## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## FORM 8-A

FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934

# Taysha Gene Therapies, Inc.

(Exact name of registrant as specified in its charter)

Delaware (State of incorporation or organization) 84-3199512 (I.R.S. Employer Identification No.)

2280 Inwood Road Dallas, Texas (Address of principal executive offices)

75235 (Zip Code)

Securities to be registered pursuant to Section 12(b) of the Act:

Title of each class <u>to be so registered</u> Common Stock, par value \$0.00001 per share Name of each exchange on which each class is to be registered The Nasdaq Stock Market LLC

If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A.(c) or (e), check the following box.  $\boxtimes$ If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A.(d) or (e), check the following box.  $\square$ 

If this form relates to the registration of a class of securities concurrently with a Regulation A offering, check the following box.

Securities Act registration statement or Regulation A offering statement file number to which this form relates: 333-248559

Securities to be registered pursuant to Section 12(g) of the Act: None

#### Item 1. Description of Registrant's Securities to be Registered.

A description of the common stock, par value \$0.00001 per share, of Taysha Gene Therapies, Inc., a Delaware corporation (the "*Registrant*"), to be registered hereunder is contained in the section titled "Description of Capital Stock" in the prospectus forming part of the Registrant's Registration Statement on Form S-1 (File No. 333-248559), initially filed with the Securities and Exchange Commission (the "*Commission*") on September 2, 2020, as subsequently amended from time to time (the "*Registration Statement*"), and is incorporated herein by reference. Any form of prospectus subsequently filed by the Registrant with the Commission pursuant to Rule 424(b) under the Securities Act of 1933, as amended, that constitutes part of the Registration Statement shall be deemed to be incorporated herein by reference.

#### Item 2. Exhibits.

Under the Instructions as to Exhibits with respect to Form 8-A, no exhibits are required to be filed because no other securities of the Registrant are registered on The Nasdaq Stock Market LLC and the securities registered hereby are not being registered pursuant to Section 12(g) of the Securities Exchange Act of 1934, as amended.

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereto duly authorized.

### Taysha Gene Therapies, Inc.

By: /s/ RA Session II

Name: RA Session II

Title: President and Chief Executive Officer

Date: September 18, 2020