RESEARCH FRONTIERS INC Form S-3/A December 20, 2012

As filed with the Securities and Exchange Commission on December 20, 2012

Registration No. 333-184785

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

AMENDMENT NO. 2 TO

FORM S-3 REGISTRATION STATEMENT

UNDER
THE SECURITIES ACT OF 1933

RESEARCH FRONTIERS INCORPORATED

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization) 11-2103466 (I.R.S. Employer Identification Number)

Research Frontiers Incorporated
240 Crossways Park Drive
Woodbury, New York 11797
(516) 364-1902
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Joseph M. Harary, Esq.
President and Chief Executive Officer
Research Frontiers Incorporated
240 Crossways Park Drive
Woodbury, New York 11797
(516) 364-1902

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies of all communications, including all communications sent to the agent for service, should be sent to:

Seth Van Voorhees Vice President and Chief Financial Officer Research Frontiers Incorporated 240 Crossways Park Drive Woodbury, New York 11797 (516) 364-1902

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

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

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

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

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

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

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

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

Large accelerated filer o

Accelerated filer x

Non-accelerated filer o

Smaller reporting company o CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered Primary Offering:	Amount to be registered	Proposed maximum offering price per Share	Proposed maximum aggregate offering price	Amount of registration fee
Common Stock, \$0.0001 par value per share Warrants to Purchase Common	3,000,000(1)	\$4.21(2)	\$12,630,000(2)	\$1,722.73
Stock	(3)	(4)	(4)	(4)
Secondary Offering: Common Stock, \$0.0001 par				
value per share	1,250,000(1)	\$4.21(2)	\$5,262,500(2)	\$717.81
Warrants to Purchase				
Common Stock	250,000	(4)	(4)	(4)
Common Stock, \$0.0001 par				
value per share, underlying				
Warrants	250,000(1)	\$4.21(2)	\$1,052,500(2)	\$143.56
Total:				\$2,584.10(5)

(1)

We are registering 3,000,000 shares of our common stock that may be offered pursuant to this registration statement by us, an additional 1,250,000 shares of our common stock that are held by our selling stockholders named in this registration statement, and 250,000 shares of our common stock that represents shares of our common stock issuable upon exercise of warrants to purchase shares of common stock that are held by the selling stockholders named in this registration statement. Pursuant to Rule 416 under the Securities Act, this Registration Statement also relates to an indeterminate number of additional shares of our common stock which may become issuable by reason of any stock split, stock dividend, recapitalization, or similar transaction that is effected without the receipt of consideration and results in an

increase in the number of shares of our common stock that are outstanding.

(2)	The price is estimated in accordance with Rule 457(c) under the Securities Act of 1933, as amended, solely for the purpose of calculating the registration fee and is \$4.21, which was calculated based upon the average of the high and low trading price per share of common stock of Research Frontiers Incorporated on the Nasdaq Capital Market on October 31, 2012.
(3)	An indeterminate number of warrants to purchase the shares of common stock registered hereunder.
(4)	Pursuant to Rule 457(g), no separate registration fee is required.
(5)	Previously paid.

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

The information in this prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED DECEMBER 20, 2012

PROSPECTUS

RESEARCH FRONTIERS INCORPORATED

3,000,000 Shares of Common Stock and Warrants to Purchase Common Stock Offered by Research Frontiers Incorporated

1,250,000 Shares of Common Stock Offered by the Selling Stockholders 250,000 Warrants to Purchase Common Stock Offered by the Selling Stockholders 250,000 Shares of Common Stock Issuable Upon Exercise of the Warrants Offered by the Selling Stockholders

We may from time to time issue up to 3,000,000 shares of common stock and warrants to purchase such common stock and the selling stockholders named in this prospectus may offer, from time to time, up to an additional 1,250,000 shares of our common stock, 250,000 warrants to purchase our common stock, and 250,000 shares of our common stock that are issuable upon the exercise of the warrants held by the selling stockholders. The registration of the offer and sale of shares underlying the 250,000 warrants is limited to transferees of the warrants who acquire those securities in registered transactions following the effective date of this registration statement. The issuance of shares underlying the 250,000 warrants sold in our October 2012 private placement will be issued pursuant to Regulation D of the Securities Act to the extent that those sales of underlying common stock are to holders of the warrants who acquired the warrants in unregistered transactions. A general description of the known material terms of the securities we are offering is included in this prospectus. We will specify in a supplement any specific material terms of the securities offered that are unknown as of the date of this prospectus.

We will not receive any proceeds from the sale of securities offered by the selling stockholders. We will bear the expenses of the offering of the securities, except that the selling stockholders will pay any applicable underwriting fees, discounts or commissions and certain transfer taxes with respect to their securities.

Our registration of the securities covered by this prospectus does not mean that we or the selling stockholders will offer or sell any of the securities. We and the selling stockholders may offer and sell the securities in the same offering or in separate offerings, to or through underwriters, dealers and agents or directly to purchasers. If any agents, dealers or underwriters are involved in the sale of the securities offered pursuant to this prospectus, we will set forth their names and describe their compensation in a prospectus supplement. We provide further information regarding how we or the selling stockholders will sell our respective securities in the Plan of Distribution section beginning on page 10.

Our common stock is listed on the Nasdaq Capital Market under the symbol REFR. The last reported sale price of our common stock on the Nasdaq Capital Market on December 19, 2012 was \$3.61.

The securities offered in this prospectus involve a high degree of risk. See Risk Factors beginning on page 1 for a discussion of the information that should be considered in connection with an investment in our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

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

The date of this prospectus is

, 2012

TABLE OF CONTENTS

ABOUT THIS PROSPECTUS	i
PROSPECTUS SUMMARY	1
RISK FACTORS	1
DIVIDENDS	5
USE OF PROCEEDS	5
DESCRIPTION OF COMMON STOCK	6
DESCRIPTION OF WARRANTS	8
DESCRIPTION OF SELLING STOCKHOLDER WARRANTS	_ 9
SELLING STOCKHOLDERS	9
PLAN OF DISTRIBUTION	10
EXPERTS	12
LEGAL MATTERS	12
WHERE YOU CAN FIND MORE INFORMATION	12
INCORPORATION OF CERTAIN INFORMATION BY REFERENCE	13

You should rely only on the information contained in or incorporated by reference in this prospectus. We nor the selling stockholders have authorized anyone to provide you with different information. Neither we nor the selling stockholders are making an offer of these securities in any state where the offer is not permitted. You should not assume that the information contained in or incorporated by reference in this prospectus is accurate as of any date other than the date of such document. Our business, financial condition, results of operations and prospects may have changed materially since those dates.

ABOUT THIS PROSPECTUS

This prospectus is 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 or the selling stockholders may, from time to time, sell in one or more offerings any combination of the securities described in this prospectus.

This prospectus provides you with a general description of the securities that we may issue. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. Such prospectus supplement may also add, update or change information contained in this prospectus. You should read this prospectus and the applicable prospectus supplement together with the additional information described under the heading. Where You Can Find More Information. We may also prepare free writing prospectuses that describe particular securities. Any free writing prospectus should also be read in connection with this prospectus and with any prospectus supplement referred to therein. For purposes of this prospectus, any reference to an applicable prospectus supplement may also refer to a free writing prospectus, unless the context otherwise requires.

When we refer to Research Frontiers, our company, we, our and us in this prospectus, we mean Research Frontiers Incorporated and its subsidiaries unless the context indicates otherwise. When we refer to selling stockholders, we mean the stockholders named in the Selling Stockholders section of this prospectus.

The registration statement that contains this prospectus, including the exhibits to the registration statement, contains additional information about us and the securities offered under this prospectus. That registration statement can be read at the SEC s website or at the SEC s offices mentioned under the heading Where You Can Find More Information.

The following trademarks are property of Research Frontiers: SPD-Smart , SPD-SmartGlass , VaryFast , SPD-CleanTech , SPD Clean Technology , SmartGlass , The View of the Future - Everywhere you Look , Powered by SPD , Powered by SPD-CleanTech , Powered by SPD Clean Technology , SG Enabled , SPD Green and Clean , SPD On-Board , Speed Matters , and Visit SmartGlass.com - to change your view of the world . Other trademarks appearing in this prospectus and the documents incorporated by reference herein and therein are property of their respective owners.

This prospectus and the documents incorporated by reference may include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Forward-looking statements include, without limitation, any statement that may predict, forecast, indicate, or imply future results, performance, or achievements, and may contain the words believe, anticipate, expect, estimate, project, will be, will continue, or words or phrases of similar meaning. Forward-looking statements inherently involve risks and uncertainties that may cause actual results to differ materially from the forward-looking statements (Cautionary Statements). The risks and uncertainties include, but are not limited to, those matters addressed in this prospectus under the Risk Factors section and elsewhere in this prospectus and in the incorporated documents. Such developments could have a material adverse impact on our financial position and our results of operations. All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the Cautionary Statements. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

The distribution of this prospectus and the applicable prospectus supplement and the offering of the securities in certain jurisdictions may be restricted by law. Persons into whose possession this prospectus and the applicable prospectus supplement come should inform themselves about and observe any such restrictions. This prospectus and the applicable prospectus supplement do not constitute, and may not be used in connection with, an offer or solicitation by anyone in any jurisdiction in which such offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to any person to whom it is unlawful to make such offer or solicitation.

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PROSPECTUS SUMMARY

The Company

We develop and license our suspended particle device light-control technology for controlling the amount of light passing through a device to other companies that manufacture and market either the SPD-Smart chemical emulsion, light-control film made from the chemical emulsion, lamination services, electronics to power end-products incorporating the film, or the end-products themselves such as smart windows, skylights and sunroofs. Such suspended particle devices are often referred to as SPDs, light valves, or SPD-Smart products.

SPD-Smart products use microscopic light-absorbing nanoparticles that are typically suspended in a film. These particles align when an electrical voltage is applied, thus permitting light to pass through the film. Adjustment of the voltage to the SPD film gives users the ability to quickly, precisely and consistently regulate the amount of light, glare and heat passing through the window, skylight, sunroof, window shade or other SPD-Smart end-product. This SPD film can be incorporated between two layers of glass or plastic, or combinations of both, to produce a laminate that has enhanced energy efficiency, light-control and security performance properties. Our offices are located at: 240 Crossways Park Drive, Woodbury, NY 11797 (telephone: 516-364-1902).

Issuance of Stock and Warrants to Selling Stockholders

On October 2, 2012, we entered into a Common Stock and Warrant Purchase Agreement with the selling stockholders named in this prospectus, pursuant to which they purchased an aggregate 1,250,000 shares of common stock and 250,000 warrants to purchase common stock. Each share and corresponding warrant were sold at an aggregate price of \$4.49, resulting in gross proceeds to us of approximately \$5,612,500. The warrants may be exercised at anytime from April 8, 2013 to April 8, 2018, at an exercise price of \$6.73 per share. The transaction closed on October 9, 2012. The securities issued in this private placement were not registered under the Securities Act or any state securities laws and were issued and sold in the private placement pursuant to Regulation D of the Securities Act. Pursuant to the registration rights granted to the selling stockholders under the purchase agreement, we are registering the securities issued to the selling stockholders in the private placement. The issuance of shares underlying the 250,000 warrants sold in the October 2012 private placement will also be issued pursuant to Regulation D of the Securities Act to the extent that those sales of underlying common stock are to holders of the warrants who acquired the warrants in unregistered transactions. The registration of the offer and sale of shares underlying the 250,000 warrants is limited to transferees of the warrants who acquire those securities in registered transactions following the effective date of this registration statement.

RISK FACTORS

In addition to the other information in this prospectus, you should carefully consider the following factors in evaluating us and our business before purchasing the shares of common stock offered hereby. This prospectus contains, in addition to historical information, forward-looking statements that involve risks and uncertainties, some of which are beyond our control. Should one or more of these risks and uncertainties materialize or should underlying assumptions prove incorrect, our actual results could differ materially. Factors that could cause or contribute to such differences include, but are not limited to, those discussed below, as well as those discussed elsewhere in this prospectus, including the documents incorporated by reference.

There are risks associated with investing in companies such as ours who are engaged in research and development. Because of these risks, you should only invest if you are able to bear the risk of losing your entire investment. Before investing, in addition to risks which could apply to any issuer or offering, you should also consider the business we are in and the following:

Source and Need for Capital.

As of September 30, 2012, we had approximately \$8.0 million in cash and cash equivalents. As we take steps in the commercialization and marketing of our technology, or respond to potential opportunities and/or adverse events, our working capital needs may change. We anticipate that if our cash and cash equivalents are insufficient to satisfy our liquidity requirements, we will require additional funding to sustain our ongoing operations and to continue our SPD technology research and development activities.

We have funded most of our activities through sales of our common stock to investors, and upon the exercise of options and warrants. Eventual success of the company and generation of positive cash flow will be dependent upon the extent of commercialization of products using the company s technology by the company s licensees and payments of continuing royalties on account thereof. We can give no assurances that we will generate sufficient revenues in the future (through sales of our common stock, exercise of options and warrants, royalty fees, or otherwise) to satisfy our liquidity requirements or sustain future operations, or that additional funding, if required, will be available when needed

or, if available, on favorable terms.

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History of Operating Losses.

We have experienced net losses from operations, and we may continue to incur net losses from operations in the future. We have incurred substantial costs and expenses in researching and developing our SPD technology. As of September 30, 2012, we had an accumulative deficit of \$86,867,621. Our net loss was \$4,134,068 in 2011, \$3,874,865 in 2010 and \$4,002,761 in 2009 and \$2,459,335 for the nine months ended September 30, 2012 (which includes non-cash compensation expense in 2011, 2010 and 2009 of \$702,837, \$772,604 and \$445,913, respectively, and in the nine months ended September 30, 2012 of \$788,000).

We have never declared a cash dividend and do not intend to declare a cash dividend in the foreseeable future.

We have never declared or paid cash dividends on our common stock. Payment of dividends on our common stock is within the discretion of our board of directors and will depend upon our future earnings, capital requirements, financial condition and other relevant factors. We do not anticipate declaring or paying any cash dividends on our common stock in the foreseeable future.

We do not directly manufacture or market products using SPD technology and depend upon activities by our licensees and their customers.

We depend upon the activities of our licensees in order to be profitable. We do not directly manufacture or market products using SPD technology. Although a variety of products have been sold by our licensees, and because it is up to our licensees to decide when and if they will introduce products using SPD technology, we cannot predict when and if our licensees will generate substantial sales of such products. Our SPD technology is currently licensed to 39 companies. Other companies are also evaluating SPD technology for use in various products. In the past, some companies have evaluated our technology without proceeding further. While we expect that our licensees would be primarily responsible for manufacturing and marketing SPD-Smart products and components, we are also engaging in market development activities to support our licensees and build the smart glass industry. We cannot control whether or not our licensees will develop SPD products. Some of our licensees appear to be more active than others, some appear to be better capitalized than others, and some licensees appear to be inactive. There is no guarantee when or if our licensees will successfully produce any commercial product using SPD technology in sufficient quantities to make our company profitable.

SPD-Smart products have only recently been introduced.

Products using SPD technology have only recently begun to be introduced into the marketplace. Developing products using new technologies can be risky because problems, expenses and delays frequently occur, and costs may or may not come down quickly enough for such products using new technologies to rapidly penetrate mass market applications.

SPD-Smart products face intense competition, which could affect our ability to increase our revenues.

The market for SPD-Smart products is intensely competitive and we expect competition to increase in the future. We compete based on the functionality and the quality of our product. Many of our current and potential competitors have significantly greater financial, technical, marketing and other resources than we have. In addition, many of our competitors have well-established relationships with our current and potential customers and have extensive knowledge of our industry. If our competitors develop new technologies or new products, improve the functionality or quality of their current products, or reduce their prices, and if we are unable to respond to such competitive developments quickly either because our research and development efforts do not keep pace with our competitors or because of our lack of financial resources, we may be unable to compete effectively.

Declining production of automobiles, airplanes, boats and real estate could harm our business.

Our licensees commercialization efforts of SPD-Smart products could be negatively impacted if the global production of automobiles, airplanes, boats and real estate construction declines significantly. If such commercialization is reduced, our revenues, results of operations and financial condition could be negatively impacted.

Single source of SPD film.

Our end-product licensees require a source of SPD film to manufacture finished products. Currently, Hitachi Chemical is the sole source of commercial quantities of SPD-film. There are several other companies that are licensed to manufacture SPD-film, but they have not begun commercial production of this film. Our end-product licensees ability to sell SPD products could be negatively impacted if there was a prolonged disruption in SPD-film availability. Such a disruption could also negatively impact our revenues, results of operations and financial condition.

We are dependent on key personnel.

Our continued success will depend, to a significant extent, on the services of our directors, executive management team, key personnel and certain key scientists. If one or more of these individuals were to leave the company, there is no guarantee that we could replace them with qualified individuals in a timely or economically satisfactory manner or at all. The loss or unavailability of any or all of these individuals could harm our ability to execute our business plan, maintain important business relationships and complete certain product development initiatives, which would have a material adverse effect on our business, results of operations and financial conditions.

Dependence on SPD-Smart technology.

Because SPD technology is the only technology we work with, our success depends upon the viability of SPD technology which has yet to be fully proven. We have not fully ascertained the performance and long-term reliability of our technology, and therefore there is no guarantee that our technology will successfully be incorporated into all of the products which we are targeting for use of SPD technology. We expect that different product applications for SPD technology will have different performance and reliability specifications. We expect that our licensees will primarily be responsible for reliability testing, but that we may also continue to do reliability testing so that we can more effectively focus our research and development efforts towards constantly improving the performance characteristics and reliability of products using SPD technology.

Our patents and other protective measures may not adequately protect our proprietary intellectual property, and we may be infringing on the rights of others.

Our intellectual property, particularly our proprietary rights in our SPD technology, is critical to our success. We have received various patents, and filed other patent applications, for various applications and aspects of our SPD technology. In addition, we generally enter into confidentiality and invention agreements with our employees and consultants. Such patents and agreements and various other measures we take to protect our intellectual property from use by others may not be effective for various reasons generally applicable to patents and their granting and enforcement. In addition, the costs associated with enforcing patents, confidentiality and invention agreements or other intellectual property rights may be expensive. Our inability to protect our proprietary intellectual property rights or gain a competitive advantage from such rights could harm our ability to generate revenues and, as a result, our business and operations.

We have broad discretion in the use of the proceeds of this offering.

All of our net proceeds from this offering will be used, as determined by management in its sole discretion, for working capital and other general corporate purposes. Our management will have broad discretion over the use and investment of the net proceeds of this offering and there is no assurance that management s chosen application of proceeds will yield intended results. You will not have the opportunity, as part of your investment decision, to assess whether our proceeds are being used appropriately. Pending application of our proceeds, they might be placed in investments that do not produce income or that lose value.

Future sales of our securities could cause our stock price to decline.

If we or our stockholders sell substantial amounts of our common stock in the public market, the market price of our common stock could decrease. The perception in the public market that we or our stockholders might sell shares of our common stock could also depress the market price of our common stock. A decline in the price of shares of our common stock might impede our ability to raise capital through the issuance of additional shares of our common stock or other equity securities.

Our common stock has historically experienced low trading volume.

While our common stock is listed on the Nasdaq Capital Market and has recently experienced increased trading volume, our common stock has historically experienced low trading volume and there is no assurance that the increased trading volume will continue or be maintained. Reported average daily trading volume in our common stock for 2012 through December 19, 2012 was approximately 40,325 shares. Limited trading volume subjects our common stock to greater price volatility and may make it difficult for you to sell your shares at a particular price.

Our ability to use net operating loss carryforwards might be limited.

At December 31, 2011, we had a net operating loss carryforward for federal income tax purposes of \$55 million, varying amounts of which will expire in each year from 2012 through 2031. To the extent these net operating loss carryforwards are available, we intend to use them to reduce any corporate income tax liability associated with our operations we might have in the future. Section 382 of the Internal Revenue Code generally imposes an annual limitation on the amount of net operating loss carryforwards that might be used to offset taxable income when a corporation has undergone significant changes in stock ownership. As a result, prior or future changes in ownership could put limitations on the availability of our net operating loss carryforwards. In addition, our ability to utilize the current net operating loss carryforwards might be further limited by the issuance of securities in this offering or future offerings. To the extent our use of our net operating loss carryforwards or tax losses is limited, our income could be subject to corporate income tax earlier than it would if we were able to use net operating loss carryforwards, which could result in lower profits.

Our organizational documents, stockholders rights plan and Delaware law make a takeover of our company more difficult, which may prevent certain changes in control and limit the market price of our common stock.

Our certificate of incorporation, bylaws, stockholders—rights plan and Section 203 of the Delaware General Corporation Law contain provisions that may have the effect of deterring or delaying attempts by our stockholders to remove or replace management, engage in proxy contests and effect changes in control. These provisions of our certificate of incorporation and bylaws include:

- the authority for our board of directors to issue without stockholder approval up to 100,000,000 shares of common stock, that, if issued, would dilute the ownership of our stockholders;
- the advance notice requirement for director nominations or for proposals that can be acted upon at stockholder meetings;
- a classified board of directors, which may make it more difficult for a person who acquires control of a majority of our outstanding voting stock to replace all or a majority of our directors;
- the ability of our directors to fill any vacancy on our board of directors by the affirmative vote of a majority of the directors then in office under certain circumstances;
- limitations on the ability of our stockholders to act by written consent;
- limitations on who may call a special meeting of stockholders;
- the prohibition on stockholders accumulating their votes for the election of directors;

- the limitation on the removal of any of our directors by either an affirmative vote of the continuing directors (as defined in our certificate of incorporation) other than the subject director or by the affirmative vote of the holders of 80% of our outstanding shares of each class of stock having the power to vote in a director election;
- the requirement of the affirmative vote of the holders of at least 80% of our outstanding shares of each class of stock having the power to vote in a director election in order for stockholders to adopt, amend or repeal any provision of our certificate of incorporation or bylaws, unless the adoption, amendment or repeal is approved by a majority of the continuing directors (as defined in our certificate of incorporation) present at a meeting at which a quorum of the continuing directors are present; and
- the requirement, subject to limited exceptions, of the affirmative vote of the holders of at least 80% of our outstanding shares of each class of stock having the power to vote in a director election in order for us to complete certain business combination transactions with interested stockholders.

We also have adopted a stockholders rights plan designed to deter stockholders from acquiring shares of stock in excess of 15%. In addition, as a Delaware corporation, we are subject to Delaware law, including Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that the stockholder became an interested stockholder unless certain specific requirements are met as set forth in Section 203.

These provisions could discourage proxy contests and make it more difficult for you and other stockholders to elect directors, replace incumbent management and take other corporate actions. Some provisions in our certificate of incorporation and bylaws may deter third parties from acquiring us, which may limit the market price of our common stock or prevent us from consummating a proposed transaction that our stockholders find to be in their best interests.

There is currently no established trading market for the warrants and we do not expect that one will develop.

The warrants registered hereunder will not be listed on the Nasdaq Capital Market or any other securities exchange and there is currently no established trading market for the warrants. We do not intend to make a market in the warrants and do not expect that one will develop. Therefore, you may have to hold the warrants you purchase in this offering until such time, if any, as you wish to exercise the warrants or we redeem them.

There must be a current prospectus and state registration in order for you to exercise the warrants.

Purchasers of the common stock and warrants offered by us will be able to exercise the warrants only if a current prospectus relating to the common stock underlying the warrants is then in effect and only if such securities are qualified for sale or exempt from qualification under the applicable securities laws of the states in which the various holders of warrants reside. Although we will attempt to maintain the effectiveness of a current prospectus covering the common stock underlying the warrants, there can be no assurance that we will be able to do so. We will be unable to issue common stock to those persons desiring to exercise their warrants if a current prospectus covering the common stock issuable upon the exercise of the warrants is not kept effective or if such shares are neither qualified nor exempt from qualification in the states in which the holders of the warrants reside.

DIVIDENDS

We have never paid any cash dividends and do not expect to pay any cash dividends for the foreseeable future.

USE OF PROCEEDS

Unless we indicate otherwise in the applicable prospectus supplement, we currently intend to use the net proceeds from this offering for general corporate purposes, including our internal research and development programs, general working capital and possible future acquisitions. We have not determined the amounts we plan to spend on any of the areas listed above or the timing of these expenditures. As a result, our management will have broad discretion to allocate the net proceeds from this offering. Pending application of the net proceeds as described above, we intend to invest the net proceeds of the offering in money market funds and other interest-bearing investments. We will not receive any proceeds from the sale of our securities offered by the selling stockholders.

DESCRIPTION OF COMMON STOCK

General

We can issue 100,000,000 shares of common stock, \$0.0001 par value per share. As of December 18, 2012, 22,646,782 shares were issued and outstanding. Holders of our common stock are entitled to one vote per share on matters submitted to shareholders for their approval, to dividends if declared by us, and to share in any distribution of our assets. All outstanding shares of common stock are fully paid for and non-assessable. Holders of our common stock do not have cumulative voting rights or preemptive rights. Therefore, a minority stockholder may be less able to gain representation on our board of directors.

Anti-Takeover Effects of Certain Provisions of Delaware Law and Our Certificate of Incorporation and Bylaws

Certificate of Incorporation and Bylaws

Our certificate of incorporation and bylaws contain provisions that may have the effect of deterring or delaying attempts by our stockholders to remove or replace management, engage in proxy contests and effect changes in control. These provisions of our certificate of incorporation and bylaws include:

- the authority for our board of directors to issue without stockholder approval up to 100,000,000 shares of common stock, that, if issued, would dilute the ownership of our stockholders;
- the advance notice requirement for director nominations or for proposals that can be acted upon at stockholder meetings;
- a classified board of directors, which may make it more difficult for a person who acquires control of a majority of our outstanding voting stock to replace all or a majority of our directors;
- the ability of our directors to fill any vacancy on our board of directors by the affirmative vote of a majority of the directors then in office under certain circumstances;
- limitations on the ability of our stockholders to act by written consent;
- limitations on who may call a special meeting of stockholders;
- the prohibition on stockholders accumulating their votes for the election of directors;
- the limitation on the removal of any of our directors by either an affirmative vote of the continuing directors (as defined in our certificate of incorporation) other than the subject director or by the affirmative vote of the holders of 80% of our outstanding shares of each class of stock having the power to vote in a director election;
- the requirement of the affirmative vote of the holders of at least 80% of our outstanding shares of each class of stock having the power to vote in a director election in order for stockholders to adopt, amend or repeal any provision of our certificate of incorporation or bylaws, unless the adoption, amendment or repeal is approved by a majority of the continuing directors (as defined in our certificate of incorporation) present at a meeting at which a quorum of the continuing directors are present; and
- the requirement, subject to limited exceptions, of the affirmative vote of the holders of at least 80% of our outstanding shares of each class of stock having the power to vote in a director election in order for us to complete certain business combination transactions with interested stockholders.

Delaware Law

We are also subject to Section 203 of the Delaware General Corporation Law, which in general prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that the stockholder became an interested stockholder, unless:

- prior to that date, our board of directors approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of our voting stock outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned by (i) persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or subsequent to that date, the business combination is approved by our board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 % of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines an interested stockholder as an entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by any of these entities or persons.

The above-summarized provisions of the Delaware General Corporation Law and our certificate of incorporation and bylaws could make it more difficult to acquire us by means of a tender offer, a proxy contest or otherwise, or to remove incumbent officers and directors. These provisions are expected to discourage certain types of coercive takeover practices and takeover bids that our board of directors may consider inadequate and to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of increased protection of our ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweigh the disadvantages of discouraging takeover or acquisition proposals because, among other things, negotiation of these proposals could result in an improvement of their terms.

Stockholders Rights Plan

In February 2003, our board of directors adopted a Stockholders Rights Plan, or the Rights Plan, and declared a dividend distribution of one right, or a Right, for each outstanding share of our common stock to stockholders of record at the close of business on March 3, 2003. Subject to certain exceptions listed in the Rights Plan, if a person or group has acquired beneficial ownership of, or commences a tender or exchange offer for, 15% or more of the our common stock, unless redeemed by our board of directors, each Right entitles the holder (other than the acquiring person) to purchase from us \$120 worth of common stock for \$60. If we are merged into, or 50% or more of its assets or earning power is sold to, the acquiring company, the Rights will also enable the holder (other than the acquiring person) to purchase \$120 worth of common stock of the acquiring company for \$60. The Rights will expire at the close of business on February 18, 2013, unless the Rights Plan is extended by our board of directors or unless the Rights are earlier redeemed by us at a price of \$.0001 per Right. The Rights are not exercisable during the time when they are redeemable by us. The above description highlights some of the features of the Company s Rights Plan and is not a complete description of the Rights Plan. A more detailed description and copy of the Rights Plan has been filed with the SEC and is available from us upon request.

Registration Rights

On October 2, 2012, we entered into a Common Stock and Warrant Purchase Agreement with the selling stockholders, which required us to file with the SEC, this registration statement on Form S-3 to register the securities sold to the selling stockholders, including the common stock, the warrants, and the common stock issuable upon exercise of the warrants. The registration of the offer and sale of shares underlying the 250,000 warrants is limited to transferees of the warrants who acquire those securities in registered transactions following the effective date of this registration statement.

Listing

Our common stock is listed on the Nasdaq Capital Market under the symbol REFR.

Transfer Agent and Registrar

Continental Stock Transfer and Trust Company is the transfer agent and registrar for our common stock.

Disclosure of SEC Position on Indemnification for Securities Act Liabilities

Insofar as indemnification for liabilities arising under the Securities Act may be permitted for directors, officers, and persons controlling our company, we understand that it is the SEC s opinion that such indemnification is against public policy as expressed in the Securities Act and may therefore be unenforceable.

DESCRIPTION OF WARRANTS

The following description sets forth certain general terms and provisions of the warrants offered by us to which any prospectus supplement may relate. The particular terms of the warrants offered, the extent, if any, to which the general terms set forth below apply to the warrants offered, and any modifications or additions to the general terms as they relate to the warrants offered will be described in a prospectus supplement.

We may issue warrants for the purchase of common stock from time to time, and we may issue warrants independently or together with common stock, and the warrants may be attached to or separate from these securities.

We will describe in the applicable prospectus supplement the terms of the series of warrants, including:

- the offering price and aggregate number of warrants offered;
- the number of shares of common stock purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the dates on which the right to exercise the warrants will commence and expire;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreement and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- to the extent material, federal income tax consequences of holding or exercising the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of common stock, including the right to receive dividends, if any, or, payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to 6:00 P.M. Woodbury, New York time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required amount to the company in immediately available funds. Upon receipt of the required payment and the warrant certificate properly completed and duly executed, we will issue and deliver the number of shares of common stock purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate for the remaining amount of warrants. Unless we indicate otherwise in the applicable prospectus supplement, holders of the warrants may surrender securities as all or part of the exercise price for warrants.

DESCRIPTION OF SELLING STOCKHOLDER WARRANTS

The warrants offered by the selling stockholders will entitle the holder to purchase one share of our common stock at an exercise price of \$6.73 per share. Holders of the warrants may exercise the warrants at any time from April 8, 2013 to 4:30 P.M. Woodbury, New York time on April 8, 2018, after which unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required amount to the company in immediately available cash funds. Upon receipt of the required payment and the warrant certificate properly completed and duly executed, we will issue and deliver the number of shares of common stock purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate for the remaining amount of warrants.

The warrants provide that the holder may not exercise the warrant to the extent that such exercise will cause the holder to beneficially own more than 14.999% of the common stock of the company then issued and outstanding. This restriction may not be waived.

The exercise price and the number and type of securities purchasable upon exercise of warrants are subject to adjustment upon certain corporate events, including certain combinations, consolidations, liquidations, mergers, recapitalizations, reclassifications, reorganizations, stock dividends and stock splits, a sale of all or substantially all of our assets and certain other events.

No fractional warrant shares will be issued upon exercise of the warrants. The holders will be entitled to participate in any dividends or other distributions paid, or rights offered, to holders of our common stock on an as-exercised basis.

SELLING STOCKHOLDERS

We are registering for resale shares of common stock of the selling stockholders, warrants offered by the selling stockholders, and shares of common stock issuable upon exercise of the warrants held by the selling stockholders. The securities offered by the selling stockholders were acquired on October 9, 2012 in a private placement pursuant to the Common Stock and Warrant Purchase Agreement between us and the selling stockholders named below. Each share and corresponding warrant was sold at an aggregate price of \$4.49. The warrants are exercisable from April 8, 2013 until April 8, 2018 at an exercise price of \$6.73 per share. The shares of common stock being offered by the selling stockholders are those purchased pursuant to the purchase agreement described above and those issuable to the selling stockholders upon exercise of the warrants. The issuance of shares underlying the 250,000 warrants sold in the October 2012 private placement will also be issued pursuant to Regulation D of the Securities Act to the extent that those sales of underlying common stock are to holders of the warrants who acquired the warrants in unregistered transactions. The registration of the offer and sale of shares underlying the 250,000 warrants is limited to transferees of the warrants who acquire those securities in registered transactions following the effective date of this registration statement. Except for the ownership of securities described below, the selling stockholders have not had any material relationship with us in the past three years. Unless the context otherwise requires, as used in this prospectus, selling stockholders includes the selling stockholders named in the table below and donees, pledgees, transferees or other successors-in-interest selling shares received from the selling stockholders as a gift, pledge, partnership distribution or other transfer after the date of this prospectus.

The table below sets forth information regarding the beneficial ownership of our common stock by the selling stockholders as of October 25, 2012. The information regarding the selling stockholders beneficial ownership after the sales made pursuant to this prospectus assumes that all of the common stock subject to sale pursuant to this prospectus will have been sold. The common stock and warrants subject to sale by the selling stockholders pursuant to this prospectus may be offered from time to time, in whole or in part, by the selling stockholders.

	Shares Beneficially Owned Before	re Any Sale	Shares Subject to Sale Pursuant to this Prospectus	Shares Benefi Owned After Sale of A Subject to Sal Pursuant to the	All Shares
Name	Number	Percent	Number	Number	Percent
Douglas Family TR u/a dtd 1/29/90		_		_	
James & Jean Douglas TTEES (1)	430,840	1.9%	250,000	180,840	*
K&M Douglas TR u/a dtd 3/23/06 Kevin & Michelle Douglas TTEES ⁽²⁾	646,260	2.9%	375,000	271,260	1.2%
Douglas Irrev Descendants TR u/a					
dtd 8/7/98 Kevin & Michelle					
Douglas TTEES ⁽³⁾	1,077,099	4.8%	625,000	452,099	2.0%
* (1)	James Douglas at 1/29/90 (Dougla ownership of the	chares subjected Jean Doug as Family Tr securities ov las Family T	t. It to outstanding warrants glas serve as trustees of thust) and may be deemed when directly by Douglas rust is 125 E. Sir Francis	ne Douglas Fami I to have indirect Family Trust. Tl	ly TR u/a dtd t beneficial he business
(2)	Kevin Douglas and dtd 3/23/06 TTEI beneficial owners	nd Michelle EES (K&M I Ship of the se for the K&M	t to outstanding warrants Douglas serve as trustees Douglas Trust) and may ccurities owned directly b I Douglas Trust is 125 E. ia 94939.	for the K&M Do be deemed to ha y the K&M Dou	ouglas TR u/a ave indirect glas Trust. The
(3)	Kevin Douglas an Descendants TR	nd Michelle l u/a dtd 8/7/9	t to outstanding warrants Douglas serve as trustees 8 TTEES (the Douglas ficial ownership of the sec	for the Douglas Irrevocable Trus	Irrev t) and may be

As indicated above, the selling stockholders own warrants to purchase our common stock, which were issued pursuant to the October 2012 private placement, but such warrants are not exercisable until April 8, 2013. The Douglas Family Trust owns warrants to purchase 50,000 shares of our common stock, the K&M Douglas Trust owns warrants to purchase 75,000 shares of our common stock, and the Douglas Irrevocable Trust owns warrants to purchase 125,000 shares of our common stock.

Douglas Irrevocable Trust. The business address for Douglas Irrevocable Trust is 125

E. Sir Francis Dr. Boulevard Suite 400, Larkspur, California 94939.

PLAN OF DISTRIBUTION

We are registering 3,000,000 shares of our common stock and warrants to purchase our common stock. We are also registering for resale by the selling stockholders and certain transferees a total of 1,250,000 shares of our common stock, 250,000 warrants to purchase common stock, and 250,000 shares of our common stock issuable upon exercise of the warrants held by the selling stockholders. The registration of the offer and sale of shares underlying the 250,000 warrants is limited to transferees of the warrants who acquire those securities in registered transactions following the effective date of this registration statement. The issuance of shares underlying the 250,000 warrants sold in our October 2012 private placement will be issued pursuant to Regulation D of the Securities Act to the extent that those sales of underlying common stock are to holders of the warrants who acquired the warrants in unregistered transactions.

We will not receive any of the proceeds from the sale by the selling stockholders of the securities, although we will receive the proceeds from the exercise of the warrants by the selling stockholders. We will bear all fees and expenses incident to our obligation to register the securities. If the securities are sold through broker-dealers or agents, the selling stockholder will be responsible for any compensation to such broker-dealers or agents. The selling stockholders may pledge or grant a security interest in some or all of the securities owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the securities from time to time pursuant to this prospectus. The selling stockholders also may transfer and donate the securities in other circumstances in which case the transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

We or the selling stockholders may offer and sell all or a portion of the securities registered pursuant to this prospectus from time to time, in one or more or any combination of the following transactions:

- through dealers or agents to the public or to investors;
- in privately negotiated transactions;
- in underwritten transactions;
- in ordinary brokerage transactions and transactions in which the broker solicits; or
- through a combination of such methods.

The offering price of the securities from time to time will be determined by us or the selling stockholders, as applicable, and the price may be at the market price of our common stock on the Nasdaq Capital Market or any other exchange or market at the time of such sale, at negotiated prices, at fixed prices or at carrying prices determined at the time of sale;

Some or all of the securities may be sold through one or more broker-dealers or agents and may involve crosses, block transactions or hedging transactions. We or the selling stockholders may enter into hedging transactions with broker-dealers or agents, which may in turn engage in short sales of the common stock in the course of hedging in positions they assume. We or the selling stockholders may also sell securities short and deliver securities to close out short positions or loan or pledge securities to broker-dealers or agents that in turn may sell such securities. In connection with such sales through one or more broker-dealers or agents, such broker-dealers or agents may receive compensation in the form of discounts, concessions or commissions from us or the selling stockholders and may receive commissions from the purchasers of the securities for whom they act as broker-dealer or agent or to whom they sell as principal. Any underwriters, dealers or agents participating in a distribution of the securities may be deemed to be underwriters within the meaning of the Securities Act, and any profit on the sale of the securities and any commissions received by broker-dealers may be deemed to be underwriting commissions under the Securities Act. The maximum compensation to be received by any member of the Financial Industry Regulatory Authority, Inc. in connection with any distribution of securities we are registering will not exceed 8% of the proceeds from any sale of such securities.

We have not, and the selling stockholders have advised us that they have not, entered into any agreements, understandings or arrangements with any underwriters or broker-dealers regarding the sale of securities. Upon entering into, or upon notification by the selling stockholders that they have entered into, any material arrangement with an underwriter or broker-dealer for the sale of securities through a block trade, special offering, exchange distribution, secondary distribution or a purchase by an underwriter or broker-dealer, we will file a prospectus supplement, if required, pursuant to Rule 424(b) under the Securities Act, disclosing certain material information, including:

- the name of the applicable seller;
- the type and number of securities being offered;
- the terms of the offering;
- the proceeds we will receive from the sale;
- the names of the participating underwriters, broker-dealers or agents;
- any discounts, commissions or other compensation paid to underwriters or broker-dealers and any discounts, commissions or concessions allowed or reallowed or paid by any underwriters to dealers;
- any over-allotment options under which underwriters may purchase additional securities from us;
- the public offering price;
- any securities exchanges on which the securities may be listed if it is other than the Nasdaq Capital Market; and
- other material terms of the offering.

Under the securities laws of some states, the securities may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the securities may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with. There can be no assurance that we or any selling stockholder will sell any or all of the securities registered pursuant to the shelf registration statement, of which this prospectus forms a part.

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

We will bear all expenses of the registration of the securities including, without limitation, SEC filing fees and expenses of compliance with the state securities of blue sky laws. The selling stockholders will pay all underwriting discounts and selling commissions and expenses, brokerage fees and transfer taxes, as well as the fees and disbursements of counsel to and experts for the selling stockholders, if any. We or the selling stockholders may agree to indemnify an underwriter, broker-dealer, or agent against certain liabilities related to the selling of the securities, including liabilities arising under the Securities Act. We will indemnify the selling stockholders against liabilities, including some liabilities under the Securities Act, in accordance with the registration rights agreement or the selling stockholder will be entitled to contribution. We will be indemnified by the selling stockholders against civil liabilities, including liabilities under the Securities Act that may arise from any written information furnished to us by the selling stockholders for use in this prospectus, in accordance with the related securities purchase agreement or will be entitled to contribution. Once sold under this shelf registration statement, of which this prospectus forms a part, the securities will be freely tradable in the hands of persons other than our affiliates.

Any securities covered by this prospectus that qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than pursuant to this prospectus.

EXPERTS

The financial statements and schedule of Research Frontiers as of December 31, 2011 and 2010, and for each of the three years in the period ended December 31, 2011, and management s assessment of the effectiveness over internal controls as of December 31, 2011, incorporated by reference into this prospectus have been so incorporated in reliance upon the reports of BDO USA, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in accounting and auditing.

LEGAL MATTERS

The legality of the securities offered hereby has been passed upon by the law firm of Faegre Baker Daniels LLP, Minneapolis, Minnesota.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the information requests of the Exchange Act and file reports, proxy statements and other information with the SEC. You may read and copy such reports, proxy statements and other information at the public reference room maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549 and you can obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains an internet web site at http://www.sec.gov that contains reports, proxy and information statements and other information regarding issuers, such as the company, which are filed electronically with the SEC. Additional information about us can also be found at our website at http://www.SmartGlass.com. The information on, or that may be accessed through, our web site is not incorporated by reference into and should not be considered a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference into this prospectus our:

- annual report on Form 10-K for the fiscal year ended December 31, 2011;
- the portions of the proxy statement dated April 25, 2012 for our annual meeting of stockholders held on June 14, 2012 that have been incorporated by reference into our report on Form 10-K for the fiscal year ended December 31, 2011;
- quarterly reports on Form 10-Q for the fiscal quarters ended March 31, 2012, June 30, 2012, and September 30, 2012;
- current reports on Form 8-K filed with the SEC on June 18, 2012, August 2, 2012, August 28, 2012, and October 5, 2012;
- the description of the capital stock contained in the Research Frontiers registration statements on Form 8-A under the Securities Exchange Act of 1934 dated July 31, 1995 and February 24, 2003.

All filings filed by Research Frontiers with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act subsequent to the initial filing of this prospectus and prior to the termination of the offering or sale of all securities offered under this prospectus shall be deemed to be incorporated by reference into this prospectus (except for information furnished and not filed with the SEC in a Current Report on Form 8-K).

We will provide without charge to each person, including a beneficial owner, to whom this prospectus is delivered upon written or oral request, a copy of any information we have incorporated by reference but have not delivered along with this prospectus. If you would like a copy of any document incorporated herein by reference, other than exhibits unless such exhibits are specifically incorporated by reference in any such document, you can call or write to us at our principal executive offices: 240 Crossways Park Drive, Woodbury, New York 11797-2033, Attention: Corporate Secretary (telephone: (516) 364-1902).

PART II

INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

Estimated expenses relating to the distribution of the securities registered herein are set forth below. Such expenses will be paid by us.

Registration Fee under the Securities Act of 1933	\$ 2,584.10
Accounting fees and expenses	\$ *
Legal fees and expenses	\$ *
Transfer agent and registrar fees and expenses	\$ *
FINRA fees and expenses	\$ *
Miscellaneous expenses	\$ *
Total	\$ *

^{*}These fees are calculated based upon the number of issuances in applicable offerings and amount of securities offered and, accordingly, cannot be estimated at this time.

Item 15. Indemnification of Directors and Officers.

Article EIGHTH of Research Frontiers Certificate of Incorporation provides for the indemnification of Research Frontiers' officers and directors to the fullest extent permitted by Section 145 of the Delaware General Corporation Law, or the GCL.

Section 145 of the GCL provides as follows:

145 Indemnification of Officers, Directors, Employees and Agents; Insurance

(a) A corporation shall have power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe the person's conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of *nolo contendere* or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that the person's conduct was unlawful.

(b) A corporation shall have the power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

- (c) To the extent that a present or former director or officer of a corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in subsections (a) and (b) of this section, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith.
- (d) Any indemnification under subsections (a) and (b) of this section (unless ordered by a court) shall be made by the corporation only as authorized in the specific case upon a determination that indemnification of the present or former director, officer, employee or agent is proper in the circumstances because the person has met the applicable standard of conduct set forth in subsections (a) and (b) of this section. Such determination shall be made with respect to a person who is a director or officer at the time of such determination, (1) by a majority vote of the directors who are not parties to such action, suit or proceeding, or (2) by a committee of such directors designated by a majority vote of such directors, even though less than a quorum, or (3) if there are no such directors, or if such directors so direct, by independent legal counsel in a written opinion, or (4) by the stockholders.
- (e) Expenses (including attorneys' fees) incurred by an officer or director in defending any civil, criminal, administrative or investigative action, suit or proceeding may be paid by the corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such director or officer to repay such amount if it shall ultimately be determined that such person is not entitled to be indemnified by the corporation as authorized in this section. Such expenses (including attorneys' fees) incurred by former directors and officers or other employees and agents may be so paid upon such terms and conditions, if any, as the corporation deems appropriate.
- (f) The indemnification and advancement of expenses provided by, or granted pursuant to, the other subsections of this section shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office.
- (g) A corporation shall have power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the corporation would have the power to indemnify such person against such liability under this section.
- (h) For purposes of this section, references to "the corporation" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under this section with respect to the resulting or surviving corporation as such person would have with respect to such constituent corporation if its separate existence had continued.
- (i) For purposes of this section, references to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on a person with respect to any employee benefit plan; and references to "serving at the request of the corporation" shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee, or agent with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner such person reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "not opposed to the best interests of the corporation" as referred to in this section.

- (j) The indemnification and advancement of expenses provided by, or granted pursuant to, this section shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.
- (k) The Court of Chancery is hereby vested with exclusive jurisdiction to hear and determine all actions for advancement of expenses or indemnification brought under this section or under any bylaw, agreement, vote of stockholders or disinterested directors, or otherwise. The Court of Chancery may summarily determine a corporation' obligation to advance expenses (including attorneys' fees).

Article NINTH of Research Frontiers' Certificate of Incorporation provides for the elimination of any personal liability for monetary damages of directors to the Corporation or its stockholders for breach of fiduciary duty, for negligence or for taking or omitting to take any action to the fullest extent permitted by Section 102(b) (7) of the GCL. Section 102(b) (7) of the GCL provides as follows:

- (b) In addition to the matters required to be set forth in the certificate of incorporation by subsection (a) of this section, the certificate of incorporation may also contain any or all of the following matters:
- (7) A provision eliminating or limiting the personal liability of a director to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, provided that such provision shall not eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under section 174 of this Title, or (iv) for any transaction from which the director derived an improper personal benefit. No such provision shall eliminate or limit the liability of a director for any act or omission occurring prior to the date when such provision becomes effective. All references in this paragraph to a director shall also be deemed to refer (x) to a member of the governing body of a corporation which is not authorized to issue capital stock, and (y) to such other person or persons, if any, who, pursuant to a provision of the certificate of incorporation in accordance with section 141(a) of this title, exercise or perform any of the powers or duties otherwise conferred or imposed upon the board of directors by this title.

Item 16. Exhibits

The list of exhibits in the Exhibit Index to this registration statement is incorporated herein by reference.

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
- (a) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;
- (b) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.
- (c) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Provided, however, the foregoing paragraphs do not apply if the registration statement is on Form S-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
 - (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
 - (a) If the registrant is relying on Rule 430B:
- (i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
- (ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or
- (b) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

- (5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities: The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
 - (a) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
- (b) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
- (c) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (d) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (6) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of any employee benefit plan's annual report pursuant to section 15(d) of the Securities Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (7) Insofar as indemnification for liabilities arising under the Securities Act of 1933 (the "Act") may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission, such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.
 - (8) That, for purposes of determining any liability under the Securities Act of 1933:
- (a) the information omitted from the form of prospectus filed as part of the registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act of 1933 shall be deemed to be part of the registration statement as of the time it was declared effective; and
- (b) each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this amendment no. 2 to the registration statement on Form S-3 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Woodbury, State of New York, on December 20, 2012.

RESEARCH FRONTIERS INCORPORATED

By: /s/ Joseph M. Harary

Joseph M. Harary

President and Chief Executive Officer

(Principal Executive Officer)

By: /s/ Seth Van Voorhees

Seth Van Voorhees

Vice President-Business Development and Chief Financial Officer

(Principal Financial and Accounting Officer)

II-6

Signature	Title	Date
/s/ Joseph M. Harary Joseph M. Harary	President, Chief Executive Officer, Director (Principal Executive Officer)	December 20, 2012
/s/ Seth Van Voorhees Seth Van Voorhees	Vice President-Business Development and Chief Financial Officer (Principal Financial and Accounting Officer)	December 20, 2012
* Robert L. Saxe	Chairman of the Board of Directors	December 20, 2012
* Darryl Daigle	Director	December 20, 2012
* Jack Derby	Director	December 20, 2012
* Gregory G. Grimes	Director	December 20, 2012
* M. Philip Guthrie	Director	December 20, 2012
* Victor F. Keen	Director	December 20, 2012
*By: /s/ Seth Van Voorhees Seth Van Voorhees		
Attorney-in-fact	II-7	

EXHIBIT INDEX

Exhibit	Description
1.1*	Form of Underwriting Agreement.
4.1	Restated Certificate of Incorporation of the Company (previously filed as Exhibit 3.1 to the Company s Quarterly Report on Form 10-Q for the fiscal quarter ended June
	30, 1994, which is incorporated herein by reference).
4.2	Amended and Restated Bylaws of the Company (previously filed as Exhibit 99.2 to the Company s Annual Report on Form 10-K for the fiscal year ended December 31, 2007 (Reg. No. 001-09399), which is incorporated herein by reference).
4.3	Form of Common Stock Certificate (previously filed as an Exhibit to the Company's Registration Statement on Form S-18 (Reg. No. 33-5573NY), declared effective by the Commission on July 8, 1986, which is incorporated herein by reference).
	the Commission on July 8, 1980, which is incorporated herein by reference).
4.4	Rights Agreement dated as of February 18, 2003 between the Company and Continental Stock Transfer & Trust Company, as Rights Agent, which includes as Exhibit A thereto the Form of Rights Certificate (previously filed as an Exhibit to the Company s Registration Statement on Form 8-A dated February 24, 2003 (Reg. No. 000-14893), which is incorporated herein by reference).
4.5	Common Stock and Warrant Purchase Agreement between the Company and the Purchasers listed on Exhibit A thereto, dated October 2, 2012 (previously filed as Exhibit 4.3 to the Company s Current Report on Form 8-K filed on October 5, 2012 (Reg. No. 001-09399), which is incorporated herein by reference).
4.6	Form of Selling Stockholder Warrant (previously filed as Exhibit 4.3 to the Company s Current Report on Form 8-K filed on October 5, 2012 (Reg. No. 001-09399), which is incorporated herein by reference).
4.7*	Form of Warrant.
5.1	Opinion of Faegre Baker Daniels LLP (previously filed).
23.1	Consent of BDO USA, LLP (filed herewith).
23.2	Consent of Faegre Baker Daniels LLP (previously filed).
24.1	Powers of Attorney (previously filed).
*	To be filed, if necessary, after effectiveness of this registration statement by an amendment or by report filed under the Securities and Exchange Act of 1934, as amended, and incorporated by reference herein.
	II-8