



DIVISION OF
CORPORATION FINANCE

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

November 3, 2022

Paul Mann
Chairman, Chief Executive Officer and Chief Financial Officer
ASP Isotopes Inc.
433 Plaza Real, Suite 275
Boca Raton, Florida 33432

Re: ASP Isotopes Inc.
Amendment No. 3 to Registration Statement on Form S-1
Filed October 31, 2022
File No. 333-267392

Dear Paul Mann:

We have reviewed your amended 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 understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. 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.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Amendment No. 3 to Registration Statement on Form S-1, Filed October 31, 2022

Summary

Recent Developments, page 3

1. We note your statement on page 3: "if the licensed rights granted to us are found to be invalid or unenforceable, or if our exclusive license agreement with Klydon is terminated or Klydon, as licensor, fails to abide by the terms of our exclusive license agreement, our ability to commercialize our future isotopes would suffer and our business, results of operations and financial condition may be adversely affected." Please revise to clarify what your business operations would be if you did not have this license, given your current and proposed business seems to operate either exclusively or mostly through use of the ASP technology.

Paul Mann
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2. We note your statement on page 3 that "[t]he NMS Letter includes a request for ASP Isotopes Inc. to enter into discussions for an agreement with NMS based on terms proposed in previous correspondence from NMS." Please revise to provide a high level summary of the terms of the previous correspondence with NMS.

You may contact Ibolya Ignat at 202-551-3636 or Kevin Kuhar at 202-551-3662 if you have questions regarding comments on the financial statements and related matters. Please contact Jordan Nimitz at 202-551-5831 or Margaret Schwartz at 202-551-7153 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Industrial Applications and
Services

cc: Brenda Hamilton, Esq.