

October 9, 2008

Mail Stop 6010

Kenneth T. Coviello  
Chief Executive Officer  
Vycor Medical Inc.  
80 Orville Drive, Suite 100  
Bohemia, New York 11716

**Re: Vycor Medical, Inc.  
Amendment No. 3 to Registration Statement on Form S-1  
Filed September 25, 2008  
File No. 333-149782**

Dear Mr.Coviello:

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.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 18

Critical Accounting Policies and Estimates, page 20

1. You disclose that "[m]anagement does not believe that any recently issued, but not yet effective, accounting standards if currently adopted would have a material effect on the accompanying financial statements." Your disclosure under this section should address the role significant accounting policies and estimates have in understanding the company's results.

Manufacture, page 29

2. We note your response to our prior comment 4. As previously requested please disclose the current status of your contract with Lacey, including that you have a large amount payable to them and have entered into a payment plan with them to pay off this amount.

Financial Statements, page 69

Balance Sheets, page 71

3. Please ensure that your balance sheet properly balances. We note that the amounts reflected within your members' deficiency as of December 31, 2006 do not add up to the total shown of \$(236,990). Further, the item descriptions and amounts should agree to your statement of members' deficiency on page 73. It is not appropriate to exclude these amounts and to only refer to note 5 in the column in your balance sheet.

Statements of Operations, page 72

4. Please refer to prior comment 9. We note that you reclassified the expense for 'compensatory element of stock' from non-operating expenses to operating expenses. Please revise to reflect the expense related to share-based payment arrangements in the same line or lines as cash compensation paid to the same employees consistent with SAB Topic 14.F. Please similarly revise your interim statements of operations on page 90.
5. Please remove the double underline shown under your operating losses to avoid implying that this is a total and not a subtotal.

Note 1. Significant Accounting Policies, page 75

Use of Estimates in the Preparation of Financial Statements, page 75

6. We note your disclosure that "the Company's only estimate is that of depreciation expense." Please tell us why you did not include your estimates with respect to rights, options and warrants and useful lives related to your intangible assets.

Fair Values of Financial Instruments, page 76

7. You disclose that "[a]t December 31, 2007 and 2006, fair values of cash and cash equivalents, accounts payable, and convertible promissory notes approximate

their carrying amount due to the short period of time to maturity.” Please tell us why you believe the carrying value of the debt reflects its fair value.

Revenue Recognition, page 77

8. Please refer to prior comment 11. You disclose that your product is “registered with” the FDA. Tell us what you mean by “registered.” It appears that a more appropriate disclosure would be that the FDA cleared the firm’s 510(k).

Note 3. Long-Term Debt, page 78

9. Please refer to prior comment 12. We note that you have reclassified the current portion of long-term debt on the balance sheet. However the entire balance remains as long term debt in footnote 3. Please revise the disclosure to present the balances of the current and long term portions of debt consistently in your footnote.
10. Please refer to prior comment 14. Please tell us and disclose whether you are using the effective interest rate method for the amortization of debt discount for the Salomon note. Refer to paragraph 16 of APB 12.
11. Please refer to prior comment 14. Please tell us and expand your disclosure to describe the significant terms of your variable conversion rate features for the Fountainhead and Salomon debt.
12. Further, please disclose the valuation of the conversion rate feature on the date you issued the debt and as of December 31, 2006 and 2007. Please also disclose the significant assumptions used to value the conversion rate feature as of each date.
13. Please refer to prior comment 16. Under paragraph 19 of EITF 00-19, you should determine whether or not the company has sufficient authorized and unissued shares available to settle the contract after considering all other commitments that may require the issuance of stock during the maximum period the derivative contract could remain outstanding. We note from page 71 that you have 100 million shares authorized and 18,289,999 shares outstanding as of December 31, 2007. On page 79 you disclose that the options, warrants and convertible securities, if fully exercised or converted, would result in the aggregate, to the issuance of an additional 13,885,497 shares of the Company’s common stock. As such, it would appear that you have sufficient authorized and unissued shares and would conclude that you met this paragraph of EITF 00-19. Please explain to us in sufficient detail how you evaluated the terms of your convertible debt and

determined that the conversion feature should be bifurcated and accounted for as a derivative at fair value. Your response should include your analysis of paragraphs 12 – 32 of EITF 00-19.

14. Please refer to prior comment 21. We note that the totals of \$117,476 and \$46,070 from the table on page 81 are reflected in your statements of shareholders' deficit in 2006 and 2007. As such, it appears that you recorded the fair value of the conversion feature as a credit to APIC (equity) and not as a liability. This classification is not consistent with your stated accounting that you treated the conversion feature as a derivative liability under SFAS 133 wherein the derivative would be stated at fair value, recorded as a liability, and marked to market each reporting period. Please reconcile.
15. Please disclose for each of the five years following the date of the latest balance sheet presented the combined aggregate amount of maturities for all long-term borrowings as required by paragraph 10 of SFAS 47.

Note 4. Options, Warrants and Convertible Securities, page 79

16. We note your disclosure that “[d]uring the year ended December 31, 2006, the Company (a) issued a convertible debenture to Fountainhead Capital Partners, Limited which would result in the issuance of an additional 1,876,300 shares of the Company’s common stock if fully converted...” Please explain how this disclosure is consistent with your disclosure in note 3 which states that the note was convertible into a variable number of shares. Tell us and disclose whether or not the contract limits or caps the number of shares to be delivered under the contract to a fixed number.

Note 5. Net Loss per Share, page 80

17. Please refer to prior comment 17. Please move the disclosures related to 2008 to your interim financial statements, or tell us why you provide this disclosure in your audited financial statements and not within your unaudited interim financial statements.
18. Please refer to prior comment 18. We note that the explanations given in your response should be included in your disclosure. Further, please tell us and amend your disclosure to discuss how the volatility figure you disclose was derived. Specifically discuss the other factors that you state on page 82. Please explain to us the nature of the other factors and how you determined your volatility with reference to SFAS 123R and SAB Topic 14. Discuss how you determine implied volatility.

19. You disclose that “[a]s of December 31, 2007 the Company has outstanding rights, warrants and options that would, if exercised, result in the issuance of 13,885,497 additional common shares. The fair value of these rights, warrants and options in accordance with the Black-Scholes valuation model is approximately \$ 163,545.” Please remove the disclosure of the fair value of the aggregate of the rights, options and warrants, or tell us why you believe this disclosure is meaningful. Please similarly revise the same disclosure on pages 79 and the two disclosures on page 100.
20. With respect to your Black-Scholes valuation table, please address the following:
- For the convertible debentures, please tell us and disclose how you determined the number of shares given your disclosure in Note 3 that there is a variable number of shares issuable upon conversion.
  - Please disclose how you determined the Black-Scholes fair values by disclosing the significant assumptions underlying each of the calculations.
  - Please tell us and disclose how you determined the amounts presented under the price column.
  - Please tell us why you show prices of \$0.10, \$0.50, \$0.33 and \$0.44 for December 14, 2006.
  - Please reconcile the total amount related to the Fountainhead rights, warrants and options of \$90,956 to Notes 3 and 7 and your audited balance sheet, statement of operations and statements of shareholders’ deficit.
  - Please reconcile the total amount related to the Salomon rights and options of \$35,833 to Notes 3 and 7 and your audited balance sheet, statement of operations and statements of shareholders’ deficit.

Warrants, page 83

21. Please refer to prior comment 20. You disclose that the warrant issued to Fountainhead Capital Partners Limited “was determined to be *an embedded derivative* in connection with the related convertible debenture and was valued under the Black-Scholes Model.” You provide similar disclosure with respect to the Fountainhead options. Your response states that “[t]he warrants and Option Agreement have been *treated as free standing securities* as these rights are not dependent upon the existence of any other instruments.” [emphasis added] Please reconcile and revise your disclosure as appropriate.

22. Please refer to prior comment 20. Please provide us with your analysis of the options and warrants issued under SFAS 133 and EITF 00-19. That analysis should tell us whether you have classified these instruments as equity or liabilities and why.
23. You disclose on page 83 that “[t]he fair value of the warrant was used to reduce the carrying value of the related debenture and the difference was recorded as a discount on the debenture.” [emphasis added] You provide similar disclosure with respect to the options. If the options and warrants should be classified as equity, then it appears that you should follow paragraph 16 of APB 14 and allocate the proceeds from the sale of the debt with warrants based on the relative fair values of the debt security and the warrants at time of issuance. If true, you would allocate the portion of the proceeds related to the warrants as additional paid-in capital and the portion related to the debt security as a liability. As a result, you would show the debt as issued at a discount and amortize the discount over the life of the debt using the effective interest method consistent with paragraph 16 of APB 12. Please tell us how your allocation considered paragraph 16 of APB 14.
24. Please refer to prior comment 14. You further disclose that “[t]he discount and the fair value of the warrant are both being amortized *over the expected life of the warrant.*” [emphasis added] You provide similar disclosure with respect to the option. Please tell us how your accounting considered paragraph 16 of APB 12 which requires amortization of debt discount over the life of the debt. Cite the accounting literature you relied upon. Also, please tell us and disclose the amortization method used for the discount. Refer to paragraph 16 of APB 12 which refers to the effective interest rate method.
25. On page 85 you disclose that you issued options to purchase 1 million shares of common stock on February 15, 2008 and that you will amortize the fair value of the options over the expected life of the options. Please respond to the following:
  - Please tell us and disclose whether you issued these options to employees or non-employees.
  - Please tell us and disclose the significant assumptions used to value the options.
  - Tell us why you are amortizing the fair value of the options over the expected life of the options and not the vesting period. Cite the accounting literature upon which you relied. Discuss how you considered Issue 2 of EITF 96-18 and paragraph 39 of SFAS 123R. Discuss whether and how you are recognizing the compensation cost over the requisite service period based on an analysis of the terms of the share-based payment award.

- Please similarly address the accounting for the other options and warrants discussed on page 85 where you disclose that the fair value of the option is being amortized over the expected life of the option. Tell us why the expected term represents the same period in which you would recognize the expense for the services if you had paid cash for those services instead of paying with the equity instruments.

Note 7. Restatement of Financial Data as of December 31, 2007, page 86

26. Please refer to prior comment 22 and respond to the following comments:
- Please revise so that the amounts in the adjustments column in your December 31, 2007 adds down to the totals shown and adds across in all rows.
  - Please revise so that the amounts in the as adjusted column in your December 31, 2006 adds across in all rows and adds down to the totals shown.
  - Please reconcile the total adjustments of \$(67,380) [debit] reflected in your December 31, 2007 statement of operations to the total adjustments reflected in your stockholders' deficiency of \$78,269 [credit] reflected in your December 31, 2007 balance sheet.
  - Please revise your explanations of the adjustments to explain why you are making the adjustments. For example, explain why you reclassified the fair value of the options and warrants and how you reclassified the value.
  - Please include a December 31, 2006 balance sheet showing the adjustments thereto, or tell us why you are not required by SFAS 154 to provide this information.
  - Please reconcile the total amounts in your adjusted December 31, 2007 balance sheet to your audited balance sheet on page 71. Ensure that you are properly presenting all of the adjustments and reclassifications you have made to your balance sheet.
  - Please reconcile the total amounts in your adjusted December 31, 2007 statement of operations to your audited statement of operations on page 72.
27. Further, please give us a journal entry for each of the adjustments you are making showing the accounts debited and credited and the associated amounts. Include an explanation of each adjustment.
28. In this regard, please tell us why you reclassified \$79,353 related to the options and warrants from debt to shareholders' deficiency. We note from caption (B) on page 86 that you appear to have booked the fair value of warrants and options granted to Fountainhead Capital and David Salomon in Stockholder's Deficiency.

Please reconcile this disclosure with your other disclosures stating that these derivatives were recorded as a liability on your balance sheet.

29. Please explain why you are recording the value of derivative related to the conversion feature within SG&A and not as a non-operating expense.

#### Interim Financial Statements

##### Balance Sheets, page 89

30. Please refer to prior comments 12 and 13. We note that you revised your December 31, 2007 balance sheet on page 71 to properly reflect the current portion of your long-term debt. Please similarly revise your December 31, 2007 balance sheet shown on page 89. Please ensure that these two balance sheets reconcile.

##### Statements of Operations, pages 90 and 91

31. Please tell us why you reflect no interest expense for the three and six months ended June 30, 2007. We note from page 78 that you issued debt on December 14, 2006, January 9, 2007 and April 18, 2007.

##### Note 3. Issuance of Common Shares, page 97

32. We note your disclosure that you issued 1,211,111 shares of common stock “on conversion of Debenture and as additional consideration to induce conversion.” Please respond to the following:
- Please tell us whether the conversion privileges provided for in the terms of the debt at issuance were changed to induce conversion and the changed conversion privileges were exercisable only for a limited period of time. Refer to paragraph 2 of SFAS 84.
  - Please tell us and disclose whether you accounted for the ‘induced conversion’ by expensing the excess of the fair value of all securities and other consideration issued over the fair value of securities issuable pursuant to the original conversion terms.

##### Note 4. Long-Term Debt, page 99

33. Please refer to prior comment 26. Please clarify the long-term and short term amount of the debt in your note and ensure that the amounts reconcile with your balance sheet.



34. We note that you do not disclose that the Fountainhead debt is convertible. Please tell us whether you changed the terms of the debt.
35. Please disclose the total amount of the debt issued to Fountainhead Capital Partners Limited and Regent Private Capital, LLC. Tell us and disclose how you determined the amount of the discount associated with the debt. Since the conversion price is \$0.1230 per share, please tell us whether or not there was a beneficial conversion feature associated with the debt. Refer to EITF 98-5 and 00-27. To the extent that there is a beneficial conversion feature ('BCF'), discuss whether you recognized and measured the BCF by allocating a portion of the proceeds equal to the intrinsic value of that feature to additional paid-in capital as discussed in paragraph 5 of EITF 98-5.

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested supplemental information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and 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 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.

You may contact Jong Hwang at 202-551-3327 or in his absence, Kaitlin Tillan at 202-551-3604 if you have questions regarding comments on the financial statements and related matters. Please contact Jay Mumford at (202) 551-3637 or me at (202) 551-3444 with any other questions.

Sincerely,

Perry Hindin  
Special Counsel

cc: (via fax) Benjamin Tan, Esq.