

REPROS THERAPEUTICS INC.  
Form 424B5  
October 02, 2008

**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**

This prospectus supplement amends the prospectus supplement dated September 29, 2008 to the prospectus dated September 5, 2006, relating to the sale by Repros Therapeutics Inc. of up to 2,400,000 shares of our common stock. You should read this prospectus supplement in conjunction with the prospectus supplement dated September 29, 2008 to the prospectus dated September 5, 2006, and this supplement is qualified by reference thereto, except to the extent that the information in this supplement supersedes the information contained in such prospectus supplement.

Investing in our common stock involves risks. See **Risk Factors** beginning on page S-4 of the prospectus supplement dated September 29, 2008 to the prospectus dated September 5, 2006.

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 referenced prospectus supplement or prospectus are truthful or complete. Any representation to the contrary is a criminal offense.

The date of this supplement (to the prospectus supplement dated September 29, 2008 to the prospectus dated September 5, 2006) is October 2, 2008.

---

### Explanatory Note

Repros Therapeutics Inc. is filing this supplement to the prospectus supplement dated September 29, 2008 to correct a mathematical calculation related to dilution on page S-9 of that prospectus supplement by amending and restating the section "Dilution" in its entirety with the following. No attempt has been made in this supplement to modify or update the other information presented in the prospectus supplement. This amendment does not reflect events occurring after the filing of the prospectus supplement or modify or update those disclosures affected by subsequent events. Accordingly, this amendment should be read in conjunction with the prospectus supplement dated September 29, 2008 and our other filings made with the Securities and Exchange Commission.

#### 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 \$1.70 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 \$0.90 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	0.90	
Pro forma net tangible book value per share as of June 30, 2008, after giving effect to the offering		1.70
Dilution per share to new investors		\$ 4.80

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.