September 1, 2020

Ra Session, II President and Chief Executive Officer Taysha Gene Therapies, Inc. 2280 Inwood Road Dallas, TX 75235

Re: Taysha Gene

Therapies, Inc.

Draft Registration

Statement on Form S-1

Submitted on August

3, 2020

CIK No. 0001806310

Dear Mr. Session:

We have reviewed your draft registration statement and have the following comments. In

some of our comments, we may ask you to provide us with information so we may better $% \left(1\right) =\left(1\right) \left(1\right) +\left(1\right) \left(1\right) \left(1\right) +\left(1\right) \left(1\right) \left$

understand your disclosure.

Please respond to this letter by providing the requested information and either submitting

an amended draft registration statement or publicly filing your registration statement on

 $\ensuremath{\mathsf{EDGAR}}.$ If you do not believe our comments apply to your facts and circumstances or do not

believe an amendment is appropriate, please tell us why in your response.

 $\qquad \qquad \text{After reviewing the information you provide in response to these comments and your } \\$

amended draft registration statement or filed registration statement, we may have additional $% \left(1\right) =\left(1\right) +\left(1\right$

comments.

Draft Registration Statement on Form S-1 submitted August 3, 2020

Prospectus Summary, page 1

1. Please revise your summary to include a balanced discussion of your company and

example:

product candidates. For clarify that no

therapies utilizing the intrathecal method of administration and only

two candidates

utilizing gene transduction have ever been approved by the FDA;

remove indications

that you will develop these candidates quickly;

clarify that Rhett

syndrome is extremely rare;

disclose when you

were founded and that you have no experience developing or

commercializing

pharmaceutical or biologic products; and

disclose UT

Southwestern has collaborative arrangements with third parties,

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including some competitors, which may present competing interests with respect to

their priorities and resources.

2. Please explain the term "patient-centric gene therapy company" and

"patient-centric business." Our Pipeline, page 2

Please revise your product pipeline table as follows: 3.

For purposes of consistency with the discussion of the regulatory drug approval

process, replace the term "Pivotal" with Phase 3. If "Pivotal" is intended to mean

something other than Phase 3, please provide further explanation.

We note you have created a distinction between "preclincal" and "IND-enabling." As

"IND-enabling" studies are preclinical, please revise your table to show all your

product candidates in the preclincial phase.

Additionally, your table indicates that all product candidates have completed

preclincal trials. Your disclosure appears to indicate that you are close to being ready

to submit INDs for TSHA-101, TSHA-102, TSHA-103 and TSHA-104. If all

preclincial testing for these candidates has been completed, depicting the program

with a bar through the preclincial column in the table is appropriate. It is not

appropriate to depict the bar through the preclincal column for any program that has

not completed all preclincial work, including "IND enabling"

studies.

Please clarify what the "Rights" column is intended to convey. For example if it is

intended to indicate that you have licensed the rights to commercialize the product

candidates, please make that clear.

Include separate columns for Phase 1 and Phase 2 trials or tell us the basis for your

belief that you will be able to conduct Phase 1/2 trials for all your product candidates.

We note that TSHA-107, TSHA-108 and TSHA 109 appear in your pipeline table

with "undisclosed targets", and are not discussed elsewhere in the prospectus. To the

extent these are material programs, disclose the targets and provide descriptions of

these programs. If you have not yet identified target indications, please remove them

from the table or explain the basis for your belief that they are material and should be

included in your pipeline table.

Our Strategic Partnership with the University of Texas Southwestern Medical Center, page 3

Please confirm that the credentials identified are held by individuals involved in the

development of your product candidates. If they are not, please revise your disclosure to

only present credentials held by faculty involved in the development of your product

candidates.

Our History and Team, page 6

Please limit the disclosure identifying your investors to investors identified in your

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Taysha Gene Therapies, Inc.

September 1, 2020

Page 3

Principal Stockholder table.

Implications of Being an Emerging Growth Company and a Smaller Reporting Company, page 8

Please supplementally provide us with copies of all written communications, as defined in

Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf,

present to potential investors in reliance on Section 5(d) of the Securities Act, whether or

not they retain copies of the communications.

License Agreement with Queen's University at Kingston, page 90

7. Please expand your description of the license agreement with Queen's University at $\,$

Kingston to describe the technology licensed; identify your product candidates that are

dependent on the license; and disclose when the latest to expire patents is scheduled to

expire.

You may contact Li Xiao at 202-551-4391 or Angela Connell at 202-551-3426 if you have questions regarding comments on the financial statements and related matters. Please contact Alan Campbell at 202-551-4224 or Suzanne Hayes at 202-551-3675 with any other questions.

FirstName LastNameRa Session, II Comapany NameTaysha Gene Therapies, Inc. Sincerely,

Division of

Corporation Finance September 1, 2020 Page 3 Sciences FirstName LastName

Office of Life