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**\*FOIA Confidential Treatment Request\***  
**Confidential Treatment Requested by Chimerix, Inc.**  
**in connection with Registration Statement on Form S-1 filed March 8, 2013**  
**(File No. 333-187145)**  
**CMRX-0001**

March 20, 2013

VIA EDGAR AND FEDEX

United States Securities and Exchange Commission  
Division of Corporate Finance  
Mail Stop 6010  
100 F Street, N.E.  
Washington, D.C. 20549  
Attn: Jeffrey Riedler  
Austin Stephenson

**Re: Chimerix, Inc.**  
**Registration Statement on Form S-1**  
**File No. 333-187145**

Dear Mr. Riedler:

On behalf of our client, Chimerix, Inc. (the "**Company**"), we are submitting this letter in response to comments received from the staff (the "**Staff**") of the Securities and Exchange Commission (the "**Commission**") by letter dated February 26, 2013 (the "**Comment Letter**"), relating to the Company's confidential draft registration statement on Form S-1 submitted to the Commission on January 30, 2013, which was subsequently amended in response to the Comment Letter and filed with the Commission on March 8, 2013 (the "**Registration Statement**"). In this letter, we are responding only to comment number 10 in the Comment Letter, the text of which we have incorporated into this response letter for convenience.

#### **Confidential Treatment Request**

Due to the commercially sensitive nature of information contained herein, the Company hereby requests, pursuant to 17 C.F.R. § 200.83, that certain portions of this letter be maintained in confidence, not be made part of any public record and not be disclosed to any person as they contain confidential information. The Company has filed a separate copy of this letter, marked to show the portions redacted from the version filed via EDGAR and for which the Company is requesting confidential treatment. In accordance with 17 C.F.R. § 200.83(d)(1), if any person (including any governmental employee who is not an employee of the Commission) should request access to or an opportunity to inspect this letter, we request that we be immediately notified of any such request, be furnished with a copy of all written materials pertaining to such request (including, but not limited to, the request itself) and be given at least ten business days advance notice of any intended release so that the Company may, if deemed necessary or appropriate, pursue any remedies available to it. In such an event, we request that you telephone the undersigned rather than rely upon the U.S. mail for such notice. The address and

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telephone number for Jason L. Kent, the responsible representative, is c/o Cooley LLP, 4401 Eastgate Mall, San Diego, California 92121-1909, telephone number (858) 550-6044.

### Staff Comments and Company Responses

#### Common Stock Fair Value, page 56

**10.** *We may have additional comments on your accounting for stock compensation and related disclosure once you have disclosed an estimated offering price. Please provide quantitative and qualitative disclosures explaining the difference between the estimated offering price and the fair value of each equity issuance.*

**Response:** We respectfully advise the Staff that on March 20, 2013, the Company, based on information provided by its underwriters, determined that the estimated offering prices to be included on the cover of the Company's preliminary prospectus would be in the range of \$[\*\*\*] to \$[\*\*\*] per share. Please note that the foregoing per-share amounts do not reflect the impact of an anticipated reverse stock split which the Company plans to effect immediately prior to the closing of the offering. We acknowledge that the foregoing range slightly exceeds 20% and we advise the Staff that the actual price range to be included on the cover of the preliminary prospectus will be no greater than 20% (or \$2, if the maximum price is \$10 or less).

Historically, the fair value of the Company's common stock for purposes of determining the exercise price for stock option grants has been determined on each grant date by the Company's board of directors (the "**Board**"), or by a committee of the Board acting under delegated authority, with input from management. All stock options were intended to be granted with an exercise price per share no less than the fair value per share of the Company's common stock underlying those options on the date of grant, determined in good faith and based on the information known to the Board on the date of grant. In the absence of a public trading market for the Company's common stock, on each grant date, the Board, or a committee of the Board acting under delegated authority, considered various objective and subjective factors described in the Registration Statement to determine the fair value of the Company's common stock.

The Board, or a committee of the Board, has also considered and relied upon appraisals of the value of our stock from an independent third-party valuation specialist who conducted a thorough analysis using methodologies, approaches and assumptions consistent with the American Institute of Certified Public Accountants Audit and Accounting Practice Aid Series: Valuation of Privately Held Company Equity Securities Issued as Compensation. The independent third-party valuation specialist provided analyses as to the fair value of the Company's common stock as of June 1, 2009, February 15, 2011, December 31, 2011, September 30, 2012, December 31, 2012 and March 1, 2013. Commencing with the September 30, 2012 valuation report, a probability that the Company would complete an initial public offering was assigned. This probability weighting was then applied to determine the final fair value of the Company's common stock as of the date of the applicable valuation report.

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The following table lists stock options granted by the Board, or a committee of the Board, during the period from January 1, 2010 through the date of this letter, in reliance on the various objective and subjective factors and the valuation analyses described above:

Grant Dates	Number of Common Shares Underlying Options Granted	Exercise Price per Common Share	Fair Value per Common Share	Intrinsic Value per Grant
January 15, 2010	147,500	\$0.89	\$0.89	-
February 5, 2010	5,300	\$0.89	\$0.89	-
April 14, 2010	833,444	\$0.89	\$0.89	-
April 20, 2010	200,000	\$0.89	\$0.89	-
May 11, 2010	25,300	\$0.89	\$0.89	-
May 24, 2010	140,000	\$0.89	\$0.89	-
July 6, 2010	140,000	\$0.89	\$0.89	-
July 20, 2010	187,000	\$0.89	\$0.89	-
August 12, 2010	50,000	\$0.89	\$0.89	-
April 7, 2011	2,516,500	\$0.66	\$0.66	-
April 8, 2011	45,000	\$0.66	\$0.66	-
May 10, 2011	141,000	\$0.66	\$0.66	-
June 20, 2011	50,000	\$0.66	\$0.66	-
August 15, 2011	50,000	\$0.66	\$0.66	-
September 6, 2011	12,000	\$0.66	\$0.66	-
September 30, 2011	56,000	\$0.66	\$0.66	-
November 17, 2011	250,000	\$0.66	\$0.66	-
February 22, 2012 (1)	6,000	\$0.66	\$0.70	\$240
February 28, 2012 (1)	15,000	\$0.66	\$0.70	\$600
March 29, 2012(1)	50,000	\$0.66	\$0.70	\$2,000
April 18, 2012 (1)	50,000	\$0.66	\$0.70	\$2,000
May 16, 2012	5,000	\$0.67	\$0.95	\$1,400
June 1, 2012	50,000	\$0.67	\$0.95	\$14,000
June 13, 2012	436,723	\$0.67	\$0.95	\$122,282
June 27, 2012	3,000	\$0.67	\$0.95	\$840
July 16, 2012	50,000	\$0.67	\$0.95	\$14,000
August 17, 2012	25,000	\$0.67	\$1.20	\$13,250
September 17, 2012	10,000	\$0.67	\$1.20	\$5,300
October 8, 2012 (2)	15,000	\$0.67	\$1.20	\$7,950
October 25, 2012 (2)	16,000	\$0.67	\$1.20	\$8,480
November 18, 2012	625,000	\$1.20	\$1.20	-
February 4, 2013	300,000	\$1.42	\$1.42	-
February 21, 2013	5,000	\$1.42	\$1.42	-

March 13, 2013	350,000	\$2.13	\$2.13	-
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(1) The December 31, 2011 valuation analysis was not completed until late April 2012, and therefore was not available at the time the February 22 and 28, March 29 and April 18, 2012 stock option grants were made. The board of directors or a committee of the board of directors, as applicable, determined the exercise price of these option grants in good faith based on all of the information known to them at the time of such grants.

(2) The September 30, 2012 valuation analysis was not completed until January 2013, and therefore was not available at the time the October 8 and October 25, 2012 stock option grants were made. The board of directors or a committee of the board of directors, as applicable, determined the exercise price of these option grants in good faith based on all of the information known to them at the time of such grants.

In connection with the preparation of the financial statements necessary for inclusion in the Registration Statement, the Company reassessed the estimated fair value of its common stock on a retrospective basis for financial reporting purposes. With respect to stock options granted prior to 2012, the Company concluded that such options had an exercise price that was equal to the fair value of the common stock on the date of grant. In contrast, based on the September 30 and December 31, 2012 valuation reports (i.e., the first valuations that were probability-weighted for an initial public offering), the Company concluded in retrospect that certain stock options granted during 2012 had an exercise price that was different than the reassessed fair value of the common stock at the date of grant. The Company used these fair value reassessments to determine stock-based compensation expense which is recorded in the 2012 financial statements included in the Registration Statement. The difference between the reassessed fair value of the common stock versus the exercise price of the stock options is reflected as intrinsic value in the table above.

With a view towards addressing the Staff's request that the Company provide quantitative and qualitative disclosures explaining the difference between the estimated offering price and the fair value of each equity issuance, the following table sets forth information regarding the per-share valuation results contained in the three most recent valuation reports prepared by the Company's valuation specialist (i.e., the valuations that were probability-weighted for an initial public offering):

Valuation Date	IPO Price Per Share Per Valuation Specialist (1)	IPO Price Per Share as a % Of Low End of Estimated Offering Price Range (2)	Present Value Discount Factor(3)	IPO Probability Assigned for Valuation Purposes	Fair Value Per Share Determined by Valuation Specialist
9/30/12	\$2.88	[***]%	0.16%	20%	\$1.20
12/31/12	\$2.85	[***]%	0.11%	30%	\$1.42
3/1/13	\$3.72	[***]%	0.09%	45%	\$2.13

(1) Valuation specialist's indicated fair value per share in an IPO scenario, after applying the indicated present value discount factor (see footnote 3 below).

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(2) As a percent of \$[\*\*\*], the low end of the estimated offering price range determined by the Company on March 20, 2013.

(3) Discount factor assumed by valuation specialist to reflect the estimated remaining time to the completion of an initial public offering.

The fair value per share associated with the IPO scenario contained in the valuation reports increased during the periods shown in the table above primarily due to (i) the increasing probability of the completion of an initial public offering, offset by the decreasing probability of other outcomes and (ii) a lower present value discount applied to the IPO scenario, driven by successive reductions in the estimated remaining time to the completion of an initial public offering. Various factors contributed to the increased probability of the completion of an initial public offering and the related increase in the fair value per share.

In particular, during the period from December 31, 2011 (when a fair value per share of \$0.67 was determined), through September 30, 2012 (when a 20% probability of an initial public offering was assigned resulting in a fair value per share of \$1.20), the following events occurred:

- in February 2012, the Company announced positive results from Study 201, its CMX001 Phase 2 study in CMV;
- in May 2012, a positive End-of-Phase 2 meeting was held with the FDA with respect to CMX001 for the prevention of CMV infection in HSCT recipients; and
- in July 2012, the Company announced the execution of an exclusive license and collaboration agreement with Merck for the out-license of CMX157, pursuant to which the Company received \$17.5 million in upfront fees.

Subsequently, during the period from September 30, 2012, through December 31, 2012 (when a 30% probability of an initial public offering was assigned resulting in a fair value per share of \$1.42), the following events occurred which contributed to a further increase in the IPO probability and the fair value per share:

- in November 2012, the Company appointed M. Michelle Berrey, M.D., M.P.H. as its Chief Medical Officer;
- in December 2012, the Company completed the enrollment of its CMX001 Phase 2 study in AdV;
- in December 2012, the Company reached agreement with the FDA for timing and primary endpoints for its Phase 3 study with respect to CMX001 for the prevention of CMV infection in HSCT recipients; and
- in December 2012, the Company made significant progress with respect to its development of CMX001 for the treatment of smallpox.

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The Company respectfully advises the Staff that the valuation analysis performed as of March 1, 2013 applied a 45% probability of an initial public offering and yielded a fair value of the Company's common stock of \$2.13 per share as of that date. The following events occurred which contributed to this further increase in the IPO probability and the fair value per share:

- in February 2013, the Company appointed Ernest Mario, Ph.D. as the Chairman of its Board of Directors;
- in February 2013, the Company's discussions with the FDA with respect to its Phase 3 study with respect to CMX001 for the prevention of CMV infection in HSCT recipients resulted in an agreed population, endpoint and study design for which the Company received a "Study May Proceed" letter; and
- in February 2013, the FDA granted Fast Track designation for CMX001 for the prevention of CMV infection.

The Company respectfully submits that the difference between the fair value of the Company's common stock as of March 1, 2013 and the low end of the estimated offering price range described above is justified by additional events occurring between March 1, 2013 and the date of this letter which contributed to this increase, namely the Company's hiring of Michael D. Rogers, Ph.D. as the Company's Chief Development Officer.

In addition, the increase in value between the March 1, 2013 and prior valuations described above, compared to the estimated offering price range, is reasonable in light of differences in the probability of completing an IPO inherent in the valuation. Specifically, the March 1, 2013 and prior valuation analyses involved a probability-weighted approach and therefore the resulting valuations reflected the potential for outcomes other than an initial public offering, which in the aggregate had lower values than the initial public offering scenario. In contrast, the estimated offering price range provided by the Company's underwriters is a single outcome which necessarily assumes that the initial public offering has occurred.

Finally, there are other factors that justify the discount in the March 1, 2013 and prior valuations, compared to the estimated offering price range, including (i) the lack of marketability of the Company's common stock as a privately held business, (ii) the inherent uncertainty of completing a successful initial public offering, (iii) the possibility that the actual offering price could be substantially lower than the estimated offering price range provided by the Company's underwriters and (iv) the 180-day lock-up agreement to which the shares underlying stock options will be subject following the offering.

In its next amendment to the Registration Statement, the Company will include disclosure regarding the estimated offering price range and reverse stock split described above, along with a discussion of the above-summarized factors contributing to the difference between the estimated offering price and the fair value of these equity issuances.

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The Company respectfully requests the Staff's assistance in completing the review of the Registration Statement as soon as possible. Please advise us if we can provide any further information or assistance to facilitate your review. Please direct any further comments or questions regarding the Registration Statement or this response letter to me at (858) 550-6044.

Sincerely,

Cooley LLP

/s/ Jason L. Kent

Jason L. Kent, Esq.

cc: Kenneth I. Moch, Chimerix, Inc.  
Timothy W. Trost, Chimerix, Inc.  
Michael Alrutz, Chimerix, Inc.  
Richard D. Truesdell, Jr., Davis Polk & Wardwell LLP

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