The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement is not an offer to sell these securities, and we are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Filed pursuant to Rule 424(b)(5) Registration No.: 333-158405

SUBJECT TO COMPLETION, DATED MARCH 1, 2012

Preliminary Prospectus Supplement (To Prospectus dated May 27, 2009)

AMICUS THERAPEUTICS, INC.



Shares of Common Stock

We are offering shares of our common stock, par value \$0.01 per share, at a public offering price of \$ per share.

Our common stock is listed on the NASDAQ Global Market under the symbol "FOLD." On February 29, 2012, the closing bid price for our common stock on NASDAQ was \$5.98 per share.

Investing in our securities involves a high degree of risk. Before buying any securities, you should read the discussion of material risks of investing in our common stock under the heading "Risk Factors" beginning on page S-12 of this prospectus supplement.

	Per Share	Total
Price to the public	\$	\$
Underwriting discounts	\$	\$
Proceeds, before expenses, to us	\$	\$

We have granted the underwriters an option for a period of 30 days from the date of this prospectus supplement to purchase up to an additional shares of our common stock from us to cover over-allotments. If the underwriters exercise this option in full, the total underwriting discounts will be , and our total proceeds, before expenses, will be \$

\$

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.

The underwriter expects to deliver the shares of our common stock on or about March , 2012.

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The date of this prospectus supplement is

, 2012.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document contains two parts. The first part is this prospectus supplement, which describes the terms of the offering of shares of our common stock and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part, the accompanying prospectus, provides more general information about us and the securities offered hereby. Generally, when we refer to this prospectus, we are referring to both parts of this document combined together with all documents incorporated by reference. To the extent there is a conflict between the information contained in this prospectus supplement or any "free writing prospectus" we may authorize to be delivered to you, on the one hand, and the information contained in the accompanying prospectus or any document incorporated by reference therein, on the other hand, you should rely on the information in this prospectus supplement or such free writing prospectus, as the case may be, provided that, 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 the accompanying prospectus—the statement in the document having the later date modifies or supersedes the earlier statement.

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 the accompanying prospectus were made solely for the benefit of the parties to such agreement and the third-party beneficiaries named therein, if any, 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 or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

You should rely only on the information contained in this prospectus supplement, contained in the accompanying prospectus or incorporated herein and therein by reference, and any "free writing prospectus" we may authorize to be delivered to you. Neither we nor the underwriters have authorized anyone to provide you with information that is different. We are offering to sell, and seeking offers to buy, our securities only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement, the accompanying prospectus and the offering of our securities in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of our securities and the distribution of this prospectus supplement and accompanying prospectus outside the United States. This prospectus supplement and accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation. The information contained, or incorporated by reference, in this prospectus supplement and contained, or incorporated herein by reference, in the accompanying prospectus is accurate only as of the respective dates thereof, regardless of the time of

delivery of this prospectus supplement and the accompanying prospectus, or of any sale of our securities. It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus, including the documents we have referred you to in the section entitled "Where You Can Find More Information" in this prospectus supplement and the accompanying prospectus and any "free writing prospectus" we may authorize to be delivered to you.

Unless the context otherwise requires, in this prospectus supplement the "Company," "we," "us," "our" and similar names refer to Amicus Therapeutics, Inc.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information about us, this offering and information appearing elsewhere in this prospectus supplement and in the accompanying prospectus and in the documents we incorporate by reference herein and therein. This summary is not complete and does not contain all the information you should consider before investing in shares of our common stock in this offering. You should carefully read this entire prospectus supplement and the entire accompanying prospectus, including the "Risk Factors" section beginning on page S-12 of this prospectus supplement and page 3 in the accompanying prospectus and the financial statements and the other information incorporated by reference in this prospectus supplement and the accompanying prospectus, before making an investment decision. If you invest in our securities, you are assuming a high degree of risk.

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 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 therapties 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,
- 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.

Our lead product candidate, migalastat HCl for Fabry disease, is in late Phase 3 development. We are developing and commercializing migalastat HCl with an affiliate of GlaxoSmithKline PLC (GSK) pursuant to a License and Collaboration Agreement entered into 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 costsharing arrangements and potential milestone and royalty payments under the License and Collaboration Agreement provide us with the financial resources 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 third quarter of 2012. We plan to use the data from Study 011 to support the submission of a New Drug Application, or NDA, to the U.S. Food and Drug Administration (FDA) for marketing approval in the United States 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.

We believe migalastat HCl may have advantages over ERT. While ERT compensates for the reduced level of activity of specific enzymes through regular infusions of recombinant forms of the enzyme, our approach uses orally-administered small molecule pharmacological chaperones to improve the function of the enzyme that is made by the patient's own body. We believe this approach to treating these diseases could provide benefits to patients through better bio-distribution and ease of use.

In addition to potential benefits pharmacological chaperones may provide as a monotherapy, we also believe the use of pharmacological chaperones coadministered with ERT may address certain key limitations of ERT. The use of pharmacological chaperones co-administered with ERT may improve the characteristics 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, mitigating immunogenicity, and increasing enzyme activity and substrate reduction in target tissues compared to that observed with ERT alone. We, along with our partner GSK, are currently conducting a Phase 2 study (Study 013) to evaluate migalastat HCl co-administered with ERT in Fabry patients. We recently presented preliminary positive data from Study 013 which included, in part, increases in levels of active enzyme in plasma and skin demonstrating a positive drug-drug interaction between migalastat HCl and ERT. We expect to complete Study 013 in the first half of 2012.

In addition, we are conducting another Phase 2 co-administration study (Study 010) evaluating our pharmacological chaperone AT2220 (duvoglustat HCl) co-administered with ERT in Pompe patients. Unlike migalastat HCl, we own exclusive rights to the development of AT2220. We expect to announce preliminary results from Study 010 in the first half of 2012. We also plan to increase our commitment to the broader application of the chaperone-ERT combination technology as a potential next-generation treatment approach for multiple lysosomal storage diseases in 2012. We are continuing our preclinical work investigating our pharmacological chaperones AT3375 and afegostat tartrate co-administered with ERT for Gaucher disease, and have initiated new undisclosed pharmacological chaperone research and development programs to investigate the use of chaperones in combination with other ERTs.

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 currently approved therapeutics to treat Fabry, Gaucher and Pompe disease were approximately \$2.0 billion in 2011.

While our initial clinical efforts have focused on the use of pharmacological chaperones to treat lysosomal storage diseases, we believe that our technology may be applicable to the treatment of certain diseases of neurodegeneration. We have been a pioneer in investigating the link between Gaucher and Parkinson's disease, and have been exploring the possibility of using pharmacological chaperones that target glucocerebrosidase (GCase), the enzyme deficient in Gaucher disease, for more than five years. In 2011, numerous peer-reviewed publications in leading scientific journals reported additional information on the underlying mechanisms that link Gaucher and Parkinson's, and further validated GCase as a target for the treatment of the disease. In particular, these new papers demonstrated a direct connection between GCase and alpha-synuclein, whose accumulation in the brain is a hallmark of Parkinson's, and showed that increased GCase activity in the brain of mouse models could reduce alpha-synuclein pathology and other deficits. We will continue preclinical and IND-enabling studies for the pharmacological chaperone AT3375, which targets the same GCase enzyme that is deficient in Gaucher disease. These preclinical studies are anticipated to be complete by year-end 2012 and are funded in part by a grant awarded by the Michael J. Fox Foundation.

Our Pharmacological Chaperone Technology

In the human body, proteins are involved in almost every aspect of cellular function. Proteins are linear strings of amino acids that fold and twist into specific three-dimensional shapes in order to function properly. Certain human diseases result from mutations that cause changes in the amino acid sequence of a protein, and these changes often reduce protein stability and may prevent them from folding properly. The majority of genetic mutations that lead to the production of less stable or misfolded proteins are called missense mutations. These mutations result in the substitution of a single amino acid for another in the protein. Because of this type of error, missense mutations often result in proteins that have a reduced level of biological activity.

Proteins generally fold in a specific region of the cell known as the endoplasmic reticulum (ER). The cell has quality control mechanisms that ensure that proteins are folded into their correct three-dimensional shape before they can move from the ER to the appropriate destination in the cell, a process generally referred to as protein trafficking. Misfolded proteins are often eliminated by the quality control mechanisms after initially being retained in the ER. In certain instances, misfolded or unstable proteins can accumulate in the ER before being eliminated.

The retention of misfolded proteins in the ER interrupts their proper trafficking, and the resulting reduced biological activity can lead to impaired cellular function and ultimately to disease. In addition, the accumulation of misfolded proteins in the ER may lead to various types of stress on cells, which may also contribute to cellular dysfunction and disease.

We use pharmacological chaperones to increase the stability of target proteins and help them fold into their 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.

Migalastat HCl for Fabry Disease

Overview

Our most advanced product candidate, migalastat HCl, is an investigational, orally-administered, small molecule pharmacological chaperone for the treatment of Fabry disease. In October, 2010, we entered into a License and Collaboration Agreement with GSK to develop and commercialize migalastat HCl. Under the terms of the License and Collaboration Agreement, GSK received an exclusive worldwide license to develop, manufacture and commercialize migalastat HCl. In consideration of the license grant, we received an upfront license payment of \$30 million and are eligible to receive further payments of up to approximately \$170 million upon the successful achievement of development, regulatory and commercialization milestones, as well as tiered double-digit royalties on global sales of migalastat HCl. We are jointly funding development costs with GSK in accordance with an agreed upon development plan, pursuant to which we funded 50% of the development costs in 2011 and will fund only 25% of the development costs for 2012 and beyond, subject to annual and aggregate caps.

Clinical Studies of Migalastat HCl Monotherapy for Fabry Disease

Study 011 is a six-month, placebo-controlled global Phase 3 study of migalastat HCl for Fabry disease to support marketing applications for the FDA and other regulatory agencies. In September 2009, the first patient was randomized in Study 011 to receive migalastat HCl 150 mg or placebo on an every-other-day (QOD) oral dosing schedule for a six-month double-blinded treatment period. During a six-month open-label follow up period, patients continue treatment with migalastat HCl or switch from placebo to migalastat HCl. We exceeded our target enrollment of 60 patients for Study 011 when we enrolled our 67th and final patient in December 2011. As of December 31, 2011, 24 of 26 patients who have completed the six-month treatment and six-month follow-up periods are currently enrolled in the ongoing Phase 3 extension study and remain on migalastat HCl treatment. We expect results from this study in the third quarter of 2012.

The primary efficacy endpoint for Study 011 is a change in interstitial capillary globotriaosylceramide (GL-3), the substrate that accumulates in Fabry disease, as measured by kidney biopsy. Patients in Study 011 with a reduction of GL-3 deposits per capillary of at least 50% at six months will be considered responders. The final analysis will compare the number of responders in the migalastat HCl group vs. the placebo group. Secondary endpoints for Study 011 include safety and tolerability, urine GL-3, renal function, and quality of life (QOL). Urine GL-3 will be analyzed using the first analytically validated GLP assay, which was developed by Amicus to measure forms of GL-3 found in kidney cells. Renal function will be assessed by measuring iohexol glomerular filtration rate (GFR), eGFR, and 24-hour urine protein.

Study 012 is our second Phase 3 study intended to support the worldwide registration of migalastat HCl for Fabry disease. Study 012 is a randomized, open-label, 18-month Phase 3 study to compare the safety and efficacy of migalastat HCl and ERT in male and female patients with Fabry disease. The study will randomize approximately 50 patients (30 to switch to migalastat HCl and 20 to remain on ERT) identified as having alpha-Gal A mutations amenable to migalastat HCl and who have been treated with either of the ERTs currently marketed (Fabrazyme® (agalsidase beta) or Replagal® (agalsidase alfa)) for Fabry disease for at least 12 months. Subjects in the migalastat HCl treatment arm will receive 150 mg of migalastat HCl every other day, while those in the ERT alone arm will continue on their current dose and regimen. The primary outcome of efficacy will be renal function as measured by glomerular filtration rate (GFR) for the migalastat HCl and ERT groups at 18 months. The primary analysis will use descriptive statistics to compare the mean changes in GFR for each arm. Secondary outcomes of efficacy include renal function as measured by 24-hour urine protein and other clinical outcomes. The first patient in Study 012 commenced dosing in September 2011 and we expect to complete enrollment by the end of 2012, although timelines may be influenced by the continuing ERT shortage.

Phase 2 Chaperone-ERT Co-Administration Study of migalastat HCl for Fabry Disease

We are also investigating the use of migalastat HCl co-administered with ERT in a Phase 2 study. Study 013 is an ongoing, open-label Phase 2 drug-drug interaction study to evaluate the safety and pharmacokinetic (PK) effects of two doses of migalastat HCl (150 mg and 450 mg) co-administered with ERT (Fabrazyme® (agalsidase beta) or Replagal® (agalsidase alfa)) in up

to 24 males diagnosed with Fabry disease. Unlike Study 011 and Study 012, patients in Study 013 are not required to have alpha-Gal A mutations amenable to chaperone therapy because, when co-administered with ERT, migalastat HCl is designed to bind to and stabilize the recombinant enzyme in the circulation in any patient receiving ERT.

We recently presented data for the first seven subjects in Study 013 who received their current dose and regimen of the ERT agalsidase beta alone at one infusion followed by oral migalastat HCl 150 mg administered two hours prior to agalsidase beta at their next infusion. Due to the supply shortage of agalsidase beta, five of these subjects had been receiving 0.5 mg/kg infused every two weeks and two subjects had been receiving a dose of 1.0 mg/kg infused every four weeks. The preliminary results include the following:

- Increases in levels of active enzyme in plasma and skin and peripheral blood mononuclear cells (PBMCs) demonstrate a positive drug-drug interaction between migalastat HCl 150 mg and agalsidase beta, confirming observations from preclinical studies and;
- For all seven treated with migalastat HCl 150 mg, levels of active enzyme in plasma ranged from 1.6 to 4.2-fold higher than with ERT alone, as
 measured by total area under the curve (AUC). Skin biopsies taken on Day 2 post-dose demonstrated increased levels of active enzyme in the skin
 from all seven patients from 1.1 to 18.9-fold after subtracting baseline activity. On Day 7 post-dose, active enzyme activity remained increased in
 five of the seven patients, up to 11.1-fold higher after subtracting baseline activity, following co-administration compared to ERT alone.

In published preclinical studies, the co-administration of migalastat HCl and ERT led to stabilization of the ERT and increased uptake of active enzyme into key organs of disease, including kidney, heart, and skin, when compared to ERT alone. This increased enzyme uptake in Fabry mouse models also led to further reductions in GL-3, the substrate that accumulates in kidney, heart and skin in Fabry disease. We expect to complete Study 013 in the first half of 2012.

Chaperone-ERT Co-administration Therapy for Pompe and Other Lysosomal Storage Diseases

In addition to Study 013 under the GSK collaboration, we are conducting clinical and preclinical studies examining co-administration of pharmacological chaperones that we exclusively own with ERTs for other lysosomal storage diseases. In December 2011, we announced the initial infusion of the first subject in an open-label Phase 2 drug-drug interaction study (Study 010) of AT2220 (duvoglustat HCl) co-administered with ERT in individuals with Pompe disease. The purpose of Study 010 is to evaluate whether AT2220, an orally available, investigational pharmacological chaperone owned exclusively by Amicus, can be safely co-administered with the ERT alglucosidase alfa, the only approved therapy for Pompe disease. The study will enroll up to 22 male or female subjects who have been on a stable dose and regimen of ERT for at least three months. All subjects will be given a regularly scheduled ERT infusion. One hour prior to the initiation of the next ERT infusion, subjects will receive a single oral dose of AT2220. Plasma enzyme activity and protein levels will be evaluated during each infusion. Muscle biopsies will be taken seven days after each infusion to measure tissue ERT activity with and without the chaperone, as well as the level of AT2220.

Data from preclinical studies in Pompe knock-out mice presented in 2011 at several scientific symposia demonstrated that AT2220 co-administered with ERT significantly enhanced the uptake of the active enzyme into key organs involved in Pompe disease, including heart, diaphragm, and skeletal muscles. These preclinical data also showed a greater reduction of glycogen in key organs with the co-administration of AT2220 versus ERT alone.

In 2012, we intend to increase our commitment to the broader application of the chaperone-ERT combination technology as a potential next-generation treatment approach for multiple LSDs. We will continue our preclinical combination studies in Gaucher disease (afegostat tartrate +/- Cerezyme and AT3375 +/- Cerezyme) and we have initiated new undisclosed pharmacological chaperone research and development programs to investigate the use of chaperones in combination with other ERTs to potentially improve treatment outcomes.

AT3375 for Parkinson's Disease

We are also conducting preclinical studies on the use of our pharmacological chaperone technology to treat Parkinson's disease, with an initial focus on Parkinson's disease patients who are also Gaucher disease carriers. Amicus has been a leader in investigating the link between Gaucher and Parkinson's disease, and has been exploring the possibility of using pharmacological chaperones that target GCase, the enzyme deficient in Gaucher disease, for more than five years. In 2011, numerous peer-reviewed publications in leading scientific journals reported additional information on the underlying mechanisms that link Gaucher and Parkinson's, and further validated GCase as a target for the treatment of this disease. In particular, these new papers demonstrated a direct connection between GCase and alpha-synuclein, whose accumulation in the brain is a hallmark of Parkinson's, and showed that increased GCase activity in the brain of mouse models could correct alpha-synuclein pathology and other deficits.

We believe the knowledge we have gained from exploring the use of pharmacological chaperones in rare genetic diseases, including Gaucher, can be applied to non-lysosomal storage disease applications. We believe that pharmacological chaperones may be used to stabilize mutated proteins and further stabilize normal or "wild-type" proteins, and may therefore increase the cellular amounts and activities of specifically chosen target proteins that may be important for the treatment of Parkinson's disease. Thus, while our initial efforts are focused on subpopulations of Parkinson's patients, we believe the characteristics of chaperones may make treatment of broader populations within this disease possible.

In 2012, we will continue preclinical and IND-enabling studies for AT3375, which are anticipated to be complete by year-end 2012 and are funded in part by a grant awarded by the Michael J. Fox Foundation.

Strategic Alliances and Arrangements

On October 28, 2010, we entered into a License and Collaboration Agreement with Glaxo Group Limited, an affiliate of GSK, to develop and commercialize migalastat HCl. Under the terms of the License and Collaboration Agreement, GSK received an exclusive worldwide license to develop, manufacture and commercialize migalastat HCl. In consideration of the license grant, we received an upfront, license payment of \$30 million from GSK and are eligible to receive further payments of up to \$173.5 million upon the successful achievement of development, regulatory and commercialization milestones, as well as tiered double-digit royalties on global sales of migalastat HCl. Potential payments include up to (i) \$13.5 million related to the attainment of certain clinical development objectives and the acceptance of regulatory filings in select worldwide markets, (ii) \$80 million related to market approvals for migalastat HCl in selected territories throughout the world, and (iii) \$80 million associated with the achievement of certain sales thresholds. We are jointly funding development costs with GSK in accordance with an agreed upon development plan pursuant to which we funded 50% of development costs in 2011 and will fund only 25% of such costs in 2012 and beyond, subject to annual and aggregate caps. Additionally, GSK purchased approximately 6.9 million shares of our common stock at a price of \$4.56 per share. The total value of this equity investment was approximately \$31 million and represents a 19.8% ownership position in the Company as of December 31, 2011.

Under the terms of the agreement, while we will collaborate with GSK, GSK will have decision-making authority over clinical, regulatory and commercial matters. Additionally, GSK will have primary responsibility for interactions with regulatory agencies and prosecuting applications for marketing and reimbursement approvals worldwide.

We will continue to evaluate other business development opportunities as appropriate that build shareholder value and provide us with access to the financial, technical, clinical and commercial resources necessary to develop and market pharmacological chaperone therapeutics and other technologies or products. We are exploring potential collaborations, alliances and other business development opportunities on a regular basis. These opportunities may include the acquisition of preclinical-stage, clinical-stage or marketed products so long as such transactions are consistent with our strategic plan to develop and provide therapies to patients living with rare and orphan diseases and support our continued transformation from a development stage company into a commercial biotechnology company.

Corporate Information

We were incorporated on February 4, 2002 under the laws of the State of Delaware. Our principal executive offices are located at 1 Cedar Brook Drive, Cranbury, NJ 08512 and our telephone number is (609) 662-2000. You can obtain more information regarding our business and industry by reading our Annual Report on Form 10-K for the year ended December 31, 2011 filed with the SEC on February 28, 2012 and the other reports we file with the Securities and Exchange Commission, or SEC.

THE OFFERING

Issuer:

Common stock offered by us pursuant to this prospectus supplement

Over-allotment Option

Common stock estimated to be outstanding immediately after this offering*

Use of Proceeds

Amicus Therapeutics, Inc.

shares

We have granted the underwriters an option to purchase up to additional shares of common stock to cover over-allotments, if any, within 30 days of the date of this prospectus supplement.

shares (shares if the underwriters exercise in full their option to purchase additional shares of common stock)

We currently intend to use the net proceeds of this offering:

- to advance the clinical and preclinical development of our pharmacological chaperone monotherapy and co-administration programs, especially our lead program migalastat HCL for Fabry disease,
- to potentially enter into collaborations, alliances and other business development opportunities including the acquisition of preclinical-stage, clinical-stage and marketed products that are consistent with our strategic plan and support our continued transformation to a commercial biotechnology company, and
- for other general corporate purposes.

As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses of the proceeds from this offering. As a result, our management will retain broad discretion in the allocation and use of the net proceeds from this offering. See "Use of Proceeds" on page S-14 of this prospectus supplement.

See "Risk Factors" beginning on page S-12 of this prospectus supplement and in our Annual Report on Form 10-K for the year ended December 31, 2011 for a discussion of factors you should consider carefully before deciding to invest in shares of our common stock.

Our common stock is quoted and traded on The NASDAQ Global Market under the symbol "FOLD."

S-11

Risk Factors

Market for the common stock

* The number of shares of our common stock to be outstanding after this offering is based on 34,654,206 shares of common stock outstanding as of December 31, 2011. Unless specifically stated otherwise, the information in this prospectus supplement excludes:

- 6,653,502 shares of our common stock issuable upon the exercise of stock options outstanding as of December 31, 2011, at a weighted average exercise price of \$6.87 per share, of which options to purchase 3,496,858 shares of our common stock were then exercisable;
- 1,854,946 shares of our common stock issuable upon the exercise of warrants outstanding as of December 31, 2011, each with an exercise price of \$4.43 per share, all of which were then exercisable; and
- an aggregate of 5,092,395 shares of our common stock reserved for future grants of stock options (or other similar equity instruments) under our under our 2007 Stock Option Plan and our 2007 Director Option Plan as of December 31, 2011.

RISK FACTORS

Investing in our securities involves a high degree of risk and uncertainty. Please see the risk factors under the heading "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2011, as such discussions may be amended or updated in subsequent reports filed by us with the SEC.

Before making an investment decision, you should carefully consider these risks as well as other information we include or incorporate by reference in this prospectus supplement and the accompanying prospectus. The risks and uncertainties we have described are not the only risks facing our company. Additional risks and uncertainties not presently known to us or that we currently deem to be immaterial may also affect our business operations. If any of such risks and uncertainties actually occurs, our business, financial condition and results of operations could be severely harmed. This could cause the trading price of our common stock to decline, and you could lose all or part of your investment.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the documents incorporated herein and therein by reference contain forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, included in this prospectus supplement, the accompanying prospectus or the documents incorporated herein and therein 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 supplement, the accompanying prospectus and the documents incorporated herein and therein by reference include, among other things, statements about:

- the progress and results of our clinical trials of our drug candidates, including migalastat HCl;
- our ability to achieve development and commercialization milestone payments and sales royalties under our collaboration with GlaxoSmithKline PLC;
- 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 with enzyme replacement therapy 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 supplement, particularly 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 supplement, the accompanying prospectus and the documents that we incorporate by reference herein and therein 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.

USE OF PROCEEDS

We expect to receive net proceeds of approximately \$ from the sale of exercise their over-allotment option in full, based on a public offering price of \$ the underwriting discount payable by us.

shares of our common stock in this offering, or \$ if the underwriters per share after deducting the estimated expenses related to this offering and

We currently intend to use the net proceeds of this offering:

- to advance the clinical and preclinical development of our pharmacological chaperone monotherapy and co-administration programs, especially our lead program migalastat HCL for Fabry disease,
- to potentially enter into collaborations, alliances and other business development opportunities including the acquisition of preclinical-stage, clinical-stage and marketed products that are consistent with our strategic plan and support our continued transformation to a commercial biotechnology company, and
- for other general corporate purposes.

As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses of the proceeds from this offering. As a result, our management will retain broad discretion in the allocation and use of the net proceeds from this offering. Consistent with our investment policy, we may invest the net proceeds temporarily in deposits with major financial institutions, money market funds, notes issued by the United States government, fixed income investments which can be readily purchased and sold using established markets and United States bond funds which can be readily purchased and sold using established markets until we use them for their intended purpose.

DILUTION

Purchasers of shares of our common stock offered by this prospectus supplement and the accompanying prospectus will experience an immediate dilution in the net tangible book value of their common stock from the public offering price of the shares of common stock. The net tangible book value of our common stock as of December 31, 2011 was \$29.6 million, or \$0.85 per share. Net tangible book value per share of our common stock is equal to our net tangible assets (tangible assets less total liabilities) divided by the number of shares of our common stock issued and outstanding as of December 31, 2011.

Dilution per share represents 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 giving effect to this offering. After reflecting the sale of shares of our common stock offered by us at the public offering price of \$ per share, less underwriting discount and estimated offering expenses, our adjusted net tangible book value per share of our common stock and the adjusted net tangible book value per share of our common stock of \$ per share to existing stockholders and an immediate dilution of \$ per share to new investors purchasing the shares of our common stock in this offering. The following table illustrates this per share dilution:

Public offering price per share of common stock		\$
Net tangible book value per share as of December 31, 2011	\$ 0.85	
Increase per share attributable to new investors	\$	
Adjusted net tangible book value per share as of December 31, 2011		
Dilution per share to new investors		\$

The foregoing calculations are based on 34,654,206 shares of our common stock outstanding as of December 31, 2011 and do not take into account any of the following:

- 6,653,502 shares of our common stock issuable upon the exercise of stock options outstanding as of December 31, 2011, at a weighted average exercise price of \$6.87 per share, of which options to purchase 3,496,858 shares of our common stock were then exercisable;
- 1,854,946 shares of our common stock issuable upon the exercise of warrants outstanding as of December 31, 2011, each with an exercise price of \$4.43 per share, all of which were then exercisable; or
- an aggregate of 5,092,395 shares of our common stock reserved for future grants of stock options (or other similar equity instruments) under our under our 2007 Stock Option Plan and our 2007 Director Option Plan as of December 31, 2011.

UNDERWRITING

Subject to the terms and conditions set forth in an underwriting agreement between us and the underwriters named below, for whom Leerink Swann LLC and Cowen and Company, LLC are acting as the representatives, we have agreed to sell to the underwriters, and each of the underwriters has severally agreed to purchase from us the number of shares of common stock listed next to its name in the following table:

<u>Underwriters</u>	Shares
Leerink Swann LLC	
Cowen and Company, LLC	
Total	

Number of

The underwriters are committed to purchase all the common shares offered by us if they purchase any shares. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may also be increased or the offering may be terminated.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, and other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officers' certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

The underwriters expect to deliver the shares of common stock to purchasers on or about March , 2012.

Discount

The underwriters propose initially to offer the shares to the public at the public offering price set forth on the cover page of this prospectus supplement and to dealers at that price less a concession not in excess of \$ per share. After the public offering, the public offering price, concession and discount may be changed.

The following table shows the public offering price, underwriting discount and proceeds before expenses to us. The information assumes either no exercise or full exercise by the underwriters of their overallotment option.

		To	tal
		Without	With
	Per	Over-	Over-
	Share	Allotment	Allotment
Public offering price			
Underwriting discount			
Proceeds, before expenses, to us			

The total expenses of the offering payable by us, including registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding the underwriting discount, are estimated at approximately \$

In no event will the total amount of compensation paid to the underwriters upon completion of this offering exceed 8.0% of the gross proceeds of this offering.

Overallotment Option

We have granted an option to the underwriters to purchase up to additional shares at the public offering price, less the underwriting discount. The underwriters may exercise this option for 30 days from the date of this prospectus supplement solely to cover any overallotments. If any shares are purchased with this overallotment option, the underwriters will purchase shares in approximately the same proportion as shown in the table above. If any additional shares of common stock are purchased, the underwriters will offer the additional shares on the same terms as those on which the shares are being offered.

No Sales of Similar Securities

We, each of our directors and each of our executive officers and certain of our stockholders have agreed that, without the prior written consent of Leerink Swann and Cowen and Company, LLC, they will not, during the period ending 90 days, with respect to us, or 60 days, with respect to our directors, executive officers and certain of our stockholders, after the date of this prospectus supplement, sell, offer, contract or grant any option to sell (including without limitation any short sale), pledge, transfer, establish an open "put equivalent position" or liquidate or decrease a "call equivalent position" within the meaning of Rule 16a-1(h) under the

Exchange Act or otherwise dispose of or transfer (or enter into any transaction which is designed to, or might reasonably be expected to, result in the disposition of), including the filing (or participation in the filing) of a registration statement (except for a registration statement on Form S-8) with the SEC in respect of, any shares of our common stock, options to acquire shares of our common stock, or securities exchangeable or exercisable for or convertible into shares of our common stock or publicly announce an intention to do any of the foregoing.

The restrictions described above do not apply to:

with respect to us:

- the shares of our common stock to be sold in this offering; or
- the issuance by us of shares of our common stock or options to purchase shares of our common stock, or our common stock upon exercise of options, pursuant to our equity incentive plans;

with respect to our directors, executive officers and certain of our stockholders:

- transactions relating to shares of our common stock or other securities acquired in open market transactions after the completion of this offering, provided that no filing under Section 16(a) of the Exchange Act shall be required or shall be voluntarily made in connection with subsequent sales of our common stock or other securities acquired in such open market transactions;
- transactions effected pursuant to any trading plan established pursuant to Rule 10b5-1 of the Exchange Act for the transfer of shares of our common stock that has been entered into by the director, executive officer or stockholder prior to the date he, she or it entered into the agreement regarding the 60-day restricted period;
- transfers of shares of our common stock or any security convertible into our common stock as a bona fide gift; or
- transfers of shares of our common stock or any security convertible into our common stock either during the director's, executive officer's or stockholder's lifetime or upon death by will or intestate succession to the immediate family of the director, executive officer or stockholder or to a trust the beneficiaries of which are exclusively the director, executive officer or stockholder and/or a member or members of his or her immediate family; *provided* that in the case of any transfer or distribution described in this bullet or the immediately preceding bullet (i) each donee or distributee agrees in writing to the same restrictions as set forth above and (ii) no filing under the Exchange Act or other public announcement shall be required or shall be made voluntarily (other than a filing on a Form 5 made after expiration of the 60-day restricted period) during the 60-day restricted period.

The restricted period described above is subject to extension such that, in the event that either (1) during the last 17 days of the restricted period, we issue an earnings release or material news or a material event relating to us occurs or (2) prior to the expiration of the restricted period, we announce that we will release earnings results during the 16-day period beginning on the last day of the restricted period, the "lock-up" restrictions described above will, subject to limited exceptions, continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release or the occurrence of the material news or material event.

Indemnification

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act of 1933, as amended (Securities Act), and to contribute to payments that the underwriters may be required to make for these liabilities.

Price Stabilization, Short Positions and Penalty Bids

Until the distribution of the shares is completed, SEC rules may limit the underwriters from bidding for and purchasing our common stock. However, the underwriters may engage in transactions that stabilize the price of the common stock, such as bids or purchases to peg, fix or maintain that price.

In connection with the offering, the underwriters may purchase and sell our common stock in the open market. These transactions may include short sales, purchases on the open market to cover positions created by short sales and stabilizing transactions. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering. "Covered" short sales are sales made in an amount not greater than the underwriters' option to purchase additional shares in the offering. The underwriters may close out any covered short position by either exercising their overallotment option or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the overallotment option. "Naked" short sales are sales in excess of the overallotment option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of our common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of shares of common stock made by the underwriters in the open market prior to the completion of the offering.

Similar to other purchase transactions, the underwriters' purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market.

The underwriters have advised us that, pursuant to Regulation M of the Securities Act, they may also engage in other activities that stabilize, maintain or otherwise affect the price of our common stock, including the imposition of penalty bids. This means that if the representatives of the underwriters purchase common stock in the open market in stabilizing transactions or to cover short sales, the representatives can require the underwriters that sold those shares as part of this offering to repay the underwriting discount received by them.

The underwriters make no representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. In addition, neither we nor the underwriters make any representation that the representatives will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

Passive Market Making

In connection with the offering, the underwriters may engage in passive market-making transactions in the common stock on the NASDAQ Global Market in accordance with Rule 103 of Regulation M under the Exchange Act during the period before the commencement of offers or sales of common stock and extending through the completion and distribution. A passive market-maker must display its bids at a price not in excess of the highest independent bid of the security. However, if all independent bids are lowered below the passive market-maker's bid, that bid must be lowered when specified purchase limits are exceeded.

Electronic Offer, Sale and Distribution of Shares

A prospectus supplement in electronic format may be made available on the websites maintained by one or more underwriters or selling group members, if any, participating in the offering. The underwriters may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters and selling group members that may make Internet distributions on the same basis as other allocations. Other than the prospectus supplement in electronic format, the information on the underwriters' websites and any information contained in any other website maintained by the underwriters is not part of this prospectus supplement, the accompanying prospectus or the registration statement of which this prospectus supplement and the accompanying prospectus forms a part.

Notice to Non-US Investors

Each of the underwriters has represented that (i) it has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 or FSMA) received by it in connection with the issue or sale of any common stock in circumstances in which Section 21(1) of the FSMA does not apply to us and (ii) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares in, from or otherwise involving the United Kingdom.

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State"), each underwriter has represented and agreed that with effect from and including the date on which the European Union Prospectus Directive (the "EU Prospectus Directive") is implemented in that Relevant Member State (the "Relevant Implementation Date") it has not made and will not make an offer of common stock to the public in that Relevant Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the EU Prospectus Directive, except that it may, with effect from and including the Relevant Implementation Date, make an offer of shares to the public in that Relevant Member State at any time:

- to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;
- to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000 and (3) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts;
- to fewer than 100 natural or legal persons (other than qualified investors as defined in the EU Prospectus Directive) subject to obtaining the prior consent of the book-running managers for any such offer; and
- under any other circumstances which do not require the publication of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer of shares to the public" in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe for the shares, as the same may be varied in that Member State by any measure implementing the EU Prospectus Directive in that Member State and the expression EU Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

DESCRIPTION OF OUR COMMON STOCK

The following summary of the terms of our common stock is subject to and qualified in its entirety by reference to our charter and by-laws, copies of which are on file with the SEC as exhibits to previous SEC filings. Please refer to "Where You Can Find More Information" in the accompanying prospectus for directions on obtaining these documents.

As of December 31, 2011, we are authorized to issue 125,000,000 shares of common stock, \$0.01 par value per share. As of December 31, 2011, we had 34,654,206 shares of common stock outstanding.

General

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders and do not have cumulative voting rights. An election of directors by our stockholders shall be determined by a plurality of the votes cast by the stockholders entitled to vote on the election. Holders of common stock are entitled to receive proportionately any dividends as may be declared by our board of directors, subject to any preferential dividend rights of any outstanding preferred stock.

In the event of our liquidation or dissolution, the holders of common stock are entitled to receive proportionately all assets available for distribution to stockholders after the payment of all debts and other liabilities and subject to the prior rights of any outstanding preferred stock. Holders of common stock have no preemptive, subscription, redemption or conversion rights. The rights, preferences and privileges of holders of common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer and Trust Company.

The NASDAQ Global Market

Our common stock is listed on the NASDAQ Global Market under the symbol "FOLD."

LEGAL MATTERS

The validity of the securities we are offering will be passed upon by Pepper Hamilton LLP, Philadelphia, Pennsylvania. Dechert LLP, Philadelphia, Pennsylvania, is counsel for the underwriters.

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, as set forth in their report, which is incorporated by reference in the accompanying prospectus. 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.

PROSPECTUS

AMICUS THERAPEUTICS, INC.

\$92,430,000

Common Stock Preferred Stock Warrants Debt Securities

1,000,000 Shares of Common Stock Offered by Selling Stockholders

We may offer to the public from time to time in one or more series or issuances:

- shares of our common stock;
- shares of preferred stock;
- warrants to purchase shares of our common stock, preferred stock and/or debt securities;
- · debt securities consisting of debentures, notes or other evidences of indebtedness; or
- any combination of these securities.

Selling stockholders may also offer shares of our common stock from time to time in connection with this offering. This prospectus provides a general description of the securities that we or the selling stockholders may offer. Each time that securities are sold under this prospectus, we will provide specific terms of the securities offered in a supplement to this prospectus. The prospectus supplement may also add, update or change information contained in this prospectus. This prospectus may not be used to consummate a sale of securities unless accompanied by the applicable prospectus supplement. You should read both this prospectus and the applicable prospectus supplement together with additional information described under the heading "Where You Can Find More Information" before you make your investment decision.

Securities sold under this prospectus shall be sold directly to purchasers or through agents on our behalf or on behalf of the selling stockholders or through underwriters or dealers as designated from time to time. Each time a selling stockholder sells or disposes shares of common stock pursuant to this offering, the selling stockholder is required to provide you with this prospectus and a prospectus supplement containing specific information about the selling stockholder and the terms of the offering. If any agents or underwriters are involved in the sale of any of these securities, the applicable prospectus supplement will provide the names of the agents or underwriters and any applicable fees, commissions or discounts.

Our common stock is traded on the Nasdaq Global Market under the symbol "FOLD." On May 11, 2009, the closing price of our common stock was \$7.50.

As of March 23, 2009, the aggregate market value of our outstanding common stock held by non-affiliates was approximately \$106,307,120, based on 22,643,056 shares of outstanding common stock, of which approximately 10,630,712 shares are held by non-affiliates, and a per share price of \$10.00 based on the closing sale price of our common stock on March 23, 2009. As of the date hereof, we have not offered any securities pursuant to General Instruction I.B.6 of Form S-3 during the prior 12 calendar month period that ends on and includes the date hereof.

Investing in our securities involves certain risks. Before investing, you should refer to the risk factors on page 3 of this prospectus, included in our periodic reports, in prospectus supplements and in other information filed by us with the Securities and Exchange Commission.

These securities have not been approved by the Securities and Exchange Commission or any state securities commission, nor have these organizations determined that this prospectus is accurate or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is May 27, 2009.

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ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, using a "shelf" registration process. Under this shelf registration process we may offer to sell any of the securities, or any combination of the securities, described in this prospectus, in each case in one or more offerings, up to a total dollar amount of \$92,430,000 and the selling stockholders may sell up to 1,000,000 shares of our common stock in one or more offerings.

This prospectus provides you only with a general description of the securities we or the selling stockholders may offer. Each time securities are sold under this shelf registration, we will provide a prospectus supplement that will contain specific information about the terms of those securities and the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement, including all documents incorporated herein by reference, together with the additional information described under "Where You Can Find More Information" below.

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 constitute 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 the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and 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.

THE COMPANY

We are a clinical-stage biopharmaceutical company focused on the discovery, development and commercialization of a new class of orally-administered, small molecule drugs, known as pharmacological chaperones, for the treatment of a range of human genetic diseases. Our lead product candidates in development are Amigal (migalastat hydrochloride) for Fabry disease, Plicera (afegostat tartrate) for Gaucher disease and AT2220 (1-deoxynojirimycin HCl) for Pompe disease. We completed our Phase 2 clinical trials of Amigal and are currently conducting Phase 2 clinical trials of Plicera. We recently suspended a Phase 2 clinical trial of AT2220 and the IND is on clinical hold pending FDA agreement to allow the Company to resume clinical development. 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 worldwide net product sales for the five currently approved therapeutics to treat Fabry, Gaucher and Pompe disease were approximately \$2.2 billion in 2008, as publicly reported by the companies that market these therapeutics.

Our goal is to become a leading biopharmaceutical company focused on the discovery, development and commercialization of pharmacological chaperone therapies for the treatment of a wide range of human diseases. Our initial clinical efforts are currently focused on developing pharmacological chaperones for the treatment of lysosomal storage disorders, which are chronic genetic diseases, such as Fabry, Gaucher and Pompe that frequently result in severe symptoms. We also believe our technology may be broadly applicable to other diseases for which protein stabilization and improved folding may be beneficial, including certain neurodegenerative and genetically-based metabolic disorders.

Fabry, Gaucher and Pompe are among certain human diseases which result from 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 proteins. Misfolded 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, thereby increasing protein activity, improving cellular function and potentially reducing cell stress.

The current standard of treatment for Fabry, Gaucher and Pompe is enzyme replacement therapy (ERT). This therapy compensates for the reduced level of activity of specialized proteins called enzymes through regular infusions of recombinant enzyme. Instead of adding enzymes from an external source by intravenous infusion, our approach uses small molecule, orally-administered pharmacological chaperones to restore the function of the enzyme that is already made by the patient's own body. We believe our product candidates may have advantages relative to ERT relating to bio-distribution and ease of use, potentially improving treatment of these diseases.

In order to further the development of our pharmacological chaperone therapies and share the costs of such development, in November 2007, we entered into a strategic collaboration with Shire Pharmaceuticals Ireland Ltd. (Shire), a subsidiary of Shire plc, to jointly develop our three lead pharmacological chaperone compounds for lysosomal storage disorders. Shire will receive rights to commercialize these products outside of the United States (U.S.). We retain all rights to commercialize these products in the U.S.

Our principal executive offices are located at 6 Cedar Brook Drive, Cranbury, NJ 08512, and our phone number is (609) 662-2000.

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RISK FACTORS

Investing in our securities involves risk. The prospectus supplement applicable to each offering of our securities will contain a discussion of the risks applicable to an investment in us. Prior to making a decision about investing in our securities, you should carefully consider the specific factors discussed under the heading "Risk Factors" in the applicable prospectus supplement, together with all of the other information contained or incorporated by reference in the prospectus supplement or appearing or incorporated by reference in this prospectus. You should also consider the risks, uncertainties and assumptions discussed under the heading "Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2008 filed on February 6, 2009, with the SEC, which is incorporated herein by reference, and may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. The risks and uncertainties we have described are not the only ones 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, any prospectus supplement and the other documents we have filed with the SEC that are incorporated herein by reference contain forwardlooking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans, objectives of management or other financial items 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.

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 as set forth and incorporated by reference in the "Risk Factors" section above, 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, any supplements to this prospectus and the documents that we incorporate by reference in this prospectus 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

Except as otherwise provided in the applicable prospectus supplement, we intend to use the net proceeds from the sale of the securities covered by this prospectus for general corporate purposes, which may include working capital, capital expenditures, research and development expenditures, clinical trial expenditures, commercial expenditures, acquisitions of new technologies or businesses, and investments. Additional information on the use of net proceeds from the sale of securities covered by this prospectus may be set forth in the prospectus supplement relating to the specific offering. We will not receive any of the proceeds from the sale of any securities offered pursuant to this prospectus by any selling stockholder.

RATIO OF EARNINGS TO COMBINED FIXED CHARGES (1)

The following table sets forth our ratio of earnings to fixed charges on a historical basis for the periods indicated. For purposes of this calculation, "earnings" consists of net loss from continuing operations plus fixed charges. "Fixed charges" consist of the sum of interest expense and the estimate of interest within rental expense.

		Years Ended December 31,			
	2004	2005	2006	2007	2008
Ratio of Earnings to Fixed Charges			_	_	
Deficiency of Earnings Available to Cover Fixed Charges (in millions)	\$8.2	\$19.6	\$45.5	\$40.2	\$38.5

(1) For the years ended December 31, 2004, 2005, 2006, 2007 and 2008, earnings were insufficient to cover fixed charges by \$8.8 million, \$20.0 million, \$46.3 million, \$41.2 million and \$39.4 million, respectively.

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SELLING STOCKHOLDERS

This prospectus also relates to the possible resale of up to an aggregate of 1,000,000 shares of our common stock which were previously acquired by certain persons through several private placements of our convertible preferred stock completed by us prior to our initial public offering ("IPO") in 2007, which were all converted to shares of our common stock in connection with the IPO, and through private placements of our common stock completed by us prior to the filing of the Registration Statement of which this prospectus is a part. In connection with such private placements, these persons have registration rights with respect to their shares as described further below under the heading "Certain Relationships and Related Party Transactions." Information about selling stockholders, if any, including their identities and the number of shares of common stock to be registered on their behalf, will be set forth in a prospectus supplement, in a post-effective amendment or in filings we make with the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended, that are incorporated by reference into this prospectus. Selling stockholders shall not sell any shares of our common stock pursuant to this prospectus until we have identified such selling stockholders and the shares being offering for resale by such selling stockholders in a subsequent prospectus supplement. However, the selling stockholders may sell or transfer all or a portion of their shares of our common stock pursuant to any available exemption from the registration requirements of the Securities Act of 1933, as amended.

Certain Relationships and Related Party Transactions

Investor Rights Agreement

Pursuant to a third amended and restated investor rights agreement, dated as of September 13, 2006, by and among entities who held our redeemable convertible preferred stock (which was converted to common stock at our initial public offering) and us, we granted registration rights to all such holders, to Mount Sinai School of Medicine of New York University, or MSSM, and to the holder of a warrant which has since been exercised. Entities affiliated with Prospect Venture Partners II, L.P., New Enterprise Associates, Frazier Healthcare Ventures, Canaan Equity, Quaker BioVentures, CHL Medical Partners and Palo Alto Investors, LLC, each a holder of 5% or more of our voting securities, and their affiliates are parties to this investor rights agreement.

Subject to certain limitations, these stockholders may demand that, on up to two occasions, we register all or part of their securities for sale under the Securities Act as long as the aggregate price to the public for the securities to be sold in each instance is \$5,000,000 or more. If we are eligible to register any of our common stock on Form S-3, these stockholders may make the same demand; provided, however, that we will not be required to register their securities if (i) we have already effected a registration within 90 days prior to the request or have effected two or more registrations on Form S-3 within the preceding 12 month period, or (ii) if the aggregate price to the public for the securities to be sold is less than \$2,500,000. Additionally, if we believe that such registration would have a materially detrimental effect on any material corporate event, we may delay the request for up to three months, but not more than once in any twelve month period.

These stockholders may also request registration of their shares if we register any of our common stock, either for our own account or for the account of other securityholders. In such an event, these stockholders are entitled to notice of the registration and to include their shares of common stock in such registration. In the case of an underwritten registration, we must use our reasonable best efforts to obtain the permission of the underwriters to the inclusion of the holder's shares in the offering on the same terms.

With specified exceptions, a holder's right to include shares in a registration is subject to the right of the underwriters to limit the number of shares included in the offering. All fees, costs and expenses of any registrations will generally be paid by us.

Mt. Sinai School of Medicine License Agreement

We acquired exclusive worldwide patent rights to develop and commercialize our lead products and other pharmacological chaperones pursuant to a license agreement with MSSM. In connection with this agreement, we issued 232,266 shares of our common stock to MSSM in April 2002. In October 2006 we issued MSSM an additional 133,333 shares of common stock and made a payment of \$1.0 million in consideration of an expanded field of use under that license. Under this agreement, to date we have paid no upfront or annual license fees and we have no milestone or future payments other than royalties on net sales. However, on October 31, 2008, we amended and restated this license agreement to, among other items, provide us with the sole right to control the prosecution of patent rights under such agreement and to clarify the portion of royalties and milestone payments we receive from Shire Pharmaceuticals Ireland Ltd. that are payable to MSSM. In connection therewith, we agreed to pay MSSM \$2.6 million in connection with the \$50 million upfront payment that we received in November 2007 from Shire and an additional \$2.6 million for the sole right to and control over the prosecution of patent rights. This agreement expires upon expiration of the last of the licensed patent rights, which will be in 2019 if a foreign patent is granted and 2018 otherwise, or later subject to any patent term extension that may be granted.

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PLAN OF DISTRIBUTION

Amicus, and any selling stockholders and their successors, including their permitted transferees, may sell the offered securities in any of the ways described below or in any combination or any other way set forth in an applicable prospectus supplement from time to time:

- to or through underwriters or dealers;
- through one or more agents; or
- directly to purchasers or to a single purchaser.

The distribution of the securities may be effected from time to time in one or more transactions:

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

Each prospectus supplement will describe the method of distribution of the securities and any applicable restrictions.

The prospectus supplement with respect to the securities of a particular series will describe the terms of the offering of the securities, including the following:

- the name or names of any underwriters, dealers or agents and the amounts of securities underwritten or purchased by each of them;
- the public offering price of the securities and the proceeds to us and any discounts, commissions or concessions allowed or reallowed or paid to dealers; and
- any securities exchanges on which the securities may be listed.

Any offering price and any discounts or concessions allowed or reallowed or paid to dealers may be changed from time to time.

Only the agents or underwriters named in each prospectus supplement are agents or underwriters in connection with the securities being offered thereby.

We may authorize underwriters, dealers or other persons acting as our agents to solicit offers by certain institutions to purchase securities from us pursuant to delayed delivery contracts providing for payment and delivery on the date stated in each applicable prospectus supplement. Each contract will be for an amount not less than, and the aggregate amount of securities sold pursuant to such contracts shall not be less nor more than, the respective amounts stated in each applicable prospectus supplement. Institutions with whom the contracts, when authorized, may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and other institutions, but shall in all cases be subject to our approval. Delayed delivery contracts will be subject only to those conditions set forth in each applicable prospectus supplement, and each prospectus supplement will set forth any commissions we pay for solicitation of these contracts.

Agents, underwriters and other third parties described above may be entitled to indemnification by us or any selling stockholder against certain civil liabilities, including liabilities under the Securities Act of 1933, or to contribution from us with respect to payments which the agents, underwriters or other third parties may be required to make in respect thereof. Agents, underwriters and such other third parties may be customers of, engage in transactions with, or perform services for us in the ordinary course of business.

One or more firms, referred to as "remarketing firms," may also offer or sell the securities, if a prospectus supplement so indicates, in connection with a remarketing arrangement upon their purchase. Remarketing firms will act as principals for their own accounts or as our agents. These remarketing firms will offer or sell the securities in accordance with the terms of the securities. Each prospectus supplement will identify and describe any remarketing firm and the terms of its agreement, if any, with us and will describe the remarketing firm's compensation. Remarketing firms may be deemed to be underwriters in connection with the securities they remarket. Remarketing firms may be entitled under agreements that may be entered into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act of 1933, and may be customers of, engage in transactions with or perform services for us in the ordinary course of business.

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Certain underwriters may use this prospectus and any accompanying prospectus supplement for offers and sales related to market-making transactions in the securities. These underwriters may act as principal or agent in these transactions, and the sales will be made at prices related to prevailing market prices at the time of sale.

The securities we or any selling stockholders offer may be new issues of securities and may have no established trading market. The securities may or may not be listed on a securities exchange. Underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We can make no assurance as to the liquidity of, or the existence of trading markets for, any of the securities.

Certain persons participating in an offering may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids in accordance with rules and regulations under the Securities Exchange Act of 1934. Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a short covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

We also may sell any of the securities through agents designated by us from time to time. We will name any agent involved in the offer or sale of these securities and will list commissions payable by us to these agents in the applicable prospectus supplement. These agents will be acting on a best efforts basis to solicit purchases for the period of its appointment, unless stated otherwise in the applicable prospectuses.

We or any selling stockholders may sell any of the securities directly to purchasers. In this case, we or any selling stockholders will not engage underwriters or agents in the offer and sale of these securities.

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GENERAL DESCRIPTION OF SECURITIES

We may offer and sell, at any time and from time to time:

- Shares of our common stock;
- Shares of our preferred stock;
- Warrants to purchase shares of our common stock, preferred stock and/or debt securities;
- Debt securities consisting of debentures, notes or other evidences of indebtedness; or
- Any combination of these securities.

The selling stockholders may also offer shares of our common stock from time to time. The terms of any securities we offer or offered by the selling stockholders will be determined at the time of sale. We may issue debt securities that are exchangeable for and/or convertible into common stock or any of the other securities that may be sold under this prospectus. When particular securities are offered, a supplement to this prospectus will be filed with the SEC, which will describe the terms of the offering and sale of the offered securities.

DESCRIPTION OF OUR COMMON STOCK

The following summary of the terms of our common stock is subject to and qualified in its entirety by reference to our charter and by-laws, copies of which are on file with the SEC as exhibits to previous SEC filings. Please refer to "Where You Can Find More Information" below for directions on obtaining these documents.

As of May 11, 2009, we are authorized to issue 50,000,000 shares of common stock, \$0.01 par value per share. As of May 11, 2009, we had 22,643,334 shares of common stock outstanding.

General

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders and do not have cumulative voting rights. An election of directors by our stockholders shall be determined by a plurality of the votes cast by the stockholders entitled to vote on the election. Holders of common stock are entitled to receive proportionately any dividends as may be declared by our board of directors, subject to any preferential dividend rights of any outstanding preferred stock.

In the event of our liquidation or dissolution, the holders of common stock are entitled to receive proportionately all assets available for distribution to stockholders after the payment of all debts and other liabilities and subject to the prior rights of any outstanding preferred stock. Holders of common stock have no preemptive, subscription, redemption or conversion rights. The rights, preferences and privileges of holders of common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer and Trust Company.

The NASDAQ Global Market

Our common stock is listed on the Nasdaq Global Market under the symbol "FOLD."

DESCRIPTION OF OUR PREFERRED STOCK

We are authorized to issue up to 10,000,000 shares of preferred stock, par value \$0.01 per share. As of May 11, 2009, there were no shares of our preferred stock outstanding.

Our board of directors may, without further action by our stockholders, from time to time, direct the issuance of shares of preferred stock in series and may, at the time of issuance, determine the rights, preferences and limitations of each series, including voting rights, dividend rights and redemption and liquidation preferences. Satisfaction of any dividend preferences of outstanding shares of our preferred stock would reduce the amount of funds available for the payment of dividends on shares of our common stock. Holders of shares of our preferred stock may be entitled to receive a preference payment in the event of any liquidation, dissolution or winding-up of our Company before any payment is made to the holders of shares of our common stock. In some circumstances, the issuance of shares of preferred stock may render more difficult or tend to discourage a merger, tender offer or proxy contest, the assumption of control by a holder of a large block of our securities or the removal of incumbent management. Upon the affirmative vote of our board of directors, without stockholder approval, we may issue shares of preferred stock with voting and conversion rights which could adversely affect the holders of shares of our common stock.

If we offer a specific class or series of preferred stock under this prospectus, we will describe the terms of the preferred stock in the prospectus supplement for such offering and will file a copy of the certificate establishing the terms of the preferred stock with the SEC. To the extent required, this description will include:

- the title and stated value;
- the number of shares offered, the liquidation preference per share and the purchase price;
- the dividend rate(s), period(s) and/or payment date(s), or method(s) of calculation for such dividends;
- whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
- the procedures for any auction and remarketing, if any;
- the provisions for a sinking fund, if any;
- the provisions for redemption, if applicable;
- any listing of the preferred stock on any securities exchange or market;
- whether the preferred stock will be convertible into our common stock, and, if applicable, the conversion price (or how it will be calculated), the conversion period and any other terms of conversion (including any anti-dilution provisions, if any);
- whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange price (or how it will be calculated), the exchange period and any other terms of exchange (including any anti-dilution provisions, if any);
- voting rights, if any, of the preferred stock;
- a discussion of any material U.S. federal income tax considerations applicable to the preferred stock;
- the relative ranking and preferences of the preferred stock as to dividend rights and rights upon liquidation, dissolution or winding up of the affairs of the Company;
- any material limitations on issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights upon liquidation, dissolution or winding up of the Company; and
- any other affirmative, negative or other covenants or contractual rights which might be attendant with the specific class or series of preferred stock.
- The preferred stock offered by this prospectus, when issued, will not have, or be subject to, any preemptive or similar rights.

Transfer Agent and Registrar

The transfer agent and registrar for any series or class of preferred stock will be set forth in each applicable prospectus supplement.

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DESCRIPTION OF OUR WARRANTS

We may issue warrants to purchase shares of our common stock, preferred stock and/or debt securities in one or more series together with other securities or separately, as described in each applicable prospectus supplement. Below is a description of certain general terms and provisions of the warrants that we may offer. Particular terms of the warrants will be described in the applicable warrant agreements and the applicable prospectus supplement for the warrants.

The applicable prospectus supplement will contain, where applicable, the following terms of and other information relating to the warrants:

- the specific designation and aggregate number of, and the price at which we will issue, the warrants;
- the currency or currency units in which the offering price, if any, and the exercise price are payable;
- the designation, amount and terms of the securities purchasable upon exercise of the warrants;
- if applicable, the exercise price for shares of our common stock and the number of shares of common stock to be received upon exercise of the warrants;
- if applicable, the exercise price for shares of our preferred stock, the number of shares of preferred stock to be received upon exercise, and a description of that class or series of our preferred stock;
- if applicable, the exercise price for our debt securities, the amount of our debt securities to be received upon exercise, and a description of that series of debt securities;
- the date on which the right to exercise the warrants will begin and the date on which that right will expire or, if the warrants may not be continuously exercised throughout that period, the specific date or dates on which the warrants may be exercised;
- whether the warrants will be issued in fully registered form or bearer form, in definitive or global form or in any combination of these forms, although, in any case, the form of a warrant included in a unit will correspond to the form of the unit and of any security included in that unit;
- any applicable material U.S. federal income tax consequences;
- the identity of the warrant agent for the warrants and of any other depositaries, execution or paying agents, transfer agents, registrars or other agents;
- the proposed listing, if any, of the warrants or any securities purchasable upon exercise of the warrants on any securities exchange;
- if applicable, the date from and after which the warrants and the common stock, preferred stock and/or debt securities will be separately transferable;
- if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;
- information with respect to book-entry procedures, if any;
- the anti-dilution provisions of the warrants, if any;
- any redemption or call provisions;
- whether the warrants are to be sold separately or with other securities as parts of units; and
- any additional terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

Transfer Agent and Registrar

The transfer agent and registrar for any warrants will be set forth in the applicable prospectus supplement.

DESCRIPTION OF OUR DEBT SECURITIES

This section describes the general terms and provisions of the debt securities that we may offer under this prospectus, any of which may be issued as convertible or exchangeable debt securities. We will set forth the particular terms of the debt securities we offer in a prospectus supplement. The extent, if any, to which the following general provisions apply to particular debt securities will be described in the applicable prospectus supplement. The following description of general terms relating to the debt securities and the indenture under which the debt securities will be issued are summaries only and therefore are not complete. You should read the indenture and the prospectus supplement regarding any particular issuance of debt securities.

We will issue any debt under an indenture to be entered into between us and the trustee identified in the applicable prospectus supplement. The terms of the debt securities will include those stated in the indenture and those made part of the indenture by reference to the Trust Indenture Act of 1939, as in effect on the date of the indenture. We have filed or will file a copy of the form of indenture as an exhibit to the registration statement in which this prospectus is included. The indenture will be subject to and governed by the terms of the Trust Indenture Act of 1939.

We may offer under this prospectus up to an aggregate principal amount of \$92,430,000 in debt securities, or if debt securities are issued at a discount, or in a foreign currency, foreign currency units or composite currency, the principal amount as may be sold for an initial public offering price of up to \$92,430,000. Unless otherwise specified in the applicable prospectus supplement, the debt securities will represent direct, unsecured obligations of the Company and will rank equally with all of our other unsecured indebtedness.

The following statements relating to the debt securities and the indenture are summaries, qualified in their entirety by reference to the detailed provisions of the indenture and the final form indenture as may be filed with a future prospectus supplement.

General

We may issue the debt securities in one or more series with the same or various maturities, at par, at a premium, or at a discount. We will describe the particular terms of each series of debt securities in a prospectus supplement relating to that series, which we will file with the SEC.

The prospectus supplement will set forth, to the extent required, the following terms of the debt securities in respect of which the prospectus supplement is delivered:

- the title of the series;
- the aggregate principal amount;
- the issue price or prices, expressed as a percentage of the aggregate principal amount of the debt securities;
- any limit on the aggregate principal amount;
- the date or dates on which principal is payable;
- the interest rate or rates (which may be fixed or variable) or, if applicable, the method used to determine such rate or rates;
- the date or dates from which interest, if any, will be payable and any regular record date for the interest payable;
- the place or places where principal and, if applicable, premium and interest, is payable;
- the terms and conditions upon which we may, or the holders may require us to, redeem or repurchase the debt securities;
- the denominations in which such debt securities may be issuable, if other than denominations of \$1,000 or any integral multiple of that number;
- whether the debt securities are to be issuable in the form of certificated securities (as described below) or global securities (as described below);
- the portion of principal amount that will be payable upon declaration of acceleration of the maturity date if other than the principal amount of the debt securities;
- the currency of denomination;
- the designation of the currency, currencies or currency units in which payment of principal and, if applicable, premium and interest, will be made;

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- if payments of principal and, if applicable, premium or interest, on the debt securities are to be made in one or more currencies or currency units other than the currency of denomination, the manner in which the exchange rate with respect to such payments will be determined;
- if amounts of principal and, if applicable, premium and interest may be determined by reference to an index based on a currency or currencies or by reference to a commodity, commodity index, stock exchange index or financial index, then the manner in which such amounts will be determined;
- the provisions, if any, relating to any collateral provided for such debt securities;
- any addition to or change in the covenants and/or the acceleration provisions described in this prospectus or in the indenture;
- any events of default, if not otherwise described below under "Events of Default";
- the terms and conditions, if any, for conversion into or exchange for shares of our common stock or preferred stock;
- any depositaries, interest rate calculation agents, exchange rate calculation agents or other agents; and
- the terms and conditions, if any, upon which the debt securities shall be subordinated in right of payment to other indebtedness of the Company.

We may issue discount debt securities that provide for an amount less than the stated principal amount to be due and payable upon acceleration of the maturity of such debt securities in accordance with the terms of the indenture. We may also issue debt securities in bearer form, with or without coupons. If we issue discount debt securities or debt securities in bearer form, we will describe material U.S. federal income tax considerations and other material special considerations which apply to these debt securities in the applicable prospectus supplement.

We may issue debt securities denominated in or payable in a foreign currency or currencies or a foreign currency unit or units. If we do, we will describe the restrictions, elections, and general tax considerations relating to the debt securities and the foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

Exchange and/or Conversion Rights

We may issue debt securities which can be exchanged for or converted into shares of our common stock or preferred stock. If we do, we will describe the terms of exchange or conversion in the prospectus supplement relating to these debt securities.

Transfer and Exchange

We may issue debt securities that will be represented by either:

- "book-entry securities," which means that there will be one or more global securities registered in the name of a depositary or a nominee of a depositary; or
- "certificated securities," which means that they will be represented by a certificate issued in definitive registered form.

We will specify in the prospectus supplement applicable to a particular offering whether the debt securities offered will be book-entry or certificated securities.

Certificated Debt Securities

If you hold certificated debt securities issued under an indenture, you may transfer or exchange such debt securities in accordance with the terms of the indenture. You will not be charged a service charge for any transfer or exchange of certificated debt securities but may be required to pay an amount sufficient to cover any tax or other governmental charge payable in connection with such transfer or exchange.

Global Securities

The debt securities of a series may be issued in the form of one or more global securities that will be deposited with a depositary or its nominees identified in the prospectus supplement relating to the debt securities. In such a case, one or more global securities will be issued in a denomination or aggregate denominations equal to the portion of the aggregate principal amount of outstanding debt securities of the series to be represented by such global security or securities.

Unless and until it is exchanged in whole or in part for debt securities in definitive registered form, a global security may not be registered for transfer or exchange except as a whole by the depositary for such global security to a nominee of the depositary and except in the circumstances described in the prospectus supplement relating to the debt securities. The specific terms of the depositary arrangement with respect to a series of debt securities will be described in the prospectus supplement relating to such series.

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No Protection in the Event of Change of Control

Any indenture that governs our debt securities covered by this prospectus may not have any covenant or other provision providing for a put or increased interest or otherwise that would afford holders of our debt securities additional protection in the event of a recapitalization transaction, a change of control of the Company, or a highly leveraged transaction. If we offer any covenants or provisions of this type with respect to any debt securities covered by this prospectus, we will describe them in the applicable prospectus supplement.

Covenants

Unless otherwise indicated in this prospectus or the applicable prospectus supplement, our debt securities may not have the benefit of any covenant that limits or restricts our business or operations, the pledging of our assets or the incurrence by us of indebtedness. We will describe in the applicable prospectus supplement any material covenants in respect of a series of debt securities.

Consolidation, Merger and Sale of Assets

We may agree in any indenture that governs the debt securities of any series covered by this prospectus that we will not consolidate with or merge into any other person or convey, transfer, sell or lease our properties and assets substantially as an entirety to any person, unless such person and such proposed transaction meets various criteria, which we will describe in detail in the applicable prospectus supplement.

Defaults and Notice

The debt securities of any series will contain events of default to be specified in the applicable prospectus supplement, which may include, without limitation:

- failure to pay the principal of, or premium or make-whole amount, if any, on any debt security of such series when due and payable (whether at maturity, by call for redemption, through any mandatory sinking fund, by redemption at the option of the holder, by declaration or acceleration or otherwise);
- failure to make a payment of any interest on any debt security of such series when due;
- our failure to perform or observe any other covenants or agreements in the indenture with respect to the debt securities of such series;
- certain events relating to our bankruptcy, insolvency or reorganization; and
- certain cross defaults, if and as applicable.

If an event of default with respect to debt securities of any series shall occur and be continuing, we may agree that the trustee or the holders of at least 25% in aggregate principal amount of the then outstanding debt securities of such series may declare the principal amount (or, if the debt securities of such series are issued at an original issue discount, such portion of the principal amount as may be specified in the terms of the debt securities of such series) of all debt securities of such series or such other amount or amounts as the debt securities or supplemental indenture with respect to such series may provide, to be due and payable immediately. Any provisions pertaining to events of default and any remedies associated therewith will be described in the applicable prospectus supplement.

Any indenture that governs our debt securities covered by this prospectus may require that the trustee under such indenture shall, within 90 days after the occurrence of a default, give to holders of debt securities of any series notice of all uncured defaults with respect to such series known to it. However, in the case of a default that results from the failure to make any payment of the principal of, premium or make-whole amount, if any, or interest on the debt securities of any series, or in the payment of any mandatory sinking fund installment with respect to debt securities of such series, if any, the trustee may withhold such notice if it in good faith determines that the withholding of such notice is in the interest of the holders of debt securities of such series. Any terms and provisions relating to the foregoing types of provisions will be described in further detail in the applicable prospectus supplement.

Any indenture that governs our debt securities covered by this prospectus will contain a provision entitling the trustee to be indemnified by holders of debt securities before proceeding to exercise any trust or power under the indenture at the request of such holders. Any such indenture may provide that the holders of at least a majority in aggregate principal amount of the then outstanding debt securities of any series may direct the time, method and place of conducting any proceedings for any remedy available to the trustee, or of exercising any trust or power conferred upon the trustee with respect to the debt securities of such series. However, the trustee under any such indenture may decline to follow any such direction if, among other reasons, the trustee determines in good faith that the actions or proceedings as directed may not lawfully be taken, would involve the trustee in personal liability or would be unduly prejudicial to the holders of the debt securities of such series not joining in such direction.

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Any indenture that governs our debt securities covered by this prospectus may endow the holders of such debt securities to institute a proceeding with respect to such indenture, subject to certain conditions, which will be specified in the applicable prospectus supplement and which may include, that the holders of at least a majority in aggregate principal amount of the debt securities of such series then outstanding make a written request upon the trustee to exercise its power under the indenture, indemnify the trustee and afford the trustee reasonable opportunity to act. Even so, such holders may have an absolute right to receipt of the principal of, premium or make-whole amount, if any, and interest when due, to require conversion or exchange of debt securities if such indenture provides for convertibility or exchangeability at the option of the holder and to institute suit for the enforcement of such rights. Any terms and provisions relating to the foregoing types of provisions will be described in further detail in the applicable prospectus supplement.

Modification of the Indenture

We and the trustee may modify any indenture that governs our debt securities of any series covered by this prospectus with or without the consent of the holders of such debt securities, under certain circumstances to be described in a prospectus supplement.

Defeasance; Satisfaction and Discharge

The prospectus supplement will outline the conditions under which we may elect to have certain of our obligations under the indenture discharged and under which the indenture obligations will be deemed to be satisfied.

Regarding the Trustee

We will identify the trustee and any relationship that we may have with such trustee, with respect to any series of debt securities, in the prospectus supplement relating to the applicable debt securities. You should note that if the trustee becomes a creditor of Amicus, the indenture and the Trust Indenture Act of 1939 limit the rights of the trustee to obtain payment of claims in certain cases, or to realize on certain property received in respect of any such claim, as security or otherwise. The trustee and its affiliates may engage in, and will be permitted to continue to engage in, other transactions with us and our affiliates. If, however, the trustee acquires any "conflicting interest" within the meaning of the Trust Indenture Act of 1939, it must eliminate such conflict or resign.

Governing Law

The law governing the indenture and the debt securities will be identified in the prospectus supplement relating to the applicable indenture and debt securities.

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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 information filed by us with the SEC at the SEC'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 SEC 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 SEC. 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 SEC 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 SEC will automatically update and supersede information contained in documents filed earlier with the SEC or contained in this prospectus. We incorporate by reference in this prospectus the documents listed below and any future filings that we may make with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934, as amended, 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 SEC rules:

- Our Annual Report on Form 10-K for the year ended December 31, 2008 (File No. 001-33497) and our Quarterly Report for the period ended March 31, 2009 (File No. 001-33497);
- Our Current Reports on Form 8-K filed on January 8, 2009, February 18, 2009 and February 27, 2009 (excluding any information furnished in such reports under exhibit 99.1 thereto); 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., 6 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 Bingham McCutchen LLP, Boston, Massachusetts. As appropriate, legal counsel representing the selling stockholders, underwriters, dealers or agents will be named in the accompanying prospectus supplement and may opine to certain legal matters.

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, 2008, 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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AMICUS THERAPEUTICS, INC.



Shares of Common Stock

Prospectus Supplement

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