RESEARCH FRONTIERS INC Form 424B2

December 01, 2010

FILED PURSUANT TO RULE 424(b)(2) REGISTRATION NO. 333-159093

> PROSPECTUS SUPPLEMENT DATED DECEMBER 1,2010 TO PROSPECTUS DATED MAY 8,2009

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.

RESEARCH FRONTIERS INCORPORATED

295,000 Shares of Common Stock

59,000 Warrants to Purchase Common Stock at \$6.75 per Share

Research Frontiers Incorporated is selling to accredited investors a total of 295,000 shares of common stock and warrants expiring November 30, 2015 to purchase 59,000 shares of common stock at an exercise price of \$6.75 per share. This offering is part of a "shelf" registration statement that we have filed with the Securities and Exchange Commission which was declared effective by the SEC on May 28, 2009. The shelf registration statement covers the issuance of up to 3,000,000 shares of common stock, and/or warrants to purchase such common stock. Each time that we sell our securities under the registration statement, we will issue a prospectus supplement like this one, which includes the terms of the offering such as the price, terms and amount of securities being sold. We may sell these securities to or through underwriters and also to other purchasers or through agents. We will set forth the names of any underwriters or agents in the accompanying prospectus supplement.

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 Nasdag Capital Market on November 30, 2010 was \$5.08.

Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 3.

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.

Per Unit(1) Total Offering \$5.00 \$1,475,000.00

Proceeds, before expenses, to us: \$5.00

\$1,475,000.00

(1) Each Unit consists of one share and one-fifth of a warrant expiring November 30, 2015 to purchase common stock at an exercise price of \$6.75 per share.

Delivery of the shares of common stock and warrants to the purchasers is expected to be made on or about December 2, 2010.

The date of this prospectus supplement is December 1,2010

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying base prospectus dated May 8, 2009 are part of a "shelf" registration statement that we have filed with the Securities and Exchange Commission, or SEC. Each time we sell securities under the accompanying base prospectus we will provide a prospectus supplement that will contain specific information about the terms of that offering, including the price, the amount of common stock being offered and the plan of distribution. The shelf registration was declared effective by the SEC on May 28, 2009. This prospectus supplement describes the specific details regarding this offering, including the price, the amount of common stock being offered, the risks of investing in our common stock and the plan of distribution. The accompanying base prospectus provides general information about us, some of which, such as the section entitled "Plan of Distribution," may not apply to this offering.

If information in this prospectus supplement is inconsistent with the accompanying base prospectus or the information incorporated by reference, you should rely on this prospectus supplement. You should read both this prospectus supplement and the accompanying base prospectus together with the additional information about Research Frontiers Incorporated to which we refer you in the section of this prospectus supplement entitled "Available Information."

SUMMARY

You should read the entire prospectus, including the section entitled 'Risk Factors,' carefully before making an investment decision.

THE COMPANY

Research Frontiers Incorporated ("Research Frontiers" or the "Company") develops and licenses its suspended particle technology for controlling the amount of light passing through a device. Such suspended particle devices are often referred to as "SPDs," "light valves," or "SPD-Smart " products.

SPDs use microscopic light-absorbing particles that are either in a liquid suspension or a film. The microscopic particles align when an electrical voltage is applied. This permits light to pass through the device, and allows the amount of light to be controlled. Our offices are located at: 240 Crossways Park Drive, Woodbury, NY 11797 (telephone: 516-364-1902).

THE OFFERING

Common Stock issued by Research Frontiers: Common Stock Outstanding after this offering: 18,281,973 shares Warrants exercisable at \$6.75 per share: Use of Proceeds:

Nasdag Capital Market Symbol:

295,000 shares 59,000 warrants general corporate purposes REFR

The number of shares of common stock outstanding after this offering is based upon 17,986,973 shares outstanding as of November 30, 2010. It excludes outstanding options and warrants (not including the warrants issued in this offering) to purchase 2,503,108 shares of common stock, and options or other equity awards for 234,438 shares available for future issuance pursuant to the Company's 2008 Equity Incentive Plan.

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. 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:

History of Operating Losses.

Research Frontiers has a history of operating losses, expects to incur additional losses in the future, and consequently will need additional funds in the future to continue its operations. To date, Research Frontiers has lost money, and we expect to lose money in the foreseeable future. Because we expect that our future revenues will consist primarily of license fees (which have not been significant to date), unless our licensees produce and sell products using our technology, Research Frontiers will not be profitable. There is no guarantee that we will ever be profitable. Since Research Frontiers was started in 1965 through December 31, 2009, its total net loss was \$76,399,353. Our net loss was \$4,002,761 in 2009, \$2,594,843 in 2008, and \$7,565,218 in 2007 (which includes a non-cash accounting charge in 2007 of \$4,026,855 resulting from the expensing of stock options).

Source and Need for Capital.

We have funded our operations by selling our common stock to investors. If we need additional money, there is no quarantee that it will be available when we need it, or on favorable terms. The Company will need to raise additional capital no later than the first quarter of 2013 if operations, including research and development and marketing, are to be maintained at current levels and if its revenues do not increase before then. If the Company cannot raise additional funds, it will be required to reduce expenses during 2013. 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.

Dependence on Third Parties.

Research Frontiers depends upon the activities of its 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. Research Frontiers' SPD technology is currently licensed to 37 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. Also, we do not intend to manufacture products using SPD technology. Instead we intend to continue to license our SPD technology to manufacturers of end products, films and emulsion. We expect that our licensees would be primarily responsible for manufacturing and marketing SPD products and components, but we are also engaging in market development activities to support our licensees and build the smart glass industry.

Recent Introduction of Products Using the Company's Technology.

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 for such products using new technologies to rapidly penetrate mass market applications. Research Frontiers cannot control whether or not its 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 Research Frontiers profitable.

Dependence on SPD Technology.

Because SPD technology is the only technology Research Frontiers works 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.

AVAILABLE INFORMATION

Research Frontiers files reports, proxy statements and other information with the Securities and Exchange Commission. 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 Research Frontiers, that file electronically with the SEC. Additional information about us can also be found at our web site at http://www.SmartGlass.com.

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:

- o annual report on Form 10-K for the fiscal year ended December 31, 2009,
- o the portions of the proxy statement dated April 30, 2010 for our annual meeting of stockholders held on June 10, 2010 that have been incorporated by reference into our report on Form 10-K for the fiscal year ended December 31, 2009,
- o quarterly report on Form 10-Q for the fiscal quarter ended March 31, 2010, June 30, 2010, and September 30, 2010,
- o current reports on Form 8-K filed with the SEC on 1/25/10, 2/16/10, 3/3/10, and 4/6/10, 5/19/10, 6/14/10, 9/17/10, 9/27/10 and 12/1/10
- o 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 of common stock offered under this prospectus shall be deemed to be incorporated by reference into this prospectus.

This prospectus is part of a registration statement we filed with the SEC. As permitted by the SEC, this prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules thereto. The statements contained in this prospectus as to the contents of any contract or any other document are not necessarily complete. In each case you should refer to the copy of such contract or document filed as an exhibit to the registration statement.

We will provide each person to whom this prospectus is delivered, 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). We will provide this information without charge to any person, including a beneficial owner, to whom a copy of this prospectus is delivered upon written or oral request.

No dealer, salesperson or other individual has been authorized to give any information or to make any representation not contained in or incorporated by reference in this prospectus or in any supplement to this prospectus. If given or made, you must not rely on such information or representation as having been authorized by Research Frontiers. Neither the delivery of this prospectus nor any sale made hereunder will, under any circumstances, create an implication that there has not been any change in the affairs of Research Frontiers since the date of this prospectus or that the information contained herein is correct or complete as of any time after the date of this prospectus.

This prospectus and any supplement to this prospectus do not constitute an offer to sell or a solicitation of an offer to buy any securities offered

hereby to any person, or by anyone, in any jurisdiction in which such offer or solicitation may not lawfully be made.

The information set forth herein and in all publicly disseminated information about Research Frontiers, includes "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and is subject to the safe harbor created by that section. Readers are cautioned not to place undue reliance on these forward-looking statements as they speak only as of the date of this prospectus and are not quaranteed.

DIVIDENDS

Research Frontiers has never paid any cash dividends and does not expect to pay any cash dividends for the foreseeable future.

USE OF PROCEEDS

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.

DESCRIPTION OF SECURITIES

We may sell from time to time, in one or more offerings common stock and/or warrants to purchase common stock.

DESCRIPTION OF COMMON STOCK

Research Frontiers can issue 100,000,000 shares of common stock, \$0.0001 par value per share. 17,986,973 shares were outstanding as of the date of this prospectus and prior to giving effect to the share issued in this offering. Holders of common stock are entitled to one vote per share on matters submitted to shareholders for their approval, to dividends if declared by Research Frontiers, and to share in any distribution of Research Frontiers' assets. All outstanding shares of common stock are fully paid for and non-assessable. Holders of common stock do not have cumulative voting rights or preemptive rights. Therefore, a minority stockholder may be less able to gain representation on Research Frontiers' board of directors.

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.

DESCRIPTION OF WARRANTS

Each purchaser in this offering will receive a warrant to purchase one share of our common stock for every five shares of common stock purchased in this offering. The

warrants will be issued pursuant to warrant agreements executed by us.

Each warrant will entitle the holder to purchase one share of common stock at an exercise price of \$6.75 per share. Holders of the warrants may exercise the warrants at any time from November 30, 2010 to 4:30 P.M. Woodbury, New York time on November 30, 2015, 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 unless a holder waives the provision, the warrantholder may not exercise the warrant to the extent that such execise will cause the warrantholder to beneficially own more than 4.999% of the common stock of the Company then outstanding. In no event may a warrantholder exercise warrants if such exercise shall cause the warrantholder to own more than 9.999% of the common stock of the Company then outstanding.

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. 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.

PLAN OF DISTRIBUTION

The Company directly placed the Units with the purchasers without a placement agent.

Each Unit consists of one share and one-fifth of a warrant to purchase common stock at an exercise price of \$6.75 per share. Assuming that the warrants are not exercised, the Company will receive gross proceeds of \$1,475,000 from the sale of 295,000 shares of Common Stock at a price of \$5.00 per share. Investors also received 59,000 Warrants in this offering.

The form of Subscription Agreement and Warrant Agreement are included as exhibits to our Current Report on Form 8-K that was filed with the Securities and Exchange Commission on December 1, 2010.

The transfer agent for our common stock is Continental Stock Transfer & Trust Company.

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

FILED PURSUANT TO RULE 424(b)(2)
REGISTRATION NO. 333-159093

PROSPECTUS SUPPLEMENT DATED SEPTEMBER 27,2010
TO PROSPECTUS DATED MAY 8,2009

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.

RESEARCH FRONTIERS INCORPORATED

194,118 Shares of Common Stock

38,824 Warrants to Purchase Common Stock at \$6.25 per Share

Research Frontiers Incorporated is selling to accredited investors a total of 194,118 shares of common stock and warrants expiring September 30, 2015 to purchase 38,824 shares of common stock at an exercise price of \$6.25 per share. This offering is part of a "shelf" registration statement that we have filed with the Securities and Exchange Commission which was declared effective by the SEC on May 28, 2009. The shelf registration statement covers the issuance of up to 3,000,000 shares of common stock, and/or warrants to purchase such common stock. Each time that we sell our securities under the registration statement, we will issue a prospectus supplement like this one, which includes the terms of the offering such as the price, terms and amount of securities being sold. We may sell these securities to or through underwriters and also to other purchasers or through agents. We will set forth the names of any underwriters or agents in the accompanying prospectus supplement.

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 September 24, 2010 was \$4.31.

Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 3.

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.

Per Unit(1) Total Offering Public Offering Price: \$4.25 \$825,000.00 Proceeds, before expenses, to us: \$4.25 \$825,000.00

(1) Each Unit consists of one share and one-fifth of a warrant expiring September 30, 2015 to purchase common stock at an exercise price of \$6.25 per share.

Delivery of the shares of common stock and warrants to the purchasers is expected to be made on or about September 27, 2010.

The date of this prospectus supplement is September 27,2010

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying base prospectus dated May 8, 2009 are part of a "shelf" registration statement that we have filed with the Securities and Exchange Commission, or SEC. Each time we sell securities under the accompanying base prospectus we will provide a prospectus supplement that will contain specific information about the terms of that offering, including the price, the amount of common stock being offered and the plan of distribution. The shelf registration was declared effective by the SEC on May 28, 2009. This prospectus supplement describes the specific details regarding this offering, including the price, the amount of common stock being offered, the risks of investing in our common stock and the plan of distribution. The accompanying base prospectus provides general information about us, some of which, such as the section entitled "Plan of Distribution," may not apply to this offering.

If information in this prospectus supplement is inconsistent with the accompanying base prospectus or the information incorporated by reference, you should rely on this prospectus supplement. You should read both this prospectus supplement and the accompanying base prospectus together with the additional information about Research Frontiers Incorporated to which we refer you in the section of this prospectus supplement entitled "Available Information."

SUMMARY

You should read the entire prospectus, including the section entitled 'Risk Factors,' carefully before making an investment decision.

THE COMPANY

Research Frontiers Incorporated ("Research Frontiers" or the "Company") develops and licenses its suspended particle technology for controlling the amount of light passing through a device. Such suspended particle devices are often referred to as "SPDs," "light valves," or "SPD-Smart " products.

SPDs use microscopic light-absorbing particles that are either in a liquid suspension or a film. The microscopic particles align when an electrical voltage is applied. This permits light to pass through the

device, and allows the amount of light to be controlled. Our offices are located at: 240 Crossways Park Drive, Woodbury, NY 11797 (telephone: 516-364-1902).

THE OFFERING

Common Stock issued by Research Frontiers: Common Stock Outstanding after this offering: 17,986,973 shares Warrants exercisable at \$6.25 per share: Use of Proceeds: Nasdaq Capital Market Symbol:

194,118 shares 128,205 warrants general corporate purposes REFR

The number of shares of common stock outstanding after this offering is based upon 17,792,855 shares outstanding as of September 24, 2010. It excludes outstanding options and warrants (not including the warrants issued in this offering) to purchase 2,560,784 shares of common stock, and options or other equity awards for 234,438 shares available for future issuance pursuant to the Company's 2008 Equity Incentive Plan.

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. 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:

History of Operating Losses.

Research Frontiers has a history of operating losses, expects to incur additional losses in the future, and consequently will need additional funds in the future to continue its operations. To date, Research Frontiers has lost money, and we expect to lose money in the foreseeable future. Because we expect that our future revenues will consist primarily of license fees (which have not been significant to date), unless our licensees produce and sell products using our technology, Research Frontiers will not be profitable. There is no guarantee that we will ever be profitable. Since Research Frontiers was started in 1965 through December 31, 2009, its total net loss was \$76,399,353. Our net loss was \$4,002,761 in 2009, \$2,594,843 in 2008, and \$7,565,218 in 2007 (which includes a non-cash accounting charge in 2007 of \$4,026,855 resulting from the expensing of stock options).

Source and Need for Capital.

We have funded our operations by selling our common stock to investors. If we need additional money, there is no guarantee that it will be available when we need it, or on favorable terms. The Company will need to raise additional capital no later than the fourth quarter of 2012 if operations, including research and development and marketing, are to be maintained at current levels and if its revenues do not increase before then. If the

Company cannot raise additional funds, it will be required to reduce expenses during 2012. 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.

Dependence on Third Parties.

Research Frontiers depends upon the activities of its 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. Research Frontiers' SPD technology is currently licensed to 37 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. Also, we do not intend to manufacture products using SPD technology. Instead we intend to continue to license our SPD technology to manufacturers of end products, films and emulsion. We expect that our licensees would be primarily responsible for manufacturing and marketing SPD products and components, but we are also engaging in market development activities to support our licensees and build the smart glass industry.

Recent Introduction of Products Using the Company's Technology.

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 for such products using new technologies to rapidly penetrate mass market applications. Research Frontiers cannot control whether or not its 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 Research Frontiers profitable.

Dependence on SPD Technology.

Because SPD technology is the only technology Research Frontiers works 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.

AVAILABLE INFORMATION

Research Frontiers files reports, proxy statements and other information with the Securities and Exchange Commission. 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 Research Frontiers, that file electronically with the SEC. Additional information about us can also be found at our web site at http://www.SmartGlass.com.

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:

- o annual report on Form 10-K for the fiscal year ended December 31, 2009,
- o the portions of the proxy statement dated April 30, 2010 for our annual meeting of stockholders held on June 10, 2010 that have been incorporated by reference into our report on Form 10-K for the fiscal year ended December 31, 2009,
- o quarterly report on Form 10-Q for the fiscal quarter ended March 31, 2010 and June 30, 2010,
- o current reports on Form 8-K filed with the SEC on 1/25/10, 2/16/10, 3/3/10, and 4/6/10, 5/19/10, 6/14/10, 9/17/10, and <math>9/27/10 and
- o 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 of common stock offered under this prospectus shall be deemed to be incorporated by reference into this prospectus.

This prospectus is part of a registration statement we filed with the SEC. As permitted by the SEC, this prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules thereto. The statements contained in this prospectus as to the contents of any contract or any other document are not necessarily complete. In each case you should refer to the copy of such contract or document filed as an exhibit to the registration statement.

We will provide each person to whom this prospectus is delivered, 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). We will provide this information without charge to any person, including a beneficial owner, to whom a copy of this prospectus is delivered upon written or oral request.

No dealer, salesperson or other individual has been authorized to give any information or to make any representation not contained in or incorporated by reference in this prospectus or in any supplement to this prospectus. If given or made, you must not rely on such information or representation as having been authorized by Research Frontiers. Neither the delivery of this prospectus nor any sale made hereunder will, under any circumstances, create an implication that there has not been

any change in the affairs of Research Frontiers since the date of this prospectus or that the information contained herein is correct or complete as of any time after the date of this prospectus.

This prospectus and any supplement to this prospectus do not constitute an offer to sell or a solicitation of an offer to buy any securities offered hereby to any person, or by anyone, in any jurisdiction in which such offer or solicitation may not lawfully be made.

The information set forth herein and in all publicly disseminated information about Research Frontiers, includes "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and is subject to the safe harbor created by that section. Readers are cautioned not to place undue reliance on these forward-looking statements as they speak only as of the date of this prospectus and are not guaranteed.

DIVIDENDS

Research Frontiers has never paid any cash dividends and does not expect to pay any cash dividends for the foreseeable future.

USE OF PROCEEDS

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.

DESCRIPTION OF SECURITIES

We may sell from time to time, in one or more offerings common stock and/or warrants to purchase common stock.

DESCRIPTION OF COMMON STOCK

Research Frontiers can issue 100,000,000 shares of common stock, \$0.0001 par value per share. 17,792,855 shares were outstanding as of the date of this prospectus and prior to giving effect to the share issued in this offering. Holders of common stock are entitled to one vote per share on matters submitted to shareholders for their approval, to dividends if declared by Research Frontiers, and to share in any distribution of Research Frontiers' assets. All outstanding shares of common stock are fully paid for and non-assessable. Holders of common stock do not have cumulative voting rights or preemptive rights. Therefore, a minority stockholder may be less able to gain representation on Research Frontiers' board of directors.

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.

DESCRIPTION OF WARRANTS

Each purchaser in this offering will receive a warrant to purchase one share of our common stock for every five shares of common stock purchased in this offering. The warrants will be issued pursuant to warrant agreements executed by us.

Each warrant will entitle the holder to purchase one share of common stock at an exercise price of \$6.25 per share. Holders of the warrants may exercise the warrants at any time from September 17, 2010 to 4:30 P.M. Woodbury, New York time on September 30, 2015, 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 unless a holder waives the provision, the warrantholder may not exercise the warrant to the extent that such execise will cause the warrantholder to beneficially own more than 4.999% of the common stock of the Company then outstanding. In no event may a warrantholder exercise warrants if such exercise shall cause the warrantholder to own more than 9.999% of the common stock of the Company then outstanding.

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. 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.

PLAN OF DISTRIBUTION

The Company directly placed the Units with the purchasers without a placement agent.

Each Unit consists of one share and one-fifth of a warrant to purchase common stock at an exercise price of \$6.25 per share. Assuming that the warrants are not exercised, the Company will receive gross proceeds of \$825,000 from the sale of 194,118 shares of Common Stock at a price of \$4.25 per share. Investors also received 38,824 Warrants

in this offering.

The form of Subscription Agreement and Warrant Agreement are included as exhibits to our Current Report on Form 8-K that was filed with the Securities and Exchange Commission on September 27, 2010.

The transfer agent for our common stock is Continental Stock Transfer & Trust Company.

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

FILED PURSUANT TO RULE 424(b)(2) REGISTRATION NO. 333-159093

PROSPECTUS SUPPLEMENT DATED SEPTEMBER 17,2010
TO PROSPECTUS DATED MAY 8,2009

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.

RESEARCH FRONTIERS INCORPORATED

641,026 Shares of Common Stock

128,205 Warrants to Purchase Common Stock at \$6.25 per Share

Research Frontiers Incorporated is selling to accredited investors a total of 641,026 shares of common stock and warrants expiring September 30, 2015 to purchase 128,205 shares of common stock at an exercise price of \$6.25 per share. This offering is part of a "shelf" registration statement that we have filed with the Securities and Exchange Commission which was declared effective by the SEC on May 28, 2009. The shelf registration statement covers the issuance of up to 3,000,000 shares of common stock, and/or warrants to purchase such common stock. Each time that we sell our securities under the registration statement, we will issue a prospectus supplement like this one, which includes the terms of the offering such as the price, terms and amount of securities being sold. We may sell these securities to or through underwriters and also to other purchasers or through agents. We will set forth the names of any underwriters or agents in the accompanying prospectus supplement.

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 September 16, 2010 was \$4.12.

Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 3.

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.

	Per Unit(1)	Total Offering
Public Offering Price:	\$3.90	\$2,500,000.00
Proceeds, before expenses,	to us: \$3.90	\$2,500,000.00

(1) Each Unit consists of one share and one-fifth of a warrant expiring September 30, 2015 to purchase common stock at an exercise price of \$6.25 per share.

Delivery of the shares of common stock and warrants to the purchasers is expected to be made on or about September 17, 2010.

The date of this prospectus supplement is September 17,2010

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying base prospectus dated May 8, 2009 are part of a "shelf" registration statement that we have filed with the Securities and Exchange Commission, or SEC. Each time we sell securities under the accompanying base prospectus we will provide a prospectus supplement that will contain specific information about the terms of that offering, including the price, the amount of common stock being offered and the plan of distribution. The shelf registration was declared effective by the SEC on May 28, 2009. This prospectus supplement describes the specific details regarding this offering, including the price, the amount of common stock being offered, the risks of investing in our common stock and the plan of distribution. The accompanying base prospectus provides general information about us, some of which, such as the section entitled "Plan of Distribution," may not apply to this offering.

If information in this prospectus supplement is inconsistent with the accompanying base prospectus or the information incorporated by reference, you should rely on this prospectus supplement. You should read both this prospectus supplement and the accompanying base prospectus together with the additional information about Research Frontiers Incorporated to which we refer you in the section of this prospectus supplement entitled "Available Information."

SUMMARY

You should read the entire prospectus, including the section entitled 'Risk Factors,' carefully before making an investment decision.

THE COMPANY

Research Frontiers Incorporated ("Research Frontiers" or the "Company") develops and licenses its suspended particle technology for controlling the amount of light passing through a device. Such

suspended particle devices are often referred to as "SPDs," "light valves, " or "SPD-Smart " products.

SPDs use microscopic light-absorbing particles that are either in a liquid suspension or a film. The microscopic particles align when an electrical voltage is applied. This permits light to pass through the device, and allows the amount of light to be controlled. Our offices are located at: 240 Crossways Park Drive, Woodbury, NY 11797 (telephone: 516-364-1902).

THE OFFERING

Common Stock issued by Research Frontiers: Common Stock Outstanding after this offering: 17,792,855 shares Warrants exercisable at \$6.25 per share: 128,205 warrants Use of Proceeds: Nasdaq Capital Market Symbol:

641,026 shares general corporate purposes REFR

The number of shares of common stock outstanding after this offering is based upon 17,151,829 shares outstanding as of September 16, 2010. It excludes outstanding options and warrants (not including the warrants issued in this offering) to purchase 2,432,579 shares of common stock, and options or other equity awards for 234,438 shares available for future issuance pursuant to the Company's 2008 Equity Incentive Plan.

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. 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:

History of Operating Losses.

Research Frontiers has a history of operating losses, expects to incur additional losses in the future, and consequently will need additional funds in the future to continue its operations. To date, Research Frontiers has lost money, and we expect to lose money in the foreseeable future. Because we expect that our future revenues will consist primarily of license fees (which have not been significant to date), unless our licensees produce and sell products using our technology, Research Frontiers will not be profitable. There is no quarantee that we will ever be profitable. Since Research Frontiers was started in 1965 through December 31, 2009, its total net loss was \$76,399,353. Our net loss was \$4,002,761 in 2009, \$2,594,843 in 2008, and \$7,565,218 in 2007 (which includes a non-cash accounting charge in 2007 of \$4,026,855 resulting from the expensing of stock options).

Source and Need for Capital.

We have funded our operations by selling our common stock to investors. If we need additional money, there is no guarantee that it will be available when we need it, or on favorable terms. The Company will need to raise additional capital no later than the third quarter of 2012 if operations, including research and development and marketing, are to be maintained at current levels and if its revenues do not increase before then. If the Company cannot raise additional funds, it will be required to reduce expenses during 2012. 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.

Dependence on Third Parties.

Research Frontiers depends upon the activities of its 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. Research Frontiers' SPD technology is currently licensed to 37 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. Also, we do not intend to manufacture products using SPD technology. Instead we intend to continue to license our SPD technology to manufacturers of end products, films and emulsion. We expect that our licensees would be primarily responsible for manufacturing and marketing SPD products and components, but we are also engaging in market development activities to support our licensees and build the smart glass industry.

Recent Introduction of Products Using the Company's Technology.

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 for such products using new technologies to rapidly penetrate mass market applications. Research Frontiers cannot control whether or not its 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 Research Frontiers profitable.

Dependence on SPD Technology.

Because SPD technology is the only technology Research Frontiers works 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.

AVAILABLE INFORMATION

Research Frontiers files reports, proxy statements and other information with the Securities and Exchange Commission. 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 Research Frontiers, that file electronically with the SEC. Additional information about us can also be found at our web site at http://www.SmartGlass.com.

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:

- o annual report on Form 10-K for the fiscal year ended December 31, 2009,
- o the portions of the proxy statement dated April 30, 2010 for our annual meeting of stockholders held on June 10, 2010 that have been incorporated by reference into our report on Form 10-K for the fiscal year ended December 31, 2009,
- o quarterly report on Form 10-Q for the fiscal quarter ended March 31, 2010 and June 30, 2010,
- o current reports on Form 8-K filed with the SEC on 1/25/10,2/16/10,3/3/10, and 4/6/10,5/19/10,6/14/10, and 9/17/10 and
- o 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 of common stock offered under this prospectus shall be deemed to be incorporated by reference into this prospectus.

This prospectus is part of a registration statement we filed with the SEC. As permitted by the SEC, this prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules thereto. The statements contained in this prospectus as to the contents of any contract or any other document are not necessarily complete. In each case you should refer to the copy of such contract or document filed as an exhibit to the registration statement.

We will provide each person to whom this prospectus is delivered, 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). We will provide this information without charge to any person, including a beneficial owner, to whom a copy of this prospectus is delivered upon written or oral request.

No dealer, salesperson or other individual has been authorized to give

any information or to make any representation not contained in or incorporated by reference in this prospectus or in any supplement to this prospectus. If given or made, you must not rely on such information or representation as having been authorized by Research Frontiers. Neither the delivery of this prospectus nor any sale made hereunder will, under any circumstances, create an implication that there has not been any change in the affairs of Research Frontiers since the date of this prospectus or that the information contained herein is correct or complete as of any time after the date of this prospectus.

This prospectus and any supplement to this prospectus do not constitute an offer to sell or a solicitation of an offer to buy any securities offered hereby to any person, or by anyone, in any jurisdiction in which such offer or solicitation may not lawfully be made.

The information set forth herein and in all publicly disseminated information about Research Frontiers, includes "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and is subject to the safe harbor created by that section. Readers are cautioned not to place undue reliance on these forward-looking statements as they speak only as of the date of this prospectus and are not guaranteed.

DIVIDENDS

Research Frontiers has never paid any cash dividends and does not expect to pay any cash dividends for the foreseeable future.

USE OF PROCEEDS

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.

DESCRIPTION OF SECURITIES

We may sell from time to time, in one or more offerings common stock and/or warrants to purchase common stock.

DESCRIPTION OF COMMON STOCK

Research Frontiers can issue 100,000,000 shares of common stock, \$0.0001 par value per share. 17,151,829 shares were outstanding as of the date of this prospectus and prior to giving effect to the share issued in this offering. Holders of common stock are entitled to one vote per share on matters submitted to shareholders for their approval, to dividends if declared by Research Frontiers, and to share in any distribution of Research Frontiers' assets. All outstanding shares of common stock are fully paid for and non-assessable. Holders of common stock do not have cumulative voting rights or preemptive rights. Therefore, a minority stockholder may be less able to gain representation on Research Frontiers' board of directors.

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.

DESCRIPTION OF WARRANTS

Each purchaser in this offering will receive a warrant to purchase one share of our common stock for every five shares of common stock purchased in this offering. The warrants will be issued pursuant to warrant agreements executed by us.

Each warrant will entitle the holder to purchase one share of common stock at an exercise price of \$6.25 per share. Holders of the warrants may exercise the warrants at any time from September 17, 2010 to 4:30 P.M. Woodbury, New York time on September 30, 2015, 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 unless a holder waives the provision, the warrantholder may not exercise the warrant to the extent that such execise will cause the warrantholder to beneficially own more than 4.999% of the common stock of the Company then outstanding. In no event may a warrantholder exercise warrants if such exercise shall cause the warrantholder to own more than 9.999% of the common stock of the Company then outstanding.

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. 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.

PLAN OF DISTRIBUTION

The Company directly placed the Units with the purchasers without a placement agent.

Each Unit consists of one share and one-fifth of a warrant to purchase common stock at an exercise price of \$6.25 per share. Assuming that the warrants are not exercised, the Company will receive gross proceeds of \$2,500,000 from the sale of 641,026 shares of Common Stock at a price of \$3.90 per share. Investors also received 128,205 Warrants in this offering.

The form of Subscription Agreement and Warrant Agreement are included as exhibits to our Current Report on Form 8-K that was filed with the Securities and Exchange Commission on September 17, 2010.

The transfer agent for our common stock is Continental Stock Transfer & Trust Company.

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

ELLED DUDGUANT TO DULE 424/b) (2)

FILED PURSUANT TO RULE 424(b)(2) REGISTRATION NO. 333-159093

PROSPECTUS SUPPLEMENT DATED MARCH 3,2010 TO PROSPECTUS DATED MAY 8,2009

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.

RESEARCH FRONTIERS INCORPORATED

588,602 Shares of Common Stock

117,719 Warrants to Purchase Common Stock at \$5.00 per Share

Research Frontiers Incorporated is selling to accredited investors a total of 588,602 shares of common stock and warrants expiring February 28, 2015 to purchase 117,719 shares of common stock at an exercise price of \$5.00 per share. This offering is part of a "shelf" registration statement that we have filed with the Securities and Exchange Commission which was declared effective by the SEC on May 28, 2009. The shelf registration statement covers the issuance of up to 3,000,000 shares of common stock, and/or warrants to purchase such common stock. Each time that we sell our securities under the registration statement, we will issue a prospectus supplement like this one, which includes the terms of the offering such as the price, terms and amount of securities being sold. We may sell these securities to or through underwriters and also to other purchasers or through agents. We will set forth the names of any underwriters or agents in the accompanying prospectus supplement.

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 March 2, 2010 was \$3.00.

Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 3.

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.

Per Unit(1) Total Offering Public Offering Price: \$2.75 \$1,618,653.00 Proceeds, before expenses, to us: \$2.75 \$1,618,653.00

(1) Each Unit consists of one share and one-fifth of a warrant expiring February 28, 2010 to purchase common stock at an exercise price of \$5.00 per share.

Delivery of the shares of common stock and warrants to the purchasers is expected to be made on or about March 3, 2010.

The date of this prospectus supplement is March 3,2010

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying base prospectus dated May 8, 2009 are part of a "shelf" registration statement that we have filed with the Securities and Exchange Commission, or SEC. Each time we sell securities under the accompanying base prospectus we will provide a prospectus supplement that will contain specific information about the terms of that offering, including the price, the amount of common stock being offered and the plan of distribution. The shelf registration was declared effective by the SEC on May 28, 2009. This prospectus supplement describes the specific details regarding this offering, including the price, the amount of common stock being offered, the risks of investing in our common stock and the plan of distribution. The accompanying base prospectus provides general information about us, some of which, such as the section entitled "Plan of Distribution," may not apply to this offering.

If information in this prospectus supplement is inconsistent with the accompanying base prospectus or the information incorporated by reference, you should rely on this prospectus supplement. You should read both this prospectus supplement and the accompanying base prospectus together with the additional information about Research Frontiers Incorporated to which we refer you in the section of this prospectus supplement entitled "Available Information."

SUMMARY

You should read the entire prospectus, including the section entitled 'Risk Factors,' carefully before making an investment decision.

THE COMPANY

Research Frontiers Incorporated ("Research Frontiers" or the "Company") develops and licenses its suspended particle technology for controlling the amount of light passing through a device. Such suspended particle devices are often referred to as "SPDs," "light valves, " or "SPD-Smart " products.

SPDs use microscopic light-absorbing particles that are either in a liquid suspension or a film. The microscopic particles align when an electrical voltage is applied. This permits light to pass through the device, and allows the amount of light to be controlled. Our offices are located at: 240 Crossways Park Drive, Woodbury, NY 11797 (telephone: 516-364-1902).

THE OFFERING

Common Stock issued by Research Frontiers: 588,602 shares
Common Stock Outstanding after this offering: 17,111,329 shares Warrants exercisable at \$5.00 per share: Use of Proceeds: Nasdaq Capital Market Symbol:

117,719 warrants general corporate purposes REFR

The number of shares of common stock outstanding after this offering is based upon 16,522,727 shares outstanding as of March 2, 2010. It excludes outstanding options and warrants (not including the warrants issued in this offering) to purchase 2,486,841 shares of common stock, and options or other equity awards for 234,438 shares available for future issuance pursuant to the Company's 2008 Equity Incentive Plan.

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. 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:

Research Frontiers has a history of operating losses, expects to incur additional losses in the future, and consequently will need additional funds in the future to continue its operations. To date, Research Frontiers has lost money, and we expect to lose money in the foreseeable future. Because we expect that our future revenues will consist primarily of license fees (which have not been significant to date), unless our licensees produce and sell products using our technology, Research Frontiers will not be profitable. There is no guarantee that we will ever be profitable. Since Research Frontiers was started in 1965 through December 31, 2009, its total net loss was \$76,399,353. Our net loss was \$4,002,761 in 2009, \$2,594,843 in 2008, and \$7,565,218 in 2007 (which includes a non-cash accounting charge in

2007 of \$4,026,855 resulting from the expensing of stock options).

We have funded our operations by selling our common stock to investors. If we need additional money, there is no guarantee that it will be available when we need it, or on favorable terms. The Company will need to raise additional capital no later than the first quarter of 2011 if operations, including research and development and marketing, are to be maintained at current levels and if its revenues do not increase before then. If the Company cannot raise additional funds, it will be required to reduce expenses during 2010. 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.

Research Frontiers depends upon the activities of its 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. Research Frontiers' SPD technology is currently licensed to 37 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. Also, we do not intend to manufacture products using SPD technology. Instead we intend to continue to license our SPD technology to manufacturers of end products, films and emulsion. We expect that our licensees would be primarily responsible for manufacturing and marketing SPD products and components, but we are also engaging in market development activities to support our licensees and build the smart glass industry.

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 for such products using new technologies to rapidly penetrate mass market applications. Research Frontiers cannot control whether or not its 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 Research Frontiers profitable.

Because SPD technology is the only technology Research Frontiers works 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.

AVAILABLE INFORMATION

Research Frontiers files reports, proxy statements and other information with the Securities and Exchange Commission. 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 Research Frontiers, that file electronically with the SEC. Additional information about us can also be found at our web site at http://www.SmartGlass.com.

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:

- o annual report on Form 10-K for the fiscal year ended December 31, 2008,
- o the portions of the proxy statement dated April 30, 2009 for our annual meeting of stockholders held on June 11, 2009 that have been incorporated by reference into our report on Form 10-K for the fiscal year ended December 31, 2008,
- o quarterly report on Form 10-Q for the fiscal quarter ended March 31, 2009, June 30, 2009 and September 30, 2009,
- o current reports on Form 8-K filed with the SEC on 2/11/09, 3/2/09, 4/1/09, 4/30/09, 5/11/09,6/12/09,6/15/09,6/16/09,7/29/09,8/3/09, 9/4/09, 9/15/09,10/23/09,10/27/09,10/228/09,11/12/09,12/16/09,12/18/09, 1/25/10 and 2/16/10, and
- o 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 of common stock offered under this prospectus shall be deemed to be incorporated by reference into this prospectus.

This prospectus is part of a registration statement we filed with the SEC. As permitted by the SEC, this prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules thereto. The statements contained in this prospectus as to the contents of any contract or any other document are not necessarily complete. In each case you should refer to the copy of such contract or document filed as an exhibit to the registration statement.

We will provide each person to whom this prospectus is delivered, 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). We will provide this information without charge to any person, including a beneficial owner, to whom a copy of this prospectus is delivered upon written or oral request.

No dealer, salesperson or other individual has been authorized to give any information or to make any representation not contained in or incorporated by reference in this prospectus or in any supplement to this

prospectus. If given or made, you must not rely on such information or representation as having been authorized by Research Frontiers. Neither the delivery of this prospectus nor any sale made hereunder will, under any circumstances, create an implication that there has not been any change in the affairs of Research Frontiers since the date of this prospectus or that the information contained herein is correct or complete as of any time after the date of this prospectus.

This prospectus and any supplement to this prospectus do not constitute an offer to sell or a solicitation of an offer to buy any securities offered hereby to any person, or by anyone, in any jurisdiction in which such offer or solicitation may not lawfully be made.

The information set forth herein and in all publicly disseminated information about Research Frontiers, includes "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and is subject to the safe harbor created by that section. Readers are cautioned not to place undue reliance on these forward-looking statements as they speak only as of the date of this prospectus and are not guaranteed.

DIVIDENDS

Research Frontiers has never paid any cash dividends and does not expect to pay any cash dividends for the foreseeable future.

USE OF PROCEEDS

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.

DESCRIPTION OF SECURITIES

We may sell from time to time, in one or more offerings common stock and/or warrants to purchase common stock.

DESCRIPTION OF COMMON STOCK

Research Frontiers can issue 100,000,000 shares of common stock, \$0.0001 par value per share. 16,522,727 shares were outstanding as of the date of this prospectus and prior to giving effect to the share issued in this offering. Holders of common stock are entitled to one vote per share on matters submitted to shareholders for their approval, to dividends if declared by Research Frontiers, and to share in any distribution of Research Frontiers' assets. All outstanding shares of common stock are fully paid for and non-assessable. Holders of common stock do not have cumulative voting rights or preemptive rights. Therefore, a minority stockholder may be less able to gain representation on Research Frontiers' board of directors.

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.

DESCRIPTION OF WARRANTS

Each purchaser in this offering will receive a warrant to purchase one share of our common stock for every five shares of common stock purchased in this offering. The warrants will be issued pursuant to warrant agreements executed by us.

Each warrant will entitle the holder to purchase one share of common stock at an exercise price of \$5.00 per share. Holders of the warrants may exercise the warrants at any time from March 1, 2010 to 4:30 P.M. Woodbury, New York time on February 28, 2015, 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 unless a holder waives the provision, the warrantholder may not exercise the warrant to the extent that such execise will cause the warrantholder to beneficially own more than 4.999% of the common stock of the Company then outstanding. In no event may a warrantholder exercise warrants if such exercise shall cause the warrantholder to own more than 9.999% of the common stock of the Company then outstanding.

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. 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.

PLAN OF DISTRIBUTION

The Company directly placed the Units with the purchasers without a placement agent.

Each Unit consists of one share and one-fifth of a warrant to purchase common stock at an exercise price of \$5.00

per share. Assuming that the warrants are not exercised, the Company will receive gross proceeds of \$1,618,653 from the sale of 588,602 shares of Common Stock at a price of \$2.75 per share. Investors also received 117,719 Warrants in this offering.

The form of Subscription Agreement and Warrant Agreement are included as exhibits to our Current Report on Form 8-K that was filed with the Securities and Exchange Commission on March 3, 2010.

The transfer agent for our common stock is Continental Stock Transfer & Trust Company.

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

FILED PURSUANT TO RULE 424(b)(2) REGISTRATION NO. 333-159093

PROSPECTUS SUPPLEMENT DATED AUGUST 3,2009
TO PROSPECTUS DATED MAY 8,2009

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.

RESEARCH FRONTIERS INCORPORATED

780,831 Shares of Common Stock

156,161 Warrants to Purchase Common Stock at \$6.00 per Share

Research Frontiers Incorporated is selling to accredited investors a total of 780,831 shares of common stock and warrants expiring July 31, 2014 to purchase 156,161 shares of common stock at an exercise price of \$6.00 per share. This offering is part of a "shelf" registration statement that we have filed with the Securities and Exchange Commission which was declared effective by the SEC on May 28, 2009. The shelf registration statement covers the issuance of up to 3,000,000 shares of common stock, and/or warrants to purchase such common stock. Each time that we sell our securities under the registration statement, we will issue a prospectus supplement like this one, which includes the terms of the offering such as the price, terms and amount of securities being sold. We may sell these securities to or through underwriters and also to other purchasers or through agents. We will set forth the names of any underwriters or agents in the accompanying prospectus supplement.

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 July 31, 2009 was \$3.85.

Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 3.

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.

	Per Unit(1)	Total Offering
Public Offering Price:	\$3.65	\$2,850,000.00
Proceeds, before expenses,	to us: \$3.65	\$2,850,000.00

(1) Each Unit consists of one share and one-fifth of a warrant expiring July 31, 2014 to purchase common stock at an exercise price of \$6.00 per share.

Delivery of the shares of common stock and warrants to the purchasers is expected to be made on or about August 4, 2009.

The date of this prospectus supplement is August 3,2009

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying base prospectus dated May 8, 2009 are part of a "shelf" registration statement that we have filed with the Securities and Exchange Commission, or SEC. Each time we sell securities under the accompanying base prospectus we will provide a prospectus supplement that will contain specific information about the terms of that offering, including the price, the amount of common stock being offered and the plan of distribution. The shelf registration was declared effective by the SEC on May 28, 2009. This prospectus supplement describes the specific details regarding this offering, including the price, the amount of common stock being offered, the risks of investing in our common stock and the plan of distribution. The accompanying base prospectus provides general information about us, some of which, such as the section entitled "Plan of Distribution," may not apply to this offering.

If information in this prospectus supplement is inconsistent with the accompanying base prospectus or the information incorporated by reference, you should rely on this prospectus supplement. You should read both this prospectus supplement and the accompanying base prospectus together with the additional information about Research Frontiers Incorporated to which we refer you in the section of this prospectus supplement entitled "Available Information."

SUMMARY

You should read the entire prospectus, including the section entitled 'Risk Factors,' carefully before making an investment decision.

THE COMPANY

Research Frontiers Incorporated ("Research Frontiers" or the "Company") develops and licenses its suspended particle technology for controlling the amount of light passing through a device. Such suspended particle devices are often referred to as "SPDs," "light valves, " or "SPD-Smart " products.

SPDs use microscopic light-absorbing particles that are either in a liquid suspension or a film. The microscopic particles align when an electrical voltage is applied. This permits light to pass through the device, and allows the amount of light to be controlled. Our offices are located at: 240 Crossways Park Drive, Woodbury, NY 11797 (telephone: 516-364-1902).

THE OFFERING

Common Stock issued by Research Frontiers: 780,831 shares Common Stock Outstanding after this offering: 16,522,727 shares Warrants exercisable at \$6.00 per share: Use of Proceeds: Nasdaq Capital Market Symbol:

156,161 warrants general corporate purposes REFR

The number of shares of common stock outstanding after this offering is based upon 15,741,896 shares outstanding as of July 31,2009. It excludes outstanding options and warrants (not including the warrants issued in this offering) to purchase 2,232,180 shares of common stock, and options or other equity awards for 450,938 shares available for future issuance pursuant to the Company's 2008 Equity Incentive Plan.

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. 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:

Research Frontiers has a history of operating losses, expects to incur additional losses in the future, and consequently will need additional funds in the future to continue its operations. To date, Research Frontiers has lost money, and we expect to lose money in the foreseeable future. Because we expect that our future revenues will consist primarily of license fees (which have not been significant to date), unless our licensees produce and sell products using our technology, Research Frontiers will not be profitable. There is no guarantee that we will ever be profitable. Since Research Frontiers was started in 1965 through December 31, 2008, its total net loss was \$72,396,592. Our net loss was \$2,594,843 in 2008, \$7,565,218 in 2007 (which includes a non-cash accounting charge of \$4,026,855 resulting from the expensing of stock options), and \$3,303,633 in 2006.

We have funded our operations by selling our common stock to investors. If we need additional money, there is no guarantee that it will be available when we need it, or on favorable terms. The Company will need to raise additional capital no later than the first quarter of 2010 if operations, including research and development and marketing, are to be maintained at current levels and if its revenues do not increase before then. If the Company cannot raise additional funds, it will be required to reduce expenses during 2009. 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.

Research Frontiers depends upon the activities of its 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 since 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. Research Frontiers' SPD technology is currently licensed to 35 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. Also, we do not intend to manufacture $% \left(1\right) =\left(1\right) \left(1\right)$ products using SPD technology. Instead we intend to continue to license our SPD technology to manufacturers of end products, films and emulsion. We expect that our licensees would be primarily responsible for manufacturing and marketing SPD products and components, but we are also engaging in market development activities to support our licensees and build the smart glass industry.

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. Research Frontiers cannot control whether or not its 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 Research Frontiers profitable.

Because SPD technology is the only technology Research Frontiers works 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.

AVAILABLE INFORMATION

Research Frontiers files reports, proxy statements and other information with the Securities and Exchange Commission. 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 Research Frontiers, that file electronically with the SEC. Additional information about us can also be found at our web site at http://www.SmartGlass.com.

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:

- o annual report on Form 10-K for the fiscal year ended December 31, 2008,
- o the portions of the proxy statement dated April 30, 2009 for our annual meeting of stockholders to be held on June 11, 2009 that have been incorporated by reference into our report on Form 10-K for the fiscal year ended December 31, 2008,
- o quarterly report on Form 10-Q for the fiscal quarter ended March 31, 2009,
- o current report on Form 8-K filed with the SEC on April 30, 2009, May 11, 2009, June 12, 2009, June 15, 2009, June 16, 2009, and July 29, 2009, and
- o 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 of common stock offered under this prospectus shall be deemed to be incorporated by reference into this prospectus.

This prospectus is part of a registration statement we filed with the SEC. As permitted by the SEC, this prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules thereto. The statements contained in this prospectus as to the contents of any contract or any other document are not necessarily complete. In each case you should refer to the copy of such contract or document filed as an exhibit to the registration statement.

We will provide each person to whom this prospectus is delivered, 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). We will provide this information without charge to any person, including a beneficial owner, to whom a copy of this prospectus is delivered upon written or oral request.

No dealer, salesperson or other individual has been authorized to give any information or to make any representation not contained in or incorporated by reference in this prospectus or in any supplement to this prospectus. If given or made, you must not rely on such information or representation as having been authorized by Research Frontiers. Neither the delivery of this prospectus nor any sale made hereunder will, under any circumstances, create an implication that there has not been any change in the affairs of Research Frontiers since the date of this

prospectus or that the information contained herein is correct or complete as of any time after the date of this prospectus.

This prospectus and any supplement to this prospectus do not constitute an offer to sell or a solicitation of an offer to buy any securities offered hereby to any person, or by anyone, in any jurisdiction in which such offer or solicitation may not lawfully be made.

The information set forth herein and in all publicly disseminated information about Research Frontiers, includes "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and is subject to the safe harbor created by that section. Readers are cautioned not to place undue reliance on these forward-looking statements as they speak only as of the date of this prospectus and are not guaranteed.

DIVIDENDS

Research Frontiers has never paid any cash dividends and does not expect to pay any cash dividends for the foreseeable future.

USE OF PROCEEDS

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.

DESCRIPTION OF SECURITIES

We may sell from time to time, in one or more offerings common stock and/or warrants to purchase common stock.

DESCRIPTION OF COMMON STOCK

Research Frontiers can issue 100,000,000 shares of common stock, \$0.0001 par value per share. 15,741,896 shares were outstanding as of the date of this prospectus and prior to giving effect to the share issued in this offering. Holders of common stock are entitled to one vote per share on matters submitted to shareholders for their approval, to dividends if declared by Research Frontiers, and to share in any distribution of Research Frontiers' assets. All outstanding shares of common stock are fully paid for and non-assessable. Holders of common stock do not have cumulative voting rights or preemptive rights. Therefore, a minority stockholder may be less able to gain representation on Research Frontiers' board of directors.

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.

DESCRIPTION OF WARRANTS

Each purchaser in this offering will receive a warrant to purchase one share of our common stock for every five shares of common stock purchased in this offering. The warrants will be issued pursuant to warrant agreements executed by us.

Each warrant will entitle the holder to purchase one share of common stock at an exercise price of \$6.00 per share. Holders of the warrants may exercise the warrants at any time from July 29, 2009 to 4:30 P.M. Woodbury, New York time on July 31, 2014, 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 unless a holder waives the provision, the warrantholder may not exercise the warrant to the extent that such execise will cause the warrantholder to beneficially own more than 4.999% of the common stock of the Company then outstanding. In no event may a warrantholder exercise warrants if such exercise shall cause the warrantholder to own more than 9.999% of the common stock of the Company then outstanding.

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. 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.

PLAN OF DISTRIBUTION

The Company directly placed the Units with the purchasers without a placement agent.

Each Unit consists of one share and one-fifth of a warrant to purchase common stock at an exercise price of \$6.00 per share. Assuming that the warrants are not exercised, the Company will receive gross proceeds of \$2,850,000 from the sale of 780,831 shares of Common Stock at a price of \$3.65 per share. Investors also received 156,161 Warrants in this offering.

The form of Subscription Agreement and Warrant Agreement are included as exhibits to our Current Report on Form 8-K that was filed with the Securities and Exchange Commission on August 3, 2009.

The transfer agent for our common stock is Continental Stock Transfer & Trust Company.

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

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

PROSPECTUS

SUBJECT TO COMPLETION, DATED MAY 8, 2009

RESEARCH FRONTIERS INCORPORATED

3,000,000 Shares

Common Stock

Research Frontiers Incorporated may from time to time issue up to 3,000,000 shares of common stock, and/or warrants to purchase such common stock. A general description of the known material terms of the securities we are offering is included herein. We will specify in an accompanying prospectus supplement any specific material terms of the securities offered which are unknown as of the date of this prospectus. We may sell these securities to or through underwriters and also to other purchasers or through agents. We will set forth the names of any underwriters or agents in the accompanying prospectus supplement.

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 May 7, 2009 was \$3.13.

Investing in our common stock involves a high degree of risk. See 'Risk Factors' beginning on page 3.

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 , 2009

SUMMARY

You should read the entire prospectus, including the section entitled 'Risk Factors,' carefully before making an investment decision.

THE COMPANY

Research Frontiers Incorporated ("Research Frontiers" or the "Company") develops and licenses its suspended particle technology for controlling the amount of light passing through a device. Such suspended particle devices are often referred to as "SPDs," "light valves," or "SPD-Smart " products.

SPDs use microscopic light-absorbing particles that are either in a liquid suspension or a film. The microscopic particles align when an electrical voltage is applied. This permits light to pass through the device, and allows the amount of light to be controlled. Our offices are located at: 240 Crossways Park Drive, Woodbury, NY 11797 (telephone: 516-364-1902).

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. 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:

Research Frontiers has a history of operating losses, expects to incur additional losses in the future, and consequently will need additional funds in the future to continue its operations. To date, Research Frontiers has lost money, and we expect to lose money in the foreseeable future. Because we expect that our future revenues will consist primarily of license fees (which have not been significant to date), unless our licensees produce and sell products using our technology, Research Frontiers will not be profitable. There is no guarantee that we will ever be profitable. Since Research Frontiers was started in 1965 through December 31, 2008, its total net loss was \$72,396,592. Our net loss was \$2,594,843 in 2008, \$7,565,218 in 2007 (which includes a non-cash accounting charge of \$4,026,855 resulting from the expensing of stock options), and \$3,303,633 in 2006.

We have funded our operations by selling our common stock to investors. If we need additional money, there is no guarantee that it will be available when we need it, or on favorable terms. The Company will need to raise additional capital no later than the first quarter of 2010 if operations,

including research and development and marketing, are to be maintained at current levels and if its revenues do not increase before then. If the Company cannot raise additional funds, it will be required to reduce expenses during 2009. 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.

Research Frontiers depends upon the activities of its 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 since 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. Research Frontiers' SPD technology is currently licensed to 35 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. Also, we do not intend to manufacture products using SPD technology. Instead we intend to continue to license our SPD technology to manufacturers of end products, films and emulsion. We expect that our licensees would be primarily responsible for manufacturing and marketing SPD products and components, but we are also engaging in market development activities to support our licensees and build the smart glass industry.

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. Research Frontiers cannot control whether or not its 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 Research Frontiers profitable.

Because SPD technology is the only technology Research Frontiers works 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.

AVAILABLE INFORMATION

Research Frontiers files reports, proxy statements and other information with the Securities and Exchange Commission. 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 Research Frontiers, that file electronically with the SEC. Additional information about us can also be found at our web site at http://www.SmartGlass.com.

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:

- o annual report on Form 10-K for the fiscal year ended December 31, 2008,
- o the portions of the proxy statement dated April 30, 2009 for our annual meeting of stockholders to be held on June 11, 2009 that have been incorporated by reference into our report on Form 10-K for the fiscal year ended December 31, 2008,
- o current report on Form 8-K filed with the SEC on April 30, 2009, and
- o 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 of common stock offered under this prospectus shall be deemed to be incorporated by reference into this prospectus.

This prospectus is part of a registration statement we filed with the SEC. As permitted by the SEC, this prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules thereto. The statements contained in this prospectus as to the contents of any contract or any other document are not necessarily complete. In each case you should refer to the copy of such contract or document filed as an exhibit to the registration statement.

We will provide each person to whom this prospectus is delivered, 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). We will provide this information without charge to any person, including a beneficial owner, to whom a copy of this prospectus is delivered upon written or oral request.

No dealer, salesperson or other individual has been authorized to give any information or to make any representation not contained in or incorporated by reference in this prospectus or in any supplement to this prospectus. If given or made, you must not rely on such information or representation as having been authorized by Research Frontiers. Neither the delivery of this prospectus nor any sale made hereunder will, under any circumstances, create an implication that there has not been any change in the affairs of Research Frontiers since the date of this prospectus or that the information contained herein is correct or complete as of any time after the date of this prospectus.

This prospectus and any supplement to this prospectus do not constitute an offer to sell or a solicitation of an offer to buy any securities offered hereby to any person, or by anyone, in any jurisdiction in which such offer or solicitation may not lawfully be made.

The information set forth herein and in all publicly disseminated

information about Research Frontiers, includes "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and is subject to the safe harbor created by that section. Readers are cautioned not to place undue reliance on these forward-looking statements as they speak only as of the date of this prospectus and are not guaranteed.

DIVIDENDS

Research Frontiers has never paid any cash dividends and does 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.

DESCRIPTION OF SECURITIES

We may sell from time to time, in one or more offerings common stock and/or warrants to purchase common stock.

DESCRIPTION OF COMMON STOCK

Research Frontiers can issue 100,000,000 shares of common stock, \$0.0001 par value per share. 15,742,784 shares were outstanding as of the date of this prospectus. Holders of common stock are entitled to one vote per share on matters submitted to shareholders for their approval, to dividends if declared by Research Frontiers, and to share in any distribution of Research Frontiers' assets. All outstanding shares of common stock are fully paid for and non-assessable. Holders of common stock do not have cumulative voting rights or preemptive rights. Therefore, a minority stockholder may be less able to gain representation on Research Frontiers' board of directors.

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.

DESCRIPTION OF WARRANTS

The following description sets forth certain general terms and provisions of the warrants 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.

General

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;
- -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.

Exercise of Warrants

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.

PLAN OF DISTRIBUTION

We may sell the securities being offered hereby in one or more of the following ways from time to time:

- -through dealers or agents to the public or to investors;
- -to underwriters for resale to the public or to investors;
- directly to investors; or
- through a combination of such methods.

We will set forth in a prospectus supplement the terms of the offering of securities, including:

- the name or names of any agents, dealers or underwriters;
- the purchase price of the securities being offered and the proceeds we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents' or underwriters' compensation;
- any initial public offering price;
- $\mbox{-}$ any discounts or concessions allowed or reallowed or paid to dealers; and
- any securities exchanges on which the securities may be listed if it is other than the Nasdaq Capital Market.

Underwriters, dealers and agents that participate in the distribution of the securities may be deemed to be underwriters as defined in the Securities Act and any discounts or commissions they receive from us and any profit on their resale of the securities may be treated as underwriting discounts and commissions under the Securities Act. We will identify in the applicable prospectus supplement any underwriters, dealers or agents and will describe their compensation. We may have agreements with the underwriters, dealers and agents to indemnify them against specified civil liabilities, including liabilities under the Securities Act. Underwriters, dealers and agents may engage in transactions with or perform services for us or our subsidiaries in the ordinary course of their businesses. Certain persons that participate in the distribution of the securities may engage in transactions that stabilize, maintain or otherwise affect the price of the securities, including over-allotment, stabilizing and short-covering transactions in such securities, and the imposition of penalty bids, in connection with an offering. Certain persons may also engage in passive market making transactions as permitted by Rule 103 of Regulation M. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display

its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded.

EXPERTS

The financial statements and schedule of Research Frontiers as of December 31, 2008 and 2007, and for each of the three years in the period ended December 31, 2008, and management's assessment of the effectiveness over internal controls as of December 31, 2008, incorporated by reference into this prospectus have been so incorporated in reliance upon the reports of BDO Seidman, 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 Joseph M. Harary, Esq., the President and General Counsel. As of May 7, 2009, Mr. Harary holds common stock and options to purchase common stock granted pursuant to the Company's 1992 Stock Option Plan, 1998 Stock Option Plan, and 2008 Equity Incentive Plan totaling 663,341 shares.