

February 2, 2010

VIA EDGAR – CORRESPONDENCE

United States Securities and Exchange Commission  
Division of Corporation Finance  
100 F. Street, NE  
Washington, D.C. 20549

Attention: Brian Cascio, Accounting Branch Chief

**Re: Delcath Systems, Inc. (“Delcath” or the “Company”)  
Form 10-K for the fiscal year ended December 31, 2008  
Filed March 3, 2009  
Form 10-Q for the fiscal quarter ended September 30, 2009  
Filed October 23, 2009  
File No. 001-16133**

Dear Mr. Cascio:

This letter is being submitted in response to the Securities and Exchange Commission’s letter dated January 26, 2010. The Commission’s letter concerns the Staff’s review and consideration of Delcath’s responses to the Staff’s comments, set forth in a letter dated December 29, 2009, to Delcath’s Annual Report on Form 10-K for the fiscal year ended December 31, 2008 (the “Form 10-K”) and Form 10-Q for the fiscal quarter ended September 30, 2009 (the “Form 10-Q”).

The below response is to the Staff’s comment (included in its entirety below) set forth in the Commission’s letter of January 26, 2010.

Form 10-Q for the quarterly period ended September 30, 2009

Item 1. Condensed Financial Statements (Unaudited)

Note 8. Assets and Liabilities Measured at Fair Value, page F-10

**1. We note your response to prior comment 7 and your analysis that all of the inputs to the Black-Scholes model are level 2 or below. However, please tell us why the use of a valuation model does not result in the valuation of the warrant derivative liability being classified as a level 3 of the fair-value hierarchy. We refer you to FASB ASC 820-10-35-53 and 54 and 820-10-55-22.**

We respectfully submit to the Staff, that the use of a valuation model (e.g., Black-Scholes model) does not, alone, require that the valuation of the warrant derivative liability be classified as a Level 3 within the fair value hierarchy. This position is supported by FASB ASC 820-10-35-38 which states (in part), that,

“the fair-value hierarchy prioritizes the inputs to valuation techniques, not the valuation techniques. For example, a fair-value measurement using a present value technique might fall within Level 2 or Level 3, depending on the inputs that are significant to the measurement in its entirety and the level in the fair value hierarchy within which those inputs fall.”

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Based on this guidance, Delcath concluded the appropriate level of the fair value hierarchy is not determinable based on the use of a valuation model, but could only be determined by evaluating the inputs for that model. Delcath then applied the guidance in FASB ASC 820-10-35-37 which states (in part),

“in some cases, the inputs used to measure fair value might fall in different levels of the fair value hierarchy. The level in the fair value hierarchy within which the fair value measurement in its entirety falls shall be determined based on the lowest level input that is significant to the fair value measurement in its entirety.”

As noted in our response to prior Staff comment 7, we evaluated the six inputs and determined that all the inputs to the Black-Scholes model are Level 1 or Level 2.

We appreciate your consideration of Delcath’s response. We stand ready to completely address the Staff’s comments. If you have further comments or questions related to our response to your letter, please call me at (212) 489-2100 (ext. 226).

Sincerely,  
David A. McDonald  
By: /s/ David A. McDonald  
Chief Financial Officer

cc: Ms. Kristin Lochhead,  
Staff Accountant  
**By Facsimile**

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