

Change of Control Retention and Severance Agreement

This Change of Control Retention and Severance Agreement (the “*Agreement*”) is made and entered into as of September 8, 2003 (the “*Effective Date*”), by and between Cepheid and Ira Marks (the “*Executive*”). Capitalized terms used in this Agreement shall have the meanings set forth in Section 3 below.

1. Purpose. The purpose of this Agreement is to encourage Executive to remain in the employ of the Company and to continue to devote Executive’s full attention to the success of the Company in the event of a Change of Control, as such term is defined in Section 3 of this Agreement.

2. Termination Upon Change of Control. In the event of Executive’s Termination Upon a Change of Control, Executive shall receive the following payments and benefits:

2.1 Accrued Salary and Vacation, and Benefits. Executive shall receive all salary and accrued vacation (less applicable withholding) earned through Executive’s termination date, and the benefits, if any, under Company benefit plans to which Executive may be entitled pursuant to the terms of such plans.

2.2 Stock Award Acceleration. Provided that Executive complies with Section 5 below, all outstanding stock options granted and restricted stock issued by the Company to Executive prior to the Change of Control shall become fully vested and exercisable immediately prior to the effective date of the Termination Upon a Change of Control.

2.3 Cash Severance Payment. Provided that Executive complies with Section 5 below, Executive shall receive a lump sum cash payment in an amount equal to twelve (12) months of Executive’s effective base salary (less applicable withholding), paid within ten (10) business days of the effective date of the Termination Upon a Change of Control.

3. Definitions. Capitalized terms used in this Agreement shall have the meanings set forth in this Section 3.

3.1 “Cause” means Executive’s (a) failure to perform any reasonable and lawful duty of Executive’s position or failure to follow the lawful written directions of the Chief Executive Officer; (b) commission of an act that constitutes misconduct and is injurious to the Company or any subsidiary; (c) conviction of, or pleading “guilty” or “no contest” to, a felony under the laws of the United States or any state thereof; (d) committing an act of fraud against, or the misappropriation of property belonging to, the Company or any subsidiary; (e) commission of an act of dishonesty in connection with Executive’s responsibilities as an employee and affecting

the business or affairs of the Company; (f) breach of any confidentiality, proprietary information or other agreement between Executive and the Company or any subsidiary; or (g) failure or refusal to carry out the reasonable directives of the Company.

3.2 “Change of Control” means (a) any “person” (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the “*Exchange Act*”)), other than a trustee or other fiduciary holding securities of the Company under an employee benefit plan of the Company, becomes the “beneficial owner” (as defined in Rule 13d-3 promulgated under the Exchange Act), directly or indirectly, of securities of the Company representing 50% or more of (A) the outstanding shares of common stock of the Company or (B) the combined voting power of the Company’s then outstanding securities; (b) the Company is party to a merger or consolidation which results in the voting securities of the Company outstanding immediately prior thereto failing to continue to represent (either by remaining outstanding or by being converted into voting securities of the surviving or another entity) at least fifty (50%) percent of the combined voting power of the voting securities of the Company or such surviving or other entity outstanding immediately after such merger or consolidation; (c) the sale or disposition of all or substantially all of the Company’s assets (or consummation of any transaction having similar effect); or (d) the dissolution or liquidation of the Company.

3.3 “Company” means Cepheid and any successor or assign to substantially all the business and/or assets of Cepheid.

3.4 “Diminution of Responsibilities” means the occurrence of any of the following conditions, without Executive’s consent: (a) a significant diminution in the nature or scope of Executive’s authority, title, function or duties from Executive’s authority, title, function or duties in effect immediately preceding any Change of Control; (b) a ten percent (10%) reduction in Executive’s base salary or a twenty-five percent (25%) reduction in Executive’s target bonus opportunity, if any, in effect immediately preceding any Change of Control (in either case, unless such reduction is part of a Company officer-wide program to reduce expenses); (c) the Company’s requiring Executive to be based at any office or location more than 50 miles from the office where Executive was employed immediately preceding the Change of Control; (d) any material breach of the terms of this Agreement by the Company; or (e) failure of any successor or assignee to the Company to assume this Agreement.

3.5 “Termination Upon Change of Control” means:

(a) any involuntary termination of the employment of Executive by the Company without Cause within twelve (12) months following a Change of Control; or

(b) any resignation by Executive based on a Diminution of Responsibilities where (i) such Diminution of Responsibilities occurs within twelve (12) months following the Change of Control, and (ii) such resignation occurs within ninety (90) days following such Diminution of Responsibilities.

4. Federal Excise Tax. If the payments and benefits provided for in this Agreement constitute “parachute payments” within the meaning of the Internal Revenue Code of 1986, as amended (the “*Code*”), but for this Section 4, would be subject to the excise tax imposed by

Section 4999 of the Code, then the payments and benefits under this Agreement will be payable, at Executive's election, either in full or in such lesser amount as would result, after taking into account the applicable federal, state and local income taxes and excise tax imposed by Section 4999 of the Code, in Executive's receipt on an after-tax basis of the greatest amount of benefits.

5. Release of Claims. The Company may condition the payments and benefits set forth in Sections 2.2 and 2.3 of this Agreement upon the delivery by Executive of a signed release of claims in a form satisfactory to the Company.

6. Agreement Not to Solicit. If Company performs its obligations to deliver the severance compensation set forth in Sections 2.2 and 2.3 of this Agreement, then for a period of one (1) year after Executive's termination of employment, Executive will not solicit any employee of the Company to discontinue that person's employment relationship with the Company.

7. Arbitration. Any claim, dispute or controversy arising out of this Agreement, the interpretation, validity or enforceability of this Agreement or the alleged breach thereof shall be submitted by the parties to binding arbitration by the American Arbitration Association. The site of the arbitration proceeding shall be in Santa Clara County, California, or another location mutually agreed to by the parties.

8. Conflict in Benefits; Effect of Agreement. This Agreement shall supersede all prior arrangements, whether written or oral, and understandings regarding severance compensation following a Change of Control and shall be the exclusive agreement for the determination of any severance compensation due upon Executive's termination of employment upon a Change of Control.

9. Miscellaneous.

9.1 Successors of the Company. The Company will require any successor or assign (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business and/or assets of the Company, expressly, absolutely and unconditionally to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform it if no such succession or assignment had taken place.

9.2 No Employment Agreement. This Agreement does not alter Executive's at-will employment status or obligate the Company to continue to employ Executive for any specific period of time, or in any specific role or geographic location.

9.3 Modification of Agreement. This Agreement may be modified, amended or superceded only by a written agreement signed by Executive and the Chief Executive Officer.

9.4 Governing Law. This Agreement shall be interpreted in accordance with and governed by the laws of the State of California.

EXECUTIVE

CEPHEID

Ira Marks

By: _____

Name: John L. Bishop

Title: CEO