

REGISTRATION RIGHTS AGREEMENT

This Registration Rights Agreement (this “**Agreement**”) is made as of March 5, 2024, by and between Zylox Tonbridge Medical Limited, a company established under the laws of Hong Kong (“**Zylox**” or the “**Purchaser**”), and Avinger, Inc., a Delaware corporation (the “**Company**”).

WHEREAS, the Company and the Purchaser are parties to a Securities Purchase Agreement, dated as of March 4, 2024 (the “**Purchase Agreement**”), pursuant to which the Purchaser is purchasing 75,327 shares of common stock (the “**Initial Common Shares**”) of the Company, par value \$0.001 per share (the “**Common Stock**”), and 7,224 shares (the “**Series F Preferred Shares**”) of Series F preferred stock of the Company, par value \$0.001 per share (the “**Series F Preferred Stock**”);

WHEREAS, pursuant to the Purchase Agreement, subject to and contingent upon the achievement of certain milestones and the satisfaction of the other conditions set forth therein, the Purchaser agrees to purchase from the Company, and the Company agrees to issue and sell to the Purchaser, certain number of shares of Series G preferred stock (the “**Series G Preferred Shares**” and collectively with the Initial Common Shares and the Series F Preferred Shares, the “**Shares**”) of the Company, par value \$0.001 per share (the “**Series G Preferred Stock**”); and

WHEREAS, in connection with the consummation of the transactions contemplated by the Purchase Agreement and pursuant to the terms of the Purchase Agreement, the parties hereto desire to enter into this Agreement in order to grant certain registration rights to the Purchaser with respect to the Shares as set forth below.

NOW, THEREFORE, in consideration of the foregoing and the mutual and dependent covenants hereinafter set forth, the parties hereto agree as follows:

1. **Definitions.**

“**Affiliate**” means, with respect to any Person, any other Person that, directly or indirectly through one or more intermediaries, controls, is controlled by or is under common control with such Person, as such terms are used in and construed under Rule 405 under the Securities Act.

“**Block Trade**” shall mean an offering and/or sale of Registrable Securities by any Holder on a block trade or underwritten basis (whether firm commitment or otherwise) without substantial marketing efforts prior to pricing, including, without limitation, a same day trade, overnight trade or similar transaction, but excluding a variable price reoffer.

“**Board**” means the board of directors of the Company.

“**Business Day**” means any day, excluding Saturdays and Sundays, on which banks in the PRC, Hong Kong and the State of New York in the United States are generally open for business.

“**Commission**” means the Securities and Exchange Commission or any other federal agency administering the Securities Act and the Exchange Act at the time.

“**DTCDRS**” has the meaning set forth in Section 4(g).

“Effectiveness Date” means, with respect to the Initial Registration Statement required to be filed hereunder, the 60th calendar day following the date hereof (or, in the event of a “full review” by the Commission, the 90th calendar day following the date hereof) and with respect to any additional Registration Statements which may be required pursuant to Section 2(b), Section 2(c), or Section 4(c), the 60th calendar day following the date on which an additional Registration Statement is required to be filed hereunder (or, in the event of a “full review” by the Commission, the 90th calendar day following the date such additional Registration Statement is required to be filed hereunder); provided, however, that in the event the Company is notified by the Commission in writing that one or more of the above Registration Statements will not be reviewed or is no longer subject to further review and comments, the Effectiveness Date as to such Registration Statement shall be the fifth Trading Day following the date on which the Company is so notified if such date precedes the dates otherwise required above; provided, further, that if such Effectiveness Date falls on a day that is not a Trading Day, then the Effectiveness Date shall be the next succeeding Trading Day.

“Exchange Act” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

“Family Member” means (a) with respect to any individual, such individual’s spouse, any descendants (whether natural or adopted), any trust all of the beneficial interests of which are owned by any of such individuals or by any of such individuals together with any organization described in Section 501(c)(3) of the Internal Revenue Code of 1986, as amended, the estate of any such individual, and any corporation, association, partnership or limited liability company all of the equity interests of which are owned by those above described individuals, trusts or organizations and (b) with respect to any trust, the owners of the beneficial interests of such trust.

“Filing Date” means, with respect to the Initial Registration Statement required hereunder, the 30th calendar day following the date hereof and, with respect to any additional Registration Statements which may be required pursuant to Section 2(b), Section 2(c) or Section 4(c), the 30th calendar day following the date on which the Company is permitted by SEC Guidance to file such additional Registration Statement related to the Registrable Securities.

“Governmental Authority” means any court, agency, authority, department, regulatory body or other instrumentality of any government or country or of any national, federal, state, provincial, regional, county, city or other political subdivision of any such government or country or any supranational organization of which any such country is a member, and any self-regulatory organization, including any stock exchange.

“Holder” or **“Holders”** means the holder or holders, as the case may be, from time to time of Registrable Securities.

“Initial Registration Statement” means the initial Registration Statement filed pursuant to this Agreement.

“Person” means an individual, corporation, partnership, joint venture, limited liability company, Governmental Authority, unincorporated organization, trust, association or other entity.

“**Piggyback Registration**” means, in any registration of Common Stock referenced in Section 3, the right of each Holder to include the Registrable Securities of such Holder in such registration.

“**Principal Market**” means the Nasdaq Capital Market (or such other market or exchange on which Common Stock is then listed or traded).

“**Prospectus**” means the prospectus or prospectuses included in any Registration Statement (including, without limitation, a prospectus that includes any information previously omitted from a prospectus filed as part of an effective Registration Statement in reliance on Rule 430A or Rule 430B under the Securities Act or any successor rule thereto), as amended or supplemented by any prospectus supplement, with respect to the terms of the offering of any portion of the Registrable Securities covered by such Registration Statement and by all other amendments and supplements to the prospectus, including post-effective amendments and all material incorporated by reference in such prospectus or prospectuses.

“**Registrable Securities**” means, to the extent that such securities are permitted to be included in a Registration Statement under the SEC Guidance at the time such Registration Statement is filed, (a) the Initial Common Shares, shares of Common Stock issuable upon conversion of the shares of Series F Preferred Stock and the conversion of the shares of Series G Preferred Stock beneficially owned by the Holders, whether issued pursuant to the Purchase Agreement or as dividends thereupon, and (b) any shares of Common Stock issued or issuable with respect to any shares described in subsection (a) above by way of a stock dividend or stock split or in exchange for or upon conversion of such shares or otherwise in connection with a combination of shares, distribution, recapitalization, merger, consolidation, other reorganization or other similar event with respect to the Common Stock (it being understood that, for purposes of this Agreement, a Person shall be deemed to be a holder of Registrable Securities whenever such Person has the right to then acquire or obtain from the Company any Registrable Securities, whether or not such acquisition has actually been effected). As to any particular Registrable Securities, such securities shall cease to be Registrable Securities for as long as (i) the Commission has declared a Registration Statement covering the Registrable Securities effective and such Registrable Securities have been disposed of pursuant to such effective Registration Statement, (ii) such Registrable Securities have been previously sold under circumstances in which all of the applicable conditions of Rule 144 under the Securities Act are met, (iii) such securities become eligible for resale pursuant to Rule 144 without restriction by the Holder, including without volume or manner-of-sale restrictions and without the requirement for the Company to be in compliance with the current public information requirement under Rule 144(c)(1) (or any successor thereto), or (iv) such Registrable Securities have ceased to be outstanding.

“**Registration Statement**” means any registration statement of the Company filed with the SEC in compliance with the Securities Act, including the Prospectus, amendments and supplements to such registration statement, including post-effective amendments, all exhibits and all material incorporated by reference in such registration statement.

“**Rule 144**” means Rule 144 under the Securities Act or any successor rule thereto.

“**Rule 415**” means Rule 415 under the Securities Act or any successor rule thereto.

“**Securities Act**” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

“**SEC Guidance**” means (i) any publicly-available written guidance of the Commission staff, or any written comments, requirements or requests of the Commission staff and (ii) the Securities Act.

“**Selling Expenses**” means all underwriting discounts, selling commissions and stock transfer taxes and other similar expenses applicable to the sale of Registrable Securities.

“**Trading Day**” means a day on which the principal Trading Market is open for business.

“**Trading Market**” means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, or the New York Stock Exchange (or any successors to any of the foregoing).

“**Underwriter**” shall mean a securities dealer who purchases any Registrable Securities as principal in an Underwritten Offering and not as part of such dealer’s market-making activities.

“**Underwritten Offering**” shall mean a registration in which securities of the Company are sold to an Underwriter in a firm commitment underwriting for distribution to the public.

Capitalized terms used herein without definition have the meanings ascribed to them in the Purchase Agreement.

2. **Shelf Registration.**

(a) On or prior to each Filing Date, the Company shall prepare and file with the Commission a Registration Statement covering the resale of all of the Registrable Securities that are not then registered on an effective Registration Statement and that are then permitted under the SEC Guidance to be included on such Registration Statement for an offering to be made on a continuous basis pursuant to Rule 415. Each Registration Statement filed hereunder shall be on Form S-3 (except if the Company is not then eligible to register for resale the Registrable Securities on Form S-3, in which case such registration shall be on another appropriate form in accordance herewith, subject to the provisions of Section 2(e)) and shall contain substantially the “Plan of Distribution” attached hereto as Annex A; provided, however, that no Holder shall be required to be named as an “underwriter” without such Holder’s express prior written consent, except as required by applicable law. Subject to the terms of this Agreement, the Company shall use its reasonable best efforts to cause a Registration Statement filed under this Agreement (including, without limitation, under Section 4(c)) to be declared effective under the Securities Act as promptly as possible after the filing thereof, but in any event no later than the applicable Effectiveness Date, and shall use its reasonable best efforts to keep such Registration Statement continuously effective under the Securities Act until the date that all Registrable Securities covered by such Registration Statement cease to be Registrable Securities.

(b) Notwithstanding the registration obligations set forth in Section 2(a), if the resale of all of the Registrable Securities cannot, as a result of the application of the SEC Guidance, be registered as a secondary offering on a single registration statement, the Company agrees to promptly inform and provide a copy of the applicable SEC Guidance to each Holder thereof and use its reasonable best efforts to promptly file amendments to the Registration Statement or one or more new Registration Statements as soon as any additional portion of the Registrable Securities can be so registered pursuant to such SEC Guidance, covering the maximum number of Registrable Securities permitted to be registered by the Commission, on Form S-3 or such other form available to register for resale the Registrable Securities as a secondary offering, subject to the provisions of Section 2(e) with respect to filing on Form S-3 or other appropriate form; provided, however, that prior to filing such Registration Statement or amendment, the Company shall be obligated to use its reasonable best efforts to seek the registration of all of the Registrable Securities in accordance with the SEC Guidance, including, without limitation, Compliance and Disclosure Interpretation 612.09. Notwithstanding anything herein to the contrary, the payment of liquidated damages by the Company pursuant to Section 2(d) or any other penalties to the Company shall not be required with respect to any delay or inability to register any of the Registrable Securities pursuant to a Registration Statement solely resulting from complying with the applicable SEC Guidance as described in the first sentence of this Section 2(b).

(c) Notwithstanding any other provision of this Agreement, if the Commission or any SEC Guidance sets forth a limitation on the number or type of Registrable Securities permitted to be registered on a particular Registration Statement as a secondary offering (and notwithstanding that the Company used its reasonable best efforts to seek the registration of all or a greater portion of Registrable Securities), unless otherwise directed in writing by a Holder as to its Registrable Securities, the number and type of Registrable Securities to be registered on such Registration Statement will be limited to the number and type permitted under the SEC Guidance. Any reduction in the number of Registrable Securities will be made as follows: (a) first, the Company shall reduce or eliminate any securities to be included other than Registrable Securities and (b) second, the Company shall reduce Registrable Securities, applied to the Holders on a pro rata basis based on the total number of Registrable Securities held by such Holders. In the event of a cutback hereunder, the Company shall give the Holder at least three Trading Days prior written notice along with the calculations as to such Holder's allotment. In the event the Company amends the Initial Registration Statement in accordance with the foregoing, the Company will use its reasonable best efforts to file with the Commission, as promptly as allowed by the Commission or SEC Guidance provided to the Company or to registrants of securities in general, one or more registration statements on Form S-3 or such other form available to register for resale those Registrable Securities that were not registered for resale on the Initial Registration Statement (the "**Cut Back Shares**"), as amended (the "**Remainder Registration Statement**"). From and after such date as the Company is allowed by the Commission or SEC Guidance to effect the registration of the resale of all such Cut Back Shares in accordance with any Commission restrictions applicable to such Cut Back Shares (the "**Restriction Termination Date**"), all of the provisions of this Section 2 (including the Company's obligations with respect to the filing of a Registration Statement and its obligations to use its reasonable best efforts to have such Registration Statement declared effective within the time periods set forth herein) shall again be applicable to such Cut Back Shares; provided, however, that (i) the Filing Date for such Cut Back Shares shall be the 30th calendar day after such Restriction Termination Date, and (ii) the date by which the Company is required to obtain effectiveness with respect to such Cut Back Shares shall be the 60th calendar day immediately after the Restriction Termination Date (or, in the event of a "full review" by the Commission, the 90th calendar day following the date such Remainder Registration Statement is required to be filed hereunder). Notwithstanding anything herein to the contrary, the payment of liquidated damages by the Company pursuant to Section 2(d) or any other penalties to the Company shall not be required with respect to any delay or inability to register all of the Registrable Securities pursuant to a Registration Statement resulting from the limitation referred to in the first sentence of this Section 2(c).

(d) If: (i) the Initial Registration Statement is not filed on or prior to its Filing Date (if the Company files the Initial Registration Statement without affording the Holders the opportunity to review and comment on the same as required by Section 4(d), the Company shall be deemed to have not satisfied this clause (i) as of the Filing Date), (ii) the Company fails to file with the Commission a request for acceleration of a Registration Statement in accordance with Rule 461 promulgated by the Commission pursuant to the Securities Act, within five (5) Trading Days of the date that the Company is notified in writing by the Commission that such Registration Statement will not be “reviewed” or will not be subject to further review, (iii) a Registration Statement registering for resale all of the Registrable Securities then eligible to be included in such Registration Statement, including, but not limited to, after any reduction in Registrable Securities included in such Registration Statement in accordance with Section 2(b) and Section 2(c), is not declared effective by the Commission by the Effectiveness Date of the Registration Statement, or (iv) after the effective date of a Registration Statement, such Registration Statement ceases for any reason to remain continuously effective as to all Registrable Securities included in such Registration Statement, other than any period of time following the Company’s filing of any required post-effective amendment to a Registration Statement until such post-effective amendment is declared effective, or the Holders are otherwise not permitted to utilize the Prospectus therein to resell such Registrable Securities, other than due to the Holder’s knowledge of or access to material non-public information of the Company, for more than ten (10) consecutive calendar days or more than an aggregate of fifteen (15) calendar days (which need not be consecutive calendar days) during any twelve (12)-month period (any such failure or breach being referred to as an “**Event**”, and for purposes of clauses (i) and (iv), the date on which such Event occurs, and for purpose of clause (ii) the date on which such five (5) Trading Day period is exceeded, and for purpose of clause (iii) the date which such ten (10) calendar day period is exceeded, and for purpose of clause (v) the date on which such ten (10) or fifteen (15) calendar day period, as applicable, is exceeded being referred to as “**Event Date**”), then, in addition to any other rights the Holders may have hereunder or under applicable law, on each such Event Date and on each monthly anniversary of each such Event Date (if the applicable Event shall not have been cured by such date) until the applicable Event is cured, the Company shall pay to each Holder an amount in cash, as partial liquidated damages and not as a penalty, equal to the product of 1.0% multiplied by the aggregate purchase price paid by such Holder pursuant to the Purchase Agreement with respect to the remaining Registrable Securities included in such Registration Statement. The parties agree that the maximum aggregate liquidated damages payable to a Holder under this Agreement shall be 4% of the aggregate purchase price paid by such Holder pursuant to the Purchase Agreement with respect to the remaining Registrable Securities included in such Registration Statement. If the Company fails to pay any partial liquidated damages pursuant to this Section in full within seven (7) days after the date payable, the Company will pay interest thereon at a rate of 8% per annum (or such lesser maximum amount that is permitted to be paid by applicable law) to the Holder, accruing daily from the date such partial liquidated damages are due until such amounts, plus all such interest thereon, are paid in full. The partial liquidated damages pursuant to the terms hereof shall apply on a daily pro rata basis for any portion of a month prior to the cure of an Event.

(e) If Form S-3 is not available for the registration of the resale of Registrable Securities hereunder, the Company shall (i) register the resale of the Registrable Securities on another appropriate form and (ii) undertake to register the Registrable Securities on Form S-3 as soon as such form is available, provided that the Company shall maintain the effectiveness of the Registration Statement then in effect until such time as a Registration Statement on Form S-3 covering the Registrable Securities has been declared effective by the Commission.

(f) In the event that any Holder holds Registrable Securities that are not registered for resale on a delayed or continuous basis, the Company, upon request of such Holder, shall promptly use its reasonable best efforts to cause the resale of such Registrable Securities to be covered by (1) an existing Registration Statement or (2) a new Registration Statement and cause the same to become effective as soon as practicable after such filing and such new Registration Statement shall be subject to the terms hereof. The Holders may request not more than one (1) Registration Statement per year pursuant to this Section 2(f), provided that this Section 2(f) shall not affect or limit any Holder's rights under the other provisions of Section 2 and Section 3.

(g) At any time and from time to time when an effective Registration Statement is on file with the Commission, any Holder (a “**Demanding Holder**”) may request to sell all or any portion of its Registrable Securities in an Underwritten Offering that is registered pursuant to the Registration Statement, including a Block Trade (each, an “**Underwritten Shelf Takedown**”); provided that the Company shall only be obligated to effect an Underwritten Shelf Takedown if such offering shall include Registrable Securities proposed to be sold by the Demanding Holders with a total offering price reasonably expected to exceed, in the aggregate \$500,000 (the “**Minimum Takedown Threshold**”). All requests for Underwritten Shelf Takedowns shall be made by giving written notice to the Company, which shall specify the approximate number of Registrable Securities proposed to be sold in the Underwritten Shelf Takedown. Within five (5) days of receipt of this notice, the Company must notify all of the Holders of Registrable Securities of the Underwritten Shelf Takedown. The Company shall include in any Underwritten Shelf Takedown the securities requested to be included by any other Holder (each a “**Takedown Requesting Holder**”). The Demanding Holders shall have the right to select the Underwriters for such offering (which shall consist of one or more reputable nationally recognized investment banks), subject to the Company’s prior approval (which shall not be unreasonably withheld, conditioned or delayed). The Holders may demand not more than one (1) Underwritten Shelf Takedown per year. Notwithstanding anything to the contrary in this Agreement, the Company may effect any Underwritten Offering pursuant to any then effective Registration Statement, including a Form S-3, that is then available for such offering. The Company shall enter into an underwriting agreement in a form as is customary in Underwritten Offerings of securities by the Company with the managing Underwriter or Underwriters and shall take all such other reasonable actions as are requested by the managing Underwriter or Underwriters in order to expedite or facilitate the disposition of such Registrable Securities. In connection with any Underwritten Shelf Takedown contemplated by this paragraph, the underwriting agreement into which each Holder and the Company shall enter shall contain such representations, covenants, indemnities and other rights and obligations of the Company and the selling stockholders as are customary in underwritten offerings of securities.

(i) If the managing Underwriter or Underwriters in an Underwritten Shelf Takedown, in good faith, advises the Company, the Demanding Holders and the Takedown Requesting Holders (if any) (collectively, the “**Requesting Holders**”) in writing that the dollar amount or number of Registrable Securities that the Demanding Holders and the Takedown Requesting Holders (if any) desire to sell, taken together with all other Common Stock or other equity securities that the Company desires to sell and the Common Stock, if any, that have been requested to be sold in such Underwritten Offering pursuant to separate written contractual piggy-back registration rights held by any other stockholders of the Company, exceeds the maximum dollar amount or maximum number of equity securities that can be sold in the Underwritten Offering without adversely affecting the proposed offering price, the timing, the distribution method, or the probability of success of such offering (such maximum dollar amount or maximum number of such securities, as applicable, the “**Maximum Number of Securities**”), then the Company shall include in such Underwritten Offering, as follows: (A) first, the Registrable Securities of the Requesting Holders (if any) (pro rata based on the respective number of Registrable Securities that each Requesting Holder (if any) has requested be included in such Underwritten Shelf Takedown and the aggregate number of Registrable Securities that the Requesting Holders have requested be included in such Underwritten Shelf Takedown) that can be sold without exceeding the Maximum Number of Securities; (B) second, to the extent that the Maximum Number of Securities has not been reached under the foregoing clause (A), the Common Stock or other equity securities that the Company desires to sell, which can be sold without exceeding the Maximum Number of Securities; and (C) third, to the extent that the Maximum Number of Securities has not been reached under the foregoing clauses (A) and (B), the Common Stock or other equity securities of other persons or entities that the Company is obligated to offer in an Underwritten Offering pursuant to separate written contractual arrangements with such persons and that can be sold without exceeding the Maximum Number of Securities.

(ii) Prior to the filing of the applicable “red herring” prospectus or prospectus supplement used for marketing such Underwritten Shelf Takedown, a majority-in-interest of the Demanding Holders initiating an Underwritten Shelf Takedown shall have the right to withdraw from such Underwritten Shelf Takedown for any or no reason whatsoever upon written notification (a “**Withdrawal Notice**”) to the Company and the Underwriter or Underwriters (if any) of their intention to withdraw from such Underwritten Shelf Takedown, and such Underwritten Shelf Takedown shall not be counted as a demand for an Underwritten Shelf Takedown; provided that the Requesting Holders may elect to have the Company continue an Underwritten Shelf Takedown if the Minimum Takedown Threshold would still be satisfied by the Registrable Securities proposed to be sold in the Underwritten Shelf Takedown by the Requesting Holders or any of its respective permitted transferees, as applicable. Following the receipt of any Withdrawal Notice, the Company shall promptly forward such Withdrawal Notice to any other Holders that had elected to participate in such Underwritten Shelf Takedown. Notwithstanding anything to the contrary in this Agreement, the Company shall be responsible for the registration expenses incurred in connection with a Underwritten Shelf Takedown pursuant to Section 2(f)(i), prior to its withdrawal under this section.

(iii) Notwithstanding any other provision of Agreement, if the Holders desire to effect a Block Trade, the Holders shall provide written notice to the Company at least three (3) Business Days prior to the date such Block Trade will commence. As promptly as reasonably practicable, the Company shall use its reasonable best efforts to facilitate such Block Trade. The Holders shall use reasonable best efforts to work with the Company and the Underwriter(s) (including by disclosing the maximum number of Registrable Securities proposed to be the subject of such Block Trade) in order to facilitate preparation of the Registration Statement, Prospectus and other offering documentation related to the Block Trade and any related due diligence and comfort procedures.

(iv) In connection with any Underwritten Offering of equity securities of the Company, if requested by the managing Underwriters, each Holder that is an executive officer, director or Holder in excess of five percent (5%) of the outstanding shares of Common Stock participating in such Underwritten Offering agrees that it shall not transfer any shares of Common Stock or other equity securities of the Company (other than those included in such offering pursuant to this Agreement) during the ninety (90)-day period (or such shorter time agreed to by the managing Underwriters) beginning on the date of pricing of such offering, except as expressly permitted by such lock-up agreement or in the event the managing Underwriters otherwise agree by written consent. Each such Holder agrees to execute a customary lock-up agreement in favor of the Underwriters to such effect (in each case on substantially the same terms and conditions as all such Holders).

(v) For purposes of clarity, Piggyback Registration effected pursuant to Section 3 hereof shall not be counted as a demand for an Underwritten Shelf Takedown under Section 2.

3. **Piggyback Registration.**

(a) If, any time thirty (30) days after the date hereof, the Company shall determine to register for sale for cash any of its Common Stock, for its own account or for the account of others (other than the Holders), other than (i) a registration relating solely to employee benefit plans or securities issued or issuable to employees, consultants (to the extent the securities owned or to be owned by such consultants could be registered on Form S-8 (or its then equivalent form) or any of their Family Members (including a registration on Form S-8 (or its then equivalent form)), (ii) a registration relating solely to a Securities Act Rule 145 transaction or a registration on Form S-4 (or its then equivalent form) in connection with a merger, acquisition, divestiture, reorganization or similar event, or (iii) a transaction relating solely to the sale of debt or convertible debt instruments, then the Company shall promptly give to each Holder of Registrable Securities that are not then registered on an effective Registration Statement written notice thereof (but in no event later than twenty (20) calendar days prior to the filing of such registration statement), and shall, subject to Section 3(b), include as a Piggyback Registration all of the Registrable Securities (including any Registrable Securities that are removed from the Registration Statement as a result of a requirement by the Commission staff), specified in a written request delivered by the Holder thereof within ten (10) calendar days after delivery to the Holder of such written notice from the Company. However, the Company may, without the consent of such Holders, withdraw such registration statement prior to its becoming effective if the Company or such other selling stockholders have elected to abandon the proposal to register the securities proposed to be registered thereby.

(b) If a Piggyback Registration is for a registered public offering that is to be made by an underwriting, the Company shall so advise the Holders as part of the notice given pursuant to Section 3(a) in connection with the Piggyback Registration. In that event, the right of any Holder to Piggyback Registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to sell any of their Registrable Securities through such underwriting shall (together with the Company and any other stockholders of the Company selling their securities through such underwriting) enter into an underwriting agreement in customary form with the underwriter selected for such underwriting by the Company or such other selling stockholders, as applicable. Notwithstanding any other provision of this Section 3(b), if the underwriter or the Company determines that marketing factors require a limitation on the number of shares of Common Stock or the amount of other securities to be underwritten, the underwriter may exclude some or all Registrable Securities from such registration and underwriting. The Company shall so advise all Holders (except those Holders who failed to timely elect to include their Registrable Securities through such underwriting or have indicated to the Company their decision not to do so), and indicate to each such Holder the number of shares of Registrable Securities that may be included in the registration and underwriting, if any. The number of shares of Registrable Securities to be included in such registration and underwriting shall be allocated among such Holders as follows:

(i) If the Piggyback Registration was initiated by the Company, the number of shares that may be included in the registration and underwriting shall be allocated first to the Company and then, subject to obligations and commitments existing as of the date hereof, to all Holders exercising piggyback registration rights who have requested to sell in the registration on a pro rata basis according to the number of shares requested to be included therein; and

(ii) If the Piggyback Registration was initiated by the exercise of demand registration rights by a stockholder or stockholders of the Company (other than the Holders) then the number of shares that may be included in the registration and underwriting shall be allocated first to such selling stockholders who exercised such demand to the extent of their demand registration rights, subject to obligations and commitments existing as of the date hereof, to all Holders exercising piggyback registration rights who have requested to sell in the registration on a pro rata basis according to the number of shares requested to be included therein, and then, subject to obligations and commitments existing as of the date hereof, to the Company.

No Registrable Securities excluded from the underwriting by reason of the underwriter's marketing limitation shall be included in such registration. If any Holder disapproves of the terms of any such underwriting, such Holder may elect to withdraw such Holder's Registrable Securities therefrom by delivering a written notice to the Company and the underwriter. The Registrable Securities so withdrawn from such underwriting shall also be withdrawn from such registration; provided, however, that, if by the withdrawal of such Registrable Securities, a greater number of Registrable Securities held by other Holders may be included in such registration (up to the maximum of any limitation imposed by the underwriters), then the Company shall offer to all Holders who have included Registrable Securities in the registration the right to include additional Registrable Securities pursuant to the terms and limitations set forth herein in the same proportion used above in determining the underwriter limitation. The Company shall select the investment banking firm or firms to act as the managing underwriter or underwriters in connection with such offering.

4. **Registration Procedures.** If and whenever any Registration Statement is required to be filed pursuant to Section 2 or Section 3, the Company shall use its reasonable best efforts to effect the registration of the offer and sale of such Registrable Securities under the Securities Act, and pursuant thereto the Company shall as soon as reasonably practicable and as applicable:

- (a) prepare and file with the Commission a Registration Statement covering such Registrable Securities in accordance with Section 2 or Section 3, as applicable, and use its reasonable best efforts to cause such Registration Statement to be declared effective;
- (b) if the Registration Statement is subject to review by the Commission, promptly respond to all comments and diligently pursue resolution of any comments to the satisfaction of the Commission;
- (c) prepare and file with the Commission such amendments, post-effective amendments and supplements to such Registration Statement and the Prospectus used in connection therewith as may be necessary to keep such Registration Statement effective until all of such Registrable Securities have been disposed of and to comply with the provisions of the Securities Act with respect to the disposition of such Registrable Securities in accordance with the intended methods of disposition set forth in such Registration Statement;
- (d) at least five (5) Business Days before filing such Registration Statement, Prospectus or amendments or supplements thereto with the Commission, furnish to the Holders and one counsel selected by the Holders copies of such documents proposed to be filed, which documents shall be subject to the review, comment and approval of such counsel;
- (e) notify each selling Holder, promptly after the Company receives notice thereof, of the time when such Registration Statement has been declared effective or a supplement to any Prospectus forming a part of such Registration Statement has been filed with the Commission;
- (f) furnish to each Holder such number of copies of the Prospectus included in such Registration Statement (including each preliminary Prospectus) and any supplement thereto (in each case including all exhibits and documents incorporated by reference therein), and such other documents as the Holders may reasonably request in order to facilitate the disposition of the Registrable Securities owned by each Holder;
- (g) notify each Holder at any time when a Prospectus relating thereto is required to be delivered under the Securities Act, of the happening of any event that would cause the Prospectus included in such Registration Statement to contain an untrue statement of a material fact or omit any fact necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading, and, at the request of any such Holder, the Company shall prepare a supplement or amendment to such Prospectus so that, as thereafter delivered to the purchasers of such Registrable Securities, such Prospectus shall not contain an untrue statement of a material fact or omit to state any fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading;
- (h) provide a transfer agent and registrar (which may be the same entity) for all such Registrable Securities not later than the effective date of such registration;
- (i) use its reasonable best efforts to cause such Registrable Securities to be listed on the Principal Market or each other securities exchange on which the Common Stock is then listed;

- (j) use its reasonable best efforts to avoid the issuance of, or, if issued, obtain the withdrawal of (i) any order stopping or suspending the effectiveness of a Registration Statement, or (ii) any suspension of the qualification (or exemption from qualification) of any of the Registrable Securities for sale in any jurisdiction, at the earliest practicable moment and to promptly notify Holders of any such orders or suspensions;
- (k) in connection with an underwritten offering, enter into such customary agreements (including underwriting and lock-up agreements in customary form) and take all such other customary actions as the Holders or the managing underwriter of such offering reasonably request in order to expedite or facilitate the disposition of such Registrable Securities (including, without limitation, making appropriate officers of the Company available to participate in “road show” and other customary marketing activities (including one-on-one meetings with prospective purchasers of the Registrable Securities));
- (l) in a firm commitment underwritten offering, use its reasonable best efforts to furnish, on the date that such Registrable Securities are delivered to the underwriters for sale, if such securities are being sold through underwriters, (i) an opinion dated such date of the legal counsel representing the Company for the purposes of such registration, in form and substance as is customarily given to underwriters in an underwritten public offering, addressed to the underwriters, if any, (ii) a “negative assurances letter”, dated such date of the legal counsel representing the Company for the purposes of such registration, in form and substance as is customarily given to underwriters in an underwritten public offering and (iii) “comfort” letters dated the date of pricing of such offering and dated such date from the independent certified public accountants of the Company, in form and substance as is customarily given by independent certified public accountants to underwriters in an underwritten public offering, addressed to the underwriters;
- (m) without limiting Section 4(g), use its reasonable best efforts to cause such Registrable Securities to be registered with, qualified or approved by such other governmental agencies or authorities as may be necessary by virtue of the business and operations of the Company to enable the Holders to consummate the disposition of such Registrable Securities in accordance with their intended method of distribution thereof;
- (n) notify each Holder promptly of any request by the Commission for the amending or supplementing of such Registration Statement or Prospectus or for additional information;
- (o) advise each Holder, promptly after it shall receive notice or obtain knowledge thereof, of the issuance of any stop order by the Commission suspending the effectiveness of such Registration Statement or the initiation or threatening of any proceeding for such purpose and promptly use its reasonable best efforts to prevent the issuance of any stop order or to obtain its withdrawal at the earliest possible moment if such stop order should be issued;
- (p) delay the filing or suspend the use of any such Registration Statement (x) if it determines, upon advice of legal counsel, that in order for the Registration Statement to not contain a material misstatement or omission, an amendment thereto would be needed, (y) as may be necessary in connection with the preparation and filing of a post-effective amendment to the Registration Statement following the filing of the Company’s Annual Report on Form 10-K, or (z) if the Board, upon advice of legal counsel, reasonably believes that such filing or use would materially affect a bona fide business or financing transaction of the Company or any of its subsidiaries, or would require premature disclosure of information that could materially adversely affect the Company; provided, however, that, except as permitted under Section 2, the Company may not delay filing or suspend use of any Registration Statement on more than two occasions or for more than sixty (60) consecutive calendar days or more than ninety (90) total calendar days, in each case in any 12-month period;

- (q) cooperate with the holders of the Registrable Securities to facilitate the timely preparation and delivery of certificates representing the Registrable Securities to be sold pursuant to such Registration Statement or Rule 144 free of any restrictive legends and representing such number of shares of Common Stock and registered in such names as the holders of the Registrable Securities may reasonably request a reasonable period of time prior to sales of Registrable Securities pursuant to such Registration Statement or Rule 144; provided, that the Company may satisfy its obligations hereunder without issuing physical stock certificates through the use of The Depository Trust Company's Direct Registration System (the "DTCDRS");
- (r) not later than the effective date of such Registration Statement, provide a CUSIP number for all Registrable Securities and provide the applicable transfer agent with printed certificates for the Registrable Securities which are in a form eligible for deposit with The Depository Trust Company; provided, that the Company may satisfy its obligations hereunder without issuing physical stock certificates through the use of the DTCDRS;
- (s) take no direct or indirect action prohibited by Regulation M under the Exchange Act; provided, that, to the extent that any prohibition is applicable to the Company, the Company will take all reasonable action to make any such prohibition inapplicable;
- (t) prior to any public offering of Registrable Securities, use its reasonable best efforts to register or qualify the Registrable Securities covered by the Registration Statement under such securities or "blue sky" laws of such jurisdictions in the United States as any Holder of Registrable Securities included in such Registration Statement (in light of their intended plan of distribution) may reasonably request (or provide evidence satisfactory to such Holders that the Registrable Securities are exempt from such registration or qualification); provided, however, that the Company shall not be required to qualify generally to do business in any jurisdiction where it would not otherwise be required to qualify or take any action to which it would be subject to general service of process or taxation in any such jurisdiction where it is not then otherwise so subject; and
- (u) otherwise use its reasonable best efforts to take all other steps necessary to effect the registration of such Registrable Securities contemplated hereby.

5. **Company Information Requests.** The Company may require each Holder to furnish to the Company such information regarding the distribution of Registrable Securities and such other information relating to such Holder and its ownership of Registrable Securities or other securities of the Company as the Company may from time to time reasonably request in writing, and the Company may exclude the Registrable Securities of each Holder who unreasonably fails to furnish such information within a reasonable time after receiving such request. Each Holder shall furnish such information to the Company and cooperate with the Company as reasonably necessary to enable the Company to comply with the provisions of this Agreement.

6. **Expenses.** All expenses (other than Selling Expenses) incurred by the Company in complying with its obligations pursuant to this Agreement and in connection with the registration and disposition of Registrable Securities shall be paid by the Company, including, without limitation, all (i) registration and filing fees (including, without limitation, any fees relating to filings required to be made with, or the listing of any Registrable Securities on, any securities exchange or over-the-counter trading market on which the Registrable Securities are listed or quoted); (ii) expenses of any audits incident to or required by any such registration; (iii) fees and expenses of complying with securities and "blue sky" laws (including, without limitation, fees and disbursements of counsel for the Company in connection with "blue sky" qualifications or exemptions of the Registrable Securities); (iv) printing expenses; (v) messenger, telephone and delivery expenses; (vi) fees and expenses of the Company's counsel and accountants; and (vii) Financial Industry Regulatory Authority, Inc. filing fees (if any). In addition, the Company shall be responsible for all of its internal expenses incurred in connection with the consummation of the transactions contemplated by this Agreement (including, without limitation, all salaries and expenses of its officers and employees performing legal or accounting duties) and the expense of any annual audits. All Selling Expenses relating to the offer and sale of Registrable Securities registered under the Securities Act pursuant to this Agreement shall be borne and paid by the Holders in proportion to the number of Registrable Securities included in such registration for each such Holder. Notwithstanding the foregoing, the Company shall reimburse the Holders for the fees and disbursements of legal counsel in connection with the registration, filing or qualification pursuant to Section 2 not to exceed \$35,000 per initial filing and an additional \$35,000 per Piggyback Registration or Underwritten Shelf Takedown.

7. **Indemnification.**

(a) The Company shall indemnify and hold harmless, to the fullest extent permitted by law, each Holder, such Holder's officers, directors, managers, members, partners, stockholders, employees, agents, representatives and Affiliates, each underwriter, broker or any other Person acting on behalf of such Holder, if any, who controls any of the foregoing Persons, against all losses, claims, actions, damages, liabilities and expenses, joint or several, to which any of the foregoing Persons may become subject under the Securities Act or otherwise, insofar as such losses, claims, actions, damages, liabilities or expenses arise out of or are based upon (i) any untrue or alleged untrue statement of a material fact contained in any Registration Statement, Prospectus, preliminary Prospectus, free writing prospectus (as defined in Rule 405 under the Securities Act or any successor rule thereto) or any amendment thereof or supplement thereto or any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein (in the case of a Prospectus, preliminary Prospectus or free writing prospectus, in light of the circumstances under which they were made) not misleading, or (ii) any violation or alleged violation by the Company of the Securities Act, the Exchange Act or any state securities law, or any rule or regulation thereunder, in connection with the performance of its obligations under this Agreement; and shall reimburse such Persons for any legal or other expenses reasonably incurred by any of them in connection with investigating or defending any such loss, claim, action, damage or liability, except and only insofar as the same are solely caused by an untrue statement in or omission from such Registration Statement, Prospectus, preliminary Prospectus, free writing prospectus (as defined in Rule 405 under the Securities Act or any successor rule thereto) or any amendment thereof or supplement thereto in reliance upon and in conformity with written information furnished by such Holder to the Company expressly for use in the preparation thereof or by such Holder's failure to deliver a copy of the Registration Statement, Prospectus, preliminary Prospectus, free writing prospectus (as defined in Rule 405 under the Securities Act or any successor rule thereto) or any amendments or supplements thereto (if the same was required by applicable law to be so delivered) after the Company has furnished such Holder with a sufficient number of copies of the same prior to any written confirmation of the sale of Registrable Securities. This indemnity shall be in addition to any liability the Company may otherwise have.

(b) In connection with any registration in which a Holder is participating, each such Holder shall furnish to the Company in writing such information as the Company reasonably requests for use in connection with any such Registration Statement or Prospectus and, to the extent permitted by law, shall indemnify and hold harmless, the Company, each director of the Company, each officer of the Company who shall sign such Registration Statement, each underwriter, broker or other Person acting on behalf of the Holder who controls any of the foregoing Persons against any losses, claims, actions, damages, liabilities or expenses resulting from any untrue or alleged untrue statement of material fact contained in the Registration Statement, Prospectus, preliminary Prospectus, free writing prospectus (as defined in Rule 405 under the Securities Act or any successor rule thereto) or any amendment thereof or supplement thereto or any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein (in the case of a Prospectus, preliminary Prospectus or free writing prospectus, in light of the circumstances under which they were made) not misleading, but only to the extent that such untrue statement or omission is contained in any information so furnished in writing by such Holder, it being understood and agreed that the only information furnished by any Holder consists of the number of shares of Common Stock (or any securities convertible, exchangeable or exercisable for Common Stock within sixty (60) days of any such filing) beneficially owned by such Holder, the number of Registrable Securities proposed to be sold by such Holder, the name and address of such Holder proposing to sell, and the distribution proposed by such Holder; provided, that the obligation to indemnify shall be several, not joint and several, for each Holder and shall not exceed an amount equal to the net proceeds (after underwriting fees, commissions or discounts) actually received by such Holder from the sale of Registrable Securities pursuant to such Registration Statement. This indemnity shall be in addition to any liability the selling Holder may otherwise have.

(c) Promptly after receipt by an indemnified party of notice of the commencement of any action involving a claim referred to in this Section 7, such indemnified party shall, if a claim in respect thereof is made against an indemnifying party, give written notice to the latter of the commencement of such action. The failure of any indemnified party to notify an indemnifying party of any such action shall not (unless such failure shall have a material adverse effect on the indemnifying party) relieve the indemnifying party from any liability in respect of such action that it may have to such indemnified party hereunder. In case any such action is brought against an indemnified party, the indemnifying party shall be entitled to participate in and to assume the defense of the claims in any such action that are subject or potentially subject to indemnification hereunder, jointly with any other indemnifying party similarly notified to the extent that it may wish, with counsel reasonably satisfactory to such indemnified party, and after written notice from the indemnifying party to such indemnified party of its election so to assume the defense thereof, the indemnifying party shall not be responsible for any legal or other expenses subsequently incurred by the indemnified party in connection with the defense thereof; provided, that, if (i) any indemnified party shall have reasonably concluded that there may be one or more legal or equitable defenses available to such indemnified party which are additional to or conflict with those available to the indemnifying party, or that such claim or litigation involves or could have an effect upon matters beyond the scope of the indemnity provided hereunder, or (ii) such action seeks an injunction or equitable relief against any indemnified party or involves actual or alleged criminal activity, the indemnifying party shall not have the right to assume the defense of such action on behalf of such indemnified party without such indemnified party's prior written consent (but, without such consent, shall have the right to participate therein with counsel of its choice) and such indemnifying party shall reimburse such indemnified party of such indemnified party for that portion of the fees and expenses of any counsel retained by the indemnified party which is reasonably related to the matters covered by the indemnity provided hereunder. If the indemnifying party is not entitled to, or elects not to, assume the defense of a claim, it shall not be obligated to pay the fees and expenses of more than one counsel for all parties indemnified by such indemnifying party with respect to such claim, unless in the reasonable judgment of any indemnified party a conflict of interest may exist between such indemnified party and any other of such indemnified parties with respect to such claim.

(d) If the indemnification provided for hereunder is held by a court of competent jurisdiction to be unavailable to an indemnified party with respect to any loss, claim, damage, liability or action referred to herein, then the indemnifying party, in lieu of indemnifying such indemnified party hereunder, shall contribute to the amounts paid or payable by such indemnified party as a result of such loss, claim, damage, liability or action in such proportion as is appropriate to reflect the relative fault of the indemnifying party on the one hand and of the indemnified party on the other in connection with the statements or omissions which resulted in such loss, claim, damage, liability or action as well as any other relevant equitable considerations; provided, that the maximum amount of liability in respect of such contribution shall be limited, in the case of a Holder, to an amount equal to the net proceeds (after underwriting fees, commissions or discounts) actually received by such Holder from the sale of Registrable Securities effected pursuant to such registration. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The parties agree that it would not be just and equitable if contribution pursuant hereto were determined by pro rata allocation or by any other method or allocation which does not take account of the equitable considerations referred to herein. No Person guilty or liable of fraudulent misrepresentation within the meaning of Section 11(f) of the Securities Act shall be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation.

8. **Participation in Underwritten Registrations.** No Person may participate in any registration hereunder which is underwritten unless such Person (a) agrees to sell such Person's securities on the basis provided in any underwriting arrangements approved by the Person or Persons entitled hereunder to approve such arrangements and (b) completes and executes all questionnaires, powers of attorney, indemnities, underwriting agreements and other documents required under the terms of such underwriting arrangements.

9. **Termination.** This Agreement shall terminate and be of no further force or effect when there shall no longer be any Registrable Securities outstanding; provided, that the provisions of Section 6 (Expenses), Section 7 (Indemnification) and Section 16 (Governing Law) shall survive any such termination.

10. **Notices.** Any notice, consents, waivers or other communication required or permitted to be given hereunder shall be in writing and will be deemed to have been delivered: (i) upon receipt, when personally delivered; (ii) upon receipt when sent by certified mail, return receipt requested, postage prepaid; (iii) when sent, if by e-mail, provided that such sent e-mail is kept on file (whether electronically or otherwise) by the sending party and the sending party does not receive an automatically generated message from the recipient's e-mail server that such e-mail could not be delivered to such recipient; or (iv) three (3) Business Days after deposit with an internationally-recognized courier service with next day delivery specified, in each case, properly addressed to the party to receive the same. The addresses and email addresses for such communications shall be:

- (a) if to the Company, at
Avinger, Inc.

400 Chesapeake Drive

Redwood City, CA 94063

Attention: Chief Executive Officer

E-mail: jsoinski@avinger.com

with a copy to (which shall not constitute notice):

Dorsey & Whitney LLP

111 South Main Street

Suite 2100

Salt Lake City, UT 84111

Attention: David Marx

Email: david.marx@dorsey.com

or

- (b) if to Zylox, at
Zylox Tonbridge Medical Limited

6/F Manulife Place, 348 Kwun Tong Road, KL, Hong Kong

Attention: Jonathon Zhong Zhao, Director

Email: jon.zhao@zyloxmedical.com

with a copy to (which shall not constitute notice):

Sidley Austin LLP

Suite 2009, 5 Corporate Avenue

150 Hubin Road, Shanghai 200021, PRC

Attention: Ruchun Ji

Email: rji@sidley.com

(or, in any case, to such other address as the party shall have furnished in writing in accordance with the provisions of this Section 10).

11. **Entire Agreement.** This Agreement, together with the Purchase Agreement and any related exhibits and schedules thereto, constitutes the sole and entire agreement of the parties to this Agreement with respect to the subject matter contained herein, and supersedes all prior and contemporaneous understandings and agreements, both written and oral, with respect to such subject matter. Notwithstanding the foregoing, in the event of any conflict between the terms and provisions of this Agreement and those of the Purchase Agreement, the terms and conditions of this Agreement shall control.

12. **Assignability.** This Agreement and the rights, interests and obligations hereunder are not transferable or assignable by any of the parties (whether by operation of law or otherwise) without the prior written consent of the other party; provided, however, that the Purchaser may assign its rights, interests and obligations under this Agreement, in whole or in part, to one or more of its Affiliates, or to any other Person in connection with any transfer of all or a portion of the Registrable Securities, which assignee shall agree in writing to be bound by the provisions of this Agreement, including the rights, interests and obligations so assigned.

13. **No Third-Party Beneficiaries.** This Agreement is intended only for the benefit of the parties hereto and their respective successors and permitted assigns. A Person who is not a party to this Agreement has no right under the Contracts (Rights of Third Parties) Act 2001 of Singapore to enforce or to enjoy the benefit of any term of this Agreement.

14. **Amendments and Waivers.** Any term of this Agreement may be amended, terminated or waived only with the written consent of the Company and the Purchaser. No failure or delay by any party in exercising any right, power or privilege hereunder shall operate as a waiver thereof nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any other right, power or privilege. No waiver of any party will be effective unless it is in a writing signed by a duly authorized officer of the waiving party that makes express reference to the provision or provisions subject to such waiver. The rights and remedies herein provided shall be cumulative and not exclusive of any rights or remedies provided by applicable law.

15. **Severability.** If any term or provision of this Agreement is invalid, illegal or unenforceable in any jurisdiction, such invalidity, illegality or unenforceability shall not affect any other term or provision of this Agreement or invalidate or render unenforceable such term or provision in any other jurisdiction. Upon such determination that any term or other provision is invalid, illegal or unenforceable, the parties hereto shall negotiate in good faith to modify this Agreement so as to effect the original intent of the parties as closely as possible in a mutually acceptable manner in order that the transactions contemplated hereby be consummated as originally contemplated to the greatest extent possible.

16. **Governing Law.** This Agreement shall be governed by and construed in accordance with the laws of the Republic of Singapore.

17. Arbitration.

(a) Any dispute, controversy, difference or claim arising out of or relating to this Agreement, including the existence, validity, invalidity, interpretation, performance, breach or termination thereof or any dispute regarding contractual or non-contractual obligations arising out of or relating to it (a “**Dispute**”), shall be referred to and finally resolved by arbitration administered by the Singapore International Arbitration Centre in Singapore (the “**SIAC**”) in accordance with the Arbitration Rules of the Singapore International Arbitration Centre (the “**SIAC Rules**”) in force when the Notice of Arbitration is submitted, which rules are deemed to be incorporated into this Section. The seat of arbitration shall be Singapore.

(b) There shall be three arbitrators, the claimant to the Dispute, or in the case of multiple claimants, all such claimants acting collectively (the “**Claimant**”) shall select one arbitrator and the respondent to the Dispute, or in the case of more than one respondent, the respondents acting collectively (the “**Respondent**”) shall select one arbitrator. All selections shall be made within 30 days after the selecting party gives or receives the demand for arbitration. Such arbitrators shall be freely selected, and neither the Claimant nor the Respondent shall be limited in their selection to any prescribed list. The first two arbitrators shall select the third arbitrator; provided that if the first two arbitrators cannot agree on a third arbitrator within five (5) Business Days, the Chairman of SIAC shall select the third arbitrator who will act as chairman of the arbitration board. If any arbitrator to be appointed by a party has not been appointed and consented to participate within thirty (30) days after the selection of the first arbitrator, the relevant appointment shall be made by the Chairman of SIAC.

(c) The arbitral proceedings shall be conducted in English. To the extent that the SIAC Rules are in conflict with the provisions of this Section 17, including the provisions concerning the appointment of the arbitrators, the provisions of this Section 17 shall prevail.

(d) The award of the arbitral tribunal shall be final and binding upon the Parties thereto, and the prevailing party may apply to a court of competent jurisdiction for enforcement of such award.

(e) Any party to the Dispute shall be entitled to seek preliminary injunctive relief, if possible, from any court of competent jurisdiction pending the constitution of the arbitral tribunal.

(f) During the course of the arbitral tribunal's adjudication of the Dispute, this Agreement shall continue to be performed except with respect to the part in dispute and under adjudication.

(g) The parties agree to keep confidential the existence of the arbitration, the arbitral proceedings, the submissions made by any party and the decisions made by the arbitral tribunal, including its awards, except as required by applicable Law or the Principal Market.

(h) The law of this arbitration clause shall be the laws of the Republic of Singapore.

18. **Counterparts.** This Agreement may be executed in one or more original or facsimile or by an e-mail which contains a portable document format (.pdf) file of an executed signature page counterparts, each of which shall be deemed an original, but all of which shall together constitute one and the same instrument and which shall be enforceable against the parties actually executing such counterparts. Either party may enter into this Agreement by executing any such counterpart manually or electronically (such as Adobe Sign or DocuSign) and delivering the executed counterpart by electronic means to the other party. The receiving party may rely on the receipt of such document so executed and delivered as if the original had been received. Such electronic signatures shall be recognised and construed as secure electronic signatures pursuant to the Electronic Transactions Act 2010 of Singapore and that the parties accordingly shall deem such signatures to be original and binding signatures for all intents and purposes.

19. **Further Assurances.** Each of the parties to this Agreement shall execute and deliver such additional documents, instruments, conveyances and assurances and take such further actions as may be reasonably required to carry out the provisions hereof and to give effect to the transactions contemplated hereby.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date first written above.

AVINGER, INC.

By /s/ Jeffrey M. Soinski

Name: Jeffrey M. Soinski

Title: Chief Executive Officer

ZYLOX TONBRIDGE MEDICAL
LIMITED

By /s/ Jonathon Zhong Zhao

Name: Jonathon Zhong Zhao

Title: Chairman

[Signature Page to Registration Rights Agreement]

Annex APlan of Distribution

Each Selling Stockholder (the “**Selling Stockholders**”) of the securities and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their securities covered hereby on the Principal Market or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices. A Selling Stockholder may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales;
- in transactions through broker-dealers that agree with the Selling Stockholders to sell a specified number of such securities at a stipulated price per security;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The Selling Stockholders may also sell securities under Rule 144 or any other exemption from registration under the Securities Act of 1933, as amended (the “**Securities Act**”), if available, rather than under this prospectus.

Broker-dealers engaged by the Selling Stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the Selling Stockholders (or, if any broker-dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this Prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2121; and in the case of a principal transaction a markup or markdown in compliance with FINRA Rule 2121.

In connection with the sale of the securities or interests therein, the Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the securities in the course of hedging the positions they assume. The Selling Stockholders may also sell securities short and deliver these securities to close out their short positions, or loan or pledge the securities to broker-dealers that in turn may sell these securities. The Selling Stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The Selling Stockholders and any broker-dealers or agents that are involved in selling the securities may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the securities purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each Selling Stockholder has informed the Company that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the securities.

The Company is required to pay certain fees and expenses incurred by the Company incident to the registration of the securities. The Company has agreed to indemnify the Selling Stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

We agreed to keep this prospectus effective until the earlier of (i) the date on which the securities may be resold by the Selling Stockholders without registration and without regard to any volume or manner-of-sale limitations by reason of Rule 144, without the requirement for the Company to be in compliance with the current public information requirement under Rule 144 under the Securities Act or any other rule of similar effect or (ii) all of the securities have been sold pursuant to this prospectus or Rule 144 under the Securities Act or any other rule of similar effect or otherwise have ceased to be outstanding. The resale securities will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale securities covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale securities may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the Selling Stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the common stock by the Selling Stockholders or any other person. We will make copies of this prospectus available to the Selling Stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).