

AMENDMENT NO.1 TO LOAN AGREEMENT

AMENDMENT NO. 1 to LOAN AGREEMENT entered into as of March 31, 2009 (this "Amendment") by and between Pharmacyclics, Inc., a Delaware corporation having a principal place of business at 995 E. Arques Avenue, Sunnyvale, CA 94085-4521 (the "Company"), and Robert W. Duggan & Associates (the "Lender")

WHEREAS, on December 30, 2008, the Lender agreed to provide a loan to the Company in the principal amount of Five Million Dollars (\$5,000,000) (the "Initial Loan") pursuant to a loan agreement entered into as of December 30, 2008 by and between the Company and the Lender (the "Initial Loan Agreement");

WHEREAS, the Lender has agreed to provide an additional loan to the Company in the amount of One Million Four Hundred Thousand Dollars (\$1,400,000) as financing pursuant to the terms hereof (the "Second Loan," and together with the Initial Loan, the "Loan");

WHEREAS, for purposes of inducing the Lender to make the Loan, the Company has agreed to issue a first amended and restated unsecured promissory note to the Lender, all as more particularly described herein below;

WHEREAS, the Company and the Lender wish to amend and modify the Initial Loan Agreement upon the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the premises, and the representations, warranties and agreements hereinbelow stated, and for other good and valuable consideration, receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

1. Definitions. All capitalized terms herein shall have the meanings ascribed to them in the Initial Loan Agreement, unless otherwise defined herein.

2. Modifications of Initial Loan Agreement. From and after the date hereof, the Initial Loan Agreement is hereby modified and amended as follows:

1.1 The Loan. As of December 30, 2008, the Lender made the Initial Loan and as of March 31, 2009, the Lender made the Second Loan. The Loan shall be evidenced by, and subject to the terms set forth in, a first amended and restated promissory note dated March 31, 2009 in the form attached hereto as **Exhibit A** (the "Note") made by the Company in favor of the Lender.

1.2 Interest. The Initial Loan shall bear interest of 1.36% from December 30, 2008 until March 31, 2009 and the Loan shall bear interest as follows: (i) the rate of interest in effect for such day as publicly announced from time to time by Citibank N.A. as its "prime rate" (the "Prime Rate") from April 1, 2009 until December 31, 2009 and (ii) the Prime Rate plus 2% from January 1, 2010 until the expiration of the Note. Interest shall be paid annually.

4. Full Force and Effect. All terms, conditions and covenants contained in the Initial Loan Agreement shall remain in full force and effect except as specifically amended herein. The Initial Loan Agreement, as amended hereby is ratified and confirmed.

5. No Oral Changes. This Amendment may not be changed, modified, discharged or terminated nor any of its provisions waived orally, but only by an agreement in writing signed by the party against whom enforcement of any change, modification, discharge, termination or waiver is sought. From and after the date hereof, all references to the Loan Agreement in the Note shall mean the Loan Agreement as modified pursuant to the terms of this Amendment.

6. Successors and Assigns. This Amendment shall bind the Company and the successors and assigns of the Company and shall bind and inure to the benefit of the Lender, and successors and assigns of Lender and all subsequent holders of the Note.

7. Counterparts. This Amendment may be executed in several counterparts, each of which shall constitute an original, and all of which, when taken together, shall constitute but one instrument.

IN WITNESS WHEREOF, the undersigned have executed this First Amendment to Loan Agreement on the date above first written.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day and year first set forth above.

PHARMACYCLICS, INC.
995 E. Arques Avenue
Sunnyvale, California 94085-4521

ROBERT W. DUGGAN & ASSOCIATES
1933 Cliff Drive, Suite 30
Santa Barbara, California 93107

By: /s/ GLENN C. RICE
Name: Glenn C. Rice, Ph.D.
Title: President, Chief Operating
Officer and Director

By: /s/ ROBERT W. DUGGAN
Name: Robert W. Duggan
Title: Principal

March 31, 2009

Pharmacyclics, Inc.
First Amended and Restated Unsecured Promissory Note

\$6,400,000

This FIRST AMENDED AND RESTATED UNSECURED PROMISORY NOTE is made as of the 31st day of March, 2009 by and between Pharmacyclics, a Delaware corporation (the “Company”), and Robert W. Duggan & Associates (the “Lender”), or its successors and assigns.

RECITALS:

A. Lender made a loan (the “Initial Loan”) to the Company evidenced by a certain Unsecured Promissory Note dated December 30, 2008, (the “Note”), in the original principal amount of Five Million Dollars (\$5,000,000) made by the Company for the benefit of Lender.

B. The Company and the Lender wish to amend and restate the Note upon the terms and conditions set forth herein, and the original Note is hereby cancelled.

NOW, THEREFORE, FOR VALUE RECEIVED, the Company hereby promises to pay to Lender, or its successors and assigns, the principal amount of Six Million Four Hundred Thousand Dollars (\$6,400,000), together with interest computed in accordance with the terms of this Note below (the “Loan”), on or before the earlier of (i) July 1, 2010 or (ii) upon the closing of the Offering (the “Maturity Date”), provided that the note shall only accelerate up to the amount of net proceeds raised in the Offering.

This Note is given pursuant to that certain Loan Agreement, dated December 30, 2008, as amended on March 31, 2009, (the “Loan Agreement”), by and between the Company and the Lender, and is entitled to the benefits of the Loan Agreement. The Loan Agreement provides, among other things, (i) for the making of the Loan by the Lender to the Company in the aggregate amount of \$6,400,000, the indebtedness of the Company evidenced by this Note, and (ii) for Events of Default, and for acceleration of the maturity of the unpaid principal amount of this Note upon the happening of certain stated events and also for prepayments on account of the principal hereof prior to the maturity hereof upon the terms and conditions therein specified. Defined terms used and not otherwise defined herein have the same meanings given such terms in the Loan Agreement.

I. Payments, Replacement of Note.

1.1 Payment of Principal and Interest. Interest and principal on this Note shall be payable by the Company on an annual basis by wire transfer of funds or by mailing a check by overnight courier service to the Lender at such address as the Lender may notify the Company in writing from time to time. Payments of principal and interest and amounts due with respect to costs and expenses pursuant to the Loan Agreement, shall be made in lawful money of the

United States of America in immediately available funds, without deduction, set-off or counterclaim to the Lender. The Company waives grace, demand, presentment for payment, notice of dishonor or default, protest, notice of protest, notice of intent to accelerate, notice of collection, notice of acceleration and diligence in collecting and bringing of suit.

1.2 Interest. The Initial Loan shall bear interest as a rate per annum of 1.36% from December 30, 2008 until March 31, 2009 and the Loan shall bear interest at a rate per annum of (i) the rate of interest in effect for such day as publicly announced from time to time by Citibank N.A. as its “prime rate” (the “Prime Rate”) from April 1, 2009 until December 31, 2009 and (ii) the Prime Rate plus 2% from January 1, 2010 until the expiration of the Note. Interest shall be calculated on the actual number of days elapsed over a 360-day year, on the unpaid principal balance hereof, until paid in full.

1.3 Prepayment. The Company, at its election, may from time to time prepay without penalty all or any part of the unpaid balance of this Note prior to the Maturity Date. All payments made pursuant to this Section 1.3 will be first applied to accrued interest, if any, and the balance, if any, to principal.

1.4 Lost or Destroyed Note. Upon receipt of evidence satisfactory to the Company that this Note has been mutilated, destroyed or lost, and upon proof of ownership and receipt of indemnity from the Lender satisfactory in the form and amount to the Company, the Company shall execute and deliver a new Note stated to mature on the same date and for the same principal amount as this Note so mutilated, destroyed or lost, of like tenor with such notations, if any, as the Company shall reasonably determine, upon surrender and cancellation of, and in exchange and substitution for, such mutilated Note, or in lieu of and in substitution for this Note so destroyed or lost.

II. Miscellaneous.

2.1 Successors and Assigns. All covenants, agreements and undertakings in this Note by and on behalf of any of the parties hereto shall inure to the benefit of and be binding upon the respective heirs, administrators, personal representatives, successors and assigns of the parties hereto. The Lender may assign its rights under this Note and the other Loan Documents.

2.2 Amendments and Waivers. No changes in or additions to this Note may be made or compliance with any term, covenant, agreement, condition or provision set forth herein may be omitted or waived (either generally or in a particular instance and either retroactively or prospectively) without the written consent of the Lender.

2.3 Governing Law. This Note and the other Loan Documents shall be governed by and construed in accordance with the laws of the State of New York, without regard to any conflict of law provisions. The Company agrees to the exclusive jurisdiction and venue of the state and federal courts located in New York, New York to resolve any dispute arising under or related in any manner to this Note.

[Signature Page Follows]

IN WITNESS WHEREOF, the Company has caused this Note to be duly executed on the date hereof.

PHARMACYCLICS, INC.

By: /s/ GLENN C. RICE
Name: Glenn C. Rice, Ph.D.
Title: President, Chief Operating
Officer and Director