Registration No. 333-273314

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-3 REGISTRATION STATEMENT NO. 333-273314

UNDER THE SECURITIES ACT OF 1933

ATRECA, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization) 27-3723255 (I.R.S Employer Identification Number)

900 East Hamilton Avenue, Suite 100 Campbell, California 95008

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

John A. Orwin President and Chief Executive Officer Atreca, Inc. 900 East Hamilton Avenue, Suite 100 Campbell, California 95008 (650) 595-2595

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

Copies to:

John T. McKenna Justin A. Kisner Cooley LLP 3175 Hanover Street Palo Alto, California 94304 (650) 843-5000 Courtney J. Phillips General Counsel and Corporate Secretary Atreca, Inc. 900 East Hamilton Avenue, Suite 100 Campbell, California 95008 (650) 595-2595

Approximate date of commencement of proposed sale to the public: Not applicable. The registrant is filing this post-effective amendment to remove from registration any securities registered hereunder that remain unsold.

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

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

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

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

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth

 company" in Rule 12b-2 of the Exchange Act.

 Large accelerated filer

 Accelerated filer
 Smaller reporting company
 Emerging growth company
 Smaller reporting company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. \Box

DEREGISTRATION OF SECURITIES

This Post-Effective Amendment No. 1 (this "*Post-Effective Amendment*"), relates to the Registration Statement on Form S-3, Registration File No. 333-273314 (the "*Registration Statement*"), filed by Atreca, Inc., a Delaware corporation (the "*Company*"), on July 18, 2023, as amended on August 16, 2023, with the Securities and Exchange Commission (the "*SEC*") to register the sale from time to time of up to \$300,000,000 in total of the following securities: (i) the Company's Class A common stock, par value \$0.0001 per share; (ii) the Company's preferred stock, par value \$0.0001; (iii) debt securities; and (iv) warrants for any of the foregoing securities (collectively, the "*Registered Securities*"). The Registration Statement was declared effective on August 17, 2023.

On December 26, 2023, the Company announced, after extensive consideration of potential strategic alternatives, that the Board of Directors of the Company had unanimously approved, on December 19, 2023, the sale of substantially all of the Company's assets (the "*Asset Sale*") pursuant to the Asset Purchase Agreement, dated December 22, 2023, by and between the Company and Immunome Inc., and the liquidation and dissolution of the Company pursuant to a plan of complete liquidation and dissolution (the "*Plan of Dissolution*"), each of which, the Asset Sale and the Plan of Dissolution, is subject to the approval of the Company's stockholders. The Company filed a Definitive Proxy Statement on Schedule 14A with the SEC on February 23, 2024 with respect to a special meeting of the Company's stockholders scheduled to be held on March 28, 2024, at which the Company's stockholders will be asked to, among other items, consider and approve the Asset Sale and the Plan of Dissolution.

As a result of the Company's planned liquidation and dissolution, by filing this Post-Effective Amendment, the Company has terminated the offerings of the Registered Securities pursuant to the Registration Statement. Accordingly, the Company hereby terminates the effectiveness of the Registration Statement and, in accordance with an undertaking made by the Company in Part II of the Registration Statement to remove from registration, by means of post-effective amendment, removes from registration any and all of the Registered Securities that remain unsold under the Registration Statement as of the date hereof. The Registration Statement is hereby amended, as appropriate, to reflect the deregistration of all such securities.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Company certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Post-Effective Amendment to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Campbell, State of California, on March 22, 2024.

ATRECA, INC.

By: /s/ John A. Orwin John A. Orwin President and Chief Executive Officer

No other person is required to sign this Post-Effective Amendment in reliance upon Rule 478 under the Securities Act of 1933, as amended.