
November 8, 2022

United States Securities and Exchange Commission
Division of Corporate Finance
Office of Industrial Applications and Services
Washington, D.C. 20549-6010

Attention: Ibolya Ignat
Kevin Kuhar
Jordan Nimitz
Margaret Schwartz

**Re: ASP Isotopes Inc.
Amendment No 4 to Registration Statement on Form S-1
Filed November 4, 2022
File No. 333-267392**

Ladies and Gentlemen:

On behalf of ASP Isotopes, Inc. (the "*Company*"), we are transmitting this letter in response to the comment received from the staff (the "*Staff*") of the Securities and Exchange Commission (the "*Commission*") contained in its letter dated November 8, 2022, with respect to Amendment No. 4 to Registration Statement on Form S-1 (the "*Amendment No. 4*") filed by the Company with the Commission on November 4, 2022.

For your convenience, we have set forth each comment of the Staff from its letter in bold and provided the Company's response below each comment. Unless otherwise indicated, capitalized terms used herein have the meaning assigned to them in the Amendment No. 4.

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- 1. We note that your belief regarding the validity of your exclusive license from Klydon is based on "information currently available" and your "consultation with legal counsel in South Africa." Please describe for us the information that is available and the details of your consultation with counsel, including whether you received an opinion from counsel and the type of counsel (e.g., your intellectual property counsel).**

Response:

The Company advises the Staff that it has reviewed copies of (1) a license agreement entered into on October 25, 2013 by Klydon and API Labs Pharmaceuticals (Proprietary) Limited ("API Labs") to license the ASP technology for enriching certain isotopes of the element Molybdenum ("2013 API Labs License"); and (2) an exclusive sub-license to the ASP technology granted on October 1, 2019 to Radfarma, as licensee, by API Labs and SaPhotonica Limited ("SaPhotonica"), as licensors (the "2019 RadfarmaSub-License"). The 2013 API Labs License and the 2019 RadfarmaSub-License are referenced in the letter the Company received from a law firm acting on behalf of NorskMedisinskSyklotronsenterAS (a shareholder of Radfarma). In addition, the Company has reviewed copies of (1) a letter of termination, dated October 18, 2021, from Klydon to API Labs, relating to the termination, with immediate effect, of the 2013 API Labs License, and (2) a letter from Adams & Adams, intellectual property counsel to Klydon in South Africa, dated September 2, 2022 (responding to a letter, dated August 4, 2022, addressed to API Labs, Saphotonica(Pty) Ltd and Klydon), which indicates that the 2013 API Labs License was terminated on October 18, 2021, and the 2019 RadfarmaSub-License has also terminated.

The Company advises the Staff that it engaged special intellectual property counsel in South Africa to review the currently available information. The Company's special intellectual property counsel provided an opinion to the Company, which examined, among other things, the termination of the 2013 API Labs License, as well as the effect of the termination of the 2013 API Labs License on any sub-licenses granted by API Labs to any third party. The Company received an opinion from its special intellectual property counsel in South Africa to the effect that the 2013 API Labs License was validly terminated and that any sublicenses granted by API Labs pursuant thereto automatically terminated. In addition, the letter from the Company's special intellectual property counsel examined and raised questions as to the validity of the 2019 RadfarmaSub-License because of various irregularities in the execution of the 2019 RadfarmaSub-License.

Accordingly, based on information currently available to the Company, and after consultation with special intellectual property counsel in South Africa, it is management's belief that the Company's exclusive license for the enrichment of Molybdenum-100 and all other isotopes from Klydon is valid.

Very truly yours,

/s/ Brenda Hamilton

Brenda Hamilton
For the Firm
