

September 16, 2020

Leen Kawas, Ph.D.
Chief Executive Officer
Athira Pharma, Inc.
4000 Mason Road, Suite 300
Seattle, WA 98195

Re: Athira Pharma, Inc.
Amendment No. 2 to

Registration Statement on Form S-1

Filed September 14,

2020

File No. 333-248428

Dear Dr. Kawas:

We have reviewed your amended registration statement and have the following comment.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comment applies to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to this comment, we may have additional comments. Unless we note otherwise, our references to prior comments are to comments in our September 10, 2020 letter.

Amendment No. 2 to Registration Statement on Form S-1

Overview, page 1

1. We note your revisions in response to prior comment one and reissue in part. Your statements that "ATH-1017 significantly improved P300 latency" and "P300 latency is a functional measure that is highly correlated with cognition" appear to imply an expectation that the improvement in P300 latency will result in cognitive improvement. Please revise these statements and similar statements on pages 5, 90 and 108 to clarify that you have yet to establish a connection between the P300 latency results observed in your Phase 1 trials and improved cognition.

You may contact Michael Fay at 202-551-3812 or Daniel Gordon at 202-551-3486 if you have questions regarding comments on the financial statements and related matters. Please

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contact Deanna Virginio at 202-551-4530 or Ada D. Sarmiento at 202-551-3798 with any other questions.

Sincerely,

FirstName LastNameLeen Kawas, Ph.D.

Division of Corporation

Finance

Company NameAthira Pharma, Inc.

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cc: Michael Nordtvedt, Esq.

FirstName LastName