UNITED STATES SECURITIES AND EXCHANGE COMMISSION May 8, 2015

ORDER GRANTING CONFIDENTIAL TREATMENT UNDER THE SECURITIES ACT OF 1933

aTyr Pharma, Inc.

File No. 333-203272 - CF#32024

aTyr Pharma, Inc. submitted an application under Rule 406 requesting confidential treatment for information it excluded from the Exhibits to a Form S-1 registration statement filed on April 6, 2015, as amended.

Based on representations by aTyr Pharma, Inc. that this information qualifies as confidential commercial or financial information under the Freedom of Information Act, 5 U.S.C. 552(b)(4), the Division of Corporation Finance has determined not to publicly disclose it. Accordingly, excluded information from the following exhibit will not be released to the public for the time period specified:

Exhibit 10.7 through April 6, 2018

For the Commission, by the Division of Corporation Finance, pursuant to delegated authority:

Brent J. Fields Secretary