

Prospectus Supplement
(To Prospectus dated January 30, 2008)

Prospectus Supplement No. 2
To Prospectus dated January 30, 2008, Prospectus Supplement dated August 15, 2008
and Prospectus Supplement No. 1 dated September 9, 2008

This Prospectus Supplement No. 2 relates to, and should be read together with, the Prospectus Supplement No. 1 dated September 9, 2008 (“Amendment 1”), the Prospectus Supplement dated August 15, 2008 and the base prospectus, dated January 30, 2008, contained in the Registration Statement on Form S-3 (File No. 333-148218) filed by Arrowhead Research Corporation and declared effective on January 30, 2008. Pursuant to Amendment 1, we sold 1,404,403 units in a follow-on offering, with each unit comprised of one share of common stock and a warrant to purchase one share of common stock. This Prospectus Supplement No. 2 corrects a typographical error in Amendment 1, which indicated that there were 1,401,403 shares of common stock underlying the offered warrants. As corrected hereby, 1,404,403 shares of common stock underlie the warrants offered and sold under Amendment 1.