



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-4631

August 16, 2011

Via U.S. Mail

Johan M. (Thijs) Spoor
Chief Executive Officer
FluoroPharma Medical, Inc.
500 Boylston Street, Suite 1600
Boston, MA 02116

Re: FlouroPharma Medical, Inc.
Amendment 2 to Current Report on Form 8-K dated May 16, 2011
Filed August 4, 2011
Annual Report on Form 10-K for the fiscal year ended December 31, 2010
Filed March 16, 2011
Quarterly Report on Form 10-Q for the quarter ended June 30, 2011
Filed August 15, 2011
File No. 333-147193

Dear Dr. Elmaleh:

We reviewed the above-captioned filings and have the following comments.

Form 8-K/A filed August 4, 2011

Item 9.01 – Financial Statements

General

1. We note your response to comment 3 in our letter dated July 25, 2011. Please address the following:
 - Please specifically tell us your basis for allocation between the issuances of common and preferred stock and warrants. Please provide a robust description of your methodology.
 - Please tell us what consideration you gave to ASC 815-40-15 in accounting for the anti-dilution provisions.

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- You indicated that there is a one to one conversion to common stock. However, the conversion price is set at \$0.83 per share. Please advise. Please tell us the fair value of your common stock on the date of issuance of your preferred stock. Please also tell us what consideration you gave as to whether there is a beneficial conversion feature.

Form 10-K for the fiscal year ended December 31, 2010

Financial Statements

Report of Independent Registered Public Accounting Firm, page F-1

2. We note your response to comment 11 in our letter dated July 25, 2011. Please file an amended Form 10-K for the year ended December 31, 2010 to include the revised audit opinion that references the related statement of operations, stockholders' equity, and cash flows for the period January 25, 2007 (Inception) to December 31, 2010.

Form 10-Q for the quarter ended June 30, 2011

Exhibit 31.1

3. We note that you omit the phrase "and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f))" in the introductory portion of paragraph 4. Item 601(b)(31) of Regulation S-K specifies that the certifications must be exactly as set forth in the item. Please revise in future filings.

You may contact Ernest M. Greene, Staff Accountant, at (202) 551-3733 or Nudrat S. Salik, Staff Accountant, at (202) 551-3692 if you have questions on the financial statements and related

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matters. You may contact Edward M. Kelly, Esq. at 202-551-3728 or me at (202) 551-3397 if you have any other questions.

Sincerely,

/s/ Jay Ingram

Jay E. Ingram
Legal Branch Chief

cc: Via Facsimile
Marc J. Ross, Esq.
Marcelle S. Balcombe, Esq.
Sichenzia Ross Friedman Ference LLP
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