REPROS THERAPEUTICS INC.
Form 424B5
September 29, 2008

Table of Contents

This filing is made pursuant to Rule 424(b)(5)
under the Securities Act of 1933, as amended, in connection
with Registration No. 333-137109
and Registration No. 333-153727

2,400,000 Shares
$6.50 per share
Common Stock

We are offering 2,400,000 shares of our common stock.

Our common stock is listed on the Nasdaq Global Market under the symbol RPRX. On September 26, 2008, the last reported sale price of our common stock on the Nasdaq Global Market was $6.08 per share.

Investing in our common stock involves risks. See Risk Factors beginning on page S-4 of this prospectus supplement.

	Per Share	Total
Price to the public and proceeds, before expenses, to Repros Therapeutics Inc.	$6.50	$15,600,000

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

We expect to deliver shares against payment in New York, New York on or about October 3, 2008.

The date of this prospectus supplement (to the prospectus dated September 5, 2006) is September 29, 2008.

Table of Contents

Prospectus Supplement

Prospectus

About this Prospectus Supplement

We provide information to you about this offering of shares of our common stock in two separate documents that are bound together: (1) this prospectus supplement, which describes the specific details regarding this offering; and (2) the accompanying prospectus, which provides general information, some of which may not apply to this offering. Generally, when we refer to this prospectus, we are referring to both documents combined. If information in this prospectus supplement is inconsistent with the accompanying prospectus, you should rely on this prospectus supplement.

You should rely only on information contained in or incorporated by reference into this prospectus supplement and the accompanying prospectus. We have not authorized anyone to provide you with information that is different. We are offering to sell and seeking offers to buy shares of our common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein are accurate only as of their respective dates, regardless of the time of delivery of this prospectus supplement or of any sale of our common stock.

Proellex™ and Androxal™ are our trademarks. This prospectus supplement and the accompanying prospectus also contain trademarks, trade names and service marks of other companies, which are the property of their respective owners.

Table of Contents

Prospectus Supplement Summary

This summary highlights selected information contained elsewhere or incorporated by reference in this prospectus supplement and the accompanying prospectus. This summary may not contain all the information that you should consider before investing in our common stock. You should read the entire prospectus supplement and the accompanying prospectus carefully, including Risk Factors contained in this prospectus supplement and the financial statements incorporated by reference in the accompanying prospectus, before making an investment decision. This prospectus supplement may add to, update or change information in the accompanying prospectus.

Repros Therapeutics Inc.

Overview

Repros Therapeutics Inc. (the Company , or we, us or our), was organized on August 28, 1987. We are a development stage biopharmaceutical company focused on the development of oral small molecule drugs to treat male and female reproductive disorders.

Our current product pipeline consists of the following (with the respective status of development):

Proellex® (female reproductive health)

- Phase 3 three-month short course treatment of symptomatic uterine fibroids associated with anemia in women who may consider having a subsequent hysterectomy
- Phase 3 for the chronic treatment of symptomatic uterine fibroids
- Phase 2 for the treatment of symptomatic endometriosis

Androxal® (male reproductive health)

- Phase 2b proof-of-concept trial in men with low testosterone levels wanting to improve or maintain their fertility and/or sperm number and function
- Planned Phase 2b proof-of-concept trial to treat men with AIHH, with concomitant plasma glucose elevations

Proellex

Our lead drug, Proellex, is a selective progesterone receptor modulator (PRM) and is being developed for the treatment of symptoms associated with uterine fibroids and endometriosis. We are also developing Proellex as a short course pre-surgical treatment for anemia associated with excessive menstrual bleeding related to uterine fibroids. During the first quarter of 2008, we filed an Investigational New Drug Application, or IND, for Proellex for the treatment of anemia associated with uterine fibroids and also initiated two 65-patient Phase 3 pivotal clinical trials with Proellex for this indication. Our goal is to file a New Drug Application, or NDA, for this indication as soon as practicable in 2009.

During the first quarter of 2008, we initiated two 75 patient Phase 3 pivotal clinical trials with Proellex for the chronic treatment of uterine fibroids and anticipate filing a NDA for this indication in the fourth quarter of 2009. In addition, during the first quarter of 2008, we also initiated two 400 patient Proellex Open Label Safety Studies. We intend to complete patient enrollment for one 400 patient Open Label Safety Study and then start enrollment in the second Open Label Safety study.

The initiation of these Phase 3 clinical trials and Open Label Studies included awarding the trials to three clinical research organizations, the process of identifying and contracting the clinical sites to be used as well as other various activities required to complete these clinical trials. During the second quarter of 2008 we implemented a centralized patient recruitment advertisement campaign for our Phase 3 Proellex clinical trials and in July 2008 we have taken the necessary steps to begin additional patient recruitment advertising for one of our 400 patient Proellex Open Label Safety Studies.

We are also currently conducting a Phase 2 clinical trial with Proellex for the treatment of endometriosis. We provided initial interim data from this trial in July 2008 which showed that severe pain, the most troublesome symptom associated with endometriosis, was significantly reduced in one to two months of treatment.

Uterine fibroids, anemia associated with uterine fibroids and endometriosis affect a significant number of women of childbearing age in the developed world. There is no currently approved effective long-term drug treatment for uterine fibroids or endometriosis. In the United States alone, 300,000 women per year undergo a hysterectomy as a result of severe uterine fibroids.

In addition to the clinical trials discussed above, we are also conducting other human clinical trials and animal safety studies

with Proellex to support our future NDA submissions.

Androxal

Our second product candidate, Androxal, is a single isomer of clomiphene citrate and is an orally active proprietary small molecule compound.

During the second quarter of 2008 we initiated a Phase 2b Androxal clinical trial in men of reproductive age with low testosterone levels who want to improve or maintain their fertility and/or sperm function while being treated for low testosterone. This trial includes a control group that will be given Testim®, a popular testosterone replacement therapy. We believe Androxal will be superior to the existing drugs used to normalize testosterone as, to our knowledge, only Androxal has the property of restoring both luteinizing hormone, or LH, and follicle stimulating hormone, or FSH, levels. LH and FSH are the pituitary hormones that stimulate testicular testosterone and sperm production, respectively. According to the Urology Channel, recent estimates show that approximately 13 million men in the United States experience testosterone deficiency.

During the second half of 2008, pending input from the U.S. Food and Drug Administration, or FDA, we intend to initiate a Phase 2b clinical trial in men with low testosterone and adult-onset idiopathic hypogonadotrophic hypogonadism, or AIHH, with concomitant plasma glucose and lipid elevations, all of which are components of metabolic syndrome. Recent published studies in older men show a link of low testosterone with higher incidences of insulin resistance, diabetes and consequently mortality rates. Based on a retrospective review of our previously completed six-month clinical trial with Androxal for the treatment of low testosterone due to secondary hypogonadism, our findings showed that Androxal therapy resulted in a significant reduction in mean glucose levels in men with a body mass index, or BMI, greater than 26 and glucose levels greater than 104 md/dL, an outcome not seen in the placebo or AndroGel® arms of this study. AndroGel® is the current leading therapy for testosterone replacement.

In addition to the clinical trials discussed above we are also conducting a long-term Open Label Safety Study and animal safety studies with Androxal to support our future NDA submissions.

General

We continue to maintain our patent portfolio of our phentolamine-based products for the treatment of sexual dysfunction.

The clinical development of pharmaceutical products is a complex undertaking, and many products that begin the clinical development process do not obtain regulatory approval. The costs associated with our clinical trials may be impacted by a number of internal and external factors, including the number and complexity of clinical trials necessary to obtain regulatory approval, the number of eligible patients necessary to complete our clinical trials and any difficulty in enrolling these patients, and the length of time to complete our clinical trials. Given the uncertainty of these potential costs, we recognize that the total costs we will incur for the clinical development of our product candidates may exceed our current estimates. We do, however, expect these costs to increase substantially in future periods as we continue later-stage clinical development trials. Any failure by us to obtain, or any delay in obtaining, regulatory approvals could cause our research and development expenditures to increase and, in turn, have a material adverse effect on our results of operations.

Corporate Information

Our principal executive offices are located at 2408 Timberloch Place, Suite B-7, The Woodlands, Texas 77380 and our telephone number is (281) 719-3400. Our website address is www.reprosrx.com. The information contained in our website is not a part of this prospectus supplement or the accompanying prospectus.

Table of Contents

	The Offering
Common stock offered by Repros	2,400,000 shares
Common stock to be outstanding after this offering	15,174,904 shares
Use of proceeds	We intend to use the net proceeds from this offering for preclinical studies, clinical trials and regulatory submissions of our product candidates, and for general corporate purposes.
Nasdaq Global Market symbol	RPRX

The number of shares of common stock to be outstanding immediately after this offering is based on the number of shares outstanding as of June 30, 2008, which was 12,774,904 shares, and does not include:

- 1,663,565 shares of common stock issuable upon the exercise of outstanding options at a weighted average exercise price of $5.02 per share; and
- 320,744 shares of common stock available for future issuance under our stock option plans.

Table of Contents

Risk Factors

Investing in our common stock involves a high degree of risk. You should carefully consider the risks described below and all other information contained in or incorporated by reference in this prospectus supplement and the accompany prospectus, including the risk factors discussed in the section entitled Risk Factors contained in our most recent Annual Report on Form 10-K for the year ended December 31, 2007, before making an investment decision. You should also refer to the other information in this prospectus supplement and the accompanying prospectus, including our financial statements and the related notes incorporated by reference in the accompanying prospectus. The risks and uncertainties described in these sections and documents are not the only risks and uncertainties we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations. If any of the these risks actually occur, our business, results of operations and financial condition could suffer. In that event the trading price of our common stock could decline, and you may lose all or part of your investment in our common stock. This prospectus supplement, the accompanying prospectus and the incorporated documents also include forward-looking statements and our actual results may differ substantially from those discussed in these forward-looking statements, including the risks mentioned above.

Risks Relating to our Securities

Our stock price will likely be volatile, and your investment in our stock could decline in value.

Our stock price has fluctuated historically. From January 1, 2008 to September 26, 2008, the market price of our stock was as low as $5.31 per share and as high as $11.09 per share.

Very few biotechnology drug candidates being tested will ultimately receive FDA approval, and a biotechnology company may experience a significant drop in its stock price based on a clinical trial result or regulatory action. Our stock price may fluctuate significantly, depending on a variety of factors, including:

- the success or failure of, or other results or decisions affecting, our clinical trials;
- the timing of the discovery of drug leads and the development of our drug candidates;
- the entrance into a new collaboration or the modification or termination of an existing collaboration;
- changes in our research and development budget or the research and development budgets of our existing or potential collaborators;
- the introduction of new drug discovery techniques or the introduction or withdrawal of drugs by others that target the same diseases and conditions that we or our collaborators target;
- regulatory actions;
- expenses related to, and the results of, litigation and other proceedings relating to intellectual property rights or other matters; and
- accounting changes, including the expense impact of SFAS No. 123R.

We are not able to control all of these factors. Period-to-period comparisons of our financial results are not necessarily indicative of our future performance. In addition, if our revenues or results of operations in a particular period do not meet stockholders or analysts expectations, our stock price may decline and such decline could be significant.

There are a substantial number of shares of our common stock eligible for future sale in the public market, and the sale of these shares could cause the market price of our common stock to fall.

There were 12,774,904 shares of our common stock outstanding as of September 26, 2008. In addition, as of June 30, 2008, there were options to purchase 1,663,565 shares of our common stock issued and outstanding under all of our stock option plans at a weighted average exercise price of $5.02, 266,326 additional shares of common stock issuable under our 2004 Stock Option Plan and 54,418 shares of common stock reserved for issuance under our 2000

Non-Employee Director Stock Option Plan. A substantial number of the shares described above, when issued upon exercise, will be available for immediate resale in the public market. The market price of our common stock could decline as a result of such resales due to the increased number of shares available for sale in the market.

Any future equity or debt issuances by us may have dilutive or adverse effects on our existing stockholders.

Table of Contents

We have financed our operations, and we expect to continue to finance our operations, primarily by issuing and selling our common stock or securities convertible into or exercisable for shares of our common stock. In light of our need for additional financing, we may issue additional shares of common stock or convertible securities that could dilute your ownership in our company and may include terms that give new investors rights that are superior to yours. Moreover, any issuances by us of equity securities may be at or below the prevailing market price of our common stock and in any event may have a dilutive impact on your ownership interest, which could cause the market price of our common stock to decline.

We may also raise additional funds through the incurrence of debt, and the holders of any debt we may issue would have rights superior to your rights in the event we are not successful and are forced to seek the protection of bankruptcy laws.

Our largest stockholders may take actions that are contrary to your interests, including selling their common stock.

A small number of our stockholders hold a significant amount of our outstanding common stock, including Efficacy Capital, which alone owns 17.8% of our common stock immediately prior to the offering, and will own 27.2% of our common stock after this offering. These stockholders may have interests that are different from yours and may support competing transactions; provided that, in the case of Efficacy Capital, such support is in accordance with that certain Standstill Agreement dated January 9, 2008, as amended. Sales of a large number of shares of our common stock by these large stockholders or other stockholders within a short period of time could adversely affect our stock price.

Our rights agreement and certain provisions in our charter documents and Delaware law could delay or prevent a change in management or a takeover attempt that you may consider to be in your best interest.

We have adopted certain anti-takeover provisions, including a Rights Agreement, dated as of September 1, 1999, as amended, between us and Computershare Trust Company, Inc., as Rights Agent. The Rights Agreement will cause substantial dilution to any person who attempts to acquire us in a manner or on terms not approved by our board of directors.

The Rights Agreement and Certificate of Designations for the Series One Junior Participating Preferred Stock dated September 2, 1999, as well as other provisions in our certificate of incorporation and bylaws and under Delaware law, could delay or prevent the removal of directors and other management and could make more difficult a merger, tender offer or proxy contest involving us that you may consider to be in your best interest. For example, these provisions:

- allow our board of directors to issue preferred stock without stockholder approval;
- limit who can call a special meeting of stockholders; and
- establish advance notice requirements for nomination for election to the board of directors or for proposing matters to be acted upon at stockholders meetings.

We may allocate the net proceeds from this offering in ways that you and other stockholders may not approve.

We intend to use the net proceeds from this offering for preclinical studies, clinical trials and regulatory submissions of our product candidates and for general corporate purposes. Our management will, however, have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not necessarily improve our operating results or enhance the value of our common stock.

Forward-Looking Statements

Some of the statements contained (i) in this prospectus supplement and the accompanying prospectus or (ii) incorporated by reference into this prospectus supplement are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and are subject to the safe harbor created by the Securities Litigation Reform Act of 1995. Examples of these forward-looking statements include, but are not limited to:

- our anticipated future capital requirements and the terms of any capital financing agreements;
- timing and amount of future contractual payments, product revenue and operating expenses;

progress and results of clinical trials;

anticipated regulatory filings, requirements and future clinical trials;

protection of our intellectual property; and

market acceptance of our products and the estimated potential size of these markets.

Table of Contents

While these forward-looking statements made by us are based on our current intent, beliefs and judgments, they are subject to risks and uncertainties that could cause actual results to vary from the projections in the forward-looking statements. You should consider the risks below carefully in addition to other information contained in this report before engaging in any transaction involving shares of our common stock. If any of these risks occur, they could harm our business, financial condition or results of operations. In such case, the trading price of our common stock could decline, and you may lose all or part of your investment.

The words believe, should, predict, future, may, will, estimate, continue, anticipate, intend, plan continue, or opportunity, or other words and terms of similar meaning, as they relate to us, our business, future financial or operating performance or our management, are intended to identify forward-looking statements. Any forward-looking statement speaks only as of the date on which it is made, and except as required by law we undertake no obligation to update or revise any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. Past financial or operating performance is not necessarily a reliable indicator of future performance and you should not use our historical performance to anticipate results or future period trends.

Table of Contents

Use of Proceeds

We expect to receive approximately $15.5 million in net proceeds from the sale of the 2,400,000 shares of common stock offered by us in this offering based on the offering price of $6.50 per share. Net proceeds is what we expect to receive after paying the expenses of this offering.

We intend to use the net proceeds from this offering for preclinical studies, clinical trials and regulatory submissions of our product candidates, and for general corporate purposes.

The timing and amount of our actual expenditures will be based on many factors, including the timing and success of our clinical trials, whether we partner any of our internal programs and whether we choose to curtail some of our research activities. Although we currently have no plans to acquire any complementary businesses, we may use these proceeds for that purpose in the future. As a result, we will retain broad discretion in determining how we will allocate the net proceeds from this offering.

Until we use the net proceeds of this offering, we intend to invest the funds in short-term, investment grade, interest-bearing securities.

Table of Contents

Price Range of Common Stock

Our common stock is quoted on The Nasdaq Global Market under the symbol RPRX . The following table shows the high and low sale prices per share of our common stock, as reported by The Nasdaq Capital Market through August 20, 2006 and thereafter by the Nasdaq Global Market, during the periods presented.

	Price Range	
	High	**Low**
2006		
First Quarter	$10.35	$4.50
Second Quarter	14.27	7.95
Third Quarter	8.88	7.26
Fourth Quarter	13.23	5.50
2007		
First Quarter	$14.67	$9.16
Second Quarter	15.09	9.51
Third Quarter	14.38	9.88
Fourth Quarter	12.96	6.99
2008		
First Quarter	$10.20	$8.11
Second Quarter	11.09	8.21
Third Quarter (through September 26, 2008)	10.00	5.31

All of the foregoing prices reflect interdealer quotations, without retail mark-up, markdowns or commissions and may not necessarily represent actual transactions in the common stock.

On September 26, 2008, the last sale price of the common stock, as reported by the Nasdaq Global Market, was $6.08 per share. On September 26, 2008, there were approximately 184 holders of record.

Dividend Policy

We have never declared or paid cash dividends on our capital stock. We currently intend to retain our future earnings, if any, for use in our business and therefore do not anticipate paying cash dividends in the foreseeable future. Payment of future dividends, if any, will be at the discretion of our board of directors after taking into account various factors, including our financial condition, operating results, current and anticipated cash needs.

Table of Contents

Dilution

Our unaudited net tangible book value as of June 30, 2008 was approximately $10.3 million, or approximately $0.80 per share of common stock. Net tangible book value per share represents total tangible assets less total liabilities, divided by the number of shares of common stock outstanding. Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of common stock in this offering and the net tangible book value per share of our common stock immediately after the offering.

After giving effect to the sale of 2,400,000 shares of common stock in this offering at the offering price of $6.50 per share and after deduction of estimated offering expenses payable by us, our pro forma net tangible book value as of June 30, 2008 would have been approximately $25.8 million, or $1.69 per share. The adjustments made to determine pro forma net tangible book value per share are the following:

An increase in total assets to reflect the net proceeds of the offering as described under Use of Proceeds; and

The addition of the number of shares offered by this prospectus supplement to the number of shares outstanding.

The following table illustrates the pro forma increase in net tangible book value of $0.89 per share and the dilution (the difference between the offering price per share and net tangible book value per share) to new investors:

Offering price per share		$ 6.50
Net tangible book value per share as of June 30, 2008	$ 0.80	
Increase per share attributable to new investors	0.89	
Pro forma net tangible book value per share as of June 30, 2008, after giving effect to the offering		1.69
Dilution per share to new investors		$ 4.79

The number of shares in the table above excludes as of June 30, 2008:

1,663,565 shares of common stock issuable upon the exercise of outstanding options at a weighted average exercise price of $5.02 per share; and

320,744 shares of common stock available for future issuance under our stock option plans.

Table of Contents

Plan of Distribution

We are selling 2,400,000 shares of our common stock under this prospectus supplement directly to certain investors at a price of $6.50 per share pursuant to separate purchase agreements. We currently anticipate that the closing of the sale of such common shares under these agreements will take place on or about October 3, 2008. On the closing date, we will issue the shares of common stock to the investors and we will receive funds in the amount of the aggregate purchase price.

Legal Matters

The validity of the common stock being offered hereby will be passed upon by Winstead PC, The Woodlands, Texas. Jeffrey R. Harder, a member of the law firm and a director of Repros, beneficially owned as of June 30, 2008, an aggregate of 11,424 shares of our common stock. Mr. Harder also holds options to purchase 55,000 shares of our common stock.

Experts

The consolidated financial statements and management s assessment of the effectiveness of internal control over financial reporting (which is included in Management s Report on Internal Control over Financial Reporting) incorporated in this prospectus supplement by reference to the Annual Report on Form 10-K for the year ended December 31, 2007 have been so incorporated in reliance on the report (which contains an explanatory paragraph relating to the Company s ability to continue as a going concern as described in Note 1 to the consolidated financial statements) of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

Where You Can Find More Information

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the shares of common stock we are offering under this prospectus supplement. This prospectus supplement and the accompanying prospectus do not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus supplement, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. We also file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy the registration statement, as well as any other material we file with the SEC, at the SEC s Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for more information on the Public Reference Room. The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC, including Repros. The SEC s Internet site can be found at http://www.sec.gov.

Important Information Incorporated By Reference

The SEC allows us to incorporate by reference into this prospectus supplement the information we file with it, which means that we can disclose important information to you by referring you to those documents. Information incorporated by reference is part of this prospectus supplement. Later information filed with the SEC will update and supersede this information. The SEC s Internet site can be found at http://www.sec.gov.

We incorporate by reference the documents listed below and any future filings made with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act until this offering is completed:

- our Annual Report on Form 10-K for the year ended December 31, 2007;
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2008 and June 30, 2008;
- our Current Reports on Form 8-K (other than information furnished rather than filed), filed with the SEC on January 8, 2008, January 10, 2008, February 1, 2008, February 11, 2008, February 12, 2008, February 22, 2008, March 7, 2008, March 14, 2008, March 18, 2008, March 31, 2008, April 4, 2008, May 8, 2008, May 12, 2008, May 28, 2008, May 29, 2008, June 10, 2008, June 30, 2008, July 11, 2008, July 15, 2008, July 21, 2008, July 28, 2008, August 11, 2008, August 18, 2008 and August 21, 2008 (excluding the information furnished in Item 2.02 and Item 7.01 thereof, which is not deemed filed and which is not incorporated by reference herein);

the description of our Rights Agreement contained in our registration statement on Form 8-A filed on September 3, 1999, as amended on September 6, 2002, October 30, 2002, June 30, 2005 and January 10, 2008, including any amendments or reports filed for the purposes of updating this description; and

Table of Contents

the description of our common stock contained in our registration statement on Form 8-A filed on February 2, 1993, including any amendments or reports filed for the purposes of updating this description.

You may request a copy of these filings, at no cost, by contacting us at:

Repros Therapeutics Inc.
Attention: Secretary
2408 Timberloch Drive, Suite B-7
The Woodlands, Texas 77380
Telephone number: (281) 719-3400

In accordance with Section 412 of the Exchange Act, any statement contained in a document incorporated by reference herein shall be deemed modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement.

Table of Contents

PROSPECTUS

Up to 5,000,000 Shares of
Common Stock

From time to time, we may sell up to an aggregate of 5,000,000 shares of common stock in one or more offerings. This means:

- we will provide this prospectus and a prospectus supplement each time we sell the common stock;
- the prospectus supplement will inform you about the specific terms of that offering and may also add, update or change information contained in this prospectus; and
- you should read this prospectus and any prospectus supplement, as well as any documents incorporated by reference in this prospectus and any prospectus supplement, carefully before you invest in our common stock.

Our common stock is quoted on the Nasdaq Global Market under the trading symbol RPRX. On August 31, 2006, the last reported sale price of our common stock on the Nasdaq Global Market was $8.24 per share.

THIS PROSPECTUS MAY NOT BE USED TO OFFER OR SELL ANY SECURITIES UNLESS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

The common stock may be sold directly by us to purchasers, to or through underwriters or dealers designated from time to time, or through agents designated from time to time. For additional information on the methods of sale, you should refer to Plan of Distribution in this prospectus and to the accompanying prospectus supplement. If any underwriters are involved in a sale of the common stock, their names and any applicable commissions or discounts will be set forth in a prospectus supplement. The net proceeds we expect to receive from the sale will also be set forth in a prospectus supplement.

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.

INVESTING IN OUR SECURITIES INVOLVES A HIGH DEGREE OF RISK. YOU SHOULD CAREFULLY CONSIDER THE RISK FACTORS CONTAINED IN OUR ANNUAL REPORT ON FORM 10-K FOR THE FISCAL YEAR ENDED DECEMBER 31, 2005, UPDATES IN PART II, ITEM 1A OF OUR FORM 10-Q FILINGS, AND IN OUR FUTURE FILINGS MADE WITH THE SECURITIES AND EXCHANGE COMMISSION, WHICH ARE INCORPORATED BY REFERENCE IN THIS PROSPECTUS. **SEE THE SECTION ENTITLED RISK FACTORS ON PAGE 4 OF THIS PROSPECTUS.**

The date of this prospectus is September 5, 2006

Table of Contents

We have not authorized any dealer, salesman or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and the accompanying supplement to this prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or the accompanying prospectus supplement. This prospectus and the accompanying supplement to this prospectus do not constitute an offer to sell or the solicitation of an offer to buy common stock, nor do this prospectus and the accompanying supplement to this prospectus constitute an offer to sell or the solicitation of an offer to buy common stock in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus and the accompanying prospectus supplement is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and any accompanying prospectus supplement is delivered or common stock sold on a later date.

Table of Contents

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission using a shelf registration process. Under this shelf registration process, we may sell common stock in one or more offerings, up to an aggregate number of 5,000,000 shares. This prospectus provides you with a general description of the securities we may offer. Each time we sell common stock, we will provide a prospectus supplement that will contain more specific information about the terms of that offering. We may also add, update or change in the prospectus supplement any of the information contained in this prospectus. This prospectus, together with applicable prospectus supplements, includes all material information relating to this offering. If there is any inconsistency between the information in this prospectus and the information in the accompanying prospectus supplement, you should rely on the information in the prospectus supplement.

Please carefully read both this prospectus and any prospectus supplement together with the additional information described below under Where You Can Find More Information.

Unless otherwise mentioned or unless the context requires otherwise, all references in this prospectus to Repros, we, us, our or similar references mean Repros Therapeutics Inc.

ABOUT REPROS THERAPEUTICS INC.

We are a biopharmaceutical company focused on the development of new drugs to treat hormonal and reproductive system disorders.

Our lead product candidate, Proellex™, is an orally available small molecule compound that we are developing for the treatment of uterine fibroids and endometriosis. We are developing Proellex under an exclusive, worldwide license from the National Institutes of Health, or NIH. Proellex is being developed to alleviate adverse symptoms associated with both uterine fibroids and endometriosis by selectively blocking the progesterone receptor in women. We believe it may have advantages over the current standards of care for the treatment of uterine fibroids and endometriosis, which include surgery and treatment with gonadotropin releasing hormone agonists, or GnRH agonists, such as Lupron®. Unlike Proellex, GnRH agonists create a low estrogen, menopausal-like state in women, and estrogen is necessary for the maintenance of bone mineral density. Therefore, GnRH agonists tend to promote bone loss and cannot be used for more than six months at a time. When women cease treatment with GnRH agonists, fibroids rapidly regenerate and symptoms associated with endometriosis quickly reappear. We believe Proellex may have advantages over treatment with GnRH agonists based on research that has been done to date, which includes data collected from our three-month European human Phase 1b clinical study and our 9-month primate study, Proellex does not appear to induce a low estrogen state and therefore should not promote bone loss, which could make Proellex a better treatment option for patients prior to surgery. In addition, we believe Proellex may provide an attractive alternative to surgery because of its potential to treat these conditions in a chronic fashion resolving the symptoms that most commonly lead to surgical treatment.

Our second product candidate is Androxal™, an orally available small molecule compound being developed for the treatment of testosterone deficiency in men. Androxal, our proprietary compound, is designed to restore normal testosterone production in males with functional testes and diminished pituitary function, a common condition in the aging male. We believe Androxal may have advantages over current therapies because it is being designed as an oral therapy that acts centrally to restore normal testosterone function in the body, rather than simply replacing diminished testosterone. The administration of replacement testosterone has been linked to numerous potential adverse effects,

including shrinkage of the testes. We believe that Androxal will not cause these adverse effects to the extent that such other replacement therapies do.

Table of Contents

We also continue to maintain our patent portfolio on our phentolamine-based products for the treatment of sexual dysfunction. These products were placed on clinical hold in the United States in 1999 after a New Drug Application was filed with the U.S. Food and Drug Administration (FDA) due to brown fat proliferations being discovered in a two-year rat carcinogenicity study. The United States is the only country where phentolamine-based products to treat sexual dysfunction are on partial clinical hold. We continue to explore opportunities to create value from these assets through product out-licensing or partnering.

We were incorporated in the State of Delaware in August 1987. On May 2, 2006, we effected a name change to our current name from our former name, Zonagen, Inc. Our principal executive offices are located at 2408 Timberloch Place, Suite B-7, The Woodlands, Texas 77380 and our telephone number is (281) 719-3400. Our website address is www.reprosrx.com. The information contained in our website is not a part of this prospectus or any prospectus supplement.

Service marks, trademarks and trade names referred to in this prospectus are the property of their respective owners.

Table of Contents

RISK FACTORS

Investment in our securities involves a high degree of risk. You should consider carefully the risk factors in any prospectus supplement and in our Annual Report on Form 10-K for the fiscal year ended December 31, 2005, updates in Part II, Item 1A of our Form 10-Q filings, and in our future filings with the Securities and Exchange Commission, as well as other information in this prospectus and any prospectus supplement and the documents incorporated by reference herein or therein, before purchasing any of our securities. Each of the risk factors could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our securities.

FORWARD-LOOKING INFORMATION

Some of the statements contained (i) in this prospectus and any accompanying prospectus supplement or (ii) incorporated by reference into this prospectus are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and are subject to the safe harbor created by the Securities Litigation Reform Act of 1995. Examples of these forward-looking statements include, but are not limited to:

- our anticipated future capital requirements and the terms of any capital financing agreements;
- timing and amount of future contractual payments, product revenue and operating expenses;
- progress and results of clinical trials;
- anticipated regulatory filings, requirements and future clinical trials;
- protection of our intellectual property; and
- market acceptance of our products and the estimated potential size of these markets.

While these forward-looking statements made by us are based on our current intent, beliefs and judgments, they are subject to risks and uncertainties that could cause actual results to vary from the projections in the forward-looking statements. You should consider the risks below carefully in addition to other information contained in this report before engaging in any transaction involving shares of our common stock. If any of these risks occur, they could seriously harm our business, financial condition or results of operations. In such case, the trading price of our common stock could decline, and you may lose all or part of your investment.

The discussion and analysis set forth in this document contains discussions of regulatory status and other forward-looking statements. Actual results could differ materially from those projected in the forward-looking statement as a result of the following factors, among others:

- future capital requirements and additional fundings through equity or debt financings;
- uncertainty of governmental regulatory requirements and lengthy approval process;
- inability to fulfill our obligations under our license with NIH for Proellex may result in forfeiture of our rights to Proellex;

results of the current Phase III trial for Androxal and the ongoing Phase II trials for Proellex;

history of operating losses and uncertainty of future financial results;

dependence on third parties for clinical development and manufacturing;

dependence on a limited number of key employees;

competition and risk of competitive new products;

ability to obtain and defend patents, protect trade secrets and avoid infringing patents held by third parties;

Table of Contents

limitations on third-party reimbursement for medical and pharmaceutical products;

acceptance of our products by the medical community;

potential for product liability issues and related litigation;

potential for claims arising from the use of hazardous materials in our business;

continued listing on the Nasdaq Global Market;

volatility in the value of our common stock; and

other factors set forth under Risk Factors contained in our Annual Report on Form 10-K for the fiscal year ended December 31, 2005 filed with the Securities and Exchange Commission on March 13, 2006, updates in Part II, Item 1A of our Form 10-Q filings, and in our future filings made with the Securities and Exchange Commission, which are incorporated by reference in this prospectus, and any risk factors set forth in the accompanying prospectus supplement.

In addition, in this prospectus, any prospectus supplement and the documents incorporated by reference into this prospectus, the words believe, should, predict, future, may, will, estimate, continue, anticipate, inte potential, continue, or opportunity, or other words and terms of similar meaning, as they relate to us, our business, future financial or operating performance or our management, are intended to identify forward-looking statements. Any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update or revise any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. Past financial or operating performance is not necessarily a reliable indicator of future performance and you should not use our historical performance to anticipate results or future period trends.

USE OF PROCEEDS

Unless the applicable prospectus supplement states otherwise, the net proceeds we receive from the sale of the securities offered by this prospectus will be used for general corporate purposes, which may include:

funding clinical trials and regulatory submissions for our two lead product candidates, Proellex and Androxal, currently in human clinical trials;

funding the development and regulatory approval of our phentolamine-based products;

financing potential acquisitions of complementary businesses, assets, technologies and products that we may consider from time to time; and

general working capital.

Although we currently have no plans to acquire any complementary businesses, our management has broad discretion as to the allocation of the net proceeds received in this offering and may use these proceeds for that purpose in the

future. Pending these uses, we may temporarily use the net proceeds to make short-term investments.

PLAN OF DISTRIBUTION

We may sell the common stock through underwriters or dealers, through agents, or directly to one or more purchasers. One or more prospectus supplements will describe the terms of the offering of the common stock, including:

the name or names of any agents or underwriters;

the purchase price of the common stock and the proceeds we will receive from the sale;

Table of Contents

any over-allotment options under which underwriters may purchase additional shares of common stock from us;

any agency fees or underwriting discounts and other items constituting agents or underwriters compensation;

any discounts or concessions allowed or reallowed or paid to dealers; and

any securities exchange or market on which the common stock may be listed.

Only underwriters named in the prospectus supplement are underwriters of the common stock offered by the prospectus supplement.

If underwriters are used in the sale, they will acquire the common stock for their own account and may resell the common stock from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the common stock will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the common stock to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all the common stock offered by the prospectus supplement if they are to purchase any of such offered shares. Any public offering price and any discounts or concessions allowed or reallowed or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement naming the underwriter, the nature of any such relationship.

We may sell the common stock directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of the common stock and we will describe any commissions we will pay the agent in the prospectus supplement.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase the common stock from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents and underwriters with indemnification against certain civil liabilities, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to such liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

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

Our common stock is quoted on the Nasdaq Global Market. One or more underwriters may make a market in our common stock, but the underwriters will not be obligated to do so and may discontinue market making at any time without notice. We cannot give any assurance as to liquidity of the trading market for our common stock.

Any underwriters who are qualified market makers on the Nasdaq Global Market may engage in passive market making transactions in the securities on the Nasdaq Global Market in accordance with Rule 103 of

Table of Contents

Regulation M under the Securities Exchange Act of 1934, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the securities. 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.

LEGAL MATTERS

The validity of the securities being offered hereby will be passed upon by Winstead Sechrest & Minick P.C., The Woodlands, Texas. Jeffrey R. Harder, a member of the law firm Winstead Sechrest & Minick P.C., and a director of Repros, beneficially owned as of August 31, 2006, an aggregate of 5,424 shares of the our Common Stock. Mr. Harder also holds options to purchase 45,000 shares of our Common Stock.

EXPERTS

The financial statements incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2005 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission. We have filed with the Securities and Exchange Commission a registration statement on Form S-3 under the Securities Act with respect to the common stock we are offering under this prospectus. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the common stock we are offering under this prospectus, we refer you to the registration statement and the exhibits filed as a part of the registration statement. You may read and copy the registration statement, as well as our reports, proxy statements and other information, at the Securities and Exchange Commission s public reference room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You can request copies of these documents by writing to the Securities and Exchange Commission and paying a fee for the copying cost. Please call the Securities and Exchange Commission at 1-800-SEC-0330 for more information about the operation of the public reference room. Our Securities and Exchange Commission filings are also available at the Securities and Exchange Commission s website at http://www.sec.gov.

The Securities and Exchange Commission allows us to incorporate by reference information that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the Securities and Exchange Commission prior to the date of this prospectus, while informat