the Securities Act to any purchaser: (A) Each prospectus filed by the Registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and (B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which the prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act that is incorporated by reference in this registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the provisions described under Item 15 above, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant, Amicus Therapeutics, Inc., certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the in the township of Cranbury, New Jersey, on the 22nd day of October, 2012.

AMICUS THERAPEUTICS, INC.

By: /s/ John F. Crowley

John F. Crowley

Chairman and Chief Executive Officer

POWER OF ATTORNEY

We, the undersigned officers and directors of Amicus Therapeutics, Inc., hereby severally constitute and appoint William D. Baird, III and Peter M. Macaluso, and all or any one of them, our true and lawful attorneys-in-fact and agents, with full power of substitution and re-substitution in for him and in his name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement, and any subsequent registration statements pursuant to Rule 462 of the Securities Act, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ John F. Crowley</u> John F. Crowley	Chairman and Chief Executive Officer (Principal Executive Officer)	October 22, 2012
<u>/s/ William D. Baird, III</u> William D. Baird, III	Chief Financial Officer (Principal Financial Officer)	October 22, 2012
<u>/s/ Daphne Quimi</u> Daphne Quimi	Corporate Controller (Principal Accounting Officer)	October 22, 2012

<u>/s/ Sol J. Barer Ph.D.</u> Sol J. Barer Ph.D.	Director	October 22, 2012
<u>/s/ James Barrett Ph.D.</u> James Barrett Ph.D.	Director	October 22, 2012
<u>/s/ Robert Essner</u> Robert Essner	Director	October 22, 2012
<u>/s/ Donald J. Hayden , Jr.</u> Donald J. Hayden , Jr.	Director	October 22, 2012

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<u>/s/ Ted W. Love, M.D.</u> Ted W. Love, M.D.	Director	October 22, 2012
<u>/s/ Margaret G. McGlynn, R.Ph.</u> Margaret G. McGlynn, R.Ph.	Director	October 22, 2012
<u>/s/ Michael G. Raab</u> Michael G. Raab	Director	October 22, 2012
<u>/s/ Glenn Sblendorio</u> Glenn Sblendorio	Director	October 22, 2012
<u>/s/ James N. Topper, M.D., Ph.D.</u> James N. Topper, M.D., Ph.D.	Director	October 22, 2012

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EXHIBIT INDEX

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24.1	Power of attorney (included on the signature page hereto)

October 22, 2012

Amicus Therapeutics, Inc.
1 Cedar Brook Drive
Cranbury, NJ 08512

Re: Resale Registration

Ladies and Gentlemen:

We have acted as counsel to Amicus Therapeutics, Inc., a Delaware corporation (the “**Company**”), in connection with the preparation of a registration statement (the “**Registration Statement**”) of the Company on Form S-3 under the Securities Act of 1933, as amended (the “**Act**”), and the filing of the Registration Statement with the Securities and Exchange Commission (the “**SEC**”). The Registration Statement relates to the registration for resale of up to 2,949,581 shares of the Company’s common stock, par value \$0.01 per share, issued to the selling stockholder identified in the Registration Statement (the “**Shares**”).

In connection with this opinion, we have examined the originals or copies, certified or otherwise identified to our satisfaction, of the Registration Statement, the Restated Certificate of Incorporation and the Amended and Restated By-laws of the Company, resolutions of the Company’s Board of Directors and such other documents and corporate records relating to the Company as we have deemed appropriate. We have assumed that all signatures are genuine, that all documents submitted to us as originals are authentic, and that all copies of documents submitted to us conform to the originals. We have relied as to certain matters on information obtained from public officials, officers of the Company, and other sources believed by us to be reliable.

We express no opinion herein as to the law of any state or jurisdiction other than the laws of the State of Delaware, including statutory provisions and all applicable provisions of the Delaware Constitution and reported judicial decisions interpreting such laws of the State of Delaware, and the federal laws of the United States of America.

Based upon the foregoing, we are of the opinion that the Shares are validly issued, fully paid and nonassessable.

We assume no obligation to supplement this opinion if any applicable law changes after the date hereof or if we become aware of any fact that might change the opinion expressed herein after the date hereof.

We hereby consent to the reference to our firm under the section “Legal Matters” in the prospectus included in the Registration Statement and to the filing of this opinion as an exhibit to the Registration Statement. In giving this consent, we do not admit that we are within the category of persons whose consent is required by Section 7 of the Act.

Very truly yours,

/s/ Pepper Hamilton LLP

Pepper Hamilton LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the reference to our firm under the caption "Experts" in the Registration Statement on Form S-3 and related prospectus of Amicus Therapeutics, Inc. (the "Company") for the registration of 2,949,581 shares of its common stock and to the incorporation by reference therein of our report dated February 28, 2012, with respect to the consolidated financial statements of the Company included in the Company's Annual Report on Form 10-K for the year ended December 31, 2011, filed with the Securities and Exchange Commission.

/s/ ERNST & YOUNG LLP

MetroPark, New Jersey

October 22, 2012
