



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-7010

December 9, 2008

Mail Stop 7010

Mr. James C. Katzaroff, President
Advanced Medical Isotope Corporation
8131 W. Grandridge Blvd., Suite B
Kennewick, WA 99336

Re: Advanced Medical Isotope Corporation
Registration Statement on Form 10
Filed on November 12, 2008
File No. 0-53497

Dear Mr. Katzaroff:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

General

1. Please note that the registration statement becomes effective by lapse of time 60 days after you filed it, and accordingly will trigger the registrant's reporting obligations pursuant to Section 12(g) of the Exchange Act. However, we will not clear the filing until all our comments are addressed. If our comments are not addressed within this 60 day time period, you should withdraw the Form 10 prior to effectiveness and refile a new Form 10 that includes changes responsive to our comments.

Item 1. Description of Business, page 4

Organizational History, page 4

2. Please disclose in this section that your auditors have issued a going concern opinion.
3. In the third paragraph, identify the natural person(s) who controls UTEK Corporation. Disclose any relationship between the registrant and UTEK Corporation prior to the acquisition of Neu-Hope Technologies.
4. Disclose the number of shares and percentage of total outstanding shares that would be issuable if UTEK Corporation converts the Series A preferred stock into common stock and who will exercise voting and investment power over those shares of common stock. Similar disclosure should be provided in footnote 2 to the table under "Item 4. Security Ownership of Certain Beneficial Owners and Management" on page 21.
5. Please describe the assets acquired in greater detail and disclose the manner in which the purchase price of the acquired assets was determined in the third and fourth paragraphs.
6. We note your disclosure that James Katzaroff currently serves as Manakoa Services Corporation's CEO. We also note the media reports that in January 2007 Manakoa acquired a UTEK Corporation subsidiary, Infinite Identification Technologies Inc. Please explain these relationships and describe Manakoa's and UTEK past affiliations and transactions with the company. Also describe in this section Mr. Katzaroff's affiliation with Manakoa and disclose whether it is a shell or blank check company. Further disclose whether Manakoa is still a public company and, if so, whether it is current in filing its periodic reports.

Products, page 5

7. Throughout this section you use technical jargon that is difficult to understand. Please revise to discuss your business more clearly. For example, we note under "Manufacturing" on page 6 that you refer to FDG as the radio-labeled glucose analog and you refer to PET as Positron Emission Tomography. Please move these clarifications to the section where you first make reference to the terms FDG and PET. Also briefly note the intended application of the F-18 FDG referred to on page 5.

Radio Pharmaceuticals: Indium-111, page 5

8. Please delete the word “soon” and disclose a more specific date on which you intend to offer Indium Chloride sterile solution and Indium Oxine.

Manufacturing, page 6

9. Please disclose the basis for your assertion that no other accelerator in North America has sufficient flexibility to produce the full spectrum of PET imaging radioisotopes for diagnostic and therapeutic applications. If you funded or were otherwise affiliated with any of the studies or reports you cite, please disclose this. Otherwise, please confirm that these sources are widely available to the public. If you do not have appropriate independent support for this statement, please revise the language to make clear that this is your belief based on your experience in the industry, if true.

License Agreement, page 7

10. Please file as exhibits the Non-Exclusive License Agreement between the registrant and Regents of the University of California and any material collaborative or research agreements you have entered into, as discussed under “Manufacturing” or advise us why the agreements are not required to be filed. Please see Item 601(b)(10) of Regulation S-K.
11. We note that if your commercialization plan is deemed unacceptable, the license agreement will terminate and “may be converted to a non-exclusive license.” Please clarify the statement since you have already indicated that it is a non-exclusive license.
12. We note your disclosure under Item 2 regarding your operating expenses attributed to amortization of licenses. Please disclose the material terms of the license and the estimated economic useful life of this asset.

Raw Materials, page 7

13. Please discuss the availability of the stable isotopes obtained from suppliers in Russia. Reconcile this disclosure with the discussion under “Risk Factors – We rely heavily on a limited number of suppliers” on page 14.

Customers, page 7

14. We note in the Risk Factor section on page 11, that “unanticipated contract terminations by current customers can negatively impact operations . . .” Please

disclose whether you are dependent on one or a few major customers and describe any contracts with these customers.

15. Please describe the company's relationship with United Pharmacy Partners Inc in more detail.

Research and Development, page 8

16. Please disclose the duration of the patent licenses and intellectual property you refer to in this section. See Item 101(h)(4)(vii) of Regulation S-K.

Government Regulation, page 9

17. We note in the Risk Factor section on page 13, that you incur, and expect to continue to incur capital and operating costs to comply with environmental laws and regulations. Please disclose the costs and effects of compliance with environmental laws. See Item 101(h)(4)(xi) of Regulation S-K.

Item 1A. Risk Factors

We have increasing cash requirements, page 10

18. Disclose the cumulative amount of operating losses incurred from inception to date.

Item 2. Financial Information, page 16

Management's Discussion and Analysis of Financial Condition and Results of Operation, page 16

General

19. Please expand MD&A to provide a discussion of the effect of recent economic events on your operations, financial position and liquidity. This disclosure should provide detailed information on your customers, recent order activity, expected trends, management's response for managing these events, potential future actions by management and other detailed information.

Results of Operations, page 16

20. Please discuss in greater detail the business reasons for the changes between periods in revenue and cost of goods sold. In doing so, please disclose the amount of each significant change in line items between periods and the business reasons for it. In circumstances where there is more than one business reason for

the change, attempt to quantify the incremental impact of each individual business reason discussed on the overall change in the line item. See Item 303(a)(3) of Regulation S-K.

21. Please revise your disclosure to also discuss the business reasons for the changes in operating expenses and net loss for the subsequent interim period. Your current disclosure only discusses the changes in operating expenses and net loss for the two years ended December 31, 2007.
22. You disclose on page 17 that your net loss for the six months ended June 30, 2008 was \$2,234,955. Based on your statement of operations, it appears that your net loss was actually \$2,696,782. Please revise or advise.

Liquidity and Capital Resources, page 17

23. Please provide a comprehensive discussion of your liquidity given your recurring losses and use of cash in operations and ensure you also disclose any known and anticipated trends, demands, commitments, events or uncertainties that are reasonably likely to materially increase or decrease liquidity. In addition, please expand your liquidity discussion to address the expected impact to current and future cash flows and how you expect recent economic events, including the credit shortage, may affect other sources of liquidity.

Contractual Obligations, page 17

24. Please revise your table so that the sum of your contractual obligations for each period and in total appears at the bottom of the table.

Recent Accounting Pronouncements, page 18

25. We note that you are currently evaluating the impact of the adoption of SFAS 155, 156, 157, 159 and FIN 48. Since these pronouncements are already effective for you, please revise to disclose your conclusion of the impact of adoption of these pronouncements.

Item 3. Description of Property, page 20

26. Please explain in the first paragraph why the lease agreement entered into on July 17, 2008 was made effective approximately one year earlier on August 1, 2007. Indicate that rent for the year beginning August 1, 2009 will be \$4,092. Please verify the accuracy of the calculations of the monthly rental amounts.

Item 4. Security Ownership of Certain Beneficial Owners and Management, page 21

27. Please update the November 12, 2008 date to the most recent practicable date and reconcile the number of shares issuable to UTEK with the calculation disclosed in footnote 2.

Item 5. Directors and Executive Officers, page 21

28. In each director's and executive officer's biography, please disclose the dates of his term of office with the registrant. Also, briefly describe their principal occupations and employment during the last five years, indicating the period of time such occupation and employment were carried on. For each director, indicate any other directorships held by such person. See Item 401 of Regulation S-K.

Item 6. Executive Compensation, page 23

29. Please include a narrative description of the summary compensation table, including disclosure regarding the officers' employment agreements. See Item 402(o) of Regulation S-K.
30. Please identify the persons who performed the consulting services and describe the type of consulting services performed.

Director Compensation, page 26

31. Please provide the director compensation table required by Item 402(r) of Regulation S-K.

Item 7. Certain Relationships and Related Transactions, page 27

32. Identify the parties to each related party transaction in this section.
33. Please provide the disclosure required by Item 404(c) of Regulation S-K. Since it appears that the company was a shell until 2006, also provide the disclosure required by Item 404(c)(2) of Regulation S-K.
34. Please provide a list of all parents of the company showing the basis of control and as to each parent, the percentage of voting securities owned or other basis of control by its immediate parent, if any. See Item 404(d)(3) of Regulation S-K.
35. Please describe in greater detail the business dealings with Mirari, including the following:

- Disclose the business reasons for advancing funds to Mirari in the amount of \$33,000 and why this was written off as bad debt.
- Explain why the company purchased the note receivable due Mirari in the amount of \$28,500 and why this investment was written off in 2006.
- Describe the assets the company proposes to acquire from Mirari and disclose the proposed acquisition costs of Mirari in 2008.
- As to the assets acquired or to be acquired by the registrant from Mirari, provide the disclosure required by Item 404(c)(1)(ii) of Regulation S-K.

Item 10. Recent Sales of Unregistered Securities, page 29

36. For each sale of unregistered securities transaction, expand the description to disclose the aggregate considered received by the company and the per share price at which the securities were issued. As to any securities sold otherwise than for cash, state the nature of the transaction and the nature and aggregate amount of consideration received by the registrant. See Item 701(c) of Regulation S-K.
37. For each transaction, please give the names of the principal underwriters, if any. For the transactions consummated in 2008, name the persons or identify the class of persons to whom the securities were sold. See Item 701(b) of Regulation S-K.
38. Indicate the section of the Securities Act or the rule of the Commission under which exemption from registration was claimed and state briefly the facts relied upon to make the exemption available. See Item 701(d) of Regulation S-K.
39. Please include the securities transactions listed on pages F-28, and F-40 through F-42.

Item 11. Description of Registrant's Securities to be Registered, page 31

40. Please update the October 3, 2008 date in the first paragraph and disclose the amount of securities issuable upon exercise of outstanding options, warrants and rights.

Item 14. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure, page 32

41. Please revise your disclosure to state the specific date of dismissal of your former accountant, as required by Item 304(a)(1)(i) of Regulation S-K. In addition, please disclose the date that you engaged HJ and Associates, LLC. See Item 304(a)(2) of Regulation S-K.
42. In addition, Item 304(a)(1)(ii) of Regulation S-K requires a statement whether the accountant's report on the financial statements for either of the past two years

contained an adverse opinion or a disclaimer of opinion or was qualified or modified as to uncertainty, audit scope or accounting principles; and a description of the nature of each such adverse opinion, disclaimer of opinion, modification or qualification. This would include disclosure of uncertainty regarding the ability to continue as a going concern in the accountant's report. Please revise accordingly.

43. Please include as an exhibit the letter from your former accountant indicating whether or not they agree with your disclosures. See Item 304(a)(3) of Regulation S-K.

Item 15. Financial Statements and Exhibits, page 33

Financial Statements for the Year Ended December 31, 2007

General

44. Please disclose in your financial statements the amount of research and development costs you have incurred for the fiscal years ended December 31, 2007 and 2006. See paragraph 13 of SFAS 2.

Balance Sheets, page F-3

45. Based on your statements of changes in shareholders' equity (deficit), it appears that the number of preferred stock shares issued and outstanding for the two years ended December 31, 2007 are actually 95,000 and 100,000. Please revise the description of your preferred stock on the face of the balance sheet accordingly.

Statements of Cash Flow, page F-7

46. We note that you have reflected the changes in prepaid expense paid with stock within your statement of cash flows. This appears to be a noncash transaction that does not represent cash receipts or cash payments and accordingly should be disclosed outside of the statement of cash flows. See paragraph 32 of SFAS 95 and advise or revise accordingly.

Notes to the Financial Statements

47. Please disclose the specific terms of the most stringent and/or material debt covenants in any of your debt agreements. Please include a tabular presentation of any significant required ratios as well as your actual ratios as of each reporting date. Please show the specific computations used to arrive at the actual ratios with corresponding reconciliations to US GAAP amounts, if necessary. Please also disclose if there are any stated events of default which would permit the

lenders to accelerate the debt if not cured within applicable grace periods or any cross default provisions in your debt agreements.

Note 1 – Nature of Organization, page F-8

Going Concern, page F-8

48. Please revise your going concern disclosure to provide robust disclosures regarding the substantial doubt about your ability to continue as a going concern. Specifically, please revise your disclosure to include:

- The possible effects of such conditions and events.
- Your evaluation of the significance of the conditions and events and the mitigating factors.
- Whether there is any possibility that you would discontinue operations.
- Detailed description of your plans for dealing with the adverse effects of the conditions and events.

Note 2 – Summary of Significant Accounting Policies, page F-9

General

49. We note your disclosures on pages F-10 and F-11 regarding your accounting for impairment of long-lived assets. Please enhance your disclosure to identify each of the significant assumptions used in your analysis and explain the basis for each such assumption. Please also expand your disclosure to provide additional insight on how you perform your impairment analysis under SFAS 144 to include the following:

- Please clarify how you determine when to test for impairment. Please expand your discussion to state the types of events and circumstances that you believe indicate impairment. Please address how frequently you evaluate for these types of events and circumstances; and
- Please discuss the specific valuation methods used to determine fair value. You should discuss how sensitive the fair value estimates are to each of these significant estimates and assumptions used as well as whether certain estimates and assumptions are more subjective than others.

Note 5 – Related Party Transactions, page F-15

Rent and Other Administrative Expenses, page F-16

50. Please disclose how you account for (a) step rent provisions and escalation clauses and (b) capital improvement funding and other lease concessions, which may be present in your leases. Paragraph 5.n. of SFAS 13, as amended by SFAS 29, discusses how lease payments that depend on an existing index or rate, such as the consumer price index or the prime interest rate, should also be included in your minimum lease payments. If, as we assume, they are taken into account in computing your minimum lease payments and the minimum lease payments are recognized on a straight-line basis over the minimum lease term, the note should so state. If our assumption is incorrect, please tell us how your accounting complies with SFAS 13 and FTB 88-1.
51. Please revise to disclose the total amount of rental expense incurred for all operating leases for each period presented. Your current disclosure of rental expense per location does not comply with paragraph 16(c) of SFAS 13.

Note 6 – Business Combination, page F-16

52. Regarding your acquisition of the assets of the life sciences business segment of Isonics Corporation, please tell us whether you determined this to be an acquisition of a business based on the guidance provided in Rule 11-01(d) of Regulation S-X. Please provide us with a summary of your analysis performed to make this determination. If you determine that this was an acquisition of a business pursuant to Rule 11-01(d) of Regulation S-X, please provide us with your significance tests under Rule 8-04 of Regulation S-X for each period presented. If in any period this acquisition was significant in excess of the 20% level, we remind you that this entity's separate financial statements are required to be included for all periods presented. These separate financial statements must be audited for periods that the 20% significance level was exceeded and may be unaudited for each other period. Please also tell us what consideration you gave to providing pro forma financial statements pursuant to Rule 8-05 of Regulation S-X.
53. Please clarify whether you determined your acquisition of the assets of the life sciences business segment of Isonics Corporation to be a business combination pursuant to paragraph 9 of SFAS 141. If so, please provide all of the disclosures required by paragraph 52 of SFAS 141, including a condensed balance sheet that clearly shows the amount assigned to each major asset and liability caption of the acquired entity at the acquisition date.

54. We note your disclosure in this footnote of the results of operations from this business combination. Please revise to disclose the results of operations on a pro forma basis in accordance with paragraphs 54 and 55 of SFAS 141.

Note 7 – License Fee Acquisition, page F-18

55. You disclose that you acquired the assets of Neu-Hope Technologies, Inc. in September 2006. Your disclosures indicate that you determined that you did not acquire a business. We remind you that Rule 11-01(d) of Regulation S-X should be used to determine if you have acquired a business for purposes of determining whether audited financial statements and pro forma financial information are required. Using this guidance, please demonstrate how you determined you did not acquire a business. Your analysis should include a complete description of the assets acquired, the cost to acquire the assets and an indication as to whether the assets acquired represented substantially of the operating assets of the entity from which they were acquired.

Note 8 – Prepaid Expenses Paid with Stock, page F-19

56. We note that you had prepaid expenses in the amount of \$266,348 that were expected to mature in 2008; however, you disclose on the face of your balance sheet that the current portion of prepaid expenses paid with stock was only \$239,250. Please advise or revise.

Note 10 – Capital Lease Obligations, page F-19

57. Please help us further understand how your accounting complies with SFAS 13. Specifically, please tell us the initial amount for which you recorded an asset and obligation in September 2007 related to each of the capital leases pursuant to paragraph 10 of SFAS 13 as well as how you determined these amounts. Please provide us with a rollforward so that we can understand how you arrived at the balances related to these capital lease obligations as of December 31, 2007.

Note 12 – Stockholders' Equity, page F-21

58. At the top of page F-23 you disclose that you issued 1,000,000 shares of common stock to your CEO for consideration of past services based upon a previously determined value of \$.07 per share. You also state that stock-based compensation expense of \$70,000 has been recognized in the accompanying financial statements for the year ended December 31, 2007. At the bottom of page F-24 you disclose that you granted the CEO options to purchase 1,000,000 shares of common stock at an exercise price of \$.07 per share. You indicate that you recorded \$70,000 of stock-based compensation during the year ended December 31, 2006. Please clarify whether these disclosures are related to the same transaction. If so, please

clarify why \$70,000 was recorded in both the year ended December 31, 2006 and the year ended December 31, 2007. If these are two separate transactions, please clarify how you determined it was appropriate to use a value of \$.07 per share in the December 2007 transaction. Please clarify your disclosures as necessary.

Common Stock, page F-22

59. Your disclosures indicate that you repeatedly issued shares of common stock in exchange for services. Your disclosures state that you recorded the transaction on your financial statements based on the quoted market price of stock on the transaction date. For each transaction or related type of transactions, please disclose how your accounting of these transactions including the fair value used to record the transaction complies with EITF 96-18.

Preferred Stock, page F-22

60. You state that the Series A Preferred Stock shares can be converted to unrestricted common stock in the amount of \$3,350,000. The number of shares shall be calculated based on the previous 10 day average closing price on the day of conversion. Please tell us what consideration you gave to SFAS 133 and EITF 00-19 in accounting for the conversion feature, with specific reference to paragraphs 20 through 24 of EITF 00-19.
61. Please disclose the nature of the line item described as Preferred Stock Redeemable as Common on your balance sheets as well as how this amount was determined.
62. Please disclose all the terms, rights, and obligations associated with your preferred stock, including if there are any redemption terms. Refer to paragraphs 4 through 8 of SFAS 129.

Note 13 – Concentrations of Credit and Other Risks, page F-26

63. Please disclose, for each customer who represents ten percent or more of your revenues, the total amount of revenues from each such customer. See paragraph 39 of SFAS 131.

Financial Statements for the Period Ended June 30, 2008

General

64. Please address the above comments in your interim filings as well.

65. Please revise to include interim financial statements for the period ended September 30, 2008. Please similarly update your financial information throughout the filing. See Rule 8-08 of Regulation S-X.

Note 5 – Related Party Transactions, page F-34

Rent and Other Administrative Expenses, page F-34

66. Please provide your future minimum lease payments in the aggregate rather than on a lease by lease basis. Please revise here and on pages 27 and 28. See paragraph 16(b) of SFAS 13.

Note 8 – Prepaid Expenses Paid with Stock, page F-38

67. We note your disclosure that stock issued for prepaid rent will expire annually through July 2013 at the rate of \$37,500 per year; however, based on your detailed listing, prepaid expenses in the amount of \$21,875 are expected to mature for the twelve month period ended June 30, 2012. Please revise or advise. Please also help us understand how these amounts agree to the amounts presented on the face of your balance sheet.

Please respond to these comments 10 business days, or tell us when you will provide us with a response. Please provide us with a response letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please file your response on EDGAR as a correspondence file. Please understand that we may have additional comments after reviewing your responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information required under the Securities Exchange of 1934 and that they have provided all information investors require for an informed decision. 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 connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in their filings;
- 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

Mr. James C. Katzaroff
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- 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

You may contact Jeffrey Gordon, Accountant at (202) 551-3866 or Nudrat Salik, Reviewing Accountant at (202) 551-3692 if you have questions regarding comments on the financial statements and related matters. Please contact Dorine H. Miller, Financial Analyst at (202) 551-3711 or Brigitte P. Lippmann, Senior Staff Attorney at (202) 551-3713 with any other questions.

Sincerely,

Pamela A. Long
Assistant Director

cc: Andrea Cataneo, Esq.
Sichenzia Ross Friedman Ference LLP
61 Broadway, 32nd Floor
New York, NY 10006