



DIVISION OF
CORPORATION FINANCE

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

November 1, 2011

Via Facsimile

Mr. L. Bruce Jolliff
Chief Financial Officer
Advanced Medical Isotope Corporation
6208 W Okanogan Ave.
Kennewick, WA 99336

RE: Advanced Medical Isotope Corporation
Form 10-K for the Fiscal Year ended December 31, 2010
Filed March 1, 2011
Form 10-Q for the Fiscal Quarter ended June 30, 2011
Filed August 4, 2011
File No. 0-53497

Dear Mr. Jolliff:

We have reviewed your filings 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 within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. 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 filing and the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Year Ended December 31, 2010

Facing Page

1. Please update Advanced Medical Isotope's EDGAR company profile to reflect the current address of its principal executive offices.

Item 1 – Business, page 1

Manufacturing, page 4; Customers, page 5, Research and Development/Intellectual Property, page 6

2. Please file the affiliation agreement with United Pharmacy Partners Inc., the research agreements with the University of Utah and the University of Missouri, and the license agreements for the patent rights with the University of Missouri and Battelle Memorial Institute as exhibits to the Form 10-K. See Item 601(b)(10) of Regulation S-K.

Customers, page 5

3. Disclosure that sales to customers whose sales were greater than 10% of total sales for the year ended December 31, 2009 totaled 70.3% is inconsistent with disclosure under “Accounts Receivable” in note 13 to the financial statements that one customer represented 61.3% and 70.0% of total revenues for the years ended December 31, 2010 and 2009. In future filings, disclose in the business section sales to any customer on an individual basis whose sales were greater than 10% of total sales for the periods presented in the financial statement.

License Agreement, page 6

4. Disclosure indicates that Advanced Medical Isotope acquired the assets, including a license agreement with the Regents of the University of California, of Neu-Hope Technologies, Inc. from UTEK Corporation. Please file the license agreement as an exhibit to the Form 10-K. See Item 601(b)(10) of Regulation S-K.

Item 1A – Risk Factors, page 9

We were in default on our capital lease obligations, page 9

5. Please file the agreements representing the capital lease obligations as exhibits to the Form 10-K. See Item 601(b)(10) of Regulation S-K.

Item 2 - Properties, page 16; Contractual Obligations (payments due by period as of December 31, 2010), page 24

6. Disclosures indicate that Advanced Medical Isotope has entered into lease agreements. Advise what consideration Advanced Medical Isotope has given to filing the lease agreements as exhibits to the Form 10-K. See Item 601(b)(10) of Regulation S-K.

Item 5 – Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities, page 17

Securities Authorized for Issuance Under Equity Compensation Plans, page 18

7. Disclosure indicates that Advanced Medical Isotope has individual compensation arrangements under which equity securities are authorized for issuance in exchange for consideration in the form of goods or services. Advise what consideration Advanced Medical Isotope has given to filing the individual compensation arrangements as exhibits to the Form 10-K. See Item 601(b)(10) of Regulation S-K.

Item 9A(T) – Controls and Procedures, page 32

Management’s Annual Report on Internal Control Over Financial Reporting, page 32

8. Disclosure indicates that management has determined that there is a material weakness due to the lack of segregation of duties in Advanced Medical Isotope’s internal control over financial reporting as of December 31, 2010. In view of this disclosure, tell us how Advanced Medical Isotope’s chief executive officer and chief financial officer were able to conclude that its disclosure controls and procedures were effective as of December 31, 2010. Please also revise to disclose when this weakness was identified.
9. You disclose that you had a material weakness due to the lack of segregation of duties, but it does not appear that you disclosed whether or not your internal control over financial reporting was effective. As such, please disclose your conclusion as to whether your internal control over financial reporting was effective or ineffective, whichever the case may be, in an amendment to your Form 10-K. See Item 308 of Regulation S-K.

Item 10 – Directors, Executive Officers and Corporate Governance, page 34

Background and Business Experience, page 34; Identification of Significant Employees, page 35

10. In future filings, describe briefly the business experience during the past five years of Mr. Bruce W. Ratchford and Drs. Robert E. Schenter, Michael K. Korenko, Nigel R. Stevenson, and Donald A Ludwig. See Item 401(e)(1) of Regulation S-K.

Involvement in Certain Legal Proceedings, page 36

11. Item 401(f) of Regulation S-K requires disclosure of specified events that occurred during the past 10 years. Please confirm this to us and revise in future filings.

Item 11 – Executive Compensation, page 38

Summary Compensation Table, page 38

12. Supplementally, please explain why you are reporting the extra payments to Mr. Jolliff in the salary column.

Item 15 – Exhibits, page 44

Signatures, page 45

13. Advanced Medical Isotope's controller or principal accounting officer also must sign the annual report on Form 10-K. Further, any person who occupies more than one of the specified positions, for example, principal financial officer and controller or principal accounting officer, must indicate each capacity in which he signs the report. See subparagraphs (a) and (b) General Instruction D(2) to Form 10-K, and revise in future filings.

Financial Statements

Report of Independent Registered Public Accounting Firm, page F-2

14. Please make arrangements with your auditor to revise their report to include language that refers to substantial doubt about your ability to continue as a going concern. Please refer to paragraphs .12 - .16 of AU Section 341. Please include this revised auditor's report in your amended Form 10-K, along with an explanatory paragraph at the beginning of the amended Form 10-K that explains to investors the reasons you are filing an amendment. Ensure that you include certifications that are currently dated and refer to the Form 10-K/A.

Statements of Operations, page F-4

15. Since you do not allocate a portion of your depreciation and amortization expense to cost of goods sold, please remove the gross profit subtotal from the face of your statements of operations in future filings. In addition, in future filings please also either remove the gross profit and gross margin measures and any related discussions from the rest of your filing or identify these measures as non-GAAP measures and ensure you comply with the disclosure requirements set forth in Item 10(e) of Regulation S-K.

Form 10-Q for the Quarter Ended June 30, 2011

General

16. Please address the above comments in your interim filings as well, as applicable.

Mr. L. Bruce Jolliff
Advanced Medical Isotope Corporation
November 1, 2011
Page 5

Item 4 – Controls and Procedures, page 31

Changes in Internal Control over Financial Reporting, page 31

17. You disclose that there has been no change in your internal control over financial reporting that occurred during your first fiscal quarter of 2011. Given that this Form 10-Q is for your second fiscal quarter of 2011, please ensure that you refer to the appropriate period in future filings. Refer to Item 308 of Regulation S-K.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

You may contact Edward M. Kelly, Senior Counsel, at (202) 551-3728 or, in his absence, Craig E. Slivka, Special Counsel, at (202) 551-3729 if you have any questions regarding legal or disclosure matters. Please contact Jeffrey Gordon, Staff Accountant, at (202) 551-3866 or, in his absence, the undersigned at (202) 551-3769 if you have questions regarding comments on the financial statements and related matters.

Sincerely,

/s/ Rufus Decker

Rufus Decker
Accounting Branch Chief