ECLIPSE SURGICAL TECHNOLOGIES INC
Form S-3
April 26, 2001

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As filed with the Securities and Exchange Commission on April 26, 2001
REGISTRATION NO. 333-_____

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-3

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

ECLIPSE SURGICAL TECHNOLOGIES, INC.
(Exact name of registrant as specified in its charter)

CALIFORNIA
(State or other jurisdiction of incorporation or organization)

77-0223740
(I.R.S. Employer Identification No.)
1049 KIEL COURT
SUNNYVALE, CALIFORNIA 94089
(408) 548-2100
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

MICHAEL J. QUINN
PRESIDENT AND CHIEF EXECUTIVE OFFICER
1049 KIEL COURT
SUNNYVALE, CALIFORNIA 94089
(408) 548-2100
(NAME, ADDRESS, INCLUDING ZIP CODE, AND TELEPHONE NUMBER, INCLUDING AREA CODE, OF AGENT FOR SERVICE)

COPIES TO:
ROBERT K. MONTGOMERY, ESQ.
CASEY M. NAULT, ESQ.
2029 CENTURY PARK EAST
LOS ANGELES, CALIFORNIA 90067
(310) 552-8500

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC:
From time to time after this registration statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. [ ]

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of

1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. [X]

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [ ]

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [ ]

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. [ ]

CALCULATION OF REGISTRATION FEE

TITLE OF SECURITIES TO BE REGISTERED	AMOUNT TO BE REGISTERED	PROPOSED MAXIMUM OFFERING PRICE PER SHARE(1)	PROPOSED MAXIM OFFERING P
Common Stock	2,000,000	$1.57	$3,140,

(1) Estimated pursuant to Rule 457(c) solely for the purpose of calculating the registration fee. On April 24, 2001, the average of the high and low sale prices for the common stock of Eclipse as reported by the Nasdaq Stock Market's National Market was $1.57 per share.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

Subject to completion, dated April 26, 2001

THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. YOU MAY NOT SELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES AND IT IS NOT SOLICITING AN OFFER TO BUY THESE SECURITIES IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

PRELIMINARY PROSPECTUS

2,000,000 SHARES

ECLIPSE SURGICAL TECHNOLOGIES, INC.

COMMON STOCK

The selling stockholder described in this prospectus is offering and selling up to 2,000,000 shares of common stock, no par value per share, of Eclipse Surgical Technologies, Inc. under this prospectus. These shares have been issued and sold by us in a transaction exempt from the registration requirements of the Securities Act of 1933 to the selling stockholder in connection with a Share Purchase Agreement dated April 11, 2001. Pursuant to the terms of that Share Purchase Agreement, we have filed a Registration Statement on Form S-3 (Reg. No. 333-_____) to register these 2,000,000 shares for resale by the selling stockholder.

Our common stock is quoted on the Nasdaq Stock Market's National Market under the symbol: "ESTI." On April 24, 2001, the last reported sale price of our common stock was $1.57 per share.

INVESTING IN OUR COMMON STOCK INVOLVES RISKS. SEE "RISK FACTORS" ON PAGE 5.

The shares of common stock offered or sold under this prospectus have not been approved or disapproved by the SEC or any state securities commission, nor have these organizations determined that this prospectus is accurate or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is April __, 2001

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You should rely only on the information incorporated by reference or provided in this prospectus or any prospectus supplement. We have not authorized anyone to provide you with information that is different. This prospectus may only be used in jurisdictions where it is legal to offer or sell these securities. You should not assume that the information in this prospectus or any

prospectus supplement or any document incorporated by reference in this prospectus is accurate as of any date other than the date on the front of those documents.

In this prospectus, unless indicated otherwise, "Eclipse," "we," "us," and "our" refer to Eclipse Surgical Technologies, Inc.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the Securities and Exchange Commission a registration statement on Form S-3 under the Securities Act of 1933, as amended, with respect to the shares of common stock offered in this prospectus. This prospectus does not contain all of the information contained in the registration statement and the exhibits and schedules filed with the registration statement. For further information with respect to Eclipse and the common stock offered in this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. Statements contained in this prospectus concerning the contents of any contract or any other document referred to are not necessarily complete. We refer you to the copy of such contract or document filed as an exhibit to the registration statement.

Our registration statement, including exhibits and schedules attached thereto, may be inspected without charge at the Securities and Exchange Commission's public reference facilities in Room 1024, 450 Fifth Street, N.W., Washington, D.C. 20549, and at the Securities and Exchange Commission's regional offices located at the Northwest Atrium Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661 and Seven World Trade Center, 13th Floor, New York, New York 10048. You may also obtain copies of all or any part of our registration statement from such offices after payment of fees prescribed by the Securities and Exchange Commission. The Securities and Exchange Commission maintains a worldwide website that contains reports, proxy and information statements and other information regarding registrants that file electronically with the Securities and Exchange Commission at http://www.sec.gov.

We are subject to the information and periodic requirements of the Securities Exchange Act of 1934 and accordingly, file periodic reports, proxy statements and other information with the Securities and Exchange Commission. Such periodic reports, proxy statements and other information are available for inspection and copying at the Securities and Exchange Commission's public reference rooms, and the website of the Securities and Exchange Commission referred to above.

INFORMATION INCORPORATED BY REFERENCE

The Securities and Exchange Commission allows us to "incorporate by reference" the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and the information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below, as well as the information contained in all filings made by us pursuant to the Securities Exchange Act of 1934, as amended, after the date of the initial registration statement and prior to the effectiveness of the registration statement and any future filings after the effectiveness of the registration statement made with the Securities and Exchange Commission under Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act until our offering is

completed.

(a) Annual Report on Form 10-K for the year ended December 31, 2000, filed April 17, 2001;

(b) Current Reports on Form 8-K filed August 18, 2000 and April 23, 2001; and,

(c) Our definitive proxy statement on Schedule 14A dated April 26, 2000.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address:

Eclipse Surgical Technologies, Inc.
1049 Kiel Court
Sunnyvale, California 94089
Attention: Vice President -- Finance
Tel: (408) 548-2100

FORWARD-LOOKING INFORMATION

This prospectus contains or incorporates by reference forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, that involve risks and uncertainties. Forward-looking statements can typically be identified by the use of forward-looking words, such as "may," "will," "could," "project," "believe," anticipate," "expect," "estimate," "continue," "potential," "plan," "forecasts," and the like. These statements appear in a number of places in this prospectus and include statements regarding our intentions, plans, strategies, beliefs or current expectations and those of our directors or our officers with respect to, among other things:

- our financial prospects;
- our financing plans;
- trends affecting our financial condition or operating results; and
- our strategies for growth, operations, and product development and commercialization.

Forward-looking statements do not guarantee future performance and involve risks and uncertainties that could cause actual results to differ materially from those anticipated. The information contained in this prospectus, or incorporated by reference, identifies important factors that could cause such differences.

COMPANY DESCRIPTION

Eclipse Surgical Technologies, Inc., incorporated in California in 1989, designs, develops, manufactures and distributes laser-based surgical products and disposable fiber-optic accessories for the treatment of advanced cardiovascular disease through transmyocardial revascularization, known as TMR, and percutaneous transluminal myocardial revascularization, known as PTMR. TMR and PTMR are recent laser-based heart treatments in which channels are made in the heart muscle. It is believed these procedures encourage new vessel

formation, or angiogenesis, and result in reduced angina pain. TMR is performed by a cardiac surgeon through a small incision in the chest under general anesthesia. PTMR is performed by a cardiologist in a catheter based procedure which utilizes local anesthesia.

In the United States, we offered our laser systems for sale in limited numbers for investigational use only pursuant to Investigational Device Exemptions from the United States Food and Drug Administration. On February 11, 1999, we received final approval from the FDA for our TMR products for treatment of stable patients with angina (Canadian Cardiovascular Society Class 4) refractory to other medical treatments and secondary to objectively demonstrated coronary artery atherosclerosis and with a region of the myocardium with reversible ischemia not amenable to direct coronary revascularization. Effective July 1, 1999, the Health Care Financial Administration ("HCFA") began to provide Medicare coverage for TMR. Hospitals and physicians are now eligible to receive Medicare reimbursement for TMR equipment and procedures.

We have completed a pivotal clinical trial regarding PTMR, and the study results were submitted to the FDA in a Pre Market Approval (PMA) application in December of 1999. To date, no approval has been received from the agency. We are currently in final negotiations with the FDA in the PTMR market approval process. There can be no assurance, however, that we will receive a favorable decision from that agency.

Our principal executive offices are located at 1049 Kiel Court, Sunnyvale, California 94089. Our telephone number is (408) 548-2100.

RISK FACTORS

You should carefully consider the risks described below before making an investment decision. The risks and uncertainties described below are not the only ones facing our company. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations.

WE MAY NOT BE ABLE TO SECURE ADDITIONAL FINANCING IN THE FUTURE.

In the future, we may require additional funds for operating expenses. Our capital requirements may vary and will depend on both internal and external factors. Internal factors affecting our capital requirements include our ability to generate increased sales, profits and cash flow from operations. External factors affecting our capital requirements include the progress of our PTMR submission with the FDA, and competing technological and market developments. We may be required to seek additional sources of financing, which could include short-term debt, long-term debt or equity. There is a risk that we may be unsuccessful in obtaining such financing and will not have sufficient cash to fund our operations. If this occurs, we may have to significantly reduce our operations until an appropriate solution is implemented.

WE MAY FAIL TO OBTAIN REQUIRED REGULATORY APPROVALS TO MARKET OUR PRODUCTS IN THE UNITED STATES.

Our business, financial condition and results of operations could be harmed by any of the following events, circumstances or occurrences related to the regulatory process:

- the failure to obtain regulatory approvals for our PTMR system;
- significant limitations in the indicated uses for which our products may be marketed;
- substantial costs incurred in obtaining regulatory approvals.

In 1997, we submitted a PMA application to the FDA for certain applications of our TMR laser system. On October 27, 1998, an advisory panel of the FDA recommended that the FDA approve our PMA application for the TMR laser system. Along with our approval, the FDA panel requested that we conduct postmarket surveillance in a form to be determined through further discussions with the FDA. On February 11, 1999, we received final approval from the FDA for use of our TMR products for treatment of stable patients with angina (Canadian Cardiovascular Society Class 4) refractory to other medical treatments and secondary to objectively demonstrated coronary artery atherosclerosis and with a region of the myocardium with reversible ischemia not amenable to direct coronary revascularization.

In February 1996, we obtained FDA clearance to undertake Phase I of a clinical study of TMR intended to assess the safety and effectiveness of "TMR Used in Conjunction with CABG" as compared with coronary artery bypass graft, known as CABG, alone. In September 1996, the FDA provided us with clearance to begin Phase II of this study, which was subsequently completed. In July 1999, we submitted a PMA supplement to FDA for an expanded indication to our approved TMR labeling to include TMR in conjunction with CABG. In January 2000, we received a response from the FDA requesting that we either provide more information or modify our labeling request. Since TMR and CABG are each presently utilized to treat separate regions of the heart, we concluded that our present FDA approved labeling is adequate, and that the physician can best decide how to use the laser system within the approved labeling. As a result, in March 2000, we decided that we will not pursue any wording changes to our already approved TMR labeling and have withdrawn our submission to the FDA for TMR in conjunction with CABG. In December, 1999, we submitted a PMA application to the FDA seeking marketing clearance for PTMR in the United States. To date, the FDA has not granted approval of this application. The FDA may not approve this application in a timely manner, if ever.

THE MEDICAL COMMUNITY HAS NOT BROADLY ADOPTED OUR PRODUCTS, AND UNLESS OUR PRODUCTS ARE BROADLY ADOPTED, OUR BUSINESS WILL SUFFER.

Our TMR products have not yet achieved broad commercial adoption, and our PTMR products are experimental and have not yet achieved broad clinical adoption. We cannot predict whether or at what rate and how broadly our products will be adopted by the medical community. Our business would be harmed if our TMR and PTMR systems fail to achieve significant market acceptance.

Positive endorsements by physicians are essential for clinical adoption of our TMR and PTMR laser systems. Even if the clinical efficacy of TMR and PTMR laser systems is established, physicians may elect not to recommend TMR and PTMR laser systems for any number of reasons. The reasons why TMR or PTMR laser systems may effectively treat coronary artery disease are not fully understood. Although we intend to use research, development and clinical efforts to understand better the physiological effects of TMR and PTMR treatment, we may not achieve such understanding on a timely basis, or at all. TMR and PTMR laser systems may not be clinically adopted unless we:

- understand thoroughly the physiological effects of the products;
- provide scientific evidence of long term benefits for treated patients, and

- disseminate such understanding within the medical community.

Clinical adoption of these products will also depend upon:

- our ability to facilitate training of cardiothoracic surgeons and interventional cardiologists in TMR and PTMR therapy;
- willingness of such physicians to adopt and recommend such procedures to their patients; and
- raising the awareness of TMR and then PTMR with the targeted patient population.

Patient acceptance of the procedure will depend on:

- physician recommendations;
- the degree of invasiveness;

- the effectiveness of the procedure; and
- the rate and severity of complications associated with the procedure as compared to other procedures.

TO EXPAND OUR BUSINESS, WE MUST ESTABLISH EFFECTIVE SALES, MARKETING AND DISTRIBUTION SYSTEMS, AND WE HAVE LIMITED EXPERIENCE TO DATE ESTABLISHING THESE OPERATIONS.

To expand our business, we must establish effective systems to sell, market and distribute products. To date, we have had limited sales which have consisted primarily of U.S. sales of our TMR lasers and disposable handpieces on a commercial basis since February 1999 and PTMR lasers and disposable catheters for investigational use only.

In the fourth quarter of 1999, we changed our U.S. sales strategy to include both selling lasers to hospitals outright, as well as loaning lasers to hospitals in return for the hospital purchasing a minimum number of handpieces at a premium over the list price. During the current year, the majority of lasers shipped have been under this loan program. The purpose of this strategy is to focus our sales force on increasing market penetration and selling disposable handpieces used in connection with our TMR procedure. If the sales force is not successful in increasing market share and selling our disposable handpieces our business will suffer.

With FDA approval of our TMR laser system, we are marketing our products primarily through our direct sales force. We have been expanding our operations by hiring additional sales and marketing personnel. This has required and will continue to require substantial management efforts and financial resources. If we are not able to establish effective sales and marketing capabilities our business will suffer.

THE EXPANSION OF OUR BUSINESS MAY PUT ADDED PRESSURE ON OUR MANAGEMENT AND OPERATIONAL INFRASTRUCTURE AND COULD CREATE NUMEROUS RISKS AND CHALLENGES.

The growth in our business may place a significant strain on our limited personnel, management and other resources. The evolving growth of our business involves numerous risks and challenges, including:

- the dependence on the growth of the market for our TMR and PTMR systems;
- domestic and international regulatory developments; o rapid technological change;
- the highly competitive nature of the medical devices industry; and
- the risk of entering emerging markets in which we have limited or no direct experience.

Our future operating results will be significantly affected by our ability to:

- successfully and rapidly expand sales to potential customers;
- implement operating, manufacturing and financial procedures and controls;
- improve coordination among different operating functions;
- continue to attract, train and motivate additional qualified personnel in all areas; and
- achieve manufacturing efficiencies as production volume increases.

We may not be able to manage these activities and implement these strategies successfully, and any failure to do so could harm our operating results.

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OUR OPERATING RESULTS WILL FLUCTUATE AND QUARTER TO QUARTER COMPARISONS OF OUR RESULTS MAY NOT INDICATE FUTURE PERFORMANCE.

Our operating results have fluctuated significantly from quarter to quarter and are expected to fluctuate significantly from quarter to quarter due to a number of events and factors, including:

- the level of product demand and the timing of customer orders;
- changes in strategy;
- delays associated with the FDA and other regulatory approval processes;
- personnel changes;
- the level of international sales;
- changes in competitive pricing policies;
- the ability to develop, introduce and market new and enhanced versions of products on a timely basis;
- deferrals in customer orders in anticipation of new or enhanced products;
- product quality problems; and

- the enactment of health care reform legislation and any changes in third party reimbursement policies.

We believe that quarter to quarter comparisons of our operating results are not a good indication of our future performance. Our operating results have, in the past, fallen below expectations and it is likely or possible that our operating results for a future quarter will fall below the expectations of public market analysts and investors. When this occurred in the past the price of our common stock fell substantially and if this occurs, the price of our common stock may fall again, perhaps substantially.

WE WILL BE ABLE TO OBTAIN FDA APPROVAL ONLY FOR THOSE PRODUCTS THAT ARE PROVEN SAFE AND EFFECTIVE IN CLINICAL SITES.

The FDA has not approved our PTMR laser systems for any indication in the United States. We submitted a PMA Supplement for our Axcis PTMR system to the FDA in December 1999. The PTMR study compares PTMR to conventional medical therapy in patients with no option for other treatment. The FDA may not accept the study as safe and effective, and PTMR may not be approved for commercial use in the United States. Responding to FDA requests for additional information could require substantial financial and management resources and take several years.

In October 2000, preliminary results from a competitor's clinical trial of a catheter-based device employing "Direct Myocardial Revascularization" (DMR) were presented at a medical conference in Washington D.C. The trial's principal investigator concluded that the DMR device did not show significant evidence of clinical benefit with regard to angina class reduction or exercise tolerance, and questioned the efficacy of other devices and procedures relying on TMR. We believe that the preliminary results of the DMR device study should not call the results of our PTMR study into question because the devices and procedures are substantially different. We cannot assure you, however, that the preliminary results of the DMR device study will not impact our submission for the Axcis PTMR system to the FDA.

WE MAY NOT BE ABLE TO SUCCESSFULLY MARKET OUR PRODUCTS IF WE FAIL TO OBTAIN THIRD PARTY REIMBURSEMENT FOR THE PROCEDURES PERFORMED WITH OUR PRODUCTS.

Few individuals are able to pay directly for the costs associated with the use of our products. In the United States, hospitals, physicians and other healthcare providers that purchase medical devices generally rely on third party payors, such as Medicare, to reimburse all or part of the cost of the procedure in which the medical device is

being used. A failure by third party payors to provide adequate reimbursement for the TMR and PTMR procedures that use our products would harm our business.

Effective July 1, 1999 the Health Care Financing Administration commenced Medicare coverage for TMR systems for any manufacturer's TMR procedures. Hospitals are now eligible to receive Medicare reimbursement for TMR procedures. The Health Care Financing Administration may not approve reimbursement for PTMR. If it does not provide reimbursement, our business will suffer. We have limited experience to date with the acceptability of our TMR procedures for reimbursement by private insurance and private health plans. Private insurance and private health plans may not approve reimbursement for TMR or PTMR procedures. If they do not provide reimbursement, our business will suffer.

Third party payors may deny reimbursement if they determine that the device used in a treatment is:

- unnecessary;
- inappropriate;
- experimental;
- used for a non-approved indication; or
- not cost-effective.

Potential purchasers must determine whether the clinical benefits of our TMR and PTMR laser systems justify: o the additional cost or the additional effort required to obtain prior authorization or coverage; and o the uncertainty of actually obtaining such authorization or coverage.

WE FACE INTENSE COMPETITION AND COMPETITIVE PRODUCTS COULD RENDER OUR PRODUCTS OBSOLETE.

The market for TMR and PTMR laser systems is intensely competitive and is constantly becoming more competitive. If our competitors are more effective in developing new products and procedures and marketing existing and future products, our business will suffer. The market for TMR and PTMR laser systems is characterized by rapid technical innovation. Accordingly, our current or future competitors may succeed in developing TMR and PTMR products or procedures that:

- are more effective than our products;
- are more effectively marketed than our products; or
- may render our products or technology obsolete.

We currently compete with PLC Systems, Inc., Johnson & Johnson and Boston Scientific. PLC is currently selling TMR commercially in the United States and abroad, while Johnson & Johnson is currently selling PTMR products for investigational use. Boston Scientific has acquired radio frequency technology to begin a percutaneous feasibility trial in the United States under a preliminary IDE. PLC recently announced a co-marketing agreement with Edwards Life Sciences to distribute their lasers and disposables. This action will add another 18 direct domestic sales representatives involved in promoting the PLC technology.

Even with the FDA approval for our TMR laser system, we will face competition for market acceptance and market share for that product. Our ability to compete may depend in significant part on the timing of introduction of competitive products into the market, and will be affected by the pace, relative to competitors, at which we are able to:

- develop products;
- complete clinical testing and regulatory approval processes;
- obtain third party reimbursement acceptance; and

- supply adequate quantities of the product to the market.

OUR PRODUCTS ALSO COMPETE WITH ALTERNATIVE TREATMENT METHODS AND OUR PRODUCTS MUST REPLACE THESE METHODS TO BE COMMERCIALLY SUCCESSFUL.

Many of the medical indications that may be treatable with TMR and PTMR laser systems are currently being treated by drug therapies or surgery and other interventional therapies, including PTCA and CABG.

Our business would be materially harmed if TMR technology fails to replace or augment existing therapies or to be more effective, safer or more cost effective than new therapies. A number of the existing therapies are widely accepted in the medical community, have a long history of use and continue to be enhanced rapidly.

Procedures using TMR and PTMR technology may not be able to replace or augment such established treatments.

Others are developing new surgical procedures and new drug therapies to treat coronary artery disease. These new procedures and drug therapies could be more effective, safer or more cost effective than TMR and PTMR laser systems.

The market acceptance and commercial success of our TMR and PTMR laser systems will depend not only upon their safety and effectiveness, but also upon the relative safety and effectiveness of alternative treatments.

OUR PRODUCTS DEPEND ON TMR TECHNOLOGY THAT IS RAPIDLY CHANGING WHICH COULD REQUIRE US TO INCUR SUBSTANTIAL PRODUCT DEVELOPMENT EXPENDITURE.

TMR and PTMR laser systems are our only products. Accordingly, if we fail to develop and commercialize successfully our TMR and PTMR laser systems, then our business would suffer.

The medical device industry is characterized by rapid and significant technological change. Our future success will depend in large part on our ability to respond to such changes. In addition, we must expand the indications and applications for our products by developing and introducing enhanced and new versions of our TMR and PTMR laser systems. Product research and development requires substantial expenditures and is inherently risky. We may not be able to:

- identify products for which demand exists; or
- develop products that have the characteristics necessary to treat particular indications.

Even if we identify and develop such products, we may not receive regulatory approval and may not be commercially successful.

OVERALL INCREASES IN MEDICAL COSTS COULD ADVERSELY AFFECT OUR BUSINESS.

We believe that the overall escalating cost of medical products and services has led, and will continue to lead, to increased pressures on the health care industry, both foreign and domestic, to reduce the cost of products and services, including products offered by them. We can not assure you that in either United States or international markets that:

- third party reimbursement and coverage will be available or adequate;
- current reimbursement amounts will not be decreased in the future; or
- future legislation, regulation or reimbursement policies of third party payors will not otherwise adversely affect the demand for our

products or our ability to profitably sell our products.

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Fundamental reforms in the healthcare industry in the United States and Europe continue to be considered. We cannot predict whether or when any healthcare reform proposals will be adopted and what effect such proposals might have on our business.

WE HAVE A HISTORY OF LOSSES AND MAY NOT BE PROFITABLE IN THE FUTURE.

We have incurred significant losses since inception. Our revenues and operating income will be constrained:

- until such time, if ever, as we obtain broad commercial adoption of our TMR laser systems by healthcare facilities in the United States;
- until such time, if ever, as we obtain FDA and other regulatory approvals for our PTMR laser systems; and
- for an uncertain period of time after such approvals are obtained.

We may not achieve or sustain profitability in the future.

IF WE EXPERIENCE INCREASED DEMAND FOR OUR PRODUCTS, WE MAY NOT BE ABLE TO EXPAND OUR BUSINESS TO MEET SUCH DEMAND.

We may be required to expand our business to:

- respond to increasing clinical adoption of the TMR procedure;
- develop future products;
- generally compete successfully;
- complete the clinical trials that are currently in progress; and
- prepare additional products for clinical trials.

Such expansion could place a significant strain on managerial, operational and financial systems and resources. To accommodate such expansion and compete effectively, we must improve information systems, procedures and controls and expand, train, motivate and manage our employees.

THIRD PARTIES MAY LIMIT THE DEVELOPMENT AND PROTECTION OF OUR INTELLECTUAL PROPERTY, WHICH COULD ADVERSELY AFFECT OUR COMPETITIVE POSITION.

Our success is dependent in large part on our ability to:

- obtain patent protection for our products and processes;
- preserve our trade secrets and proprietary technology; and
- operate without infringing upon the patents or proprietary rights of third parties.

The medical device industry has been characterized by extensive litigation regarding patents and other intellectual property rights. Companies in the

medical device industry have employed intellectual property litigation to gain a competitive advantage. Certain competitors and potential competitors of ours have obtained United States patents covering technology that could be used for certain TMR and PTMR procedures. We do not know if such competitors, potential competitors or others have filed and hold international patents covering other TMR or PTMR technology. In addition, international patents may not be interpreted the same as any counterpart United States patents.

In September 1995, one of our competitors sent us a notice of potential infringement of their patent regarding a method for TMR utilizing synchronization of laser pulses to the electrical signals from the heart. After discussion with patent counsel, we concluded that we did not utilize the process and/or apparatus that was the

subject of the patent at issue, and we provided a response to the competitor to that effect. We have not received any additional correspondence from this competitor on these matters.

In 1996, prior to the merger with us, CardioGenesis initiated a suit in the United States against PLC seeking a judgment that the PLC patent is invalid and unenforceable. In 1997, PLC counterclaimed in that suit alleging infringement by CardioGenesis of the PLC patent. Also in 1997, PLC initiated suit in Germany against CardioGenesis and CardioGenesis' former German sales agent alleging infringement of a European counterpart to the PLC patent. In 1997, CardioGenesis filed an Opposition in the European Patent Office to a European counterpart to the PLC patent, seeking to have the European patent declared invalid.

On January 5, 1999, before trial on the United States suit commenced, CardioGenesis and PLC settled all litigation between them, both in the United States and in Germany, with respect to the PLC patent and the European patents. Under the Settlement and License Agreement signed by the parties, CardioGenesis stipulated to the validity of the PLC patents and PLC granted CardioGenesis a non-exclusive worldwide license to the PLC patents. CardioGenesis agreed to pay PLC a license fee, and minimum royalties, totaling $2.5 million over an approximately forty-month period, with a running royalty credited against the minimums.

The Settlement and License Agreement applies only to those products or that technology covered by the PLC patents, and the agreement does not provide PLC any rights to any CardioGenesis intellectual property. The Eclipse TMR 2000 laser system does not use the technology associated with the PLC patents.

While we periodically review the scope of our patents and other relevant patents of which we are aware, the question of patent infringement involves complex legal and factual issues. Any conclusion regarding infringement may not be consistent with the resolution of any such issues by a court.

We may not be able to protect our intellectual property because:

- patents may not be issued;
- patents may be challenged, invalidated or designed around by competitors; or
- patent protection may not continue to be available for surgical methods in the future.

COSTLY LITIGATION MAY BE NECESSARY TO PROTECT INTELLECTUAL PROPERTY RIGHTS.

We may have to engage in time consuming and costly litigation to protect our intellectual property rights or to determine the proprietary rights of others. In addition, we may become subject to patent infringement claims or litigation, or interference proceedings declared by the United States Patent and Trademark Office to determine the priority of inventions.

Defending and prosecuting intellectual property suits, United States Patent and Trademark Office interference proceedings and related legal and administrative proceedings are both costly and time-consuming. We may be required to litigate further to:

- enforce our issued patents;
- protect our trade secrets or know-how; or
- determine the enforceability, scope and validity of the proprietary rights of others.

Any litigation or interference proceedings will result in substantial expense and significant diversion of effort by technical and management personnel. If the results of such litigation or interference proceedings are adverse to us, then the results may:

- subject us to significant liabilities to third parties;
- require us to seek licenses from third parties;
- prevent us from selling our products in certain markets or at all; or

- require us to modify our products.

Although patent and intellectual property disputes regarding medical devices are often settled through licensing and similar arrangements, costs associated with such arrangements may be substantial and could include ongoing royalties. Furthermore, we may not be able to obtain the necessary licenses on satisfactory terms, if at all.

Adverse determinations in a judicial or administrative proceeding or failure to obtain necessary licenses could prevent us from manufacturing and selling our products. This would harm our business.

WE RELY ON PATENT AND TRADE SECRET LAWS, WHICH ARE COMPLEX AND MAY BE DIFFICULT TO ENFORCE.

The validity and breadth of claims in medical technology patents involve complex legal and factual questions and, therefore, may be highly uncertain. Issued patent or patents based on pending patent applications or any future patent application may not exclude competitors or may not provide a competitive advantage to us. In addition, patents issued or licensed to us may not be held valid if subsequently challenged and others may claim rights in or ownership of such patents.

Furthermore, we cannot assure you that our competitors:

- have not developed or will not develop similar products;
- will not duplicate our products; or
- will not design around any patents issued to or licensed by us.

Because patent applications in the United States were, until recently, maintained in secrecy until patents issue, we cannot be certain that:

- others did not first file applications for inventions covered by our pending patent applications; or
- we will not infringe any patents that may issue to others on such applications.

The United States patent laws exempt physicians, other health care professionals, and affiliated entities from infringement liability for medical and surgical procedures performed on patients. We are not able to predict if this amendment will materially affect our ability to protect our proprietary methods and procedures.

Competitors may independently develop proprietary information substantially equivalent to our proprietary information and techniques, or otherwise gain access to our proprietary technology.

In addition to our patents, we rely upon trade secrets, technical know-how and continuing technological innovation to develop and maintain our competitive position. We may not be able to meaningfully protect our unpatented technology because:

- our employees, consultants and advisors may breach their confidentiality and invention assignment agreements and there may not be an adequate remedy for such breach;
- our competitors may independently develop substantially equivalent proprietary information and techniques; or
- competitors may otherwise gain access to our proprietary technology. Our inability to protect our unpatented intellectual property could materially harm our business.

WE DEPEND ON SINGLE SOURCE SUPPLIERS FOR CERTAIN KEY COMPONENTS AND PRODUCTION WOULD BE INTERRUPTED IF A KEY SUPPLIER HAD TO BE REPLACED.

We currently purchase certain critical laser and fiber-optic components from single sources. Although we have identified alternative suppliers, a lengthy process would be required to qualify them as additional or replacement suppliers. Any significant interruption in the supply of critical materials or components could delay our

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ability to manufacture our products and could harm our manufacturing operations, business and results of operations.

We anticipate that products will be manufactured based on forecasted demand and will seek to purchase subassemblies and components in anticipation of the actual receipt of purchase orders from customers. Lead times for materials and components vary significantly and depend on factors such as the business

practices of each specific supplier and the terms of particular contracts, as well as the overall market demand for such materials and components at any given time. If the forecasts are inaccurate, we could experience fluctuations in inventory levels, resulting in excess inventory, or shortages of critical components, either of which could cause our business to suffer.

Certain of our suppliers could have difficulty expanding their manufacturing capacity to meet our needs if demand for our TMR and PTMR laser systems were to increase rapidly or significantly. In addition, any defect or malfunction in the laser or other products provided by such suppliers could cause a delay in regulatory approvals or adversely affect product acceptance. We can not predict if:

- materials obtained from outside suppliers will continue to be available in adequate quantities; or
- alternative suppliers can be located on a timely basis.

We operate on a purchase order basis with most of our suppliers. Such vendors could at any time determine to cease the supply and production of such components.

WE HAVE LIMITED MANUFACTURING EXPERIENCE WHICH COULD PREVENT US FROM SUCCESSFULLY INCREASING CAPACITY IN RESPONSE TO MARKET DEMAND.

We have limited experience in manufacturing products. Manufacturers often encounter difficulties in increasing production, including problems involving:

- production yields;
- adequate supplies of components;
- quality control and assurance (including failure to comply with good manufacturing practices regulations, international quality standards and other regulatory requirements); and
- shortages of qualified personnel.

We also may not be able to successfully increase manufacturing capacity or avoid manufacturing difficulties or product recalls.

OUR PRODUCTS MAY CONTAIN DEFECTS WHICH COULD DELAY REGULATORY APPROVAL OR MARKET ACCEPTANCE OF OUR PRODUCTS.

We may experience future product defects, malfunctions, manufacturing difficulties or recalls related to the lasers or other components used in our TMR and PTMR laser systems. Any such occurrence could cause a delay in regulatory approvals or adversely affect the commercial acceptance of our products and could cause harm to our business.

WE MUST COMPLY WITH FDA MANUFACTURING STANDARDS OR FACE FINES OR OTHER PENALTIES INCLUDING SUSPENSION OF PRODUCTION.

We are required to demonstrate compliance with the FDA's current good manufacturing practices regulations if we market devices in the United States or manufacture finished devices in the United States. The FDA inspects manufacturing facilities on a regular basis to determine compliance. If we fail to comply with applicable FDA or other regulatory requirements, we can be subject to:

- fines, injunctions, and civil penalties;

- recalls or seizures of products;

- total or partial suspensions of production; and
- criminal prosecutions.

WE MAY SUFFER LOSSES FROM PRODUCT LIABILITY CLAIMS IF OUR PRODUCTS CAUSE HARM TO PATIENTS.

We are exposed to potential product liability claims and product recalls. These risks are inherent in the design, development, manufacture and marketing of medical devices. Our products are designed to be used in life-threatening situations where there is a high risk of serious injury or death, and we could be subject to product liability claims if the use of our TMR or PTMR laser systems is alleged to have caused adverse effects on a patient or such products are believed to be defective.

Any regulatory clearance for commercial sale of these products will not remove these risks. Any failure to comply with the FDA's good manufacturing practices or other regulations could hurt our ability to defend against product liability lawsuits. Although we have not experienced any product liability claims to date, any such claims could cause our business to suffer.

OUR INSURANCE MAY BE INSUFFICIENT TO COVER PRODUCT LIABILITY CLAIMS AGAINST US.

Our product liability insurance may not be adequate for any future product liability problems or continue to be available on commercially reasonable terms, or at all.

If we were held liable for a product liability claim or series of claims in excess of our insurance coverage, such liability could harm our business and financial condition. We maintain insurance against product liability claims in the amount of $10 million per occurrence and $10 million in the aggregate.

We may require increased product liability coverage as sales of approved products increase and as additional products are commercialized. Product liability insurance is expensive and in the future may not be available on acceptable terms, if at all.

WE DEPEND HEAVILY ON KEY PERSONNEL.

Our future business and results of operations depend in significant part upon the continued contributions of our key technical and senior management personnel.

Our future business and results of operations also depend in significant part upon our ability to attract and retain additional qualified management, manufacturing, technical, marketing and sales and support personnel for our operations. If we lose a key employee or if a key employee fails to perform in his or her current position, or if we are not able to attract and retain skilled employees as needed, our business could suffer.

WE MAY FAIL TO COMPLY WITH INTERNATIONAL REGULATORY REQUIREMENTS AND COULD BE SUBJECT TO REGULATORY DELAYS, FINES OR OTHER PENALTIES.

Regulatory requirements in foreign countries for international sales of medical devices often vary from country to country. The impact of the following factors would harm our business:

- delays in receipt of, or failure to receive, foreign regulatory approvals or clearances;
- the loss of previously obtained approvals or clearances; or
- the failure to comply with existing or future regulatory requirements.

Our products will be subject to other regulatory requirements in the European Union and other countries. Any enforcement action by international regulatory authorities with respect to past or future regulatory noncompliance could cause our business to suffer.

The time required to obtain approval for sale in foreign countries may be longer or shorter than required for FDA approval, and the requirements may differ. In addition, there may be foreign regulatory barriers other than regulatory approval. Except as stated in the following sentence, the FDA must approve exports of devices that require a PMA but are not yet approved domestically. An unapproved device may be exported without prior FDA approval to any member country of the European Union and the other "listed" countries, including Australia, Canada, Israel, Japan, New Zealand, Switzerland and South Africa:

- if the device is approved for sale by that country; or
- for investigational use in accordance with the laws of that country.

We received the CE Mark for our TMR laser system in May 1997 and for our PTMR laser system in April 1998. In the European Economic Area, we will be:

- subject to continued supervision;
- required to report any serious adverse incidents to the appropriate authorities; and
- required to comply with additional national requirements that are outside the scope of the Medical Device Directive.

We became ISO 9001 certified in May 1997. We may not be able to:

- achieve or maintain the compliance required for CE marking on all or any of our products; and
- produce our products profitably and in a timely manner while complying with the requirements of the Medical Device Directive and other regulatory requirements.

If we fail to comply with applicable regulatory requirements we could face:

- fines, injunctions, civil penalties;
- recalls or seizures of products;
- total or partial suspensions of production;

- refusals by foreign governments to permit product sales; and
- criminal prosecution.

Furthermore, if existing regulations are changed or new regulations or policies are adopted, we may:

- not be able to obtain, or affect the timing of, future regulatory approvals or clearances;
- not be able to obtain necessary regulatory clearances or approvals on a timely basis or at all; and
- be required to incur significant costs in obtaining or maintaining such foreign regulatory approvals.

WE SELL OUR PRODUCTS INTERNATIONALLY WHICH SUBJECTS US TO CERTAIN RISKS OF TRANSACTING BUSINESS IN FOREIGN COUNTRIES.

Our international revenue is subject to the following risks:

- foreign currency fluctuations;
- economic or political instability;
- foreign tax laws;
- shipping delays;
- various tariffs and trade regulations;

- restrictions and foreign medical regulations;
- customs duties, export quotas or other trade restrictions; and
- difficulty in protecting intellectual property rights.

Any of these factors could have an adverse effect on our international sales revenues. In future quarters, international sales could become a significant portion of our revenue.

WE MAY NOT ACHIEVE WIDE ACCEPTANCE OF OUR PRODUCTS IN FOREIGN MARKETS IF WE FAIL TO OBTAIN THIRD PARTY REIMBURSEMENT FOR THE PROCEDURES PERFORMED WITH OUR PRODUCTS.

If we obtain the necessary foreign regulatory registrations or approvals, market acceptance of our products in international markets would be dependent, in part, upon the availability of reimbursement within prevailing health care payment systems. Reimbursement and health care payment systems in international markets vary significantly by country. They include both government sponsored health care and private insurance. Although we expect to seek international reimbursement approvals, any such approvals may not be obtained in a timely manner, if at all. Failure to receive international reimbursement approvals could hurt market acceptance of TMR products in the international markets in which such approvals are sought.

WE MAY ENGAGE IN FUTURE ACQUISITIONS THAT DISTRACT OUR MANAGEMENT, CAUSE US TO

INCUR DEBT, OR DILUTE OUR SHAREHOLDERS.

We may, from time to time, acquire or invest in other complementary businesses, products or technologies. While there are currently no commitments with respect to any particular acquisition or investment, our management frequently evaluates the strategic opportunities available related to complementary businesses, products or technologies. The process of integrating an acquired company's business into our operations may result in unforeseen operating difficulties and expenditures and may absorb significant management attention that would otherwise be available for the ongoing development of our business. Moreover, the anticipated benefits of any acquisition or investment may not be realized. Any future acquisitions or investments by us could result in potentially dilutive issuances of equity securities, the incurrence of debt and contingent liabilities and amortization expenses related to goodwill and other intangible assets, any of which could materially harm our operating results and financial condition.

THE PRICE OF OUR COMMON STOCK MAY FLUCTUATE SIGNIFICANTLY, WHICH MAY RESULT IN LOSSES FOR INVESTORS.

The market price for our common stock has been and may continue to be volatile. For example, during the 52-week period ended April 24, 2001, the closing prices of our common stock as reported on the NASDAQ National Market ranged from a high of $6.25 to a low of $0.50. We expect our stock price to be subject to fluctuations as a result of a variety of factors, including factors beyond our control. These factors include:

- actual or anticipated variations in our quarterly operating results;
- announcements of technological innovations or new products or services by us or our competitors;
- announcements relating to strategic relationships or acquisitions;
- changes in financial estimates by securities analysts;
- statements by securities analysts regarding us or our industry;
- conditions or trends in the medical device industry; and
- changes in the economic performance and/or market valuations of other medical device companies.

Because of this volatility, we may fail to meet the expectations of our shareholders or of securities analysts at some time in the future, and our stock price could decline as a result.

In addition, the stock market has experienced significant price and volume fluctuations that have particularly affected the trading prices of equity securities of many high technology companies. These fluctuations have often been unrelated or disproportionate to the operating performance of these companies. Any negative change in the public's perception of medical device companies could depress our stock price regardless of our operating results. If our common stock were to trade under $1.00 for 30 consecutive days on the NASDAQ National Market, our common stock could be subject to certain consequences established by the NASDAQ National Market such as being delisted.

Recently, when the market price of a stock has been volatile, holders of that stock have often instituted securities class action litigation against the company that issued the stock. If any of our shareholders brought such a lawsuit against us, we could incur substantial costs defending the lawsuit. The lawsuit could also divert the time and attention of our management.

USE OF PROCEEDS

All net proceeds from the sale of the shares of common stock covered by this prospectus will go to the selling stockholder who is offering and selling its shares. We will not receive any proceeds from the sale of the shares of common stock by the selling stockholder. See "Plan of Distribution."

PLAN OF DISTRIBUTION

Eclipse is registering the shares of common stock covered by this prospectus for the selling stockholder. As used in this prospectus, "selling stockholder" includes the pledgees, donees, transferees or others who later receive the selling stockholder's interest for no additional consideration. We will pay the costs and fees of registering the shares of common stock, but the selling stockholder will pay any brokerage commissions, discounts or other expenses relating to the sale of the shares of common stock.

The selling stockholder may sell the shares of common stock on the Nasdaq National Market, in the over-the-counter market or otherwise, at market prices prevailing at the time of sale, at prices related to the prevailing market prices, or at negotiated prices. The selling stockholder may sell some or all of the shares of common stock in one or more of the following ways:

- a block trade in which a broker-dealer may resell a part of the block, as principal, in order to facilitate the transaction;
- purchases by a broker-dealer, as principal, and resale by the broker-dealer for its account;
- ordinary brokerage transactions and transactions in which a broker solicits purchasers;
- an exchange distribution in accordance with the rules of the Nasdaq National Market; or
- privately negotiated transactions.

When selling the shares of common stock, the selling stockholder may enter into hedging transactions. For example, the selling stockholder may:

- enter into transactions involving short sales of the shares of common stock by broker-dealers;
- sell shares of common stock short themselves and redeliver such shares to close out their short positions;
- enter into option or other types of transactions that require the selling stockholder to deliver shares of common stock to a broker-dealer, who will then resell or transfer the shares of common stock under this prospectus; or
- loan or pledge the shares of common stock to a broker-dealer, who may sell the loaned shares or, in the event of default, sell the pledged shares.

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In addition to selling its shares of common stock under this prospectus, the selling stockholder may transfer its shares of common stock in other ways not involving market makers or established trading markets, including directly by gift, distribution, or other transfer.

The selling stockholder may negotiate and pay broker-dealers commissions, discounts or concessions for their services. Broker-dealers engaged by the selling stockholder may allow other broker-dealers to participate in resales. The selling stockholder and any broker-dealers involved in the sale or resale of the shares of common stock may qualify as "underwriters" within the meaning of the Section 2(11) of the Securities Act. In addition, the broker-dealers' commissions, discounts or concessions may qualify as underwriters' compensation under the Securities Act. If the selling stockholder qualifies as an "underwriter", it will be subject to the prospectus delivery requirements of the Securities Act.

The shares will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states the shares 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 the applicable rules and regulations of the Securities and Exchange Act, any person engaged in the distribution of the shares may not simultaneously engage in market making activities with respect to our shares of common stock for a period of two business days prior to the commencement of such distribution. In addition, the selling stockholder will be subject to applicable provisions of the Exchange Act and the associated rules and regulations under the Exchange Act, including Regulation M, which provisions may limit the timing of purchases and sales of shares by the selling stockholder. We will make copies of this prospectus available to the selling stockholder and have informed it of the need for delivery of copies of this prospectus to purchasers at or prior to the time of any sale of the shares.

We may suspend the use of this prospectus and any supplements hereto in certain circumstances due to pending corporate developments, public filings with the SEC or similar events.

SELLING STOCKHOLDER

The selling stockholder described below is a stockholder that is offering and selling these shares covered by this prospectus which were purchased by the selling stockholder in a transaction exempt from the registration requirements of the Securities Act of 1933 from Eclipse pursuant to a Share Purchase Agreement dated April 11, 2001. The selling stockholder may donate or transfer as gifts some or all of its Eclipse shares, or may transfer its shares for no additional consideration to others. We will include any of these donees or transferees as a selling stockholder in a prospectus supplement, if required.

The selling stockholder has held no position or office or has had any other material relationship with Eclipse or any of our affiliates within the past three years other than as a result of its ownership of shares of our common stock. This information is based upon information provided by the selling stockholder.

The table below sets forth the following information regarding the selling stockholder:

- The name of the selling stockholder;
- The number of shares of our common stock owned by the selling stockholder on the date of this prospectus prior to the offering for resale of any of the shares being registered by the registration statement of which this prospectus is a part;
- The number of shares of our common stock that may be offered for resale by the selling stockholder pursuant to this prospectus; and
- The number of shares of our common stock to be held by the selling stockholder after the resale of the offered shares.

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SELLING STOCKHOLDER	SHARES OF COMMON STOCK BENEFICIALLY OWNED PRIOR TO OFFERING	SHARES OF COMMON STOCK BEING OFFERED	SHARES OF COMMON STOCK BENEFICIALLY OWNE AFTER OFFERING(1)
State of Wisconsin Investment Board.....	4,088,000	2,000,000	2,088,000

(1) Since the selling stockholder may offer all, some or none of its common stock, we cannot provide a definitive estimate of the number of shares the selling stockholder will hold after the offering. The shares beneficially owned after the offering column assumes the sale of all shares offered, and that the selling stockholder acquires no additional shares of common stock before the completion of this offering.

(2) The percentage owned after offering column is based on 31,696,061 shares of Eclipse common stock outstanding as of March 30, 2001.

LEGAL MATTERS

Certain legal matters with respect to the shares of common stock offered hereby will be passed upon for us by Gibson, Dunn & Crutcher LLP, Los Angeles, California.

EXPERTS

The financial statements and the related financial statement schedule incorporated in this Prospectus by reference to Eclipse's Annual Report on Form 10-K for the year ended December 31, 2000 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.

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PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

The following table sets forth the amounts of expenses to be borne by Eclipse in connection with the sale of shares of common stock being registered. All amounts are estimates except the SEC registration fee:

	(U.S.$)
Filing fees - SEC registration fee.....	$785
Legal Fees and Expenses.....	12,500
Accounting Fees and Expenses.....	7,500
Miscellaneous.....	4,000
Total.....	$24,785

ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 317 of the California Corporations Code authorizes a court to award, or a corporation's Board of Directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities (including reimbursement for expenses incurred) arising under the Securities Act of 1933. Article IV of the Amended and Restated Articles of Incorporation and Article V of the Amended and Restated Bylaws of Eclipse provide for indemnification of its directors, officers, employees and other agents to the maximum extent permitted by the California Corporations Code.

In addition, Eclipse has entered into indemnification agreements with each director and executive officer which provide indemnification to such directors and executive officers under certain circumstances for acts or omissions which may not be covered by directors' and officers' liability insurance.

ITEM 16. EXHIBITS

The following exhibits are filed as part of this registration statement:

5.1 Opinion of Gibson, Dunn & Crutcher, LLP

23.1 Consent of PricewaterhouseCoopers LLP

24.1 Powers of Attorney for certain directors and officers of Eclipse (signature page).

ITEM 17. UNDERTAKINGS

The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) to include any prospectus required by Section 10(a)(3) of the Securities Act,

(ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities

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offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement, and

(iii) to include any material information with respect to the plan of distribution not previously disclosed in this Registration Statement or any material change to such information in this Registration Statement,

provided, however, that paragraphs (1)(i) and (1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement;

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof;

To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering;

That, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in this Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof; and

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the

Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Sunnyvale, State of California, on April 26, 2001.

ECLIPSE SURGICAL TECHNOLOGIES, INC.

By: /s/ Michael J. Quinn

Michael J. Quinn
President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Michael J. Quinn and Ian A. Johnston his or her true and lawful attorneys-in-fact and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this Registration Statement, and to file the same, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title

/s/ Michael J. Quinn Michael J. Quinn	Chairman of the Board, Chief Executive Officer, President and Director (Principal Executive Officer)
/s/ Ian A. Johnston Ian A. Johnston	Vice President of Finance and Treasurer (Principal Financial and Accounting Officer)
/s/ Jack M. Gill, Ph.D. Jack M. Gill, Ph.D.	Director
/s/ Alan L. Kaganov, Sc.D. Alan L. Kaganov, Sc.D.	Director
/s/ Robert L. Mortensen Robert L. Mortensen	Director
/s/ Robert C. Strauss Robert C. Strauss	Director

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EXHIBIT INDEX

EXHIBIT NO.	DESCRIPTION
5.1	Opinion of Gibson, Dunn & Crutcher, LLP
23.1	Consent of PricewaterhouseCoopers LLP
24.1	Powers of Attorney for certain directors and officers of Eclipse (signature page).